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Date:	November 4, 2019
To:	Beth Callahan, Project Manager, Maine Department of Environmental Protection
	Karem Gungor, Environmental Engineer, Maine Department of Environmental Protection
From:	Elizabeth M. Ransom, P.G. Ransom Consulting, Inc.
Subject:	Nordic Aquafarms, Inc., Land-based Aquaculture Facility, Belfast, Maine L-28319-26-A-N, Review Comments
Project No.:	171.05027

This memo provides responses to the Technical Review Memorandum from Karem Gungor to Beth Callahan dated October 3, 2019. For clarity, the entire comment from the technical memorandum has been copied below and italicized. Responses are in regular text, and on the attached plans and figures as referenced below.

1. First Diversion Trench (Sheet CElll): This trench will not be connected to the edge drain/culvert bypass system as shown in the ESC phasing plans. The trench will intercept the surface runoff from approximately 8.5 acres of upgradient area (see south of Subcatchment 9 flow path in Sheet CW-102) which appears to shed into the streams S3, SS, and S6 under the existing/pre-development conditions. The intercepted flow (surface runoff+ groundwater) will be discharged into an easterly plunge pool based on the underdrain invert elevations provided in Sheet CElll. I recommend the following:

A revised Section 14 Erosion and Sedimentation Control (ESC) Plan has been included as **Attachment A**. Revised phasing plans are included as **Attachment B** and revised phasing plans with aerial background imagery are included as **Attachment C**. Drawings and narratives described in the responses below can be located in the respective attachments.

a. Connect the trench underdrain to a bypass culvert or bypass culverts so that the intercepted flow is conveyed southerly and contributes to the baseflow provided for the streams S3, S5, and S6 under the post-development condition,

1a. A new extended bypass drain has been added to the plans during Phase 2A of the project. The Phase 1 outlets will be eliminated, and the new drain system will convey flows around the site to discharge at Streams S3, S5, and S6, as requested.

b. Eliminate the westerly and easterly outfalls of the trench underdrain shown in Sheet CE118. The outfalls may be necessary during the initial phases of the project; but they need to be removed or

deactivated post construction to simulate the pre-development site hydrology to the extent practicable and mitigating the project's hydrologic impact on the jurisdictional streams,

1b. Elimination of the Phase 1 outlets is shown during Phase 2A of the project and noted on revised sheet CE117.

c. Provide a flat-bottom basin over the diversion trench in lieu of the easterly sloped swale as shown in the grading plans (Sheets CG105 thru CG107). A basin will improve the interception of the upgradient surface runoff by the trench and its conveyance to the streams. The basin can be equipped with catch basins and similar outlet control structures to prevent overflow,

1c. The former swale has been revised to show a flat bottomed basin at this location, as requested. Revised drawings grading plans CG105 to CG107 have been included in **Attachment D**.

d. Clarify how the top of the trench will be permanently stabilized post construction: will it be exposed as shown in Detail ESC-7 in Sheet CE502? The related grading plans (Sheets CG105 thru CG107) do not show any exposed rock surface associated with the diversion trench,

1d. The top of the trench will be stabilized using a sprayed soil/mulch/ seed mix that will be applied over the temporary stone surface at the end of construction. This will provide a stable, vegetated surface to the trench without requiring removal of the riprap stone, and the associated disturbance.

e. Ensure that the phasing and grading plans are consistent on the trench.

As requested, the plans have been made consistent.

2. Second Diversion Trench (Sheet CE112): Since this trench will be below the finished floor elevation of Building 1, will it have a minimum crushed stone reservoir depth of 6 ft as shown in Detail ESC-7 in Sheet CE502? A separate detail drawing for this trench is requested.

During the initial installation, the second diversion trench will be exactly the same as the first, with a crushed stone reservoir to divert groundwater from the surrounding area into the diversion culvert that outlets in a southerly direction to the project limits. The same detail will apply to both trenches (Detail ESC-7 on Sheet CE502). As the excavation and backfill proceeds, the trench will be buried in the backfill section.

3. Bypass Culvert (Sheet CE502): Are perforated pipes necessary for the bypass culverts?

Yes. These culverts are intended to convey surface water from the channels as they are filled during construction. They will also intercept perched groundwater from surrounding areas, as the stream channels currently do. The perforated pipes will allow the bypass culverts to accept groundwater flow approaching from the sides of the channel and will hence continue to operate in a similar manner to the current natural channels.

4. Please provide the approximate length of underdrain network that will drain into the plunge pools shown in Sheet CG102 and CG104 (CG104: the plunge pool will discharge into S3 stream; CG102: westerly plunge pool will discharge into SS stream and easterly plunge pool will discharge into S6 stream). Assuming the underdrain length as a proxy for the flow, demonstrate that the post-development baseflows of the streams S3, S5, and S6 rank similarly with the pre-development flow ranking of the streams obtained from the pre-development hydrologic model results (Subcatchments S2, S3, and S4).

The length of the underdrain network that will drain the site and feed streams S3, S5 and S6 is approximately 12,500 linear feet. The underdrain network is designed to intercept the same

contributing area of surface and groundwater flow that currently provides the base flow for these channels. Therefore, we anticipate that the post-development baseflow conditions will be similar to the pre-development condition where the channels remain downstream of the project site.

5. *Building Excavation Dewatering: The applicant has provided a detailed response to my earlier comment (Comment #1 in my previous memo) on the building pad dewatering. Assuming an average (horizontal) hydraulic conductivity of 2.2xlQ-6 cm/s, the applicant estimated that the groundwater seepage into a 200' (W) x400' (L) x15' (D) excavation pit to be 0.02 cfs (Note: the phasing plan limits the "uncovered grubbed area at any given time" to 80,000 sf). The field conditions can significantly deviate from this assumption and result in higher seepage due to the presence of highly conductive layers (see the shallow water levels observed in the soil borings B102, B105, B107, and B110 within Building 1 and 2 footprints). Therefore, a dewatering contingency plan is necessary particularly for the overburden removal operation during which there will be no edge drains in place. What if temporary sediment basins are overwhelmed by the dewatering? Will the sediment basin be decanted into an undisturbed, well vegetated temporary buffer area? If so, the temporary buffer areas that will be used for emergency dewatering need to be shown in the phasing plans.*

It is understood that ground and groundwater conditions may vary significantly from the average assumption quoted in the previous comment response (0.02cfs over an uncovered area of 80,000sf). The 12" Type C edge drains provided have been designed to accommodate significantly higher flows than the assumed average de-watering load. A 12" pipe operating under channel flow conditions, with a slope of 0.4% and an "n" value of 0.012 has a capacity of 2.4cfs, or 120 times the calculated dewatering flow during average ground conditions. In our opinion this offers a satisfactory factor of safety. However, the erosion control plan also includes the use of temporary sumps and pumping to sediment basins to accommodate excess flows in the event of failure of the edge drains. Further back-up will be provided by the temporary use of dirt bags in isolated areas, if and when necessary. While we acknowledge that that groundwater conditions on the site will only be fully understood when the excavation work is underway, we feel that this offers a suitably robust approach to managing the risks associated with dewatering operations at the site.

6. Soil Stockpiles: The applicant has stated that major on-site stockpiling of soils is not anticipated. If the trucks haul the overburden off site and bring the granular borrow in round trips (see page 14- 5 in Appendix 14-A), there will be a need for stockpiling approximately 50,000 cy of granular borrow until the building excavation reaches the subgrade elevation which may take more than two months (see the phasing summary table in Appendix 14-A). The earth movement logistics warrant more discussion and clarification: Is it more likely that the overburden and granular borrow hauling will be done in round trips? Or will the trucks haul in the granular borrow after the overburden removal is complete? The second alternative is preferable since it will minimize the need for soil stockpiling on site.

It is apparent from this comment that the methodology for major earthworks at the site was not adequately explained in our previous texts. It is our intention that backfill operations under the building footprint areas will proceed immediately after subgrade elevation is reached in the initial part of the excavation (i.e. backfill with granular borrow will not be held back until the entire building footprint is prepared- the two month period quoted in the comment). The excavation will commence with installation of the edge drain outlets and the sand covered edge drains. Excavation will then proceed from west to east, with backfill following immediately behind excavation to reduce exposure of native soils and achieve the most rapid possible stabilization of the excavated areas. In this way, the trucks used to export the unsuitable soil will be available to return to the site with granular backfill for placement in the excavation. The area of uncovered soil at the site will be limited to 80,000sf at any given time.

a. Due to its texture and erodibility, on-site overburden stockpiling needs to be clearly restricted in the ESC plan by inserting the following statement where applicable:

"The overburden shall not be stored on site more than two weeks".

6a. The requested statement has been added to the revised narrative. This can be found in Section 14.6.

b. Soil stockpiling areas need to be shown in the phasing plans if the earth hauling will be performed in round trips.

6b. As noted above, based on the earthworks methodology we do not anticipate generating large soil stockpiles, therefore they are not shown on the plans.

7. Please amend the ESC plan with the response, including the table, provided for Comment 8.a in my previous memo.

A revised narrative is provided with the table added, as requested. This can be found in the Sediment Basin Sizing Narrative

8. Please provide a detail of the temporary structure which will divert the peripheral surface runoff away from the building pad excavation.

A diversion detail has been added to Sheet CE505 (Detail ESC-23). The revised Sheet CE505 is included as **Attachment E**.

9. Flocculant Use: The applicant's concern in regard to flocculants' effectiveness for construction site turbidity control in Maine is noted. Success of flocculation largely depends on the flocculant selection and proper application. I recommend a trial run to determine the effectiveness of powder and solid block flocculants for turbidity control during Phase 1B of the project (particularly during the major earthwork/overburden removal stage). Flocculant selection must be based on the lab analyses (e.g., jar testing) performed on at least three representative (i.e., native silty) soil samples. A copy of the lab reports must be submitted to the Department for its review and feedback. The selected flocculants need to be applied per the manufacturer's instructions and in consultation with the Department. If the flocculant use does not result in noticeable improvement in the turbidity control, the applicant may elect not to use flocculants in the subsequent phases of the construction. Please amend the ESC plan accordingly.

The ESC plan has been revised to include trials of flocculants for use in the sediment basins, as requested. References to this can be found in Section 14.7 (12) and the Sediment Basin Sizing Narrative.

10. The post-development subcatchments 23, 25, and 31 discharge into "Belfast Reservoir One" as shown in Sheet CW-104. In order to eliminate the phosphorus export from the developed areas of these subcatchments into the reservoir, please:

a. Delineate the grassed areas within Subcatchments 25 and 31 in Sheets LP102, LP103, and LP104 and provide the following note for the delineated areas:

"These grassed areas shall not be mowed than more than twice a year and maintained as meadow. No phosphorus containing fertilizer shall be used in these areas except for establishing grass cover on bare soil.",

The plans have been updated to include the language regarding fertilizer and maintenance. See attached Landscape Plans (**Attachment F**).

b. Revise the stormwater drainageway proposed for Subcatchment 23 and direct the subcatchment's entire runoff into the closed drainage system which ultimately discharges into the coastal wetland from the existing clarifier (PTlO shown in Sheet CW- 104).

The plans have been revised to include a catch basin at the end of a drainage swale to collect runoff and direct to the closed system. See attached plans (**Attachment G**).

11. GSF #lB: The actual surface area of the filter appears to be smaller than 773 sf, which is used in the calculations. Please review.

The grading has been revised to adequately show the revised GSF #1B. The filter surface is calculated to be 802, but 773 was left in the calculations. Refer to the Stormwater Drawings (**Attachment G**).

l2. The surface runoff will mostly sheet flow into the proposed GUSFs. Therefore, the finished grades must be consistent with the treatment areas shown in the figures enclosed with the appendix. Please:

a. Provide more spot elevations and arrows indicating the slope and the flow direction in the grading plans,

b. Please provide the following note in a plan sheet where applicable:

"The contractor shall be instructed by the inspecting engineer to ensure that the as-built drainage areas of the grassed underdrained soil filters will be as shown in the revised figures given in Section 12 Appendix B of the permit application."

See attached plans (**Attachment G**).

13. Figure 2: Subcatchment 1B includes areas westerly from GSF 1B which will not be treated by the filter. Please revise the figure. Also, CB-16 rim elevation needs to be 66.90 ft.

Figure 2 has been revised. See attached (**Attachment G**).

14. Figure 4: CB-17 and CB-18 rim elevation needs to be corrected: both elevations need to be 62.0 ft.

The table for Figure 4 has been revised. See attached (**Attachment G**).

15. Figure 6: Will the purple area be treated by GSF15? If so, the treatment area is approximately 9,000 sf. Based on the calculations provided in Appendix A, the filter basin may not have adequate water quality volume for the proposed treatment area. Please review the design and revise it if necessary. Also, Building #7 north of GSFlS will not have a green roof; however, the treatment tables indicate that it will have green roof? SSF43 was mistakenly labeled as SSF13. Please revise.

The area in purple included a portion of a canopy for Building 7. This canopy will have a green roof, but the roof of the building will not be green. Therefore, this is a partial green roof and the calculations are intended to reflect that. The canopy is represented by a different color to reduce confusion. See attached Figure 6 (**Attachment G**).

16. Sheet CG1O1: The 12" storm drain daylighting into GSF24 at the invert elevation of 39.24 ft (P85 in Appendix B) is not clearly shown in this grading plan.

The pipe run has been revised and the invert is 41.5.

17. Sheet CO-501 & CO-502: Please provide information on the subgrade of each grassed underdrained soil filter, subsurface sand filter, and pervious pavers: will it be granular borrow or native soil? Specifically, placing the subsurface sand filters over the granular borrow may help with infiltrating the treated roof runoff which may help with mitigating the hydrologic impact of the project on the jurisdictional streams.

The details have been revised. Refer to Detail drawings (**Attachment G**)

Subsurface Sand Filters: Comment #18 thru #20.

There is no separate bypass manifold which will convey the inflow into the StormTech SC740 chambers when the isolator row capacity is exceeded, or when the isolator row is clogged with sediment. Since the subsurface sand filters will exclusively treat the roof runoff that will contain significantly less sediment load as compared to other impervious surfaces like driveways or parking areas, the design is acceptable.

No action required

18. Larger scale plan view drawings of the proposed subsurface sand filter systems need to be provided. Isolator rows, distribution manifolds, inlet, outlet control structures and maintenance manholes need to be shown instead of the typical "Pretreatment Row - Plan View" presented in Sheet CQ-502. Also, please have the pretreatment row designs reviewed by the StormTech representatives and provide their approval letter per Condition #9 stated in the Department's approval letter dated 7/29/16:

https://www.maine.gov/dep/land/stormwater/stormwaterbmps/manufactured-svstems/stormtech%20isolator%20row%20august%202016.pdf

Larger scale drawings have been provided. See attached details. The pretreatment row will be reviewed by either the StormTech representatives or the Cultech representatives (as they make an equal product). The letter will be provided to the Department.

19. SSF 36: Please check the "underdrain elevation (F)" and "underdrain from SSF pipe elevation" in "SSF Outlet Manhole" and make sure the underdrain system has positive drainage.

Detail sheets have been revised. See attached plans (**Attachment G**).

20. SSF 36 and SSF 40: Please reduce the inlet control structure weir elevations such that they are equal to "Elevation C + 3 ft" which is the top elevation of the Storm Tech SC740 chambers/isolator rows.

See attached plans (**Attachment G**).

Manmade Pervious Pavers: Comment #21 thru #25.

21. Please revise "Manmade Pervious Pavers-Plan View" detail given in CQ-501 so that run-on flow paths and width of pervious pavers for each of the proposed manmade pervious paver (MPP) strip are clearly presented. A table including the paver width, run-on length of each MPP needs to be presented with the detail drawing.

See attached plans (**Attachment G**).

22. MPP14: The grading proposed in Sheet CG103 does not appear to be consistent with the treatment area shown for MPP14 in Appendix B Figure 5. There appears to be an island between the easterly

impervious pavement and the pervious paver strip; the island will not let the surface runoff shed into the pervious paver strip. The grading needs to be revised and spot elevations need to be provided.

See attached plans (**Attachment G**).

23. MPP19: Spot elevations and slope directions need to be shown in Sheet CG104 to ensure that the pervious strip can treat entire Subcatchment 19 shown in Appendix B Figure 5.

See attached grading plans (**Attachment D**).

24. MPP22: The surface area measured in Sheet CG102 is approximately 2,800 sf, which is less than the surface area used in Appendix A Sheet #20 (i.e., 3,240 sf).

The area is smaller and the calculations have been revised (**Attachment G**).

25. MPP30: HydroCAD pond (Pond mpp30) (Page 414 & 415 of the revised post-development HydroCAD model outputs) has an R-Tank configuration different from the other manmade pervious paver ponds since the applicant aimed to provide additional storage volume for the 25- yr storm peak flow attenuation. Please provide the plan and profile view drawings of the proposed R-Tank system.

See revised details (**Attachment G**).

Vegetated Roofs: Comments #26 Thru #30.

26. Sheet CO-503: The applicant proposes to use pregrown modular vegetated roof systems (i.e., Firestone Skyscape Vegetative Roof Systems). The "Vegetated Roof Cross-section" detail needs to be revised to reflect the proposed modular system. Also, my understanding is that the applicant proposes to use two different types of modules (Semi-intensive & Intensive; see Appendix A page #38 & page #34) for the proposed vegetated roofs. Types, specifications, and total number of the modules to be used for each individual vegetated roof needs to be presented in a tabular format in this plan sheet.

Please see revised plan sheet (**Attachment G**).

27. Please review the water storage volume figure used in the sizing calculations. As far as I understand, the "estimated module water storage volume" is reported as 0.20 cf/sf for the semi- intensive module and 0.26 cf/sf for the intensive module in the manufacturer's document presented as Sheet 38 in Appendix A. Both semi-intensive and intensive modules have a surface area of 2.08 sf. Therefore, total estimated water storage volume of a semi-intensive module becomes 2.08 sf x 0.20 cf/sf= 0.416 cf and the same figure for an intensive module becomes 2.08 sf x 0.26 cf/sf= 0.541 cf. Please review the sizing calculations and revise the design if necessary.

Please see the revised sizing calculations and design (**Attachment G**).

28. Subcatchment 15 (GSF15 & GR15): The treatment area breakdown needs to be clarified. Is GR15 proposed as a self-treating surface which receives no runoff from other developed areas? Also, will GSF15 treat 3,184 sf of grass/landscaped area or 4,184 sf of grass/landscaped area? Please revise Figures 6 & 7 in Appendix B by clearly delineating the green roof area. Similar clarifications (e.g., callouts, marking) are necessary in Sheet CG107.

Building 7 has a canopy that will use a vegetated roof. It appears on the figures as the same color as Subcatchment 15. This has been revised on Figure 6 as well as CQ107.

29. Subcatchment 28 {GR28): "Table 1: Stormwater Treatment" states that GR28 will treat 1,407 and 2,429 sf of impervious and landscaped area, respectively. It is unclear which building within Subcatchment 28 will have a vegetated roof. Will the existing building redeveloped into a visitor center (Building 10 shown in Sheet CPlOl) which will have GR28? The extent of redevelopment and new development proposed for Subcatchment 28 needs to be clearly stated in the stormwater management plan and appropriate callouts need to be given in the layout and grading plans (Sheets CP101 and CG101).

The vegetated roof is not for a building, but rather a structural canopy that is proposed over an educational fishpond.

30. Subcatchment 33 (GR33): The "Vegetated Roof' table presented in Appendix A (page #34) shows that the "semi-intensive" modules with water storage volume of 0.2 cf/sf will be used for GR33 whereas GR33 sizing calculations presented in Sheet #31 & #33 indicate that the "intensive" modules with water storage volume of 0.26 cf/sf will be used in GR33. Please review Appendix A and make necessary revisions.

The "semi-intensive" modules with water storage volume of 0.2 cf/sf will be used for GR33. Please see the revised sizing calculations (**Attachment G**).

C. Flooding Standard: Comments #31 Thru #34.

31. This comment is related to Comment #1 provided in this memo:

Based on my analysis of the existing elevation contours and drainageways, the area south of the flow path shown within the pre-development Subcatchment 9 appears to drain into the pre- development Subcatchments 2, 3, and 4 (Sheet CW-102). Subcatchments 2, 3, 4, and 9 of the pre- development model need to be revised to reflect this drainage pattern. The post-development model will also need to be revised per Comment #1: the upgradient surface runoff captured by the northerly interceptor needs to be routed to the southerly analysis point of PT5. The flow due to the groundwater intercepted by the underdrain system can be disregarded in the post- development model.

The Pre- and Post- development analysis has been updated to include the recommended routing. See **Attachment G.**

32. Please provide the technical references justifying the curve number value (i.e., 61) selected for the vegetated roofs.

A curve number of 74 was used for routing vegetated roofs as it best fit with >75% grass cover over a HSG C soil.

33. Subsurface Sand Filter Ponds: The post-development model results show that the "secondary outflow" device (i.e., the weirs) in the inlet control structure (ICS) ponds are triggered by the relatively small one-inch storm which results in significant amount of flow bypassing the subsurface sand filter pond. Please review and revise the ICS and subsurface sand filter ponds in the post-development model.

These are designed to treat only the water quality volume (1-inch storm). Larger storms pass over the weir.

34. "Table 6 - Pipe Capacity":

a. What is the rationale behind providing the "energy grade line (EGL)" in the table? The EGL is the sum of velocity head, pressure head, and elevation head. Since the stormwater drains will have open channel flow, it would be more appropriate to use the hydraulic grade line (HGL), which is essentially equal to the elevation head for open channel flow, for the storm drain capacity analysis,

The slope of the EGL was compared to the slope of the pipe to evaluate whether the pipe was passing Q at higher than full flow capacity.

b. 10-yr 24-h peak flows in multiple pipes exceed their full-flow capacity. Please explain why the diameters of these pipes were not increased to increase the full-flow capacity,

While pipes can convey more than full flow capacity, we have increased pipe diameters as requested.

c. "10-yr EGL" values exceed the flood elevations of CB-16, DMH-59, and DMH-23 which indicate potential flooding around these structures for the 10-yr storm. Please address.

The pipe sizes have been upgraded.

ATTACHMENT A

Revised Soil Erosion and Sedimentation Control Plan

Nordic Aquafarms, Inc., Land-based Aquaculture Facility, Belfast, Maine
L-28319-26-A-N, Review Comments

Ransom Consulting, Inc.
Project 171.05027.008

ATTACHMENT B

Revised Soil Erosion and Sediment Control Phasing Plans

Nordic Aquafarms, Inc., Land-based Aquaculture Facility, Belfast, Maine
L-28319-26-A-N, Review Comments

ATTACHMENT C

Revised Soil Erosion and Sediment Control Phasing Plans with Aerial Imagery

Nordic Aquafarms, Inc., Land-based Aquaculture Facility, Belfast, Maine
L-28319-26-A-N, Review Comments

ATTACHMENT D

Revised Grading Plans CG-105 to CG-107

Nordic Aquafarms, Inc., Land-based Aquaculture Facility, Belfast, Maine
L-28319-26-A-N, Review Comments

Ransom Consulting, Inc.
Project 171.05027.008

ATTACHMENT E

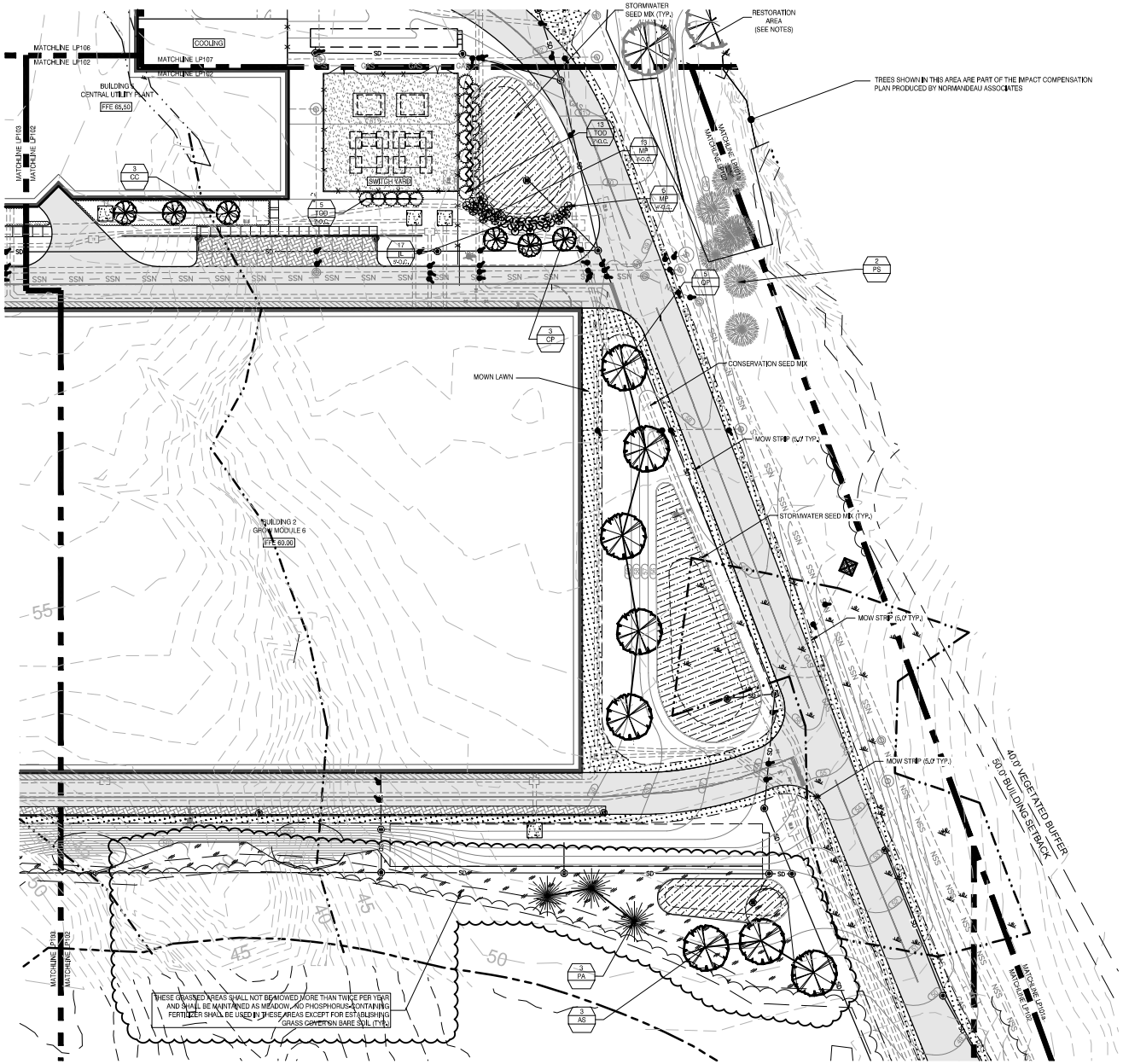
Revised Detail Drawing CE505

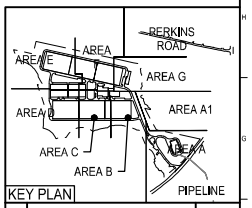
Nordic Aquafarms, Inc., Land-based Aquaculture Facility, Belfast, Maine
L-28319-26-A-N, Review Comments

ATTACHMENT F

Revised Landscaping Plans LP102 to LP106

Nordic Aquafarms, Inc., Land-based Aquaculture Facility, Belfast, Maine
L-28319-26-A-N, Review Comments





KEY PLAN

REV	DESCRIPTION	DATE
2	DEP REVISIONS	11-04-19
1	REISSUED FOR PERMIT	7-03-19
0	ISSUED FOR PERMIT	5-14-19

DEP REVISIONS
11-04-19
CURRENT ISSUE STATUS:

TRUE NORTH

LICENSED LANDSCAPE ARCHITECT MARK G. JOHNSON NO. 1857 STATE OF MAINE
11/4/19

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NORDIC AQUAFARMS
285 NORTHPORT AVENUE
BELFAST, MAINE

PLANTING PLAN
AREA B

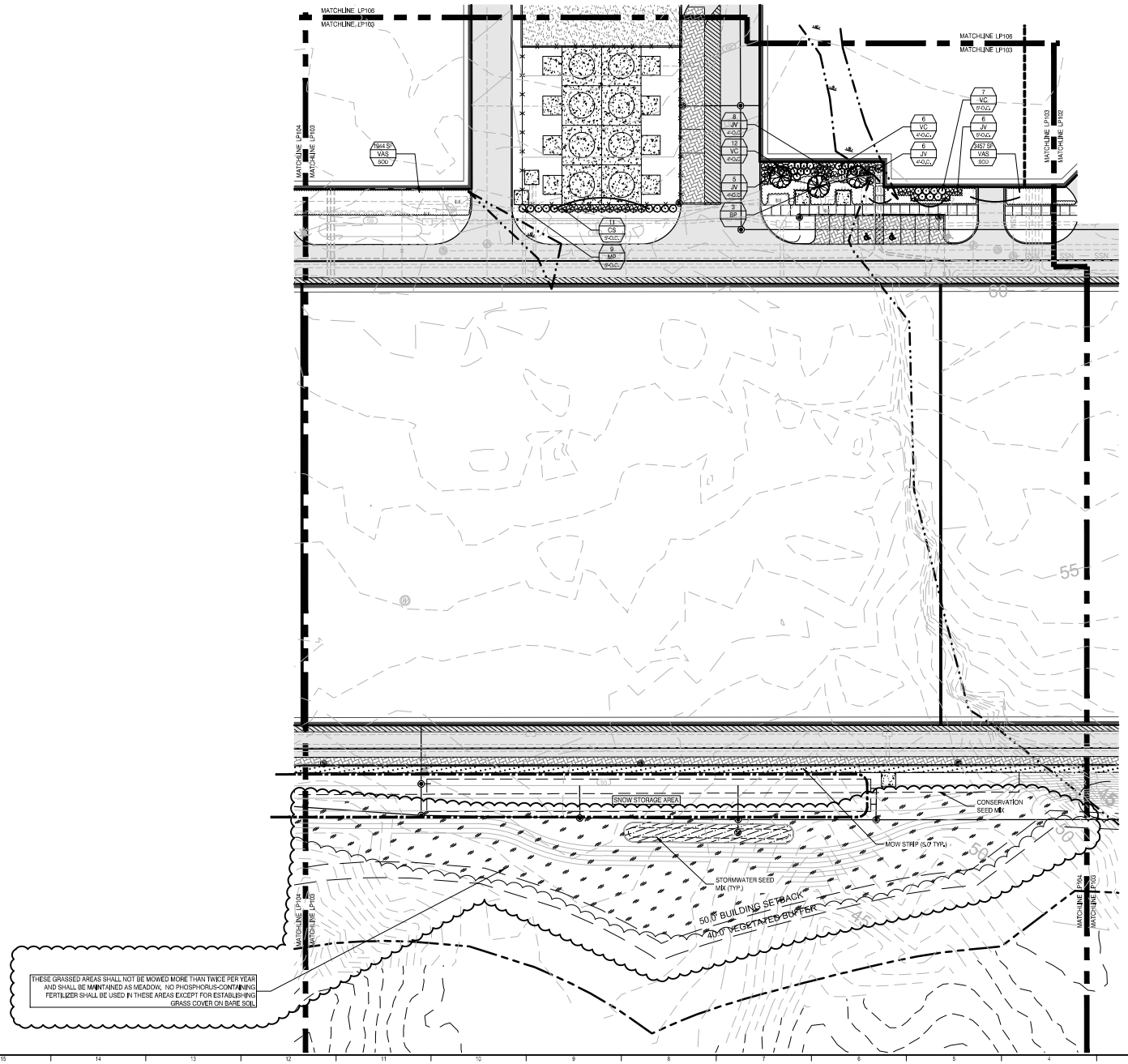
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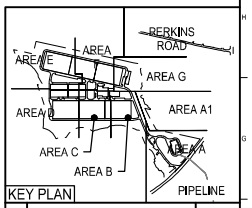
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PROJECT MANAGER:	ADB	PROJECT NO:	18076
A/E OF RECORD:	MGJ		
JOB CAPTAIN:	SP		
DRAWN BY:	WSM		
SMRT FILE:	LP102-18076	SHEET No.	

LP102

NOT FOR CONSTRUCTION





KEY PLAN

REV	DESCRIPTION	DATE
2	DEP REVISIONS	11-04-19
1	REISSUED FOR PERMIT	7-03-19
0	ISSUED FOR PERMIT	5-14-19

DEP REVISIONS
11-04-19

CURRENT ISSUE STATUS:

TRUE NORTH

LICENSED LANDSCAPE ARCHITECT
MARK G. JOHNSON
NO. 1857
STATE OF MAINE
11/4/19

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NORDIC AQUAFARMS
285 NORTHPORT AVENUE

BELFAST, MAINE

PLANTING PLAN
AREA C

SHEET TITLE:

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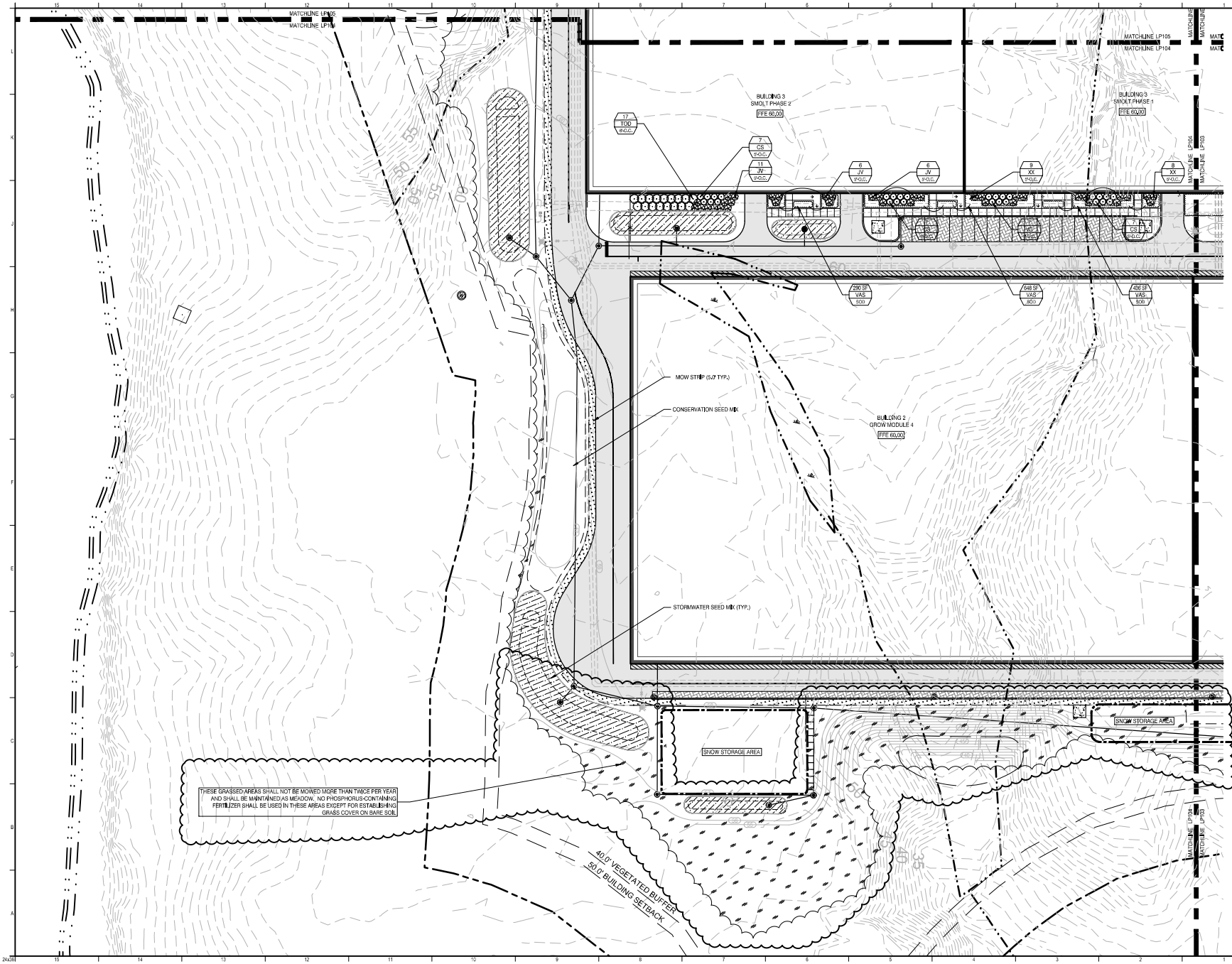
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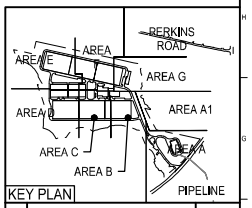
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KEY PLAN

REV	DESCRIPTION	DATE
2	DEP REVISIONS	11-04-19
1	REISSUED FOR PERMIT	7-03-19
0	ISSUED FOR PERMIT	5-14-19

DEP REVISIONS
11-04-19

CURRENT ISSUE STATUS:

TRUE NORTH

LICENSED LANDSCAPE ARCHITECT
MARK G. JOHNSON
NO. 1857
STATE OF MAINE
11/4/19

SMRT Architects and Engineers
144 Fore Street/P.O. BOX 618
Portland, Maine 04104
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Ransom Consulting Engineers and Scientists
400 Commercial Street, Suite 400
Portland, Maine 04101

NORDIC AQUAFARMS
285 NORTHPORT AVENUE
BELFAST, MAINE

PLANTING PLAN
AREA D

SHEET TITLE:

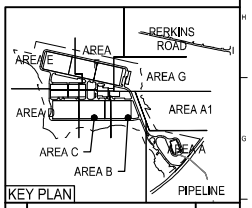
0 15' 30' 60' 90'
SCALE: 1" = 30'

PROJECT MANAGER:	ADB	PROJECT NO:	18076
A/E OF RECORD:	MGJ		
JOB CAPTAIN:	SP		
DRAWN BY:	WSM		
SMRT FILE:	LP104-18076	SHEET No.	

LP104

NOT FOR CONSTRUCTION





KEY PLAN

REV	DESCRIPTION	DATE
2	DEP REVISIONS	11-04-19
1	REISSUED FOR PERMIT	7-03-19
0	ISSUED FOR PERMIT	5-14-19

DEP REVISIONS
11-04-19

CURRENT ISSUE STATUS:

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285 NORTHPORT AVENUE
BELFAST, MAINE

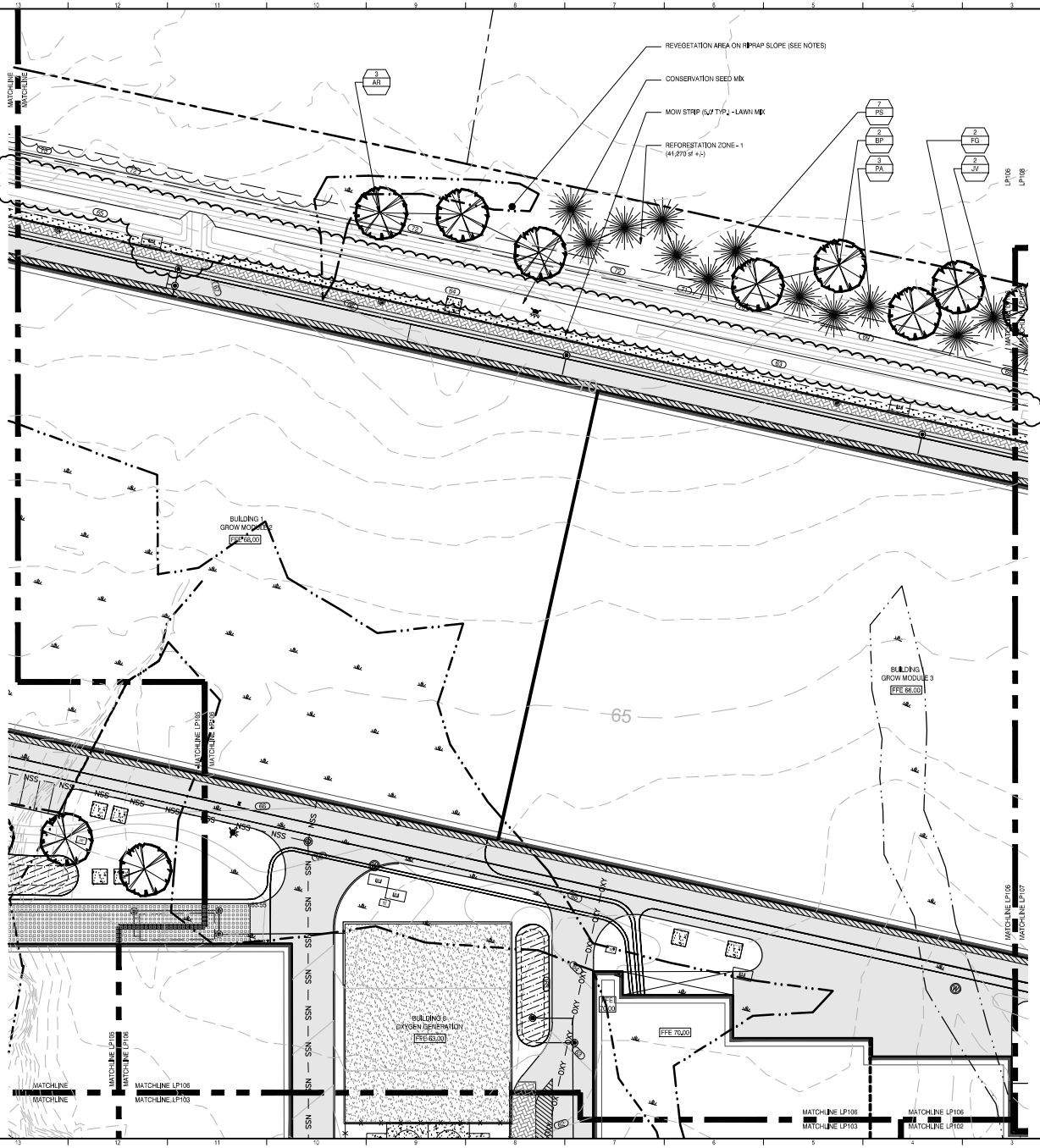
PLANTING PLAN
AREA E

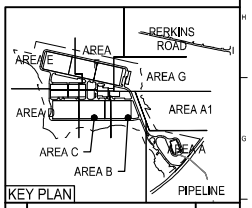
SHEET TITLE:

0 15' 30' 60' 90'
SCALE: 1" = 30'

PROJECT MANAGER:	ADB	PROJECT NO.	18076
A/E OF RECORD:			
JOB CAPTAIN:	SP		
DRAWN BY:	WSM		
SMRT FILE:	LP105-18076	SHEET No.	LP105

NOT FOR CONSTRUCTION





KEY PLAN

REV	DESCRIPTION	DATE
2	DEP REVISIONS	11-04-19
1	REISSUED FOR PERMIT	7-03-19
0	ISSUED FOR PERMIT	5-14-19

DEP REVISIONS
11-04-19

CURRENT ISSUE STATUS:

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NO. 1857
STATE OF MAINE
11/4/19

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Portland, Maine 04101

NORDIC AQUAFARMS
285 NORTHPORT AVENUE
BELFAST, MAINE

PLANTING PLAN
AREA F

SHEET TITLE:

0 15' 30' 60' 90'
SCALE: 1" = 30'

PROJECT MANAGER:	ADB	PROJECT NO.:	18076
A/E OF RECORD:	MGJ		
JOB CAPTAIN:	SP		
DRAWN BY:	WSM		
SMRT FILE:	LP106-18076	SHEET No.	LP106

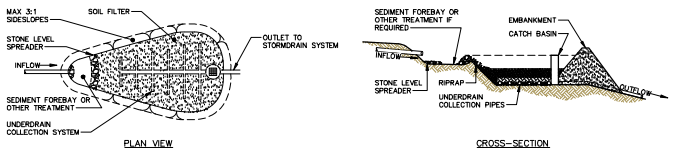
NOT FOR CONSTRUCTION

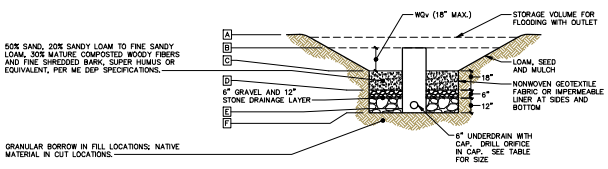
ATTACHMENT G

Updated Stormwater Drawings, Narrative, and Calculations

Nordic Aquafarms, Inc., Land-based Aquaculture Facility, Belfast, Maine
L-28319-26-A-N, Review Comments

Ransom Consulting, Inc.
Project 171.05027.008



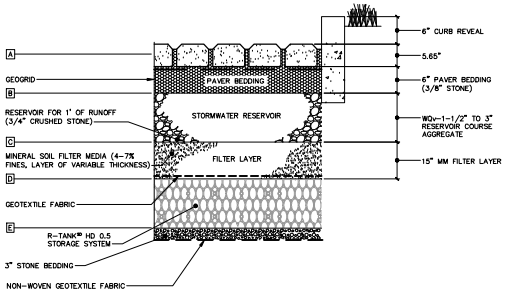


Grassed Underdrained Soil Filter Elevations (ft)

GSF	1A	1B	2	3	4	5	6	7	8	9	11	12	13	15	16	18A	18B	24
A	68.00	67.50	59.00	57.00	56.00	55.00	50.00	56.00	58.50	64.00	63.00	62.50	63.00	65.00	65.00	58.00	58.00	42.00
B	66.30	66.90	57.60	55.75	55.10	54.60	48.20	54.70	57.60	62.95	62.00	61.90	62.00	63.70	64.40	57.40	57.90	40.60
C	65.75	65.50	56.75	54.75	54.50	54.00	47.50	54.00	56.50	62.00	61.00	61.00	61.00	63.50	63.50	57.00	57.00	39.75
D	64.25	64.00	55.25	53.25	53.00	52.50	46.00	52.50	55.00	60.50	59.50	59.50	59.50	62.00	62.00	55.50	55.50	38.25
E	63.00	62.75	54.00	52.00	51.75	51.25	44.75	51.25	53.75	59.25	58.25	58.25	58.25	60.75	60.75	54.25	54.25	37.00
F	62.75	62.50	53.75	51.75	51.50	51.00	44.50	51.00	53.50	59.00	58.00	58.00	58.00	60.50	60.50	54.00	54.00	36.75
Orifice Size (in)	0.5	0.5	0.6	0.6	0.3	0.3	0.4	0.6	0.8	0.6	0.7	0.4	0.8	0.3	0.5	0.4	0.3	0.6

GRASSED UNDERDRAIN SOIL FILTER

SCALE: N.T.S. SOURCE: MDEP LAST UPDATED: 05/2016

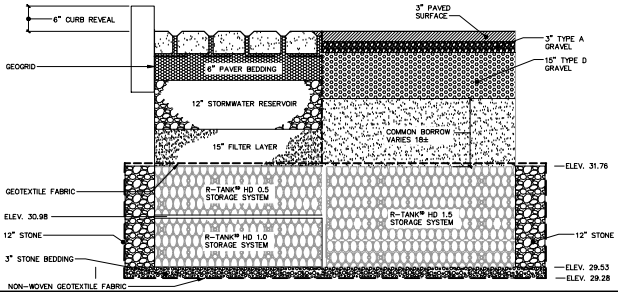


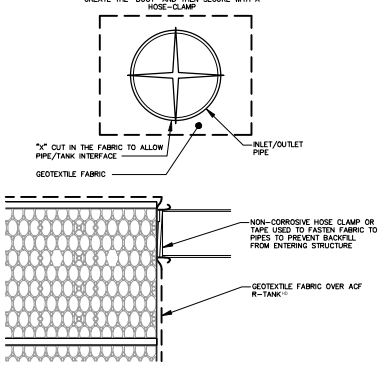
Manmade Pervious Paver Eevations (ft)

MPP	10	14	19	21	22	26	30	50
A	65.40	60.25	58.90	58.80	58.82	38.29	35.00	58.65
B	64.43	59.28	57.93	57.83	57.85	37.32	34.03	57.68
C	63.13	58.28	57.13	56.78	57.10	36.67	33.03	56.63
D	62.18	57.03	55.88	55.53	55.85	35.42	31.78	55.38
E	61.48	56.23	55.08	54.73	55.05	34.62	30.98	54.58
F	61.13	55.98	54.83	54.48	54.80	34.37	30.73	54.33
Oifice Size (in)	0.1	0.4	0.4	0.3	0.4	0.2	0.6	0.6

MANMADE PERVIOUS PAVERS CROSS-SECTION

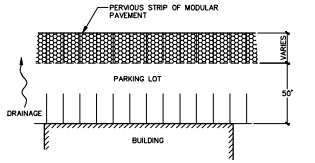
SCALE: N.T.S. SOURCE: MDEP LAST UPDATED: 05/2016





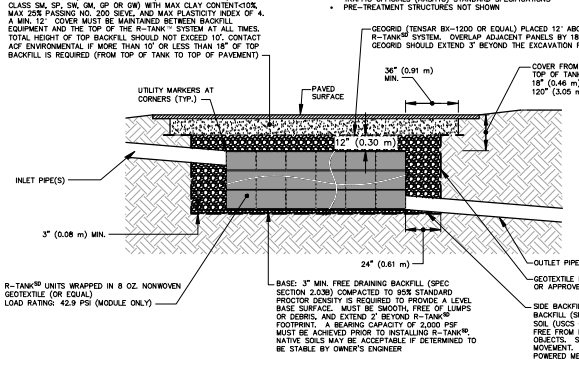
R-TANK^{SD} TYPICAL TANK INLET/OUTLET

SCALE: N.T.S. SOURCE: 151.06094 LAST UPDATED: 04/2019



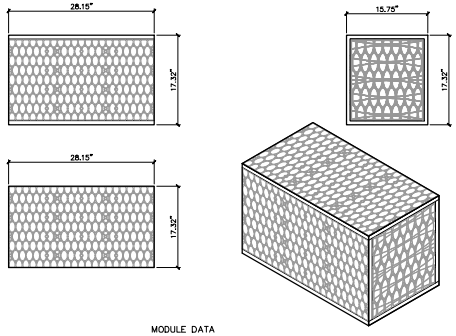
MANMADE PERVIOUS PAVERS-PLAN VIEW

SCALE: N.T.S. SOURCE: MDEP LAST UPDATED: 05/2016



R-TANK^{SD}-HS-20 LOADS

SCALE: N.T.S. SOURCE: 151.06094 LAST UPDATED: 04/2019

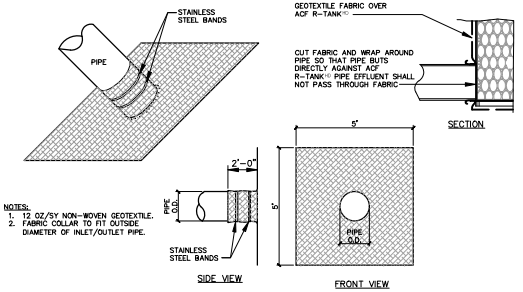


MODULE DATA

GEOMETRY: LENGTH = 28.15 IN. (715 MM)
WIDTH = 15.75 IN. (400 MM)
HEIGHT = 17.32 IN. (440 MM)
STORAGE VOLUME = 4.22 CF (119 L)
VOID INTERNAL VOLUME: 95%
VOID SURFACE AREA: 90%
LOAD RATING: 40 PSI, (MODULE ONLY) HS25, (WITH ACF COVER SYSTEM)
MATERIAL: 85% RECYCLED POLYPROPYLENE

R-TANK^{SD}-SINGLE MODULE DETAIL

SCALE: N.T.S. SOURCE: 151.06094 LAST UPDATED: 04/2019



FABRIC PIPE BOOT FOR R-TANK^{SD}

SCALE: N.T.S. SOURCE: 151.06094 LAST UPDATED: 04/2019

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REV	DESCRIPTION	DATE
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NORDIC AQUAFARMS
MULTIPHASE PROJECT
158 HIGH STREET, BELFAST, MAINE

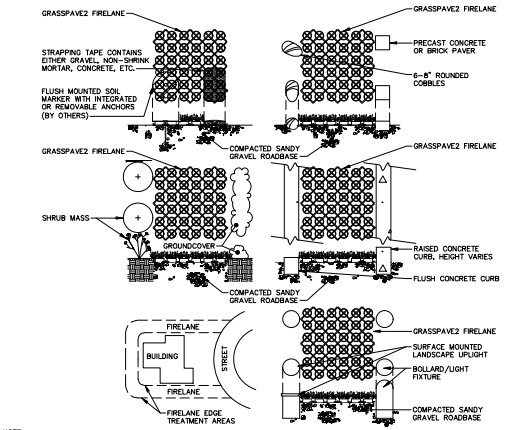
CONSTRUCTION DETAILS

PROJECT MANAGER: MPM PROJECT NO: 171.06027
DRAWN BY: JAR

CQ-501

NOT FOR CONSTRUCTION

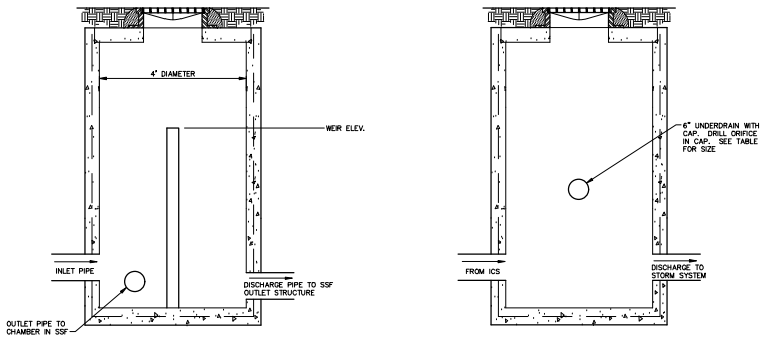
11/4/2019 4:47 PM171.06027D.DWG



NOTE:
THIS DETAIL IS SCHEMATIC IN NATURE. DESIGNER SHALL SPECIFY SPACING AND DESIGN OF EDGE TREATMENTS. SPACING WILL VARY WITH TURF TYPE, SLOPE, FIRE DEPARTMENT REQUIREMENTS, ETC.

GRASSPAVE2 FIRELANE BY INVISIBLE STRUCTURES, INC.

SCALE: N.T.S. SOURCE: INVISIBLE STRUCTURES, INC. LAST UPDATED: 08/2019



SSF INLET CONTROL STRUCTURE

SCALE: N.T.S.

SSF OUTLET MANHOLE

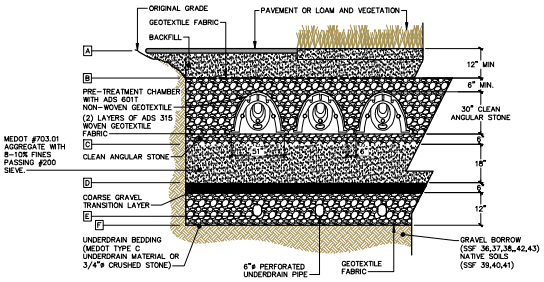
SCALE: N.T.S.

		SSF Inlet Control Structure							SSF Outlet Manhole					
		ICS Inlet		To SSF		Weir	ICS Discharge		From ICS		Underdrain from SSF		Discharge Pipe	
Filter	WQv (cf)	Pipe diam. (in.)	Pipe elev. (ft.)	Pipe diam. (in)	Pipe elev. (f.)	Top Elev. (ft.)	Pipe diam. (in)	Pipe elev. (ft.)	Pipe diam. (in.)	Pipe elev. (ft.)	Pipe diam. (in)	Pipe elev. (ft.)	Orifice diam.	Pipe diam. (in)	Pipe elev. (ft.)
SSF 36	9388	18	64.60	12	63.15	65.77	18	63.50	18	59.87	6	60.02	1.2	18	59.84
SSF 37	9388	18	62.15	12	62.00	64.18	18	61.70	18	57.73	6	58.60	1.2	18	57.71
SSF 38	9388	18	60.95	12	60.75	62.95	18	60.70	24	54.61	6	57.37	1.2	24	54.59
SSF 39	9388	18	52.50	12	52.80	55.00	18	52.50	18	50.92	6	49.42	1.2	18	50.90
SSF 40	9388	18	51.50	12	52.80	55.17	18	52.20	30	46.21	6	49.42	1.2	30	46.19
SSF 41	9388	18	41.50	12	46.80	49.00	18	46.20	36	42.35	6	43.42	1.2	36	42.33
SSF 42	1008	8	54.85	8	58.15	60.50	8	58.00	8	57.39	6	55.50	0.4	12	55.40
SSF 43	1581	12	51.82	8	57.81	60.25	12	57.80	12	56.97	6	54.50	0.5	12	54.48

SSF	36	37	38	39	40	41	42	43
A	68.10	66.68	65.45	57.00	57.00	51.00	63.00	61.90
B	66.27	64.85	63.62	55.67	55.67	49.67	61.67	60.90
C	62.77	61.35	60.12	52.17	52.17	46.17	58.17	57.40
D	61.27	59.85	58.62	50.67	50.67	44.67	56.67	55.90
E	60.02	58.60	57.37	49.42	49.42	43.42	55.42	54.65
F	59.77	58.35	57.12	49.17	49.17	43.17	55.17	54.40
Size	5 rows x 31 chambers	2 rows x 72 chambers	2 rows x 72 chambers	12 rows x 15 chambers	4 rows x 39 chambers	5 rows x 31 chambers	3 rows x 6 chambers	2 rows x 12 chambers

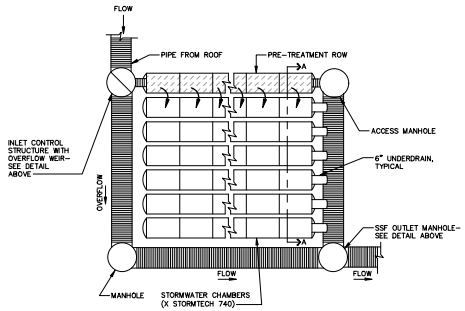
SSF ELEVATIONS

SCALE: N.T.S. SOURCE: MDEP LAST UPDATED: 08/2019



SUBSURFACE SAND FILTER - SECTION A-A

SCALE: N.T.S. SOURCE: MDEP LAST UPDATED: 05/2016



PRETREATMENT ROW - PLAN VIEW

SCALE: N.T.S. SOURCE: MDEP LAST UPDATED: 05/2016

1. ACCESS STRUCTURES SHALL BE PROVIDED ON THE PRE-TREATMENT ROW OF EACH SYSTEM AT 50 FOOT INTERVALS.
2. WHEN MULTIPLE PRE-TREATMENT ROWS ARE REQUIRED, ACCESS STRUCTURES SHALL BE PROVIDED AT THE BEGINNING, END AND AT 50 FOOT INTERVALS ALONG THE ROW.

SUBSURFACE SAND FILTER NOTES

SCALE: N.T.S.

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1	PER DEP COMMENTS	7-26-19
0	ISSUED FOR PERMIT	5-14-19

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NORDIC AQUAFARMS
MULTIPHASE PROJECT

158 HIGH STREET, BELFAST, MAINE

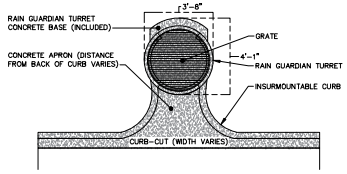
CONSTRUCTION DETAILS

PROJECT MANAGER: MPM | PROJECT NO: 171.05027
DRAWN BY: JAR

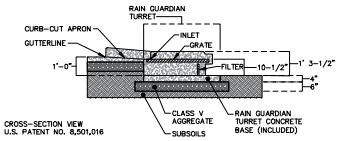
CQ-502

NOT FOR CONSTRUCTION

11/4/2019 4:47 PM171.05027D.DWG
24x36



PLAN VIEW
U.S. PATENT NO. 8,501,016



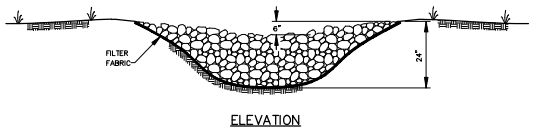
CROSS-SECTION VIEW
U.S. PATENT NO. 8,501,016

SPECIFICATIONS:

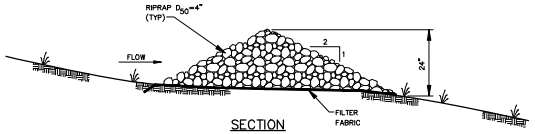
1. STEEL REINFORCED, COLD JOINT SECURED MONOLITHIC CONCRETE STRUCTURE (1,030 LBS).
2. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS. CONCRETE AIR ENTRAINED (4 PERCENT TO 8 PERCENT BY VOLUME).
3. MANUFACTURED AND DESIGNED TO ASTM C858.
4. THREE-POINT PICK USING RECESSED LIFTING POCKETS WITH A STANDARD HOOK.
5. SOIL UNDER BASE TO BE COMPACTED TO 95 PERCENT STANDARD PROCTOR.
6. TWO-PIECE LIGHT-DUTY GALVANIZED GRATE (34.5 LBS/PIECE) FOR 541 LB CONCENTRATED LOAD OR 309 LB/SQFT UNIFORM LOAD.
7. TWO-PIECE HEAVY-DUTY GALVANIZED GRATE (77.5 LBS/PIECE) FOR 2,456 LB CONCENTRATED LOAD OR 1,404 LB/SQFT UNIFORM LOAD.
8. USE EXPANSION JOINT MATERIAL BETWEEN TURRET AND BIORETENTION INLET.

RAIN GUARDIAN - TURRET - TYPICAL DETAIL

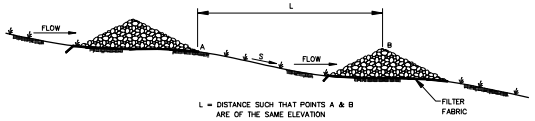
SCALE: N.T.S. SOURCE: MDEP LAST UPDATED: 05/2016



ELEVATION



SECTION



L = DISTANCE SUCH THAT POINTS A & B ARE OF THE SAME ELEVATION

S = SLOPE

S (FT/FT)	L (FT)
0.020	100
0.030	66
0.040	50
0.050	40
0.080	25
0.100	20
0.120	17
0.150	13

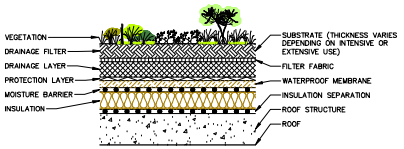
STONE CHECK DAM

SCALE: N.T.S. SOURCE: MDEP LAST UPDATED: 05/2016

1. THE APPLICANT SHALL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER TO INSPECT THE CONSTRUCTION AND STABILIZATION OF THE STRUCTURAL STORMWATER TREATMENT MEASURES TO BE BUILT AS PART OF THE PROJECT. IF NECESSARY, THE INSPECTING ENGINEER WILL INTERPRET THE CONSTRUCTION PLANS FOR THE CONTRACTOR.
2. ONCE ALL STORMWATER TREATMENT STRUCTURES ARE CONSTRUCTED AND STABILIZED, THE INSPECTING ENGINEER WILL NOTIFY THE DEPARTMENT IN WRITING WITHIN 30-DAYS TO STATE THE STRUCTURES HAVE BEEN COMPLETED.
3. ACCOMPANYING THE ENGINEER'S NOTIFICATION MUST BE A COPY OF THE TEST RESULTS FOR ANY SOIL FILL. AGGREGATE, ROCKS AND THE SPECIFICATIONS OF ANY GEOSYNTHETICS USED IN THE CONSTRUCTION OF THE STRUCTURAL TREATMENT MEASURES AND A LOG OF THE ENGINEER'S INSPECTIONS GIVING THE DATE OF EACH INPSECTION, THE TIME OF THE INSPECTION, AND THE ITEMS INSPECTED ON EACH VISIT.

GENERAL NOTES FOR STORMWATER SYSTEMS CONSTRUCTION

SCALE: N.T.S.



GROWING MEDIUM: THE VEGETATION SUPPORT COURSE SHOULD ACCOMMODATE A DENSE ROOT STOCK AND HAVE ALL THE PHYSICAL, CHEMICAL, AND BIOLOGICAL PROPERTIES NEEDED FOR PLANT GROWTH. AVAILABLE MATERIALS INCLUDE:

- SOIL MIXTURES – IMPROVED TOP AND UNDERLYING SOIL.
- AGGREGATE MIXTURES – MINERAL AGGREGATE MIXTURES WITH HIGH OR LOW ORGANIC CONTENT OR WITH AN OPEN-PORE GRANULAR STRUCTURE WITH NO ORGANIC CONTENT.
- SUBSTRATE BOARDS – BOARDS MADE FROM MODIFIED FOAM MATERIALS OR MINERAL FIBERS.
- VEGETATION MATTING – MATTING WITH MINERAL/ORGANIC AGGREGATE MIXTURES. THE ORGANIC CONTENT OF THE VEGETATION SUPPORT COURSE SHOULD BE AS SHOWN ON TABLE 7.6.1.

TABLE 7.6.1 – GROWING MEDIUM

TYPE OF GREENING	SUBSTRATE DENSITY	ORGANIC CONTENT
INTENSIVE GREENING	<0.8 >0.8	<12% BY MASS <6% BY MASS
EXTENSIVE GREENING		
MULTIPLE-COURSE CONSTRUCTION	<0.8 >0.8	<8% BY MASS <6% BY MASS
SINGLE-COURSE CONSTRUCTION	N/A	<4% BY MASS

THE LANDSCAPING AND LANDSCAPE DEVELOPMENT RESEARCH SOCIETY E.V.-FLL

VEGETATED ROOF CROSS-SECTION

SCALE: N.T.S. SOURCE: MDEP LAST UPDATED: 05/2016

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NORDIC AQUAFARMS
MULTIPHASE PROJECT

158 HIGH STREET, BELFAST, MAINE

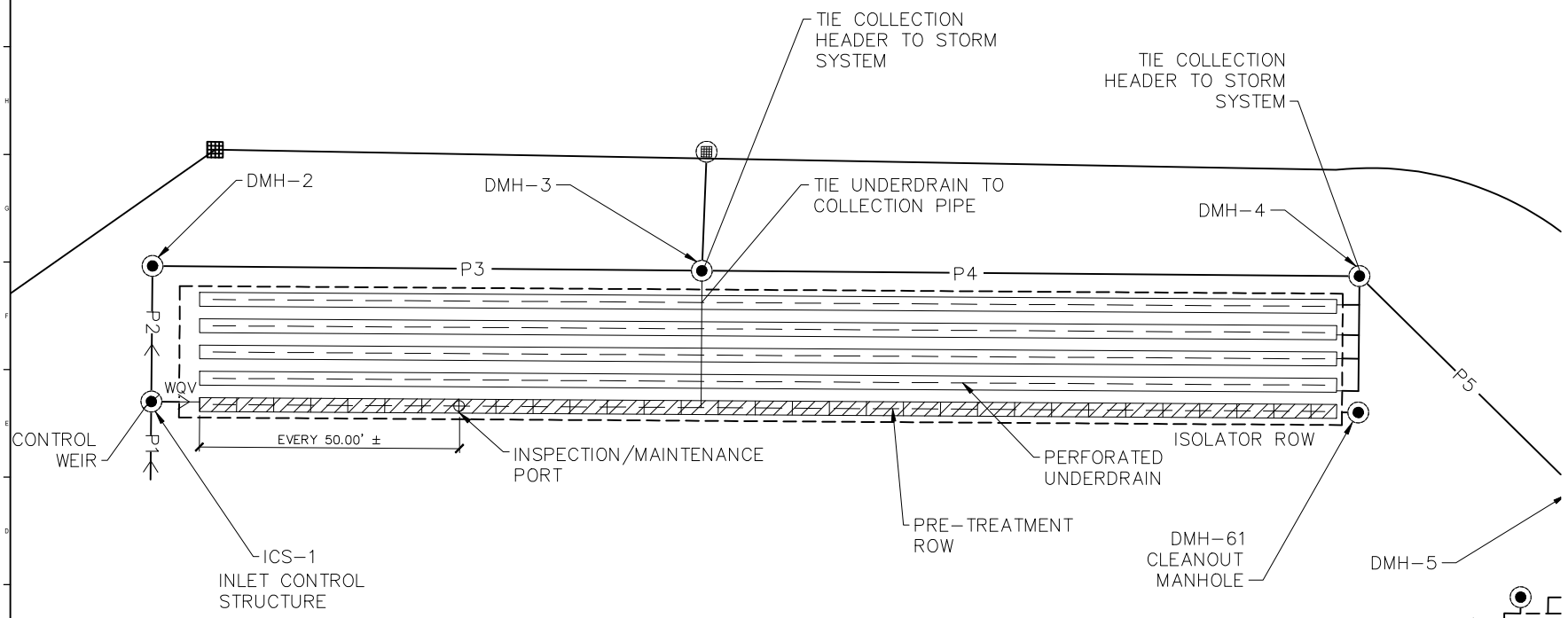
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DRAWN BY: JAR

CQ-503

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11/4/2019 4:47 PM171.05027D.DWG
24x36



SSF36
51 ROWS OF 31 UNITS

SSF-36 PRE-TREATMENT DETAIL
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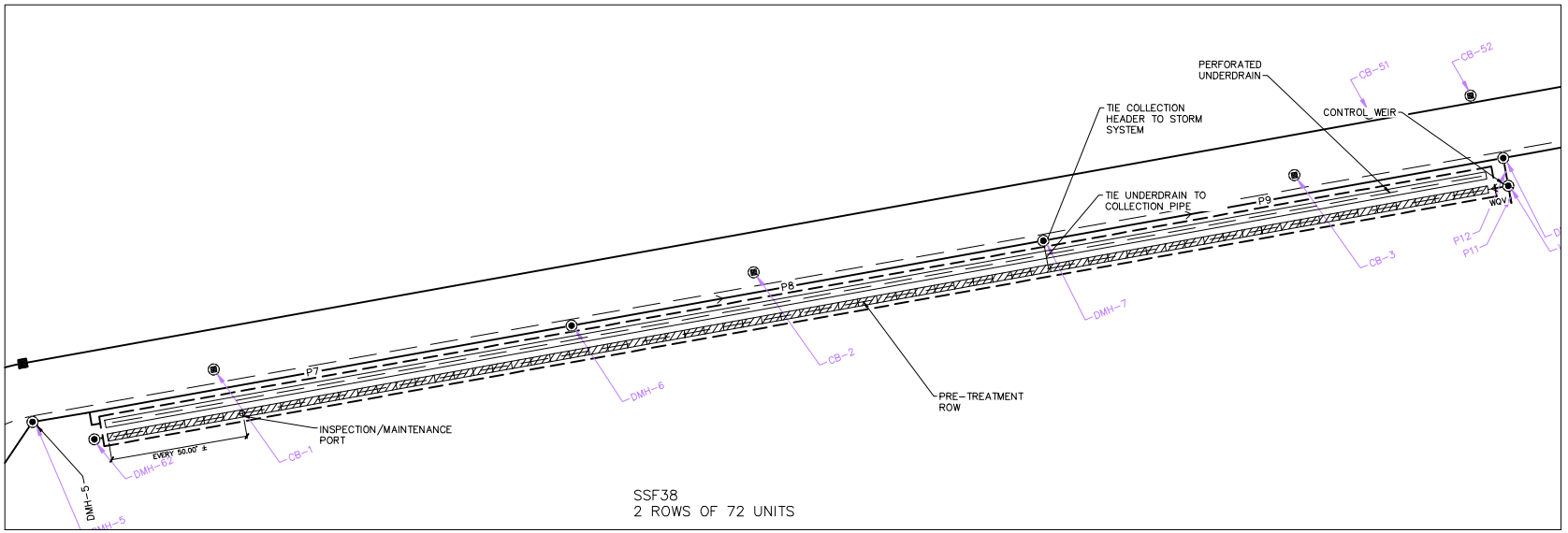
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MULTIPHASE PROJECT
158 HIGH STREET, BELFAST, MAINE

CONSTRUCTION DETAILS

PROJECT MANAGER:	MPM	PROJECT NO:	171.05027
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SSF-37 PRE-TREATMENT DETAIL

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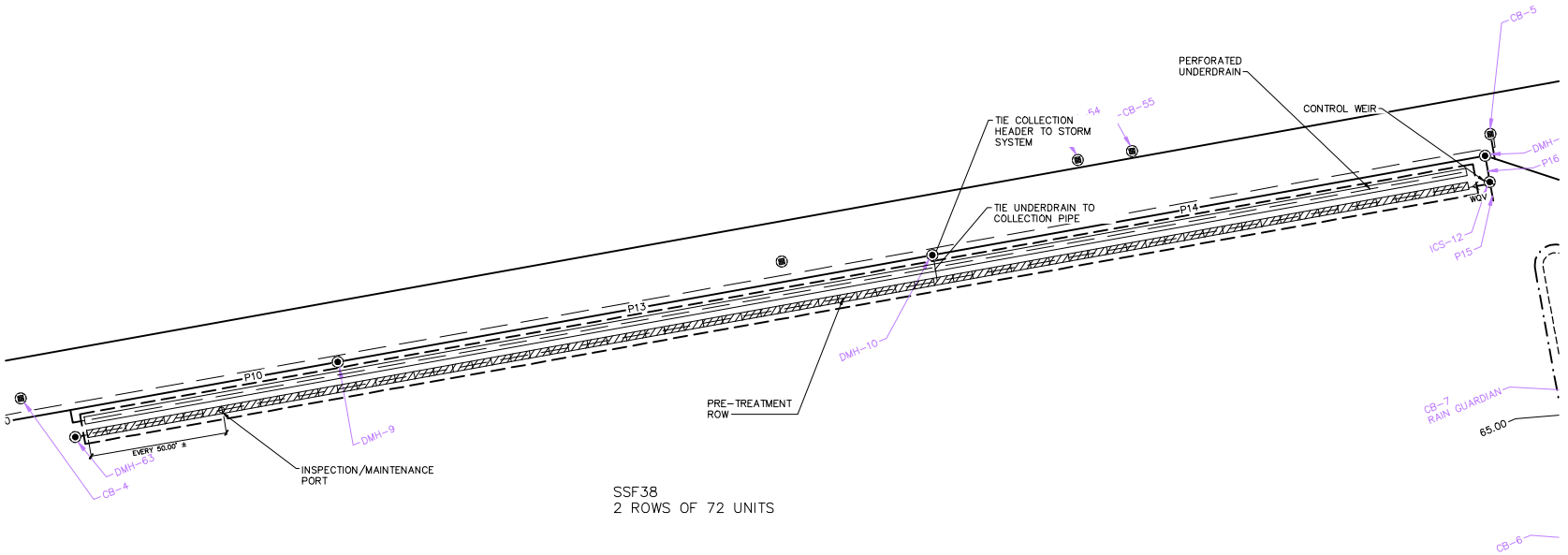
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CONSTRUCTION DETAILS

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SSF38
2 ROWS OF 72 UNITS

SSF-38 PRE-TREATMENT DETAIL
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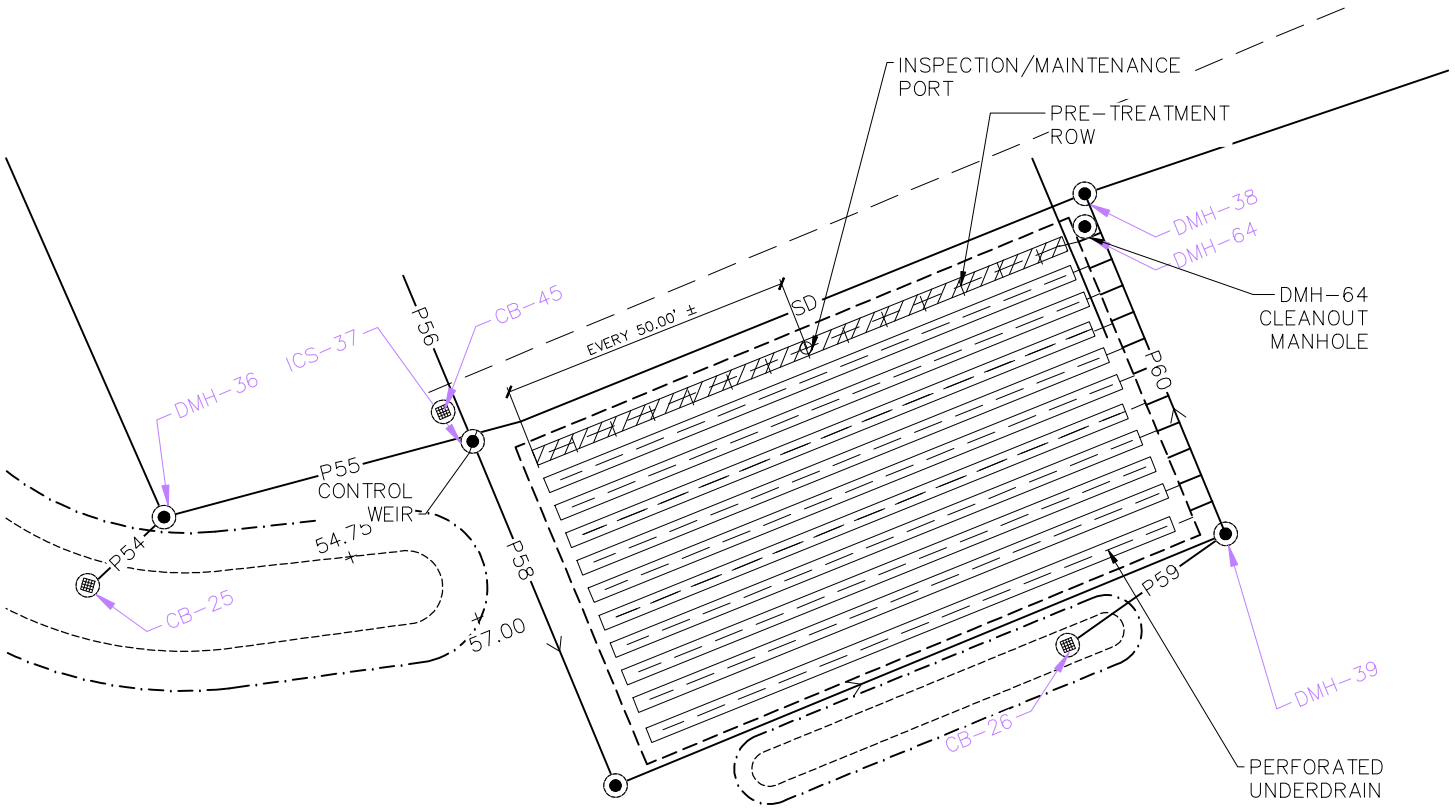
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CONSTRUCTION DETAILS

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SSF39
12 ROWS OF 14 UNITS

SSF-39 PRE-TREATMENT DETAIL
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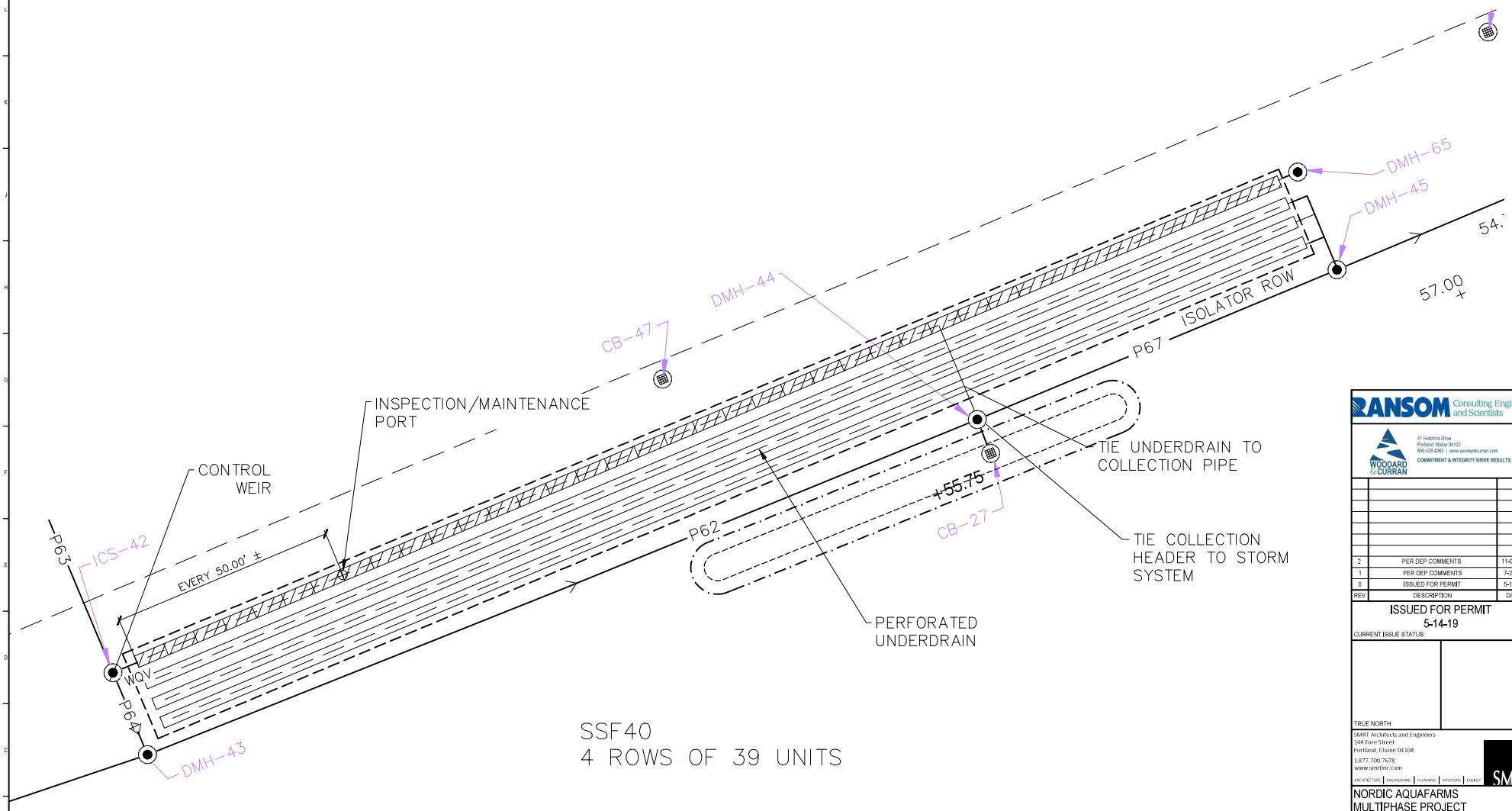
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SSF40
4 ROWS OF 39 UNITS

SSF-40 PRE-TREATMENT DETAIL
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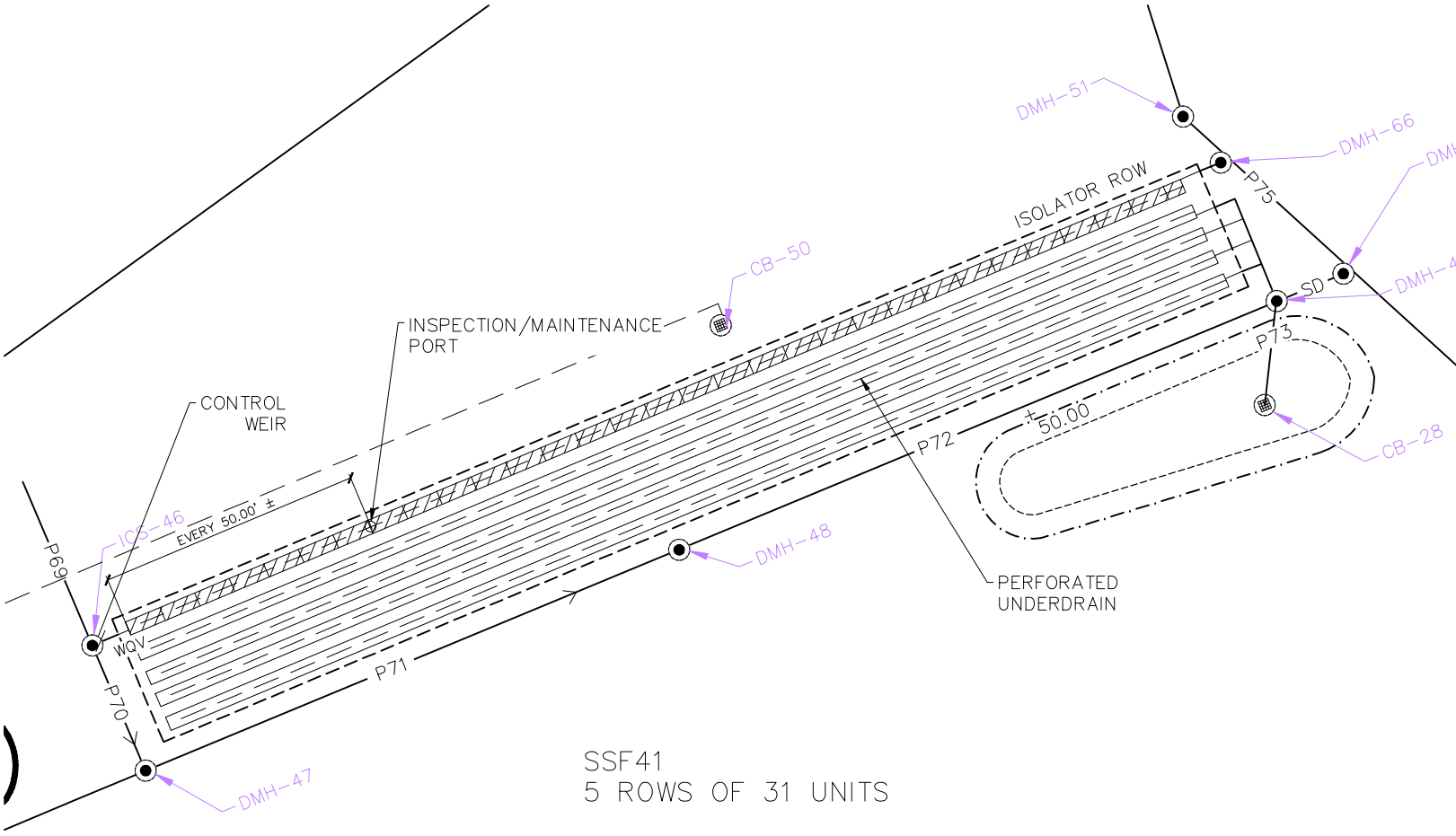
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SSF41
5 ROWS OF 31 UNITS

SSF-41 PRE-TREATMENT DETAIL
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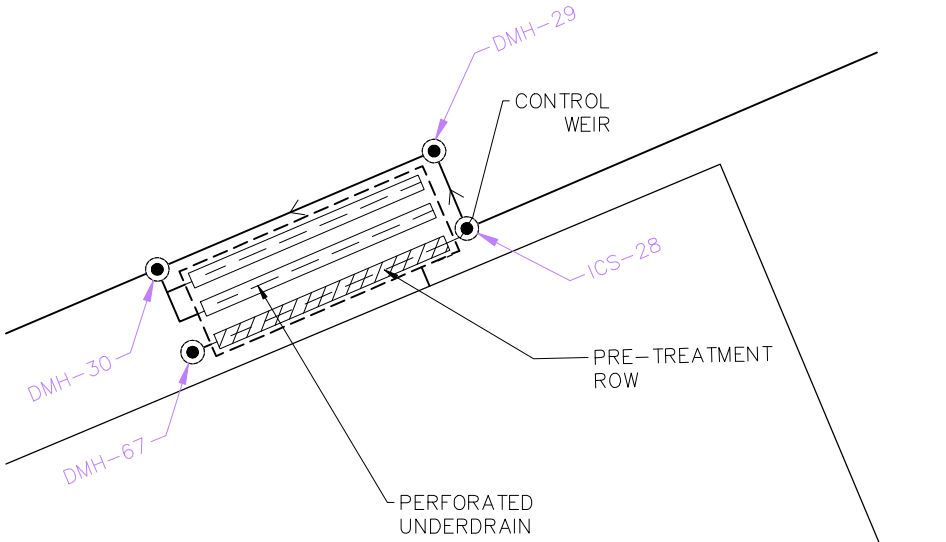
NORDIC AQUAFARMS
MULTIPHASE PROJECT
158 HIGH STREET, BELFAST, MAINE

CONSTRUCTION DETAILS

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SSF42
3 ROWS OF 6 UNITS

SSF-42 PRE-TREATMENT DETAIL
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CONSTRUCTION DETAILS

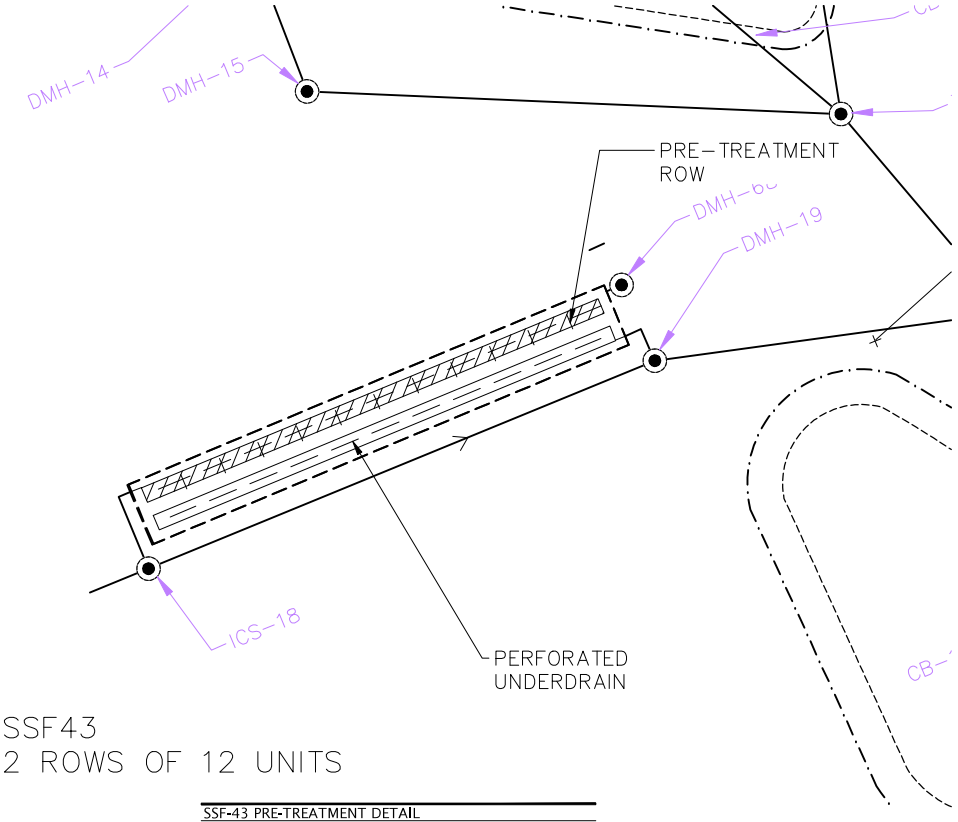
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CQ-510

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24x36



SSF43
2 ROWS OF 12 UNITS

SSF-43 PRE-TREATMENT DETAIL
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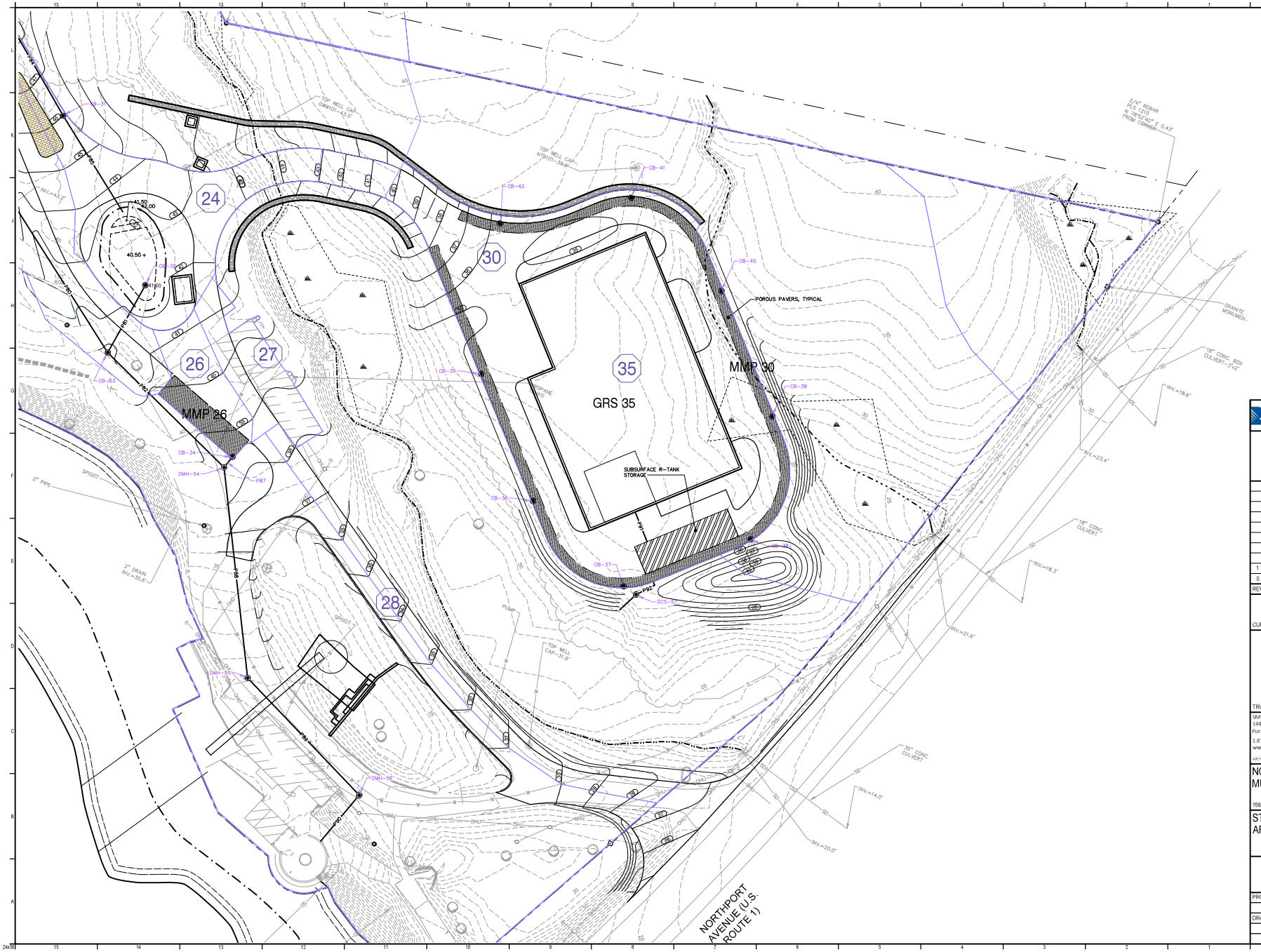
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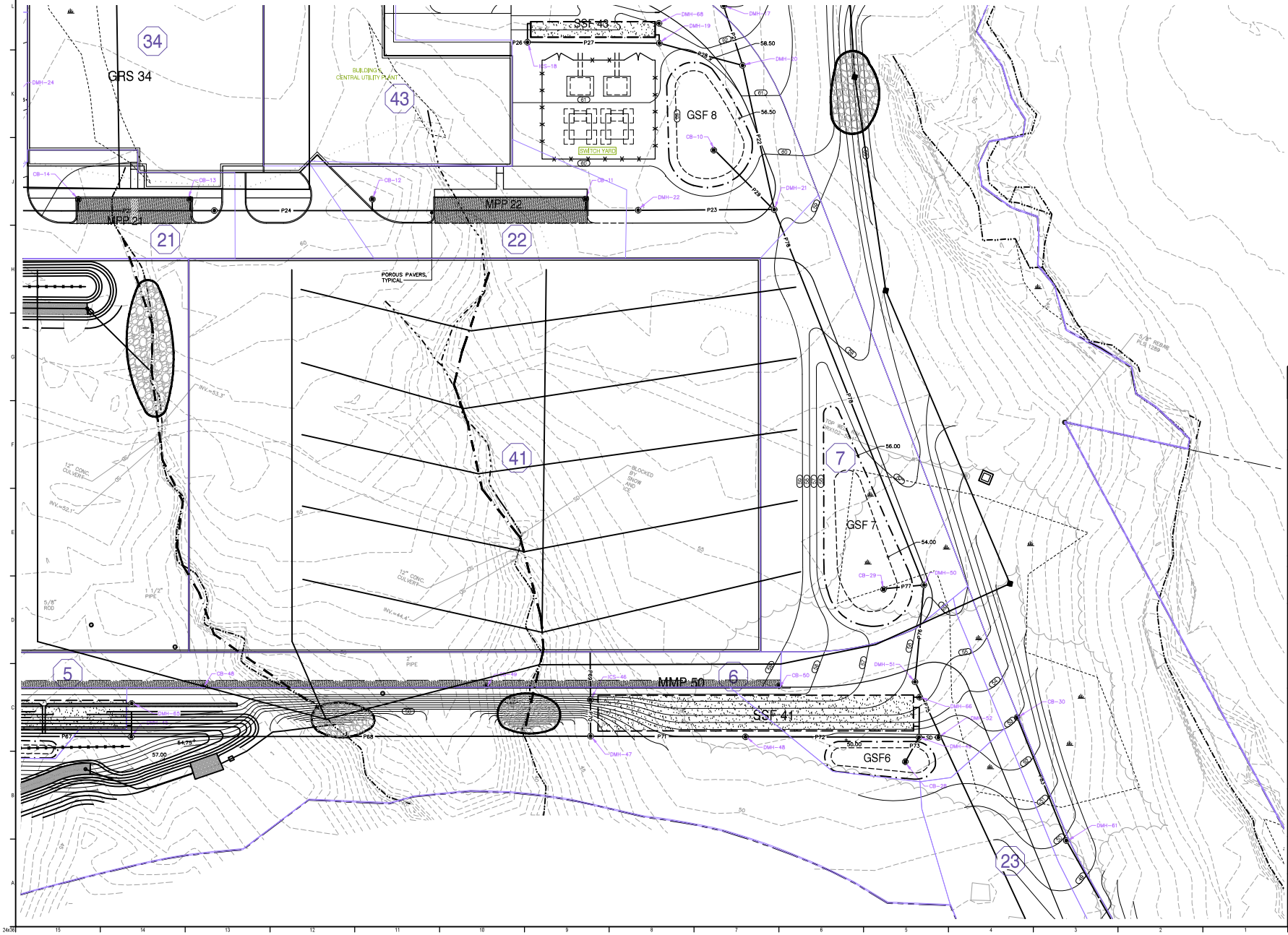
STORMWATER PLAN - AREA A

SCALE in FEET
1"=30'

PROJECT MANAGER: MPM | PROJECT NO: 171.05027
DRAWN BY: JAR

CQ-101

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MULTIPHASE PROJECT

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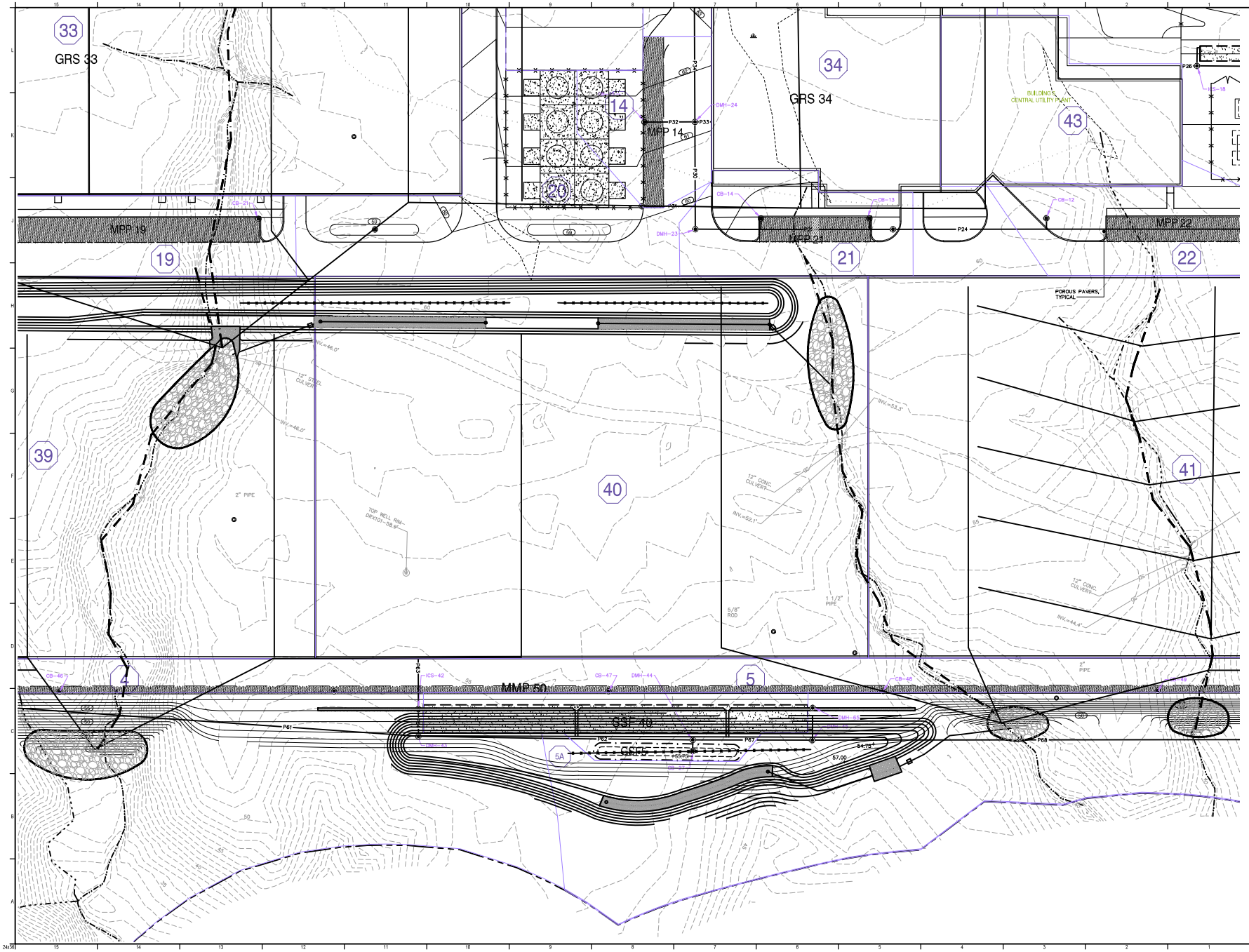
STORM WATER PLAN - AREA B

0 15 30 60
SCALE in FEET
1"=30'

PROJECT MANAGER: MPM | PROJECT NO: 171.05027
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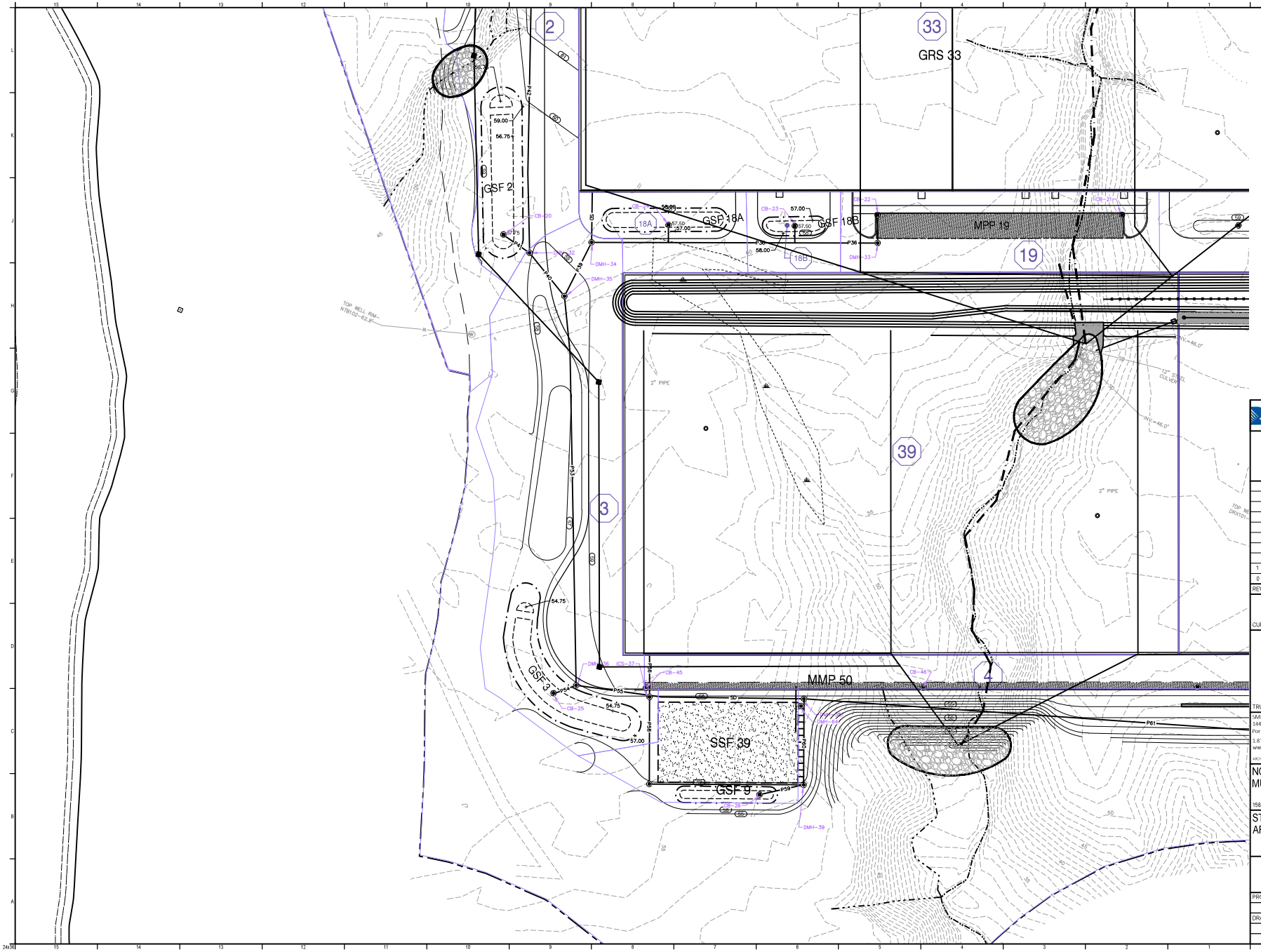
STORM WATER PLAN - AREA C

SCALE in FEET
1"=30'

PROJECT MANAGER: MPM | PROJECT NO: 171.05027
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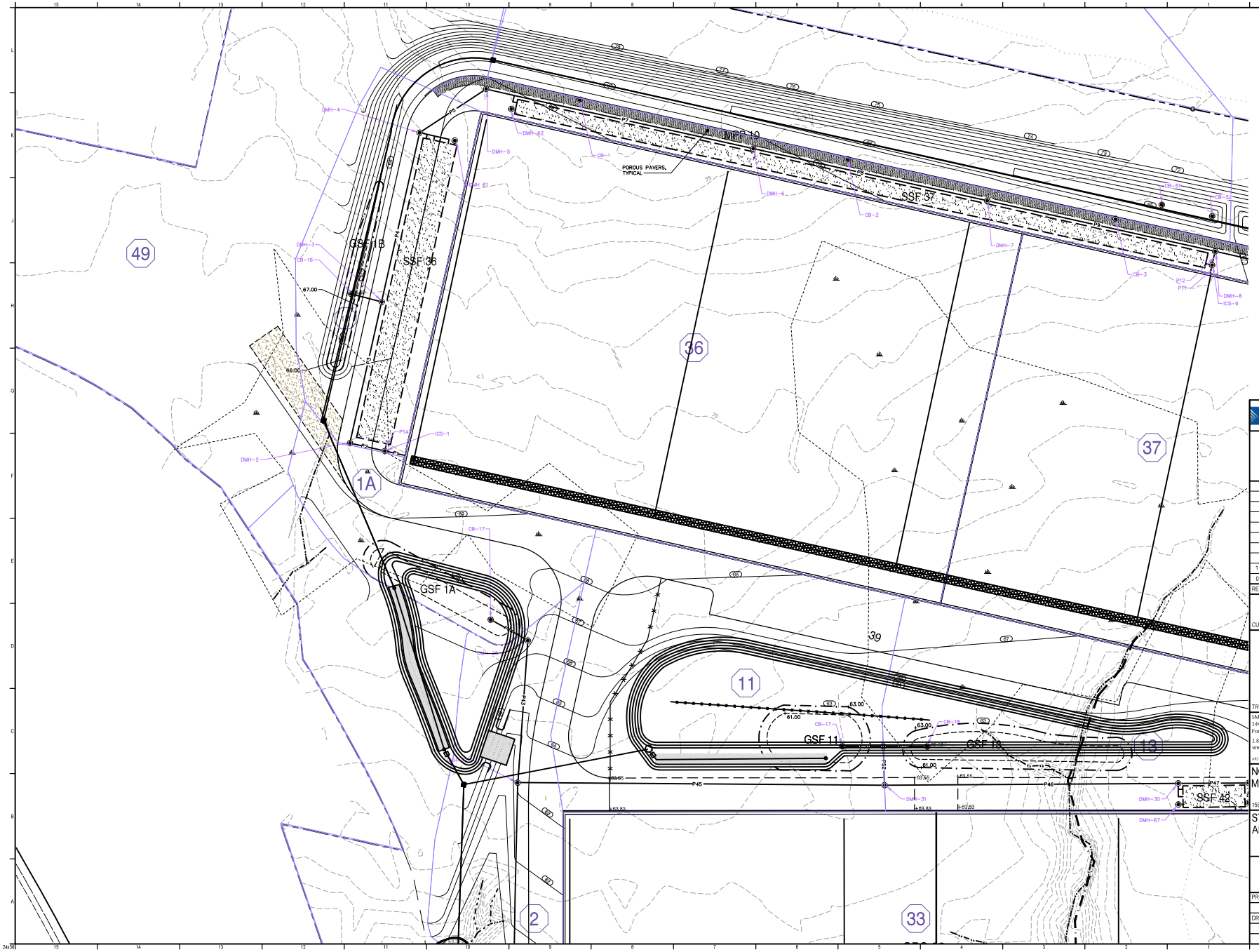
STORM WATER PLAN -
AREA D

0 15 30 60
SCALE in FEET
1"=30'

PROJECT MANAGER: MPM | PROJECT NO: 171.05027
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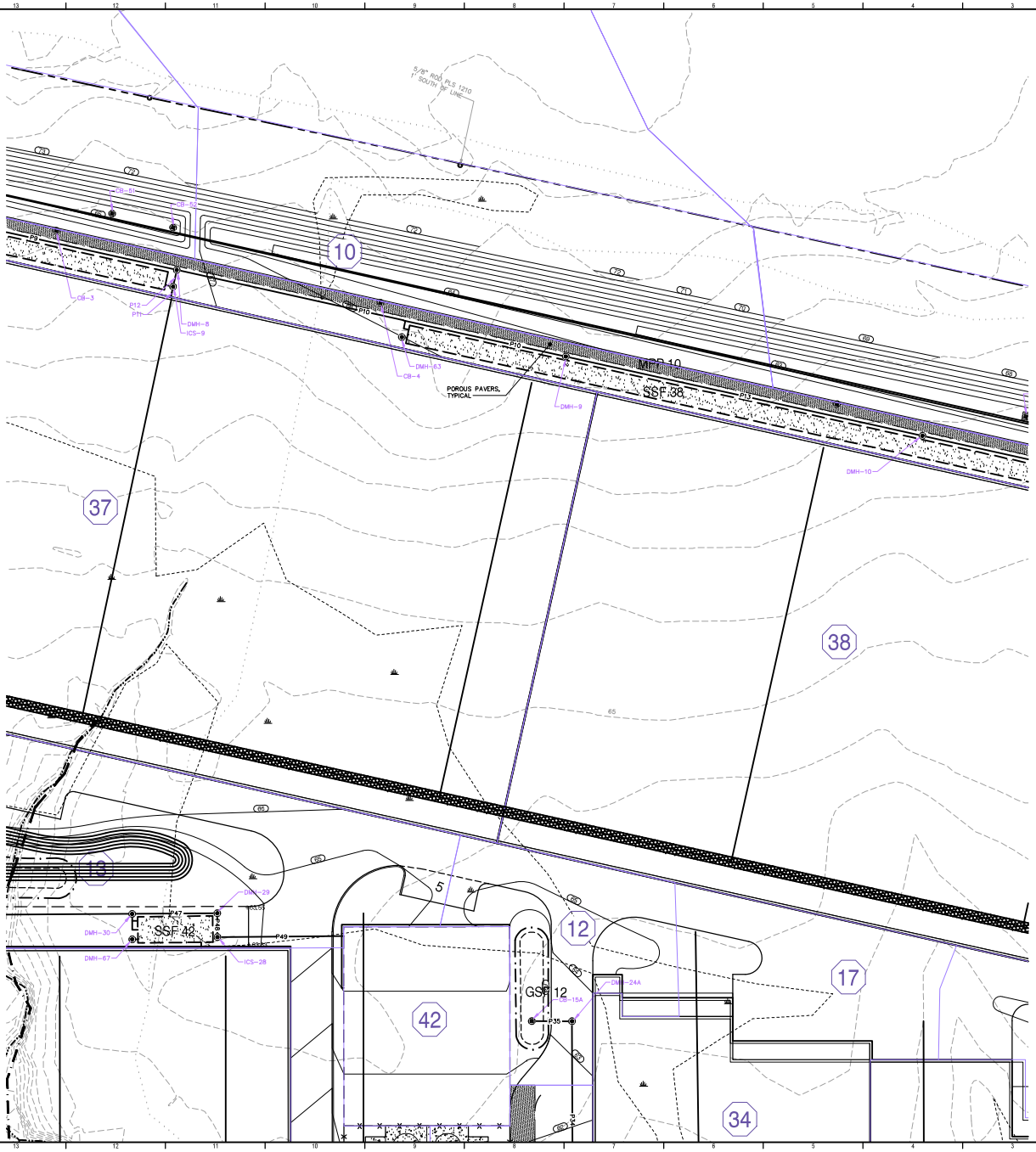
STORM WATER PLAN - AREA E

SCALE in FEET
1"=30'

PROJECT MANAGER: MPM | PROJECT NO: 171.05027
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MULTIPHASE PROJECT

158 HIGH STREET, BELFAST, MAINE

STORM WATER PLAN - AREA F

0 15 30 60
SCALE in FEET
1"=30'

PROJECT MANAGER: MPM | PROJECT NO.: 171.05027
DRAWN BY: JAR

CQ-106

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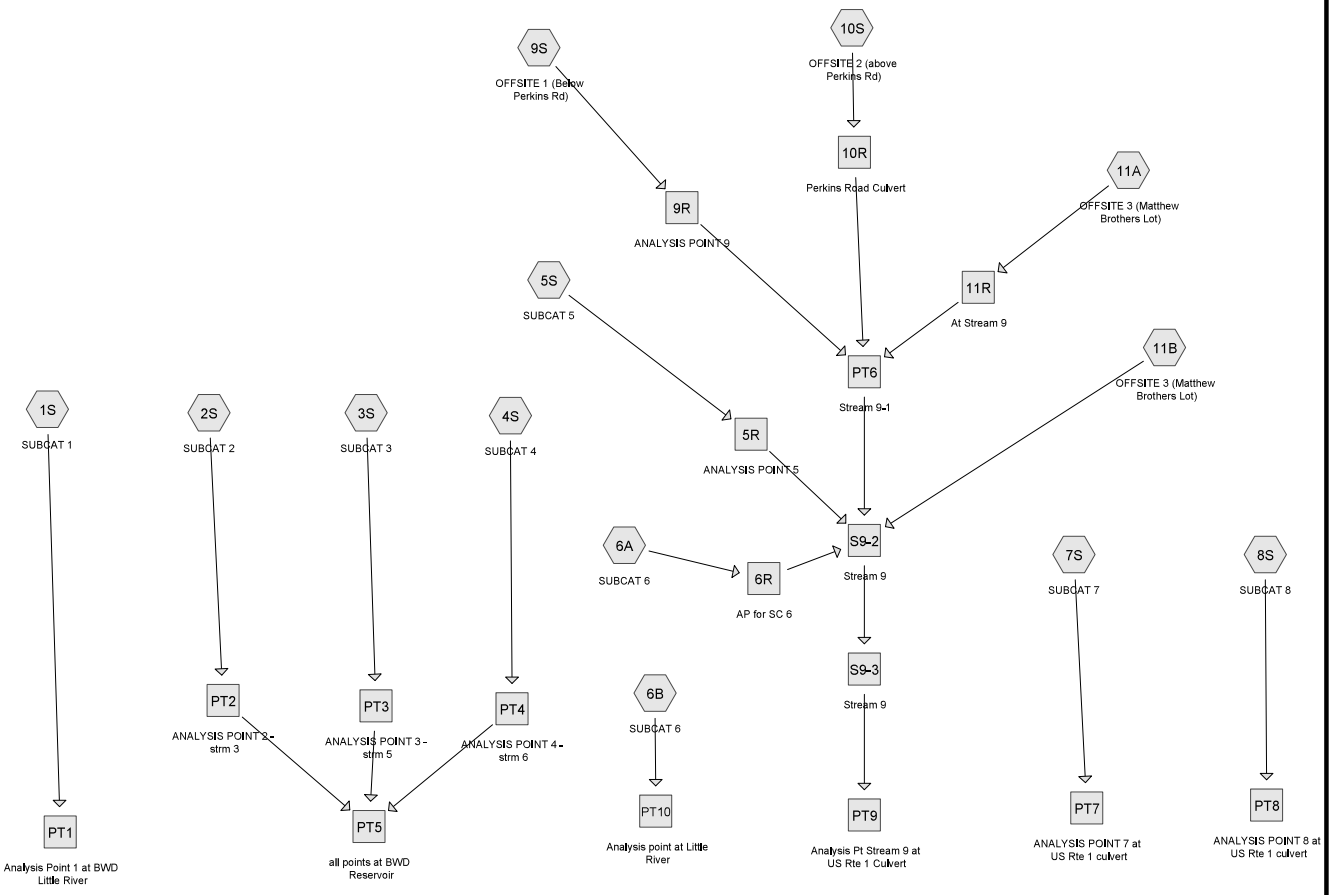
STORM WATER PLAN -
AREA G

0 15 30 60
SCALE in FEET
1"=30'

PROJECT MANAGER: MPM | PROJECT NO.: 171.05027
DRAWN BY: JAR

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Subcat Reach Pond Link

Routing Diagram for pre conditions

Prepared by HP Inc., Printed 11/4/2019

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
22.819	74	>75% Grass cover, Good, HSG C (3S, 4S, 5S, 9S)
38.457	74	>75% Grass cover, Good, HSG C/D (2S, 6A, 7S, 8S, 10S, 11A, 11B)
1.194	80	>75% Grass cover, Good, HSG D (6A, 6B)
0.179	96	Gravel (6A)
4.625	98	Impervious (6A, 6B, 9S, 10S, 11A, 11B)
8.399	70	Woods, Good, HSG C (1S, 3S, 4S, 5S, 9S)
40.222	70	Woods, Good, HSG C/D (1S, 2S, 6A, 6B, 7S, 8S, 10S, 11A, 11B)
0.735	77	Woods, Good, HSG D (6A, 6B)
0.449	98	impervious (3S, 4S)
117.078	**73**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
109.896	HSG C	1S, 2S, 3S, 4S, 5S, 6A, 6B, 7S, 8S, 9S, 10S, 11A, 11B
1.929	HSG D	6A, 6B
5.253	Other	3S, 4S, 6A, 6B, 9S, 10S, 11A, 11B
117.078		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	61.276	1.194	0.000	62.469	>75% Grass cover, Good	2S, 3S, 4S, 5S, 6A, 6B, 7S, 8S, 9S, 10S, 11A, 11B
0.000	0.000	0.000	0.000	0.179	0.179	Gravel	6A
0.000	0.000	0.000	0.000	4.625	4.625	Impervious	6A, 6B, 9S, 10S, 11A, 11B
0.000	0.000	48.620	0.735	0.000	49.355	Woods, Good	1S, 2S, 3S, 4S, 5S, 6A, 6B, 7S, 8S, 9S, 10S, 11A, 11B
0.000	0.000	0.000	0.000	0.449	0.449	impervious	3S, 4S
0.000	**0.000**	**109.896**	**1.929**	**5.253**	**117.078**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	10R	75.50	75.00	25.0	0.0200	0.013	24.0	0.0	0.0
2	PT7	21.60	18.30	83.0	0.0398	0.013	18.0	0.0	0.0
3	PT8	23.40	18.60	76.0	0.0632	0.011	36.0	24.0	0.0
4	PT9	20.00	14.00	93.0	0.0645	0.011	36.0	0.0	0.0

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: SUBCAT1 Runoff Area=316,158 sf 0.00% Impervious Runoff Depth>0.58"
Flow Length=898' Tc=57.7 min CN=70 Runoff=1.92 cfs 0.348 af

Subcatchment2S: SUBCAT2 Runoff Area=798,833 sf 0.00% Impervious Runoff Depth>0.60"
Flow Length=1,955' Tc=99.4 min CN=71 Runoff=3.71 cfs 0.917 af

Subcatchment3S: SUBCAT3 Runoff Area=537,749 sf 1.52% Impervious Runoff Depth>0.71"
Flow Length=1,933' Tc=40.6 min CN=73 Runoff=5.12 cfs 0.729 af

Subcatchment4S: SUBCAT4 Runoff Area=486,307 sf 2.34% Impervious Runoff Depth>0.76"
Flow Length=1,750' Tc=39.4 min CN=74 Runoff=5.06 cfs 0.703 af

Subcatchment5S: SUBCAT5 Runoff Area=218,524 sf 0.00% Impervious Runoff Depth>0.71"
Flow Length=839' Tc=31.3 min CN=73 Runoff=2.36 cfs 0.298 af

Subcatchment6A: SUBCAT6 Runoff Area=250,554 sf 4.38% Impervious Runoff Depth>0.75"
Flow Length=445' Tc=41.6 min CN=74 Runoff=2.54 cfs 0.362 af

Subcatchment6B: SUBCAT6 Runoff Area=92,095 sf 26.07% Impervious Runoff Depth>1.20"
Tc=6.0 min CN=82 Runoff=3.14 cfs 0.212 af

Subcatchment7S: SUBCAT7 Runoff Area=96,383 sf 0.00% Impervious Runoff Depth>0.57"
Flow Length=541' Tc=64.7 min CN=70 Runoff=0.55 cfs 0.106 af

Subcatchment8S: SUBCAT8 Runoff Area=14,976 sf 0.00% Impervious Runoff Depth>0.62"
Flow Length=276' Tc=34.7 min CN=71 Runoff=0.13 cfs 0.018 af

Subcatchment9S: OFFSITE1 (Below Runoff Area=130,002 sf 4.57% Impervious Runoff Depth>0.81"
Flow Length=561' Tc=26.6 min CN=75 Runoff=1.75 cfs 0.201 af

Subcatchment10S: OFFSITE2 (above Runoff Area=1,644,982 sf 2.57% Impervious Runoff Depth>0.73"
Flow Length=2,221' Tc=94.2 min CN=74 Runoff=10.03 cfs 2.307 af

Subcatchment11A: OFFSITE3 (Matthew Runoff Area=192,533 sf 59.04% Impervious Runoff Depth>1.54"
Flow Length=532' Tc=6.8 min CN=87 Runoff=8.21 cfs 0.568 af

Subcatchment11B: OFFSITE3 (Matthew Runoff Area=320,814 sf 1.43% Impervious Runoff Depth>0.67"
Flow Length=528' Tc=18.9 min CN=72 Runoff=3.94 cfs 0.412 af

Reach 5R: ANALYSISPOINT5 Inflow=2.36 cfs 0.298 af
Outflow=2.36 cfs 0.298 af

Reach 6R: AP for SC 6 Inflow=2.54 cfs 0.362 af
Outflow=2.54 cfs 0.362 af

Reach 9R: ANALYSISPOINT9 Inflow=1.75 cfs 0.201 af
Outflow=1.75 cfs 0.201 af

Reach 10R: Perkins Road Culvert Avg. Flow Depth=0.77' Max Vel=9.01 fps Inflow=10.03 cfs 2.307 af
24.0" Round Pipe n=0.013 L=25.0' S=0.0200 '/' Capacity=31.99 cfs Outflow=10.03 cfs 2.307 af

Reach 11R: At Stream 9 Inflow=8.21 cfs 0.568 af
Outflow=8.21 cfs 0.568 af

Reach PT1: Analysis Point 1 at BWD Little River Inflow=1.92 cfs 0.348 af
Outflow=1.92 cfs 0.348 af

Reach PT10: Analysis point at Little River Inflow=3.14 cfs 0.212 af
Outflow=3.14 cfs 0.212 af

Reach PT2: ANALYSIS POINT 2 - strm 3 Inflow=3.71 cfs 0.917 af
Outflow=3.71 cfs 0.917 af

Reach PT3: ANALYSIS POINT 3 - strm 5 Inflow=5.12 cfs 0.729 af
Outflow=5.12 cfs 0.729 af

Reach PT4: ANALYSIS POINT 4 - strm 6 Inflow=5.06 cfs 0.703 af
Outflow=5.06 cfs 0.703 af

Reach PT5: all points at BWD Reservoir Inflow=11.35 cfs 2.349 af
Outflow=11.35 cfs 2.349 af

Reach PT6: Stream 9-1 Avg. Flow Depth=0.53' Max Vel=3.44 fps Inflow=11.15 cfs 3.075 af
n=0.030 L=483.0' S=0.0145 '/' Capacity=535.88 cfs Outflow=11.12 cfs 3.063 af

Reach PT7: ANALYSIS POINT 7 at US Avg. Flow Depth=0.17' Max Vel=5.08 fps Inflow=0.55 cfs 0.106 af
18.0" Round Pipe n=0.013 L=83.0' S=0.0398 '/' Capacity=20.95 cfs Outflow=0.55 cfs 0.106 af

Reach PT8: ANALYSIS POINT 8 at US Avg. Flow Depth=0.02' Max Vel=2.48 fps Inflow=0.13 cfs 0.018 af
36.0" x 24.0" Box Pipe n=0.011 L=76.0' S=0.0632 '/' Capacity=144.91 cfs Outflow=0.13 cfs 0.018 af

Reach PT9: Analysis Pt Stream 9 at Avg. Flow Depth=0.54' Max Vel=16.35 fps Inflow=14.15 cfs 4.079 af
36.0" Round Pipe n=0.011 L=93.0' S=0.0645 '/' Capacity=200.22 cfs Outflow=14.14 cfs 4.079 af

Reach S9-2: Stream 9 Avg. Flow Depth=0.53' Max Vel=4.36 fps Inflow=14.28 cfs 4.135 af
n=0.030 L=1,580.0' S=0.0233 '/' Capacity=161.21 cfs Outflow=14.17 cfs 4.091 af

Reach S9-3: Stream 9 Avg. Flow Depth=0.54' Max Vel=3.95 fps Inflow=14.17 cfs 4.091 af
n=0.030 L=364.0' S=0.0199 '/' Capacity=177.67 cfs Outflow=14.15 cfs 4.079 af

Total Runoff Area = 117.078 ac Runoff Volume = 7.180 af Average Runoff Depth = 0.74"
95.67% Pervious = 112.004 ac 4.33% Impervious = 5.074 ac

Summary for Subcatchment 1S: SUBCAT 1

Runoff = 1.92 cfs @ 12.89 hrs, Volume= 0.348 af, Depth> 0.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	303,390	70	Woods, Good, HSG C/D
	12,768	70	Woods, Good, HSG C
	316,158	70	Weighted Average
	316,158		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.6	88	0.0450	0.06		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
3.5	65	0.0150	0.31		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.0	72	0.0550	0.59		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
25.6	470	0.0150	0.31		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
1.0	203	0.1000	3.41	13.64	**Trap/Vee/Rect Channel Flow, e-f** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
57.7	898	Total			

Summary for Subcatchment 2S: SUBCAT 2

Runoff = 3.71 cfs @ 13.48 hrs, Volume= 0.917 af, Depth> 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	653,559	70	Woods, Good, HSG C/D
*	145,274	74	>75% Grass cover, Good, HSG C/D
	798,833	71	Weighted Average
	798,833		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
46.5	206	0.0050	0.07		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
5.6	258	0.0120	0.77		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
7.3	267	0.0600	0.61		**Shallow Concentrated Flow, C-D** Forest w/Heavy Litter Kv= 2.5 fps
13.3	199	0.0100	0.25		**Shallow Concentrated Flow, D-E** Forest w/Heavy Litter Kv= 2.5 fps
1.2	41	0.0490	0.55		**Shallow Concentrated Flow, E-F** Forest w/Heavy Litter Kv= 2.5 fps
22.1	468	0.0200	0.35		**Shallow Concentrated Flow, F-G** Forest w/Heavy Litter Kv= 2.5 fps
3.4	516	0.0550	2.53	10.11	**Trap/Vee/Rect Channel Flow, G-H** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
99.4	1,955	Total			

Summary for Subcatchment 3S: SUBCAT 3

Runoff = 5.12 cfs @ 12.62 hrs, Volume= 0.729 af, Depth> 0.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	8,178	98	impervious
	366,332	74	>75% Grass cover, Good, HSG C
	163,239	70	Woods, Good, HSG C
	537,749	73	Weighted Average
	529,571		98.48% Pervious Area
	8,178		1.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	22	0.0900	1.77		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
10.8	691	0.0230	1.06		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
3.4	155	0.0230	0.76		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
9.3	372	0.0090	0.66		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
2.3	134	0.0190	0.96		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
12.6	254	0.0180	0.34		**Shallow Concentrated Flow, F-G** Forest w/Heavy Litter Kv= 2.5 fps
2.0	305	0.0560	2.55	10.21	**Trap/Vee/Rect Channel Flow, G-H** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
40.6	1,933	Total			

Summary for Subcatchment 4S: SUBCAT 4

Runoff = 5.06 cfs @ 12.60 hrs, Volume= 0.703 af, Depth> 0.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	11,390	98	impervious
	346,747	74	>75% Grass cover, Good, HSG C
	128,170	70	Woods, Good, HSG C
	486,307	74	Weighted Average
	474,917		97.66% Pervious Area
	11,390		2.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.3	163	0.0250	0.13		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
7.7	469	0.0210	1.01		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
5.9	545	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
2.2	184	0.0380	1.36		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
3.3	389	0.0330	1.96	7.83	**Trap/Vee/Rect Channel Flow, e-f** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
39.4	1,750	Total			

Summary for Subcatchment 5S: SUBCAT 5

Runoff = 2.36 cfs @ 12.49 hrs, Volume= 0.298 af, Depth> 0.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

Area (sf)	CN	Description
45,100	70	Woods, Good, HSG C
173,424	74	>75% Grass cover, Good, HSG C
218,524	73	Weighted Average
218,524		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.0	198	0.0270	0.14		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
2.9	146	0.0140	0.83		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
3.8	285	0.0320	1.25		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
1.6	210	0.0430	2.24	8.94	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
31.3	839	Total			

Summary for Subcatchment 6A: SUBCAT 6

Runoff = 2.54 cfs @ 12.63 hrs, Volume= 0.362 af, Depth> 0.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	139,667	70	Woods, Good, HSG C/D
*	62,587	74	>75% Grass cover, Good, HSG C/D
	19,893	80	>75% Grass cover, Good, HSG D
*	7,818	96	Gravel
*	10,965	98	Impervious
	9,624	77	Woods, Good, HSG D
	250,554	74	Weighted Average
	239,589		95.62% Pervious Area
	10,965		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
5.2	92	0.0140	0.30		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
1.8	74	0.0100	0.70		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
1.7	163	0.0550	1.64		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
0.8	39	0.1000	0.79		**Shallow Concentrated Flow, e-f** Forest w/Heavy Litter Kv= 2.5 fps
0.1	10	0.5000	1.77		**Shallow Concentrated Flow, f-g** Forest w/Heavy Litter Kv= 2.5 fps
41.6	445	Total			

Summary for Subcatchment 6B: SUBCAT 6

Runoff = 3.14 cfs @ 12.10 hrs, Volume= 0.212 af, Depth> 1.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	13,593	70	Woods, Good, HSG C/D
	32,096	80	>75% Grass cover, Good, HSG D
*	24,006	98	Impervious
	22,400	77	Woods, Good, HSG D
	92,095	82	Weighted Average
	68,089		73.93% Pervious Area
	24,006		26.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, direct entry**

Summary for Subcatchment 7S: SUBCAT 7

Runoff = 0.55 cfs @ 12.99 hrs, Volume= 0.106 af, Depth> 0.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	93,505	70	Woods, Good, HSG C/D
*	2,878	74	>75% Grass cover, Good, HSG C/D
	96,383	70	Weighted Average
	96,383		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
54.6	172	0.0260	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
2.8	112	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	13	0.2300	1.20		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.6	171	0.0300	0.43		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
0.5	73	0.0600	2.64	10.56	**Trap/Vee/Rect Channel Flow, e-f** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
64.7	541	Total			

Summary for Subcatchment 8S: SUBCAT 8

Runoff = 0.13 cfs @ 12.55 hrs, Volume= 0.018 af, Depth> 0.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	12,652	70	Woods, Good, HSG C/D
*	2,324	74	>75% Grass cover, Good, HSG C/D
	14,976	71	Weighted Average
	14,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
1.1	43	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.7100	2.11		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
1.5	152	0.0240	1.67	6.68	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100
34.7	276	Total			

Summary for Subcatchment 9S: OFFSITE 1 (Below Perkins Rd)

Runoff = 1.75 cfs @ 12.41 hrs, Volume= 0.201 af, Depth> 0.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	5,945	98	Impervious
	16,570	70	Woods, Good, HSG C
	107,487	74	>75% Grass cover, Good, HSG C
	130,002	75	Weighted Average
	124,057		95.43% Pervious Area
	5,945		4.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	90	0.0110	0.09		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
1.5	171	0.0700	1.85		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
6.9	257	0.0620	0.62		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.7	43	0.1860	1.08		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
26.6	561	Total			

Summary for Subcatchment 10S: OFFSITE 2 (above Perkins Rd)

Runoff = 10.03 cfs @ 13.35 hrs, Volume= 2.307 af, Depth> 0.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	298,066	70	Woods, Good, HSG C/D
*	42,276	98	Impervious
*	1,304,640	74	>75% Grass cover, Good, HSG C/D
	1,644,982	74	Weighted Average
	1,602,706		97.43% Pervious Area
	42,276		2.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.2	141	0.0280	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
15.3	384	0.0280	0.42		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.5	227	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
18.6	780	0.0100	0.70		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
12.6	689	0.0170	0.91		**Shallow Concentrated Flow, e-f** Short Grass Pasture Kv= 7.0 fps
94.2	2,221	Total			

Summary for Subcatchment 11A: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 8.21 cfs @ 12.10 hrs, Volume= 0.568 af, Depth> 1.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	113,681	98	Impervious
*	33,806	70	Woods, Good, HSG C/D
*	45,046	74	>75% Grass cover, Good, HSG C/D
	192,533	87	Weighted Average
	78,852		40.96% Pervious Area
	113,681		59.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	16	0.1870	2.22		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
4.7	419	0.0100	1.50		**Shallow Concentrated Flow, b-c** Grassed Waterway Kv= 15.0 fps
2.0	97	0.1000	0.79		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.8	532	Total			

Summary for Subcatchment 11B: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 3.94 cfs @ 12.30 hrs, Volume= 0.412 af, Depth> 0.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	4,576	98	Impervious
*	203,815	70	Woods, Good, HSG C/D
*	112,423	74	>75% Grass cover, Good, HSG C/D
	320,814	72	Weighted Average
	316,238		98.57% Pervious Area
	4,576		1.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	96	0.0880	0.13		**Sheet Flow, a-b** Woods: Light underbrush n= 0.400 P2= 2.90"
4.6	357	0.0340	1.29		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
2.2	75	0.0534	0.58		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
18.9	528	Total			

Summary for Reach 5R: ANALYSIS POINT 5

Inflow Area = 5.017 ac, 0.00% Impervious, Inflow Depth > 0.71" for 2-year event
Inflow = 2.36 cfs @ 12.49 hrs, Volume= 0.298 af
Outflow = 2.36 cfs @ 12.49 hrs, Volume= 0.298 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 6R: AP for SC 6

Inflow Area = 5.752 ac, 4.38% Impervious, Inflow Depth > 0.75" for 2-year event
Inflow = 2.54 cfs @ 12.63 hrs, Volume= 0.362 af
Outflow = 2.54 cfs @ 12.63 hrs, Volume= 0.362 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 9R: ANALYSIS POINT 9

Inflow Area = 2.984 ac, 4.57% Impervious, Inflow Depth > 0.81" for 2-year event
Inflow = 1.75 cfs @ 12.41 hrs, Volume= 0.201 af
Outflow = 1.75 cfs @ 12.41 hrs, Volume= 0.201 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

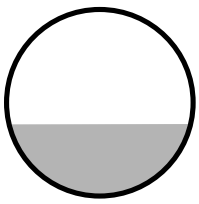
Summary for Reach 10R: Perkins Road Culvert

Inflow Area = 37.764 ac, 2.57% Impervious, Inflow Depth > 0.73" for 2-year event
Inflow = 10.03 cfs @ 13.35 hrs, Volume= 2.307 af
Outflow = 10.03 cfs @ 13.36 hrs, Volume= 2.307 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Max. Velocity= 9.01 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 5.80 fps, Avg. Travel Time= 0.1 min

Peak Storage= 28 cf @ 13.35 hrs
Average Depth at Peak Storage= 0.77'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.99 cfs

24.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 25.0' Slope= 0.0200 '/'
Inlet Invert= 75.50', Outlet Invert= 75.00'



Summary for Reach 11R: At Stream 9

Inflow Area = 4.420 ac, 59.04% Impervious, Inflow Depth > 1.54" for 2-year event
Inflow = 8.21 cfs @ 12.10 hrs, Volume= 0.568 af
Outflow = 8.21 cfs @ 12.10 hrs, Volume= 0.568 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT1: Analysis Point 1 at BWD Little River

Inflow Area = 7.258 ac, 0.00% Impervious, Inflow Depth > 0.58" for 2-year event
Inflow = 1.92 cfs @ 12.89 hrs, Volume= 0.348 af
Outflow = 1.92 cfs @ 12.89 hrs, Volume= 0.348 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT10: Analysis point at Little River

Inflow Area = 2.114 ac, 26.07% Impervious, Inflow Depth > 1.20" for 2-year event
Inflow = 3.14 cfs @ 12.10 hrs, Volume= 0.212 af
Outflow = 3.14 cfs @ 12.10 hrs, Volume= 0.212 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT2: ANALYSIS POINT 2 - strm 3

Inflow Area = 18.339 ac, 0.00% Impervious, Inflow Depth > 0.60" for 2-year event
Inflow = 3.71 cfs @ 13.48 hrs, Volume= 0.917 af
Outflow = 3.71 cfs @ 13.48 hrs, Volume= 0.917 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT3: ANALYSIS POINT 3 - strm 5

Inflow Area = 12.345 ac, 1.52% Impervious, Inflow Depth > 0.71" for 2-year event
Inflow = 5.12 cfs @ 12.62 hrs, Volume= 0.729 af
Outflow = 5.12 cfs @ 12.62 hrs, Volume= 0.729 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT4: ANALYSIS POINT 4 - strm 6

Inflow Area = 11.164 ac, 2.34% Impervious, Inflow Depth > 0.76" for 2-year event
Inflow = 5.06 cfs @ 12.60 hrs, Volume= 0.703 af
Outflow = 5.06 cfs @ 12.60 hrs, Volume= 0.703 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT5: all points at BWD Reservoir

Inflow Area = 41.848 ac, 1.07% Impervious, Inflow Depth > 0.67" for 2-year event
Inflow = 11.35 cfs @ 12.66 hrs, Volume= 2.349 af
Outflow = 11.35 cfs @ 12.66 hrs, Volume= 2.349 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT6: Stream 9-1

Inflow Area = 45.168 ac, 8.23% Impervious, Inflow Depth > 0.82" for 2-year event
Inflow = 11.15 cfs @ 13.32 hrs, Volume= 3.075 af
Outflow = 11.12 cfs @ 13.40 hrs, Volume= 3.063 af, Atten= 0%, Lag= 4.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.44 fps, Min. Travel Time= 2.3 min
Avg. Velocity = 1.86 fps, Avg. Travel Time= 4.3 min

Peak Storage= 1,562 cf @ 13.36 hrs
Average Depth at Peak Storage= 0.53'
Bank-Full Depth= 4.00' Flow Area= 52.0 sf, Capacity= 535.88 cfs

5.00' x 4.00' deep channel, n= 0.030 Stream, clean & straight
Side Slope Z-value= 2.0 '/' Top Width= 21.00'
Length= 483.0' Slope= 0.0145 '/'
Inlet Invert= 71.00', Outlet Invert= 64.00'



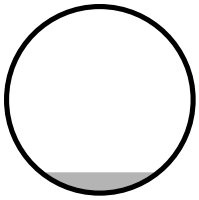
Summary for Reach PT7: ANALYSIS POINT 7 at US Rte 1 culvert

Inflow Area = 2.213 ac, 0.00% Impervious, Inflow Depth > 0.57" for 2-year event
Inflow = 0.55 cfs @ 12.99 hrs, Volume= 0.106 af
Outflow = 0.55 cfs @ 13.00 hrs, Volume= 0.106 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.08 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 3.22 fps, Avg. Travel Time= 0.4 min

Peak Storage= 9 cf @ 12.99 hrs
Average Depth at Peak Storage= 0.17'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0398 '/'
Inlet Invert= 21.60', Outlet Invert= 18.30'



Summary for Reach PT8: ANALYSIS POINT 8 at US Rte 1 culvert

Inflow Area = 0.344 ac, 0.00% Impervious, Inflow Depth > 0.62" for 2-year event
Inflow = 0.13 cfs @ 12.55 hrs, Volume= 0.018 af
Outflow = 0.13 cfs @ 12.57 hrs, Volume= 0.018 af, Atten= 0%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.48 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 2.48 fps, Avg. Travel Time= 0.5 min

Peak Storage= 4 cf @ 12.56 hrs
Average Depth at Peak Storage= 0.02'
Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 144.91 cfs

36.0" W x 24.0" H Box Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 76.0' Slope= 0.0632 '/'
Inlet Invert= 23.40', Outlet Invert= 18.60'



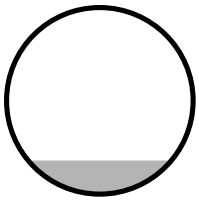
Summary for Reach PT9: Analysis Pt Stream 9 at US Rte 1 Culvert

Inflow Area = 63.301 ac, 6.44% Impervious, Inflow Depth > 0.77" for 2-year event
Inflow = 14.15 cfs @ 12.64 hrs, Volume= 4.079 af
Outflow = 14.14 cfs @ 12.64 hrs, Volume= 4.079 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 16.35 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 9.39 fps, Avg. Travel Time= 0.2 min

Peak Storage= 80 cf @ 12.64 hrs
Average Depth at Peak Storage= 0.54'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 200.22 cfs

36.0" Round Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 93.0' Slope= 0.0645 '/'
Inlet Invert= 20.00', Outlet Invert= 14.00'



Summary for Reach S9-2: Stream 9

Inflow Area = 63.301 ac, 6.44% Impervious, Inflow Depth > 0.78" for 2-year event
Inflow = 14.28 cfs @ 12.43 hrs, Volume= 4.135 af
Outflow = 14.17 cfs @ 12.59 hrs, Volume= 4.091 af, Atten= 1%, Lag= 9.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.36 fps, Min. Travel Time= 6.0 min
Avg. Velocity = 2.32 fps, Avg. Travel Time= 11.4 min

Peak Storage= 5,129 cf @ 12.49 hrs
Average Depth at Peak Storage= 0.53'
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 161.21 cfs

5.00' x 2.00' deep channel, n= 0.030 Stream, clean & straight
Side Slope Z-value= 2.0 '/' Top Width= 13.00'
Length= 1,580.0' Slope= 0.0233 '/'
Inlet Invert= 64.00', Outlet Invert= 27.25'



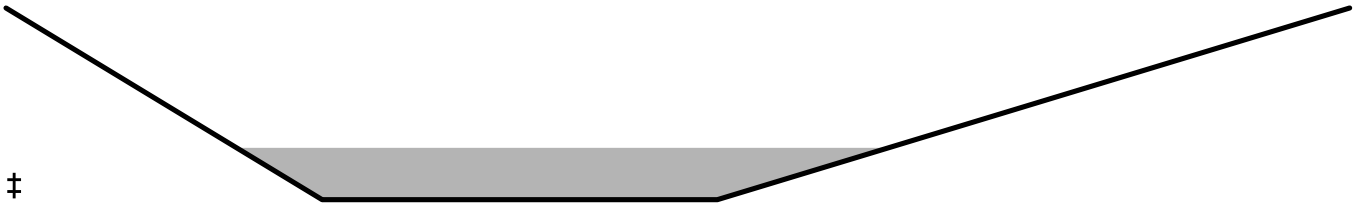
Summary for Reach S9-3: Stream 9

Inflow Area = 63.301 ac, 6.44% Impervious, Inflow Depth > 0.78" for 2-year event
Inflow = 14.17 cfs @ 12.59 hrs, Volume= 4.091 af
Outflow = 14.15 cfs @ 12.64 hrs, Volume= 4.079 af, Atten= 0%, Lag= 2.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.95 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 2.13 fps, Avg. Travel Time= 2.8 min

Peak Storage= 1,305 cf @ 12.61 hrs
Average Depth at Peak Storage= 0.54'
Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 177.67 cfs

5.00' x 2.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 2.0 4.0 '/' Top Width= 17.00'
Length= 364.0' Slope= 0.0199 '/'
Inlet Invert= 27.25', Outlet Invert= 20.00'



‡

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: SUBCAT1 Runoff Area=316,158 sf 0.00% Impervious Runoff Depth>1.31"
Flow Length=898' Tc=57.7 min CN=70 Runoff=4.77 cfs 0.792 af

Subcatchment2S: SUBCAT2 Runoff Area=798,833 sf 0.00% Impervious Runoff Depth>1.34"
Flow Length=1,955' Tc=99.4 min CN=71 Runoff=8.95 cfs 2.055 af

Subcatchment3S: SUBCAT3 Runoff Area=537,749 sf 1.52% Impervious Runoff Depth>1.52"
Flow Length=1,933' Tc=40.6 min CN=73 Runoff=11.54 cfs 1.560 af

Subcatchment4S: SUBCAT4 Runoff Area=486,307 sf 2.34% Impervious Runoff Depth>1.59"
Flow Length=1,750' Tc=39.4 min CN=74 Runoff=11.11 cfs 1.476 af

Subcatchment5S: SUBCAT5 Runoff Area=218,524 sf 0.00% Impervious Runoff Depth>1.52"
Flow Length=839' Tc=31.3 min CN=73 Runoff=5.32 cfs 0.637 af

Subcatchment6A: SUBCAT6 Runoff Area=250,554 sf 4.38% Impervious Runoff Depth>1.58"
Flow Length=445' Tc=41.6 min CN=74 Runoff=5.56 cfs 0.760 af

Subcatchment6B: SUBCAT6 Runoff Area=92,095 sf 26.07% Impervious Runoff Depth>2.22"
Tc=6.0 min CN=82 Runoff=5.77 cfs 0.390 af

Subcatchment7S: SUBCAT7 Runoff Area=96,383 sf 0.00% Impervious Runoff Depth>1.30"
Flow Length=541' Tc=64.7 min CN=70 Runoff=1.36 cfs 0.241 af

Subcatchment8S: SUBCAT8 Runoff Area=14,976 sf 0.00% Impervious Runoff Depth>1.39"
Flow Length=276' Tc=34.7 min CN=71 Runoff=0.31 cfs 0.040 af

Subcatchment9S: OFFSITE1 (Below Runoff Area=130,002 sf 4.57% Impervious Runoff Depth>1.66"
Flow Length=561' Tc=26.6 min CN=75 Runoff=3.73 cfs 0.414 af

Subcatchment10S: OFFSITE2 (above Runoff Area=1,644,982 sf 2.57% Impervious Runoff Depth>1.55"
Flow Length=2,221' Tc=94.2 min CN=74 Runoff=22.26 cfs 4.868 af

Subcatchment11A: OFFSITE3 (Matthew Runoff Area=192,533 sf 59.04% Impervious Runoff Depth>2.65"
Flow Length=532' Tc=6.8 min CN=87 Runoff=13.88 cfs 0.976 af

Subcatchment11B: OFFSITE3 (Matthew Runoff Area=320,814 sf 1.43% Impervious Runoff Depth>1.46"
Flow Length=528' Tc=18.9 min CN=72 Runoff=9.20 cfs 0.898 af

Reach 5R: ANALYSISPOINT5 Inflow=5.32 cfs 0.637 af
Outflow=5.32 cfs 0.637 af

Reach 6R: AP for SC 6 Inflow=5.56 cfs 0.760 af
Outflow=5.56 cfs 0.760 af

Reach 9R: ANALYSISPOINT9 Inflow=3.73 cfs 0.414 af
Outflow=3.73 cfs 0.414 af

Reach 10R: Perkins Road Culvert Avg. Flow Depth=1.23' Max Vel=11.00 fps Inflow=22.26 cfs 4.868 af
24.0" Round Pipe n=0.013 L=25.0' S=0.0200 '/' Capacity=31.99 cfs Outflow=22.25 cfs 4.868 af

Reach 11R: At Stream 9 Inflow=13.88 cfs 0.976 af
Outflow=13.88 cfs 0.976 af

Reach PT1: Analysis Point 1 at BWD Little River Inflow=4.77 cfs 0.792 af
Outflow=4.77 cfs 0.792 af

Reach PT10: Analysis point at Little River Inflow=5.77 cfs 0.390 af
Outflow=5.77 cfs 0.390 af

Reach PT2: ANALYSIS POINT 2 - strm 3 Inflow=8.95 cfs 2.055 af
Outflow=8.95 cfs 2.055 af

Reach PT3: ANALYSIS POINT 3 - strm 5 Inflow=11.54 cfs 1.560 af
Outflow=11.54 cfs 1.560 af

Reach PT4: ANALYSIS POINT 4 - strm 6 Inflow=11.11 cfs 1.476 af
Outflow=11.11 cfs 1.476 af

Reach PT5: all points at BWD Reservoir Inflow=26.07 cfs 5.091 af
Outflow=26.07 cfs 5.091 af

Reach PT6: Stream 9-1 Avg. Flow Depth=0.83' Max Vel=4.39 fps Inflow=24.15 cfs 6.258 af
n=0.030 L=483.0' S=0.0145 '/' Capacity=535.88 cfs Outflow=24.10 cfs 6.240 af

Reach PT7: ANALYSIS POINT 7 at US Avg. Flow Depth=0.26' Max Vel=6.67 fps Inflow=1.36 cfs 0.241 af
18.0" Round Pipe n=0.013 L=83.0' S=0.0398 '/' Capacity=20.95 cfs Outflow=1.36 cfs 0.240 af

Reach PT8: ANALYSIS POINT 8 at US Avg. Flow Depth=0.03' Max Vel=3.45 fps Inflow=0.31 cfs 0.040 af
36.0" x 24.0" Box Pipe n=0.011 L=76.0' S=0.0632 '/' Capacity=144.91 cfs Outflow=0.31 cfs 0.040 af

Reach PT9: Analysis Pt Stream 9 at Avg. Flow Depth=0.80' Max Vel=20.65 fps Inflow=31.52 cfs 8.457 af
36.0" Round Pipe n=0.011 L=93.0' S=0.0645 '/' Capacity=200.22 cfs Outflow=31.51 cfs 8.456 af

Reach S9-2: Stream 9 Avg. Flow Depth=0.84' Max Vel=5.62 fps Inflow=31.74 cfs 8.535 af
n=0.030 L=1,580.0' S=0.0233 '/' Capacity=161.21 cfs Outflow=31.56 cfs 8.473 af

Reach S9-3: Stream 9 Avg. Flow Depth=0.84' Max Vel=5.02 fps Inflow=31.56 cfs 8.473 af
n=0.030 L=364.0' S=0.0199 '/' Capacity=177.67 cfs Outflow=31.52 cfs 8.457 af

Total Runoff Area = 117.078 ac Runoff Volume = 15.106 af Average Runoff Depth = 1.55"
95.67% Pervious = 112.004 ac 4.33% Impervious = 5.074 ac

Summary for Subcatchment 1S: SUBCAT 1

Runoff = 4.77 cfs @ 12.83 hrs, Volume= 0.792 af, Depth> 1.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	303,390	70	Woods, Good, HSG C/D
	12,768	70	Woods, Good, HSG C
	316,158	70	Weighted Average
	316,158		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.6	88	0.0450	0.06		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
3.5	65	0.0150	0.31		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.0	72	0.0550	0.59		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
25.6	470	0.0150	0.31		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
1.0	203	0.1000	3.41	13.64	**Trap/Vee/Rect Channel Flow, e-f** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
57.7	898	Total			

Summary for Subcatchment 2S: SUBCAT 2

Runoff = 8.95 cfs @ 13.38 hrs, Volume= 2.055 af, Depth> 1.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	653,559	70	Woods, Good, HSG C/D
*	145,274	74	>75% Grass cover, Good, HSG C/D
	798,833	71	Weighted Average
	798,833		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
46.5	206	0.0050	0.07		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
5.6	258	0.0120	0.77		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
7.3	267	0.0600	0.61		**Shallow Concentrated Flow, C-D** Forest w/Heavy Litter Kv= 2.5 fps
13.3	199	0.0100	0.25		**Shallow Concentrated Flow, D-E** Forest w/Heavy Litter Kv= 2.5 fps
1.2	41	0.0490	0.55		**Shallow Concentrated Flow, E-F** Forest w/Heavy Litter Kv= 2.5 fps
22.1	468	0.0200	0.35		**Shallow Concentrated Flow, F-G** Forest w/Heavy Litter Kv= 2.5 fps
3.4	516	0.0550	2.53	10.11	**Trap/Vee/Rect Channel Flow, G-H** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
99.4	1,955	Total			

Summary for Subcatchment 3S: SUBCAT 3

Runoff = 11.54 cfs @ 12.59 hrs, Volume= 1.560 af, Depth> 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	8,178	98	impervious
	366,332	74	>75% Grass cover, Good, HSG C
	163,239	70	Woods, Good, HSG C
	537,749	73	Weighted Average
	529,571		98.48% Pervious Area
	8,178		1.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	22	0.0900	1.77		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
10.8	691	0.0230	1.06		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
3.4	155	0.0230	0.76		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
9.3	372	0.0090	0.66		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
2.3	134	0.0190	0.96		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
12.6	254	0.0180	0.34		**Shallow Concentrated Flow, F-G** Forest w/Heavy Litter Kv= 2.5 fps
2.0	305	0.0560	2.55	10.21	**Trap/Vee/Rect Channel Flow, G-H** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
40.6	1,933	Total			

Summary for Subcatchment 4S: SUBCAT 4

Runoff = 11.11 cfs @ 12.57 hrs, Volume= 1.476 af, Depth> 1.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	11,390	98	impervious
	346,747	74	>75% Grass cover, Good, HSG C
	128,170	70	Woods, Good, HSG C
	486,307	74	Weighted Average
	474,917		97.66% Pervious Area
	11,390		2.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.3	163	0.0250	0.13		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
7.7	469	0.0210	1.01		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
5.9	545	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
2.2	184	0.0380	1.36		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
3.3	389	0.0330	1.96	7.83	**Trap/Vee/Rect Channel Flow, e-f** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
39.4	1,750	Total			

Summary for Subcatchment 5S: SUBCAT 5

Runoff = 5.32 cfs @ 12.46 hrs, Volume= 0.637 af, Depth> 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

Area (sf)	CN	Description
45,100	70	Woods, Good, HSG C
173,424	74	>75% Grass cover, Good, HSG C
218,524	73	Weighted Average
218,524		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.0	198	0.0270	0.14		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
2.9	146	0.0140	0.83		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
3.8	285	0.0320	1.25		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
1.6	210	0.0430	2.24	8.94	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
31.3	839	Total			

Summary for Subcatchment 6A: SUBCAT 6

Runoff = 5.56 cfs @ 12.60 hrs, Volume= 0.760 af, Depth> 1.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	139,667	70	Woods, Good, HSG C/D
*	62,587	74	>75% Grass cover, Good, HSG C/D
	19,893	80	>75% Grass cover, Good, HSG D
*	7,818	96	Gravel
*	10,965	98	Impervious
	9,624	77	Woods, Good, HSG D
	250,554	74	Weighted Average
	239,589		95.62% Pervious Area
	10,965		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
5.2	92	0.0140	0.30		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
1.8	74	0.0100	0.70		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
1.7	163	0.0550	1.64		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
0.8	39	0.1000	0.79		**Shallow Concentrated Flow, e-f** Forest w/Heavy Litter Kv= 2.5 fps
0.1	10	0.5000	1.77		**Shallow Concentrated Flow, f-g** Forest w/Heavy Litter Kv= 2.5 fps
41.6	445	Total			

Summary for Subcatchment 6B: SUBCAT 6

Runoff = 5.77 cfs @ 12.09 hrs, Volume= 0.390 af, Depth> 2.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	13,593	70	Woods, Good, HSG C/D
	32,096	80	>75% Grass cover, Good, HSG D
*	24,006	98	Impervious
	22,400	77	Woods, Good, HSG D
	92,095	82	Weighted Average
	68,089		73.93% Pervious Area
	24,006		26.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, direct entry**

Summary for Subcatchment 7S: SUBCAT 7

Runoff = 1.36 cfs @ 12.92 hrs, Volume= 0.241 af, Depth> 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	93,505	70	Woods, Good, HSG C/D
*	2,878	74	>75% Grass cover, Good, HSG C/D
	96,383	70	Weighted Average
	96,383		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
54.6	172	0.0260	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
2.8	112	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	13	0.2300	1.20		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.6	171	0.0300	0.43		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
0.5	73	0.0600	2.64	10.56	**Trap/Vee/Rect Channel Flow, e-f** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
64.7	541	Total			

Summary for Subcatchment 8S: SUBCAT 8

Runoff = 0.31 cfs @ 12.52 hrs, Volume= 0.040 af, Depth> 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	12,652	70	Woods, Good, HSG C/D
*	2,324	74	>75% Grass cover, Good, HSG C/D
	14,976	71	Weighted Average
	14,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
1.1	43	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.7100	2.11		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
1.5	152	0.0240	1.67	6.68	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100
34.7	276	Total			

Summary for Subcatchment 9S: OFFSITE 1 (Below Perkins Rd)

Runoff = 3.73 cfs @ 12.39 hrs, Volume= 0.414 af, Depth> 1.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	5,945	98	Impervious
	16,570	70	Woods, Good, HSG C
	107,487	74	>75% Grass cover, Good, HSG C
	130,002	75	Weighted Average
	124,057		95.43% Pervious Area
	5,945		4.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	90	0.0110	0.09		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
1.5	171	0.0700	1.85		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
6.9	257	0.0620	0.62		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.7	43	0.1860	1.08		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
26.6	561	Total			

Summary for Subcatchment 10S: OFFSITE 2 (above Perkins Rd)

Runoff = 22.26 cfs @ 13.30 hrs, Volume= 4.868 af, Depth> 1.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	298,066	70	Woods, Good, HSG C/D
*	42,276	98	Impervious
*	1,304,640	74	>75% Grass cover, Good, HSG C/D
	1,644,982	74	Weighted Average
	1,602,706		97.43% Pervious Area
	42,276		2.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.2	141	0.0280	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
15.3	384	0.0280	0.42		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.5	227	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
18.6	780	0.0100	0.70		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
12.6	689	0.0170	0.91		**Shallow Concentrated Flow, e-f** Short Grass Pasture Kv= 7.0 fps
94.2	2,221	Total			

Summary for Subcatchment 11A: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 13.88 cfs @ 12.10 hrs, Volume= 0.976 af, Depth> 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	113,681	98	Impervious
*	33,806	70	Woods, Good, HSG C/D
*	45,046	74	>75% Grass cover, Good, HSG C/D
	192,533	87	Weighted Average
	78,852		40.96% Pervious Area
	113,681		59.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	16	0.1870	2.22		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
4.7	419	0.0100	1.50		**Shallow Concentrated Flow, b-c** Grassed Waterway Kv= 15.0 fps
2.0	97	0.1000	0.79		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.8	532	Total			

Summary for Subcatchment 11B: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 9.20 cfs @ 12.28 hrs, Volume= 0.898 af, Depth> 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	4,576	98	Impervious
*	203,815	70	Woods, Good, HSG C/D
*	112,423	74	>75% Grass cover, Good, HSG C/D
	320,814	72	Weighted Average
	316,238		98.57% Pervious Area
	4,576		1.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	96	0.0880	0.13		**Sheet Flow, a-b** Woods: Light underbrush n= 0.400 P2= 2.90"
4.6	357	0.0340	1.29		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
2.2	75	0.0534	0.58		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
18.9	528	Total			

Summary for Reach 5R: ANALYSIS POINT 5

Inflow Area = 5.017 ac, 0.00% Impervious, Inflow Depth > 1.52" for 10-year event
Inflow = 5.32 cfs @ 12.46 hrs, Volume= 0.637 af
Outflow = 5.32 cfs @ 12.46 hrs, Volume= 0.637 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 6R: AP for SC 6

Inflow Area = 5.752 ac, 4.38% Impervious, Inflow Depth > 1.58" for 10-year event
Inflow = 5.56 cfs @ 12.60 hrs, Volume= 0.760 af
Outflow = 5.56 cfs @ 12.60 hrs, Volume= 0.760 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 9R: ANALYSIS POINT 9

Inflow Area = 2.984 ac, 4.57% Impervious, Inflow Depth > 1.66" for 10-year event
Inflow = 3.73 cfs @ 12.39 hrs, Volume= 0.414 af
Outflow = 3.73 cfs @ 12.39 hrs, Volume= 0.414 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

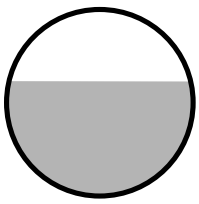
Summary for Reach 10R: Perkins Road Culvert

Inflow Area = 37.764 ac, 2.57% Impervious, Inflow Depth > 1.55" for 10-year event
Inflow = 22.26 cfs @ 13.30 hrs, Volume= 4.868 af
Outflow = 22.25 cfs @ 13.30 hrs, Volume= 4.868 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Max. Velocity= 11.00 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 6.58 fps, Avg. Travel Time= 0.1 min

Peak Storage= 51 cf @ 13.30 hrs
Average Depth at Peak Storage= 1.23'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.99 cfs

24.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 25.0' Slope= 0.0200 '/'
Inlet Invert= 75.50', Outlet Invert= 75.00'



Summary for Reach 11R: At Stream 9

Inflow Area = 4.420 ac, 59.04% Impervious, Inflow Depth > 2.65" for 10-year event
Inflow = 13.88 cfs @ 12.10 hrs, Volume= 0.976 af
Outflow = 13.88 cfs @ 12.10 hrs, Volume= 0.976 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT1: Analysis Point 1 at BWD Little River

Inflow Area = 7.258 ac, 0.00% Impervious, Inflow Depth > 1.31" for 10-year event
Inflow = 4.77 cfs @ 12.83 hrs, Volume= 0.792 af
Outflow = 4.77 cfs @ 12.83 hrs, Volume= 0.792 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT10: Analysis point at Little River

Inflow Area = 2.114 ac, 26.07% Impervious, Inflow Depth > 2.22" for 10-year event
Inflow = 5.77 cfs @ 12.09 hrs, Volume= 0.390 af
Outflow = 5.77 cfs @ 12.09 hrs, Volume= 0.390 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT2: ANALYSIS POINT 2 - strm 3

Inflow Area = 18.339 ac, 0.00% Impervious, Inflow Depth > 1.34" for 10-year event
Inflow = 8.95 cfs @ 13.38 hrs, Volume= 2.055 af
Outflow = 8.95 cfs @ 13.38 hrs, Volume= 2.055 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT3: ANALYSIS POINT 3 - strm 5

Inflow Area = 12.345 ac, 1.52% Impervious, Inflow Depth > 1.52" for 10-year event
Inflow = 11.54 cfs @ 12.59 hrs, Volume= 1.560 af
Outflow = 11.54 cfs @ 12.59 hrs, Volume= 1.560 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT4: ANALYSIS POINT 4 - strm 6

Inflow Area = 11.164 ac, 2.34% Impervious, Inflow Depth > 1.59" for 10-year event
Inflow = 11.11 cfs @ 12.57 hrs, Volume= 1.476 af
Outflow = 11.11 cfs @ 12.57 hrs, Volume= 1.476 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT5: all points at BWD Reservoir

Inflow Area = 41.848 ac, 1.07% Impervious, Inflow Depth > 1.46" for 10-year event
Inflow = 26.07 cfs @ 12.63 hrs, Volume= 5.091 af
Outflow = 26.07 cfs @ 12.63 hrs, Volume= 5.091 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT6: Stream 9-1

Inflow Area = 45.168 ac, 8.23% Impervious, Inflow Depth > 1.66" for 10-year event
Inflow = 24.15 cfs @ 13.29 hrs, Volume= 6.258 af
Outflow = 24.10 cfs @ 13.34 hrs, Volume= 6.240 af, Atten= 0%, Lag= 2.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.39 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 2.16 fps, Avg. Travel Time= 3.7 min

Peak Storage= 2,652 cf @ 13.31 hrs
Average Depth at Peak Storage= 0.83'
Bank-Full Depth= 4.00' Flow Area= 52.0 sf, Capacity= 535.88 cfs

5.00' x 4.00' deep channel, n= 0.030 Stream, clean & straight
Side Slope Z-value= 2.0 '/' Top Width= 21.00'
Length= 483.0' Slope= 0.0145 '/'
Inlet Invert= 71.00', Outlet Invert= 64.00'



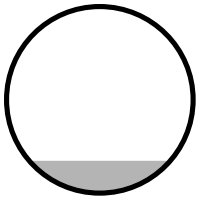
Summary for Reach PT7: ANALYSIS POINT 7 at US Rte 1 culvert

Inflow Area = 2.213 ac, 0.00% Impervious, Inflow Depth > 1.30" for 10-year event
Inflow = 1.36 cfs @ 12.92 hrs, Volume= 0.241 af
Outflow = 1.36 cfs @ 12.93 hrs, Volume= 0.240 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.67 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.80 fps, Avg. Travel Time= 0.4 min

Peak Storage= 17 cf @ 12.92 hrs
Average Depth at Peak Storage= 0.26'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0398 '/'
Inlet Invert= 21.60', Outlet Invert= 18.30'



Summary for Reach PT8: ANALYSIS POINT 8 at US Rte 1 culvert

Inflow Area = 0.344 ac, 0.00% Impervious, Inflow Depth > 1.39" for 10-year event
Inflow = 0.31 cfs @ 12.52 hrs, Volume= 0.040 af
Outflow = 0.31 cfs @ 12.53 hrs, Volume= 0.040 af, Atten= 0%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.45 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 2.53 fps, Avg. Travel Time= 0.5 min

Peak Storage= 7 cf @ 12.52 hrs
Average Depth at Peak Storage= 0.03'
Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 144.91 cfs

36.0" W x 24.0" H Box Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 76.0' Slope= 0.0632 '/'
Inlet Invert= 23.40', Outlet Invert= 18.60'



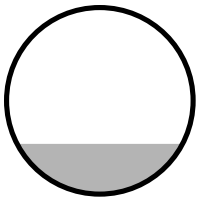
Summary for Reach PT9: Analysis Pt Stream 9 at US Rte 1 Culvert

Inflow Area = 63.301 ac, 6.44% Impervious, Inflow Depth > 1.60" for 10-year event
Inflow = 31.52 cfs @ 12.58 hrs, Volume= 8.457 af
Outflow = 31.51 cfs @ 12.58 hrs, Volume= 8.456 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 20.65 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 10.74 fps, Avg. Travel Time= 0.1 min

Peak Storage= 142 cf @ 12.58 hrs
Average Depth at Peak Storage= 0.80'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 200.22 cfs

36.0" Round Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 93.0' Slope= 0.0645 '/'
Inlet Invert= 20.00', Outlet Invert= 14.00'



Summary for Reach S9-2: Stream 9

Inflow Area = 63.301 ac, 6.44% Impervious, Inflow Depth > 1.62" for 10-year event
Inflow = 31.74 cfs @ 12.41 hrs, Volume= 8.535 af
Outflow = 31.56 cfs @ 12.55 hrs, Volume= 8.473 af, Atten= 1%, Lag= 7.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.62 fps, Min. Travel Time= 4.7 min
Avg. Velocity = 2.71 fps, Avg. Travel Time= 9.7 min

Peak Storage= 8,882 cf @ 12.47 hrs
Average Depth at Peak Storage= 0.84'
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 161.21 cfs

5.00' x 2.00' deep channel, n= 0.030 Stream, clean & straight
Side Slope Z-value= 2.0 '/' Top Width= 13.00'
Length= 1,580.0' Slope= 0.0233 '/'
Inlet Invert= 64.00', Outlet Invert= 27.25'



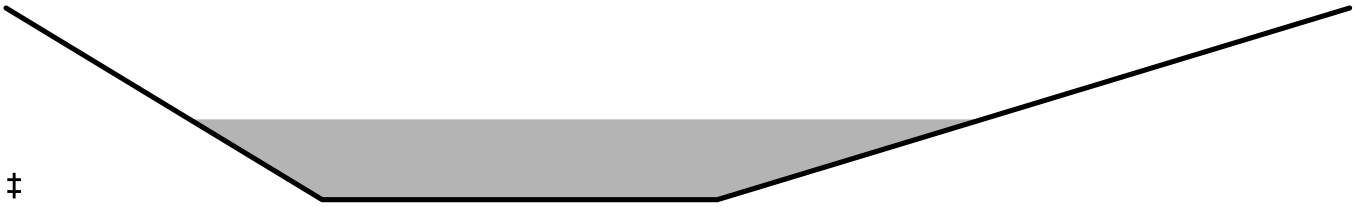
Summary for Reach S9-3: Stream 9

Inflow Area = 63.301 ac, 6.44% Impervious, Inflow Depth > 1.61" for 10-year event
Inflow = 31.56 cfs @ 12.55 hrs, Volume= 8.473 af
Outflow = 31.52 cfs @ 12.58 hrs, Volume= 8.457 af, Atten= 0%, Lag= 2.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.02 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 2.48 fps, Avg. Travel Time= 2.4 min

Peak Storage= 2,287 cf @ 12.56 hrs
Average Depth at Peak Storage= 0.84'
Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 177.67 cfs

5.00' x 2.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 2.0 4.0 '/' Top Width= 17.00'
Length= 364.0' Slope= 0.0199 '/'
Inlet Invert= 27.25', Outlet Invert= 20.00'



‡

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: SUBCAT1 Runoff Area=316,158 sf 0.00% Impervious Runoff Depth>1.97"
Flow Length=898' Tc=57.7 min CN=70 Runoff=7.33 cfs 1.193 af

Subcatchment2S: SUBCAT2 Runoff Area=798,833 sf 0.00% Impervious Runoff Depth>2.01"
Flow Length=1,955' Tc=99.4 min CN=71 Runoff=13.63 cfs 3.076 af

Subcatchment3S: SUBCAT3 Runoff Area=537,749 sf 1.52% Impervious Runoff Depth>2.23"
Flow Length=1,933' Tc=40.6 min CN=73 Runoff=17.10 cfs 2.293 af

Subcatchment4S: SUBCAT4 Runoff Area=486,307 sf 2.34% Impervious Runoff Depth>2.31"
Flow Length=1,750' Tc=39.4 min CN=74 Runoff=16.31 cfs 2.152 af

Subcatchment5S: SUBCAT5 Runoff Area=218,524 sf 0.00% Impervious Runoff Depth>2.24"
Flow Length=839' Tc=31.3 min CN=73 Runoff=7.88 cfs 0.935 af

Subcatchment6A: SUBCAT6 Runoff Area=250,554 sf 4.38% Impervious Runoff Depth>2.31"
Flow Length=445' Tc=41.6 min CN=74 Runoff=8.16 cfs 1.108 af

Subcatchment6B: SUBCAT6 Runoff Area=92,095 sf 26.07% Impervious Runoff Depth>3.05"
Tc=6.0 min CN=82 Runoff=7.88 cfs 0.538 af

Subcatchment7S: SUBCAT7 Runoff Area=96,383 sf 0.00% Impervious Runoff Depth>1.97"
Flow Length=541' Tc=64.7 min CN=70 Runoff=2.09 cfs 0.363 af

Subcatchment8S: SUBCAT8 Runoff Area=14,976 sf 0.00% Impervious Runoff Depth>2.07"
Flow Length=276' Tc=34.7 min CN=71 Runoff=0.48 cfs 0.059 af

Subcatchment9S: OFFSITE 1 (Below Runoff Area=130,002 sf 4.57% Impervious Runoff Depth>2.41"
Flow Length=561' Tc=26.6 min CN=75 Runoff=5.42 cfs 0.599 af

Subcatchment10S: OFFSITE 2 (above Runoff Area=1,644,982 sf 2.57% Impervious Runoff Depth>2.26"
Flow Length=2,221' Tc=94.2 min CN=74 Runoff=32.78 cfs 7.112 af

Subcatchment11A: OFFSITE 3 (Matthew Runoff Area=192,533 sf 59.04% Impervious Runoff Depth>3.54"
Flow Length=532' Tc=6.8 min CN=87 Runoff=18.28 cfs 1.304 af

Subcatchment11B: OFFSITE 3 (Matthew Runoff Area=320,814 sf 1.43% Impervious Runoff Depth>2.17"
Flow Length=528' Tc=18.9 min CN=72 Runoff=13.84 cfs 1.329 af

Reach 5R: ANALYSISPOINT 5 Inflow=7.88 cfs 0.935 af
Outflow=7.88 cfs 0.935 af

Reach 6R: AP for SC 6 Inflow=8.16 cfs 1.108 af
Outflow=8.16 cfs 1.108 af

Reach 9R: ANALYSISPOINT 9 Inflow=5.42 cfs 0.599 af
Outflow=5.42 cfs 0.599 af

Reach 10R: Perkins Road Culvert Avg. Flow Depth=1.69' Max Vel=11.61 fps Inflow=32.78 cfs 7.112 af
24.0" Round Pipe n=0.013 L=25.0' S=0.0200 '/' Capacity=31.99 cfs Outflow=32.77 cfs 7.112 af

Reach 11R: At Stream 9 Inflow=18.28 cfs 1.304 af
Outflow=18.28 cfs 1.304 af

Reach PT1: Analysis Point 1 at BWD Little River Inflow=7.33 cfs 1.193 af
Outflow=7.33 cfs 1.193 af

Reach PT10: Analysis point at Little River Inflow=7.88 cfs 0.538 af
Outflow=7.88 cfs 0.538 af

Reach PT2: ANALYSIS POINT 2 - strm 3 Inflow=13.63 cfs 3.076 af
Outflow=13.63 cfs 3.076 af

Reach PT3: ANALYSIS POINT 3 - strm 5 Inflow=17.10 cfs 2.293 af
Outflow=17.10 cfs 2.293 af

Reach PT4: ANALYSIS POINT 4 - strm 6 Inflow=16.31 cfs 2.152 af
Outflow=16.31 cfs 2.152 af

Reach PT5: all points at BWD Reservoir Inflow=38.99 cfs 7.520 af
Outflow=38.99 cfs 7.520 af

Reach PT6: Stream 9-1 Avg. Flow Depth=1.02' Max Vel=4.92 fps Inflow=35.29 cfs 9.015 af
n=0.030 L=483.0' S=0.0145 '/' Capacity=535.88 cfs Outflow=35.22 cfs 8.993 af

Reach PT7: ANALYSIS POINT 7 at US Avg. Flow Depth=0.32' Max Vel=7.57 fps Inflow=2.09 cfs 0.363 af
18.0" Round Pipe n=0.013 L=83.0' S=0.0398 '/' Capacity=20.95 cfs Outflow=2.08 cfs 0.363 af

Reach PT8: ANALYSIS POINT 8 at US Avg. Flow Depth=0.04' Max Vel=3.93 fps Inflow=0.48 cfs 0.059 af
36.0" x 24.0" Box Pipe n=0.011 L=76.0' S=0.0632 '/' Capacity=144.91 cfs Outflow=0.48 cfs 0.059 af

Reach PT9: Analysis Pt Stream 9 at Avg. Flow Depth=0.99' Max Vel=23.10 fps Inflow=46.72 cfs 12.272 af
36.0" Round Pipe n=0.011 L=93.0' S=0.0645 '/' Capacity=200.22 cfs Outflow=46.71 cfs 12.271 af

Reach S9-2: Stream 9 Avg. Flow Depth=1.04' Max Vel=6.32 fps Inflow=47.01 cfs 12.365 af
n=0.030 L=1,580.0' S=0.0233 '/' Capacity=161.21 cfs Outflow=46.77 cfs 12.291 af

Reach S9-3: Stream 9 Avg. Flow Depth=1.03' Max Vel=5.62 fps Inflow=46.77 cfs 12.291 af
n=0.030 L=364.0' S=0.0199 '/' Capacity=177.67 cfs Outflow=46.72 cfs 12.272 af

Total Runoff Area = 117.078 ac Runoff Volume = 22.060 af Average Runoff Depth = 2.26"
95.67% Pervious = 112.004 ac 4.33% Impervious = 5.074 ac

Summary for Subcatchment 1S: SUBCAT 1

Runoff = 7.33 cfs @ 12.81 hrs, Volume= 1.193 af, Depth> 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	303,390	70	Woods, Good, HSG C/D
	12,768	70	Woods, Good, HSG C
	316,158	70	Weighted Average
	316,158		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.6	88	0.0450	0.06		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
3.5	65	0.0150	0.31		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.0	72	0.0550	0.59		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
25.6	470	0.0150	0.31		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
1.0	203	0.1000	3.41	13.64	**Trap/Vee/Rect Channel Flow, e-f** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
57.7	898	Total			

Summary for Subcatchment 2S: SUBCAT 2

Runoff = 13.63 cfs @ 13.36 hrs, Volume= 3.076 af, Depth> 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	653,559	70	Woods, Good, HSG C/D
*	145,274	74	>75% Grass cover, Good, HSG C/D
	798,833	71	Weighted Average
	798,833		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
46.5	206	0.0050	0.07		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
5.6	258	0.0120	0.77		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
7.3	267	0.0600	0.61		**Shallow Concentrated Flow, C-D** Forest w/Heavy Litter Kv= 2.5 fps
13.3	199	0.0100	0.25		**Shallow Concentrated Flow, D-E** Forest w/Heavy Litter Kv= 2.5 fps
1.2	41	0.0490	0.55		**Shallow Concentrated Flow, E-F** Forest w/Heavy Litter Kv= 2.5 fps
22.1	468	0.0200	0.35		**Shallow Concentrated Flow, F-G** Forest w/Heavy Litter Kv= 2.5 fps
3.4	516	0.0550	2.53	10.11	**Trap/Vee/Rect Channel Flow, G-H** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
99.4	1,955	Total			

Summary for Subcatchment 3S: SUBCAT 3

Runoff = 17.10 cfs @ 12.58 hrs, Volume= 2.293 af, Depth> 2.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	8,178	98	impervious
	366,332	74	>75% Grass cover, Good, HSG C
	163,239	70	Woods, Good, HSG C
	537,749	73	Weighted Average
	529,571		98.48% Pervious Area
	8,178		1.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	22	0.0900	1.77		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
10.8	691	0.0230	1.06		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
3.4	155	0.0230	0.76		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
9.3	372	0.0090	0.66		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
2.3	134	0.0190	0.96		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
12.6	254	0.0180	0.34		**Shallow Concentrated Flow, F-G** Forest w/Heavy Litter Kv= 2.5 fps
2.0	305	0.0560	2.55	10.21	**Trap/Vee/Rect Channel Flow, G-H** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
40.6	1,933	Total			

Summary for Subcatchment 4S: SUBCAT 4

Runoff = 16.31 cfs @ 12.56 hrs, Volume= 2.152 af, Depth> 2.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	11,390	98	impervious
	346,747	74	>75% Grass cover, Good, HSG C
	128,170	70	Woods, Good, HSG C
	486,307	74	Weighted Average
	474,917		97.66% Pervious Area
	11,390		2.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.3	163	0.0250	0.13		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
7.7	469	0.0210	1.01		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
5.9	545	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
2.2	184	0.0380	1.36		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
3.3	389	0.0330	1.96	7.83	**Trap/Vee/Rect Channel Flow, e-f** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
39.4	1,750	Total			

Summary for Subcatchment 5S: SUBCAT 5

Runoff = 7.88 cfs @ 12.45 hrs, Volume= 0.935 af, Depth> 2.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

Area (sf)	CN	Description
45,100	70	Woods, Good, HSG C
173,424	74	>75% Grass cover, Good, HSG C
218,524	73	Weighted Average
218,524		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.0	198	0.0270	0.14		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
2.9	146	0.0140	0.83		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
3.8	285	0.0320	1.25		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
1.6	210	0.0430	2.24	8.94	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
31.3	839	Total			

Summary for Subcatchment 6A: SUBCAT 6

Runoff = 8.16 cfs @ 12.59 hrs, Volume= 1.108 af, Depth> 2.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	139,667	70	Woods, Good, HSG C/D
*	62,587	74	>75% Grass cover, Good, HSG C/D
	19,893	80	>75% Grass cover, Good, HSG D
*	7,818	96	Gravel
*	10,965	98	Impervious
	9,624	77	Woods, Good, HSG D
	250,554	74	Weighted Average
	239,589		95.62% Pervious Area
	10,965		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
5.2	92	0.0140	0.30		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
1.8	74	0.0100	0.70		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
1.7	163	0.0550	1.64		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
0.8	39	0.1000	0.79		**Shallow Concentrated Flow, e-f** Forest w/Heavy Litter Kv= 2.5 fps
0.1	10	0.5000	1.77		**Shallow Concentrated Flow, f-g** Forest w/Heavy Litter Kv= 2.5 fps
41.6	445	Total			

Summary for Subcatchment 6B: SUBCAT 6

Runoff = 7.88 cfs @ 12.09 hrs, Volume= 0.538 af, Depth> 3.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	13,593	70	Woods, Good, HSG C/D
	32,096	80	>75% Grass cover, Good, HSG D
*	24,006	98	Impervious
	22,400	77	Woods, Good, HSG D
	92,095	82	Weighted Average
	68,089		73.93% Pervious Area
	24,006		26.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, direct entry**

Summary for Subcatchment 7S: SUBCAT 7

Runoff = 2.09 cfs @ 12.90 hrs, Volume= 0.363 af, Depth> 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	93,505	70	Woods, Good, HSG C/D
*	2,878	74	>75% Grass cover, Good, HSG C/D
	96,383	70	Weighted Average
	96,383		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
54.6	172	0.0260	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
2.8	112	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	13	0.2300	1.20		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.6	171	0.0300	0.43		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
0.5	73	0.0600	2.64	10.56	**Trap/Vee/Rect Channel Flow, e-f** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
64.7	541	Total			

Summary for Subcatchment 8S: SUBCAT 8

Runoff = 0.48 cfs @ 12.50 hrs, Volume= 0.059 af, Depth> 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	12,652	70	Woods, Good, HSG C/D
*	2,324	74	>75% Grass cover, Good, HSG C/D
	14,976	71	Weighted Average
	14,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
1.1	43	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.7100	2.11		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
1.5	152	0.0240	1.67	6.68	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100
34.7	276	Total			

Summary for Subcatchment 9S: OFFSITE 1 (Below Perkins Rd)

Runoff = 5.42 cfs @ 12.38 hrs, Volume= 0.599 af, Depth> 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	5,945	98	Impervious
	16,570	70	Woods, Good, HSG C
	107,487	74	>75% Grass cover, Good, HSG C
	130,002	75	Weighted Average
	124,057		95.43% Pervious Area
	5,945		4.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	90	0.0110	0.09		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
1.5	171	0.0700	1.85		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
6.9	257	0.0620	0.62		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.7	43	0.1860	1.08		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
26.6	561	Total			

Summary for Subcatchment 10S: OFFSITE 2 (above Perkins Rd)

Runoff = 32.78 cfs @ 13.29 hrs, Volume= 7.112 af, Depth> 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	298,066	70	Woods, Good, HSG C/D
*	42,276	98	Impervious
*	1,304,640	74	>75% Grass cover, Good, HSG C/D
	1,644,982	74	Weighted Average
	1,602,706		97.43% Pervious Area
	42,276		2.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.2	141	0.0280	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
15.3	384	0.0280	0.42		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.5	227	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
18.6	780	0.0100	0.70		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
12.6	689	0.0170	0.91		**Shallow Concentrated Flow, e-f** Short Grass Pasture Kv= 7.0 fps
94.2	2,221	Total			

Summary for Subcatchment 11A: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 18.28 cfs @ 12.10 hrs, Volume= 1.304 af, Depth> 3.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	113,681	98	Impervious
*	33,806	70	Woods, Good, HSG C/D
*	45,046	74	>75% Grass cover, Good, HSG C/D
	192,533	87	Weighted Average
	78,852		40.96% Pervious Area
	113,681		59.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	16	0.1870	2.22		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
4.7	419	0.0100	1.50		**Shallow Concentrated Flow, b-c** Grassed Waterway Kv= 15.0 fps
2.0	97	0.1000	0.79		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.8	532	Total			

Summary for Subcatchment 11B: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 13.84 cfs @ 12.27 hrs, Volume= 1.329 af, Depth> 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	4,576	98	Impervious
*	203,815	70	Woods, Good, HSG C/D
*	112,423	74	>75% Grass cover, Good, HSG C/D
	320,814	72	Weighted Average
	316,238		98.57% Pervious Area
	4,576		1.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	96	0.0880	0.13		**Sheet Flow, a-b** Woods: Light underbrush n= 0.400 P2= 2.90"
4.6	357	0.0340	1.29		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
2.2	75	0.0534	0.58		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
18.9	528	Total			

Summary for Reach 5R: ANALYSIS POINT 5

Inflow Area = 5.017 ac, 0.00% Impervious, Inflow Depth > 2.24" for 25-year event
Inflow = 7.88 cfs @ 12.45 hrs, Volume= 0.935 af
Outflow = 7.88 cfs @ 12.45 hrs, Volume= 0.935 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 6R: AP for SC 6

Inflow Area = 5.752 ac, 4.38% Impervious, Inflow Depth > 2.31" for 25-year event
Inflow = 8.16 cfs @ 12.59 hrs, Volume= 1.108 af
Outflow = 8.16 cfs @ 12.59 hrs, Volume= 1.108 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 9R: ANALYSIS POINT 9

Inflow Area = 2.984 ac, 4.57% Impervious, Inflow Depth > 2.41" for 25-year event
Inflow = 5.42 cfs @ 12.38 hrs, Volume= 0.599 af
Outflow = 5.42 cfs @ 12.38 hrs, Volume= 0.599 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

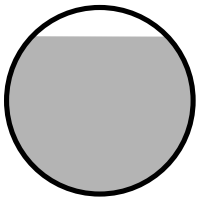
Summary for Reach 10R: Perkins Road Culvert

Inflow Area = 37.764 ac, 2.57% Impervious, Inflow Depth > 2.26" for 25-year event
Inflow = 32.78 cfs @ 13.29 hrs, Volume= 7.112 af
Outflow = 32.77 cfs @ 13.29 hrs, Volume= 7.112 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Max. Velocity= 11.61 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 7.03 fps, Avg. Travel Time= 0.1 min

Peak Storage= 71 cf @ 13.29 hrs
Average Depth at Peak Storage= 1.69'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.99 cfs

24.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 25.0' Slope= 0.0200 '/'
Inlet Invert= 75.50', Outlet Invert= 75.00'



Summary for Reach 11R: At Stream 9

Inflow Area = 4.420 ac, 59.04% Impervious, Inflow Depth > 3.54" for 25-year event
Inflow = 18.28 cfs @ 12.10 hrs, Volume= 1.304 af
Outflow = 18.28 cfs @ 12.10 hrs, Volume= 1.304 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT1: Analysis Point 1 at BWD Little River

Inflow Area = 7.258 ac, 0.00% Impervious, Inflow Depth > 1.97" for 25-year event
Inflow = 7.33 cfs @ 12.81 hrs, Volume= 1.193 af
Outflow = 7.33 cfs @ 12.81 hrs, Volume= 1.193 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT10: Analysis point at Little River

Inflow Area = 2.114 ac, 26.07% Impervious, Inflow Depth > 3.05" for 25-year event
Inflow = 7.88 cfs @ 12.09 hrs, Volume= 0.538 af
Outflow = 7.88 cfs @ 12.09 hrs, Volume= 0.538 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT2: ANALYSIS POINT 2 - strm 3

Inflow Area = 18.339 ac, 0.00% Impervious, Inflow Depth > 2.01" for 25-year event
Inflow = 13.63 cfs @ 13.36 hrs, Volume= 3.076 af
Outflow = 13.63 cfs @ 13.36 hrs, Volume= 3.076 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT3: ANALYSIS POINT 3 - strm 5

Inflow Area = 12.345 ac, 1.52% Impervious, Inflow Depth > 2.23" for 25-year event
Inflow = 17.10 cfs @ 12.58 hrs, Volume= 2.293 af
Outflow = 17.10 cfs @ 12.58 hrs, Volume= 2.293 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT4: ANALYSIS POINT 4 - strm 6

Inflow Area = 11.164 ac, 2.34% Impervious, Inflow Depth > 2.31" for 25-year event
Inflow = 16.31 cfs @ 12.56 hrs, Volume= 2.152 af
Outflow = 16.31 cfs @ 12.56 hrs, Volume= 2.152 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT5: all points at BWD Reservoir

Inflow Area = 41.848 ac, 1.07% Impervious, Inflow Depth > 2.16" for 25-year event
Inflow = 38.99 cfs @ 12.62 hrs, Volume= 7.520 af
Outflow = 38.99 cfs @ 12.62 hrs, Volume= 7.520 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT6: Stream 9-1

Inflow Area = 45.168 ac, 8.23% Impervious, Inflow Depth > 2.39" for 25-year event
Inflow = 35.29 cfs @ 13.28 hrs, Volume= 9.015 af
Outflow = 35.22 cfs @ 13.32 hrs, Volume= 8.993 af, Atten= 0%, Lag= 2.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.92 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 2.33 fps, Avg. Travel Time= 3.4 min

Peak Storage= 3,459 cf @ 13.29 hrs
Average Depth at Peak Storage= 1.02'
Bank-Full Depth= 4.00' Flow Area= 52.0 sf, Capacity= 535.88 cfs

5.00' x 4.00' deep channel, n= 0.030 Stream, clean & straight
Side Slope Z-value= 2.0 '/' Top Width= 21.00'
Length= 483.0' Slope= 0.0145 '/'
Inlet Invert= 71.00', Outlet Invert= 64.00'



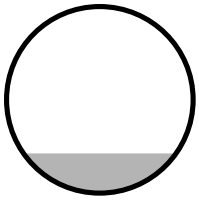
Summary for Reach PT7: ANALYSIS POINT 7 at US Rte 1 culvert

Inflow Area = 2.213 ac, 0.00% Impervious, Inflow Depth > 1.97" for 25-year event
Inflow = 2.09 cfs @ 12.90 hrs, Volume= 0.363 af
Outflow = 2.08 cfs @ 12.91 hrs, Volume= 0.363 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.57 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 4.12 fps, Avg. Travel Time= 0.3 min

Peak Storage= 23 cf @ 12.90 hrs
Average Depth at Peak Storage= 0.32'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0398 '/'
Inlet Invert= 21.60', Outlet Invert= 18.30'



Summary for Reach PT8: ANALYSIS POINT 8 at US Rte 1 culvert

Inflow Area = 0.344 ac, 0.00% Impervious, Inflow Depth > 2.07" for 25-year event
Inflow = 0.48 cfs @ 12.50 hrs, Volume= 0.059 af
Outflow = 0.48 cfs @ 12.51 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.93 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.58 fps, Avg. Travel Time= 0.5 min

Peak Storage= 9 cf @ 12.50 hrs
Average Depth at Peak Storage= 0.04'
Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 144.91 cfs

36.0" W x 24.0" H Box Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 76.0' Slope= 0.0632 '/'
Inlet Invert= 23.40', Outlet Invert= 18.60'



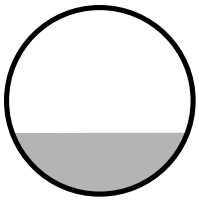
Summary for Reach PT9: Analysis Pt Stream 9 at US Rte 1 Culvert

Inflow Area = 63.301 ac, 6.44% Impervious, Inflow Depth > 2.33" for 25-year event
Inflow = 46.72 cfs @ 12.56 hrs, Volume= 12.272 af
Outflow = 46.71 cfs @ 12.56 hrs, Volume= 12.271 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 23.10 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 11.55 fps, Avg. Travel Time= 0.1 min

Peak Storage= 188 cf @ 12.56 hrs
Average Depth at Peak Storage= 0.99'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 200.22 cfs

36.0" Round Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 93.0' Slope= 0.0645 '/'
Inlet Invert= 20.00', Outlet Invert= 14.00'



Summary for Reach S9-2: Stream 9

Inflow Area = 63.301 ac, 6.44% Impervious, Inflow Depth > 2.34" for 25-year event
Inflow = 47.01 cfs @ 12.41 hrs, Volume= 12.365 af
Outflow = 46.77 cfs @ 12.52 hrs, Volume= 12.291 af, Atten= 0%, Lag= 7.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.32 fps, Min. Travel Time= 4.2 min
Avg. Velocity = 2.95 fps, Avg. Travel Time= 8.9 min

Peak Storage= 11,700 cf @ 12.46 hrs
Average Depth at Peak Storage= 1.04'
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 161.21 cfs

5.00' x 2.00' deep channel, n= 0.030 Stream, clean & straight
Side Slope Z-value= 2.0 '/' Top Width= 13.00'
Length= 1,580.0' Slope= 0.0233 '/'
Inlet Invert= 64.00', Outlet Invert= 27.25'



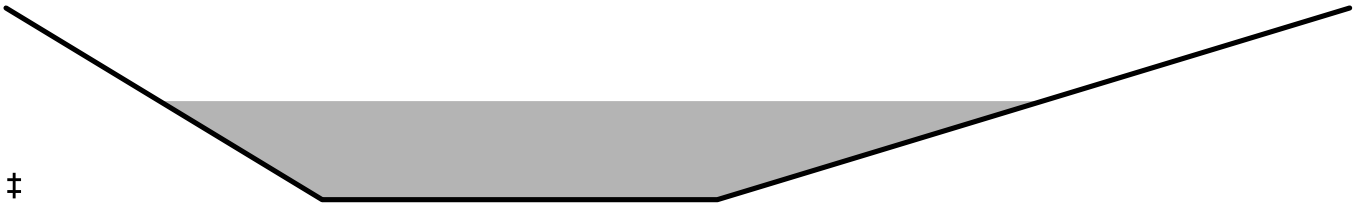
Summary for Reach S9-3: Stream 9

Inflow Area = 63.301 ac, 6.44% Impervious, Inflow Depth > 2.33" for 25-year event
Inflow = 46.77 cfs @ 12.52 hrs, Volume= 12.291 af
Outflow = 46.72 cfs @ 12.56 hrs, Volume= 12.272 af, Atten= 0%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.62 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 2.69 fps, Avg. Travel Time= 2.3 min

Peak Storage= 3,028 cf @ 12.54 hrs
Average Depth at Peak Storage= 1.03'
Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 177.67 cfs

5.00' x 2.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 2.0 4.0 '/' Top Width= 17.00'
Length= 364.0' Slope= 0.0199 '/'
Inlet Invert= 27.25', Outlet Invert= 20.00'



‡

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: SUBCAT1 Runoff Area=316,158 sf 0.00% Impervious Runoff Depth>2.62"
Flow Length=898' Tc=57.7 min CN=70 Runoff=9.79 cfs 1.585 af

Subcatchment2S: SUBCAT2 Runoff Area=798,833 sf 0.00% Impervious Runoff Depth>2.66"
Flow Length=1,955' Tc=99.4 min CN=71 Runoff=18.12 cfs 4.067 af

Subcatchment3S: SUBCAT3 Runoff Area=537,749 sf 1.52% Impervious Runoff Depth>2.91"
Flow Length=1,933' Tc=40.6 min CN=73 Runoff=22.37 cfs 2.997 af

Subcatchment4S: SUBCAT4 Runoff Area=486,307 sf 2.34% Impervious Runoff Depth>3.01"
Flow Length=1,750' Tc=39.4 min CN=74 Runoff=21.21 cfs 2.799 af

Subcatchment5S: SUBCAT5 Runoff Area=218,524 sf 0.00% Impervious Runoff Depth>2.92"
Flow Length=839' Tc=31.3 min CN=73 Runoff=10.31 cfs 1.222 af

Subcatchment6A: SUBCAT6 Runoff Area=250,554 sf 4.38% Impervious Runoff Depth>3.01"
Flow Length=445' Tc=41.6 min CN=74 Runoff=10.62 cfs 1.441 af

Subcatchment6B: SUBCAT6 Runoff Area=92,095 sf 26.07% Impervious Runoff Depth>3.83"
Tc=6.0 min CN=82 Runoff=9.80 cfs 0.675 af

Subcatchment7S: SUBCAT7 Runoff Area=96,383 sf 0.00% Impervious Runoff Depth>2.61"
Flow Length=541' Tc=64.7 min CN=70 Runoff=2.79 cfs 0.482 af

Subcatchment8S: SUBCAT8 Runoff Area=14,976 sf 0.00% Impervious Runoff Depth>2.74"
Flow Length=276' Tc=34.7 min CN=71 Runoff=0.63 cfs 0.078 af

Subcatchment9S: OFFSITE1 (Below Runoff Area=130,002 sf 4.57% Impervious Runoff Depth>3.12"
Flow Length=561' Tc=26.6 min CN=75 Runoff=7.02 cfs 0.775 af

Subcatchment10S: OFFSITE2 (above Runoff Area=1,644,982 sf 2.57% Impervious Runoff Depth>2.94"
Flow Length=2,221' Tc=94.2 min CN=74 Runoff=42.72 cfs 9.264 af

Subcatchment11A: OFFSITE3 (Matthew Runoff Area=192,533 sf 59.04% Impervious Runoff Depth>4.36"
Flow Length=532' Tc=6.8 min CN=87 Runoff=22.24 cfs 1.604 af

Subcatchment11B: OFFSITE3 (Matthew Runoff Area=320,814 sf 1.43% Impervious Runoff Depth>2.84"
Flow Length=528' Tc=18.9 min CN=72 Runoff=18.22 cfs 1.745 af

Reach 5R: ANALYSISPOINT5 Inflow=10.31 cfs 1.222 af
Outflow=10.31 cfs 1.222 af

Reach 6R: AP for SC 6 Inflow=10.62 cfs 1.441 af
Outflow=10.62 cfs 1.441 af

Reach 9R: ANALYSISPOINT9 Inflow=7.02 cfs 0.775 af
Outflow=7.02 cfs 0.775 af

Reach 10R: Perkins Road Culvert Avg. Flow Depth=2.00' Max Vel=11.60 fps Inflow=42.72 cfs 9.264 af
24.0" Round Pipe n=0.013 L=25.0' S=0.0200 '/' Capacity=31.99 cfs Outflow=33.35 cfs 9.266 af

Reach 11R: At Stream 9 Inflow=22.24 cfs 1.604 af
Outflow=22.24 cfs 1.604 af

Reach PT1: Analysis Point 1 at BWD Little River Inflow=9.79 cfs 1.585 af
Outflow=9.79 cfs 1.585 af

Reach PT10: Analysis point at Little River Inflow=9.80 cfs 0.675 af
Outflow=9.80 cfs 0.675 af

Reach PT2: ANALYSIS POINT 2 - strm 3 Inflow=18.12 cfs 4.067 af
Outflow=18.12 cfs 4.067 af

Reach PT3: ANALYSIS POINT 3 - strm 5 Inflow=22.37 cfs 2.997 af
Outflow=22.37 cfs 2.997 af

Reach PT4: ANALYSIS POINT 4 - strm 6 Inflow=21.21 cfs 2.799 af
Outflow=21.21 cfs 2.799 af

Reach PT5: all points at BWD Reservoir Inflow=51.29 cfs 9.864 af
Outflow=51.29 cfs 9.864 af

Reach PT6: Stream 9-1 Avg. Flow Depth=1.06' Max Vel=5.03 fps Inflow=38.60 cfs 11.645 af
n=0.030 L=483.0' S=0.0145 '/' Capacity=535.88 cfs Outflow=37.83 cfs 11.620 af

Reach PT7: ANALYSIS POINT 7 at US Avg. Flow Depth=0.37' Max Vel=8.24 fps Inflow=2.79 cfs 0.482 af
18.0" Round Pipe n=0.013 L=83.0' S=0.0398 '/' Capacity=20.95 cfs Outflow=2.79 cfs 0.482 af

Reach PT8: ANALYSIS POINT 8 at US Avg. Flow Depth=0.05' Max Vel=4.44 fps Inflow=0.63 cfs 0.078 af
36.0" x 24.0" Box Pipe n=0.011 L=76.0' S=0.0632 '/' Capacity=144.91 cfs Outflow=0.63 cfs 0.078 af

Reach PT9: Analysis Pt Stream 9 at Avg. Flow Depth=1.14' Max Vel=24.88 fps Inflow=61.18 cfs 15.923 af
36.0" Round Pipe n=0.011 L=93.0' S=0.0645 '/' Capacity=200.22 cfs Outflow=61.18 cfs 15.922 af

Reach S9-2: Stream 9 Avg. Flow Depth=1.21' Max Vel=6.84 fps Inflow=61.52 cfs 16.029 af
n=0.030 L=1,580.0' S=0.0233 '/' Capacity=161.21 cfs Outflow=61.26 cfs 15.945 af

Reach S9-3: Stream 9 Avg. Flow Depth=1.18' Max Vel=6.06 fps Inflow=61.26 cfs 15.945 af
n=0.030 L=364.0' S=0.0199 '/' Capacity=177.67 cfs Outflow=61.18 cfs 15.923 af

Total Runoff Area = 117.078 ac Runoff Volume = 28.735 af Average Runoff Depth = 2.95"
95.67% Pervious = 112.004 ac 4.33% Impervious = 5.074 ac

Summary for Subcatchment 1S: SUBCAT 1

Runoff = 9.79 cfs @ 12.80 hrs, Volume= 1.585 af, Depth> 2.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	303,390	70	Woods, Good, HSG C/D
	12,768	70	Woods, Good, HSG C
	316,158	70	Weighted Average
	316,158		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.6	88	0.0450	0.06		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
3.5	65	0.0150	0.31		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.0	72	0.0550	0.59		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
25.6	470	0.0150	0.31		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
1.0	203	0.1000	3.41	13.64	**Trap/Vee/Rect Channel Flow, e-f** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
57.7	898	Total			

Summary for Subcatchment 2S: SUBCAT 2

Runoff = 18.12 cfs @ 13.36 hrs, Volume= 4.067 af, Depth> 2.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	653,559	70	Woods, Good, HSG C/D
*	145,274	74	>75% Grass cover, Good, HSG C/D
	798,833	71	Weighted Average
	798,833		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
46.5	206	0.0050	0.07		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
5.6	258	0.0120	0.77		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
7.3	267	0.0600	0.61		**Shallow Concentrated Flow, C-D** Forest w/Heavy Litter Kv= 2.5 fps
13.3	199	0.0100	0.25		**Shallow Concentrated Flow, D-E** Forest w/Heavy Litter Kv= 2.5 fps
1.2	41	0.0490	0.55		**Shallow Concentrated Flow, E-F** Forest w/Heavy Litter Kv= 2.5 fps
22.1	468	0.0200	0.35		**Shallow Concentrated Flow, F-G** Forest w/Heavy Litter Kv= 2.5 fps
3.4	516	0.0550	2.53	10.11	**Trap/Vee/Rect Channel Flow, G-H** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
99.4	1,955	Total			

Summary for Subcatchment 3S: SUBCAT 3

Runoff = 22.37 cfs @ 12.57 hrs, Volume= 2.997 af, Depth> 2.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	8,178	98	impervious
	366,332	74	>75% Grass cover, Good, HSG C
	163,239	70	Woods, Good, HSG C
	537,749	73	Weighted Average
	529,571		98.48% Pervious Area
	8,178		1.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	22	0.0900	1.77		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
10.8	691	0.0230	1.06		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
3.4	155	0.0230	0.76		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
9.3	372	0.0090	0.66		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
2.3	134	0.0190	0.96		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
12.6	254	0.0180	0.34		**Shallow Concentrated Flow, F-G** Forest w/Heavy Litter Kv= 2.5 fps
2.0	305	0.0560	2.55	10.21	**Trap/Vee/Rect Channel Flow, G-H** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
40.6	1,933	Total			

Summary for Subcatchment 4S: SUBCAT 4

Runoff = 21.21 cfs @ 12.55 hrs, Volume= 2.799 af, Depth> 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	11,390	98	impervious
	346,747	74	>75% Grass cover, Good, HSG C
	128,170	70	Woods, Good, HSG C
	486,307	74	Weighted Average
	474,917		97.66% Pervious Area
	11,390		2.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.3	163	0.0250	0.13		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
7.7	469	0.0210	1.01		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
5.9	545	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
2.2	184	0.0380	1.36		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
3.3	389	0.0330	1.96	7.83	**Trap/Vee/Rect Channel Flow, e-f** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
39.4	1,750	Total			

Summary for Subcatchment 5S: SUBCAT 5

Runoff = 10.31 cfs @ 12.44 hrs, Volume= 1.222 af, Depth> 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-year Rainfall=6.10"

Area (sf)	CN	Description
45,100	70	Woods, Good, HSG C
173,424	74	>75% Grass cover, Good, HSG C
218,524	73	Weighted Average
218,524		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.0	198	0.0270	0.14		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
2.9	146	0.0140	0.83		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
3.8	285	0.0320	1.25		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
1.6	210	0.0430	2.24	8.94	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
31.3	839	Total			

Summary for Subcatchment 6A: SUBCAT 6

Runoff = 10.62 cfs @ 12.58 hrs, Volume= 1.441 af, Depth> 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	139,667	70	Woods, Good, HSG C/D
*	62,587	74	>75% Grass cover, Good, HSG C/D
	19,893	80	>75% Grass cover, Good, HSG D
*	7,818	96	Gravel
*	10,965	98	Impervious
	9,624	77	Woods, Good, HSG D
	250,554	74	Weighted Average
	239,589		95.62% Pervious Area
	10,965		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
5.2	92	0.0140	0.30		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
1.8	74	0.0100	0.70		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
1.7	163	0.0550	1.64		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
0.8	39	0.1000	0.79		**Shallow Concentrated Flow, e-f** Forest w/Heavy Litter Kv= 2.5 fps
0.1	10	0.5000	1.77		**Shallow Concentrated Flow, f-g** Forest w/Heavy Litter Kv= 2.5 fps
41.6	445	Total			

Summary for Subcatchment 6B: SUBCAT 6

Runoff = 9.80 cfs @ 12.09 hrs, Volume= 0.675 af, Depth> 3.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	13,593	70	Woods, Good, HSG C/D
	32,096	80	>75% Grass cover, Good, HSG D
*	24,006	98	Impervious
	22,400	77	Woods, Good, HSG D
	92,095	82	Weighted Average
	68,089		73.93% Pervious Area
	24,006		26.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, direct entry**

Summary for Subcatchment 7S: SUBCAT 7

Runoff = 2.79 cfs @ 12.89 hrs, Volume= 0.482 af, Depth> 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	93,505	70	Woods, Good, HSG C/D
*	2,878	74	>75% Grass cover, Good, HSG C/D
	96,383	70	Weighted Average
	96,383		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
54.6	172	0.0260	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
2.8	112	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	13	0.2300	1.20		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.6	171	0.0300	0.43		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
0.5	73	0.0600	2.64	10.56	**Trap/Vee/Rect Channel Flow, e-f** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
64.7	541	Total			

Summary for Subcatchment 8S: SUBCAT 8

Runoff = 0.63 cfs @ 12.49 hrs, Volume= 0.078 af, Depth> 2.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	12,652	70	Woods, Good, HSG C/D
*	2,324	74	>75% Grass cover, Good, HSG C/D
	14,976	71	Weighted Average
	14,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
1.1	43	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.7100	2.11		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
1.5	152	0.0240	1.67	6.68	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100
34.7	276	Total			

Summary for Subcatchment 9S: OFFSITE 1 (Below Perkins Rd)

Runoff = 7.02 cfs @ 12.37 hrs, Volume= 0.775 af, Depth> 3.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	5,945	98	Impervious
	16,570	70	Woods, Good, HSG C
	107,487	74	>75% Grass cover, Good, HSG C
	130,002	75	Weighted Average
	124,057		95.43% Pervious Area
	5,945		4.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	90	0.0110	0.09		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
1.5	171	0.0700	1.85		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
6.9	257	0.0620	0.62		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.7	43	0.1860	1.08		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
26.6	561	Total			

Summary for Subcatchment 10S: OFFSITE 2 (above Perkins Rd)

Runoff = 42.72 cfs @ 13.28 hrs, Volume= 9.264 af, Depth> 2.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	298,066	70	Woods, Good, HSG C/D
*	42,276	98	Impervious
*	1,304,640	74	>75% Grass cover, Good, HSG C/D
	1,644,982	74	Weighted Average
	1,602,706		97.43% Pervious Area
	42,276		2.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.2	141	0.0280	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
15.3	384	0.0280	0.42		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.5	227	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
18.6	780	0.0100	0.70		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
12.6	689	0.0170	0.91		**Shallow Concentrated Flow, e-f** Short Grass Pasture Kv= 7.0 fps
94.2	2,221	Total			

Summary for Subcatchment 11A: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 22.24 cfs @ 12.10 hrs, Volume= 1.604 af, Depth> 4.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	113,681	98	Impervious
*	33,806	70	Woods, Good, HSG C/D
*	45,046	74	>75% Grass cover, Good, HSG C/D
	192,533	87	Weighted Average
	78,852		40.96% Pervious Area
	113,681		59.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	16	0.1870	2.22		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
4.7	419	0.0100	1.50		**Shallow Concentrated Flow, b-c** Grassed Waterway Kv= 15.0 fps
2.0	97	0.1000	0.79		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.8	532	Total			

Summary for Subcatchment 11B: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 18.22 cfs @ 12.27 hrs, Volume= 1.745 af, Depth> 2.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	4,576	98	Impervious
*	203,815	70	Woods, Good, HSG C/D
*	112,423	74	>75% Grass cover, Good, HSG C/D
	320,814	72	Weighted Average
	316,238		98.57% Pervious Area
	4,576		1.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	96	0.0880	0.13		**Sheet Flow, a-b** Woods: Light underbrush n= 0.400 P2= 2.90"
4.6	357	0.0340	1.29		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
2.2	75	0.0534	0.58		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
18.9	528	Total			

Summary for Reach 5R: ANALYSIS POINT 5

Inflow Area = 5.017 ac, 0.00% Impervious, Inflow Depth > 2.92" for 50-year event
Inflow = 10.31 cfs @ 12.44 hrs, Volume= 1.222 af
Outflow = 10.31 cfs @ 12.44 hrs, Volume= 1.222 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 6R: AP for SC 6

Inflow Area = 5.752 ac, 4.38% Impervious, Inflow Depth > 3.01" for 50-year event
Inflow = 10.62 cfs @ 12.58 hrs, Volume= 1.441 af
Outflow = 10.62 cfs @ 12.58 hrs, Volume= 1.441 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 9R: ANALYSIS POINT 9

Inflow Area = 2.984 ac, 4.57% Impervious, Inflow Depth > 3.12" for 50-year event
Inflow = 7.02 cfs @ 12.37 hrs, Volume= 0.775 af
Outflow = 7.02 cfs @ 12.37 hrs, Volume= 0.775 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

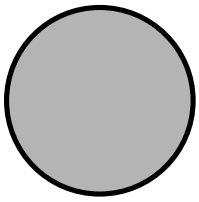
Summary for Reach 10R: Perkins Road Culvert

Inflow Area = 37.764 ac, 2.57% Impervious, Inflow Depth > 2.94" for 50-year event
Inflow = 42.72 cfs @ 13.28 hrs, Volume= 9.264 af
Outflow = 33.35 cfs @ 12.86 hrs, Volume= 9.266 af, Atten= 22%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Max. Velocity= 11.60 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 7.13 fps, Avg. Travel Time= 0.1 min

Peak Storage= 79 cf @ 12.90 hrs
Average Depth at Peak Storage= 2.00'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.99 cfs

24.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 25.0' Slope= 0.0200 '/'
Inlet Invert= 75.50', Outlet Invert= 75.00'



Summary for Reach 11R: At Stream 9

Inflow Area = 4.420 ac, 59.04% Impervious, Inflow Depth > 4.36" for 50-year event
Inflow = 22.24 cfs @ 12.10 hrs, Volume= 1.604 af
Outflow = 22.24 cfs @ 12.10 hrs, Volume= 1.604 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT1: Analysis Point 1 at BWD Little River

Inflow Area = 7.258 ac, 0.00% Impervious, Inflow Depth > 2.62" for 50-year event
Inflow = 9.79 cfs @ 12.80 hrs, Volume= 1.585 af
Outflow = 9.79 cfs @ 12.80 hrs, Volume= 1.585 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT10: Analysis point at Little River

Inflow Area = 2.114 ac, 26.07% Impervious, Inflow Depth > 3.83" for 50-year event
Inflow = 9.80 cfs @ 12.09 hrs, Volume= 0.675 af
Outflow = 9.80 cfs @ 12.09 hrs, Volume= 0.675 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT2: ANALYSIS POINT 2 - strm 3

Inflow Area = 18.339 ac, 0.00% Impervious, Inflow Depth > 2.66" for 50-year event
Inflow = 18.12 cfs @ 13.36 hrs, Volume= 4.067 af
Outflow = 18.12 cfs @ 13.36 hrs, Volume= 4.067 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT3: ANALYSIS POINT 3 - strm 5

Inflow Area = 12.345 ac, 1.52% Impervious, Inflow Depth > 2.91" for 50-year event
Inflow = 22.37 cfs @ 12.57 hrs, Volume= 2.997 af
Outflow = 22.37 cfs @ 12.57 hrs, Volume= 2.997 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT4: ANALYSIS POINT 4 - strm 6

Inflow Area = 11.164 ac, 2.34% Impervious, Inflow Depth > 3.01" for 50-year event
Inflow = 21.21 cfs @ 12.55 hrs, Volume= 2.799 af
Outflow = 21.21 cfs @ 12.55 hrs, Volume= 2.799 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT5: all points at BWD Reservoir

Inflow Area = 41.848 ac, 1.07% Impervious, Inflow Depth > 2.83" for 50-year event
Inflow = 51.29 cfs @ 12.61 hrs, Volume= 9.864 af
Outflow = 51.29 cfs @ 12.61 hrs, Volume= 9.864 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT6: Stream 9-1

Inflow Area = 45.168 ac, 8.23% Impervious, Inflow Depth > 3.09" for 50-year event
Inflow = 38.60 cfs @ 12.85 hrs, Volume= 11.645 af
Outflow = 37.83 cfs @ 12.90 hrs, Volume= 11.620 af, Atten= 2%, Lag= 3.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.03 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 2.54 fps, Avg. Travel Time= 3.2 min

Peak Storage= 3,653 cf @ 12.87 hrs
Average Depth at Peak Storage= 1.06'
Bank-Full Depth= 4.00' Flow Area= 52.0 sf, Capacity= 535.88 cfs

5.00' x 4.00' deep channel, n= 0.030 Stream, clean & straight
Side Slope Z-value= 2.0 '/' Top Width= 21.00'
Length= 483.0' Slope= 0.0145 '/'
Inlet Invert= 71.00', Outlet Invert= 64.00'



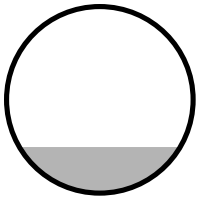
Summary for Reach PT7: ANALYSIS POINT 7 at US Rte 1 culvert

Inflow Area = 2.213 ac, 0.00% Impervious, Inflow Depth > 2.61" for 50-year event
Inflow = 2.79 cfs @ 12.89 hrs, Volume= 0.482 af
Outflow = 2.79 cfs @ 12.89 hrs, Volume= 0.482 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.24 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 4.36 fps, Avg. Travel Time= 0.3 min

Peak Storage= 28 cf @ 12.89 hrs
Average Depth at Peak Storage= 0.37'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0398 '/'
Inlet Invert= 21.60', Outlet Invert= 18.30'



Summary for Reach PT8: ANALYSIS POINT 8 at US Rte 1 culvert

Inflow Area = 0.344 ac, 0.00% Impervious, Inflow Depth > 2.74" for 50-year event
Inflow = 0.63 cfs @ 12.49 hrs, Volume= 0.078 af
Outflow = 0.63 cfs @ 12.50 hrs, Volume= 0.078 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.44 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.62 fps, Avg. Travel Time= 0.5 min

Peak Storage= 11 cf @ 12.49 hrs
Average Depth at Peak Storage= 0.05'
Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 144.91 cfs

36.0" W x 24.0" H Box Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 76.0' Slope= 0.0632 '/'
Inlet Invert= 23.40', Outlet Invert= 18.60'



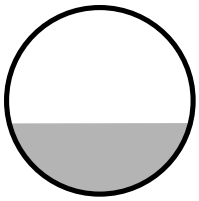
Summary for Reach PT9: Analysis Pt Stream 9 at US Rte 1 Culvert

Inflow Area = 63.301 ac, 6.44% Impervious, Inflow Depth > 3.02" for 50-year event
Inflow = 61.18 cfs @ 12.54 hrs, Volume= 15.923 af
Outflow = 61.18 cfs @ 12.54 hrs, Volume= 15.922 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 24.88 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 12.46 fps, Avg. Travel Time= 0.1 min

Peak Storage= 229 cf @ 12.54 hrs
Average Depth at Peak Storage= 1.14'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 200.22 cfs

36.0" Round Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 93.0' Slope= 0.0645 '/'
Inlet Invert= 20.00', Outlet Invert= 14.00'



Summary for Reach S9-2: Stream 9

Inflow Area = 63.301 ac, 6.44% Impervious, Inflow Depth > 3.04" for 50-year event
Inflow = 61.52 cfs @ 12.40 hrs, Volume= 16.029 af
Outflow = 61.26 cfs @ 12.51 hrs, Volume= 15.945 af, Atten= 0%, Lag= 6.7 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.84 fps, Min. Travel Time= 3.9 min
Avg. Velocity = 3.21 fps, Avg. Travel Time= 8.2 min

Peak Storage= 14,162 cf @ 12.45 hrs
Average Depth at Peak Storage= 1.21'
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 161.21 cfs

5.00' x 2.00' deep channel, n= 0.030 Stream, clean & straight
Side Slope Z-value= 2.0 '/' Top Width= 13.00'
Length= 1,580.0' Slope= 0.0233 '/'
Inlet Invert= 64.00', Outlet Invert= 27.25'



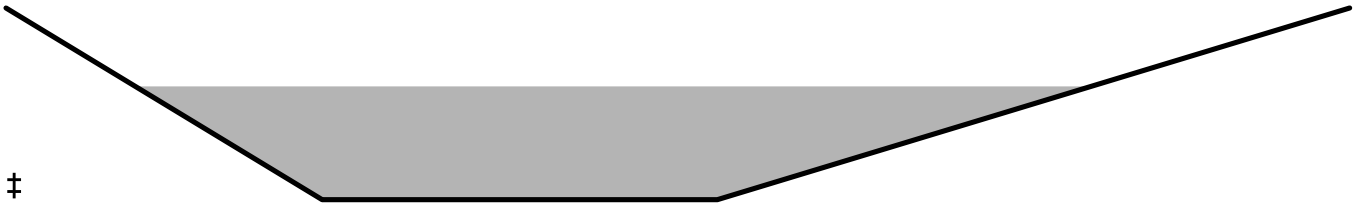
Summary for Reach S9-3: Stream 9

Inflow Area = 63.301 ac, 6.44% Impervious, Inflow Depth > 3.02" for 50-year event
Inflow = 61.26 cfs @ 12.51 hrs, Volume= 15.945 af
Outflow = 61.18 cfs @ 12.54 hrs, Volume= 15.923 af, Atten= 0%, Lag= 1.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.06 fps, Min. Travel Time= 1.0 min
Avg. Velocity = 2.92 fps, Avg. Travel Time= 2.1 min

Peak Storage= 3,678 cf @ 12.52 hrs
Average Depth at Peak Storage= 1.18'
Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 177.67 cfs

5.00' x 2.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 2.0 4.0 '/' Top Width= 17.00'
Length= 364.0' Slope= 0.0199 '/'
Inlet Invert= 27.25', Outlet Invert= 20.00'



‡

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: SUBCAT1 Runoff Area=316,158 sf 0.00% Impervious Runoff Depth>3.46"
Flow Length=898' Tc=57.7 min CN=70 Runoff=12.93 cfs 2.090 af

Subcatchment2S: SUBCAT2 Runoff Area=798,833 sf 0.00% Impervious Runoff Depth>3.50"
Flow Length=1,955' Tc=99.4 min CN=71 Runoff=23.83 cfs 5.347 af

Subcatchment3S: SUBCAT3 Runoff Area=537,749 sf 1.52% Impervious Runoff Depth>3.79"
Flow Length=1,933' Tc=40.6 min CN=73 Runoff=29.02 cfs 3.899 af

Subcatchment4S: SUBCAT4 Runoff Area=486,307 sf 2.34% Impervious Runoff Depth>3.90"
Flow Length=1,750' Tc=39.4 min CN=74 Runoff=27.38 cfs 3.626 af

Subcatchment5S: SUBCAT5 Runoff Area=218,524 sf 0.00% Impervious Runoff Depth>3.80"
Flow Length=839' Tc=31.3 min CN=73 Runoff=13.37 cfs 1.590 af

Subcatchment6A: SUBCAT6 Runoff Area=250,554 sf 4.38% Impervious Runoff Depth>3.89"
Flow Length=445' Tc=41.6 min CN=74 Runoff=13.71 cfs 1.867 af

Subcatchment6B: SUBCAT6 Runoff Area=92,095 sf 26.07% Impervious Runoff Depth>4.81"
Tc=6.0 min CN=82 Runoff=12.16 cfs 0.847 af

Subcatchment7S: SUBCAT7 Runoff Area=96,383 sf 0.00% Impervious Runoff Depth>3.45"
Flow Length=541' Tc=64.7 min CN=70 Runoff=3.68 cfs 0.636 af

Subcatchment8S: SUBCAT8 Runoff Area=14,976 sf 0.00% Impervious Runoff Depth>3.59"
Flow Length=276' Tc=34.7 min CN=71 Runoff=0.83 cfs 0.103 af

Subcatchment9S: OFFSITE 1 (Below Runoff Area=130,002 sf 4.57% Impervious Runoff Depth>4.02"
Flow Length=561' Tc=26.6 min CN=75 Runoff=9.01 cfs 1.000 af

Subcatchment10S: OFFSITE 2 (above Runoff Area=1,644,982 sf 2.57% Impervious Runoff Depth>3.82"
Flow Length=2,221' Tc=94.2 min CN=74 Runoff=55.26 cfs 12.013 af

Subcatchment11A: OFFSITE 3 (Matthew Runoff Area=192,533 sf 59.04% Impervious Runoff Depth>5.36"
Flow Length=532' Tc=6.8 min CN=87 Runoff=27.06 cfs 1.974 af

Subcatchment11B: OFFSITE 3 (Matthew Runoff Area=320,814 sf 1.43% Impervious Runoff Depth>3.71"
Flow Length=528' Tc=18.9 min CN=72 Runoff=23.78 cfs 2.280 af

Reach 5R: ANALYSISPOINT 5 Inflow=13.37 cfs 1.590 af
Outflow=13.37 cfs 1.590 af

Reach 6R: AP for SC 6 Inflow=13.71 cfs 1.867 af
Outflow=13.71 cfs 1.867 af

Reach 9R: ANALYSISPOINT 9 Inflow=9.01 cfs 1.000 af
Outflow=9.01 cfs 1.000 af

Reach 10R: Perkins Road Culvert Avg. Flow Depth=2.00' Max Vel=11.61 fps Inflow=55.26 cfs 12.013 af
24.0" Round Pipe n=0.013 L=25.0' S=0.0200 '/' Capacity=31.99 cfs Outflow=31.99 cfs 12.014 af

Reach 11R: At Stream 9 Inflow=27.06 cfs 1.974 af
Outflow=27.06 cfs 1.974 af

Reach PT1: Analysis Point 1 at BWD Little River Inflow=12.93 cfs 2.090 af
Outflow=12.93 cfs 2.090 af

Reach PT10: Analysis point at Little River Inflow=12.16 cfs 0.847 af
Outflow=12.16 cfs 0.847 af

Reach PT2: ANALYSIS POINT 2 - strm 3 Inflow=23.83 cfs 5.347 af
Outflow=23.83 cfs 5.347 af

Reach PT3: ANALYSIS POINT 3 - strm 5 Inflow=29.02 cfs 3.899 af
Outflow=29.02 cfs 3.899 af

Reach PT4: ANALYSIS POINT 4 - strm 6 Inflow=27.38 cfs 3.626 af
Outflow=27.38 cfs 3.626 af

Reach PT5: all points at BWD Reservoir Inflow=66.89 cfs 12.872 af
Outflow=66.89 cfs 12.872 af

Reach PT6: Stream 9-1 Avg. Flow Depth=1.10' Max Vel=5.14 fps Inflow=41.20 cfs 14.988 af
n=0.030 L=483.0' S=0.0145 '/' Capacity=535.88 cfs Outflow=40.75 cfs 14.959 af

Reach PT7: ANALYSIS POINT 7 at US Avg. Flow Depth=0.43' Max Vel=8.92 fps Inflow=3.68 cfs 0.636 af
18.0" Round Pipe n=0.013 L=83.0' S=0.0398 '/' Capacity=20.95 cfs Outflow=3.68 cfs 0.635 af

Reach PT8: ANALYSIS POINT 8 at US Avg. Flow Depth=0.06' Max Vel=4.91 fps Inflow=0.83 cfs 0.103 af
36.0" x 24.0" Box Pipe n=0.011 L=76.0' S=0.0632 '/' Capacity=144.91 cfs Outflow=0.83 cfs 0.103 af

Reach PT9: Analysis Pt Stream 9 at Avg. Flow Depth=1.31' Max Vel=26.69 fps Inflow=79.54 cfs 20.574 af
36.0" Round Pipe n=0.011 L=93.0' S=0.0645 '/' Capacity=200.22 cfs Outflow=79.53 cfs 20.573 af

Reach S9-2: Stream 9 Avg. Flow Depth=1.39' Max Vel=7.37 fps Inflow=79.93 cfs 20.695 af
n=0.030 L=1,580.0' S=0.0233 '/' Capacity=161.21 cfs Outflow=79.63 cfs 20.599 af

Reach S9-3: Stream 9 Avg. Flow Depth=1.35' Max Vel=6.51 fps Inflow=79.63 cfs 20.599 af
n=0.030 L=364.0' S=0.0199 '/' Capacity=177.67 cfs Outflow=79.54 cfs 20.574 af

Total Runoff Area = 117.078 ac Runoff Volume = 37.272 af Average Runoff Depth = 3.82"
95.67% Pervious = 112.004 ac 4.33% Impervious = 5.074 ac

Summary for Subcatchment 1S: SUBCAT 1

Runoff = 12.93 cfs @ 12.78 hrs, Volume= 2.090 af, Depth> 3.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	303,390	70	Woods, Good, HSG C/D
	12,768	70	Woods, Good, HSG C
	316,158	70	Weighted Average
	316,158		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.6	88	0.0450	0.06		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
3.5	65	0.0150	0.31		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.0	72	0.0550	0.59		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
25.6	470	0.0150	0.31		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
1.0	203	0.1000	3.41	13.64	**Trap/Vee/Rect Channel Flow, e-f** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
57.7	898	Total			

Summary for Subcatchment 2S: SUBCAT 2

Runoff = 23.83 cfs @ 13.35 hrs, Volume= 5.347 af, Depth> 3.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	653,559	70	Woods, Good, HSG C/D
*	145,274	74	>75% Grass cover, Good, HSG C/D
	798,833	71	Weighted Average
	798,833		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
46.5	206	0.0050	0.07		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
5.6	258	0.0120	0.77		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
7.3	267	0.0600	0.61		**Shallow Concentrated Flow, C-D** Forest w/Heavy Litter Kv= 2.5 fps
13.3	199	0.0100	0.25		**Shallow Concentrated Flow, D-E** Forest w/Heavy Litter Kv= 2.5 fps
1.2	41	0.0490	0.55		**Shallow Concentrated Flow, E-F** Forest w/Heavy Litter Kv= 2.5 fps
22.1	468	0.0200	0.35		**Shallow Concentrated Flow, F-G** Forest w/Heavy Litter Kv= 2.5 fps
3.4	516	0.0550	2.53	10.11	**Trap/Vee/Rect Channel Flow, G-H** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
99.4	1,955	Total			

Summary for Subcatchment 3S: SUBCAT 3

Runoff = 29.02 cfs @ 12.56 hrs, Volume= 3.899 af, Depth> 3.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	8,178	98	impervious
	366,332	74	>75% Grass cover, Good, HSG C
	163,239	70	Woods, Good, HSG C
	537,749	73	Weighted Average
	529,571		98.48% Pervious Area
	8,178		1.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	22	0.0900	1.77		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
10.8	691	0.0230	1.06		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
3.4	155	0.0230	0.76		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
9.3	372	0.0090	0.66		**Shallow Concentrated Flow, D-E** Short Grass Pasture Kv= 7.0 fps
2.3	134	0.0190	0.96		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
12.6	254	0.0180	0.34		**Shallow Concentrated Flow, F-G** Forest w/Heavy Litter Kv= 2.5 fps
2.0	305	0.0560	2.55	10.21	**Trap/Vee/Rect Channel Flow, G-H** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
40.6	1,933	Total			

Summary for Subcatchment 4S: SUBCAT 4

Runoff = 27.38 cfs @ 12.54 hrs, Volume= 3.626 af, Depth> 3.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	11,390	98	impervious
	346,747	74	>75% Grass cover, Good, HSG C
	128,170	70	Woods, Good, HSG C
	486,307	74	Weighted Average
	474,917		97.66% Pervious Area
	11,390		2.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.3	163	0.0250	0.13		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
7.7	469	0.0210	1.01		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
5.9	545	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
2.2	184	0.0380	1.36		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
3.3	389	0.0330	1.96	7.83	**Trap/Vee/Rect Channel Flow, e-f** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
39.4	1,750	Total			

Summary for Subcatchment 5S: SUBCAT 5

Runoff = 13.37 cfs @ 12.44 hrs, Volume= 1.590 af, Depth> 3.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

Area (sf)	CN	Description
45,100	70	Woods, Good, HSG C
173,424	74	>75% Grass cover, Good, HSG C
218,524	73	Weighted Average
218,524		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.0	198	0.0270	0.14		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
2.9	146	0.0140	0.83		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
3.8	285	0.0320	1.25		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
1.6	210	0.0430	2.24	8.94	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
31.3	839	Total			

Summary for Subcatchment 6A: SUBCAT 6

Runoff = 13.71 cfs @ 12.57 hrs, Volume= 1.867 af, Depth> 3.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	139,667	70	Woods, Good, HSG C/D
*	62,587	74	>75% Grass cover, Good, HSG C/D
	19,893	80	>75% Grass cover, Good, HSG D
*	7,818	96	Gravel
*	10,965	98	Impervious
	9,624	77	Woods, Good, HSG D
	250,554	74	Weighted Average
	239,589		95.62% Pervious Area
	10,965		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
5.2	92	0.0140	0.30		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
1.8	74	0.0100	0.70		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
1.7	163	0.0550	1.64		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
0.8	39	0.1000	0.79		**Shallow Concentrated Flow, e-f** Forest w/Heavy Litter Kv= 2.5 fps
0.1	10	0.5000	1.77		**Shallow Concentrated Flow, f-g** Forest w/Heavy Litter Kv= 2.5 fps
41.6	445	Total			

Summary for Subcatchment 6B: SUBCAT 6

Runoff = 12.16 cfs @ 12.09 hrs, Volume= 0.847 af, Depth> 4.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	13,593	70	Woods, Good, HSG C/D
	32,096	80	>75% Grass cover, Good, HSG D
*	24,006	98	Impervious
	22,400	77	Woods, Good, HSG D
	92,095	82	Weighted Average
	68,089		73.93% Pervious Area
	24,006		26.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, direct entry**

Summary for Subcatchment 7S: SUBCAT 7

Runoff = 3.68 cfs @ 12.88 hrs, Volume= 0.636 af, Depth> 3.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	93,505	70	Woods, Good, HSG C/D
*	2,878	74	>75% Grass cover, Good, HSG C/D
	96,383	70	Weighted Average
	96,383		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
54.6	172	0.0260	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
2.8	112	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	13	0.2300	1.20		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.6	171	0.0300	0.43		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
0.5	73	0.0600	2.64	10.56	**Trap/Vee/Rect Channel Flow, e-f** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage
64.7	541	Total			

Summary for Subcatchment 8S: SUBCAT 8

Runoff = 0.83 cfs @ 12.48 hrs, Volume= 0.103 af, Depth> 3.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	12,652	70	Woods, Good, HSG C/D
*	2,324	74	>75% Grass cover, Good, HSG C/D
	14,976	71	Weighted Average
	14,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
1.1	43	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.7100	2.11		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
1.5	152	0.0240	1.67	6.68	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100
34.7	276	Total			

Summary for Subcatchment 9S: OFFSITE 1 (Below Perkins Rd)

Runoff = 9.01 cfs @ 12.37 hrs, Volume= 1.000 af, Depth> 4.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	5,945	98	Impervious
	16,570	70	Woods, Good, HSG C
	107,487	74	>75% Grass cover, Good, HSG C
	130,002	75	Weighted Average
	124,057		95.43% Pervious Area
	5,945		4.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	90	0.0110	0.09		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
1.5	171	0.0700	1.85		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
6.9	257	0.0620	0.62		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.7	43	0.1860	1.08		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
26.6	561	Total			

Summary for Subcatchment 10S: OFFSITE 2 (above Perkins Rd)

Runoff = 55.26 cfs @ 13.28 hrs, Volume= 12.013 af, Depth> 3.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	298,066	70	Woods, Good, HSG C/D
*	42,276	98	Impervious
*	1,304,640	74	>75% Grass cover, Good, HSG C/D
	1,644,982	74	Weighted Average
	1,602,706		97.43% Pervious Area
	42,276		2.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.2	141	0.0280	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
15.3	384	0.0280	0.42		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.5	227	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
18.6	780	0.0100	0.70		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
12.6	689	0.0170	0.91		**Shallow Concentrated Flow, e-f** Short Grass Pasture Kv= 7.0 fps
94.2	2,221	Total			

Summary for Subcatchment 11A: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 27.06 cfs @ 12.10 hrs, Volume= 1.974 af, Depth> 5.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	113,681	98	Impervious
*	33,806	70	Woods, Good, HSG C/D
*	45,046	74	>75% Grass cover, Good, HSG C/D
	192,533	87	Weighted Average
	78,852		40.96% Pervious Area
	113,681		59.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	16	0.1870	2.22		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
4.7	419	0.0100	1.50		**Shallow Concentrated Flow, b-c** Grassed Waterway Kv= 15.0 fps
2.0	97	0.1000	0.79		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.8	532	Total			

Summary for Subcatchment 11B: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 23.78 cfs @ 12.26 hrs, Volume= 2.280 af, Depth> 3.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	4,576	98	Impervious
*	203,815	70	Woods, Good, HSG C/D
*	112,423	74	>75% Grass cover, Good, HSG C/D
	320,814	72	Weighted Average
	316,238		98.57% Pervious Area
	4,576		1.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	96	0.0880	0.13		**Sheet Flow, a-b** Woods: Light underbrush n= 0.400 P2= 2.90"
4.6	357	0.0340	1.29		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
2.2	75	0.0534	0.58		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
18.9	528	Total			

Summary for Reach 5R: ANALYSIS POINT 5

Inflow Area = 5.017 ac, 0.00% Impervious, Inflow Depth > 3.80" for 100-year event
Inflow = 13.37 cfs @ 12.44 hrs, Volume= 1.590 af
Outflow = 13.37 cfs @ 12.44 hrs, Volume= 1.590 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 6R: AP for SC 6

Inflow Area = 5.752 ac, 4.38% Impervious, Inflow Depth > 3.89" for 100-year event
Inflow = 13.71 cfs @ 12.57 hrs, Volume= 1.867 af
Outflow = 13.71 cfs @ 12.57 hrs, Volume= 1.867 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 9R: ANALYSIS POINT 9

Inflow Area = 2.984 ac, 4.57% Impervious, Inflow Depth > 4.02" for 100-year event
Inflow = 9.01 cfs @ 12.37 hrs, Volume= 1.000 af
Outflow = 9.01 cfs @ 12.37 hrs, Volume= 1.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

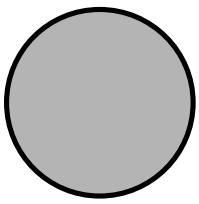
Summary for Reach 10R: Perkins Road Culvert

Inflow Area = 37.764 ac, 2.57% Impervious, Inflow Depth > 3.82" for 100-year event
Inflow = 55.26 cfs @ 13.28 hrs, Volume= 12.013 af
Outflow = 31.99 cfs @ 12.75 hrs, Volume= 12.014 af, Atten= 42%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Max. Velocity= 11.61 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 7.35 fps, Avg. Travel Time= 0.1 min

Peak Storage= 79 cf @ 12.70 hrs
Average Depth at Peak Storage= 2.00'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.99 cfs

24.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 25.0' Slope= 0.0200 '/'
Inlet Invert= 75.50', Outlet Invert= 75.00'



Summary for Reach 11R: At Stream 9

Inflow Area = 4.420 ac, 59.04% Impervious, Inflow Depth > 5.36" for 100-year event
Inflow = 27.06 cfs @ 12.10 hrs, Volume= 1.974 af
Outflow = 27.06 cfs @ 12.10 hrs, Volume= 1.974 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT1: Analysis Point 1 at BWD Little River

Inflow Area = 7.258 ac, 0.00% Impervious, Inflow Depth > 3.46" for 100-year event
Inflow = 12.93 cfs @ 12.78 hrs, Volume= 2.090 af
Outflow = 12.93 cfs @ 12.78 hrs, Volume= 2.090 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT10: Analysis point at Little River

Inflow Area = 2.114 ac, 26.07% Impervious, Inflow Depth > 4.81" for 100-year event
Inflow = 12.16 cfs @ 12.09 hrs, Volume= 0.847 af
Outflow = 12.16 cfs @ 12.09 hrs, Volume= 0.847 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT2: ANALYSIS POINT 2 - strm 3

Inflow Area = 18.339 ac, 0.00% Impervious, Inflow Depth > 3.50" for 100-year event
Inflow = 23.83 cfs @ 13.35 hrs, Volume= 5.347 af
Outflow = 23.83 cfs @ 13.35 hrs, Volume= 5.347 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT3: ANALYSIS POINT 3 - strm 5

Inflow Area = 12.345 ac, 1.52% Impervious, Inflow Depth > 3.79" for 100-year event
Inflow = 29.02 cfs @ 12.56 hrs, Volume= 3.899 af
Outflow = 29.02 cfs @ 12.56 hrs, Volume= 3.899 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT4: ANALYSIS POINT 4 - strm 6

Inflow Area = 11.164 ac, 2.34% Impervious, Inflow Depth > 3.90" for 100-year event
Inflow = 27.38 cfs @ 12.54 hrs, Volume= 3.626 af
Outflow = 27.38 cfs @ 12.54 hrs, Volume= 3.626 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT5: all points at BWD Reservoir

Inflow Area = 41.848 ac, 1.07% Impervious, Inflow Depth > 3.69" for 100-year event
Inflow = 66.89 cfs @ 12.61 hrs, Volume= 12.872 af
Outflow = 66.89 cfs @ 12.61 hrs, Volume= 12.872 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT6: Stream 9-1

Inflow Area = 45.168 ac, 8.23% Impervious, Inflow Depth > 3.98" for 100-year event
Inflow = 41.20 cfs @ 12.66 hrs, Volume= 14.988 af
Outflow = 40.75 cfs @ 12.72 hrs, Volume= 14.959 af, Atten= 1%, Lag= 3.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.14 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 2.81 fps, Avg. Travel Time= 2.9 min

Peak Storage= 3,844 cf @ 12.70 hrs
Average Depth at Peak Storage= 1.10'
Bank-Full Depth= 4.00' Flow Area= 52.0 sf, Capacity= 535.88 cfs

5.00' x 4.00' deep channel, n= 0.030 Stream, clean & straight
Side Slope Z-value= 2.0 '/' Top Width= 21.00'
Length= 483.0' Slope= 0.0145 '/'
Inlet Invert= 71.00', Outlet Invert= 64.00'



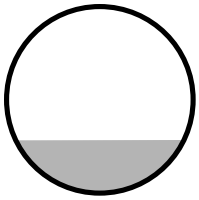
Summary for Reach PT7: ANALYSIS POINT 7 at US Rte 1 culvert

Inflow Area = 2.213 ac, 0.00% Impervious, Inflow Depth > 3.45" for 100-year event
Inflow = 3.68 cfs @ 12.88 hrs, Volume= 0.636 af
Outflow = 3.68 cfs @ 12.88 hrs, Volume= 0.635 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.92 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 4.60 fps, Avg. Travel Time= 0.3 min

Peak Storage= 34 cf @ 12.88 hrs
Average Depth at Peak Storage= 0.43'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0398 '/'
Inlet Invert= 21.60', Outlet Invert= 18.30'



Summary for Reach PT8: ANALYSIS POINT 8 at US Rte 1 culvert

Inflow Area = 0.344 ac, 0.00% Impervious, Inflow Depth > 3.59" for 100-year event
Inflow = 0.83 cfs @ 12.48 hrs, Volume= 0.103 af
Outflow = 0.83 cfs @ 12.49 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.91 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.66 fps, Avg. Travel Time= 0.5 min

Peak Storage= 13 cf @ 12.49 hrs
Average Depth at Peak Storage= 0.06'
Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 144.91 cfs

36.0" W x 24.0" H Box Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 76.0' Slope= 0.0632 '/'
Inlet Invert= 23.40', Outlet Invert= 18.60'



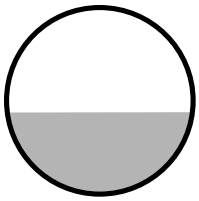
Summary for Reach PT9: Analysis Pt Stream 9 at US Rte 1 Culvert

Inflow Area = 63.301 ac, 6.44% Impervious, Inflow Depth > 3.90" for 100-year event
Inflow = 79.54 cfs @ 12.53 hrs, Volume= 20.574 af
Outflow = 79.53 cfs @ 12.53 hrs, Volume= 20.573 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 26.69 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 13.65 fps, Avg. Travel Time= 0.1 min

Peak Storage= 277 cf @ 12.53 hrs
Average Depth at Peak Storage= 1.31'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 200.22 cfs

36.0" Round Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 93.0' Slope= 0.0645 '/'
Inlet Invert= 20.00', Outlet Invert= 14.00'



Summary for Reach S9-2: Stream 9

Inflow Area = 63.301 ac, 6.44% Impervious, Inflow Depth > 3.92" for 100-year event
Inflow = 79.93 cfs @ 12.39 hrs, Volume= 20.695 af
Outflow = 79.63 cfs @ 12.50 hrs, Volume= 20.599 af, Atten= 0%, Lag= 6.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.37 fps, Min. Travel Time= 3.6 min
Avg. Velocity = 3.57 fps, Avg. Travel Time= 7.4 min

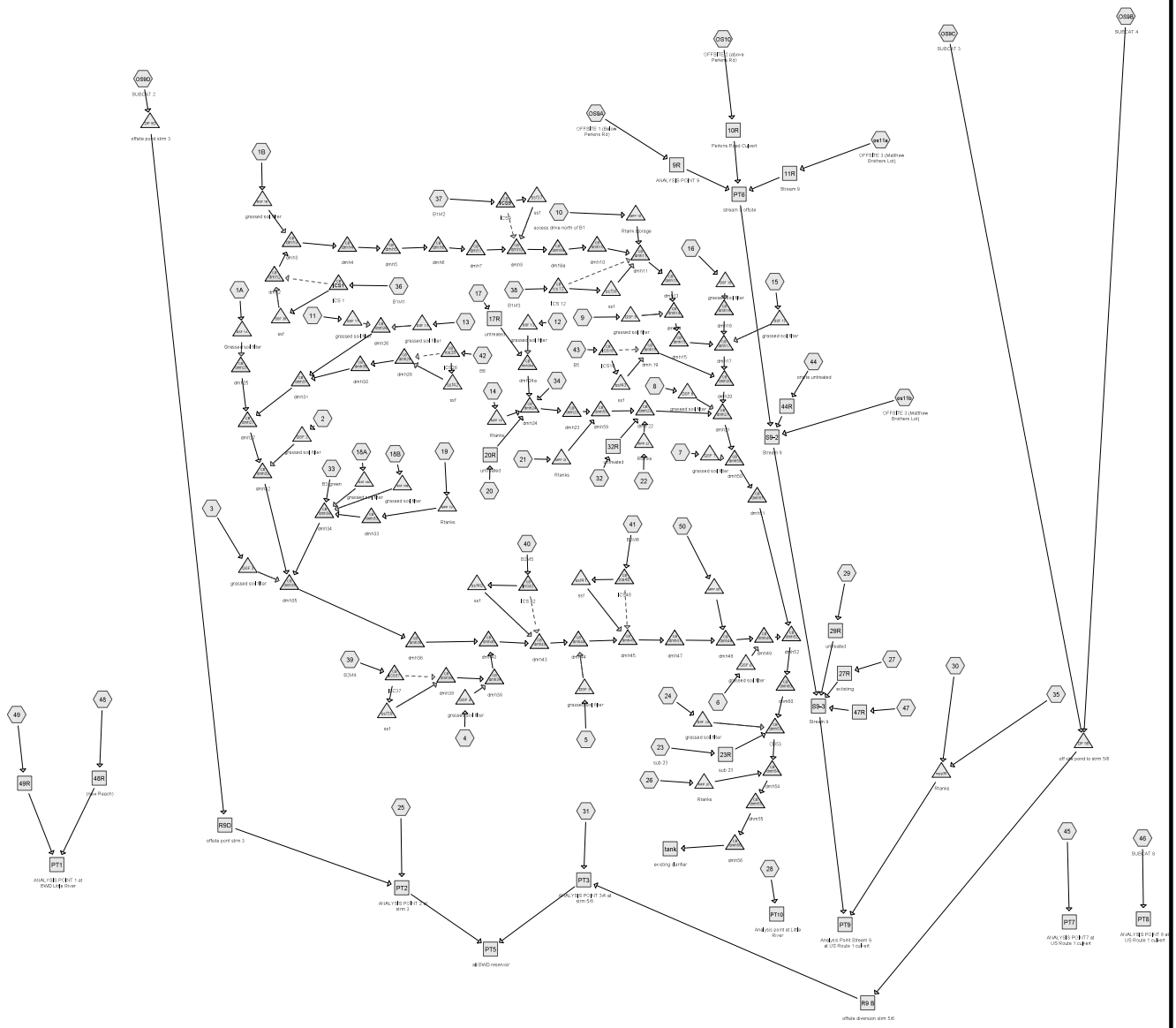
Peak Storage= 17,078 cf @ 12.44 hrs
Average Depth at Peak Storage= 1.39'
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 161.21 cfs

5.00' x 2.00' deep channel, n= 0.030 Stream, clean & straight
Side Slope Z-value= 2.0 '/' Top Width= 13.00'
Length= 1,580.0' Slope= 0.0233 '/'
Inlet Invert= 64.00', Outlet Invert= 27.25'



Summary for Reach S9-3: Stream 9

Inflow Area = 63.301 ac, 6.44% Impervious, Inflow Depth > 3.90" for 100-year event
Inflow = 79.63 cfs @ 12.50 hrs, Volume= 20.599 af
Outflow = 79.54 cfs @ 12.53 hrs, Volume= 20.574 af, Atten= 0%, Lag= 1.6 min



Subcat Reach Pond Link

Routing Diagram for post conditions
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
16.653	74	>75% Grass cover, Good, HSG C (1B, 2, 4, 5, 6, 7, 8, 12, 14, 23, OS9A, OS9B, OS9C)
0.266	77	>75% Grass cover, Good, HSG C/D (1A)
42.912	74	>75% Grass cover, Good, HSG C/D (2, 3, 7, 9, 11, 13, 15, 16, 17, 18A, 18B, 19, 20, 21, 22, 25, 30, 31, 32, 44, 45, 46, 47, 48, 49, OS10, os11a, os11b, OS9D)
1.458	80	>75% Grass cover, Good, HSG D (24, 28, 47)
11.953	98	Impervious (1B, 2, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18A, 18B, 19, 20, 21, 22, 24, 26, 27, 28, 29, 30, 32, 42, 43, 47, 49, 50, OS10, os11a, os11b, OS9A)
0.301	98	Impervious, HSG C (3)
0.314	98	Impervious, HSG C/D (1A, 12)
0.143	98	Paved parking, HSG C (23)
15.504	98	Roof (36, 37, 38, 39, 40, 41)
3.994	70	Woods, Good, HSG C (23, 48, OS9A, OS9B, OS9C)
24.547	70	Woods, Good, HSG C/D (3, 25, 31, 44, 45, 46, 47, 48, 49, OS10, os11a, os11b, OS9D)
0.147	77	Woods, Good, HSG D (28)
0.249	79	Woods/grass comb., Good, HSG D (28)
0.449	98	impervious (OS9B, OS9C)
0.111	98	penhouse/walks on roof (34)
0.414	98	penthouse (33)
0.096	98	penthouse/walks on roof (35)
0.110	74	vegetated roof (15)
2.891	61	vegetated roof (33, 34, 35)
122.513	**79**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
89.131	HSG C	1A, 1B, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18A, 18B, 19, 20, 21, 22, 23, 25, 30, 31, 32, 44, 45, 46, 47, 48, 49, OS10, os11a, os11b, OS9A, OS9B, OS9C, OS9D
1.854	HSG D	24, 28, 47
31.528	Other	1B, 2, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18A, 18B, 19, 20, 21, 22, 24, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 47, 49, 50, OS10, os11a, os11b, OS9A, OS9B, OS9C
122.513		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	59.831	1.458	0.000	61.289	>75% Grass cover, Good	1A, 1B, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18A, 18B, 19, 20, 21, 22, 23, 24, 25, 28, 30, 31, 32, 44, 45, 46, 47, 48, 49, OS10, os11a, os11b, OS9A, OS9B, OS9C, OS9D
0.000	0.000	0.615	0.000	11.953	12.567	Impervious	1A, 1B, 2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18A, 18B, 19, 20, 21, 22, 24, 26, 27, 28, 29, 30, 32, 42, 43, 47, 49, 50, OS10,

Ground Covers (all nodes) (continued)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.143	0.000	0.000	0.143	Paved parking	23
0.000	0.000	0.000	0.000	15.504	15.504	Roof	36, 37, 38, 39, 40, 41
0.000	0.000	28.541	0.147	0.000	28.689	Woods, Good	3, 23, 25, 28, 31, 44, 45, 46, 47, 48, 49, OS10, os11a, os11b, OS9A, OS9B, OS9C, OS9D
0.000	0.000	0.000	0.249	0.000	0.249	Woods/grass comb., Good	28
0.000	0.000	0.000	0.000	0.449	0.449	impervious	OS9B, OS9C
0.000	0.000	0.000	0.000	0.111	0.111	penhouse/walks on roof	34
0.000	0.000	0.000	0.000	0.414	0.414	penthouse	33
0.000	0.000	0.000	0.000	0.096	0.096	penthouse/walks on roof	35
0.000	0.000	0.000	0.000	3.001	3.001	vegetated roof	15, 33, 34, 35
0.000	**0.000**	**89.131**	**1.854**	**31.528**	**122.513**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	10R	75.50	75.00	25.0	0.0200	0.013	24.0	0.0	0.0
2	PT7	21.60	18.30	83.0	0.0398	0.013	18.0	0.0	0.0
3	PT8	23.40	18.60	76.0	0.0632	0.011	36.0	24.0	0.0
4	PT9	20.00	14.00	93.0	0.0645	0.011	36.0	0.0	0.0
5	dmh10	54.59	53.56	206.0	0.0050	0.013	24.0	0.0	0.0
6	dmh11	53.54	53.12	84.0	0.0050	0.013	30.0	0.0	0.0
7	dmh13	53.10	52.09	201.0	0.0050	0.013	30.0	0.0	0.0
8	dmh14	52.07	51.95	23.0	0.0052	0.020	30.0	0.0	0.0
9	dmh15	51.95	51.50	90.0	0.0050	0.013	30.0	0.0	0.0
10	dmh16	60.50	58.00	198.0	0.0126	0.013	12.0	0.0	0.0
11	dmh17	51.48	51.30	35.0	0.0051	0.013	30.0	0.0	0.0
12	dmh19	54.48	53.89	59.0	0.0100	0.013	12.0	0.0	0.0
13	dmh2	63.00	61.50	100.0	0.0150	0.013	18.0	0.0	0.0
14	dmh20	51.28	50.78	100.0	0.0050	0.013	30.0	0.0	0.0
15	dmh21	50.76	46.00	281.0	0.0169	0.013	30.0	0.0	0.0
16	dmh22	51.50	51.03	93.0	0.0051	0.013	15.0	0.0	0.0
17	dmh23	55.19	54.50	138.0	0.0050	0.013	12.0	0.0	0.0
18	dmh24	56.10	55.92	72.0	0.0025	0.013	12.0	0.0	0.0
19	dmh24a	58.00	57.10	95.0	0.0095	0.013	8.0	0.0	0.0
20	dmh25	60.00	55.00	98.0	0.0510	0.013	12.0	0.0	0.0
21	dmh26	57.75	57.61	28.0	0.0050	0.020	12.0	0.0	0.0
22	dmh27	53.03	51.75	256.0	0.0050	0.013	12.0	0.0	0.0
23	dmh29	57.85	57.39	46.0	0.0100	0.013	8.0	0.0	0.0
24	dmh3	60.50	59.84	125.0	0.0053	0.013	24.0	0.0	0.0
25	dmh30	55.40	54.37	206.0	0.0050	0.013	12.0	0.0	0.0
26	dmh31	54.35	53.05	259.0	0.0050	0.013	12.0	0.0	0.0
27	dmh32	51.73	51.60	36.0	0.0036	0.013	12.0	0.0	0.0
28	dmh33	54.00	52.01	201.0	0.0099	0.013	12.0	0.0	0.0
29	dmh34	51.99	51.60	39.0	0.0100	0.013	12.0	0.0	0.0
30	dmh35	51.55	50.17	276.0	0.0050	0.013	18.0	0.0	0.0
31	dmh36	50.15	49.35	159.0	0.0050	0.013	18.0	0.0	0.0
32	dmh38	51.98	50.92	106.0	0.0100	0.013	18.0	0.0	0.0
33	dmh39	50.59	50.32	58.0	0.0047	0.013	18.0	0.0	0.0
34	dmh4	59.84	59.57	66.0	0.0041	0.013	24.0	0.0	0.0
35	dmh40	49.33	47.63	340.0	0.0050	0.013	24.0	0.0	0.0
36	dmh43	47.61	46.64	193.0	0.0050	0.013	24.0	0.0	0.0
37	dmh44	46.62	46.21	82.0	0.0050	0.013	30.0	0.0	0.0
38	dmh45	46.19	44.61	316.0	0.0050	0.013	30.0	0.0	0.0
39	dmh47	44.00	42.96	104.0	0.0100	0.013	30.0	0.0	0.0
40	dmh48	42.94	42.35	117.0	0.0050	0.013	30.0	0.0	0.0

Pipe Listing (all nodes) (continued)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
41	dmh49	42.33	42.23	14.0	0.0071	0.013	36.0	0.0	0.0
42	dmh5	59.48	58.61	173.0	0.0050	0.013	24.0	0.0	0.0
43	dmh50	44.75	44.11	64.0	0.0100	0.013	30.0	0.0	0.0
44	dmh51	44.09	43.00	38.0	0.0287	0.013	30.0	0.0	0.0
45	dmh52	41.00	36.00	258.0	0.0194	0.013	42.0	0.0	0.0
46	dmh53	33.00	30.50	120.0	0.0208	0.013	42.0	0.0	0.0
47	dmh54	27.00	22.00	152.0	0.0329	0.013	48.0	0.0	0.0
48	dmh55	19.00	15.50	115.0	0.0304	0.013	48.0	0.0	0.0
49	dmh56	12.50	11.00	42.0	0.0357	0.013	48.0	0.0	0.0
50	dmh59	54.30	52.83	294.0	0.0050	0.013	12.0	0.0	0.0
51	dmh6	58.58	57.73	170.0	0.0050	0.020	24.0	0.0	0.0
52	dmh60	35.50	33.50	114.0	0.0175	0.013	48.0	0.0	0.0
53	dmh7	57.71	56.86	170.0	0.0050	0.013	24.0	0.0	0.0
54	dmh8	56.84	55.66	296.0	0.0040	0.013	24.0	0.0	0.0
55	dmh9a	55.64	54.61	206.0	0.0050	0.013	24.0	0.0	0.0
56	DP 9B	53.00	52.00	670.0	0.0015	0.020	12.0	0.0	0.0
57	DP 9D	53.50	52.00	1,260.0	0.0012	0.020	12.0	0.0	0.0
58	GSF 11	58.05	57.78	27.0	0.0100	0.013	8.0	0.0	0.0
59	GSF 12	58.20	58.10	21.0	0.0048	0.013	8.0	0.0	0.0
60	GSF 13	58.05	57.82	23.0	0.0100	0.013	8.0	0.0	0.0
61	GSF 15	60.70	60.52	18.0	0.0100	0.013	8.0	0.0	0.0
62	GSF 16	60.70	60.54	16.0	0.0100	0.013	8.0	0.0	0.0
63	GSF 18A	54.00	53.95	11.0	0.0045	0.013	8.0	0.0	0.0
64	GSF 18B	54.00	53.95	11.0	0.0045	0.013	8.0	0.0	0.0
65	GSF 1A	62.50	62.26	27.0	0.0089	0.013	8.0	0.0	0.0
66	GSF 1B	62.70	62.60	20.0	0.0050	0.013	8.0	0.0	0.0
67	GSF 2	53.95	53.76	19.0	0.0100	0.013	8.0	0.0	0.0
68	GSF 24	36.80	36.00	40.0	0.0200	0.013	8.0	0.0	0.0
69	GSF 3	51.95	51.81	14.0	0.0100	0.013	12.0	0.0	0.0
70	GSF 4	51.70	51.53	17.0	0.0100	0.013	8.0	0.0	0.0
71	GSF 5	51.00	50.95	5.0	0.0100	0.013	8.0	0.0	0.0
72	GSF 6	44.70	44.53	17.0	0.0100	0.013	8.0	0.0	0.0
73	GSF 7	51.00	50.48	26.0	0.0200	0.013	8.0	0.0	0.0
74	GSF 8	53.50	52.93	57.0	0.0100	0.013	8.0	0.0	0.0
75	GSF 9	59.00	57.92	54.0	0.0200	0.013	8.0	0.0	0.0
76	ics 12	60.70	60.15	4.0	0.1375	0.013	18.0	0.0	0.0
77	ics 12	60.75	60.72	5.0	0.0060	0.013	12.0	0.0	0.0
78	ICS1	63.37	63.27	23.0	0.0043	0.013	18.0	0.0	0.0
79	ICS1	63.37	63.37	5.0	0.0000	0.013	12.0	0.0	0.0
80	ICS18	57.81	57.80	5.0	0.0020	0.013	8.0	0.0	0.0

Pipe Listing (all nodes) (continued)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
81	ICS18	57.80	56.96	84.0	0.0100	0.013	12.0	0.0	0.0
82	ics28	58.00	57.90	10.0	0.0100	0.013	8.0	0.0	0.0
83	ics28	58.15	58.12	5.0	0.0060	0.013	8.0	0.0	0.0
84	ICS37	52.50	52.00	51.0	0.0098	0.013	18.0	0.0	0.0
85	ICS37	52.80	52.75	5.0	0.0100	0.013	12.0	0.0	0.0
86	ics46	46.20	46.00	22.0	0.0091	0.013	18.0	0.0	0.0
87	ics46	46.80	46.75	5.0	0.0100	0.013	12.0	0.0	0.0
88	ICS9	61.70	61.00	14.0	0.0500	0.013	18.0	0.0	0.0
89	ICS9	62.00	61.65	5.0	0.0700	0.013	12.0	0.0	0.0
90	ISC42	52.20	51.88	16.0	0.0200	0.013	18.0	0.0	0.0
91	ISC42	52.80	52.75	5.0	0.0100	0.013	12.0	0.0	0.0
92	MPP 10	61.48	61.40	2.0	0.0400	0.013	8.0	0.0	0.0
93	MPP 14	56.23	56.12	21.0	0.0052	0.013	8.0	0.0	0.0
94	MPP 19	55.08	55.00	19.0	0.0042	0.013	6.0	0.0	0.0
95	MPP 21	54.73	54.73	2.0	0.0000	0.013	6.0	0.0	0.0
96	MPP 22	55.05	55.05	2.0	0.0000	0.013	6.0	0.0	0.0
97	MPP 26	34.62	34.34	8.0	0.0350	0.013	8.0	0.0	0.0
98	MPP 50	54.58	54.55	3.0	0.0100	0.013	8.0	0.0	0.0
99	mpp30	29.28	29.00	20.0	0.0140	0.013	18.0	0.0	0.0
100	SSF 36	64.31	64.31	5.0	0.0000	0.013	12.0	0.0	0.0
101	ssf37	62.89	62.89	5.0	0.0000	0.013	12.0	0.0	0.0
102	ssf38	61.66	61.66	5.0	0.0000	0.013	12.0	0.0	0.0
103	ssf39	53.71	53.71	5.0	0.0000	0.013	12.0	0.0	0.0
104	ssf40	53.71	53.71	5.0	0.0000	0.013	12.0	0.0	0.0
105	ssf41	47.71	47.71	5.0	0.0000	0.013	12.0	0.0	0.0
106	ssf42	60.05	60.06	5.0	-0.0020	0.013	8.0	0.0	0.0
107	ssf43	59.28	59.28	5.0	0.0000	0.013	8.0	0.0	0.0

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment1A: Runoff Area=17,785 sf 34.88% Impervious Runoff Depth=1.43"
Tc=6.0 min CN=84 Runoff=0.69 cfs 0.049 af

Subcatchment1B: Runoff Area=24,849 sf 27.49% Impervious Runoff Depth=1.24"
Tc=6.0 min CN=81 Runoff=0.82 cfs 0.059 af

Subcatchment2: Runoff Area=31,049 sf 25.93% Impervious Runoff Depth=1.18"
Tc=6.0 min CN=80 Runoff=0.96 cfs 0.070 af

Subcatchment3: Runoff Area=36,147 sf 36.22% Impervious Runoff Depth=1.30"
Tc=6.0 min CN=82 Runoff=1.26 cfs 0.090 af

Subcatchment4: Runoff Area=8,448 sf 0.00% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=74 Runoff=0.18 cfs 0.014 af

Subcatchment5: Runoff Area=10,807 sf 0.00% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=74 Runoff=0.23 cfs 0.017 af

Subcatchment6: Runoff Area=13,985 sf 32.06% Impervious Runoff Depth=1.30"
Tc=6.0 min CN=82 Runoff=0.49 cfs 0.035 af

Subcatchment7: Runoff Area=30,345 sf 25.86% Impervious Runoff Depth=1.18"
Tc=6.0 min CN=80 Runoff=0.94 cfs 0.068 af

Subcatchment8: Runoff Area=45,551 sf 55.78% Impervious Runoff Depth=1.65"
Tc=6.0 min CN=87 Runoff=2.03 cfs 0.144 af

Subcatchment9: Runoff Area=28,191 sf 63.29% Impervious Runoff Depth=1.81"
Tc=6.0 min CN=89 Runoff=1.37 cfs 0.098 af

Subcatchment10: access drive north of Runoff Area=30,932 sf 100.00% Impervious Runoff Depth=2.67"
Tc=6.0 min CN=98 Runoff=1.99 cfs 0.158 af

Subcatchment11: Runoff Area=43,174 sf 36.78% Impervious Runoff Depth=1.37"
Tc=6.0 min CN=83 Runoff=1.58 cfs 0.113 af

Subcatchment12: Runoff Area=12,920 sf 57.98% Impervious Runoff Depth=1.73"
Tc=6.0 min CN=88 Runoff=0.60 cfs 0.043 af

Subcatchment13: Runoff Area=45,163 sf 46.46% Impervious Runoff Depth=1.50"
Tc=6.0 min CN=85 Runoff=1.83 cfs 0.130 af

Subcatchment14: Runoff Area=9,378 sf 94.36% Impervious Runoff Depth=2.56"
Tc=6.0 min CN=97 Runoff=0.59 cfs 0.046 af

Subcatchment15: Runoff Area=9,157 sf 1.92% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=74 Runoff=0.19 cfs 0.015 af

Subcatchment16: Runoff Area=15,110 sf 34.16% Impervious Runoff Depth=1.30"
Tc=6.0 min CN=82 Runoff=0.52 cfs 0.038 af

Subcatchment17: Runoff Area=13,300 sf 85.11% Impervious Runoff Depth=2.25"
Tc=6.0 min CN=94 Runoff=0.78 cfs 0.057 af

Subcatchment18A: Runoff Area=6,339 sf 40.91% Impervious Runoff Depth=1.43"
Tc=6.0 min CN=84 Runoff=0.24 cfs 0.017 af

Subcatchment18B: Runoff Area=4,023 sf 58.36% Impervious Runoff Depth=1.73"
Tc=6.0 min CN=88 Runoff=0.19 cfs 0.013 af

Subcatchment19: Runoff Area=13,711 sf 80.35% Impervious Runoff Depth=2.16"
Tc=6.0 min CN=93 Runoff=0.78 cfs 0.057 af

Subcatchment20: Runoff Area=28,459 sf 73.83% Impervious Runoff Depth=2.07"
Tc=6.0 min CN=92 Runoff=1.55 cfs 0.113 af

Subcatchment21: Runoff Area=11,452 sf 68.92% Impervious Runoff Depth=1.98"
Tc=6.0 min CN=91 Runoff=0.60 cfs 0.043 af

Subcatchment22: Runoff Area=13,444 sf 61.12% Impervious Runoff Depth=1.81"
Tc=6.0 min CN=89 Runoff=0.65 cfs 0.047 af

Subcatchment23: sub 23 Runoff Area=28,475 sf 21.95% Impervious Runoff Depth=1.06"
Tc=6.0 min CN=78 Runoff=0.79 cfs 0.058 af

Subcatchment24: Runoff Area=18,261 sf 67.19% Impervious Runoff Depth=2.07"
Tc=6.0 min CN=92 Runoff=1.00 cfs 0.072 af

Subcatchment25: Runoff Area=118,223 sf 0.00% Impervious Runoff Depth=0.70"
Flow Length=438' Tc=67.0 min CN=71 Runoff=0.71 cfs 0.159 af

Subcatchment26: Runoff Area=3,816 sf 100.00% Impervious Runoff Depth=2.67"
Tc=6.0 min CN=98 Runoff=0.25 cfs 0.019 af

Subcatchment27: Runoff Area=4,262 sf 100.00% Impervious Runoff Depth=2.67"
Tc=6.0 min CN=98 Runoff=0.27 cfs 0.022 af

Subcatchment28: Runoff Area=79,698 sf 27.42% Impervious Runoff Depth=1.50"
Tc=6.0 min CN=85 Runoff=3.23 cfs 0.229 af

Subcatchment29: Runoff Area=1,306 sf 100.00% Impervious Runoff Depth=2.67"
Tc=6.0 min CN=98 Runoff=0.08 cfs 0.007 af

Subcatchment30: Runoff Area=31,472 sf 77.98% Impervious Runoff Depth=2.16"
Tc=6.0 min CN=93 Runoff=1.78 cfs 0.130 af

Subcatchment31: Runoff Area=70,616 sf 0.00% Impervious Runoff Depth=0.70"
Flow Length=217' Tc=12.3 min CN=71 Runoff=0.94 cfs 0.095 af

Subcatchment32: Runoff Area=4,677 sf 60.42% Impervious Runoff Depth=1.81"
Tc=6.0 min CN=89 Runoff=0.23 cfs 0.016 af

Subcatchment33: B3 green Runoff Area=107,893 sf 16.71% Impervious Runoff Depth=0.54"
Tc=6.0 min CN=67 Runoff=1.21 cfs 0.111 af

Subcatchment34: Runoff Area=24,099 sf 20.00% Impervious Runoff Depth=0.58"
Tc=6.0 min CN=68 Runoff=0.30 cfs 0.027 af

Subcatchment35: Runoff Area=20,997 sf 20.00% Impervious Runoff Depth=0.58"
Tc=6.0 min CN=68 Runoff=0.26 cfs 0.023 af

Subcatchment36: B1M1 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=2.67"
Tc=6.0 min CN=98 Runoff=7.25 cfs 0.575 af

Subcatchment37: B1M2 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=2.67"
Tc=6.0 min CN=98 Runoff=7.25 cfs 0.575 af

Subcatchment38: B1M3 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=2.67"
Tc=6.0 min CN=98 Runoff=7.25 cfs 0.575 af

Subcatchment39: B2M4 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=2.67"
Tc=6.0 min CN=98 Runoff=7.25 cfs 0.575 af

Subcatchment40: B2M5 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=2.67"
Tc=6.0 min CN=98 Runoff=7.25 cfs 0.575 af

Subcatchment41: B2M6 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=2.67"
Tc=6.0 min CN=98 Runoff=7.25 cfs 0.575 af

Subcatchment42: B6 Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=2.67"
Tc=6.0 min CN=98 Runoff=0.77 cfs 0.061 af

Subcatchment43: B5 Runoff Area=18,983 sf 100.00% Impervious Runoff Depth=2.67"
Tc=6.0 min CN=98 Runoff=1.22 cfs 0.097 af

Subcatchment44: onsite untreated Runoff Area=159,363 sf 0.00% Impervious Runoff Depth=0.70"
Flow Length=574' Tc=18.8 min CN=71 Runoff=1.81 cfs 0.214 af

Subcatchment45: Runoff Area=64,440 sf 0.00% Impervious Runoff Depth=0.66"
Flow Length=307' Tc=29.9 min CN=70 Runoff=0.56 cfs 0.081 af

Subcatchment46: SUBCAT8 Runoff Area=14,976 sf 0.00% Impervious Runoff Depth=0.70"
Flow Length=276' Tc=34.7 min CN=71 Runoff=0.13 cfs 0.020 af

Subcatchment47: Runoff Area=79,187 sf 6.00% Impervious Runoff Depth=0.90"
Flow Length=639' Tc=15.9 min CN=75 Runoff=1.31 cfs 0.136 af

Subcatchment48: Runoff Area=40,183 sf 0.00% Impervious Runoff Depth=0.66"
Flow Length=377' Tc=54.0 min CN=70 Runoff=0.25 cfs 0.051 af

Subcatchment49: Runoff Area=93,232 sf 0.59% Impervious Runoff Depth=0.70"
Flow Length=470' Tc=54.1 min CN=71 Runoff=0.64 cfs 0.125 af

Subcatchment50: Runoff Area=30,173 sf 100.00% Impervious Runoff Depth=2.67"
Tc=6.0 min CN=98 Runoff=1.94 cfs 0.154 af

SubcatchmentOS10: OFFSITE 2 (above Runoff Area=1,644,982 sf 2.57% Impervious Runoff Depth=0.85"
Flow Length=2,221' Tc=94.2 min CN=74 Runoff=10.04 cfs 2.661 af

Subcatchmentos11a: OFFSITE 3 Runoff Area=192,533 sf 59.04% Impervious Runoff Depth=1.65"
Flow Length=532' Tc=6.8 min CN=87 Runoff=8.33 cfs 0.609 af

Subcatchmentos11b: OFFSITE 3 Runoff Area=320,814 sf 1.43% Impervious Runoff Depth=0.75"
Flow Length=528' Tc=18.9 min CN=72 Runoff=3.96 cfs 0.460 af

SubcatchmentOS9A: OFFSITE 1 (Below Runoff Area=153,823 sf 3.86% Impervious Runoff Depth=0.85"
Flow Length=561' Tc=26.6 min CN=74 Runoff=1.92 cfs 0.249 af

SubcatchmentOS9B: SUBCAT 4 Runoff Area=486,307 sf 2.34% Impervious Runoff Depth=0.85"
Flow Length=670' Tc=28.6 min CN=74 Runoff=5.90 cfs 0.787 af

SubcatchmentOS9C: SUBCAT 3 Runoff Area=178,147 sf 4.59% Impervious Runoff Depth=0.90"
Flow Length=655' Tc=10.1 min CN=75 Runoff=3.49 cfs 0.305 af

SubcatchmentOS9D: SUBCAT 2 Runoff Area=154,663 sf 0.00% Impervious Runoff Depth=0.80"
Flow Length=544' Tc=54.3 min CN=73 Runoff=1.25 cfs 0.236 af

Reach 9R: ANALYSISPOINT 9 Inflow=1.92 cfs 0.249 af
Outflow=1.92 cfs 0.249 af

Reach 10R: Perkins Road Culvert Avg. Flow Depth=0.77' Max Vel=9.01 fps Inflow=10.04 cfs 2.661 af
24.0" Round Pipe n=0.013 L=25.0' S=0.0200 '/' Capacity=31.99 cfs Outflow=10.04 cfs 2.661 af

Reach 11R: Stream 9 Inflow=8.33 cfs 0.609 af
Outflow=8.33 cfs 0.609 af

Reach 17R: untreated Inflow=0.78 cfs 0.057 af
Outflow=0.78 cfs 0.057 af

Reach 20R: untreated Inflow=1.55 cfs 0.113 af
Outflow=1.55 cfs 0.113 af

Reach 23R: sub 23 Inflow=0.79 cfs 0.058 af
Outflow=0.79 cfs 0.058 af

Reach 27R: extisting Inflow=0.27 cfs 0.022 af
Outflow=0.27 cfs 0.022 af

Reach 29R: untreated Inflow=0.08 cfs 0.007 af
Outflow=0.08 cfs 0.007 af

Reach 32R: untreated Inflow=0.23 cfs 0.016 af
Outflow=0.23 cfs 0.016 af

Reach 44R: Inflow=1.81 cfs 0.214 af
Outflow=1.81 cfs 0.214 af

Reach 47R: Inflow=1.31 cfs 0.136 af
Outflow=1.31 cfs 0.136 af

Reach 48R: (new Reach) Inflow=0.25 cfs 0.051 af
Outflow=0.25 cfs 0.051 af

Reach 49R: Inflow=0.64 cfs 0.125 af
Outflow=0.64 cfs 0.125 af

Reach PT1: ANALYSISPOINT 1 at BWD Little River Inflow=0.90 cfs 0.176 af
Outflow=0.90 cfs 0.176 af

Reach PT10: Analysis point at Little River Inflow=3.23 cfs 0.229 af
Outflow=3.23 cfs 0.229 af

Reach PT2: ANALYSISPOINT 2 at strm 3 Inflow=1.93 cfs 0.395 af
Outflow=1.93 cfs 0.395 af

Reach PT3: ANALYSISPOINT 3/4 at strm 5/6 Inflow=8.40 cfs 1.187 af
Outflow=8.40 cfs 1.187 af

Reach PT5: all BWD reservoir Inflow=9.25 cfs 1.582 af
Outflow=9.25 cfs 1.582 af

Reach PT6: stream 9 offsite Avg. Flow Depth=0.63' Max Vel=2.83 fps Inflow=11.21 cfs 3.518 af
n=0.040 L=483.0' S=0.0145 '/' Capacity=401.91 cfs Outflow=11.18 cfs 3.518 af

Reach PT7: ANALYSISPOINT7 at US Avg. Flow Depth=0.17' Max Vel=5.11 fps Inflow=0.56 cfs 0.081 af
18.0" Round Pipe n=0.013 L=83.0' S=0.0398 '/' Capacity=20.95 cfs Outflow=0.56 cfs 0.081 af

Reach PT8: ANALYSISPOINT 8 at US Avg. Flow Depth=0.02' Max Vel=2.48 fps Inflow=0.13 cfs 0.020 af
36.0" x 24.0" Box Pipe n=0.011 L=76.0' S=0.0632 '/' Capacity=144.91 cfs Outflow=0.13 cfs 0.020 af

Reach PT9: Analysis Point Stream 9 Avg. Flow Depth=0.53' Max Vel=16.24 fps Inflow=13.81 cfs 4.509 af
36.0" Round Pipe n=0.011 L=93.0' S=0.0645 '/' Capacity=200.22 cfs Outflow=13.81 cfs 4.509 af

Reach R9 B: offsite diversion strm 5/6 Inflow=7.73 cfs 1.092 af
Outflow=7.73 cfs 1.092 af

Reach R9D: offsite pont strm 3 Inflow=1.25 cfs 0.236 af
Outflow=1.25 cfs 0.236 af

Reach S9-2: Stream 9 Avg. Flow Depth=0.58' Max Vel=3.42 fps Inflow=12.88 cfs 4.192 af
n=0.040 L=1,580.0' S=0.0233 '/' Capacity=120.91 cfs Outflow=12.18 cfs 4.192 af

Reach S9-3: Stream 9 Avg. Flow Depth=0.57' Max Vel=3.49 fps Inflow=13.38 cfs 4.356 af
n=0.035 L=364.0' S=0.0199 '/' Capacity=152.29 cfs Outflow=13.35 cfs 4.356 af

Reach tank: existing clarifier Inflow=33.20 cfs 4.507 af
Outflow=33.20 cfs 4.507 af

Pond dmh10: dmh10 Peak Elev=56.86' Inflow=13.44 cfs 1.001 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=13.44 cfs 1.001 af

Pond dmh11: dmh11 Peak Elev=55.56' Inflow=14.98 cfs 1.618 af
30.0" Round Culvert n=0.013 L=84.0' S=0.0050 '/' Outflow=14.98 cfs 1.618 af

Pond dmh13: dmh13 Peak Elev=55.01' Inflow=14.98 cfs 1.618 af
30.0" Round Culvert n=0.013 L=201.0' S=0.0050 '/' Outflow=14.98 cfs 1.618 af

Pond dmh14: dmh14 Peak Elev=54.28' Inflow=15.00 cfs 1.693 af
30.0" Round Culvert n=0.020 L=23.0' S=0.0052 '/' Outflow=15.00 cfs 1.693 af

Pond dmh15: dmh15 Peak Elev=53.96' Inflow=15.00 cfs 1.693 af
30.0" Round Culvert n=0.013 L=90.0' S=0.0050 '/' Outflow=15.00 cfs 1.693 af

Pond dmh16: dmh16 Peak Elev=60.54' Inflow=0.01 cfs 0.019 af
12.0" Round Culvert n=0.013 L=198.0' S=0.0126 '/' Outflow=0.01 cfs 0.019 af

Pond dmh17: dmh17 Peak Elev=53.59' Inflow=15.00 cfs 1.718 af
30.0" Round Culvert n=0.013 L=35.0' S=0.0051 '/' Outflow=15.00 cfs 1.718 af

Pond dmh19: dmh 19 Peak Elev=54.92' Inflow=0.58 cfs 0.078 af
12.0" Round Culvert n=0.013 L=59.0' S=0.0100 '/' Outflow=0.58 cfs 0.078 af

Pond dmh2: dmh2 Peak Elev=64.77' Inflow=6.78 cfs 0.478 af
18.0" Round Culvert n=0.013 L=100.0' S=0.0150 '/' Outflow=6.78 cfs 0.478 af

Pond dmh20: dmh20 Peak Elev=53.33' Inflow=15.59 cfs 1.796 af
30.0" Round Culvert n=0.013 L=100.0' S=0.0050 '/' Outflow=15.59 cfs 1.796 af

Pond dmh21: dmh21 Peak Elev=53.02' Inflow=18.89 cfs 2.250 af
30.0" Round Culvert n=0.013 L=281.0' S=0.0169 '/' Outflow=18.89 cfs 2.250 af

Pond dmh22: dmh 22 Peak Elev=52.64' Inflow=3.28 cfs 0.355 af
15.0" Round Culvert n=0.013 L=93.0' S=0.0051 '/' Outflow=3.28 cfs 0.355 af

Pond dmh23: dmh23 Peak Elev=56.80' Inflow=2.88 cfs 0.261 af
12.0" Round Culvert n=0.013 L=138.0' S=0.0050 '/' Outflow=2.88 cfs 0.261 af

Pond dmh24: dmh24 Peak Elev=57.79' Inflow=2.88 cfs 0.261 af
12.0" Round Culvert n=0.013 L=72.0' S=0.0025 '/' Outflow=2.88 cfs 0.261 af

Pond dmh24a: dmh24a Peak Elev=58.68' Inflow=0.78 cfs 0.081 af
8.0" Round Culvert n=0.013 L=95.0' S=0.0095 '/' Outflow=0.78 cfs 0.081 af

Pond dmh25: dmh25 Peak Elev=60.05' Inflow=0.01 cfs 0.031 af
12.0" Round Culvert n=0.013 L=98.0' S=0.0510 '/' Outflow=0.01 cfs 0.031 af

Pond dmh26: dmh26 Peak Elev=57.91' Inflow=0.06 cfs 0.161 af
12.0" Round Culvert n=0.020 L=28.0' S=0.0050 '/' Outflow=0.06 cfs 0.161 af

Pond dmh27: dmh27 Peak Elev=53.31' Inflow=0.24 cfs 0.237 af
12.0" Round Culvert n=0.013 L=256.0' S=0.0050 '/' Outflow=0.24 cfs 0.237 af

Pond dmh29: dmh29 Peak Elev=58.12' Inflow=0.18 cfs 0.045 af
8.0" Round Culvert n=0.013 L=46.0' S=0.0100 '/' Outflow=0.18 cfs 0.045 af

Pond dmh3: dmh3 Peak Elev=61.84' Inflow=6.80 cfs 0.523 af
24.0" Round Culvert n=0.013 L=125.0' S=0.0053 '/' Outflow=6.80 cfs 0.523 af

Pond dmh30: dmh30 Peak Elev=55.64' Inflow=0.18 cfs 0.045 af
12.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=0.18 cfs 0.045 af

Pond dmh31: dmh31 Peak Elev=54.63' Inflow=0.23 cfs 0.206 af
12.0" Round Culvert n=0.013 L=259.0' S=0.0050 '/' Outflow=0.23 cfs 0.206 af

Pond dmh32: dmh32 Peak Elev=52.05' Inflow=0.26 cfs 0.287 af
12.0" Round Culvert n=0.013 L=36.0' S=0.0036 '/' Outflow=0.26 cfs 0.287 af

Pond dmh33: dmh33 Peak Elev=54.22' Inflow=0.16 cfs 0.048 af
12.0" Round Culvert n=0.013 L=201.0' S=0.0099 '/' Outflow=0.16 cfs 0.048 af

Pond dmh34: dmh34 Peak Elev=52.68' Inflow=1.29 cfs 0.174 af
12.0" Round Culvert n=0.013 L=39.0' S=0.0100 '/' Outflow=1.29 cfs 0.174 af

Pond dmh35: dmh35 Peak Elev=52.18' Inflow=1.49 cfs 0.513 af
18.0" Round Culvert n=0.013 L=276.0' S=0.0050 '/' Outflow=1.49 cfs 0.513 af

Pond dmh36: dmh36 Peak Elev=50.78' Inflow=1.49 cfs 0.513 af
18.0" Round Culvert n=0.013 L=159.0' S=0.0050 '/' Outflow=1.49 cfs 0.513 af

Pond dmh38: dmh38 Peak Elev=52.80' Inflow=2.41 cfs 0.453 af
18.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=2.41 cfs 0.453 af

Pond dmh39: dmh39 Peak Elev=51.47' Inflow=2.42 cfs 0.463 af
18.0" Round Culvert n=0.013 L=58.0' S=0.0047 '/' Outflow=2.42 cfs 0.463 af

Pond dmh4: dmh4 Peak Elev=61.29' Inflow=6.80 cfs 0.523 af
24.0" Round Culvert n=0.013 L=66.0' S=0.0041 '/' Outflow=6.80 cfs 0.523 af

Pond dmh40: dmh40 Peak Elev=50.28' Inflow=3.86 cfs 0.976 af
24.0" Round Culvert n=0.013 L=340.0' S=0.0050 '/' Outflow=3.86 cfs 0.976 af

Pond dmh43: dmh43 Peak Elev=48.83' Inflow=5.92 cfs 1.450 af
24.0" Round Culvert n=0.013 L=193.0' S=0.0050 '/' Outflow=5.92 cfs 1.450 af

Pond dmh44: dmh44 Peak Elev=47.78' Inflow=5.93 cfs 1.461 af
30.0" Round Culvert n=0.013 L=82.0' S=0.0050 '/' Outflow=5.93 cfs 1.461 af

Pond dmh45: dmh45 Peak Elev=47.90' Inflow=12.56 cfs 1.938 af
30.0" Round Culvert n=0.013 L=316.0' S=0.0050 '/' Outflow=12.56 cfs 1.938 af

Pond dmh47: dmh47 Peak Elev=45.71' Inflow=12.56 cfs 1.938 af
30.0" Round Culvert n=0.013 L=104.0' S=0.0100 '/' Outflow=12.56 cfs 1.938 af

Pond dmh48: dmh48 Peak Elev=44.78' Inflow=13.43 cfs 2.064 af
30.0" Round Culvert n=0.013 L=117.0' S=0.0050 '/' Outflow=13.43 cfs 2.064 af

Pond dmh49: dmh49 Peak Elev=44.17' Inflow=13.43 cfs 2.085 af
36.0" Round Culvert n=0.013 L=14.0' S=0.0071 '/' Outflow=13.43 cfs 2.085 af

Pond dmh5: dmh5 Peak Elev=60.80' Inflow=6.80 cfs 0.523 af
24.0" Round Culvert n=0.013 L=173.0' S=0.0050 '/' Outflow=6.80 cfs 0.523 af

Pond dmh50: dmh50 Peak Elev=47.01' Inflow=18.89 cfs 2.296 af
30.0" Round Culvert n=0.013 L=64.0' S=0.0100 '/' Outflow=18.89 cfs 2.296 af

Pond dmh51: dmh51 Peak Elev=46.35' Inflow=18.89 cfs 2.296 af
30.0" Round Culvert n=0.013 L=38.0' S=0.0287 '/' Outflow=18.89 cfs 2.296 af

Pond dmh52: dmh52 Peak Elev=43.55' Inflow=32.33 cfs 4.381 af
42.0" Round Culvert n=0.013 L=258.0' S=0.0194 '/' Outflow=32.33 cfs 4.381 af

Pond dmh53: CB53 Peak Elev=35.60' Inflow=33.12 cfs 4.490 af
42.0" Round Culvert n=0.013 L=120.0' S=0.0208 '/' Outflow=33.12 cfs 4.490 af

Pond dmh54: dmh54 Peak Elev=29.42' Inflow=33.20 cfs 4.507 af
48.0" Round Culvert n=0.013 L=152.0' S=0.0329 '/' Outflow=33.20 cfs 4.507 af

Pond dmh55: dhm55 Peak Elev=21.42' Inflow=33.20 cfs 4.507 af
48.0" Round Culvert n=0.013 L=115.0' S=0.0304 '/' Outflow=33.20 cfs 4.507 af

Pond dmh56: dmh56 Peak Elev=14.92' Inflow=33.20 cfs 4.507 af
48.0" Round Culvert n=0.013 L=42.0' S=0.0357 '/' Outflow=33.20 cfs 4.507 af

Pond dmh59: dmh59 Peak Elev=56.40' Inflow=3.03 cfs 0.301 af
12.0" Round Culvert n=0.013 L=294.0' S=0.0050 '/' Outflow=3.03 cfs 0.301 af

Pond dmh6: dmh6 Peak Elev=60.14' Inflow=6.80 cfs 0.523 af
24.0" Round Culvert n=0.020 L=170.0' S=0.0050 '/' Outflow=6.80 cfs 0.523 af

Pond dmh60: dhm60 Peak Elev=37.88' Inflow=32.33 cfs 4.381 af
48.0" Round Culvert n=0.013 L=114.0' S=0.0175 '/' Outflow=32.33 cfs 4.381 af

Pond dmh7: dmh7 Peak Elev=59.04' Inflow=6.80 cfs 0.523 af
24.0" Round Culvert n=0.013 L=170.0' S=0.0050 '/' Outflow=6.80 cfs 0.523 af

Pond dmh8: dmh8 Peak Elev=59.11' Inflow=13.44 cfs 1.001 af
24.0" Round Culvert n=0.013 L=296.0' S=0.0040 '/' Outflow=13.44 cfs 1.001 af

Pond dmh9a: dmh9a Peak Elev=57.91' Inflow=13.44 cfs 1.001 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=13.44 cfs 1.001 af

Pond DP 9B: off site pond to strm 5/6 Peak Elev=62.63' Storage=374 cf Inflow=7.74 cfs 1.092 af
Outflow=7.73 cfs 1.092 af

Pond DP 9D: offsite pond strm 3 Peak Elev=65.01' Storage=12 cf Inflow=1.25 cfs 0.236 af
Outflow=1.25 cfs 0.236 af

Pond GSF 11: grassed soil filter Peak Elev=61.90' Storage=3,855 cf Inflow=1.58 cfs 0.113 af
Primary=0.02 cfs 0.070 af Secondary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.070 af

Pond GSF 12: grassed soil filter Peak Elev=61.83' Storage=1,506 cf Inflow=0.60 cfs 0.043 af
Primary=0.01 cfs 0.023 af Secondary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.023 af

Pond GSF 13: grassed soil filter Peak Elev=61.84' Storage=4,317 cf Inflow=1.83 cfs 0.130 af
Primary=0.03 cfs 0.091 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.091 af

Pond GSF 15: grassed soil filter Peak Elev=63.69' Storage=571 cf Inflow=0.19 cfs 0.015 af
Primary=0.00 cfs 0.005 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.005 af

Pond GSF 16: grassed soil filter Peak Elev=63.29' Storage=1,346 cf Inflow=0.52 cfs 0.038 af
Primary=0.01 cfs 0.019 af Secondary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.019 af

Pond GSF 18A: grassed soil filter Peak Elev=56.58' Storage=609 cf Inflow=0.24 cfs 0.017 af
Primary=0.00 cfs 0.009 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.009 af

Pond GSF 18B: grassed soil filter Peak Elev=57.70' Storage=491 cf Inflow=0.19 cfs 0.013 af
Primary=0.00 cfs 0.006 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.006 af

Pond GSF 1A: Grassed soil filter Peak Elev=66.01' Storage=1,644 cf Inflow=0.69 cfs 0.049 af
Primary=0.01 cfs 0.031 af Secondary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.031 af

Pond GSF 1B: grassed soil filter Peak Elev=66.90' Storage=1,681 cf Inflow=0.82 cfs 0.059 af
Primary=0.01 cfs 0.038 af Secondary=0.04 cfs 0.007 af Outflow=0.05 cfs 0.045 af

Pond GSF 2: grassed soil filter Peak Elev=57.43' Storage=2,302 cf Inflow=0.96 cfs 0.070 af
Primary=0.02 cfs 0.049 af Secondary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.049 af

Pond GSF 24: grassed soil filter Peak Elev=40.59' Storage=2,393 cf Inflow=1.00 cfs 0.072 af
Primary=0.02 cfs 0.052 af Secondary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.052 af

Pond GSF 3: grassed soil filter Peak Elev=55.71' Storage=3,125 cf Inflow=1.26 cfs 0.090 af
Primary=0.02 cfs 0.052 af Secondary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.052 af

Pond GSF 4: grassed soil filter Peak Elev=54.68' Storage=430 cf Inflow=0.18 cfs 0.014 af
Primary=0.00 cfs 0.010 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.010 af

Pond GSF 5: grassed soil filter Peak Elev=54.21' Storage=591 cf Inflow=0.23 cfs 0.017 af
Primary=0.00 cfs 0.011 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.011 af

Pond GSF 6: grassed soil filter Peak Elev=47.92' Storage=1,194 cf Inflow=0.49 cfs 0.035 af
Primary=0.01 cfs 0.021 af Secondary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.021 af

Pond GSF 7: grassed soil filter Peak Elev=54.33' Storage=2,274 cf Inflow=0.94 cfs 0.068 af
Primary=0.02 cfs 0.046 af Secondary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.046 af

Pond GSF 8: grassed soil filter Peak Elev=57.61' Storage=4,684 cf Inflow=2.03 cfs 0.144 af
Primary=0.03 cfs 0.095 af Secondary=0.02 cfs 0.004 af Outflow=0.06 cfs 0.099 af

Pond GSF 9: grassed soil filter Peak Elev=62.98' Storage=2,449 cf Inflow=1.37 cfs 0.098 af
Primary=0.02 cfs 0.051 af Secondary=0.13 cfs 0.024 af Outflow=0.14 cfs 0.075 af

Pond ics 12: ICS 12 Peak Elev=63.60' Inflow=7.25 cfs 0.575 af
Primary=6.57 cfs 0.203 af Secondary=0.69 cfs 0.372 af Outflow=7.25 cfs 0.575 af

Pond ICS1: ICS 1 Peak Elev=65.18' Inflow=7.25 cfs 0.575 af
Primary=0.54 cfs 0.326 af Secondary=6.72 cfs 0.248 af Outflow=7.25 cfs 0.575 af

Pond ICS18: ICS18 Peak Elev=60.39' Inflow=1.22 cfs 0.097 af
Primary=0.65 cfs 0.091 af Secondary=0.57 cfs 0.006 af Outflow=1.22 cfs 0.097 af

Pond ics28: ICS28 Peak Elev=60.55' Inflow=0.77 cfs 0.061 af
Primary=0.63 cfs 0.060 af Secondary=0.14 cfs 0.001 af Outflow=0.77 cfs 0.061 af

Pond ICS37: ISC37 Peak Elev=55.34' Inflow=7.25 cfs 0.575 af
Primary=4.92 cfs 0.554 af Secondary=2.34 cfs 0.020 af Outflow=7.25 cfs 0.575 af

Pond ics46: ICS46 Peak Elev=49.65' Inflow=7.25 cfs 0.575 af
Primary=0.69 cfs 0.371 af Secondary=6.57 cfs 0.203 af Outflow=7.25 cfs 0.575 af

Pond ICS9: ICS9 Peak Elev=64.83' Inflow=7.25 cfs 0.575 af
Primary=0.69 cfs 0.371 af Secondary=6.57 cfs 0.204 af Outflow=7.25 cfs 0.575 af

Pond ISC42: ICS 42 Peak Elev=55.68' Inflow=7.25 cfs 0.575 af
Primary=5.30 cfs 0.560 af Secondary=1.96 cfs 0.015 af Outflow=7.25 cfs 0.575 af

Pond MPP 10: Rtank storage Peak Elev=61.72' Storage=0.055 af Inflow=1.99 cfs 0.158 af
8.0" Round Culvert x 6.00 n=0.013 L=2.0' S=0.0400 '/' Outflow=1.07 cfs 0.140 af

Pond MPP 14: Rtanks Peak Elev=56.51' Storage=680 cf Inflow=0.59 cfs 0.046 af
8.0" Round Culvert x 2.00 n=0.013 L=21.0' S=0.0052 '/' Outflow=0.33 cfs 0.041 af

Pond MPP 19: Rtanks Peak Elev=55.40' Storage=0.029 af Inflow=0.78 cfs 0.057 af
6.0" Round Culvert n=0.013 L=19.0' S=0.0042 '/' Outflow=0.16 cfs 0.048 af

Pond MPP 21: Rtanks Peak Elev=55.15' Storage=726 cf Inflow=0.60 cfs 0.043 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.24 cfs 0.040 af

Pond MPP 22: Rtanks Peak Elev=55.32' Storage=1,031 cf Inflow=0.65 cfs 0.047 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.10 cfs 0.038 af

Pond MPP 26: Rtanks Peak Elev=34.82' Storage=368 cf Inflow=0.25 cfs 0.019 af
8.0" Round Culvert n=0.013 L=8.0' S=0.0350 '/' Outflow=0.11 cfs 0.016 af

Pond MPP 50: Peak Elev=54.86' Storage=2,643 cf Inflow=1.94 cfs 0.154 af
8.0" Round Culvert x 7.00 n=0.013 L=3.0' S=0.0100 '/' Outflow=1.14 cfs 0.125 af

Pond mpp30: Rtanks Peak Elev=30.75' Storage=2,259 cf Inflow=2.03 cfs 0.153 af
Outflow=0.46 cfs 0.153 af

Pond SSF 36: ssf Peak Elev=64.38' Storage=10,399 cf Inflow=0.54 cfs 0.326 af
Primary=0.08 cfs 0.222 af Secondary=0.02 cfs 0.008 af Outflow=0.10 cfs 0.230 af

Pond ssf37: ssf Peak Elev=63.14' Storage=10,978 cf Inflow=0.69 cfs 0.371 af
Primary=0.08 cfs 0.224 af Secondary=0.14 cfs 0.051 af Outflow=0.22 cfs 0.274 af

Pond ssf38: ssf Peak Elev=61.35' Storage=8,618 cf Inflow=6.57 cfs 0.203 af
Primary=0.07 cfs 0.106 af Secondary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.106 af

Pond ssf39: ssf Peak Elev=54.43' Storage=14,551 cf Inflow=4.92 cfs 0.554 af
Primary=0.08 cfs 0.230 af Secondary=1.04 cfs 0.202 af Outflow=1.12 cfs 0.432 af

Pond ssf40: ssf Peak Elev=54.63' Storage=13,917 cf Inflow=5.30 cfs 0.560 af
Primary=0.09 cfs 0.229 af Secondary=1.56 cfs 0.230 af Outflow=1.64 cfs 0.459 af

Pond ssf41: ssf Peak Elev=47.95' Storage=11,097 cf Inflow=0.69 cfs 0.371 af
Primary=0.08 cfs 0.227 af Secondary=0.12 cfs 0.048 af Outflow=0.20 cfs 0.274 af

Pond ssf42: ssf Peak Elev=60.37' Storage=1,579 cf Inflow=0.63 cfs 0.060 af
Primary=0.01 cfs 0.026 af Secondary=0.17 cfs 0.018 af Outflow=0.18 cfs 0.044 af

Pond ssf43: ssf Peak Elev=59.72' Storage=2,207 cf Inflow=0.65 cfs 0.091 af
Primary=0.01 cfs 0.041 af Secondary=0.31 cfs 0.031 af Outflow=0.33 cfs 0.072 af

Total Runoff Area = 122.513 ac Runoff Volume = 12.193 af Average Runoff Depth = 1.19"
76.10% Pervious = 93.228 ac 23.90% Impervious = 29.285 ac

Summary for Subcatchment 1A:

Runoff = 0.69 cfs @ 12.09 hrs, Volume= 0.049 af, Depth= 1.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	11,582	77	>75% Grass cover, Good, HSG C/D
*	6,203	98	Impervious, HSG C/D
	17,785	84	Weighted Average
	11,582		65.12% Pervious Area
	6,203		34.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 1B:

Runoff = 0.82 cfs @ 12.09 hrs, Volume= 0.059 af, Depth= 1.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	6,832	98	Impervious
	18,017	74	>75% Grass cover, Good, HSG C
	24,849	81	Weighted Average
	18,017		72.51% Pervious Area
	6,832		27.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 2:

Runoff = 0.96 cfs @ 12.09 hrs, Volume= 0.070 af, Depth= 1.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	8,052	98	Impervious
	5,300	74	>75% Grass cover, Good, HSG C
*	17,697	74	>75% Grass cover, Good, HSG C/D
	31,049	80	Weighted Average
	22,997		74.07% Pervious Area
	8,052		25.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 3:

Runoff = 1.26 cfs @ 12.09 hrs, Volume= 0.090 af, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	13,091	98	Impervious, HSG C
*	15,516	74	>75% Grass cover, Good, HSG C/D
*	7,540	70	Woods, Good, HSG C/D
	36,147	82	Weighted Average
	23,056		63.78% Pervious Area
	13,091		36.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 4:

Runoff = 0.18 cfs @ 12.10 hrs, Volume= 0.014 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
	8,448	74	>75% Grass cover, Good, HSG C
	8,448		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 5:

Runoff = 0.23 cfs @ 12.10 hrs, Volume= 0.017 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

Area (sf)	CN	Description
10,807	74	>75% Grass cover, Good, HSG C
10,807		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 6:

Runoff = 0.49 cfs @ 12.09 hrs, Volume= 0.035 af, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	4,484	98	Impervious
*	9,501	74	>75% Grass cover, Good, HSG C
	13,985	82	Weighted Average
	9,501		67.94% Pervious Area
	4,484		32.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 7:

Runoff = 0.94 cfs @ 12.09 hrs, Volume= 0.068 af, Depth= 1.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	7,846	98	Impervious
	3,270	74	>75% Grass cover, Good, HSG C
*	19,229	74	>75% Grass cover, Good, HSG C/D
	30,345	80	Weighted Average
	22,499		74.14% Pervious Area
	7,846		25.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 8:

Runoff = 2.03 cfs @ 12.09 hrs, Volume= 0.144 af, Depth= 1.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	25,409	98	Impervious
	20,142	74	>75% Grass cover, Good, HSG C
	45,551	87	Weighted Average
	20,142		44.22% Pervious Area
	25,409		55.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 9:

Runoff = 1.37 cfs @ 12.09 hrs, Volume= 0.098 af, Depth= 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	10,348	74	>75% Grass cover, Good, HSG C/D
*	17,843	98	Impervious
	28,191	89	Weighted Average
	10,348		36.71% Pervious Area
	17,843		63.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 10: access drive north of B1

Runoff = 1.99 cfs @ 12.08 hrs, Volume= 0.158 af, Depth= 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	30,932	98	Impervious
	30,932		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 11:

Runoff = 1.58 cfs @ 12.09 hrs, Volume= 0.113 af, Depth= 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	15,881	98	Impervious
*	27,293	74	>75% Grass cover, Good, HSG C/D
	43,174	83	Weighted Average
	27,293		63.22% Pervious Area
	15,881		36.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 12:

Runoff = 0.60 cfs @ 12.09 hrs, Volume= 0.043 af, Depth= 1.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	7,491	98	Impervious, HSG C/D
	5,429	74	>75% Grass cover, Good, HSG C
	12,920	88	Weighted Average
	5,429		42.02% Pervious Area
	7,491		57.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 13:

Runoff = 1.83 cfs @ 12.09 hrs, Volume= 0.130 af, Depth= 1.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	20,981	98	Impervious
*	24,182	74	>75% Grass cover, Good, HSG C/D
	45,163	85	Weighted Average
	24,182		53.54% Pervious Area
	20,981		46.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 14:

Runoff = 0.59 cfs @ 12.08 hrs, Volume= 0.046 af, Depth= 2.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	8,849	98	Impervious
	529	74	>75% Grass cover, Good, HSG C
	9,378	97	Weighted Average
	529		5.64% Pervious Area
	8,849		94.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 15:

Runoff = 0.19 cfs @ 12.10 hrs, Volume= 0.015 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	176	98	Impervious
*	4,183	74	>75% Grass cover, Good, HSG C/D
*	4,798	74	vegetated roof
	9,157	74	Weighted Average
	8,981		98.08% Pervious Area
	176		1.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 16:

Runoff = 0.52 cfs @ 12.09 hrs, Volume= 0.038 af, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	5,161	98	Impervious
*	9,949	74	>75% Grass cover, Good, HSG C/D
	15,110	82	Weighted Average
	9,949		65.84% Pervious Area
	5,161		34.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 17:

Runoff = 0.78 cfs @ 12.09 hrs, Volume= 0.057 af, Depth= 2.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	11,320	98	Impervious
*	1,980	74	>75% Grass cover, Good, HSG C/D
	13,300	94	Weighted Average
	1,980		14.89% Pervious Area
	11,320		85.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18A:

Runoff = 0.24 cfs @ 12.09 hrs, Volume= 0.017 af, Depth= 1.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	2,593	98	Impervious
*	3,746	74	>75% Grass cover, Good, HSG C/D
	6,339	84	Weighted Average
	3,746		59.09% Pervious Area
	2,593		40.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18B:

Runoff = 0.19 cfs @ 12.09 hrs, Volume= 0.013 af, Depth= 1.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	2,348	98	Impervious
*	1,675	74	>75% Grass cover, Good, HSG C/D
	4,023	88	Weighted Average
	1,675		41.64% Pervious Area
	2,348		58.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 19:

Runoff = 0.78 cfs @ 12.09 hrs, Volume= 0.057 af, Depth= 2.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	11,017	98	Impervious
*	2,694	74	>75% Grass cover, Good, HSG C/D
	13,711	93	Weighted Average
	2,694		19.65% Pervious Area
	11,017		80.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 20:

Runoff = 1.55 cfs @ 12.09 hrs, Volume= 0.113 af, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	21,010	98	Impervious
*	7,449	74	>75% Grass cover, Good, HSG C/D
	28,459	92	Weighted Average
	7,449		26.17% Pervious Area
	21,010		73.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 21:

Runoff = 0.60 cfs @ 12.09 hrs, Volume= 0.043 af, Depth= 1.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	7,893	98	Impervious
*	3,559	74	>75% Grass cover, Good, HSG C/D
	11,452	91	Weighted Average
	3,559		31.08% Pervious Area
	7,893		68.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 22:

Runoff = 0.65 cfs @ 12.09 hrs, Volume= 0.047 af, Depth= 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	8,217	98	Impervious
*	5,227	74	>75% Grass cover, Good, HSG C/D
	13,444	89	Weighted Average
	5,227		38.88% Pervious Area
	8,217		61.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 23: sub 23

Runoff = 0.79 cfs @ 12.09 hrs, Volume= 0.058 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

Area (sf)	CN	Description
6,249	98	Paved parking, HSG C
2,450	74	>75% Grass cover, Good, HSG C
10,135	74	>75% Grass cover, Good, HSG C
9,641	70	Woods, Good, HSG C
28,475	78	Weighted Average
22,226		78.05% Pervious Area
6,249		21.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, direct**

Summary for Subcatchment 24:

Runoff = 1.00 cfs @ 12.09 hrs, Volume= 0.072 af, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	12,270	98	Impervious
	5,991	80	>75% Grass cover, Good, HSG D
	18,261	92	Weighted Average
	5,991		32.81% Pervious Area
	12,270		67.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 25:

Runoff = 0.71 cfs @ 13.03 hrs, Volume= 0.159 af, Depth= 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	21,818	74	>75% Grass cover, Good, HSG C/D
*	96,405	70	Woods, Good, HSG C/D
	118,223	71	Weighted Average
	118,223		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
54.4	130	0.0150	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
11.9	253	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	55	0.3000	1.37		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
67.0	438	Total			

Summary for Subcatchment 26:

Runoff = 0.25 cfs @ 12.08 hrs, Volume= 0.019 af, Depth= 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	3,816	98	Impervious
	3,816		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 27:

Runoff = 0.27 cfs @ 12.08 hrs, Volume= 0.022 af, Depth= 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	4,262	98	Impervious
	4,262		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 28:

Runoff = 3.23 cfs @ 12.09 hrs, Volume= 0.229 af, Depth= 1.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	21,852	98	Impervious
	40,598	80	>75% Grass cover, Good, HSG D
	6,418	77	Woods, Good, HSG D
	10,830	79	Woods/grass comb., Good, HSG D
	79,698	85	Weighted Average
	57,846		72.58% Pervious Area
	21,852		27.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 29:

Runoff = 0.08 cfs @ 12.08 hrs, Volume= 0.007 af, Depth= 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	1,306	98	Impervious
	1,306		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 30:

Runoff = 1.78 cfs @ 12.09 hrs, Volume= 0.130 af, Depth= 2.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	24,541	98	Impervious
*	6,931	74	>75% Grass cover, Good, HSG C/D
	31,472	93	Weighted Average
	6,931		22.02% Pervious Area
	24,541		77.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 31:

Runoff = 0.94 cfs @ 12.19 hrs, Volume= 0.095 af, Depth= 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	24,011	74	>75% Grass cover, Good, HSG C/D
*	46,605	70	Woods, Good, HSG C/D
	70,616	71	Weighted Average
	70,616		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0500	0.16		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
1.7	86	0.1200	0.87		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	31	0.0300	2.60		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
12.3	217	Total			

Summary for Subcatchment 32:

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.016 af, Depth= 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	2,826	98	Impervious
*	1,851	74	>75% Grass cover, Good, HSG C/D
	4,677	89	Weighted Average
	1,851		39.58% Pervious Area
	2,826		60.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 33: B3 green

Runoff = 1.21 cfs @ 12.11 hrs, Volume= 0.111 af, Depth= 0.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	89,860	61	vegetated roof
*	18,033	98	penthouse
	107,893	67	Weighted Average
	89,860		83.29% Pervious Area
	18,033		16.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 34:

Runoff = 0.30 cfs @ 12.11 hrs, Volume= 0.027 af, Depth= 0.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	19,279	61	vegetated roof
*	4,820	98	penthouse/walks on roof
	24,099	68	Weighted Average
	19,279		80.00% Pervious Area
	4,820		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 35:

Runoff = 0.26 cfs @ 12.11 hrs, Volume= 0.023 af, Depth= 0.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	16,797	61	vegetated roof
*	4,200	98	penthouse/walks on roof
	20,997	68	Weighted Average
	16,797		80.00% Pervious Area
	4,200		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 36: B1M1

Runoff = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af, Depth= 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 37: B1M2

Runoff = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af, Depth= 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 38: B1M3

Runoff = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af, Depth= 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 39: B2M4

Runoff = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af, Depth= 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 40: B2M5

Runoff = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af, Depth= 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 41: B2M6

Runoff = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af, Depth= 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 42: B6

Runoff = 0.77 cfs @ 12.08 hrs, Volume= 0.061 af, Depth= 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	12,000	98	Impervious
	12,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 43: B5

Runoff = 1.22 cfs @ 12.08 hrs, Volume= 0.097 af, Depth= 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	18,983	98	Impervious
	18,983		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 44: onsite untreated

Runoff = 1.81 cfs @ 12.30 hrs, Volume= 0.214 af, Depth= 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	29,531	74	>75% Grass cover, Good, HSG C/D
*	129,832	70	Woods, Good, HSG C/D
	159,363	71	Weighted Average
	159,363		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	97	0.0620	0.25		**Sheet Flow, a-b** Grass: Short n= 0.150 P2= 2.90"
4.3	170	0.0090	0.66		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
1.3	97	0.0320	1.25		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
6.8	210	0.0430	0.52		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
18.8	574	Total			

Summary for Subcatchment 45:

Runoff = 0.56 cfs @ 12.49 hrs, Volume= 0.081 af, Depth= 0.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	5,799	74	>75% Grass cover, Good, HSG C/D
*	58,641	70	Woods, Good, HSG C/D
	64,440	70	Weighted Average
	64,440		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.3	79	0.0340	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
2.9	121	0.0800	0.71		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	34	0.0600	3.67		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
0.5	73	0.0600	2.64	10.56	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage

29.9 307 Total

Summary for Subcatchment 46: SUBCAT 8

Runoff = 0.13 cfs @ 12.54 hrs, Volume= 0.020 af, Depth= 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	12,652	70	Woods, Good, HSG C/D
*	2,324	74	>75% Grass cover, Good, HSG C/D
	14,976	71	Weighted Average
	14,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
1.1	43	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.7100	2.11		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
1.5	152	0.0240	1.67	6.68	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100
34.7	276	Total			

Summary for Subcatchment 47:

Runoff = 1.31 cfs @ 12.24 hrs, Volume= 0.136 af, Depth= 0.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
	16,941	80	>75% Grass cover, Good, HSG D
*	27,433	74	>75% Grass cover, Good, HSG C/D
*	30,061	70	Woods, Good, HSG C/D
*	4,752	98	Impervious
	79,187	75	Weighted Average
	74,435		94.00% Pervious Area
	4,752		6.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.5	102	0.0400	0.15		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
0.6	30	0.1000	0.79		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.6	100	0.0300	2.60		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
3.2	407	0.0200	2.12		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
15.9	639	Total			

Summary for Subcatchment 48:

Runoff = 0.25 cfs @ 12.84 hrs, Volume= 0.051 af, Depth= 0.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	305	74	>75% Grass cover, Good, HSG C/D
*	36,887	70	Woods, Good, HSG C/D
	2,991	70	Woods, Good, HSG C
	40,183	70	Weighted Average
	40,183		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.6	127	0.0200	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
5.4	115	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	45	0.2000	1.12		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.3	90	0.0880	4.45		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
54.0	377	Total			

Summary for Subcatchment 49:

Runoff = 0.64 cfs @ 12.81 hrs, Volume= 0.125 af, Depth= 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	11,982	74	>75% Grass cover, Good, HSG C/D
*	80,702	70	Woods, Good, HSG C/D
*	548	98	Impervious
	93,232	71	Weighted Average
	92,684		99.41% Pervious Area
	548		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.4	115	0.0500	0.06		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
23.7	355	0.0100	0.25		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
54.1	470	Total			

Summary for Subcatchment 50:

Runoff = 1.94 cfs @ 12.08 hrs, Volume= 0.154 af, Depth= 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	30,173	98	Impervious
	30,173		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment OS10: OFFSITE 2 (above Perkins Rd)

Runoff = 10.04 cfs @ 13.39 hrs, Volume= 2.661 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	298,066	70	Woods, Good, HSG C/D
*	42,276	98	Impervious
*	1,304,640	74	>75% Grass cover, Good, HSG C/D
	1,644,982	74	Weighted Average
	1,602,706		97.43% Pervious Area
	42,276		2.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.2	141	0.0280	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
15.3	384	0.0280	0.42		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.5	227	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
18.6	780	0.0100	0.70		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
12.6	689	0.0170	0.91		**Shallow Concentrated Flow, e-f** Short Grass Pasture Kv= 7.0 fps
94.2	2,221	Total			

Summary for Subcatchment os11a: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 8.33 cfs @ 12.10 hrs, Volume= 0.609 af, Depth= 1.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	113,681	98	Impervious
*	33,806	70	Woods, Good, HSG C/D
*	45,046	74	>75% Grass cover, Good, HSG C/D
	192,533	87	Weighted Average
	78,852		40.96% Pervious Area
	113,681		59.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	16	0.1870	2.22		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
4.7	419	0.0100	1.50		**Shallow Concentrated Flow, b-c** Grassed Waterway Kv= 15.0 fps
2.0	97	0.1000	0.79		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.8	532	Total			

Summary for Subcatchment os11b: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 3.96 cfs @ 12.29 hrs, Volume= 0.460 af, Depth= 0.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	4,576	98	Impervious
*	203,815	70	Woods, Good, HSG C/D
*	112,423	74	>75% Grass cover, Good, HSG C/D
	320,814	72	Weighted Average
	316,238		98.57% Pervious Area
	4,576		1.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	96	0.0880	0.13		**Sheet Flow, a-b** Woods: Light underbrush n= 0.400 P2= 2.90"
4.6	357	0.0340	1.29		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
2.2	75	0.0534	0.58		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
18.9	528	Total			

Summary for Subcatchment OS9A: OFFSITE 1 (Below Perkins Rd)

Runoff = 1.92 cfs @ 12.41 hrs, Volume= 0.249 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	5,945	98	Impervious
	19,384	70	Woods, Good, HSG C
	128,494	74	>75% Grass cover, Good, HSG C
	153,823	74	Weighted Average
	147,878		96.14% Pervious Area
	5,945		3.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	90	0.0110	0.09		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
1.5	171	0.0700	1.85		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
6.9	257	0.0620	0.62		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.7	43	0.1860	1.08		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
26.6	561	Total			

Summary for Subcatchment OS9B: SUBCAT 4

Runoff = 5.90 cfs @ 12.43 hrs, Volume= 0.787 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	11,390	98	impervious
	346,747	74	>75% Grass cover, Good, HSG C
	128,170	70	Woods, Good, HSG C
	486,307	74	Weighted Average
	474,917		97.66% Pervious Area
	11,390		2.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.3	163	0.0250	0.13		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
8.3	507	0.0210	1.01		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
28.6	670	Total			

Summary for Subcatchment OS9C: SUBCAT 3

Runoff = 3.49 cfs @ 12.15 hrs, Volume= 0.305 af, Depth= 0.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	8,178	98	impervious
	156,155	74	>75% Grass cover, Good, HSG C
	13,814	70	Woods, Good, HSG C
	178,147	75	Weighted Average
	169,969		95.41% Pervious Area
	8,178		4.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	22	0.0900	1.77		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
9.9	633	0.0230	1.06		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
10.1	655	Total			

Summary for Subcatchment OS9D: SUBCAT 2

Runoff = 1.25 cfs @ 12.80 hrs, Volume= 0.236 af, Depth= 0.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	34,250	70	Woods, Good, HSG C/D
*	120,413	74	>75% Grass cover, Good, HSG C/D
	154,663	73	Weighted Average
	154,663		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
46.5	206	0.0050	0.07		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
5.6	258	0.0120	0.77		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
2.2	80	0.0600	0.61		**Shallow Concentrated Flow, C-D** Forest w/Heavy Litter Kv= 2.5 fps
54.3	544	Total			

Summary for Reach 9R: ANALYSIS POINT 9

Inflow Area = 3.531 ac, 3.86% Impervious, Inflow Depth = 0.85" for 2-year event
Inflow = 1.92 cfs @ 12.41 hrs, Volume= 0.249 af
Outflow = 1.92 cfs @ 12.41 hrs, Volume= 0.249 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

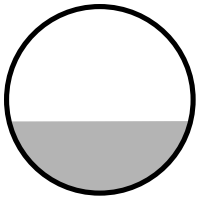
Summary for Reach 10R: Perkins Road Culvert

Inflow Area = 37.764 ac, 2.57% Impervious, Inflow Depth = 0.85" for 2-year event
Inflow = 10.04 cfs @ 13.39 hrs, Volume= 2.661 af
Outflow = 10.04 cfs @ 13.39 hrs, Volume= 2.661 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 9.01 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 4.45 fps, Avg. Travel Time= 0.1 min

Peak Storage= 28 cf @ 13.39 hrs
Average Depth at Peak Storage= 0.77'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.99 cfs

24.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 25.0' Slope= 0.0200 '/'
Inlet Invert= 75.50', Outlet Invert= 75.00'



Summary for Reach 11R: Stream 9

Inflow Area = 4.420 ac, 59.04% Impervious, Inflow Depth = 1.65" for 2-year event
Inflow = 8.33 cfs @ 12.10 hrs, Volume= 0.609 af
Outflow = 8.33 cfs @ 12.10 hrs, Volume= 0.609 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 17R: untreated

Inflow Area = 0.305 ac, 85.11% Impervious, Inflow Depth = 2.25" for 2-year event
Inflow = 0.78 cfs @ 12.09 hrs, Volume= 0.057 af
Outflow = 0.78 cfs @ 12.09 hrs, Volume= 0.057 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 20R: untreated

Inflow Area = 0.653 ac, 73.83% Impervious, Inflow Depth = 2.07" for 2-year event
Inflow = 1.55 cfs @ 12.09 hrs, Volume= 0.113 af
Outflow = 1.55 cfs @ 12.09 hrs, Volume= 0.113 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 23R: sub 23

Inflow Area = 0.654 ac, 21.95% Impervious, Inflow Depth = 1.06" for 2-year event
Inflow = 0.79 cfs @ 12.09 hrs, Volume= 0.058 af
Outflow = 0.79 cfs @ 12.09 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 27R: extisting

Inflow Area = 0.098 ac,100.00% Impervious, Inflow Depth = 2.67" for 2-year event
Inflow = 0.27 cfs @ 12.08 hrs, Volume= 0.022 af
Outflow = 0.27 cfs @ 12.08 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 29R: untreated

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth = 2.67" for 2-year event
Inflow = 0.08 cfs @ 12.08 hrs, Volume= 0.007 af
Outflow = 0.08 cfs @ 12.08 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 32R: untreated

Inflow Area = 0.107 ac, 60.42% Impervious, Inflow Depth = 1.81" for 2-year event
Inflow = 0.23 cfs @ 12.09 hrs, Volume= 0.016 af
Outflow = 0.23 cfs @ 12.09 hrs, Volume= 0.016 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 44R:

Inflow Area = 3.658 ac, 0.00% Impervious, Inflow Depth = 0.70" for 2-year event
Inflow = 1.81 cfs @ 12.30 hrs, Volume= 0.214 af
Outflow = 1.81 cfs @ 12.30 hrs, Volume= 0.214 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 47R:

Inflow Area = 1.818 ac, 6.00% Impervious, Inflow Depth = 0.90" for 2-year event
Inflow = 1.31 cfs @ 12.24 hrs, Volume= 0.136 af
Outflow = 1.31 cfs @ 12.24 hrs, Volume= 0.136 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 48R: (new Reach)

Inflow Area = 0.922 ac, 0.00% Impervious, Inflow Depth = 0.66" for 2-year event
Inflow = 0.25 cfs @ 12.84 hrs, Volume= 0.051 af
Outflow = 0.25 cfs @ 12.84 hrs, Volume= 0.051 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 49R:

Inflow Area = 2.140 ac, 0.59% Impervious, Inflow Depth = 0.70" for 2-year event
Inflow = 0.64 cfs @ 12.81 hrs, Volume= 0.125 af
Outflow = 0.64 cfs @ 12.81 hrs, Volume= 0.125 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT1: ANALYSIS POINT 1 at BWD Little River

Inflow Area = 3.063 ac, 0.41% Impervious, Inflow Depth = 0.69" for 2-year event
Inflow = 0.90 cfs @ 12.81 hrs, Volume= 0.176 af
Outflow = 0.90 cfs @ 12.81 hrs, Volume= 0.176 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT10: Analysis point at Little River

Inflow Area = 1.830 ac, 27.42% Impervious, Inflow Depth = 1.50" for 2-year event
Inflow = 3.23 cfs @ 12.09 hrs, Volume= 0.229 af
Outflow = 3.23 cfs @ 12.09 hrs, Volume= 0.229 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT2: ANALYSIS POINT 2 at strm 3

Inflow Area = 6.265 ac, 0.00% Impervious, Inflow Depth = 0.76" for 2-year event
Inflow = 1.93 cfs @ 12.88 hrs, Volume= 0.395 af
Outflow = 1.93 cfs @ 12.88 hrs, Volume= 0.395 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT3: ANALYSIS POINT 3/4 at strm 5/6

Inflow Area = 16.875 ac, 2.66% Impervious, Inflow Depth = 0.84" for 2-year event
Inflow = 8.40 cfs @ 12.37 hrs, Volume= 1.187 af
Outflow = 8.40 cfs @ 12.37 hrs, Volume= 1.187 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT5: all BWD reservoir

Inflow Area = 23.139 ac, 1.94% Impervious, Inflow Depth = 0.82" for 2-year event
Inflow = 9.25 cfs @ 12.43 hrs, Volume= 1.582 af
Outflow = 9.25 cfs @ 12.43 hrs, Volume= 1.582 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT6: stream 9 offsite

Inflow Area = 45.715 ac, 8.13% Impervious, Inflow Depth = 0.92" for 2-year event
Inflow = 11.21 cfs @ 13.30 hrs, Volume= 3.518 af
Outflow = 11.18 cfs @ 13.35 hrs, Volume= 3.518 af, Atten= 0%, Lag= 2.9 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.83 fps, Min. Travel Time= 2.8 min
Avg. Velocity = 1.25 fps, Avg. Travel Time= 6.4 min

Peak Storage= 1,905 cf @ 13.35 hrs
Average Depth at Peak Storage= 0.63'
Bank-Full Depth= 4.00' Flow Area= 52.0 sf, Capacity= 401.91 cfs

5.00' x 4.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 21.00'
Length= 483.0' Slope= 0.0145 '/'
Inlet Invert= 71.00', Outlet Invert= 64.00'



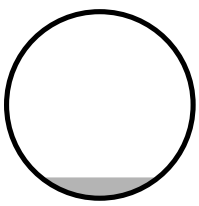
Summary for Reach PT7: ANALYSIS POINT7 at US Route 1 culvert

Inflow Area = 1.479 ac, 0.00% Impervious, Inflow Depth = 0.66" for 2-year event
Inflow = 0.56 cfs @ 12.49 hrs, Volume= 0.081 af
Outflow = 0.56 cfs @ 12.49 hrs, Volume= 0.081 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.11 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.45 fps, Avg. Travel Time= 0.6 min

Peak Storage= 9 cf @ 12.49 hrs
Average Depth at Peak Storage= 0.17'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0398 '/'
Inlet Invert= 21.60', Outlet Invert= 18.30'



Summary for Reach PT8: ANALYSIS POINT 8 at US Route 1 culvert

Inflow Area = 0.344 ac, 0.00% Impervious, Inflow Depth = 0.70" for 2-year event
Inflow = 0.13 cfs @ 12.54 hrs, Volume= 0.020 af
Outflow = 0.13 cfs @ 12.56 hrs, Volume= 0.020 af, Atten= 0%, Lag= 1.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 2.48 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 2.48 fps, Avg. Travel Time= 0.5 min

Peak Storage= 4 cf @ 12.56 hrs
Average Depth at Peak Storage= 0.02'
Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 144.91 cfs

36.0" W x 24.0" H Box Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 76.0' Slope= 0.0632 '/'
Inlet Invert= 23.40', Outlet Invert= 18.60'



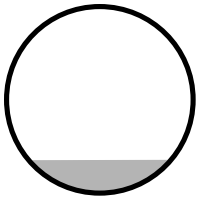
Summary for Reach PT9: Analysis Point Stream 9 at US Route 1 culvert

Inflow Area = 59.888 ac, 7.88% Impervious, Inflow Depth = 0.90" for 2-year event
Inflow = 13.81 cfs @ 12.36 hrs, Volume= 4.509 af
Outflow = 13.81 cfs @ 12.37 hrs, Volume= 4.509 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 16.24 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 6.03 fps, Avg. Travel Time= 0.3 min

Peak Storage= 79 cf @ 12.37 hrs
Average Depth at Peak Storage= 0.53'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 200.22 cfs

36.0" Round Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 93.0' Slope= 0.0645 '/'
Inlet Invert= 20.00', Outlet Invert= 14.00'



Summary for Reach R9 B: offsite diversion strm 5/6

Inflow Area = 15.254 ac, 2.94% Impervious, Inflow Depth = 0.86" for 2-year event
Inflow = 7.73 cfs @ 12.40 hrs, Volume= 1.092 af
Outflow = 7.73 cfs @ 12.40 hrs, Volume= 1.092 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach R9D: offsite pont strm 3

Inflow Area = 3.551 ac, 0.00% Impervious, Inflow Depth = 0.80" for 2-year event
Inflow = 1.25 cfs @ 12.80 hrs, Volume= 0.236 af
Outflow = 1.25 cfs @ 12.80 hrs, Volume= 0.236 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach S9-2: Stream 9

Inflow Area = 56.738 ac, 6.74% Impervious, Inflow Depth = 0.89" for 2-year event
Inflow = 12.88 cfs @ 12.20 hrs, Volume= 4.192 af
Outflow = 12.18 cfs @ 13.43 hrs, Volume= 4.192 af, Atten= 5%, Lag= 73.9 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.42 fps, Min. Travel Time= 7.7 min
Avg. Velocity = 1.28 fps, Avg. Travel Time= 20.5 min

Peak Storage= 5,625 cf @ 13.43 hrs
Average Depth at Peak Storage= 0.58'
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 120.91 cfs

5.00' x 2.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 13.00'
Length= 1,580.0' Slope= 0.0233 '/'
Inlet Invert= 64.00', Outlet Invert= 27.25'



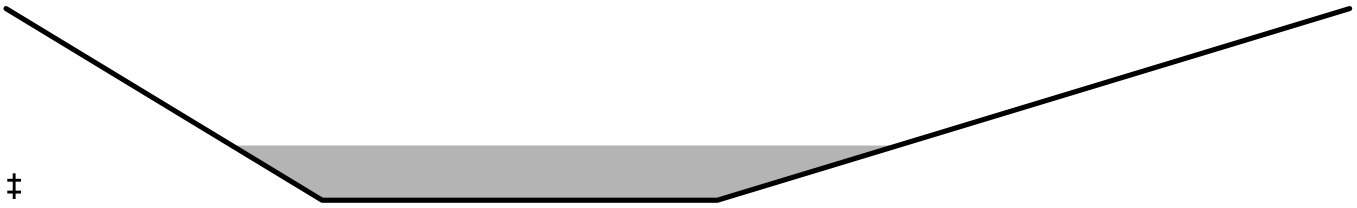
Summary for Reach S9-3: Stream 9

Inflow Area = 58.684 ac, 6.92% Impervious, Inflow Depth = 0.89" for 2-year event
Inflow = 13.38 cfs @ 12.34 hrs, Volume= 4.356 af
Outflow = 13.35 cfs @ 12.36 hrs, Volume= 4.356 af, Atten= 0%, Lag= 1.3 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.49 fps, Min. Travel Time= 1.7 min
Avg. Velocity = 1.15 fps, Avg. Travel Time= 5.3 min

Peak Storage= 1,394 cf @ 12.36 hrs
Average Depth at Peak Storage= 0.57'
Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 152.29 cfs

5.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 2.0 4.0 '/' Top Width= 17.00'
Length= 364.0' Slope= 0.0199 '/'
Inlet Invert= 27.25', Outlet Invert= 20.00'



‡

Summary for Reach tank: existing clarifier

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 1.65" for 2-year event
Inflow = 33.20 cfs @ 12.09 hrs, Volume= 4.507 af
Outflow = 33.20 cfs @ 12.09 hrs, Volume= 4.507 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond dmh10: dmh10

Inflow Area = 5.738 ac, 92.79% Impervious, Inflow Depth > 2.09" for 2-year event
Inflow = 13.44 cfs @ 12.08 hrs, Volume= 1.001 af
Outflow = 13.44 cfs @ 12.08 hrs, Volume= 1.001 af, Atten= 0%, Lag= 0.0 min
Primary = 13.44 cfs @ 12.08 hrs, Volume= 1.001 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.86' @ 12.08 hrs
Flood Elev= 65.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.59'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.59' / 53.56' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=13.41 cfs @ 12.08 hrs HW=56.85' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 13.41 cfs @ 4.27 fps)

Summary for Pond dmh11: dmh11

Inflow Area = 9.033 ac, 95.42% Impervious, Inflow Depth > 2.15" for 2-year event
Inflow = 14.98 cfs @ 12.09 hrs, Volume= 1.618 af
Outflow = 14.98 cfs @ 12.09 hrs, Volume= 1.618 af, Atten= 0%, Lag= 0.0 min
Primary = 14.98 cfs @ 12.09 hrs, Volume= 1.618 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.56' @ 12.09 hrs
Flood Elev= 65.56'

Device	Routing	Invert	Outlet Devices
#1	Primary	53.54'	**30.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.54' / 53.12' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=14.96 cfs @ 12.09 hrs HW=55.56' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 14.96 cfs @ 4.81 fps)

Summary for Pond dmh13: dmh13

Inflow Area = 9.033 ac, 95.42% Impervious, Inflow Depth > 2.15" for 2-year event
Inflow = 14.98 cfs @ 12.09 hrs, Volume= 1.618 af
Outflow = 14.98 cfs @ 12.09 hrs, Volume= 1.618 af, Atten= 0%, Lag= 0.0 min
Primary = 14.98 cfs @ 12.09 hrs, Volume= 1.618 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.01' @ 12.09 hrs
Flood Elev= 65.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	53.10'	**30.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.10' / 52.09' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=14.96 cfs @ 12.09 hrs HW=55.01' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 14.96 cfs @ 3.72 fps)

Summary for Pond dmh14: dmh14

Inflow Area = 9.680 ac, 93.27% Impervious, Inflow Depth > 2.10" for 2-year event
Inflow = 15.00 cfs @ 12.09 hrs, Volume= 1.693 af
Outflow = 15.00 cfs @ 12.09 hrs, Volume= 1.693 af, Atten= 0%, Lag= 0.0 min
Primary = 15.00 cfs @ 12.09 hrs, Volume= 1.693 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.28' @ 12.09 hrs
Flood Elev= 65.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	52.07'	**30.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.07' / 51.95' S= 0.0052 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 4.91 sf

Primary OutFlow Max=14.97 cfs @ 12.09 hrs HW=54.28' (Free Discharge)
1=Culvert (Barrel Controls 14.97 cfs @ 4.33 fps)

Summary for Pond dmh15: dmh15

Inflow Area = 9.680 ac, 93.27% Impervious, Inflow Depth > 2.10" for 2-year event
Inflow = 15.00 cfs @ 12.09 hrs, Volume= 1.693 af
Outflow = 15.00 cfs @ 12.09 hrs, Volume= 1.693 af, Atten= 0%, Lag= 0.0 min
Primary = 15.00 cfs @ 12.09 hrs, Volume= 1.693 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 53.96' @ 12.09 hrs
Flood Elev= 64.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.95'	**30.0" Round Culvert** L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.95' / 51.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=14.97 cfs @ 12.09 hrs HW=53.96' (Free Discharge)
1=Culvert (Barrel Controls 14.97 cfs @ 4.84 fps)

Summary for Pond dmh16: dmh16

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth > 0.67" for 2-year event
Inflow = 0.01 cfs @ 24.02 hrs, Volume= 0.019 af
Outflow = 0.01 cfs @ 24.02 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min
Primary = 0.01 cfs @ 24.02 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 60.54' @ 24.02 hrs
Flood Elev= 64.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**12.0" Round Culvert** L= 198.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.50' / 58.00' S= 0.0126 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.01 cfs @ 24.02 hrs HW=60.54' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.01 cfs @ 0.55 fps)

Summary for Pond dmh17: dmh17

Inflow Area = 10.237 ac, 89.39% Impervious, Inflow Depth > 2.01" for 2-year event
Inflow = 15.00 cfs @ 12.09 hrs, Volume= 1.718 af
Outflow = 15.00 cfs @ 12.09 hrs, Volume= 1.718 af, Atten= 0%, Lag= 0.0 min
Primary = 15.00 cfs @ 12.09 hrs, Volume= 1.718 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 53.59' @ 12.09 hrs
Flood Elev= 63.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.48'	**30.0" Round Culvert** L= 35.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.48' / 51.30' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=14.98 cfs @ 12.09 hrs HW=53.59' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 14.98 cfs @ 4.58 fps)

Summary for Pond dmh19: dmh 19

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth > 2.15" for 2-year event
Inflow = 0.58 cfs @ 12.08 hrs, Volume= 0.078 af
Outflow = 0.58 cfs @ 12.08 hrs, Volume= 0.078 af, Atten= 0%, Lag= 0.0 min
Primary = 0.58 cfs @ 12.08 hrs, Volume= 0.078 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.92' @ 12.08 hrs
Flood Elev= 61.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.48'	**12.0" Round Culvert** L= 59.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.48' / 53.89' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.58 cfs @ 12.08 hrs HW=54.92' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.58 cfs @ 1.77 fps)

Summary for Pond dmh2: dmh2

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.22" for 2-year event
Inflow = 6.78 cfs @ 12.08 hrs, Volume= 0.478 af
Outflow = 6.78 cfs @ 12.08 hrs, Volume= 0.478 af, Atten= 0%, Lag= 0.0 min
Primary = 6.78 cfs @ 12.08 hrs, Volume= 0.478 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 64.77' @ 12.08 hrs
Flood Elev= 69.15'

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	**18.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.00' / 61.50' S= 0.0150 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=6.77 cfs @ 12.08 hrs HW=64.77' (Free Discharge)
└**1=Culvert** (Inlet Controls 6.77 cfs @ 3.83 fps)

Summary for Pond dmh20: dmh20

Inflow Area = 10.673 ac, 89.83% Impervious, Inflow Depth > 2.02" for 2-year event
Inflow = 15.59 cfs @ 12.09 hrs, Volume= 1.796 af
Outflow = 15.59 cfs @ 12.09 hrs, Volume= 1.796 af, Atten= 0%, Lag= 0.0 min
Primary = 15.59 cfs @ 12.09 hrs, Volume= 1.796 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 53.33' @ 12.09 hrs
Flood Elev= 61.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.28'	**30.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.28' / 50.78' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=15.56 cfs @ 12.09 hrs HW=53.33' (Free Discharge)
└**1=Culvert** (Barrel Controls 15.56 cfs @ 4.92 fps)

Summary for Pond dmh21: dmh21

Inflow Area = 14.421 ac, 82.05% Impervious, Inflow Depth > 1.87" for 2-year event
Inflow = 18.89 cfs @ 12.09 hrs, Volume= 2.250 af
Outflow = 18.89 cfs @ 12.09 hrs, Volume= 2.250 af, Atten= 0%, Lag= 0.0 min
Primary = 18.89 cfs @ 12.09 hrs, Volume= 2.250 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 53.02' @ 12.09 hrs
Flood Elev= 58.55'

Device	Routing	Invert	Outlet Devices
#1	Primary	50.76'	**30.0" Round Culvert** L= 281.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.76' / 46.00' S= 0.0169 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=18.86 cfs @ 12.09 hrs HW=53.02' (Free Discharge)
1=Culvert (Inlet Controls 18.86 cfs @ 4.04 fps)

Summary for Pond dmh22: dmh 22

Inflow Area = 2.703 ac, 61.52% Impervious, Inflow Depth > 1.58" for 2-year event
Inflow = 3.28 cfs @ 12.09 hrs, Volume= 0.355 af
Outflow = 3.28 cfs @ 12.09 hrs, Volume= 0.355 af, Atten= 0%, Lag= 0.0 min
Primary = 3.28 cfs @ 12.09 hrs, Volume= 0.355 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 52.64' @ 12.09 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.50'	**15.0" Round Culvert** L= 93.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.50' / 51.03' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.28 cfs @ 12.09 hrs HW=52.64' (Free Discharge)
1=Culvert (Barrel Controls 3.28 cfs @ 3.65 fps)

Summary for Pond dmh23: dmh23

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 1.55" for 2-year event
Inflow = 2.88 cfs @ 12.09 hrs, Volume= 0.261 af
Outflow = 2.88 cfs @ 12.09 hrs, Volume= 0.261 af, Atten= 0%, Lag= 0.0 min
Primary = 2.88 cfs @ 12.09 hrs, Volume= 0.261 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 56.80' @ 12.09 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	55.19'	**12.0" Round Culvert** L= 138.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.19' / 54.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.88 cfs @ 12.09 hrs HW=56.80' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.88 cfs @ 3.66 fps)

Summary for Pond dmh24: dmh24

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 1.55" for 2-year event
Inflow = 2.88 cfs @ 12.09 hrs, Volume= 0.261 af
Outflow = 2.88 cfs @ 12.09 hrs, Volume= 0.261 af, Atten= 0%, Lag= 0.0 min
Primary = 2.88 cfs @ 12.09 hrs, Volume= 0.261 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.79' @ 12.09 hrs
Flood Elev= 61.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	56.10'	**12.0" Round Culvert** L= 72.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.10' / 55.92' S= 0.0025 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.88 cfs @ 12.09 hrs HW=57.79' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.88 cfs @ 3.66 fps)

Summary for Pond dmh24a: dmh24a

Inflow Area = 0.602 ac, 71.74% Impervious, Inflow Depth > 1.61" for 2-year event
Inflow = 0.78 cfs @ 12.09 hrs, Volume= 0.081 af
Outflow = 0.78 cfs @ 12.09 hrs, Volume= 0.081 af, Atten= 0%, Lag= 0.0 min
Primary = 0.78 cfs @ 12.09 hrs, Volume= 0.081 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 58.68' @ 12.09 hrs
Flood Elev= 63.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	**8.0" Round Culvert** L= 95.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.00' / 57.10' S= 0.0095 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.78 cfs @ 12.09 hrs HW=58.68' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.78 cfs @ 2.24 fps)

Summary for Pond dmh25: dmh25

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth > 0.92" for 2-year event
Inflow = 0.01 cfs @ 21.17 hrs, Volume= 0.031 af
Outflow = 0.01 cfs @ 21.17 hrs, Volume= 0.031 af, Atten= 0%, Lag= 0.0 min
Primary = 0.01 cfs @ 21.17 hrs, Volume= 0.031 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.05' @ 21.17 hrs
Flood Elev= 67.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.00'	**12.0" Round Culvert** L= 98.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.00' / 55.00' S= 0.0510 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.01 cfs @ 21.17 hrs HW=60.05' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.01 cfs @ 0.58 fps)

Summary for Pond dmh26: dmh26

Inflow Area = 2.028 ac, 41.73% Impervious, Inflow Depth > 0.95" for 2-year event
Inflow = 0.06 cfs @ 21.19 hrs, Volume= 0.161 af
Outflow = 0.06 cfs @ 21.19 hrs, Volume= 0.161 af, Atten= 0%, Lag= 0.0 min
Primary = 0.06 cfs @ 21.19 hrs, Volume= 0.161 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.91' @ 21.19 hrs
Flood Elev= 63.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.75'	**12.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.75' / 57.61' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.06 cfs @ 21.19 hrs HW=57.91' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.06 cfs @ 0.99 fps)

Summary for Pond dmh27: dmh27

Inflow Area = 2.712 ac, 46.62% Impervious, Inflow Depth > 1.05" for 2-year event
Inflow = 0.24 cfs @ 12.47 hrs, Volume= 0.237 af
Outflow = 0.24 cfs @ 12.47 hrs, Volume= 0.237 af, Atten= 0%, Lag= 0.0 min
Primary = 0.24 cfs @ 12.47 hrs, Volume= 0.237 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 53.31' @ 12.47 hrs
Flood Elev= 63.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	53.03'	**12.0" Round Culvert** L= 256.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.03' / 51.75' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.24 cfs @ 12.47 hrs HW=53.31' (Free Discharge)
1=Culvert (Barrel Controls 0.24 cfs @ 1.99 fps)

Summary for Pond dmh29: dmh29

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 1.96" for 2-year event
Inflow = 0.18 cfs @ 12.47 hrs, Volume= 0.045 af
Outflow = 0.18 cfs @ 12.47 hrs, Volume= 0.045 af, Atten= 0%, Lag= 0.0 min
Primary = 0.18 cfs @ 12.47 hrs, Volume= 0.045 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 58.12' @ 12.47 hrs
Flood Elev= 63.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.85'	**8.0" Round Culvert** L= 46.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.85' / 57.39' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.18 cfs @ 12.47 hrs HW=58.12' (Free Discharge)
1=Culvert (Inlet Controls 0.18 cfs @ 1.39 fps)

Summary for Pond dmh3: dmh3

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 1.99" for 2-year event
Inflow = 6.80 cfs @ 12.08 hrs, Volume= 0.523 af
Outflow = 6.80 cfs @ 12.08 hrs, Volume= 0.523 af, Atten= 0%, Lag= 0.0 min
Primary = 6.80 cfs @ 12.08 hrs, Volume= 0.523 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 61.84' @ 12.08 hrs
Flood Elev= 68.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**24.0" Round Culvert** L= 125.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.50' / 59.84' S= 0.0053 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=6.78 cfs @ 12.08 hrs HW=61.84' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 6.78 cfs @ 4.31 fps)

Summary for Pond dmh30: dmh30

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 1.96" for 2-year event
Inflow = 0.18 cfs @ 12.47 hrs, Volume= 0.045 af
Outflow = 0.18 cfs @ 12.47 hrs, Volume= 0.045 af, Atten= 0%, Lag= 0.0 min
Primary = 0.18 cfs @ 12.47 hrs, Volume= 0.045 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.64' @ 12.47 hrs
Flood Elev= 63.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	55.40'	**12.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.40' / 54.37' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.18 cfs @ 12.47 hrs HW=55.64' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.18 cfs @ 1.83 fps)

Summary for Pond dmh31: dmh31

Inflow Area = 2.303 ac, 48.70% Impervious, Inflow Depth > 1.07" for 2-year event
Inflow = 0.23 cfs @ 12.47 hrs, Volume= 0.206 af
Outflow = 0.23 cfs @ 12.47 hrs, Volume= 0.206 af, Atten= 0%, Lag= 0.0 min
Primary = 0.23 cfs @ 12.47 hrs, Volume= 0.206 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.63' @ 12.47 hrs
Flood Elev= 63.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.35'	**12.0" Round Culvert** L= 259.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.35' / 53.05' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.23 cfs @ 12.47 hrs HW=54.63' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.23 cfs @ 1.98 fps)

Summary for Pond dmh32: dmh32

Inflow Area = 3.424 ac, 42.31% Impervious, Inflow Depth > 1.00" for 2-year event
Inflow = 0.26 cfs @ 12.47 hrs, Volume= 0.287 af
Outflow = 0.26 cfs @ 12.47 hrs, Volume= 0.287 af, Atten= 0%, Lag= 0.0 min
Primary = 0.26 cfs @ 12.47 hrs, Volume= 0.287 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 52.05' @ 12.47 hrs
Flood Elev= 58.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.73'	**12.0" Round Culvert** L= 36.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.73' / 51.60' S= 0.0036 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.26 cfs @ 12.47 hrs HW=52.05' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.26 cfs @ 1.77 fps)

Summary for Pond dmh33: dmh33

Inflow Area = 0.315 ac, 80.35% Impervious, Inflow Depth > 1.83" for 2-year event
Inflow = 0.16 cfs @ 12.51 hrs, Volume= 0.048 af
Outflow = 0.16 cfs @ 12.51 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.0 min
Primary = 0.16 cfs @ 12.51 hrs, Volume= 0.048 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.22' @ 12.51 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**12.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 52.01' S= 0.0099 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.16 cfs @ 12.51 hrs HW=54.22' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.16 cfs @ 1.26 fps)

Summary for Pond dmh34: dmh34

Inflow Area = 3.030 ac, 25.76% Impervious, Inflow Depth > 0.69" for 2-year event
Inflow = 1.29 cfs @ 12.11 hrs, Volume= 0.174 af
Outflow = 1.29 cfs @ 12.11 hrs, Volume= 0.174 af, Atten= 0%, Lag= 0.0 min
Primary = 1.29 cfs @ 12.11 hrs, Volume= 0.174 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 52.68' @ 12.11 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.99'	**12.0" Round Culvert** L= 39.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.99' / 51.60' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.29 cfs @ 12.11 hrs HW=52.68' (Free Discharge)
1=Culvert (Inlet Controls 1.29 cfs @ 2.23 fps)

Summary for Pond dmh35: dmh35

Inflow Area = 7.284 ac, 34.73% Impervious, Inflow Depth > 0.85" for 2-year event
Inflow = 1.49 cfs @ 12.10 hrs, Volume= 0.513 af
Outflow = 1.49 cfs @ 12.10 hrs, Volume= 0.513 af, Atten= 0%, Lag= 0.0 min
Primary = 1.49 cfs @ 12.10 hrs, Volume= 0.513 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 52.18' @ 12.10 hrs
Flood Elev= 58.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.55'	**18.0" Round Culvert** L= 276.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.55' / 50.17' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=1.48 cfs @ 12.10 hrs HW=52.18' (Free Discharge)
1=Culvert (Inlet Controls 1.48 cfs @ 2.13 fps)

Summary for Pond dmh36: dmh36

Inflow Area = 7.284 ac, 34.73% Impervious, Inflow Depth > 0.85" for 2-year event
Inflow = 1.49 cfs @ 12.10 hrs, Volume= 0.513 af
Outflow = 1.49 cfs @ 12.10 hrs, Volume= 0.513 af, Atten= 0%, Lag= 0.0 min
Primary = 1.49 cfs @ 12.10 hrs, Volume= 0.513 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 50.78' @ 12.10 hrs
Flood Elev= 53.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	50.15'	**18.0" Round Culvert** L= 159.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.15' / 49.35' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=1.48 cfs @ 12.10 hrs HW=50.78' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 1.48 cfs @ 3.09 fps)

Summary for Pond dmh38: dmh38

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 2.10" for 2-year event
Inflow = 2.41 cfs @ 12.08 hrs, Volume= 0.453 af
Outflow = 2.41 cfs @ 12.08 hrs, Volume= 0.453 af, Atten= 0%, Lag= 0.0 min
Primary = 2.41 cfs @ 12.08 hrs, Volume= 0.453 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 52.80' @ 12.08 hrs
Flood Elev= 56.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.98'	**18.0" Round Culvert** L= 106.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.98' / 50.92' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.40 cfs @ 12.08 hrs HW=52.80' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 2.40 cfs @ 2.43 fps)

Summary for Pond dmh39: dmh39

Inflow Area = 2.778 ac, 93.02% Impervious, Inflow Depth > 2.00" for 2-year event
Inflow = 2.42 cfs @ 12.08 hrs, Volume= 0.463 af
Outflow = 2.42 cfs @ 12.08 hrs, Volume= 0.463 af, Atten= 0%, Lag= 0.0 min
Primary = 2.42 cfs @ 12.08 hrs, Volume= 0.463 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 51.47' @ 12.08 hrs
Flood Elev= 56.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	50.59'	**18.0" Round Culvert** L= 58.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.59' / 50.32' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.40 cfs @ 12.08 hrs HW=51.47' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.40 cfs @ 3.20 fps)

Summary for Pond dmh4: dmh4

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 1.99" for 2-year event
Inflow = 6.80 cfs @ 12.08 hrs, Volume= 0.523 af
Outflow = 6.80 cfs @ 12.08 hrs, Volume= 0.523 af, Atten= 0%, Lag= 0.0 min
Primary = 6.80 cfs @ 12.08 hrs, Volume= 0.523 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.29' @ 12.08 hrs
Flood Elev= 68.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	59.84'	**24.0" Round Culvert** L= 66.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.84' / 59.57' S= 0.0041 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=6.78 cfs @ 12.08 hrs HW=61.29' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 6.78 cfs @ 3.90 fps)

Summary for Pond dmh40: dmh40

Inflow Area = 10.062 ac, 50.82% Impervious, Inflow Depth > 1.16" for 2-year event
Inflow = 3.86 cfs @ 12.09 hrs, Volume= 0.976 af
Outflow = 3.86 cfs @ 12.09 hrs, Volume= 0.976 af, Atten= 0%, Lag= 0.0 min
Primary = 3.86 cfs @ 12.09 hrs, Volume= 0.976 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 50.28' @ 12.09 hrs
Flood Elev= 57.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	49.33'	**24.0" Round Culvert** L= 340.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 49.33' / 47.63' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=3.85 cfs @ 12.09 hrs HW=50.28' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 3.85 cfs @ 2.62 fps)

Summary for Pond dmh43: dmh43

Inflow Area = 12.646 ac, 60.87% Impervious, Inflow Depth > 1.38" for 2-year event
Inflow = 5.92 cfs @ 12.09 hrs, Volume= 1.450 af
Outflow = 5.92 cfs @ 12.09 hrs, Volume= 1.450 af, Atten= 0%, Lag= 0.0 min
Primary = 5.92 cfs @ 12.09 hrs, Volume= 1.450 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 48.83' @ 12.09 hrs
Flood Elev= 56.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	47.61'	**24.0" Round Culvert** L= 193.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 47.61' / 46.64' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=5.90 cfs @ 12.09 hrs HW=48.82' (Free Discharge)
1=Culvert (Inlet Controls 5.90 cfs @ 2.96 fps)

Summary for Pond dmh44: dmh44

Inflow Area = 12.894 ac, 59.70% Impervious, Inflow Depth > 1.36" for 2-year event
Inflow = 5.93 cfs @ 12.09 hrs, Volume= 1.461 af
Outflow = 5.93 cfs @ 12.09 hrs, Volume= 1.461 af, Atten= 0%, Lag= 0.0 min
Primary = 5.93 cfs @ 12.09 hrs, Volume= 1.461 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 47.78' @ 12.09 hrs
Flood Elev= 56.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	46.62'	**30.0" Round Culvert** L= 82.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.62' / 46.21' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=5.90 cfs @ 12.09 hrs HW=47.78' (Free Discharge)
1=Culvert (Barrel Controls 5.90 cfs @ 3.89 fps)

Summary for Pond dmh45: dmh45

Inflow Area = 15.478 ac, 66.43% Impervious, Inflow Depth > 1.50" for 2-year event
Inflow = 12.56 cfs @ 12.09 hrs, Volume= 1.938 af
Outflow = 12.56 cfs @ 12.09 hrs, Volume= 1.938 af, Atten= 0%, Lag= 0.0 min
Primary = 12.56 cfs @ 12.09 hrs, Volume= 1.938 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 47.90' @ 12.09 hrs
Flood Elev= 56.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	46.19'	**30.0" Round Culvert** L= 316.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.19' / 44.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=12.52 cfs @ 12.09 hrs HW=47.90' (Free Discharge)
↑**1=Culvert** (Inlet Controls 12.52 cfs @ 3.51 fps)

Summary for Pond dmh47: dmh47

Inflow Area = 15.478 ac, 66.43% Impervious, Inflow Depth > 1.50" for 2-year event
Inflow = 12.56 cfs @ 12.09 hrs, Volume= 1.938 af
Outflow = 12.56 cfs @ 12.09 hrs, Volume= 1.938 af, Atten= 0%, Lag= 0.0 min
Primary = 12.56 cfs @ 12.09 hrs, Volume= 1.938 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 45.71' @ 12.09 hrs
Flood Elev= 55.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	44.00'	**30.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.00' / 42.96' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=12.52 cfs @ 12.09 hrs HW=45.71' (Free Discharge)
↑**1=Culvert** (Inlet Controls 12.52 cfs @ 3.51 fps)

Summary for Pond dmh48: dmh48

Inflow Area = 16.171 ac, 67.87% Impervious, Inflow Depth > 1.53" for 2-year event
Inflow = 13.43 cfs @ 12.09 hrs, Volume= 2.064 af
Outflow = 13.43 cfs @ 12.09 hrs, Volume= 2.064 af, Atten= 0%, Lag= 0.0 min
Primary = 13.43 cfs @ 12.09 hrs, Volume= 2.064 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 44.78' @ 12.09 hrs
Flood Elev= 50.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	42.94'	**30.0" Round Culvert** L= 117.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 42.94' / 42.35' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=13.40 cfs @ 12.09 hrs HW=44.78' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 13.40 cfs @ 4.83 fps)

Summary for Pond dmh49: dmh49

Inflow Area = 16.492 ac, 67.17% Impervious, Inflow Depth > 1.52" for 2-year event
Inflow = 13.43 cfs @ 12.09 hrs, Volume= 2.085 af
Outflow = 13.43 cfs @ 12.09 hrs, Volume= 2.085 af, Atten= 0%, Lag= 0.0 min
Primary = 13.43 cfs @ 12.09 hrs, Volume= 2.085 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 44.17' @ 12.09 hrs
Flood Elev= 50.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	42.33'	**36.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 42.33' / 42.23' S= 0.0071 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=13.40 cfs @ 12.09 hrs HW=44.17' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 13.40 cfs @ 4.23 fps)

Summary for Pond dmh5: dmh5

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 1.99" for 2-year event
Inflow = 6.80 cfs @ 12.08 hrs, Volume= 0.523 af
Outflow = 6.80 cfs @ 12.08 hrs, Volume= 0.523 af, Atten= 0%, Lag= 0.0 min
Primary = 6.80 cfs @ 12.08 hrs, Volume= 0.523 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.80' @ 12.08 hrs
Flood Elev= 69.04'

Device	Routing	Invert	Outlet Devices
#1	Primary	59.48'	**24.0" Round Culvert** L= 173.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.48' / 58.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=6.78 cfs @ 12.08 hrs HW=60.80' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 6.78 cfs @ 4.36 fps)

Summary for Pond dmh50: dmh50

Inflow Area = 15.118 ac, 79.46% Impervious, Inflow Depth > 1.82" for 2-year event
Inflow = 18.89 cfs @ 12.09 hrs, Volume= 2.296 af
Outflow = 18.89 cfs @ 12.09 hrs, Volume= 2.296 af, Atten= 0%, Lag= 0.0 min
Primary = 18.89 cfs @ 12.09 hrs, Volume= 2.296 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 47.01' @ 12.09 hrs
Flood Elev= 56.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	44.75'	**30.0" Round Culvert** L= 64.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.75' / 44.11' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=18.88 cfs @ 12.09 hrs HW=47.01' (Free Discharge)
1=Culvert (Inlet Controls 18.88 cfs @ 4.04 fps)

Summary for Pond dmh51: dmh51

Inflow Area = 15.118 ac, 79.46% Impervious, Inflow Depth > 1.82" for 2-year event
Inflow = 18.89 cfs @ 12.09 hrs, Volume= 2.296 af
Outflow = 18.89 cfs @ 12.09 hrs, Volume= 2.296 af, Atten= 0%, Lag= 0.0 min
Primary = 18.89 cfs @ 12.09 hrs, Volume= 2.296 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 46.35' @ 12.09 hrs
Flood Elev= 55.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	44.09'	**30.0" Round Culvert** L= 38.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.09' / 43.00' S= 0.0287 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=18.88 cfs @ 12.09 hrs HW=46.35' (Free Discharge)
1=Culvert (Inlet Controls 18.88 cfs @ 4.04 fps)

Summary for Pond dmh52: dmh52

Inflow Area = 31.609 ac, 73.05% Impervious, Inflow Depth > 1.66" for 2-year event
Inflow = 32.33 cfs @ 12.09 hrs, Volume= 4.381 af
Outflow = 32.33 cfs @ 12.09 hrs, Volume= 4.381 af, Atten= 0%, Lag= 0.0 min
Primary = 32.33 cfs @ 12.09 hrs, Volume= 4.381 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 43.55' @ 12.09 hrs
Flood Elev= 50.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	41.00'	**42.0" Round Culvert** L= 258.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 41.00' / 36.00' S= 0.0194 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 9.62 sf

Primary OutFlow Max=32.27 cfs @ 12.09 hrs HW=43.55' (Free Discharge)
↑**1=Culvert** (Inlet Controls 32.27 cfs @ 4.29 fps)

Summary for Pond dmh53: CB53

Inflow Area = 32.682 ac, 71.95% Impervious, Inflow Depth > 1.65" for 2-year event
Inflow = 33.12 cfs @ 12.09 hrs, Volume= 4.490 af
Outflow = 33.12 cfs @ 12.09 hrs, Volume= 4.490 af, Atten= 0%, Lag= 0.0 min
Primary = 33.12 cfs @ 12.09 hrs, Volume= 4.490 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 35.60' @ 12.09 hrs
Flood Elev= 41.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	33.00'	**42.0" Round Culvert** L= 120.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 33.00' / 30.50' S= 0.0208 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 9.62 sf

Primary OutFlow Max=33.07 cfs @ 12.09 hrs HW=35.59' (Free Discharge)
↑**1=Culvert** (Inlet Controls 33.07 cfs @ 4.33 fps)

Summary for Pond dmh54: dmh54

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 1.65" for 2-year event
Inflow = 33.20 cfs @ 12.09 hrs, Volume= 4.507 af
Outflow = 33.20 cfs @ 12.09 hrs, Volume= 4.507 af, Atten= 0%, Lag= 0.0 min
Primary = 33.20 cfs @ 12.09 hrs, Volume= 4.507 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 29.42' @ 12.09 hrs
Flood Elev= 38.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	27.00'	**48.0" Round Culvert** L= 152.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.00' / 22.00' S= 0.0329 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=33.15 cfs @ 12.09 hrs HW=29.42' (Free Discharge)
└**1=Culvert** (Inlet Controls 33.15 cfs @ 4.18 fps)

Summary for Pond dmh55: dhm55

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 1.65" for 2-year event
Inflow = 33.20 cfs @ 12.09 hrs, Volume= 4.507 af
Outflow = 33.20 cfs @ 12.09 hrs, Volume= 4.507 af, Atten= 0%, Lag= 0.0 min
Primary = 33.20 cfs @ 12.09 hrs, Volume= 4.507 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 21.42' @ 12.09 hrs
Flood Elev= 30.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	19.00'	**48.0" Round Culvert** L= 115.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 19.00' / 15.50' S= 0.0304 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=33.15 cfs @ 12.09 hrs HW=21.42' (Free Discharge)
└**1=Culvert** (Inlet Controls 33.15 cfs @ 4.18 fps)

Summary for Pond dmh56: dmh56

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 1.65" for 2-year event
Inflow = 33.20 cfs @ 12.09 hrs, Volume= 4.507 af
Outflow = 33.20 cfs @ 12.09 hrs, Volume= 4.507 af, Atten= 0%, Lag= 0.0 min
Primary = 33.20 cfs @ 12.09 hrs, Volume= 4.507 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 14.92' @ 12.09 hrs
Flood Elev= 30.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	12.50'	**48.0" Round Culvert** L= 42.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 12.50' / 11.00' S= 0.0357 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=33.14 cfs @ 12.09 hrs HW=14.92' (Free Discharge)
└**1=Culvert** (Inlet Controls 33.14 cfs @ 4.18 fps)

Summary for Pond dmh59: dmh59

Inflow Area = 2.287 ac, 61.62% Impervious, Inflow Depth > 1.58" for 2-year event
Inflow = 3.03 cfs @ 12.09 hrs, Volume= 0.301 af
Outflow = 3.03 cfs @ 12.09 hrs, Volume= 0.301 af, Atten= 0%, Lag= 0.0 min
Primary = 3.03 cfs @ 12.09 hrs, Volume= 0.301 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.40' @ 12.09 hrs
Flood Elev= 59.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.30'	**12.0" Round Culvert** L= 294.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.30' / 52.83' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.02 cfs @ 12.09 hrs HW=56.39' (Free Discharge)
↑**1=Culvert** (Barrel Controls 3.02 cfs @ 3.85 fps)

Summary for Pond dmh6: dmh6

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 1.99" for 2-year event
Inflow = 6.80 cfs @ 12.08 hrs, Volume= 0.523 af
Outflow = 6.80 cfs @ 12.08 hrs, Volume= 0.523 af, Atten= 0%, Lag= 0.0 min
Primary = 6.80 cfs @ 12.08 hrs, Volume= 0.523 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.14' @ 12.08 hrs
Flood Elev= 68.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	58.58'	**24.0" Round Culvert** L= 170.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.58' / 57.73' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 3.14 sf

Primary OutFlow Max=6.78 cfs @ 12.08 hrs HW=60.14' (Free Discharge)
↑**1=Culvert** (Barrel Controls 6.78 cfs @ 3.55 fps)

Summary for Pond dmh60: dhm60

Inflow Area = 31.609 ac, 73.05% Impervious, Inflow Depth > 1.66" for 2-year event
Inflow = 32.33 cfs @ 12.09 hrs, Volume= 4.381 af
Outflow = 32.33 cfs @ 12.09 hrs, Volume= 4.381 af, Atten= 0%, Lag= 0.0 min
Primary = 32.33 cfs @ 12.09 hrs, Volume= 4.381 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 37.88' @ 12.09 hrs
Flood Elev= 44.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	35.50'	**48.0" Round Culvert** L= 114.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 35.50' / 33.50' S= 0.0175 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=32.27 cfs @ 12.09 hrs HW=37.88' (Free Discharge)
↑**1=Culvert** (Inlet Controls 32.27 cfs @ 4.14 fps)

Summary for Pond dmh7: dmh7

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 1.99" for 2-year event
Inflow = 6.80 cfs @ 12.08 hrs, Volume= 0.523 af
Outflow = 6.80 cfs @ 12.08 hrs, Volume= 0.523 af, Atten= 0%, Lag= 0.0 min
Primary = 6.80 cfs @ 12.08 hrs, Volume= 0.523 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.04' @ 12.08 hrs
Flood Elev= 67.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.71'	**24.0" Round Culvert** L= 170.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.71' / 56.86' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=6.78 cfs @ 12.08 hrs HW=59.04' (Free Discharge)
↑**1=Culvert** (Barrel Controls 6.78 cfs @ 4.35 fps)

Summary for Pond dmh8: dmh8

Inflow Area = 5.738 ac, 92.79% Impervious, Inflow Depth > 2.09" for 2-year event
Inflow = 13.44 cfs @ 12.08 hrs, Volume= 1.001 af
Outflow = 13.44 cfs @ 12.08 hrs, Volume= 1.001 af, Atten= 0%, Lag= 0.0 min
Primary = 13.44 cfs @ 12.08 hrs, Volume= 1.001 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.11' @ 12.08 hrs
Flood Elev= 66.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	56.84'	**24.0" Round Culvert** L= 296.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.84' / 55.66' S= 0.0040 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=13.41 cfs @ 12.08 hrs HW=59.10' (Free Discharge)
└**1=Culvert** (Inlet Controls 13.41 cfs @ 4.27 fps)

Summary for Pond dmh9a: dmh9a

Inflow Area = 5.738 ac, 92.79% Impervious, Inflow Depth > 2.09" for 2-year event
Inflow = 13.44 cfs @ 12.08 hrs, Volume= 1.001 af
Outflow = 13.44 cfs @ 12.08 hrs, Volume= 1.001 af, Atten= 0%, Lag= 0.0 min
Primary = 13.44 cfs @ 12.08 hrs, Volume= 1.001 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.91' @ 12.08 hrs
Flood Elev= 65.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	55.64'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.64' / 54.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=13.41 cfs @ 12.08 hrs HW=57.90' (Free Discharge)
└**1=Culvert** (Inlet Controls 13.41 cfs @ 4.27 fps)

Summary for Pond DP 9B: off site pond to strm 5/6

Inflow Area = 15.254 ac, 2.94% Impervious, Inflow Depth = 0.86" for 2-year event
Inflow = 7.74 cfs @ 12.39 hrs, Volume= 1.092 af
Outflow = 7.73 cfs @ 12.40 hrs, Volume= 1.092 af, Atten= 0%, Lag= 0.3 min
Primary = 7.73 cfs @ 12.40 hrs, Volume= 1.092 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.63' @ 12.40 hrs Surf.Area= 1,229 sf Storage= 374 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.4 min (884.2 - 883.7)

Volume	Invert	Avail.Storage	Storage Description
#1	62.00'	13,655 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.00	136	60.0	0	0	136
63.00	2,371	550.0	1,025	1,025	23,924
64.00	5,821	1,011.0	3,969	4,994	81,195
65.00	11,855	1,110.0	8,661	13,655	97,938

Device	Routing	Invert	Outlet Devices
#1	Primary	53.00'	**12.0" Round Culvert** L= 670.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 53.00' / 52.00' S= 0.0015 '/' Cc= 0.900
n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf
#2 Primary 62.50' **24.0" x 24.0" Horiz. Orifice/Grate X 4.00** C= 0.600
Limited to weir flow at low heads

Primary OutFlow Max=7.73 cfs @ 12.40 hrs HW=62.63' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.72 cfs @ 3.46 fps)
└**2=Orifice/Grate** (Weir Controls 5.01 cfs @ 1.19 fps)

Summary for Pond DP 9D: offsite pond strm 3

Inflow Area = 3.551 ac, 0.00% Impervious, Inflow Depth = 0.80" for 2-year event
Inflow = 1.25 cfs @ 12.80 hrs, Volume= 0.236 af
Outflow = 1.25 cfs @ 12.80 hrs, Volume= 0.236 af, Atten= 0%, Lag= 0.0 min
Primary = 1.25 cfs @ 12.80 hrs, Volume= 0.236 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 65.01' @ 12.80 hrs Surf.Area= 1,119 sf Storage= 12 cf

Plug-Flow detention time= 0.2 min calculated for 0.236 af (100% of inflow)
Center-of-Mass det. time= 0.2 min (917.1 - 916.9)

Volume	Invert	Avail.Storage	Storage Description
#1	65.00'	7,999 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.00	1,097	318.0	0	0	1,097
66.00	3,867	753.0	2,341	2,341	38,175
67.00	7,663	1,200.0	5,658	7,999	107,652

Device	Routing	Invert	Outlet Devices
#1	Primary	53.50'	**12.0" Round Culvert**
			L= 1,260.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 53.50' / 52.00' S= 0.0012 '/' Cc= 0.900
			n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf
#2	Primary	65.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=2.23 cfs @ 12.80 hrs HW=65.01' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.23 cfs @ 2.85 fps)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Summary for Pond GSF 11: grassed soil filter

Inflow Area = 0.991 ac, 36.78% Impervious, Inflow Depth = 1.37" for 2-year event
Inflow = 1.58 cfs @ 12.09 hrs, Volume= 0.113 af
Outflow = 0.02 cfs @ 22.16 hrs, Volume= 0.070 af, Atten= 98%, Lag= 604.2 min
Primary = 0.02 cfs @ 22.16 hrs, Volume= 0.070 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.90' @ 22.16 hrs Surf.Area= 4,908 sf Storage= 3,855 cf
Flood Elev= 63.00' Surf.Area= 5,598 sf Storage= 7,213 cf

Plug-Flow detention time= 1,042.5 min calculated for 0.070 af (62% of inflow)
Center-of-Mass det. time= 933.0 min (1,770.7 - 837.7)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	5,560 cf	**gsf11 (Irregular)** Listed below (Recalc)
#2	58.24'	1,653 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		7,213 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,200	181.0	0	0	2,200
62.00	2,771	200.0	2,480	2,480	2,807
63.00	3,400	219.0	3,080	5,560	3,474

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.24	2,198	0.0	0	0
58.25	2,198	40.0	9	9
58.99	2,198	40.0	651	659
59.00	2,198	30.0	7	666
59.49	2,198	30.0	323	989
59.50	2,198	20.0	4	993
61.00	2,198	20.0	659	1,653

Device	Routing	Invert	Outlet Devices
#1	Primary	58.25'	**0.7" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	58.05'	**8.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.05' / 57.78' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	62.00'	**4.0" Vert. Orifice/Grate X 6.00** C= 0.600
#5	Device 3	62.50'	**25.7" Horiz. cb19 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 22.16 hrs HW=61.90' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.16 fps)
└─**2=Exfiltration** (Passes 0.02 cfs of 0.11 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=58.24' (Free Discharge)
└─**3=Culvert** (Passes 0.00 cfs of 0.10 cfs potential flow)
├─**4=Orifice/Grate** (Controls 0.00 cfs)
└─**5=cb19 beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 12: grassed soil filter

Inflow Area = 0.297 ac, 57.98% Impervious, Inflow Depth = 1.73" for 2-year event
Inflow = 0.60 cfs @ 12.09 hrs, Volume= 0.043 af
Outflow = 0.01 cfs @ 22.42 hrs, Volume= 0.023 af, Atten= 99%, Lag= 619.8 min
Primary = 0.01 cfs @ 22.42 hrs, Volume= 0.023 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.83' @ 22.42 hrs Surf.Area= 2,031 sf Storage= 1,506 cf
Flood Elev= 62.50' Surf.Area= 2,255 sf Storage= 2,348 cf

Plug-Flow detention time= 1,056.2 min calculated for 0.023 af (54% of inflow)
Center-of-Mass det. time= 945.0 min (1,764.2 - 819.2)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	1,681 cf	**gsf12 (Irregular)** Listed below (Recalc)
#2	58.24'	667 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		2,348 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	886	151.0	0	0	886
62.00	1,201	164.0	1,040	1,040	1,248
62.50	1,368	170.0	642	1,681	1,428

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.24	887	0.0	0	0
58.25	887	40.0	4	4
58.99	887	40.0	263	266
59.00	887	30.0	3	269
59.49	887	30.0	130	399
59.50	887	20.0	2	401
61.00	887	20.0	266	667

Device	Routing	Invert	Outlet Devices
#1	Primary	58.25'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	58.20'	**8.0" Round Culvert** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.20' / 58.10' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	61.90'	**25.7" Horiz. cb15a beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 22.42 hrs HW=61.83' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.09 fps)
└**2=Exfiltration** (Passes 0.01 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=58.24' (Free Discharge)
└**3=Culvert** (Passes 0.00 cfs of 0.00 cfs potential flow)
└**4=cb15a beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 13: grassed soil filter

Inflow Area = 1.037 ac, 46.46% Impervious, Inflow Depth = 1.50" for 2-year event
Inflow = 1.83 cfs @ 12.09 hrs, Volume= 0.130 af
Outflow = 0.03 cfs @ 20.36 hrs, Volume= 0.091 af, Atten= 98%, Lag= 496.3 min
Primary = 0.03 cfs @ 20.36 hrs, Volume= 0.091 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.84' @ 20.36 hrs Surf.Area= 5,838 sf Storage= 4,317 cf
Flood Elev= 63.00' Surf.Area= 7,083 sf Storage= 8,909 cf

Plug-Flow detention time= 1,027.9 min calculated for 0.091 af (70% of inflow)
Center-of-Mass det. time= 930.2 min (1,760.8 - 830.6)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	7,028 cf	**gsf13 (Irregular)** Listed below (Recalc)
#2	58.24'	1,881 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		8,909 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,500	328.0	0	0	2,500
62.00	3,513	347.0	2,992	2,992	3,575
63.00	4,582	366.0	4,036	7,028	4,710

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.24	2,501	0.0	0	0
58.25	2,501	40.0	10	10
58.99	2,501	40.0	740	750
59.00	2,501	30.0	8	758
59.49	2,501	30.0	368	1,125
59.50	2,501	20.0	5	1,130
61.00	2,501	20.0	750	1,881

Device	Routing	Invert	Outlet Devices
#1	Primary	58.25'	**0.8" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	58.05'	**8.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900

			Inlet / Outlet Invert= 58.05' / 57.82' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	62.00'	**25.7" Horiz. cb18 beehive equiv** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 20.36 hrs HW=61.84' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.03 cfs @ 9.08 fps)
↑—**2=Exfiltration** (Passes 0.03 cfs of 0.14 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=58.24' (Free Discharge)
↑—**3=Culvert** (Passes 0.00 cfs of 0.10 cfs potential flow)
↑—**4=cb18 beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 15: grassed soil filter

Inflow Area =	0.210 ac,	1.92% Impervious,	Inflow Depth =	0.85" for 2-year event
Inflow =	0.19 cfs @	12.10 hrs, Volume=	0.015 af	
Outflow =	0.00 cfs @	24.08 hrs, Volume=	0.005 af,	Atten= 99%, Lag= 719.0 min
Primary =	0.00 cfs @	24.08 hrs, Volume=	0.005 af	
Secondary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af	

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.69' @ 24.08 hrs Surf.Area= 1,290 sf Storage= 571 cf
Flood Elev= 65.00' Surf.Area= 2,017 sf Storage= 1,939 cf

Plug-Flow detention time= 1,084.9 min calculated for 0.005 af (35% of inflow)
Center-of-Mass det. time= 941.4 min (1,809.9 - 868.5)

Volume	Invert	Avail.Storage	Storage Description
#1	63.50'	1,489 cf	**gsf15 (Irregular)** Listed below (Recalc)
#2	60.74'	450 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,939 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
63.50	600	168.0	0	0	600
64.00	858	177.0	363	363	862
65.00	1,418	196.0	1,126	1,489	1,456

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.74	599	0.0	0	0
60.75	599	40.0	2	2
61.49	599	40.0	177	180
61.50	599	30.0	2	181
61.99	599	30.0	88	270
62.00	599	20.0	1	271
63.50	599	20.0	180	450

Device	Routing	Invert	Outlet Devices
#1	Primary	60.75'	**0.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	60.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	60.70'	**8.0" Round Culvert** L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.52' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	63.70'	**25.7" Horiz. cb9 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 24.08 hrs HW=63.69' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.24 fps)
└─**2=Exfiltration** (Passes 0.00 cfs of 0.03 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=60.74' (Free Discharge)
└─**3=Culvert** (Passes 0.00 cfs of 0.00 cfs potential flow)
└─**4=cb9 beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 16: grassed soil filter

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth = 1.30" for 2-year event
Inflow = 0.52 cfs @ 12.09 hrs, Volume= 0.038 af
Outflow = 0.01 cfs @ 24.02 hrs, Volume= 0.019 af, Atten= 99%, Lag= 716.0 min
Primary = 0.01 cfs @ 24.02 hrs, Volume= 0.019 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.29' @ 24.02 hrs Surf.Area= 2,350 sf Storage= 1,346 cf

Plug-Flow detention time= 1,059.9 min calculated for 0.019 af (52% of inflow)
Center-of-Mass det. time= 939.7 min (1,780.8 - 841.1)

Volume	Invert	Avail.Storage	Storage Description
#1	62.75'	4,054 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	60.74'	753 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		4,806 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.75	1,000	215.0	0	0	1,000
63.00	1,165	220.0	270	270	1,181
64.00	1,858	241.0	1,498	1,768	1,986
65.00	2,741	270.0	2,285	4,054	3,192

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.74	1,001	0.0	0	0
60.75	1,001	40.0	4	4
61.49	1,001	40.0	296	300
61.50	1,001	30.0	3	303
61.99	1,001	30.0	147	450
62.00	1,001	20.0	2	452
63.50	1,001	20.0	300	753

Device	Routing	Invert	Outlet Devices
#1	Primary	60.75'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	60.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	60.70'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.54' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	64.40'	**25.7" Horiz. cb8 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 24.02 hrs HW=63.29' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 7.65 fps)
↑—**2=Exfiltration** (Passes 0.01 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=60.74' (Free Discharge)
↑—**3=Culvert** (Passes 0.00 cfs of 0.00 cfs potential flow)
↑—**4=cb8 beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 18A: grassed soil filter

Inflow Area = 0.146 ac, 40.91% Impervious, Inflow Depth = 1.43" for 2-year event
Inflow = 0.24 cfs @ 12.09 hrs, Volume= 0.017 af
Outflow = 0.00 cfs @ 22.38 hrs, Volume= 0.009 af, Atten= 99%, Lag= 617.1 min
Primary = 0.00 cfs @ 22.38 hrs, Volume= 0.009 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.58' @ 22.38 hrs Surf.Area= 912 sf Storage= 609 cf

Plug-Flow detention time= 1,013.7 min calculated for 0.009 af (53% of inflow)
Center-of-Mass det. time= 897.6 min (1,731.8 - 834.2)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	1,183 cf	**gsf18a (Irregular)** Listed below (Recalc)
#2	54.24'	686 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,868 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	900	183.0	0	0	900
58.00	1,490	202.0	1,183	1,183	1,513

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
54.24	912	0.0	0	0
54.25	912	40.0	4	4
54.99	912	40.0	270	274
55.00	912	30.0	3	276
55.49	912	30.0	134	410
55.50	912	20.0	2	412
57.00	912	20.0	274	686

Device	Routing	Invert	Outlet Devices
#1	Primary	54.25'	**0.3" Vert. Orifice/Grate** C= 0.600
#2	Device 1	54.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.40'	**25.7" Horiz. cb24 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 22.38 hrs HW=56.58' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 7.33 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.02 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=54.24' (Free Discharge)
↑—**3=Culvert** (Passes 0.00 cfs of 0.12 cfs potential flow)
↑—**4=cb24 beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 18B: grassed soil filter

Inflow Area = 0.092 ac, 58.36% Impervious, Inflow Depth = 1.73" for 2-year event
Inflow = 0.19 cfs @ 12.09 hrs, Volume= 0.013 af
Outflow = 0.00 cfs @ 24.04 hrs, Volume= 0.006 af, Atten= 99%, Lag= 716.8 min
Primary = 0.00 cfs @ 24.04 hrs, Volume= 0.006 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.70' @ 24.04 hrs Surf.Area= 782 sf Storage= 491 cf

Plug-Flow detention time= 1,071.2 min calculated for 0.006 af (43% of inflow)
Center-of-Mass det. time= 952.2 min (1,771.4 - 819.2)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	430 cf	**gsf18a (Irregular)** Listed below (Recalc)
#2	54.24'	221 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		651 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	290	88.0	0	0	290
58.00	587	107.0	430	430	601

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
54.24	294	0.0	0	0
54.25	294	40.0	1	1
54.99	294	40.0	87	88
55.00	294	30.0	1	89
55.49	294	30.0	43	132
55.50	294	20.0	1	133
57.00	294	20.0	88	221

Device	Routing	Invert	Outlet Devices
#1	Primary	54.25'	**0.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	54.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.90'	**25.7" Horiz. cb23 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 24.04 hrs HW=57.70' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.94 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.02 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=54.24' (Free Discharge)
↑—**3=Culvert** (Passes 0.00 cfs of 0.12 cfs potential flow)
↑—**4=cb23 beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 1A: Grassed soil filter

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth = 1.43" for 2-year event
Inflow = 0.69 cfs @ 12.09 hrs, Volume= 0.049 af
Outflow = 0.01 cfs @ 21.17 hrs, Volume= 0.031 af, Atten= 98%, Lag= 545.0 min
Primary = 0.01 cfs @ 21.17 hrs, Volume= 0.031 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 66.01' @ 21.17 hrs Surf.Area= 3,382 sf Storage= 1,644 cf
Flood Elev= 68.00' Surf.Area= 5,086 sf Storage= 6,753 cf

Plug-Flow detention time= 1,010.0 min calculated for 0.031 af (64% of inflow)
Center-of-Mass det. time= 904.0 min (1,738.2 - 834.2)

Volume	Invert	Avail.Storage	Storage Description
#1	65.75'	5,554 cf	**Grassed Underdrain Soil Filter (Irregular)** Listed below (Recalc)
#2	62.99'	1,198 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		6,753 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.75	1,600	234.0	0	0	1,600
66.00	1,775	239.0	422	422	1,797
67.00	2,525	261.0	2,139	2,561	2,708
68.00	3,488	286.0	2,994	5,554	3,830

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.99	1,598	0.0	0	0
63.00	1,598	40.0	6	6
63.74	1,598	40.0	473	479
63.75	1,598	30.0	5	484
64.24	1,598	30.0	235	719
64.25	1,598	20.0	3	722
65.74	1,598	20.0	476	1,198

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	**0.5" Vert. Orifice/Grate** C= 0.600
#2	Device 1	62.99'	**2.400 in/hr Exfiltration over Surface area**
#3	Secondary	62.50'	**8.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.50' / 62.26' S= 0.0089 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	66.30'	**25.7" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 21.17 hrs HW=66.01' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 8.33 fps)
└─**2=Exfiltration** (Passes 0.01 cfs of 0.19 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=62.99' (Free Discharge)
└─**3=Culvert** (Passes 0.00 cfs of 0.52 cfs potential flow)
└─**4=Orifice/Grate** (Controls 0.00 cfs)

Summary for Pond GSF 1B: grassed soil filter

Inflow Area =	0.570 ac,	27.49% Impervious,	Inflow Depth =	1.24" for 2-year event
Inflow =	0.82 cfs @	12.09 hrs, Volume=	0.059 af	
Outflow =	0.05 cfs @	14.66 hrs, Volume=	0.045 af,	Atten= 94%, Lag= 154.0 min
Primary =	0.01 cfs @	14.66 hrs, Volume=	0.038 af	
Secondary =	0.04 cfs @	14.66 hrs, Volume=	0.007 af	

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 66.90' @ 14.66 hrs Surf.Area= 2,193 sf Storage= 1,681 cf
Flood Elev= 67.00' Surf.Area= 2,309 sf Storage= 1,826 cf

Plug-Flow detention time= 884.1 min calculated for 0.045 af (77% of inflow)
Center-of-Mass det. time= 796.8 min (1,641.4 - 844.6)

Volume	Invert	Avail.Storage	Storage Description
#1	65.50'	32,509 cf	**gsf1B (Irregular)** Listed below (Recalc)
#2	62.74'	545 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		33,054 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.50	393	187.0	0	0	393
66.00	583	194.0	242	242	626
67.00	1,576	297.0	1,039	1,282	4,658
68.00	3,199	450.0	2,340	3,622	13,760
69.00	68,644	2,673.0	28,887	32,509	566,223

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.74	733	0.0	0	0
62.75	733	40.0	3	3
63.40	733	40.0	191	194
63.50	733	30.0	22	216
63.99	733	30.0	108	323
64.00	733	20.0	1	325
65.50	733	20.0	220	545

Device	Routing	Invert	Outlet Devices
#1	Primary	62.75'	**0.5" Vert. Orifice/Grate** C= 0.600
#2	Device 1	62.74'	**1.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#3	Secondary	62.70'	**8.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.70' / 62.60' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	66.90'	**25.7" Horiz. CB16 beehive grate equiv dbl X 2.00** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 14.66 hrs HW=66.90' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.79 fps)
└**2=Exfiltration** (Passes 0.01 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=0.01 cfs @ 14.66 hrs HW=66.90' (Free Discharge)
└**3=Culvert** (Passes 0.01 cfs of 2.61 cfs potential flow)
└**4=CB16 beehive grate equiv dbl** (Weir Controls 0.01 cfs @ 0.22 fps)

Summary for Pond GSF 2: grassed soil filter

Inflow Area = 0.713 ac, 25.93% Impervious, Inflow Depth = 1.18" for 2-year event
Inflow = 0.96 cfs @ 12.09 hrs, Volume= 0.070 af
Outflow = 0.02 cfs @ 21.48 hrs, Volume= 0.049 af, Atten= 98%, Lag= 563.1 min
Primary = 0.02 cfs @ 21.48 hrs, Volume= 0.049 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.43' @ 21.48 hrs Surf.Area= 3,458 sf Storage= 2,302 cf
Flood Elev= 59.00' Surf.Area= 4,991 sf Storage= 6,448 cf

Plug-Flow detention time= 1,016.9 min calculated for 0.049 af (71% of inflow)
Center-of-Mass det. time= 916.8 min (1,764.8 - 848.0)

Volume	Invert	Avail.Storage	Storage Description
#1	56.75'	5,317 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	53.99'	1,130 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		6,448 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.75	1,500	218.0	0	0	1,500
57.00	1,669	223.0	396	396	1,684
58.00	2,371	245.0	2,010	2,406	2,536
59.00	3,488	283.0	2,912	5,317	4,154

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.99	1,503	0.0	0	0
54.00	1,503	40.0	6	6
54.74	1,503	40.0	445	451
54.75	1,503	30.0	5	455
55.24	1,503	30.0	221	676
55.25	1,503	20.0	3	679
56.75	1,503	20.0	451	1,130

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	53.99'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	53.95'	**8.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.95' / 53.76' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.60'	**25.7" Horiz. cb20 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 21.48 hrs HW=57.43' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 8.88 fps)
└─**2=Exfiltration** (Passes 0.02 cfs of 0.08 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=53.99' (Free Discharge)
└─**3=Culvert** (Passes 0.00 cfs of 0.00 cfs potential flow)
└─**4=cb20 beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 24: grassed soil filter

Inflow Area = 0.419 ac, 67.19% Impervious, Inflow Depth = 2.07" for 2-year event
Inflow = 1.00 cfs @ 12.09 hrs, Volume= 0.072 af
Outflow = 0.02 cfs @ 18.38 hrs, Volume= 0.052 af, Atten= 98%, Lag= 377.3 min
Primary = 0.02 cfs @ 18.38 hrs, Volume= 0.052 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 40.59' @ 18.38 hrs Surf.Area= 3,201 sf Storage= 2,393 cf

Plug-Flow detention time= 1,023.2 min calculated for 0.052 af (72% of inflow)
Center-of-Mass det. time= 932.7 min (1,734.0 - 801.3)

Volume	Invert	Avail.Storage	Storage Description
#1	39.75'	4,479 cf	**gsf24 (Irregular)** Listed below (Recalc)
#2	36.99'	1,054 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		5,533 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
39.75	1,400	150.0	0	0	1,400
40.00	1,516	156.0	364	364	1,551
41.00	2,013	176.0	1,759	2,123	2,105
42.00	2,717	200.0	2,356	4,479	2,847

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
36.99	1,401	0.0	0	0
37.00	1,401	40.0	6	6
37.74	1,401	40.0	415	420
37.75	1,401	30.0	4	425
38.24	1,401	30.0	206	630
38.25	1,401	20.0	3	633
39.75	1,401	20.0	420	1,054

Device	Routing	Invert	Outlet Devices
#1	Primary	37.00'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	36.99'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	36.80'	**8.0" Round Culvert** L= 40.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 36.80' / 36.00' S= 0.0200 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4 Device 3 40.60' **25.7" Horiz. cb32 beehive equiv** C= 0.600
Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 18.38 hrs HW=40.59' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.09 fps)
└**2=Exfiltration** (Passes 0.02 cfs of 0.07 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=36.99' (Free Discharge)
└**3=Culvert** (Passes 0.00 cfs of 0.10 cfs potential flow)
└**4=cb32 beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 3: grassed soil filter

Inflow Area = 0.830 ac, 36.22% Impervious, Inflow Depth = 1.30" for 2-year event
Inflow = 1.26 cfs @ 12.09 hrs, Volume= 0.090 af
Outflow = 0.02 cfs @ 23.07 hrs, Volume= 0.052 af, Atten= 99%, Lag= 658.7 min
Primary = 0.02 cfs @ 23.07 hrs, Volume= 0.052 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 55.71' @ 23.07 hrs Surf.Area= 4,004 sf Storage= 3,125 cf
Flood Elev= 57.00' Surf.Area= 5,449 sf Storage= 7,083 cf

Plug-Flow detention time= 1,049.1 min calculated for 0.052 af (58% of inflow)
Center-of-Mass det. time= 934.3 min (1,775.4 - 841.1)

Volume	Invert	Avail.Storage	Storage Description
#1	54.75'	5,872 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	51.99'	1,211 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		7,083 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.75	1,600	268.0	0	0	1,600
55.00	1,804	274.0	425	425	1,868
56.00	2,657	295.0	2,217	2,642	2,860
57.00	3,839	332.0	3,230	5,872	4,733

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.99	1,610	0.0	0	0
52.00	1,610	40.0	6	6
52.74	1,610	40.0	477	483
52.75	1,610	30.0	5	488
53.24	1,610	30.0	237	725
53.25	1,610	20.0	3	728
54.75	1,610	20.0	483	1,211

Device	Routing	Invert	Outlet Devices
#1	Primary	52.00'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.99'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.95'	**12.0" Round Culvert**
			L= 14.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 51.95' / 51.81' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	55.75'	**25.7" Horiz. cb25 beehive equiv** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 23.07 hrs HW=55.71' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.24 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.09 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=51.99' (Free Discharge)
↑—**3=Culvert** (Passes 0.00 cfs of 0.01 cfs potential flow)
↑—**4=cb25 beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 4: grassed soil filter

Inflow Area = 0.194 ac, 0.00% Impervious, Inflow Depth = 0.85" for 2-year event
Inflow = 0.18 cfs @ 12.10 hrs, Volume= 0.014 af
Outflow = 0.00 cfs @ 21.28 hrs, Volume= 0.010 af, Atten= 98%, Lag= 551.0 min
Primary = 0.00 cfs @ 21.28 hrs, Volume= 0.010 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.68' @ 21.28 hrs Surf.Area= 970 sf Storage= 430 cf
Flood Elev= 56.00' Surf.Area= 1,431 sf Storage= 1,405 cf

Plug-Flow detention time= 930.8 min calculated for 0.010 af (75% of inflow)
Center-of-Mass det. time= 835.5 min (1,704.0 - 868.5)

Volume	Invert	Avail.Storage	Storage Description
#1	54.50'	1,061 cf	**gsf4 (Irregular)** Listed below (Recalc)
#2	51.74'	344 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,405 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.50	457	163.0	0	0	457
55.00	623	169.0	269	269	636
56.00	974	182.0	792	1,061	1,039

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.74	457	0.0	0	0
51.75	457	40.0	2	2
52.49	457	40.0	135	137
52.50	457	30.0	1	138
52.99	457	30.0	67	206
53.00	457	20.0	1	207
54.50	457	20.0	137	344

Device	Routing	Invert	Outlet Devices
#1	Primary	51.75'	**0.3" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.70'	**8.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.70' / 51.53' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	55.10'	**25.7" Horiz. cb26 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 21.28 hrs HW=54.68' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.22 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.02 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=51.74' (Free Discharge)
↑—**3=Culvert** (Passes 0.00 cfs of 0.00 cfs potential flow)
↑—**4=cb26 beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 5: grassed soil filter

Inflow Area = 0.248 ac, 0.00% Impervious, Inflow Depth = 0.85" for 2-year event
Inflow = 0.23 cfs @ 12.10 hrs, Volume= 0.017 af
Outflow = 0.00 cfs @ 23.62 hrs, Volume= 0.011 af, Atten= 98%, Lag= 691.6 min
Primary = 0.00 cfs @ 23.62 hrs, Volume= 0.011 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.21' @ 23.62 hrs Surf.Area= 1,320 sf Storage= 591 cf
Flood Elev= 55.00' Surf.Area= 1,857 sf Storage= 1,360 cf

Plug-Flow detention time= 1,003.0 min calculated for 0.011 af (63% of inflow)
Center-of-Mass det. time= 884.7 min (1,753.2 - 868.5)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	908 cf	**gsf5 (Irregular)** Listed below (Recalc)
#2	51.24'	451 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,360 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	600	210.0	0	0	600
55.00	1,257	228.0	908	908	1,265

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.24	600	0.0	0	0
51.25	600	40.0	2	2
51.99	600	40.0	178	180
52.00	600	30.0	2	182
52.49	600	30.0	88	270
52.50	600	20.0	1	271
54.00	600	20.0	180	451

Device	Routing	Invert	Outlet Devices
#1	Primary	51.25'	**0.3" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.00'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.95' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	54.60'	**25.7" Horiz. cb beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 23.62 hrs HW=54.21' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.27 fps)
└─**2=Exfiltration** (Passes 0.00 cfs of 0.03 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=51.24' (Free Discharge)
└─**3=Culvert** (Passes 0.00 cfs of 0.13 cfs potential flow)
└─**4=cb beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 6: grassed soil filter

Inflow Area = 0.321 ac, 32.06% Impervious, Inflow Depth = 1.30" for 2-year event
Inflow = 0.49 cfs @ 12.09 hrs, Volume= 0.035 af
Outflow = 0.01 cfs @ 22.51 hrs, Volume= 0.021 af, Atten= 98%, Lag= 625.1 min
Primary = 0.01 cfs @ 22.51 hrs, Volume= 0.021 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 47.92' @ 22.51 hrs Surf.Area= 2,074 sf Storage= 1,194 cf
Flood Elev= 50.00' Surf.Area= 2,772 sf Storage= 4,107 cf

Plug-Flow detention time= 1,037.5 min calculated for 0.021 af (61% of inflow)
Center-of-Mass det. time= 925.5 min (1,766.6 - 841.1)

Volume	Invert	Avail.Storage	Storage Description
#1	47.50'	3,352 cf	**gsf6 (Irregular)** Listed below (Recalc)
#2	44.74'	755 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		4,107 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
47.50	1,004	156.0	0	0	1,004
48.00	1,082	159.0	521	521	1,113
49.00	1,413	172.0	1,244	1,765	1,493
50.00	1,768	184.0	1,587	3,352	1,877

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
44.74	1,004	0.0	0	0
44.75	1,004	40.0	4	4
45.49	1,004	40.0	297	301
45.50	1,004	30.0	3	304
45.99	1,004	30.0	148	452
46.00	1,004	20.0	2	454
47.50	1,004	20.0	301	755

Device	Routing	Invert	Outlet Devices
#1	Primary	44.75'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	44.74'	**1.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#3	Secondary	44.70'	**8.0" Round culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.70' / 44.53' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	48.20'	**4.0" Vert. Orifice X 6.00** C= 0.600
#5	Device 3	49.00'	**25.7" Horiz. cb beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 22.51 hrs HW=47.92' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 8.56 fps)
└─**2=Exfiltration** (Passes 0.01 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=44.74' (Free Discharge)
└─**3=culvert** (Passes 0.00 cfs of 0.00 cfs potential flow)
├─**4=Orifice** (Controls 0.00 cfs)
└─**5=cb beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 7: grassed soil filter

Inflow Area = 0.697 ac, 25.86% Impervious, Inflow Depth = 1.18" for 2-year event
Inflow = 0.94 cfs @ 12.09 hrs, Volume= 0.068 af
Outflow = 0.02 cfs @ 21.81 hrs, Volume= 0.046 af, Atten= 98%, Lag= 582.8 min
Primary = 0.02 cfs @ 21.81 hrs, Volume= 0.046 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 54.33' @ 21.81 hrs Surf.Area= 4,504 sf Storage= 2,274 cf
Flood Elev= 56.00' Surf.Area= 7,240 sf Storage= 8,558 cf

Plug-Flow detention time= 1,006.0 min calculated for 0.046 af (67% of inflow)
Center-of-Mass det. time= 899.7 min (1,747.6 - 848.0)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	7,026 cf	**gsf7 (Irregular)** Listed below (Recalc)
#2	51.24'	1,532 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		8,558 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	2,037	220.0	0	0	2,037
55.00	3,467	289.0	2,720	2,720	4,843
56.00	5,203	357.0	4,306	7,026	8,354

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.24	2,037	0.0	0	0
51.25	2,037	40.0	8	8
51.99	2,037	40.0	603	611
52.00	2,037	30.0	6	617
52.49	2,037	30.0	299	917
52.50	2,037	20.0	4	921
54.00	2,037	20.0	611	1,532

Device	Routing	Invert	Outlet Devices
#1	Primary	51.25'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.00'	**8.0" Round cb29** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.48' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	54.70'	**25.7" Horiz. cb beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 21.81 hrs HW=54.33' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 8.42 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.10 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=51.24' (Free Discharge)
↑—**3=cb29** (Passes 0.00 cfs of 0.15 cfs potential flow)
↑—**4=cb beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 8: grassed soil filter

Inflow Area = 1.046 ac, 55.78% Impervious, Inflow Depth = 1.65" for 2-year event
Inflow = 2.03 cfs @ 12.09 hrs, Volume= 0.144 af
Outflow = 0.06 cfs @ 16.84 hrs, Volume= 0.099 af, Atten= 97%, Lag= 285.4 min
Primary = 0.03 cfs @ 16.84 hrs, Volume= 0.095 af
Secondary = 0.02 cfs @ 16.84 hrs, Volume= 0.004 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.61' @ 16.84 hrs Surf.Area= 5,201 sf Storage= 4,684 cf
Flood Elev= 58.50' Surf.Area= 5,815 sf Storage= 7,903 cf

Plug-Flow detention time= 1,001.3 min calculated for 0.099 af (69% of inflow)
Center-of-Mass det. time= 903.9 min (1,727.0 - 823.1)

Volume	Invert	Avail.Storage	Storage Description
#1	56.50'	6,471 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	53.74'	1,433 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		7,903 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.50	2,600	200.0	0	0	2,600
57.50	3,227	218.0	2,908	2,908	3,234
58.50	3,910	237.0	3,563	6,471	3,959

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.74	1,905	0.0	0	0
53.75	1,905	40.0	8	8
54.49	1,905	40.0	564	572
54.50	1,905	30.0	6	577
54.99	1,905	30.0	280	857
55.00	1,905	20.0	4	861
56.50	1,905	20.0	572	1,433

Device	Routing	Invert	Outlet Devices
#1	Primary	53.75'	**0.8" Vert. Orifice/Grate** C= 0.600
#2	Device 1	53.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	53.50'	**8.0" Round cb10 culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.50' / 52.93' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.60'	**25.7" Horiz. cb10 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 16.84 hrs HW=57.61' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.03 cfs @ 9.41 fps)
└**2=Exfiltration** (Passes 0.03 cfs of 0.12 cfs potential flow)

Secondary OutFlow Max=0.01 cfs @ 16.84 hrs HW=57.61' (Free Discharge)
└**3=cb10 culvert** (Passes 0.01 cfs of 2.52 cfs potential flow)
└**4=cb10 beehive equiv** (Weir Controls 0.01 cfs @ 0.24 fps)

Summary for Pond GSF 9: grassed soil filter

Inflow Area = 0.647 ac, 63.29% Impervious, Inflow Depth = 1.81" for 2-year event
Inflow = 1.37 cfs @ 12.09 hrs, Volume= 0.098 af
Outflow = 0.14 cfs @ 12.90 hrs, Volume= 0.075 af, Atten= 89%, Lag= 49.0 min
Primary = 0.02 cfs @ 12.90 hrs, Volume= 0.051 af
Secondary = 0.13 cfs @ 12.90 hrs, Volume= 0.024 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.98' @ 12.90 hrs Surf.Area= 4,233 sf Storage= 2,449 cf
Flood Elev= 65.00' Surf.Area= 6,073 sf Storage= 8,972 cf

Plug-Flow detention time= 715.6 min calculated for 0.075 af (77% of inflow)
Center-of-Mass det. time= 632.5 min (1,447.6 - 815.1)

Volume	Invert	Avail.Storage	Storage Description
#1	62.50'	7,539 cf	**gsf9 (Irregular)** Listed below (Recalc)
#2	59.24'	1,433 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		8,972 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.50	1,905	437.0	0	0	1,905
63.00	2,345	443.0	1,061	1,061	2,379
64.00	3,244	455.0	2,782	3,843	3,347
65.00	4,168	468.0	3,696	7,539	4,408

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.24	1,905	0.0	0	0
59.25	1,905	40.0	8	8
59.99	1,905	40.0	564	572
60.00	1,905	30.0	6	577
60.49	1,905	30.0	280	857
60.50	1,905	20.0	4	861
62.00	1,905	20.0	572	1,433

Device	Routing	Invert	Outlet Devices
#1	Primary	59.25'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	59.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	59.00'	**8.0" Round Culvert** L= 54.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.00' / 57.92' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	62.95'	**25.7" Horiz. cb6 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.90 hrs HW=62.98' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.27 fps)
└**2=Exfiltration** (Passes 0.02 cfs of 0.10 cfs potential flow)

Secondary OutFlow Max=0.12 cfs @ 12.90 hrs HW=62.98' (Free Discharge)
└**3=Culvert** (Passes 0.12 cfs of 2.53 cfs potential flow)
└**4=cb6 beehive equiv** (Weir Controls 0.12 cfs @ 0.58 fps)

Summary for Pond ics 12: ICS 12

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.67" for 2-year event
Inflow = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af
Outflow = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af, Atten= 0%, Lag= 0.0 min
Primary = 6.57 cfs @ 12.08 hrs, Volume= 0.203 af
Secondary = 0.69 cfs @ 12.08 hrs, Volume= 0.372 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.60' @ 12.08 hrs
Flood Elev= 65.42'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**18.0" Round Culvert** L= 4.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.15' S= 0.1375 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	62.95'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	60.75'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.75' / 60.72' S= 0.0060 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	60.75'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=6.55 cfs @ 12.08 hrs HW=63.60' (Free Discharge)
└**1=Culvert** (Passes 6.55 cfs of 9.85 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 6.55 cfs @ 2.52 fps)

Secondary OutFlow Max=0.69 cfs @ 12.08 hrs HW=63.60' (Free Discharge)
└**3=Culvert** (Passes 0.69 cfs of 4.58 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 0.69 cfs @ 7.89 fps)

Summary for Pond ICS1: ICS 1

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.67" for 2-year event
Inflow = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af
Outflow = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af, Atten= 0%, Lag= 0.0 min
Primary = 0.54 cfs @ 12.08 hrs, Volume= 0.326 af
Secondary = 6.72 cfs @ 12.08 hrs, Volume= 0.248 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 65.18' @ 12.08 hrs
Flood Elev= 69.38'

Device	Routing	Invert	Outlet Devices
#1	Secondary	63.37'	**18.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.37' / 63.27' S= 0.0043 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	64.31'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	63.37'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.37' / 63.37' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	63.37'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.54 cfs @ 12.08 hrs HW=65.18' (Free Discharge)
↑—**3=Culvert** (Passes 0.54 cfs of 3.41 cfs potential flow)
↑—**4=Orifice/Grate** (Orifice Controls 0.54 cfs @ 6.17 fps)

Secondary OutFlow Max=6.71 cfs @ 12.08 hrs HW=65.18' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 6.71 cfs @ 3.99 fps)
↑—**2=Broad-Crested Rectangular Weir** (Passes 6.71 cfs of 10.70 cfs potential flow)

Summary for Pond ICS18: ICS18

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth = 2.67" for 2-year event
Inflow = 1.22 cfs @ 12.08 hrs, Volume= 0.097 af
Outflow = 1.22 cfs @ 12.08 hrs, Volume= 0.097 af, Atten= 0%, Lag= 0.0 min
Primary = 0.65 cfs @ 12.08 hrs, Volume= 0.091 af
Secondary = 0.57 cfs @ 12.08 hrs, Volume= 0.006 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.39' @ 12.08 hrs
Flood Elev= 62.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.81'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.81' / 57.80' S= 0.0020 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.81'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 4	60.25'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#4	Secondary	57.80'	**12.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.80' / 56.96' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.65 cfs @ 12.08 hrs HW=60.39' (Free Discharge)
↑—**1=Culvert** (Passes 0.65 cfs of 1.99 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.65 cfs @ 7.47 fps)

Secondary OutFlow Max=0.56 cfs @ 12.08 hrs HW=60.39' (Free Discharge)
↑—**4=Culvert** (Passes 0.56 cfs of 4.31 cfs potential flow)
↑—**3=Broad-Crested Rectangular Weir** (Weir Controls 0.56 cfs @ 1.03 fps)

Summary for Pond ics28: ICS28

Inflow Area =	0.275 ac,	100.00% Impervious,	Inflow Depth =	2.67" for 2-year event
Inflow =	0.77 cfs @	12.08 hrs, Volume=	0.061 af	
Outflow =	0.77 cfs @	12.08 hrs, Volume=	0.061 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.63 cfs @	12.08 hrs, Volume=	0.060 af	
Secondary =	0.14 cfs @	12.08 hrs, Volume=	0.001 af	

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.55' @ 12.08 hrs
Flood Elev= 63.95'

Device	Routing	Invert	Outlet Devices
#1	Secondary	58.00'	**8.0" Round Culvert** L= 10.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.00' / 57.90' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	60.50'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	58.15'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.15' / 58.12' S= 0.0060 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	58.15'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.63 cfs @ 12.08 hrs HW=60.55' (Free Discharge)
└**3=Culvert** (Passes 0.63 cfs of 1.91 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 0.63 cfs @ 7.20 fps)

Secondary OutFlow Max=0.14 cfs @ 12.08 hrs HW=60.55' (Free Discharge)
└**1=Culvert** (Passes 0.14 cfs of 1.98 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 0.14 cfs @ 0.65 fps)

Summary for Pond ICS37: ISC37

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.67" for 2-year event
Inflow = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af
Outflow = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af, Atten= 0%, Lag= 0.0 min
Primary = 4.92 cfs @ 12.08 hrs, Volume= 0.554 af
Secondary = 2.34 cfs @ 12.08 hrs, Volume= 0.020 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.34' @ 12.08 hrs
Flood Elev= 57.00'

Device	Routing	Invert	Outlet Devices
#1	Secondary	52.50'	**18.0" Round Culvert** L= 51.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.50' / 52.00' S= 0.0098 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	52.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Primary	52.80'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=4.92 cfs @ 12.08 hrs HW=55.34' (Free Discharge)
├**3=Culvert** (Inlet Controls 4.27 cfs @ 5.43 fps)
└**4=Orifice/Grate** (Orifice Controls 0.65 cfs @ 7.42 fps)

Secondary OutFlow Max=2.32 cfs @ 12.08 hrs HW=55.34' (Free Discharge)
└**1=Culvert** (Passes 2.32 cfs of 9.72 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 2.32 cfs @ 1.69 fps)

Summary for Pond ics46: ICS46

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.67" for 2-year event
Inflow = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af
Outflow = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af, Atten= 0%, Lag= 0.0 min
Primary = 0.69 cfs @ 12.08 hrs, Volume= 0.371 af
Secondary = 6.57 cfs @ 12.08 hrs, Volume= 0.203 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 49.65' @ 12.08 hrs
Flood Elev= 55.50'

Device	Routing	Invert	Outlet Devices
#1	Secondary	46.20'	**18.0" Round Culvert** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.20' / 46.00' S= 0.0091 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	49.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	46.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.80' / 46.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	46.80'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.69 cfs @ 12.08 hrs HW=49.65' (Free Discharge)
↑—**3=Culvert** (Passes 0.69 cfs of 4.58 cfs potential flow)
↑—**4=Orifice/Grate** (Orifice Controls 0.69 cfs @ 7.89 fps)

Secondary OutFlow Max=6.55 cfs @ 12.08 hrs HW=49.65' (Free Discharge)
↑—**1=Culvert** (Passes 6.55 cfs of 11.04 cfs potential flow)
↑—**2=Broad-Crested Rectangular Weir** (Weir Controls 6.55 cfs @ 2.52 fps)

Summary for Pond ICS9: ICS9

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.67" for 2-year event
Inflow = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af
Outflow = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af, Atten= 0%, Lag= 0.0 min
Primary = 0.69 cfs @ 12.08 hrs, Volume= 0.371 af
Secondary = 6.57 cfs @ 12.08 hrs, Volume= 0.204 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 64.83' @ 12.08 hrs
Flood Elev= 66.76'

Device	Routing	Invert	Outlet Devices
#1	Secondary	61.70'	**18.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.70' / 61.00' S= 0.0500 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	64.18'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	62.00'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.00' / 61.65' S= 0.0700 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

#4 Device 3 62.00' **4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.69 cfs @ 12.08 hrs HW=64.83' (Free Discharge)
└**3=Culvert** (Passes 0.69 cfs of 4.56 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 0.69 cfs @ 7.86 fps)

Secondary OutFlow Max=6.55 cfs @ 12.08 hrs HW=64.83' (Free Discharge)
└**1=Culvert** (Passes 6.55 cfs of 10.36 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 6.55 cfs @ 2.52 fps)

Summary for Pond ISC42: ICS 42

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.67" for 2-year event
Inflow = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af
Outflow = 7.25 cfs @ 12.08 hrs, Volume= 0.575 af, Atten= 0%, Lag= 0.0 min
Primary = 5.30 cfs @ 12.08 hrs, Volume= 0.560 af
Secondary = 1.96 cfs @ 12.08 hrs, Volume= 0.015 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.68' @ 12.08 hrs
Flood Elev= 57.00'

Device	Routing	Invert	Outlet Devices
#1	Secondary	52.20'	**18.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.20' / 51.88' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.37'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	52.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Primary	52.80'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=5.29 cfs @ 12.08 hrs HW=55.68' (Free Discharge)
└**3=Culvert** (Inlet Controls 4.60 cfs @ 5.86 fps)
└**4=Orifice/Grate** (Orifice Controls 0.69 cfs @ 7.93 fps)

Secondary OutFlow Max=1.94 cfs @ 12.08 hrs HW=55.68' (Free Discharge)
└**1=Culvert** (Passes 1.94 cfs of 11.09 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 1.94 cfs @ 1.59 fps)

Summary for Pond MPP 10: Rtank storage

Inflow Area = 0.710 ac,100.00% Impervious, Inflow Depth = 2.67" for 2-year event
Inflow = 1.99 cfs @ 12.08 hrs, Volume= 0.158 af
Outflow = 1.07 cfs @ 12.21 hrs, Volume= 0.140 af, Atten= 46%, Lag= 7.4 min
Primary = 1.07 cfs @ 12.21 hrs, Volume= 0.140 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.72' @ 12.21 hrs Surf.Area= 0.179 ac Storage= 0.055 af

Plug-Flow detention time= 158.5 min calculated for 0.140 af (88% of inflow)
Center-of-Mass det. time= 104.0 min (862.5 - 758.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.23'	0.091 af	**6.25'W x 1,248.97'L x 1.94'H Field A** 0.347 af Overall - 0.118 af Embedded = 0.229 af x 40.0% Voids
#2A	61.48'	0.112 af	**ACF R-Tank HD 0.5** x 2128 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 4 Rows of 532 Chambers
		0.204 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	61.48'	**8.0" Round Culvert X 6.00** L= 2.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.48' / 61.40' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.07 cfs @ 12.21 hrs HW=61.72' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 1.07 cfs @ 2.31 fps)

Summary for Pond MPP 14: Rtanks

Inflow Area = 0.215 ac, 94.36% Impervious, Inflow Depth = 2.56" for 2-year event
Inflow = 0.59 cfs @ 12.08 hrs, Volume= 0.046 af
Outflow = 0.33 cfs @ 12.20 hrs, Volume= 0.041 af, Atten= 45%, Lag= 7.2 min
Primary = 0.33 cfs @ 12.20 hrs, Volume= 0.041 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.51' @ 12.20 hrs Surf.Area= 1,935 sf Storage= 680 cf
Flood Elev= 60.50' Surf.Area= 1,935 sf Storage= 2,354 cf

Plug-Flow detention time= 148.3 min calculated for 0.041 af (90% of inflow)
Center-of-Mass det. time= 100.5 min (869.1 - 768.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	55.98'	1,011 cf	**15.44'W x 125.33'L x 2.04'H Field A** 3,941 cf Overall - 1,413 cf Embedded = 2,528 cf x 40.0% Voids
#2A	56.23'	1,343 cf	**ACF R-Tank HD 0.5** x 583 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 11 Rows of 53 Chambers
		2,354 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	56.23'	**8.0" Round Culvert X 2.00** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.23' / 56.12' S= 0.0052 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.33 cfs @ 12.20 hrs HW=56.51' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.33 cfs @ 1.76 fps)

Summary for Pond MPP 19: Rtanks

Inflow Area = 0.315 ac, 80.35% Impervious, Inflow Depth = 2.16" for 2-year event
Inflow = 0.78 cfs @ 12.09 hrs, Volume= 0.057 af
Outflow = 0.16 cfs @ 12.51 hrs, Volume= 0.048 af, Atten= 79%, Lag= 25.6 min
Primary = 0.16 cfs @ 12.51 hrs, Volume= 0.048 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.40' @ 12.51 hrs Surf.Area= 0.074 ac Storage= 0.029 af

Plug-Flow detention time= 267.3 min calculated for 0.048 af (85% of inflow)
Center-of-Mass det. time= 203.8 min (999.9 - 796.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.83'	0.033 af	**18.06'W x 179.28'L x 1.84'H Field A** 0.137 af Overall - 0.055 af Embedded = 0.082 af x 40.0% Voids
#2A	55.08'	0.052 af	**ACF R-Tank HD 0.5** x 988 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 76 Chambers
		0.085 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.08'	**6.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.08' / 55.00' S= 0.0042 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.16 cfs @ 12.51 hrs HW=55.40' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.16 cfs @ 1.72 fps)

Summary for Pond MPP 21: Rtanks

Inflow Area = 0.263 ac, 68.92% Impervious, Inflow Depth = 1.98" for 2-year event
Inflow = 0.60 cfs @ 12.09 hrs, Volume= 0.043 af
Outflow = 0.24 cfs @ 12.33 hrs, Volume= 0.040 af, Atten= 61%, Lag= 14.4 min
Primary = 0.24 cfs @ 12.33 hrs, Volume= 0.040 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.15' @ 12.33 hrs Surf.Area= 1,510 sf Storage= 726 cf

Plug-Flow detention time= 156.6 min calculated for 0.040 af (91% of inflow)
Center-of-Mass det. time= 113.1 min (919.3 - 806.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.48'	818 cf	**16.75'W x 90.14'L x 2.09'H Field A** 3,151 cf Overall - 1,105 cf Embedded = 2,046 cf x 40.0% Voids
#2A	54.73'	1,050 cf	**ACF R-Tank HD 0.5** x 456 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 38 Chambers
		1,868 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.73'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.73' / 54.73' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.24 cfs @ 12.33 hrs HW=55.15' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.24 cfs @ 1.82 fps)

Summary for Pond MPP 22: Rtanks

Inflow Area = 0.309 ac, 61.12% Impervious, Inflow Depth = 1.81" for 2-year event
Inflow = 0.65 cfs @ 12.09 hrs, Volume= 0.047 af
Outflow = 0.10 cfs @ 12.58 hrs, Volume= 0.038 af, Atten= 84%, Lag= 29.4 min
Primary = 0.10 cfs @ 12.58 hrs, Volume= 0.038 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.32' @ 12.58 hrs Surf.Area= 3,003 sf Storage= 1,031 cf

Plug-Flow detention time= 288.2 min calculated for 0.038 af (83% of inflow)
Center-of-Mass det. time= 217.8 min (1,032.8 - 815.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.80'	1,262 cf	**16.75'W x 179.28'L x 1.79'H Field A** 5,367 cf Overall - 2,211 cf Embedded = 3,156 cf x 40.0% Voids
#2A	55.05'	2,100 cf	**ACF R-Tank HD 0.5** x 912 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 76 Chambers
		3,363 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.05'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.05' / 55.05' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.10 cfs @ 12.58 hrs HW=55.32' (Free Discharge)
↑**1=Culvert** (Barrel Controls 0.10 cfs @ 1.43 fps)

Summary for Pond MPP 26: Rtanks

Inflow Area = 0.088 ac,100.00% Impervious, Inflow Depth = 2.67" for 2-year event
Inflow = 0.25 cfs @ 12.08 hrs, Volume= 0.019 af
Outflow = 0.11 cfs @ 12.26 hrs, Volume= 0.016 af, Atten= 55%, Lag= 10.4 min
Primary = 0.11 cfs @ 12.26 hrs, Volume= 0.016 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 34.82' @ 12.26 hrs Surf.Area= 1,289 sf Storage= 368 cf

Plug-Flow detention time= 203.6 min calculated for 0.016 af (84% of inflow)
Center-of-Mass det. time= 138.0 min (896.5 - 758.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	34.37'	492 cf	**18.06'W x 71.37'L x 1.69'H Field A** 2,175 cf Overall - 945 cf Embedded = 1,230 cf x 40.0% Voids
#2A	34.62'	898 cf	**ACF R-Tank HD 0.5** x 390 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 30 Chambers
		1,390 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	34.62'	**8.0" Round Culvert** L= 8.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 34.62' / 34.34' S= 0.0350 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.11 cfs @ 12.26 hrs HW=34.82' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.11 cfs @ 1.21 fps)

Summary for Pond MPP 50:

Inflow Area = 0.693 ac,100.00% Impervious, Inflow Depth = 2.67" for 2-year event
Inflow = 1.94 cfs @ 12.08 hrs, Volume= 0.154 af
Outflow = 1.14 cfs @ 12.19 hrs, Volume= 0.125 af, Atten= 41%, Lag= 6.4 min
Primary = 1.14 cfs @ 12.19 hrs, Volume= 0.125 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.86' @ 12.19 hrs Surf.Area= 5,946 sf Storage= 2,643 cf

Plug-Flow detention time= 183.3 min calculated for 0.125 af (81% of inflow)
Center-of-Mass det. time= 110.3 min (868.8 - 758.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.33'	2,878 cf	**4.94'W x 1,204.40'L x 1.84'H Field A** 10,925 cf Overall - 3,731 cf Embedded = 7,195 cf x 40.0% Voids
#2A	54.33'	3,544 cf	**ACF R-Tank HD 0.5** x 1539 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 3 Rows of 513 Chambers
		6,422 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.58'	**8.0" Round Culvert X 7.00** L= 3.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.58' / 54.55' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.14 cfs @ 12.19 hrs HW=54.86' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 1.14 cfs @ 1.73 fps)

Summary for Pond mpp30: Rtanks

Inflow Area = 1.205 ac, 54.78% Impervious, Inflow Depth = 1.53" for 2-year event
Inflow = 2.03 cfs @ 12.09 hrs, Volume= 0.153 af
Outflow = 0.46 cfs @ 12.51 hrs, Volume= 0.153 af, Atten= 77%, Lag= 25.3 min
Primary = 0.46 cfs @ 12.51 hrs, Volume= 0.153 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 30.75' @ 12.51 hrs Surf.Area= 9,089 sf Storage= 2,259 cf
Flood Elev= 31.78' Surf.Area= 9,089 sf Storage= 8,611 cf

Plug-Flow detention time= 71.6 min calculated for 0.153 af (100% of inflow)
Center-of-Mass det. time= 71.8 min (882.4 - 810.6)

Volume	Invert	Avail.Storage	Storage Description
#1B	30.73'	4,011 cf	**8.56'W x 815.99'L x 2.04'H Field B** 14,234 cf Overall - 4,206 cf Embedded = 10,028 cf x 40.0% Voids
#2B	30.98'	3,995 cf	**ACF R-Tank HD 0.5** x 1735 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 5 Rows of 347 Chambers
#3C	29.28'	259 cf	**10.56'W x 74.72'L x 1.69'H Field C** 1,337 cf Overall - 689 cf Embedded = 648 cf x 40.0% Voids
#4C	29.53'	654 cf	**ACF R-Tank HD 1.0** x 155 Inside #3 Inside= 15.7"W x 17.3"H => 1.80 sf x 2.35'L = 4.2 cf Outside= 15.7"W x 17.3"H => 1.89 sf x 2.35'L = 4.4 cf 5 Rows of 31 Chambers
#5D	29.28'	968 cf	**17.12'W x 76.72'L x 3.42'H Field D** 4,487 cf Overall - 2,066 cf Embedded = 2,420 cf x 40.0% Voids
#6D	29.53'	1,963 cf	**ACF R-Tank HD 1.5** x 310 Inside #5 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 10 Rows of 31 Chambers
		11,851 cf	Total Available Storage

Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard
Storage Group D created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	29.28'	**18.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 29.28' / 29.00' S= 0.0140 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Primary	29.28'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	30.00'	**3.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.46 cfs @ 12.51 hrs HW=30.75' (Free Discharge)
└─**1=Culvert** (Passes 0.19 cfs of 5.74 cfs potential flow)
  └─**3=Orifice/Grate** (Orifice Controls 0.19 cfs @ 3.81 fps)
└─**2=Orifice/Grate** (Orifice Controls 0.27 cfs @ 5.59 fps)

Summary for Pond SSF 36: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 1.52" for 2-year event
Inflow = 0.54 cfs @ 12.08 hrs, Volume= 0.326 af
Outflow = 0.10 cfs @ 19.97 hrs, Volume= 0.230 af, Atten= 82%, Lag= 473.1 min
Primary = 0.08 cfs @ 19.97 hrs, Volume= 0.222 af
Secondary = 0.02 cfs @ 19.97 hrs, Volume= 0.008 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 64.38' @ 19.97 hrs Surf.Area= 11,270 sf Storage= 10,399 cf
Flood Elev= 66.27' Surf.Area= 11,270 sf Storage= 16,373 cf

Plug-Flow detention time= 1,057.2 min calculated for 0.230 af (70% of inflow)
Center-of-Mass det. time= 924.0 min (1,706.8 - 782.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	62.77'	5,035 cf	**25.25'W x 223.16'L x 3.50'H Field A** 19,722 cf Overall - 7,135 cf Embedded = 12,587 cf x 40.0% Voids
#2A	63.27'	7,135 cf	**ADS_StormTech SC-740** x 155 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 5 rows
#3	60.02'	4,204 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,373 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.02	5,635	0.0	0	0
60.03	5,635	40.0	23	23
60.76	5,635	40.0	1,645	1,668
60.77	5,635	30.0	17	1,685
61.26	5,635	30.0	828	2,513
61.27	5,635	20.0	11	2,524
62.76	5,635	20.0	1,679	4,204

Device	Routing	Invert	Outlet Devices
#1	Primary	60.02'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	60.02'	**1.500 in/hr Exfiltration over Surface area above 60.02'** Excluded Surface area = 5,635 sf
#3	Secondary	64.31'	**12.0" Round Culvert X 2.00** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 64.31' / 64.31' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 19.97 hrs HW=64.38' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.00 fps)
↑—**2=Exfiltration** (Passes 0.08 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.02 cfs @ 19.97 hrs HW=64.38' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.02 cfs @ 0.55 fps)

Summary for Pond ssf37: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 1.72" for 2-year event
Inflow = 0.69 cfs @ 12.08 hrs, Volume= 0.371 af
Outflow = 0.22 cfs @ 15.85 hrs, Volume= 0.274 af, Atten= 68%, Lag= 226.1 min
Primary = 0.08 cfs @ 15.85 hrs, Volume= 0.224 af
Secondary = 0.14 cfs @ 15.85 hrs, Volume= 0.051 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.14' @ 15.85 hrs Surf.Area= 11,332 sf Storage= 10,978 cf
Flood Elev= 64.85' Surf.Area= 11,332 sf Storage= 16,132 cf

Plug-Flow detention time= 928.5 min calculated for 0.274 af (74% of inflow)
Center-of-Mass det. time= 814.3 min (1,590.7 - 776.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.35'	5,284 cf	**11.00'W x 515.08'L x 3.50'H Field A** 19,831 cf Overall - 6,621 cf Embedded = 13,210 cf x 40.0% Voids
#2A	61.85'	6,621 cf	**ADS_StormTech SC-740** x 144 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	58.60'	4,227 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,132 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.60	5,666	0.0	0	0
58.61	5,666	40.0	23	23
59.34	5,666	40.0	1,654	1,677
59.35	5,666	30.0	17	1,694
59.84	5,666	30.0	833	2,527
59.85	5,666	20.0	11	2,538
61.34	5,666	20.0	1,688	4,227

Device	Routing	Invert	Outlet Devices
#1	Primary	58.60'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.60'	**1.500 in/hr Exfiltration over Surface area above 58.60'** Excluded Surface area = 5,666 sf
#3	Secondary	62.89'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.89' / 62.89' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 15.85 hrs HW=63.14' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.20 fps)
↑—**2=Exfiltration** (Passes 0.08 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.13 cfs @ 15.85 hrs HW=63.14' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.13 cfs @ 1.31 fps)

Summary for Pond ssf38: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 0.94" for 2-year event
Inflow = 6.57 cfs @ 12.08 hrs, Volume= 0.203 af
Outflow = 0.07 cfs @ 12.90 hrs, Volume= 0.106 af, Atten= 99%, Lag= 49.1 min
Primary = 0.07 cfs @ 12.90 hrs, Volume= 0.106 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.35' @ 12.90 hrs Surf.Area= 11,332 sf Storage= 8,618 cf
Flood Elev= 63.62' Surf.Area= 11,332 sf Storage= 16,132 cf

Plug-Flow detention time= 546.5 min calculated for 0.106 af (52% of inflow)
Center-of-Mass det. time= 536.4 min (1,262.3 - 725.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	60.12'	5,284 cf	**11.00'W x 515.08'L x 3.50'H Field A** 19,831 cf Overall - 6,621 cf Embedded = 13,210 cf x 40.0% Voids
#2A	60.62'	6,621 cf	**ADS_StormTech SC-740** x 144 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	57.37'	4,227 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,132 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.37	5,666	0.0	0	0
57.38	5,666	40.0	23	23
58.11	5,666	40.0	1,654	1,677
58.12	5,666	30.0	17	1,694
58.61	5,666	30.0	833	2,527
58.62	5,666	20.0	11	2,538
60.11	5,666	20.0	1,688	4,227

Device	Routing	Invert	Outlet Devices
#1	Primary	57.37'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	57.37'	**1.500 in/hr Exfiltration over Surface area above 57.37'** Excluded Surface area = 5,666 sf
#3	Secondary	61.66'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.66' / 61.66' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.07 cfs @ 12.90 hrs HW=61.35' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.07 cfs @ 9.54 fps)
└**2=Exfiltration** (Passes 0.07 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=57.37' (Free Discharge)
└**3=Culvert** (Controls 0.00 cfs)

Summary for Pond ssf39: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.57" for 2-year event
Inflow = 4.92 cfs @ 12.08 hrs, Volume= 0.554 af
Outflow = 1.12 cfs @ 12.56 hrs, Volume= 0.432 af, Atten= 77%, Lag= 28.7 min
Primary = 0.08 cfs @ 12.56 hrs, Volume= 0.230 af
Secondary = 1.04 cfs @ 12.56 hrs, Volume= 0.202 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.43' @ 12.56 hrs Surf.Area= 12,365 sf Storage= 14,551 cf
Flood Elev= 55.67' Surf.Area= 12,365 sf Storage= 18,385 cf

Plug-Flow detention time= 655.6 min calculated for 0.432 af (78% of inflow)
Center-of-Mass det. time= 573.9 min (1,333.6 - 759.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	52.17'	5,625 cf	**58.50'W x 109.24'L x 3.50'H Field A** 22,367 cf Overall - 8,303 cf Embedded = 14,064 cf x 40.0% Voids
#2A	52.67'	8,303 cf	**ADS_StormTech SC-740** x 180 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 12 rows
#3	49.42'	4,457 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		18,385 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
49.42	5,974	0.0	0	0
49.43	5,974	40.0	24	24
50.16	5,974	40.0	1,744	1,768
50.17	5,974	30.0	18	1,786
50.66	5,974	30.0	878	2,664
50.67	5,974	20.0	12	2,676
52.16	5,974	20.0	1,780	4,457

Device	Routing	Invert	Outlet Devices
#1	Primary	49.42'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	49.42'	**1.500 in/hr Exfiltration over Surface area above 49.42'** Excluded Surface area = 5,974 sf
#3	Secondary	53.71'	**12.0" Round Culvert**

L= 5.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 53.71' / 53.71' S= 0.0000 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 12.56 hrs HW=54.43' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.73 fps)
↑—**2=Exfiltration** (Passes 0.08 cfs of 0.22 cfs potential flow)

Secondary OutFlow Max=1.04 cfs @ 12.56 hrs HW=54.43' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 1.04 cfs @ 2.38 fps)

Summary for Pond ssf40: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.60" for 2-year event
Inflow = 5.30 cfs @ 12.08 hrs, Volume= 0.560 af
Outflow = 1.64 cfs @ 12.48 hrs, Volume= 0.459 af, Atten= 69%, Lag= 23.7 min
Primary = 0.09 cfs @ 12.48 hrs, Volume= 0.229 af
Secondary = 1.56 cfs @ 12.48 hrs, Volume= 0.230 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.63' @ 12.48 hrs Surf.Area= 11,484 sf Storage= 13,917 cf
Flood Elev= 55.67' Surf.Area= 11,484 sf Storage= 16,630 cf

Plug-Flow detention time= 602.1 min calculated for 0.459 af (82% of inflow)
Center-of-Mass det. time= 529.6 min (1,289.0 - 759.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	52.17'	5,168 cf	**20.50'W x 280.12'L x 3.50'H Field A** 20,099 cf Overall - 7,178 cf Embedded = 12,921 cf x 40.0% Voids
#2A	52.67'	7,178 cf	**ADS_StormTech SC-740** x 156 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 4 rows
#3	49.42'	4,284 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,630 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
49.42	5,742	0.0	0	0
49.43	5,742	40.0	23	23
50.16	5,742	40.0	1,677	1,700
50.17	5,742	30.0	17	1,717
50.66	5,742	30.0	844	2,561
50.67	5,742	20.0	11	2,572
52.16	5,742	20.0	1,711	4,284

Device	Routing	Invert	Outlet Devices
#1	Primary	49.42'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	49.42'	**1.500 in/hr Exfiltration over Surface area above 49.42'** Excluded Surface area = 5,742 sf
#3	Secondary	53.71'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.71' / 53.71' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.09 cfs @ 12.48 hrs HW=54.63' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.09 cfs @ 10.94 fps)
└**2=Exfiltration** (Passes 0.09 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=1.56 cfs @ 12.48 hrs HW=54.63' (Free Discharge)
└**3=Culvert** (Barrel Controls 1.56 cfs @ 2.70 fps)

Summary for Pond ssf41: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 1.73" for 2-year event
Inflow = 0.69 cfs @ 12.08 hrs, Volume= 0.371 af
Outflow = 0.20 cfs @ 15.98 hrs, Volume= 0.274 af, Atten= 70%, Lag= 234.0 min
Primary = 0.08 cfs @ 15.98 hrs, Volume= 0.227 af
Secondary = 0.12 cfs @ 15.98 hrs, Volume= 0.048 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 47.95' @ 15.98 hrs Surf.Area= 11,270 sf Storage= 11,097 cf
Flood Elev= 49.67' Surf.Area= 11,270 sf Storage= 16,373 cf

Plug-Flow detention time= 950.4 min calculated for 0.274 af (74% of inflow)
Center-of-Mass det. time= 836.2 min (1,612.6 - 776.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	46.17'	5,035 cf	**25.25'W x 223.16'L x 3.50'H Field A** 19,722 cf Overall - 7,135 cf Embedded = 12,587 cf x 40.0% Voids
#2A	46.67'	7,135 cf	**ADS_StormTech SC-740** x 155 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 5 rows
#3	43.42'	4,204 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,373 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
43.42	5,635	0.0	0	0
43.43	5,635	40.0	23	23
44.16	5,635	40.0	1,645	1,668
44.17	5,635	30.0	17	1,685
44.66	5,635	30.0	828	2,513
44.67	5,635	20.0	11	2,524
46.16	5,635	20.0	1,679	4,204

Device	Routing	Invert	Outlet Devices
#1	Primary	43.42'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	43.42'	**1.500 in/hr Exfiltration over Surface area above 43.42'** Excluded Surface area = 5,635 sf
#3	Secondary	47.71'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 47.71' / 47.71' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 15.98 hrs HW=47.95' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.19 fps)
↑—**2=Exfiltration** (Passes 0.08 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.12 cfs @ 15.98 hrs HW=47.95' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.12 cfs @ 1.28 fps)

Summary for Pond ssf42: ssf

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth = 2.63" for 2-year event
Inflow = 0.63 cfs @ 12.08 hrs, Volume= 0.060 af
Outflow = 0.18 cfs @ 12.47 hrs, Volume= 0.044 af, Atten= 71%, Lag= 23.2 min
Primary = 0.01 cfs @ 12.47 hrs, Volume= 0.026 af
Secondary = 0.17 cfs @ 12.47 hrs, Volume= 0.018 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.37' @ 12.47 hrs Surf.Area= 1,422 sf Storage= 1,579 cf
Flood Elev= 61.67' Surf.Area= 1,422 sf Storage= 2,027 cf

Plug-Flow detention time= 707.1 min calculated for 0.044 af (73% of inflow)
Center-of-Mass det. time= 617.4 min (1,376.4 - 759.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	58.17'	662 cf	**15.75'W x 45.16'L x 3.50'H Field A** 2,489 cf Overall - 835 cf Embedded = 1,654 cf x 40.0% Voids
#2A	58.67'	835 cf	**ADS_StormTech SC-740** x 18 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 3 rows
#3	55.42'	530 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		2,027 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.42	711	0.0	0	0
55.43	711	40.0	3	3
56.16	711	40.0	208	210
56.17	711	30.0	2	213
56.66	711	30.0	105	317
56.67	711	20.0	1	319
58.16	711	20.0	212	530

Device	Routing	Invert	Outlet Devices
#1	Primary	55.42'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	55.42'	**1.500 in/hr Exfiltration over Surface area above 55.42'** Excluded Surface area = 711 sf
#3	Secondary	60.06'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.05' / 60.06' S= -0.0020 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.01 cfs @ 12.47 hrs HW=60.37' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 10.70 fps)
└**2=Exfiltration** (Passes 0.01 cfs of 0.02 cfs potential flow)

Secondary OutFlow Max=0.17 cfs @ 12.47 hrs HW=60.37' (Free Discharge)
└**3=Culvert** (Barrel Controls 0.17 cfs @ 1.51 fps)

Summary for Pond ssf43: ssf

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth = 2.50" for 2-year event
Inflow = 0.65 cfs @ 12.08 hrs, Volume= 0.091 af
Outflow = 0.33 cfs @ 12.43 hrs, Volume= 0.072 af, Atten= 50%, Lag= 21.0 min
Primary = 0.01 cfs @ 12.43 hrs, Volume= 0.041 af
Secondary = 0.31 cfs @ 12.43 hrs, Volume= 0.031 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.72' @ 12.43 hrs Surf.Area= 1,934 sf Storage= 2,207 cf
Flood Elev= 60.90' Surf.Area= 1,934 sf Storage= 2,740 cf

Plug-Flow detention time= 663.2 min calculated for 0.072 af (79% of inflow)
Center-of-Mass det. time= 582.4 min (1,343.1 - 760.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	57.40'	910 cf	**11.00'W x 87.88'L x 3.50'H Field A** 3,383 cf Overall - 1,108 cf Embedded = 2,275 cf x 40.0% Voids
#2A	57.90'	1,108 cf	**ADS_StormTech SC-740** x 24 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	54.65'	721 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		2,740 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
54.65	967	0.0	0	0
54.66	967	40.0	4	4
55.39	967	40.0	282	286
55.40	967	30.0	3	289
55.89	967	30.0	142	431
55.90	967	20.0	2	433
57.39	967	20.0	288	721

Device	Routing	Invert	Outlet Devices
#1	Primary	54.65'	**0.5" Vert. Orifice/Grate** C= 0.600
#2	Device 1	54.65'	**1.500 in/hr Exfiltration over Surface area above 54.65'** Excluded Surface area = 967 sf
#3	Secondary	59.28'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.28' / 59.28' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.01 cfs @ 12.43 hrs HW=59.72' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 10.82 fps)
↑—**2=Exfiltration** (Passes 0.01 cfs of 0.03 cfs potential flow)

Secondary OutFlow Max=0.31 cfs @ 12.43 hrs HW=59.72' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.31 cfs @ 1.81 fps)

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment1A: Runoff Area=17,785 sf 34.88% Impervious Runoff Depth=2.55"
Tc=6.0 min CN=84 Runoff=1.22 cfs 0.087 af

Subcatchment1B: Runoff Area=24,849 sf 27.49% Impervious Runoff Depth=2.29"
Tc=6.0 min CN=81 Runoff=1.53 cfs 0.109 af

Subcatchment2: Runoff Area=31,049 sf 25.93% Impervious Runoff Depth=2.21"
Tc=6.0 min CN=80 Runoff=1.85 cfs 0.131 af

Subcatchment3: Runoff Area=36,147 sf 36.22% Impervious Runoff Depth=2.37"
Tc=6.0 min CN=82 Runoff=2.31 cfs 0.164 af

Subcatchment4: Runoff Area=8,448 sf 0.00% Impervious Runoff Depth=1.74"
Tc=6.0 min CN=74 Runoff=0.39 cfs 0.028 af

Subcatchment5: Runoff Area=10,807 sf 0.00% Impervious Runoff Depth=1.74"
Tc=6.0 min CN=74 Runoff=0.50 cfs 0.036 af

Subcatchment6: Runoff Area=13,985 sf 32.06% Impervious Runoff Depth=2.37"
Tc=6.0 min CN=82 Runoff=0.89 cfs 0.064 af

Subcatchment7: Runoff Area=30,345 sf 25.86% Impervious Runoff Depth=2.21"
Tc=6.0 min CN=80 Runoff=1.80 cfs 0.128 af

Subcatchment8: Runoff Area=45,551 sf 55.78% Impervious Runoff Depth=2.82"
Tc=6.0 min CN=87 Runoff=3.42 cfs 0.246 af

Subcatchment9: Runoff Area=28,191 sf 63.29% Impervious Runoff Depth=3.01"
Tc=6.0 min CN=89 Runoff=2.24 cfs 0.162 af

Subcatchment10: access drive north of Runoff Area=30,932 sf 100.00% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=98 Runoff=2.91 cfs 0.235 af

Subcatchment11: Runoff Area=43,174 sf 36.78% Impervious Runoff Depth=2.46"
Tc=6.0 min CN=83 Runoff=2.86 cfs 0.203 af

Subcatchment12: Runoff Area=12,920 sf 57.98% Impervious Runoff Depth=2.92"
Tc=6.0 min CN=88 Runoff=1.00 cfs 0.072 af

Subcatchment13: Runoff Area=45,163 sf 46.46% Impervious Runoff Depth=2.64"
Tc=6.0 min CN=85 Runoff=3.19 cfs 0.228 af

Subcatchment14: Runoff Area=9,378 sf 94.36% Impervious Runoff Depth=3.85"
Tc=6.0 min CN=97 Runoff=0.87 cfs 0.069 af

Subcatchment15: Runoff Area=9,157 sf 1.92% Impervious Runoff Depth=1.74"
Tc=6.0 min CN=74 Runoff=0.42 cfs 0.031 af

Subcatchment16: Runoff Area=15,110 sf 34.16% Impervious Runoff Depth=2.37"
Tc=6.0 min CN=82 Runoff=0.97 cfs 0.069 af

Subcatchment17: Runoff Area=13,300 sf 85.11% Impervious Runoff Depth=3.52"
Tc=6.0 min CN=94 Runoff=1.19 cfs 0.090 af

Subcatchment18A: Runoff Area=6,339 sf 40.91% Impervious Runoff Depth=2.55"
Tc=6.0 min CN=84 Runoff=0.43 cfs 0.031 af

Subcatchment18B: Runoff Area=4,023 sf 58.36% Impervious Runoff Depth=2.92"
Tc=6.0 min CN=88 Runoff=0.31 cfs 0.022 af

Subcatchment19: Runoff Area=13,711 sf 80.35% Impervious Runoff Depth=3.41"
Tc=6.0 min CN=93 Runoff=1.20 cfs 0.090 af

Subcatchment20: Runoff Area=28,459 sf 73.83% Impervious Runoff Depth=3.31"
Tc=6.0 min CN=92 Runoff=2.44 cfs 0.180 af

Subcatchment21: Runoff Area=11,452 sf 68.92% Impervious Runoff Depth=3.21"
Tc=6.0 min CN=91 Runoff=0.96 cfs 0.070 af

Subcatchment22: Runoff Area=13,444 sf 61.12% Impervious Runoff Depth=3.01"
Tc=6.0 min CN=89 Runoff=1.07 cfs 0.077 af

Subcatchment23: sub 23 Runoff Area=28,475 sf 21.95% Impervious Runoff Depth=2.05"
Tc=6.0 min CN=78 Runoff=1.57 cfs 0.112 af

Subcatchment24: Runoff Area=18,261 sf 67.19% Impervious Runoff Depth=3.31"
Tc=6.0 min CN=92 Runoff=1.56 cfs 0.116 af

Subcatchment25: Runoff Area=118,223 sf 0.00% Impervious Runoff Depth=1.53"
Flow Length=438' Tc=67.0 min CN=71 Runoff=1.72 cfs 0.347 af

Subcatchment26: Runoff Area=3,816 sf 100.00% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=98 Runoff=0.36 cfs 0.029 af

Subcatchment27: Runoff Area=4,262 sf 100.00% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=98 Runoff=0.40 cfs 0.032 af

Subcatchment28: Runoff Area=79,698 sf 27.42% Impervious Runoff Depth=2.64"
Tc=6.0 min CN=85 Runoff=5.64 cfs 0.402 af

Subcatchment29: Runoff Area=1,306 sf 100.00% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af

Subcatchment30: Runoff Area=31,472 sf 77.98% Impervious Runoff Depth=3.41"
Tc=6.0 min CN=93 Runoff=2.75 cfs 0.206 af

Subcatchment31: Runoff Area=70,616 sf 0.00% Impervious Runoff Depth=1.53"
Flow Length=217' Tc=12.3 min CN=71 Runoff=2.28 cfs 0.207 af

Subcatchment32: Runoff Area=4,677 sf 60.42% Impervious Runoff Depth=3.01"
Tc=6.0 min CN=89 Runoff=0.37 cfs 0.027 af

Subcatchment33: B3 green Runoff Area=107,893 sf 16.71% Impervious Runoff Depth=1.27"
Tc=6.0 min CN=67 Runoff=3.44 cfs 0.262 af

Subcatchment34: Runoff Area=24,099 sf 20.00% Impervious Runoff Depth=1.33"
Tc=6.0 min CN=68 Runoff=0.82 cfs 0.061 af

Subcatchment35: Runoff Area=20,997 sf 20.00% Impervious Runoff Depth=1.33"
Tc=6.0 min CN=68 Runoff=0.71 cfs 0.054 af

Subcatchment36: B1M1 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=98 Runoff=10.59 cfs 0.854 af

Subcatchment37: B1M2 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=98 Runoff=10.59 cfs 0.854 af

Subcatchment38: B1M3 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=98 Runoff=10.59 cfs 0.854 af

Subcatchment39: B2M4 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=98 Runoff=10.59 cfs 0.854 af

Subcatchment40: B2M5 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=98 Runoff=10.59 cfs 0.854 af

Subcatchment41: B2M6 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=98 Runoff=10.59 cfs 0.854 af

Subcatchment42: B6 Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=98 Runoff=1.13 cfs 0.091 af

Subcatchment43: B5 Runoff Area=18,983 sf 100.00% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=98 Runoff=1.79 cfs 0.144 af

Subcatchment44: onsite untreated Runoff Area=159,363 sf 0.00% Impervious Runoff Depth=1.53"
Flow Length=574' Tc=18.8 min CN=71 Runoff=4.37 cfs 0.467 af

Subcatchment45: Runoff Area=64,440 sf 0.00% Impervious Runoff Depth=1.46"
Flow Length=307' Tc=29.9 min CN=70 Runoff=1.38 cfs 0.181 af

Subcatchment46: SUBCAT8 Runoff Area=14,976 sf 0.00% Impervious Runoff Depth=1.53"
Flow Length=276' Tc=34.7 min CN=71 Runoff=0.31 cfs 0.044 af

Subcatchment47: Runoff Area=79,187 sf 6.00% Impervious Runoff Depth=1.82"
Flow Length=639' Tc=15.9 min CN=75 Runoff=2.82 cfs 0.275 af

Subcatchment48: Runoff Area=40,183 sf 0.00% Impervious Runoff Depth=1.46"
Flow Length=377' Tc=54.0 min CN=70 Runoff=0.63 cfs 0.113 af

Subcatchment49: Runoff Area=93,232 sf 0.59% Impervious Runoff Depth=1.53"
Flow Length=470' Tc=54.1 min CN=71 Runoff=1.55 cfs 0.273 af

Subcatchment50: Runoff Area=30,173 sf 100.00% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=98 Runoff=2.84 cfs 0.229 af

SubcatchmentOS10: OFFSITE 2 (above Runoff Area=1,644,982 sf 2.57% Impervious Runoff Depth=1.74"
Flow Length=2,221' Tc=94.2 min CN=74 Runoff=22.29 cfs 5.490 af

Subcatchmentos11a: OFFSITE 3 Runoff Area=192,533 sf 59.04% Impervious Runoff Depth=2.82"
Flow Length=532' Tc=6.8 min CN=87 Runoff=14.08 cfs 1.039 af

Subcatchmentos11b: OFFSITE 3 Runoff Area=320,814 sf 1.43% Impervious Runoff Depth=1.60"
Flow Length=528' Tc=18.9 min CN=72 Runoff=9.24 cfs 0.983 af

SubcatchmentOS9A: OFFSITE 1 (Below Runoff Area=153,823 sf 3.86% Impervious Runoff Depth=1.74"
Flow Length=561' Tc=26.6 min CN=74 Runoff=4.23 cfs 0.513 af

SubcatchmentOS9B: SUBCAT 4 Runoff Area=486,307 sf 2.34% Impervious Runoff Depth=1.74"
Flow Length=670' Tc=28.6 min CN=74 Runoff=12.95 cfs 1.623 af

SubcatchmentOS9C: SUBCAT 3 Runoff Area=178,147 sf 4.59% Impervious Runoff Depth=1.82"
Flow Length=655' Tc=10.1 min CN=75 Runoff=7.49 cfs 0.620 af

SubcatchmentOS9D: SUBCAT 2 Runoff Area=154,663 sf 0.00% Impervious Runoff Depth=1.67"
Flow Length=544' Tc=54.3 min CN=73 Runoff=2.83 cfs 0.495 af

Reach 9R: ANALYSISPOINT 9 Inflow=4.23 cfs 0.513 af
Outflow=4.23 cfs 0.513 af

Reach 10R: Perkins Road Culvert Avg. Flow Depth=1.23' Max Vel=11.01 fps Inflow=22.29 cfs 5.490 af
24.0" Round Pipe n=0.013 L=25.0' S=0.0200 '/' Capacity=31.99 cfs Outflow=22.29 cfs 5.490 af

Reach 11R: Stream 9 Inflow=14.08 cfs 1.039 af
Outflow=14.08 cfs 1.039 af

Reach 17R: untreated Inflow=1.19 cfs 0.090 af
Outflow=1.19 cfs 0.090 af

Reach 20R: untreated Inflow=2.44 cfs 0.180 af
Outflow=2.44 cfs 0.180 af

Reach 23R: sub 23 Inflow=1.57 cfs 0.112 af
Outflow=1.57 cfs 0.112 af

Reach 27R: extisting Inflow=0.40 cfs 0.032 af
Outflow=0.40 cfs 0.032 af

Reach 29R: untreated Inflow=0.12 cfs 0.010 af
Outflow=0.12 cfs 0.010 af

Reach 32R: untreated Inflow=0.37 cfs 0.027 af
Outflow=0.37 cfs 0.027 af

Reach 44R: Inflow=4.37 cfs 0.467 af
Outflow=4.37 cfs 0.467 af

Reach 47R: Inflow=2.82 cfs 0.275 af
Outflow=2.82 cfs 0.275 af

Reach 48R: (new Reach) Inflow=0.63 cfs 0.113 af
Outflow=0.63 cfs 0.113 af

Reach 49R: Inflow=1.55 cfs 0.273 af
Outflow=1.55 cfs 0.273 af

Reach PT1: ANALYSISPOINT 1 at BWD Little River Inflow=2.18 cfs 0.386 af
Outflow=2.18 cfs 0.386 af

Reach PT10: Analysis point at Little River Inflow=5.64 cfs 0.402 af
Outflow=5.64 cfs 0.402 af

Reach PT2: ANALYSISPOINT 2 at strm 3 Inflow=3.99 cfs 0.842 af
Outflow=3.99 cfs 0.842 af

Reach PT3: ANALYSISPOINT 3/4 at strm 5/6 Inflow=18.30 cfs 2.450 af
Outflow=18.30 cfs 2.450 af

Reach PT5: all BWD reservoir Inflow=20.46 cfs 3.291 af
Outflow=20.46 cfs 3.291 af

Reach PT6: stream 9 offsite Avg. Flow Depth=0.97' Max Vel=3.60 fps Inflow=24.31 cfs 7.043 af
n=0.040 L=483.0' S=0.0145 '/' Capacity=401.91 cfs Outflow=24.26 cfs 7.043 af

Reach PT7: ANALYSISPOINT7 at US Avg. Flow Depth=0.26' Max Vel=6.70 fps Inflow=1.38 cfs 0.181 af
18.0" Round Pipe n=0.013 L=83.0' S=0.0398 '/' Capacity=20.95 cfs Outflow=1.38 cfs 0.181 af

Reach PT8: ANALYSISPOINT 8 at US Avg. Flow Depth=0.03' Max Vel=3.45 fps Inflow=0.31 cfs 0.044 af
36.0" x 24.0" Box Pipe n=0.011 L=76.0' S=0.0632 '/' Capacity=144.91 cfs Outflow=0.31 cfs 0.044 af

Reach PT9: Analysis Point Stream 9 Avg. Flow Depth=0.79' Max Vel=20.47 fps Inflow=30.54 cfs 9.070 af
36.0" Round Pipe n=0.011 L=93.0' S=0.0645 '/' Capacity=200.22 cfs Outflow=30.54 cfs 9.070 af

Reach R9 B: offsite diversion strm 5/6 Inflow=16.79 cfs 2.243 af
Outflow=16.79 cfs 2.243 af

Reach R9D: offsite pont strm 3 Inflow=2.28 cfs 0.495 af
Outflow=2.28 cfs 0.495 af

Reach S9-2: Stream 9 Avg. Flow Depth=0.91' Max Vel=4.40 fps Inflow=28.22 cfs 8.493 af
n=0.040 L=1,580.0' S=0.0233 '/' Capacity=120.91 cfs Outflow=27.41 cfs 8.493 af

Reach S9-3: Stream 9 Avg. Flow Depth=0.88' Max Vel=4.44 fps Inflow=30.04 cfs 8.811 af
n=0.035 L=364.0' S=0.0199 '/' Capacity=152.29 cfs Outflow=30.00 cfs 8.811 af

Reach tank: existing clarifier Inflow=61.38 cfs 7.592 af
Outflow=61.38 cfs 7.592 af

Pond dmh10: dmh10 Peak Elev=58.38' Inflow=19.94 cfs 1.607 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=19.94 cfs 1.607 af

Pond dmh11: dmh11 Peak Elev=56.18' Inflow=22.03 cfs 2.580 af
30.0" Round Culvert n=0.013 L=84.0' S=0.0050 '/' Outflow=22.03 cfs 2.580 af

Pond dmh13: dmh13 Peak Elev=55.74' Inflow=22.03 cfs 2.580 af
30.0" Round Culvert n=0.013 L=201.0' S=0.0050 '/' Outflow=22.03 cfs 2.580 af

Pond dmh14: dmh14 Peak Elev=54.99' Inflow=22.28 cfs 2.719 af
30.0" Round Culvert n=0.020 L=23.0' S=0.0052 '/' Outflow=22.28 cfs 2.719 af

Pond dmh15: dmh15 Peak Elev=54.63' Inflow=22.28 cfs 2.719 af
30.0" Round Culvert n=0.013 L=90.0' S=0.0050 '/' Outflow=22.28 cfs 2.719 af

Pond dmh16: dmh16 Peak Elev=60.54' Inflow=0.01 cfs 0.023 af
12.0" Round Culvert n=0.013 L=198.0' S=0.0126 '/' Outflow=0.01 cfs 0.023 af

Pond dmh17: dmh17 Peak Elev=54.25' Inflow=22.28 cfs 2.763 af
30.0" Round Culvert n=0.013 L=35.0' S=0.0051 '/' Outflow=22.28 cfs 2.763 af

Pond dmh19: dmh 19 Peak Elev=55.28' Inflow=1.62 cfs 0.124 af
12.0" Round Culvert n=0.013 L=59.0' S=0.0100 '/' Outflow=1.62 cfs 0.124 af

Pond dmh2: dmh2 Peak Elev=65.95' Inflow=9.97 cfs 0.756 af
18.0" Round Culvert n=0.013 L=100.0' S=0.0150 '/' Outflow=9.97 cfs 0.756 af

Pond dmh20: dmh20 Peak Elev=54.17' Inflow=23.90 cfs 2.887 af
30.0" Round Culvert n=0.013 L=100.0' S=0.0050 '/' Outflow=23.90 cfs 2.887 af

Pond dmh21: dmh21 Peak Elev=54.53' Inflow=29.63 cfs 3.696 af
30.0" Round Culvert n=0.013 L=281.0' S=0.0169 '/' Outflow=29.63 cfs 3.696 af

Pond dmh22: dmh 22 Peak Elev=53.64' Inflow=5.70 cfs 0.609 af
15.0" Round Culvert n=0.013 L=93.0' S=0.0051 '/' Outflow=5.70 cfs 0.609 af

Pond dmh23: dmh23 Peak Elev=59.20' Inflow=4.86 cfs 0.447 af
12.0" Round Culvert n=0.013 L=138.0' S=0.0050 '/' Outflow=4.86 cfs 0.447 af

Pond dmh24: dmh24 Peak Elev=59.39' Inflow=4.86 cfs 0.447 af
12.0" Round Culvert n=0.013 L=72.0' S=0.0025 '/' Outflow=4.86 cfs 0.447 af

Pond dmh24a: dmh24a Peak Elev=59.14' Inflow=1.19 cfs 0.140 af
8.0" Round Culvert n=0.013 L=95.0' S=0.0095 '/' Outflow=1.19 cfs 0.140 af

Pond dmh25: dmh25 Peak Elev=60.19' Inflow=0.12 cfs 0.059 af
12.0" Round Culvert n=0.013 L=98.0' S=0.0510 '/' Outflow=0.12 cfs 0.059 af

Pond dmh26: dmh26 Peak Elev=58.51' Inflow=1.10 cfs 0.330 af
12.0" Round Culvert n=0.020 L=28.0' S=0.0050 '/' Outflow=1.10 cfs 0.330 af

Pond dmh27: dmh27 Peak Elev=53.76' Inflow=1.40 cfs 0.464 af
12.0" Round Culvert n=0.013 L=256.0' S=0.0050 '/' Outflow=1.40 cfs 0.464 af

Pond dmh29: dmh29 Peak Elev=58.58' Inflow=0.83 cfs 0.074 af
8.0" Round Culvert n=0.013 L=46.0' S=0.0100 '/' Outflow=0.83 cfs 0.074 af

Pond dmh3: dmh3 Peak Elev=62.21' Inflow=9.98 cfs 0.851 af
24.0" Round Culvert n=0.013 L=125.0' S=0.0053 '/' Outflow=9.98 cfs 0.851 af

Pond dmh30: dmh30 Peak Elev=55.94' Inflow=0.83 cfs 0.074 af
12.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=0.83 cfs 0.074 af

Pond dmh31: dmh31 Peak Elev=55.08' Inflow=1.39 cfs 0.405 af
12.0" Round Culvert n=0.013 L=259.0' S=0.0050 '/' Outflow=1.39 cfs 0.405 af

Pond dmh32: dmh32 Peak Elev=52.72' Inflow=1.84 cfs 0.567 af
12.0" Round Culvert n=0.013 L=36.0' S=0.0036 '/' Outflow=1.84 cfs 0.567 af

Pond dmh33: dmh33 Peak Elev=54.32' Inflow=0.33 cfs 0.081 af
12.0" Round Culvert n=0.013 L=201.0' S=0.0099 '/' Outflow=0.33 cfs 0.081 af

Pond dmh34: dmh34 Peak Elev=53.99' Inflow=3.66 cfs 0.370 af
12.0" Round Culvert n=0.013 L=39.0' S=0.0100 '/' Outflow=3.66 cfs 0.370 af

Pond dmh35: dmh35 Peak Elev=52.77' Inflow=4.59 cfs 1.062 af
18.0" Round Culvert n=0.013 L=276.0' S=0.0050 '/' Outflow=4.59 cfs 1.062 af

Pond dmh36: dmh36 Peak Elev=51.38' Inflow=4.59 cfs 1.062 af
18.0" Round Culvert n=0.013 L=159.0' S=0.0050 '/' Outflow=4.59 cfs 1.062 af

Pond dmh38: dmh38 Peak Elev=53.75' Inflow=6.77 cfs 0.727 af
18.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=6.77 cfs 0.727 af

Pond dmh39: dmh39 Peak Elev=52.36' Inflow=6.77 cfs 0.748 af
18.0" Round Culvert n=0.013 L=58.0' S=0.0047 '/' Outflow=6.77 cfs 0.748 af

Pond dmh4: dmh4 Peak Elev=61.69' Inflow=9.98 cfs 0.851 af
24.0" Round Culvert n=0.013 L=66.0' S=0.0041 '/' Outflow=9.98 cfs 0.851 af

Pond dmh40: dmh40 Peak Elev=51.22' Inflow=11.34 cfs 1.810 af
24.0" Round Culvert n=0.013 L=340.0' S=0.0050 '/' Outflow=11.34 cfs 1.810 af

Pond dmh43: dmh43 Peak Elev=51.03' Inflow=18.58 cfs 2.559 af
24.0" Round Culvert n=0.013 L=193.0' S=0.0050 '/' Outflow=18.58 cfs 2.559 af

Pond dmh44: dmh44 Peak Elev=48.96' Inflow=18.59 cfs 2.582 af
30.0" Round Culvert n=0.013 L=82.0' S=0.0050 '/' Outflow=18.59 cfs 2.582 af

Pond dmh45: dmh45 Peak Elev=49.77' Inflow=28.51 cfs 3.335 af
30.0" Round Culvert n=0.013 L=316.0' S=0.0050 '/' Outflow=28.51 cfs 3.335 af

Pond dmh47: dmh47 Peak Elev=47.58' Inflow=28.51 cfs 3.335 af
30.0" Round Culvert n=0.013 L=104.0' S=0.0100 '/' Outflow=28.51 cfs 3.335 af

Pond dmh48: dmh48 Peak Elev=46.78' Inflow=30.01 cfs 3.535 af
30.0" Round Culvert n=0.013 L=117.0' S=0.0050 '/' Outflow=30.01 cfs 3.535 af

Pond dmh49: dmh49 Peak Elev=45.34' Inflow=30.02 cfs 3.579 af
36.0" Round Culvert n=0.013 L=14.0' S=0.0071 '/' Outflow=30.02 cfs 3.579 af

Pond dmh5: dmh5 Peak Elev=61.18' Inflow=9.98 cfs 0.851 af
24.0" Round Culvert n=0.013 L=173.0' S=0.0050 '/' Outflow=9.98 cfs 0.851 af

Pond dmh50: dmh50 Peak Elev=48.52' Inflow=29.64 cfs 3.782 af
30.0" Round Culvert n=0.013 L=64.0' S=0.0100 '/' Outflow=29.64 cfs 3.782 af

Pond dmh51: dmh51 Peak Elev=47.86' Inflow=29.64 cfs 3.782 af
30.0" Round Culvert n=0.013 L=38.0' S=0.0287 '/' Outflow=29.64 cfs 3.782 af

Pond dmh52: dmh52 Peak Elev=45.41' Inflow=59.66 cfs 7.361 af
42.0" Round Culvert n=0.013 L=258.0' S=0.0194 '/' Outflow=59.66 cfs 7.361 af

Pond dmh53: CB53 Peak Elev=37.55' Inflow=61.24 cfs 7.566 af
42.0" Round Culvert n=0.013 L=120.0' S=0.0208 '/' Outflow=61.24 cfs 7.566 af

Pond dmh54: dmh54 Peak Elev=30.63' Inflow=61.38 cfs 7.592 af
48.0" Round Culvert n=0.013 L=152.0' S=0.0329 '/' Outflow=61.38 cfs 7.592 af

Pond dmh55: dhm55 Peak Elev=22.63' Inflow=61.38 cfs 7.592 af
48.0" Round Culvert n=0.013 L=115.0' S=0.0304 '/' Outflow=61.38 cfs 7.592 af

Pond dmh56: dmh56 Peak Elev=16.13' Inflow=61.38 cfs 7.592 af
48.0" Round Culvert n=0.013 L=42.0' S=0.0357 '/' Outflow=61.38 cfs 7.592 af

Pond dmh59: dmh59 Peak Elev=61.35' Inflow=5.18 cfs 0.513 af
12.0" Round Culvert n=0.013 L=294.0' S=0.0050 '/' Outflow=5.18 cfs 0.513 af

Pond dmh6: dmh6 Peak Elev=60.61' Inflow=9.98 cfs 0.851 af
24.0" Round Culvert n=0.020 L=170.0' S=0.0050 '/' Outflow=9.98 cfs 0.851 af

Pond dmh60: dhm60 Peak Elev=39.05' Inflow=59.66 cfs 7.361 af
48.0" Round Culvert n=0.013 L=114.0' S=0.0175 '/' Outflow=59.66 cfs 7.361 af

Pond dmh7: dmh7 Peak Elev=59.41' Inflow=9.98 cfs 0.851 af
24.0" Round Culvert n=0.013 L=170.0' S=0.0050 '/' Outflow=9.98 cfs 0.851 af

Pond dmh8: dmh8 Peak Elev=61.16' Inflow=19.94 cfs 1.607 af
24.0" Round Culvert n=0.013 L=296.0' S=0.0040 '/' Outflow=19.94 cfs 1.607 af

Pond dmh9a: dmh9a Peak Elev=59.43' Inflow=19.94 cfs 1.607 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=19.94 cfs 1.607 af

Pond DP 9B: off site pond to strm 5/6 Peak Elev=62.76' Storage=557 cf Inflow=16.80 cfs 2.243 af
Outflow=16.79 cfs 2.243 af

Pond DP 9D: offsite pond strm 3 Peak Elev=65.47' Storage=766 cf Inflow=2.83 cfs 0.495 af
Outflow=2.28 cfs 0.495 af

Pond GSF 11: grassed soil filter Peak Elev=62.18' Storage=4,648 cf Inflow=2.86 cfs 0.203 af
Primary=0.03 cfs 0.073 af Secondary=0.43 cfs 0.081 af Outflow=0.45 cfs 0.154 af

Pond GSF 12: grassed soil filter Peak Elev=61.95' Storage=1,651 cf Inflow=1.00 cfs 0.072 af
Primary=0.01 cfs 0.024 af Secondary=0.28 cfs 0.027 af Outflow=0.29 cfs 0.051 af

Pond GSF 13: grassed soil filter Peak Elev=62.09' Storage=5,204 cf Inflow=3.19 cfs 0.228 af
Primary=0.03 cfs 0.096 af Secondary=0.63 cfs 0.080 af Outflow=0.66 cfs 0.176 af

Pond GSF 15: grassed soil filter Peak Elev=63.73' Storage=600 cf Inflow=0.42 cfs 0.031 af
Primary=0.00 cfs 0.005 af Secondary=0.12 cfs 0.015 af Outflow=0.12 cfs 0.021 af

Pond GSF 16: grassed soil filter Peak Elev=64.07' Storage=2,644 cf Inflow=0.97 cfs 0.069 af
Primary=0.01 cfs 0.023 af Secondary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.023 af

Pond GSF 18A: grassed soil filter Peak Elev=57.40' Storage=1,090 cf Inflow=0.43 cfs 0.031 af
Primary=0.00 cfs 0.012 af Secondary=0.01 cfs 0.002 af Outflow=0.01 cfs 0.014 af

Pond GSF 18B: grassed soil filter Peak Elev=57.91' Storage=599 cf Inflow=0.31 cfs 0.022 af
Primary=0.00 cfs 0.006 af Secondary=0.03 cfs 0.007 af Outflow=0.03 cfs 0.013 af

Pond GSF 1A: Grassed soil filter Peak Elev=66.32' Storage=2,229 cf Inflow=1.22 cfs 0.087 af
Primary=0.01 cfs 0.035 af Secondary=0.11 cfs 0.024 af Outflow=0.12 cfs 0.059 af

Pond GSF 1B: grassed soil filter Peak Elev=66.97' Storage=1,772 cf Inflow=1.53 cfs 0.109 af
Primary=0.01 cfs 0.039 af Secondary=0.80 cfs 0.056 af Outflow=0.81 cfs 0.095 af

Pond GSF 2: grassed soil filter Peak Elev=57.67' Storage=2,793 cf Inflow=1.85 cfs 0.131 af
Primary=0.02 cfs 0.052 af Secondary=0.42 cfs 0.051 af Outflow=0.44 cfs 0.104 af

Pond GSF 24: grassed soil filter Peak Elev=40.68' Storage=2,561 cf Inflow=1.56 cfs 0.116 af
Primary=0.02 cfs 0.054 af Secondary=0.53 cfs 0.040 af Outflow=0.54 cfs 0.093 af

Pond GSF 3: grassed soil filter Peak Elev=55.84' Storage=3,447 cf Inflow=2.31 cfs 0.164 af
Primary=0.02 cfs 0.054 af Secondary=0.63 cfs 0.071 af Outflow=0.65 cfs 0.125 af

Pond GSF 4: grassed soil filter Peak Elev=55.11' Storage=683 cf Inflow=0.39 cfs 0.028 af
Primary=0.00 cfs 0.013 af Secondary=0.03 cfs 0.008 af Outflow=0.04 cfs 0.021 af

Pond GSF 5: grassed soil filter Peak Elev=54.61' Storage=927 cf Inflow=0.50 cfs 0.036 af
Primary=0.00 cfs 0.013 af Secondary=0.04 cfs 0.011 af Outflow=0.04 cfs 0.023 af

Pond GSF 6: grassed soil filter Peak Elev=48.27' Storage=1,583 cf Inflow=0.89 cfs 0.064 af
Primary=0.01 cfs 0.023 af Secondary=0.08 cfs 0.021 af Outflow=0.09 cfs 0.044 af

Pond GSF 7: grassed soil filter Peak Elev=54.73' Storage=3,371 cf Inflow=1.80 cfs 0.128 af
Primary=0.02 cfs 0.052 af Secondary=0.13 cfs 0.034 af Outflow=0.15 cfs 0.086 af

Pond GSF 8: grassed soil filter Peak Elev=57.74' Storage=5,118 cf Inflow=3.42 cfs 0.246 af
Primary=0.03 cfs 0.098 af Secondary=1.10 cfs 0.101 af Outflow=1.13 cfs 0.200 af

Pond GSF 9: grassed soil filter Peak Elev=63.11' Storage=2,757 cf Inflow=2.24 cfs 0.162 af
Primary=0.02 cfs 0.052 af Secondary=1.42 cfs 0.087 af Outflow=1.44 cfs 0.140 af

Pond ics 12: ICS 12 Peak Elev=63.78' Inflow=10.59 cfs 0.854 af
Primary=9.88 cfs 0.352 af Secondary=0.71 cfs 0.501 af Outflow=10.59 cfs 0.854 af

Pond ICS1: ICS 1 Peak Elev=66.29' Inflow=10.59 cfs 0.854 af
Primary=0.70 cfs 0.421 af Secondary=9.90 cfs 0.432 af Outflow=10.59 cfs 0.854 af

Pond ICS18: ICS18 Peak Elev=60.46' Inflow=1.79 cfs 0.144 af
Primary=0.66 cfs 0.127 af Secondary=1.12 cfs 0.017 af Outflow=1.79 cfs 0.144 af

Pond ics28: ICS28 Peak Elev=60.62' Inflow=1.13 cfs 0.091 af
Primary=0.64 cfs 0.086 af Secondary=0.49 cfs 0.005 af Outflow=1.13 cfs 0.091 af

Pond ICS37: ISC37 Peak Elev=55.58' Inflow=10.59 cfs 0.854 af
Primary=5.19 cfs 0.787 af Secondary=5.41 cfs 0.067 af Outflow=10.59 cfs 0.854 af

Pond ics46: ICS46 Peak Elev=49.82' Inflow=10.59 cfs 0.854 af
Primary=0.71 cfs 0.501 af Secondary=9.88 cfs 0.353 af Outflow=10.59 cfs 0.854 af

Pond ICS9: ICS9 Peak Elev=65.00' Inflow=10.59 cfs 0.854 af
Primary=0.71 cfs 0.500 af Secondary=9.88 cfs 0.353 af Outflow=10.59 cfs 0.854 af

Pond ISC42: ICS 42 Peak Elev=55.92' Inflow=10.59 cfs 0.854 af
Primary=5.56 cfs 0.796 af Secondary=5.03 cfs 0.057 af Outflow=10.59 cfs 0.854 af

Pond MPP 10: Rtank storage Peak Elev=61.80' Storage=0.067 af Inflow=2.91 cfs 0.235 af
8.0" Round Culvert x 6.00 n=0.013 L=2.0' S=0.0400 '/' Outflow=1.69 cfs 0.216 af

Pond MPP 14: Rtanks Peak Elev=56.59' Storage=829 cf Inflow=0.87 cfs 0.069 af
8.0" Round Culvert x 2.00 n=0.013 L=21.0' S=0.0052 '/' Outflow=0.53 cfs 0.065 af

Pond MPP 19: Rtanks Peak Elev=55.58' Storage=0.042 af Inflow=1.20 cfs 0.090 af
6.0" Round Culvert n=0.013 L=19.0' S=0.0042 '/' Outflow=0.33 cfs 0.081 af

Pond MPP 21: Rtanks Peak Elev=55.36' Storage=1,011 cf Inflow=0.96 cfs 0.070 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.43 cfs 0.067 af

Pond MPP 22: Rtanks Peak Elev=55.51' Storage=1,571 cf Inflow=1.07 cfs 0.077 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.28 cfs 0.069 af

Pond MPP 26: Rtanks Peak Elev=34.89' Storage=448 cf Inflow=0.36 cfs 0.029 af
8.0" Round Culvert n=0.013 L=8.0' S=0.0350 '/' Outflow=0.19 cfs 0.026 af

Pond MPP 50: Peak Elev=54.95' Storage=3,076 cf Inflow=2.84 cfs 0.229 af
8.0" Round Culvert x 7.00 n=0.013 L=3.0' S=0.0100 '/' Outflow=1.85 cfs 0.200 af

Pond mpp30: Rtanks Peak Elev=31.13' Storage=4,276 cf Inflow=3.46 cfs 0.259 af
Outflow=0.55 cfs 0.259 af

Pond SSF 36: ssf Peak Elev=64.54' Storage=11,075 cf Inflow=0.70 cfs 0.421 af
Primary=0.08 cfs 0.235 af Secondary=0.24 cfs 0.088 af Outflow=0.32 cfs 0.323 af

Pond ssf37: ssf Peak Elev=63.34' Storage=11,768 cf Inflow=0.71 cfs 0.500 af
Primary=0.08 cfs 0.237 af Secondary=0.43 cfs 0.165 af Outflow=0.51 cfs 0.402 af

Pond ssf38: ssf Peak Elev=62.45' Storage=13,019 cf Inflow=9.88 cfs 0.352 af
Primary=0.08 cfs 0.162 af Secondary=1.20 cfs 0.093 af Outflow=1.29 cfs 0.255 af

Pond ssf39: ssf Peak Elev=55.20' Storage=17,179 cf Inflow=5.19 cfs 0.787 af
Primary=0.09 cfs 0.240 af Secondary=2.97 cfs 0.420 af Outflow=3.06 cfs 0.661 af

Pond ssf40: ssf Peak Elev=55.52' Storage=16,286 cf Inflow=5.56 cfs 0.796 af
Primary=0.09 cfs 0.239 af Secondary=3.42 cfs 0.453 af Outflow=3.51 cfs 0.692 af

Pond ssf41: ssf Peak Elev=48.15' Storage=11,933 cf Inflow=0.71 cfs 0.501 af
Primary=0.08 cfs 0.238 af Secondary=0.42 cfs 0.162 af Outflow=0.50 cfs 0.400 af

Pond ssf42: ssf Peak Elev=60.66' Storage=1,707 cf Inflow=0.64 cfs 0.086 af
Primary=0.01 cfs 0.027 af Secondary=0.55 cfs 0.042 af Outflow=0.56 cfs 0.069 af

Pond ssf43: ssf Peak Elev=59.93' Storage=2,330 cf Inflow=0.66 cfs 0.127 af
Primary=0.02 cfs 0.042 af Secondary=0.61 cfs 0.065 af Outflow=0.63 cfs 0.108 af

Total Runoff Area = 122.513 ac Runoff Volume = 22.188 af Average Runoff Depth = 2.17"
76.10% Pervious = 93.228 ac 23.90% Impervious = 29.285 ac

Summary for Subcatchment 1A:

Runoff = 1.22 cfs @ 12.09 hrs, Volume= 0.087 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	11,582	77	>75% Grass cover, Good, HSG C/D
*	6,203	98	Impervious, HSG C/D
	17,785	84	Weighted Average
	11,582		65.12% Pervious Area
	6,203		34.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 1B:

Runoff = 1.53 cfs @ 12.09 hrs, Volume= 0.109 af, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	6,832	98	Impervious
	18,017	74	>75% Grass cover, Good, HSG C
	24,849	81	Weighted Average
	18,017		72.51% Pervious Area
	6,832		27.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 2:

Runoff = 1.85 cfs @ 12.09 hrs, Volume= 0.131 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	8,052	98	Impervious
	5,300	74	>75% Grass cover, Good, HSG C
*	17,697	74	>75% Grass cover, Good, HSG C/D
	31,049	80	Weighted Average
	22,997		74.07% Pervious Area
	8,052		25.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 3:

Runoff = 2.31 cfs @ 12.09 hrs, Volume= 0.164 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	13,091	98	Impervious, HSG C
*	15,516	74	>75% Grass cover, Good, HSG C/D
*	7,540	70	Woods, Good, HSG C/D
	36,147	82	Weighted Average
	23,056		63.78% Pervious Area
	13,091		36.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 4:

Runoff = 0.39 cfs @ 12.09 hrs, Volume= 0.028 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
	8,448	74	>75% Grass cover, Good, HSG C
	8,448		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 5:

Runoff = 0.50 cfs @ 12.09 hrs, Volume= 0.036 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

Area (sf)	CN	Description
10,807	74	>75% Grass cover, Good, HSG C
10,807		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 6:

Runoff = 0.89 cfs @ 12.09 hrs, Volume= 0.064 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	4,484	98	Impervious
*	9,501	74	>75% Grass cover, Good, HSG C
	13,985	82	Weighted Average
	9,501		67.94% Pervious Area
	4,484		32.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 7:

Runoff = 1.80 cfs @ 12.09 hrs, Volume= 0.128 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	7,846	98	Impervious
	3,270	74	>75% Grass cover, Good, HSG C
*	19,229	74	>75% Grass cover, Good, HSG C/D
	30,345	80	Weighted Average
	22,499		74.14% Pervious Area
	7,846		25.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 8:

Runoff = 3.42 cfs @ 12.09 hrs, Volume= 0.246 af, Depth= 2.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	25,409	98	Impervious
	20,142	74	>75% Grass cover, Good, HSG C
	45,551	87	Weighted Average
	20,142		44.22% Pervious Area
	25,409		55.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 9:

Runoff = 2.24 cfs @ 12.09 hrs, Volume= 0.162 af, Depth= 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	10,348	74	>75% Grass cover, Good, HSG C/D
*	17,843	98	Impervious
	28,191	89	Weighted Average
	10,348		36.71% Pervious Area
	17,843		63.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 10: access drive north of B1

Runoff = 2.91 cfs @ 12.08 hrs, Volume= 0.235 af, Depth= 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	30,932	98	Impervious
	30,932		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 11:

Runoff = 2.86 cfs @ 12.09 hrs, Volume= 0.203 af, Depth= 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	15,881	98	Impervious
*	27,293	74	>75% Grass cover, Good, HSG C/D
	43,174	83	Weighted Average
	27,293		63.22% Pervious Area
	15,881		36.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 12:

Runoff = 1.00 cfs @ 12.09 hrs, Volume= 0.072 af, Depth= 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	7,491	98	Impervious, HSG C/D
	5,429	74	>75% Grass cover, Good, HSG C
	12,920	88	Weighted Average
	5,429		42.02% Pervious Area
	7,491		57.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 13:

Runoff = 3.19 cfs @ 12.09 hrs, Volume= 0.228 af, Depth= 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	20,981	98	Impervious
*	24,182	74	>75% Grass cover, Good, HSG C/D
	45,163	85	Weighted Average
	24,182		53.54% Pervious Area
	20,981		46.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 14:

Runoff = 0.87 cfs @ 12.08 hrs, Volume= 0.069 af, Depth= 3.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	8,849	98	Impervious
	529	74	>75% Grass cover, Good, HSG C
	9,378	97	Weighted Average
	529		5.64% Pervious Area
	8,849		94.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 15:

Runoff = 0.42 cfs @ 12.09 hrs, Volume= 0.031 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	176	98	Impervious
*	4,183	74	>75% Grass cover, Good, HSG C/D
*	4,798	74	vegetated roof
	9,157	74	Weighted Average
	8,981		98.08% Pervious Area
	176		1.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 16:

Runoff = 0.97 cfs @ 12.09 hrs, Volume= 0.069 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	5,161	98	Impervious
*	9,949	74	>75% Grass cover, Good, HSG C/D
	15,110	82	Weighted Average
	9,949		65.84% Pervious Area
	5,161		34.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 17:

Runoff = 1.19 cfs @ 12.08 hrs, Volume= 0.090 af, Depth= 3.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	11,320	98	Impervious
*	1,980	74	>75% Grass cover, Good, HSG C/D
	13,300	94	Weighted Average
	1,980		14.89% Pervious Area
	11,320		85.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18A:

Runoff = 0.43 cfs @ 12.09 hrs, Volume= 0.031 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	2,593	98	Impervious
*	3,746	74	>75% Grass cover, Good, HSG C/D
	6,339	84	Weighted Average
	3,746		59.09% Pervious Area
	2,593		40.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18B:

Runoff = 0.31 cfs @ 12.09 hrs, Volume= 0.022 af, Depth= 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	2,348	98	Impervious
*	1,675	74	>75% Grass cover, Good, HSG C/D
	4,023	88	Weighted Average
	1,675		41.64% Pervious Area
	2,348		58.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 19:

Runoff = 1.20 cfs @ 12.08 hrs, Volume= 0.090 af, Depth= 3.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	11,017	98	Impervious
*	2,694	74	>75% Grass cover, Good, HSG C/D
	13,711	93	Weighted Average
	2,694		19.65% Pervious Area
	11,017		80.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 20:

Runoff = 2.44 cfs @ 12.08 hrs, Volume= 0.180 af, Depth= 3.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	21,010	98	Impervious
*	7,449	74	>75% Grass cover, Good, HSG C/D
	28,459	92	Weighted Average
	7,449		26.17% Pervious Area
	21,010		73.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 21:

Runoff = 0.96 cfs @ 12.09 hrs, Volume= 0.070 af, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	7,893	98	Impervious
*	3,559	74	>75% Grass cover, Good, HSG C/D
	11,452	91	Weighted Average
	3,559		31.08% Pervious Area
	7,893		68.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 22:

Runoff = 1.07 cfs @ 12.09 hrs, Volume= 0.077 af, Depth= 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	8,217	98	Impervious
*	5,227	74	>75% Grass cover, Good, HSG C/D
	13,444	89	Weighted Average
	5,227		38.88% Pervious Area
	8,217		61.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 23: sub 23

Runoff = 1.57 cfs @ 12.09 hrs, Volume= 0.112 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

Area (sf)	CN	Description
6,249	98	Paved parking, HSG C
2,450	74	>75% Grass cover, Good, HSG C
10,135	74	>75% Grass cover, Good, HSG C
9,641	70	Woods, Good, HSG C
28,475	78	Weighted Average
22,226		78.05% Pervious Area
6,249		21.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, direct**

Summary for Subcatchment 24:

Runoff = 1.56 cfs @ 12.08 hrs, Volume= 0.116 af, Depth= 3.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	12,270	98	Impervious
	5,991	80	>75% Grass cover, Good, HSG D
	18,261	92	Weighted Average
	5,991		32.81% Pervious Area
	12,270		67.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 25:

Runoff = 1.72 cfs @ 12.95 hrs, Volume= 0.347 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	21,818	74	>75% Grass cover, Good, HSG C/D
*	96,405	70	Woods, Good, HSG C/D
	118,223	71	Weighted Average
	118,223		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
54.4	130	0.0150	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
11.9	253	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	55	0.3000	1.37		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
67.0	438	Total			

Summary for Subcatchment 26:

Runoff = 0.36 cfs @ 12.08 hrs, Volume= 0.029 af, Depth= 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	3,816	98	Impervious
	3,816		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 27:

Runoff = 0.40 cfs @ 12.08 hrs, Volume= 0.032 af, Depth= 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	4,262	98	Impervious
	4,262		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 28:

Runoff = 5.64 cfs @ 12.09 hrs, Volume= 0.402 af, Depth= 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	21,852	98	Impervious
	40,598	80	>75% Grass cover, Good, HSG D
	6,418	77	Woods, Good, HSG D
	10,830	79	Woods/grass comb., Good, HSG D
	79,698	85	Weighted Average
	57,846		72.58% Pervious Area
	21,852		27.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 29:

Runoff = 0.12 cfs @ 12.08 hrs, Volume= 0.010 af, Depth= 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	1,306	98	Impervious
	1,306		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 30:

Runoff = 2.75 cfs @ 12.08 hrs, Volume= 0.206 af, Depth= 3.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	24,541	98	Impervious
*	6,931	74	>75% Grass cover, Good, HSG C/D
	31,472	93	Weighted Average
	6,931		22.02% Pervious Area
	24,541		77.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 31:

Runoff = 2.28 cfs @ 12.18 hrs, Volume= 0.207 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	24,011	74	>75% Grass cover, Good, HSG C/D
*	46,605	70	Woods, Good, HSG C/D
	70,616	71	Weighted Average
	70,616		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0500	0.16		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
1.7	86	0.1200	0.87		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	31	0.0300	2.60		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
12.3	217	Total			

Summary for Subcatchment 32:

Runoff = 0.37 cfs @ 12.09 hrs, Volume= 0.027 af, Depth= 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	2,826	98	Impervious
*	1,851	74	>75% Grass cover, Good, HSG C/D
	4,677	89	Weighted Average
	1,851		39.58% Pervious Area
	2,826		60.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 33: B3 green

Runoff = 3.44 cfs @ 12.10 hrs, Volume= 0.262 af, Depth= 1.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	89,860	61	vegetated roof
*	18,033	98	penthouse
	107,893	67	Weighted Average
	89,860		83.29% Pervious Area
	18,033		16.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 34:

Runoff = 0.82 cfs @ 12.10 hrs, Volume= 0.061 af, Depth= 1.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	19,279	61	vegetated roof
*	4,820	98	penthouse/walks on roof
	24,099	68	Weighted Average
	19,279		80.00% Pervious Area
	4,820		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 35:

Runoff = 0.71 cfs @ 12.10 hrs, Volume= 0.054 af, Depth= 1.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	16,797	61	vegetated roof
*	4,200	98	penthouse/walks on roof
	20,997	68	Weighted Average
	16,797		80.00% Pervious Area
	4,200		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 36: B1M1

Runoff = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af, Depth= 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 37: B1M2

Runoff = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af, Depth= 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 38: B1M3

Runoff = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af, Depth= 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 39: B2M4

Runoff = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af, Depth= 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 40: B2M5

Runoff = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af, Depth= 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 41: B2M6

Runoff = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af, Depth= 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 42: B6

Runoff = 1.13 cfs @ 12.08 hrs, Volume= 0.091 af, Depth= 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	12,000	98	Impervious
	12,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 43: B5

Runoff = 1.79 cfs @ 12.08 hrs, Volume= 0.144 af, Depth= 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	18,983	98	Impervious
	18,983		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 44: onsite untreated

Runoff = 4.37 cfs @ 12.27 hrs, Volume= 0.467 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	29,531	74	>75% Grass cover, Good, HSG C/D
*	129,832	70	Woods, Good, HSG C/D
	159,363	71	Weighted Average
	159,363		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	97	0.0620	0.25		**Sheet Flow, a-b** Grass: Short n= 0.150 P2= 2.90"
4.3	170	0.0090	0.66		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
1.3	97	0.0320	1.25		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
6.8	210	0.0430	0.52		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
18.8	574	Total			

Summary for Subcatchment 45:

Runoff = 1.38 cfs @ 12.46 hrs, Volume= 0.181 af, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	5,799	74	>75% Grass cover, Good, HSG C/D
*	58,641	70	Woods, Good, HSG C/D
	64,440	70	Weighted Average
	64,440		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.3	79	0.0340	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
2.9	121	0.0800	0.71		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	34	0.0600	3.67		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
0.5	73	0.0600	2.64	10.56	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage

29.9 307 Total

Summary for Subcatchment 46: SUBCAT 8

Runoff = 0.31 cfs @ 12.53 hrs, Volume= 0.044 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	12,652	70	Woods, Good, HSG C/D
*	2,324	74	>75% Grass cover, Good, HSG C/D
	14,976	71	Weighted Average
	14,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
1.1	43	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.7100	2.11		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
1.5	152	0.0240	1.67	6.68	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100
34.7	276	Total			

Summary for Subcatchment 47:

Runoff = 2.82 cfs @ 12.23 hrs, Volume= 0.275 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
	16,941	80	>75% Grass cover, Good, HSG D
*	27,433	74	>75% Grass cover, Good, HSG C/D
*	30,061	70	Woods, Good, HSG C/D
*	4,752	98	Impervious
	79,187	75	Weighted Average
	74,435		94.00% Pervious Area
	4,752		6.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.5	102	0.0400	0.15		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
0.6	30	0.1000	0.79		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.6	100	0.0300	2.60		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
3.2	407	0.0200	2.12		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
15.9	639	Total			

Summary for Subcatchment 48:

Runoff = 0.63 cfs @ 12.78 hrs, Volume= 0.113 af, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	305	74	>75% Grass cover, Good, HSG C/D
*	36,887	70	Woods, Good, HSG C/D
	2,991	70	Woods, Good, HSG C
	40,183	70	Weighted Average
	40,183		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.6	127	0.0200	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
5.4	115	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	45	0.2000	1.12		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.3	90	0.0880	4.45		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
54.0	377	Total			

Summary for Subcatchment 49:

Runoff = 1.55 cfs @ 12.80 hrs, Volume= 0.273 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	11,982	74	>75% Grass cover, Good, HSG C/D
*	80,702	70	Woods, Good, HSG C/D
*	548	98	Impervious
	93,232	71	Weighted Average
	92,684		99.41% Pervious Area
	548		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.4	115	0.0500	0.06		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
23.7	355	0.0100	0.25		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
54.1	470	Total			

Summary for Subcatchment 50:

Runoff = 2.84 cfs @ 12.08 hrs, Volume= 0.229 af, Depth= 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	30,173	98	Impervious
	30,173		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment OS10: OFFSITE 2 (above Perkins Rd)

Runoff = 22.29 cfs @ 13.29 hrs, Volume= 5.490 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	298,066	70	Woods, Good, HSG C/D
*	42,276	98	Impervious
*	1,304,640	74	>75% Grass cover, Good, HSG C/D
	1,644,982	74	Weighted Average
	1,602,706		97.43% Pervious Area
	42,276		2.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.2	141	0.0280	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
15.3	384	0.0280	0.42		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.5	227	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
18.6	780	0.0100	0.70		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
12.6	689	0.0170	0.91		**Shallow Concentrated Flow, e-f** Short Grass Pasture Kv= 7.0 fps
94.2	2,221	Total			

Summary for Subcatchment os11a: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 14.08 cfs @ 12.10 hrs, Volume= 1.039 af, Depth= 2.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	113,681	98	Impervious
*	33,806	70	Woods, Good, HSG C/D
*	45,046	74	>75% Grass cover, Good, HSG C/D
	192,533	87	Weighted Average
	78,852		40.96% Pervious Area
	113,681		59.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	16	0.1870	2.22		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
4.7	419	0.0100	1.50		**Shallow Concentrated Flow, b-c** Grassed Waterway Kv= 15.0 fps
2.0	97	0.1000	0.79		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.8	532	Total			

Summary for Subcatchment os11b: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 9.24 cfs @ 12.28 hrs, Volume= 0.983 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	4,576	98	Impervious
*	203,815	70	Woods, Good, HSG C/D
*	112,423	74	>75% Grass cover, Good, HSG C/D
	320,814	72	Weighted Average
	316,238		98.57% Pervious Area
	4,576		1.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	96	0.0880	0.13		**Sheet Flow, a-b** Woods: Light underbrush n= 0.400 P2= 2.90"
4.6	357	0.0340	1.29		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
2.2	75	0.0534	0.58		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
18.9	528	Total			

Summary for Subcatchment OS9A: OFFSITE 1 (Below Perkins Rd)

Runoff = 4.23 cfs @ 12.38 hrs, Volume= 0.513 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	5,945	98	Impervious
	19,384	70	Woods, Good, HSG C
	128,494	74	>75% Grass cover, Good, HSG C
	153,823	74	Weighted Average
	147,878		96.14% Pervious Area
	5,945		3.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	90	0.0110	0.09		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
1.5	171	0.0700	1.85		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
6.9	257	0.0620	0.62		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.7	43	0.1860	1.08		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
26.6	561	Total			

Summary for Subcatchment OS9B: SUBCAT 4

Runoff = 12.95 cfs @ 12.42 hrs, Volume= 1.623 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	11,390	98	impervious
	346,747	74	>75% Grass cover, Good, HSG C
	128,170	70	Woods, Good, HSG C
	486,307	74	Weighted Average
	474,917		97.66% Pervious Area
	11,390		2.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.3	163	0.0250	0.13		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
8.3	507	0.0210	1.01		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
28.6	670	Total			

Summary for Subcatchment OS9C: SUBCAT 3

Runoff = 7.49 cfs @ 12.15 hrs, Volume= 0.620 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	8,178	98	impervious
	156,155	74	>75% Grass cover, Good, HSG C
	13,814	70	Woods, Good, HSG C
	178,147	75	Weighted Average
	169,969		95.41% Pervious Area
	8,178		4.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	22	0.0900	1.77		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
9.9	633	0.0230	1.06		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
10.1	655	Total			

Summary for Subcatchment OS9D: SUBCAT 2

Runoff = 2.83 cfs @ 12.78 hrs, Volume= 0.495 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	34,250	70	Woods, Good, HSG C/D
*	120,413	74	>75% Grass cover, Good, HSG C/D
	154,663	73	Weighted Average
	154,663		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
46.5	206	0.0050	0.07		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
5.6	258	0.0120	0.77		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
2.2	80	0.0600	0.61		**Shallow Concentrated Flow, C-D** Forest w/Heavy Litter Kv= 2.5 fps
54.3	544	Total			

Summary for Reach 9R: ANALYSIS POINT 9

Inflow Area = 3.531 ac, 3.86% Impervious, Inflow Depth = 1.74" for 10-year event
Inflow = 4.23 cfs @ 12.38 hrs, Volume= 0.513 af
Outflow = 4.23 cfs @ 12.38 hrs, Volume= 0.513 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

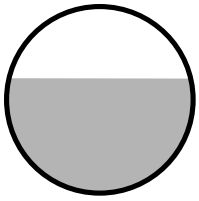
Summary for Reach 10R: Perkins Road Culvert

Inflow Area = 37.764 ac, 2.57% Impervious, Inflow Depth = 1.74" for 10-year event
Inflow = 22.29 cfs @ 13.29 hrs, Volume= 5.490 af
Outflow = 22.29 cfs @ 13.29 hrs, Volume= 5.490 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 11.01 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 5.21 fps, Avg. Travel Time= 0.1 min

Peak Storage= 51 cf @ 13.29 hrs
Average Depth at Peak Storage= 1.23'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.99 cfs

24.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 25.0' Slope= 0.0200 '/'
Inlet Invert= 75.50', Outlet Invert= 75.00'



Summary for Reach 11R: Stream 9

Inflow Area = 4.420 ac, 59.04% Impervious, Inflow Depth = 2.82" for 10-year event
Inflow = 14.08 cfs @ 12.10 hrs, Volume= 1.039 af
Outflow = 14.08 cfs @ 12.10 hrs, Volume= 1.039 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 17R: untreated

Inflow Area = 0.305 ac, 85.11% Impervious, Inflow Depth = 3.52" for 10-year event
Inflow = 1.19 cfs @ 12.08 hrs, Volume= 0.090 af
Outflow = 1.19 cfs @ 12.08 hrs, Volume= 0.090 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 20R: untreated

Inflow Area = 0.653 ac, 73.83% Impervious, Inflow Depth = 3.31" for 10-year event
Inflow = 2.44 cfs @ 12.08 hrs, Volume= 0.180 af
Outflow = 2.44 cfs @ 12.08 hrs, Volume= 0.180 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 23R: sub 23

Inflow Area = 0.654 ac, 21.95% Impervious, Inflow Depth = 2.05" for 10-year event
Inflow = 1.57 cfs @ 12.09 hrs, Volume= 0.112 af
Outflow = 1.57 cfs @ 12.09 hrs, Volume= 0.112 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 27R: extisting

Inflow Area = 0.098 ac,100.00% Impervious, Inflow Depth = 3.96" for 10-year event
Inflow = 0.40 cfs @ 12.08 hrs, Volume= 0.032 af
Outflow = 0.40 cfs @ 12.08 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 29R: untreated

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth = 3.96" for 10-year event
Inflow = 0.12 cfs @ 12.08 hrs, Volume= 0.010 af
Outflow = 0.12 cfs @ 12.08 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 32R: untreated

Inflow Area = 0.107 ac, 60.42% Impervious, Inflow Depth = 3.01" for 10-year event
Inflow = 0.37 cfs @ 12.09 hrs, Volume= 0.027 af
Outflow = 0.37 cfs @ 12.09 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 44R:

Inflow Area = 3.658 ac, 0.00% Impervious, Inflow Depth = 1.53" for 10-year event
Inflow = 4.37 cfs @ 12.27 hrs, Volume= 0.467 af
Outflow = 4.37 cfs @ 12.27 hrs, Volume= 0.467 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 47R:

Inflow Area = 1.818 ac, 6.00% Impervious, Inflow Depth = 1.82" for 10-year event
Inflow = 2.82 cfs @ 12.23 hrs, Volume= 0.275 af
Outflow = 2.82 cfs @ 12.23 hrs, Volume= 0.275 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 48R: (new Reach)

Inflow Area = 0.922 ac, 0.00% Impervious, Inflow Depth = 1.46" for 10-year event
Inflow = 0.63 cfs @ 12.78 hrs, Volume= 0.113 af
Outflow = 0.63 cfs @ 12.78 hrs, Volume= 0.113 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 49R:

Inflow Area = 2.140 ac, 0.59% Impervious, Inflow Depth = 1.53" for 10-year event
Inflow = 1.55 cfs @ 12.80 hrs, Volume= 0.273 af
Outflow = 1.55 cfs @ 12.80 hrs, Volume= 0.273 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT1: ANALYSIS POINT 1 at BWD Little River

Inflow Area = 3.063 ac, 0.41% Impervious, Inflow Depth = 1.51" for 10-year event
Inflow = 2.18 cfs @ 12.79 hrs, Volume= 0.386 af
Outflow = 2.18 cfs @ 12.79 hrs, Volume= 0.386 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT10: Analysis point at Little River

Inflow Area = 1.830 ac, 27.42% Impervious, Inflow Depth = 2.64" for 10-year event
Inflow = 5.64 cfs @ 12.09 hrs, Volume= 0.402 af
Outflow = 5.64 cfs @ 12.09 hrs, Volume= 0.402 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT2: ANALYSIS POINT 2 at strm 3

Inflow Area = 6.265 ac, 0.00% Impervious, Inflow Depth = 1.61" for 10-year event
Inflow = 3.99 cfs @ 12.95 hrs, Volume= 0.842 af
Outflow = 3.99 cfs @ 12.95 hrs, Volume= 0.842 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT3: ANALYSIS POINT 3/4 at strm 5/6

Inflow Area = 16.875 ac, 2.66% Impervious, Inflow Depth = 1.74" for 10-year event
Inflow = 18.30 cfs @ 12.36 hrs, Volume= 2.450 af
Outflow = 18.30 cfs @ 12.36 hrs, Volume= 2.450 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT5: all BWD reservoir

Inflow Area = 23.139 ac, 1.94% Impervious, Inflow Depth = 1.71" for 10-year event
Inflow = 20.46 cfs @ 12.39 hrs, Volume= 3.291 af
Outflow = 20.46 cfs @ 12.39 hrs, Volume= 3.291 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT6: stream 9 offsite

Inflow Area = 45.715 ac, 8.13% Impervious, Inflow Depth = 1.85" for 10-year event
Inflow = 24.31 cfs @ 13.29 hrs, Volume= 7.043 af
Outflow = 24.26 cfs @ 13.31 hrs, Volume= 7.043 af, Atten= 0%, Lag= 1.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.60 fps, Min. Travel Time= 2.2 min
Avg. Velocity = 1.47 fps, Avg. Travel Time= 5.5 min

Peak Storage= 3,256 cf @ 13.31 hrs
Average Depth at Peak Storage= 0.97'
Bank-Full Depth= 4.00' Flow Area= 52.0 sf, Capacity= 401.91 cfs

5.00' x 4.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 21.00'
Length= 483.0' Slope= 0.0145 '/'
Inlet Invert= 71.00', Outlet Invert= 64.00'



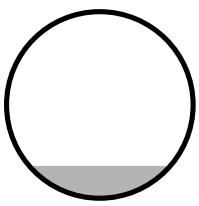
Summary for Reach PT7: ANALYSIS POINT7 at US Route 1 culvert

Inflow Area = 1.479 ac, 0.00% Impervious, Inflow Depth = 1.46" for 10-year event
Inflow = 1.38 cfs @ 12.46 hrs, Volume= 0.181 af
Outflow = 1.38 cfs @ 12.46 hrs, Volume= 0.181 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.70 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.93 fps, Avg. Travel Time= 0.5 min

Peak Storage= 17 cf @ 12.46 hrs
Average Depth at Peak Storage= 0.26'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0398 '/'
Inlet Invert= 21.60', Outlet Invert= 18.30'



Summary for Reach PT8: ANALYSIS POINT 8 at US Route 1 culvert

Inflow Area = 0.344 ac, 0.00% Impervious, Inflow Depth = 1.53" for 10-year event
Inflow = 0.31 cfs @ 12.53 hrs, Volume= 0.044 af
Outflow = 0.31 cfs @ 12.53 hrs, Volume= 0.044 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 3.45 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 2.51 fps, Avg. Travel Time= 0.5 min

Peak Storage= 7 cf @ 12.53 hrs
Average Depth at Peak Storage= 0.03'
Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 144.91 cfs

36.0" W x 24.0" H Box Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 76.0' Slope= 0.0632 '/'
Inlet Invert= 23.40', Outlet Invert= 18.60'



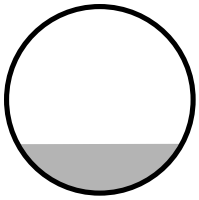
Summary for Reach PT9: Analysis Point Stream 9 at US Route 1 culvert

Inflow Area = 59.888 ac, 7.88% Impervious, Inflow Depth = 1.82" for 10-year event
Inflow = 30.54 cfs @ 12.33 hrs, Volume= 9.070 af
Outflow = 30.54 cfs @ 12.33 hrs, Volume= 9.070 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 20.47 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 7.07 fps, Avg. Travel Time= 0.2 min

Peak Storage= 139 cf @ 12.33 hrs
Average Depth at Peak Storage= 0.79'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 200.22 cfs

36.0" Round Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 93.0' Slope= 0.0645 '/'
Inlet Invert= 20.00', Outlet Invert= 14.00'



Summary for Reach R9 B: offsite diversion strm 5/6

Inflow Area = 15.254 ac, 2.94% Impervious, Inflow Depth = 1.76" for 10-year event
Inflow = 16.79 cfs @ 12.37 hrs, Volume= 2.243 af
Outflow = 16.79 cfs @ 12.37 hrs, Volume= 2.243 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach R9D: offsite pont strm 3

Inflow Area = 3.551 ac, 0.00% Impervious, Inflow Depth = 1.67" for 10-year event
Inflow = 2.28 cfs @ 13.07 hrs, Volume= 0.495 af
Outflow = 2.28 cfs @ 13.07 hrs, Volume= 0.495 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach S9-2: Stream 9

Inflow Area = 56.738 ac, 6.74% Impervious, Inflow Depth = 1.80" for 10-year event
Inflow = 28.22 cfs @ 12.22 hrs, Volume= 8.493 af
Outflow = 27.41 cfs @ 12.34 hrs, Volume= 8.493 af, Atten= 3%, Lag= 6.9 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.40 fps, Min. Travel Time= 6.0 min
Avg. Velocity = 1.52 fps, Avg. Travel Time= 17.3 min

Peak Storage= 9,832 cf @ 12.34 hrs
Average Depth at Peak Storage= 0.91'
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 120.91 cfs

5.00' x 2.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 13.00'
Length= 1,580.0' Slope= 0.0233 '/'
Inlet Invert= 64.00', Outlet Invert= 27.25'



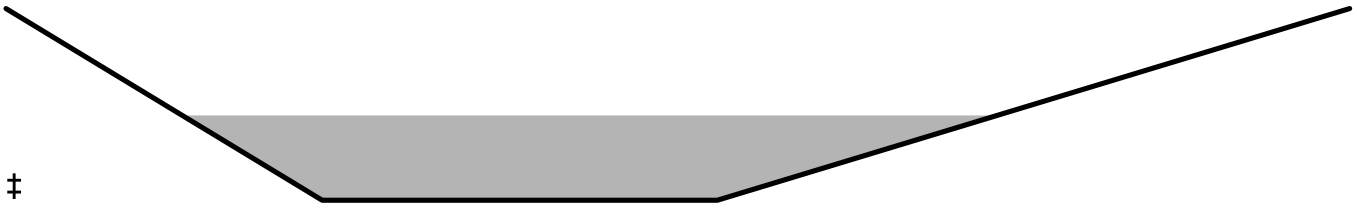
Summary for Reach S9-3: Stream 9

Inflow Area = 58.684 ac, 6.92% Impervious, Inflow Depth = 1.80" for 10-year event
Inflow = 30.04 cfs @ 12.31 hrs, Volume= 8.811 af
Outflow = 30.00 cfs @ 12.33 hrs, Volume= 8.811 af, Atten= 0%, Lag= 1.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.44 fps, Min. Travel Time= 1.4 min
Avg. Velocity = 1.38 fps, Avg. Travel Time= 4.4 min

Peak Storage= 2,462 cf @ 12.33 hrs
Average Depth at Peak Storage= 0.88'
Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 152.29 cfs

5.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 2.0 4.0 '/' Top Width= 17.00'
Length= 364.0' Slope= 0.0199 '/'
Inlet Invert= 27.25', Outlet Invert= 20.00'



‡

Summary for Reach tank: existing clarifier

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 2.78" for 10-year event
Inflow = 61.38 cfs @ 12.09 hrs, Volume= 7.592 af
Outflow = 61.38 cfs @ 12.09 hrs, Volume= 7.592 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond dmh10: dmh10

Inflow Area = 5.738 ac, 92.79% Impervious, Inflow Depth > 3.36" for 10-year event
Inflow = 19.94 cfs @ 12.08 hrs, Volume= 1.607 af
Outflow = 19.94 cfs @ 12.08 hrs, Volume= 1.607 af, Atten= 0%, Lag= 0.0 min
Primary = 19.94 cfs @ 12.08 hrs, Volume= 1.607 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 58.38' @ 12.08 hrs
Flood Elev= 65.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.59'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.59' / 53.56' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=19.91 cfs @ 12.08 hrs HW=58.37' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 19.91 cfs @ 6.34 fps)

Summary for Pond dmh11: dmh11

Inflow Area = 9.033 ac, 95.42% Impervious, Inflow Depth > 3.43" for 10-year event
Inflow = 22.03 cfs @ 12.09 hrs, Volume= 2.580 af
Outflow = 22.03 cfs @ 12.09 hrs, Volume= 2.580 af, Atten= 0%, Lag= 0.0 min
Primary = 22.03 cfs @ 12.09 hrs, Volume= 2.580 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.18' @ 12.09 hrs
Flood Elev= 65.56'

Device	Routing	Invert	Outlet Devices
#1	Primary	53.54'	**30.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.54' / 53.12' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=22.00 cfs @ 12.09 hrs HW=56.18' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 22.00 cfs @ 5.28 fps)

Summary for Pond dmh13: dmh13

Inflow Area = 9.033 ac, 95.42% Impervious, Inflow Depth > 3.43" for 10-year event
Inflow = 22.03 cfs @ 12.09 hrs, Volume= 2.580 af
Outflow = 22.03 cfs @ 12.09 hrs, Volume= 2.580 af, Atten= 0%, Lag= 0.0 min
Primary = 22.03 cfs @ 12.09 hrs, Volume= 2.580 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.74' @ 12.09 hrs
Flood Elev= 65.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	53.10'	**30.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.10' / 52.09' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=22.00 cfs @ 12.09 hrs HW=55.74' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 22.00 cfs @ 4.48 fps)

Summary for Pond dmh14: dmh14

Inflow Area = 9.680 ac, 93.27% Impervious, Inflow Depth > 3.37" for 10-year event
Inflow = 22.28 cfs @ 12.09 hrs, Volume= 2.719 af
Outflow = 22.28 cfs @ 12.09 hrs, Volume= 2.719 af, Atten= 0%, Lag= 0.0 min
Primary = 22.28 cfs @ 12.09 hrs, Volume= 2.719 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.99' @ 12.09 hrs
Flood Elev= 65.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	52.07'	**30.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.07' / 51.95' S= 0.0052 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 4.91 sf

Primary OutFlow Max=22.26 cfs @ 12.09 hrs HW=54.99' (Free Discharge)
1=Culvert (Barrel Controls 22.26 cfs @ 4.89 fps)

Summary for Pond dmh15: dmh15

Inflow Area = 9.680 ac, 93.27% Impervious, Inflow Depth > 3.37" for 10-year event
Inflow = 22.28 cfs @ 12.09 hrs, Volume= 2.719 af
Outflow = 22.28 cfs @ 12.09 hrs, Volume= 2.719 af, Atten= 0%, Lag= 0.0 min
Primary = 22.28 cfs @ 12.09 hrs, Volume= 2.719 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.63' @ 12.09 hrs
Flood Elev= 64.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.95'	**30.0" Round Culvert** L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.95' / 51.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=22.26 cfs @ 12.09 hrs HW=54.62' (Free Discharge)
1=Culvert (Inlet Controls 22.26 cfs @ 4.53 fps)

Summary for Pond dmh16: dmh16

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth > 0.78" for 10-year event
Inflow = 0.01 cfs @ 24.07 hrs, Volume= 0.023 af
Outflow = 0.01 cfs @ 24.07 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min
Primary = 0.01 cfs @ 24.07 hrs, Volume= 0.023 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 60.54' @ 24.07 hrs
Flood Elev= 64.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**12.0" Round Culvert** L= 198.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.50' / 58.00' S= 0.0126 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.01 cfs @ 24.07 hrs HW=60.54' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.01 cfs @ 0.56 fps)

Summary for Pond dmh17: dmh17

Inflow Area = 10.237 ac, 89.39% Impervious, Inflow Depth > 3.24" for 10-year event
Inflow = 22.28 cfs @ 12.09 hrs, Volume= 2.763 af
Outflow = 22.28 cfs @ 12.09 hrs, Volume= 2.763 af, Atten= 0%, Lag= 0.0 min
Primary = 22.28 cfs @ 12.09 hrs, Volume= 2.763 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.25' @ 12.09 hrs
Flood Elev= 63.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.48'	**30.0" Round Culvert** L= 35.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.48' / 51.30' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=22.26 cfs @ 12.09 hrs HW=54.25' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 22.26 cfs @ 5.11 fps)

Summary for Pond dmh19: dmh 19

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth > 3.43" for 10-year event
Inflow = 1.62 cfs @ 12.09 hrs, Volume= 0.124 af
Outflow = 1.62 cfs @ 12.09 hrs, Volume= 0.124 af, Atten= 0%, Lag= 0.0 min
Primary = 1.62 cfs @ 12.09 hrs, Volume= 0.124 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.28' @ 12.09 hrs
Flood Elev= 61.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.48'	**12.0" Round Culvert** L= 59.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.48' / 53.89' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.62 cfs @ 12.09 hrs HW=55.28' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 1.62 cfs @ 2.40 fps)

Summary for Pond dmh2: dmh2

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 3.51" for 10-year event
Inflow = 9.97 cfs @ 12.08 hrs, Volume= 0.756 af
Outflow = 9.97 cfs @ 12.08 hrs, Volume= 0.756 af, Atten= 0%, Lag= 0.0 min
Primary = 9.97 cfs @ 12.08 hrs, Volume= 0.756 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 65.95' @ 12.08 hrs
Flood Elev= 69.15'

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	**18.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.00' / 61.50' S= 0.0150 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=9.95 cfs @ 12.08 hrs HW=65.94' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 9.95 cfs @ 5.63 fps)

Summary for Pond dmh20: dmh20

Inflow Area = 10.673 ac, 89.83% Impervious, Inflow Depth > 3.25" for 10-year event
Inflow = 23.90 cfs @ 12.09 hrs, Volume= 2.887 af
Outflow = 23.90 cfs @ 12.09 hrs, Volume= 2.887 af, Atten= 0%, Lag= 0.0 min
Primary = 23.90 cfs @ 12.09 hrs, Volume= 2.887 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.17' @ 12.09 hrs
Flood Elev= 61.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.28'	**30.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.28' / 50.78' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=23.87 cfs @ 12.09 hrs HW=54.17' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 23.87 cfs @ 4.86 fps)

Summary for Pond dmh21: dmh21

Inflow Area = 14.421 ac, 82.05% Impervious, Inflow Depth > 3.08" for 10-year event
Inflow = 29.63 cfs @ 12.09 hrs, Volume= 3.696 af
Outflow = 29.63 cfs @ 12.09 hrs, Volume= 3.696 af, Atten= 0%, Lag= 0.0 min
Primary = 29.63 cfs @ 12.09 hrs, Volume= 3.696 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.53' @ 12.09 hrs
Flood Elev= 58.55'

Device	Routing	Invert	Outlet Devices
#1	Primary	50.76'	**30.0" Round Culvert** L= 281.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.76' / 46.00' S= 0.0169 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=29.59 cfs @ 12.09 hrs HW=54.53' (Free Discharge)
1=Culvert (Inlet Controls 29.59 cfs @ 6.03 fps)

Summary for Pond dmh22: dmh 22

Inflow Area = 2.703 ac, 61.52% Impervious, Inflow Depth > 2.71" for 10-year event
Inflow = 5.70 cfs @ 12.09 hrs, Volume= 0.609 af
Outflow = 5.70 cfs @ 12.09 hrs, Volume= 0.609 af, Atten= 0%, Lag= 0.0 min
Primary = 5.70 cfs @ 12.09 hrs, Volume= 0.609 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 53.64' @ 12.09 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.50'	**15.0" Round Culvert** L= 93.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.50' / 51.03' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=5.69 cfs @ 12.09 hrs HW=53.64' (Free Discharge)
1=Culvert (Barrel Controls 5.69 cfs @ 4.64 fps)

Summary for Pond dmh23: dmh23

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 2.65" for 10-year event
Inflow = 4.86 cfs @ 12.09 hrs, Volume= 0.447 af
Outflow = 4.86 cfs @ 12.09 hrs, Volume= 0.447 af, Atten= 0%, Lag= 0.0 min
Primary = 4.86 cfs @ 12.09 hrs, Volume= 0.447 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 59.20' @ 12.09 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	55.19'	**12.0" Round Culvert** L= 138.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.19' / 54.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=4.86 cfs @ 12.09 hrs HW=59.20' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 4.86 cfs @ 6.18 fps)

Summary for Pond dmh24: dmh24

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 2.65" for 10-year event
Inflow = 4.86 cfs @ 12.09 hrs, Volume= 0.447 af
Outflow = 4.86 cfs @ 12.09 hrs, Volume= 0.447 af, Atten= 0%, Lag= 0.0 min
Primary = 4.86 cfs @ 12.09 hrs, Volume= 0.447 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.39' @ 12.09 hrs
Flood Elev= 61.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	56.10'	**12.0" Round Culvert** L= 72.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.10' / 55.92' S= 0.0025 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=4.86 cfs @ 12.09 hrs HW=59.39' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 4.86 cfs @ 6.18 fps)

Summary for Pond dmh24a: dmh24a

Inflow Area = 0.602 ac, 71.74% Impervious, Inflow Depth > 2.80" for 10-year event
Inflow = 1.19 cfs @ 12.08 hrs, Volume= 0.140 af
Outflow = 1.19 cfs @ 12.08 hrs, Volume= 0.140 af, Atten= 0%, Lag= 0.0 min
Primary = 1.19 cfs @ 12.08 hrs, Volume= 0.140 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.14' @ 12.08 hrs
Flood Elev= 63.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	**8.0" Round Culvert** L= 95.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.00' / 57.10' S= 0.0095 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.19 cfs @ 12.08 hrs HW=59.14' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 1.19 cfs @ 3.41 fps)

Summary for Pond dmh25: dmh25

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth > 1.74" for 10-year event
Inflow = 0.12 cfs @ 12.98 hrs, Volume= 0.059 af
Outflow = 0.12 cfs @ 12.98 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min
Primary = 0.12 cfs @ 12.98 hrs, Volume= 0.059 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.19' @ 12.98 hrs
Flood Elev= 67.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.00'	**12.0" Round Culvert** L= 98.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.00' / 55.00' S= 0.0510 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.12 cfs @ 12.98 hrs HW=60.19' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.12 cfs @ 1.16 fps)

Summary for Pond dmh26: dmh26

Inflow Area = 2.028 ac, 41.73% Impervious, Inflow Depth > 1.95" for 10-year event
Inflow = 1.10 cfs @ 12.54 hrs, Volume= 0.330 af
Outflow = 1.10 cfs @ 12.54 hrs, Volume= 0.330 af, Atten= 0%, Lag= 0.0 min
Primary = 1.10 cfs @ 12.54 hrs, Volume= 0.330 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 58.51' @ 12.54 hrs
Flood Elev= 63.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.75'	**12.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.75' / 57.61' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.10 cfs @ 12.54 hrs HW=58.51' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 1.10 cfs @ 2.37 fps)

Summary for Pond dmh27: dmh27

Inflow Area = 2.712 ac, 46.62% Impervious, Inflow Depth > 2.05" for 10-year event
Inflow = 1.40 cfs @ 12.52 hrs, Volume= 0.464 af
Outflow = 1.40 cfs @ 12.52 hrs, Volume= 0.464 af, Atten= 0%, Lag= 0.0 min
Primary = 1.40 cfs @ 12.52 hrs, Volume= 0.464 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 53.76' @ 12.52 hrs
Flood Elev= 63.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	53.03'	**12.0" Round Culvert** L= 256.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.03' / 51.75' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.40 cfs @ 12.52 hrs HW=53.76' (Free Discharge)
1=Culvert (Barrel Controls 1.40 cfs @ 3.17 fps)

Summary for Pond dmh29: dmh29

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 3.24" for 10-year event
Inflow = 0.83 cfs @ 12.10 hrs, Volume= 0.074 af
Outflow = 0.83 cfs @ 12.10 hrs, Volume= 0.074 af, Atten= 0%, Lag= 0.0 min
Primary = 0.83 cfs @ 12.10 hrs, Volume= 0.074 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 58.58' @ 12.10 hrs
Flood Elev= 63.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.85'	**8.0" Round Culvert** L= 46.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.85' / 57.39' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.83 cfs @ 12.10 hrs HW=58.58' (Free Discharge)
1=Culvert (Inlet Controls 0.83 cfs @ 2.38 fps)

Summary for Pond dmh3: dmh3

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 3.24" for 10-year event
Inflow = 9.98 cfs @ 12.08 hrs, Volume= 0.851 af
Outflow = 9.98 cfs @ 12.08 hrs, Volume= 0.851 af, Atten= 0%, Lag= 0.0 min
Primary = 9.98 cfs @ 12.08 hrs, Volume= 0.851 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 62.21' @ 12.08 hrs
Flood Elev= 68.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**24.0" Round Culvert** L= 125.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.50' / 59.84' S= 0.0053 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=9.96 cfs @ 12.08 hrs HW=62.21' (Free Discharge)
└**1=Culvert** (Barrel Controls 9.96 cfs @ 4.68 fps)

Summary for Pond dmh30: dmh30

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 3.24" for 10-year event
Inflow = 0.83 cfs @ 12.10 hrs, Volume= 0.074 af
Outflow = 0.83 cfs @ 12.10 hrs, Volume= 0.074 af, Atten= 0%, Lag= 0.0 min
Primary = 0.83 cfs @ 12.10 hrs, Volume= 0.074 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.94' @ 12.10 hrs
Flood Elev= 63.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	55.40'	**12.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.40' / 54.37' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.83 cfs @ 12.10 hrs HW=55.94' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.83 cfs @ 2.77 fps)

Summary for Pond dmh31: dmh31

Inflow Area = 2.303 ac, 48.70% Impervious, Inflow Depth > 2.11" for 10-year event
Inflow = 1.39 cfs @ 12.52 hrs, Volume= 0.405 af
Outflow = 1.39 cfs @ 12.52 hrs, Volume= 0.405 af, Atten= 0%, Lag= 0.0 min
Primary = 1.39 cfs @ 12.52 hrs, Volume= 0.405 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.08' @ 12.52 hrs
Flood Elev= 63.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.35'	**12.0" Round Culvert** L= 259.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.35' / 53.05' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.39 cfs @ 12.52 hrs HW=55.08' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 1.39 cfs @ 3.17 fps)

Summary for Pond dmh32: dmh32

Inflow Area = 3.424 ac, 42.31% Impervious, Inflow Depth > 1.99" for 10-year event
Inflow = 1.84 cfs @ 12.52 hrs, Volume= 0.567 af
Outflow = 1.84 cfs @ 12.52 hrs, Volume= 0.567 af, Atten= 0%, Lag= 0.0 min
Primary = 1.84 cfs @ 12.52 hrs, Volume= 0.567 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 52.72' @ 12.52 hrs
Flood Elev= 58.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.73'	**12.0" Round Culvert** L= 36.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.73' / 51.60' S= 0.0036 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.84 cfs @ 12.52 hrs HW=52.72' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 1.84 cfs @ 2.95 fps)

Summary for Pond dmh33: dmh33

Inflow Area = 0.315 ac, 80.35% Impervious, Inflow Depth > 3.09" for 10-year event
Inflow = 0.33 cfs @ 12.43 hrs, Volume= 0.081 af
Outflow = 0.33 cfs @ 12.43 hrs, Volume= 0.081 af, Atten= 0%, Lag= 0.0 min
Primary = 0.33 cfs @ 12.43 hrs, Volume= 0.081 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.32' @ 12.43 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**12.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 52.01' S= 0.0099 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.33 cfs @ 12.43 hrs HW=54.32' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.33 cfs @ 1.52 fps)

Summary for Pond dmh34: dmh34

Inflow Area = 3.030 ac, 25.76% Impervious, Inflow Depth > 1.46" for 10-year event
Inflow = 3.66 cfs @ 12.10 hrs, Volume= 0.370 af
Outflow = 3.66 cfs @ 12.10 hrs, Volume= 0.370 af, Atten= 0%, Lag= 0.0 min
Primary = 3.66 cfs @ 12.10 hrs, Volume= 0.370 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 53.99' @ 12.10 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.99'	**12.0" Round Culvert** L= 39.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.99' / 51.60' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.66 cfs @ 12.10 hrs HW=53.99' (Free Discharge)
1=Culvert (Inlet Controls 3.66 cfs @ 4.66 fps)

Summary for Pond dmh35: dmh35

Inflow Area = 7.284 ac, 34.73% Impervious, Inflow Depth > 1.75" for 10-year event
Inflow = 4.59 cfs @ 12.10 hrs, Volume= 1.062 af
Outflow = 4.59 cfs @ 12.10 hrs, Volume= 1.062 af, Atten= 0%, Lag= 0.0 min
Primary = 4.59 cfs @ 12.10 hrs, Volume= 1.062 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 52.77' @ 12.10 hrs
Flood Elev= 58.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.55'	**18.0" Round Culvert** L= 276.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.55' / 50.17' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=4.59 cfs @ 12.10 hrs HW=52.77' (Free Discharge)
1=Culvert (Inlet Controls 4.59 cfs @ 2.97 fps)

Summary for Pond dmh36: dmh36

Inflow Area = 7.284 ac, 34.73% Impervious, Inflow Depth > 1.75" for 10-year event
Inflow = 4.59 cfs @ 12.10 hrs, Volume= 1.062 af
Outflow = 4.59 cfs @ 12.10 hrs, Volume= 1.062 af, Atten= 0%, Lag= 0.0 min
Primary = 4.59 cfs @ 12.10 hrs, Volume= 1.062 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 51.38' @ 12.10 hrs
Flood Elev= 53.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	50.15'	**18.0" Round Culvert** L= 159.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.15' / 49.35' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=4.59 cfs @ 12.10 hrs HW=51.38' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 4.59 cfs @ 4.03 fps)

Summary for Pond dmh38: dmh38

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 3.38" for 10-year event
Inflow = 6.77 cfs @ 12.09 hrs, Volume= 0.727 af
Outflow = 6.77 cfs @ 12.09 hrs, Volume= 0.727 af, Atten= 0%, Lag= 0.0 min
Primary = 6.77 cfs @ 12.09 hrs, Volume= 0.727 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 53.75' @ 12.09 hrs
Flood Elev= 56.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.98'	**18.0" Round Culvert** L= 106.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.98' / 50.92' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=6.77 cfs @ 12.09 hrs HW=53.74' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 6.77 cfs @ 3.83 fps)

Summary for Pond dmh39: dmh39

Inflow Area = 2.778 ac, 93.02% Impervious, Inflow Depth > 3.23" for 10-year event
Inflow = 6.77 cfs @ 12.09 hrs, Volume= 0.748 af
Outflow = 6.77 cfs @ 12.09 hrs, Volume= 0.748 af, Atten= 0%, Lag= 0.0 min
Primary = 6.77 cfs @ 12.09 hrs, Volume= 0.748 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 52.36' @ 12.09 hrs
Flood Elev= 56.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	50.59'	**18.0" Round Culvert** L= 58.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.59' / 50.32' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=6.77 cfs @ 12.09 hrs HW=52.36' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 6.77 cfs @ 4.10 fps)

Summary for Pond dmh4: dmh4

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 3.24" for 10-year event
Inflow = 9.98 cfs @ 12.08 hrs, Volume= 0.851 af
Outflow = 9.98 cfs @ 12.08 hrs, Volume= 0.851 af, Atten= 0%, Lag= 0.0 min
Primary = 9.98 cfs @ 12.08 hrs, Volume= 0.851 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.69' @ 12.08 hrs
Flood Elev= 68.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	59.84'	**24.0" Round Culvert** L= 66.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.84' / 59.57' S= 0.0041 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=9.96 cfs @ 12.08 hrs HW=61.69' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 9.96 cfs @ 4.29 fps)

Summary for Pond dmh40: dmh40

Inflow Area = 10.062 ac, 50.82% Impervious, Inflow Depth > 2.16" for 10-year event
Inflow = 11.34 cfs @ 12.09 hrs, Volume= 1.810 af
Outflow = 11.34 cfs @ 12.09 hrs, Volume= 1.810 af, Atten= 0%, Lag= 0.0 min
Primary = 11.34 cfs @ 12.09 hrs, Volume= 1.810 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 51.22' @ 12.09 hrs
Flood Elev= 57.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	49.33'	**24.0" Round Culvert** L= 340.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 49.33' / 47.63' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=11.32 cfs @ 12.09 hrs HW=51.21' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 11.32 cfs @ 3.69 fps)

Summary for Pond dmh43: dmh43

Inflow Area = 12.646 ac, 60.87% Impervious, Inflow Depth > 2.43" for 10-year event
Inflow = 18.58 cfs @ 12.09 hrs, Volume= 2.559 af
Outflow = 18.58 cfs @ 12.09 hrs, Volume= 2.559 af, Atten= 0%, Lag= 0.0 min
Primary = 18.58 cfs @ 12.09 hrs, Volume= 2.559 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 51.03' @ 12.09 hrs
Flood Elev= 56.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	47.61'	**24.0" Round Culvert** L= 193.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 47.61' / 46.64' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=18.56 cfs @ 12.09 hrs HW=51.02' (Free Discharge)
1=Culvert (Inlet Controls 18.56 cfs @ 5.91 fps)

Summary for Pond dmh44: dmh44

Inflow Area = 12.894 ac, 59.70% Impervious, Inflow Depth > 2.40" for 10-year event
Inflow = 18.59 cfs @ 12.09 hrs, Volume= 2.582 af
Outflow = 18.59 cfs @ 12.09 hrs, Volume= 2.582 af, Atten= 0%, Lag= 0.0 min
Primary = 18.59 cfs @ 12.09 hrs, Volume= 2.582 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 48.96' @ 12.09 hrs
Flood Elev= 56.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	46.62'	**30.0" Round Culvert** L= 82.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.62' / 46.21' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=18.56 cfs @ 12.09 hrs HW=48.95' (Free Discharge)
1=Culvert (Barrel Controls 18.56 cfs @ 5.05 fps)

Summary for Pond dmh45: dmh45

Inflow Area = 15.478 ac, 66.43% Impervious, Inflow Depth > 2.59" for 10-year event
Inflow = 28.51 cfs @ 12.09 hrs, Volume= 3.335 af
Outflow = 28.51 cfs @ 12.09 hrs, Volume= 3.335 af, Atten= 0%, Lag= 0.0 min
Primary = 28.51 cfs @ 12.09 hrs, Volume= 3.335 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 49.77' @ 12.09 hrs
Flood Elev= 56.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	46.19'	**30.0" Round Culvert** L= 316.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.19' / 44.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=28.49 cfs @ 12.09 hrs HW=49.77' (Free Discharge)
↑**1=Culvert** (Inlet Controls 28.49 cfs @ 5.80 fps)

Summary for Pond dmh47: dmh47

Inflow Area = 15.478 ac, 66.43% Impervious, Inflow Depth > 2.59" for 10-year event
Inflow = 28.51 cfs @ 12.09 hrs, Volume= 3.335 af
Outflow = 28.51 cfs @ 12.09 hrs, Volume= 3.335 af, Atten= 0%, Lag= 0.0 min
Primary = 28.51 cfs @ 12.09 hrs, Volume= 3.335 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 47.58' @ 12.09 hrs
Flood Elev= 55.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	44.00'	**30.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.00' / 42.96' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=28.49 cfs @ 12.09 hrs HW=47.58' (Free Discharge)
↑**1=Culvert** (Inlet Controls 28.49 cfs @ 5.80 fps)

Summary for Pond dmh48: dmh48

Inflow Area = 16.171 ac, 67.87% Impervious, Inflow Depth > 2.62" for 10-year event
Inflow = 30.01 cfs @ 12.09 hrs, Volume= 3.535 af
Outflow = 30.01 cfs @ 12.09 hrs, Volume= 3.535 af, Atten= 0%, Lag= 0.0 min
Primary = 30.01 cfs @ 12.09 hrs, Volume= 3.535 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 46.78' @ 12.09 hrs
Flood Elev= 50.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	42.94'	**30.0" Round Culvert** L= 117.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 42.94' / 42.35' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=30.00 cfs @ 12.09 hrs HW=46.77' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 30.00 cfs @ 6.11 fps)

Summary for Pond dmh49: dmh49

Inflow Area = 16.492 ac, 67.17% Impervious, Inflow Depth > 2.60" for 10-year event
Inflow = 30.02 cfs @ 12.09 hrs, Volume= 3.579 af
Outflow = 30.02 cfs @ 12.09 hrs, Volume= 3.579 af, Atten= 0%, Lag= 0.0 min
Primary = 30.02 cfs @ 12.09 hrs, Volume= 3.579 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 45.34' @ 12.09 hrs
Flood Elev= 50.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	42.33'	**36.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 42.33' / 42.23' S= 0.0071 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=30.01 cfs @ 12.09 hrs HW=45.34' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 30.01 cfs @ 5.26 fps)

Summary for Pond dmh5: dmh5

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 3.24" for 10-year event
Inflow = 9.98 cfs @ 12.08 hrs, Volume= 0.851 af
Outflow = 9.98 cfs @ 12.08 hrs, Volume= 0.851 af, Atten= 0%, Lag= 0.0 min
Primary = 9.98 cfs @ 12.08 hrs, Volume= 0.851 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.18' @ 12.08 hrs
Flood Elev= 69.04'

Device	Routing	Invert	Outlet Devices
#1	Primary	59.48'	**24.0" Round Culvert** L= 173.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.48' / 58.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=9.97 cfs @ 12.08 hrs HW=61.18' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 9.97 cfs @ 3.50 fps)

Summary for Pond dmh50: dmh50

Inflow Area = 15.118 ac, 79.46% Impervious, Inflow Depth > 3.00" for 10-year event
Inflow = 29.64 cfs @ 12.09 hrs, Volume= 3.782 af
Outflow = 29.64 cfs @ 12.09 hrs, Volume= 3.782 af, Atten= 0%, Lag= 0.0 min
Primary = 29.64 cfs @ 12.09 hrs, Volume= 3.782 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 48.52' @ 12.09 hrs
Flood Elev= 56.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	44.75'	**30.0" Round Culvert** L= 64.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.75' / 44.11' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=29.61 cfs @ 12.09 hrs HW=48.52' (Free Discharge)
1=Culvert (Inlet Controls 29.61 cfs @ 6.03 fps)

Summary for Pond dmh51: dmh51

Inflow Area = 15.118 ac, 79.46% Impervious, Inflow Depth > 3.00" for 10-year event
Inflow = 29.64 cfs @ 12.09 hrs, Volume= 3.782 af
Outflow = 29.64 cfs @ 12.09 hrs, Volume= 3.782 af, Atten= 0%, Lag= 0.0 min
Primary = 29.64 cfs @ 12.09 hrs, Volume= 3.782 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 47.86' @ 12.09 hrs
Flood Elev= 55.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	44.09'	**30.0" Round Culvert** L= 38.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.09' / 43.00' S= 0.0287 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=29.61 cfs @ 12.09 hrs HW=47.86' (Free Discharge)
1=Culvert (Inlet Controls 29.61 cfs @ 6.03 fps)

Summary for Pond dmh52: dmh52

Inflow Area = 31.609 ac, 73.05% Impervious, Inflow Depth > 2.79" for 10-year event
Inflow = 59.66 cfs @ 12.09 hrs, Volume= 7.361 af
Outflow = 59.66 cfs @ 12.09 hrs, Volume= 7.361 af, Atten= 0%, Lag= 0.0 min
Primary = 59.66 cfs @ 12.09 hrs, Volume= 7.361 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 45.41' @ 12.09 hrs
Flood Elev= 50.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	41.00'	**42.0" Round Culvert** L= 258.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 41.00' / 36.00' S= 0.0194 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 9.62 sf

Primary OutFlow Max=59.60 cfs @ 12.09 hrs HW=45.41' (Free Discharge)
↑**1=Culvert** (Inlet Controls 59.60 cfs @ 6.19 fps)

Summary for Pond dmh53: CB53

Inflow Area = 32.682 ac, 71.95% Impervious, Inflow Depth > 2.78" for 10-year event
Inflow = 61.24 cfs @ 12.09 hrs, Volume= 7.566 af
Outflow = 61.24 cfs @ 12.09 hrs, Volume= 7.566 af, Atten= 0%, Lag= 0.0 min
Primary = 61.24 cfs @ 12.09 hrs, Volume= 7.566 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 37.55' @ 12.09 hrs
Flood Elev= 41.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	33.00'	**42.0" Round Culvert** L= 120.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 33.00' / 30.50' S= 0.0208 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 9.62 sf

Primary OutFlow Max=61.19 cfs @ 12.09 hrs HW=37.55' (Free Discharge)
↑**1=Culvert** (Inlet Controls 61.19 cfs @ 6.36 fps)

Summary for Pond dmh54: dmh54

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 2.78" for 10-year event
Inflow = 61.38 cfs @ 12.09 hrs, Volume= 7.592 af
Outflow = 61.38 cfs @ 12.09 hrs, Volume= 7.592 af, Atten= 0%, Lag= 0.0 min
Primary = 61.38 cfs @ 12.09 hrs, Volume= 7.592 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 30.63' @ 12.09 hrs
Flood Elev= 38.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	27.00'	**48.0" Round Culvert** L= 152.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.00' / 22.00' S= 0.0329 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=61.34 cfs @ 12.09 hrs HW=30.63' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 61.34 cfs @ 5.12 fps)

Summary for Pond dmh55: dhm55

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 2.78" for 10-year event
Inflow = 61.38 cfs @ 12.09 hrs, Volume= 7.592 af
Outflow = 61.38 cfs @ 12.09 hrs, Volume= 7.592 af, Atten= 0%, Lag= 0.0 min
Primary = 61.38 cfs @ 12.09 hrs, Volume= 7.592 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 22.63' @ 12.09 hrs
Flood Elev= 30.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	19.00'	**48.0" Round Culvert** L= 115.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 19.00' / 15.50' S= 0.0304 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=61.33 cfs @ 12.09 hrs HW=22.63' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 61.33 cfs @ 5.12 fps)

Summary for Pond dmh56: dmh56

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 2.78" for 10-year event
Inflow = 61.38 cfs @ 12.09 hrs, Volume= 7.592 af
Outflow = 61.38 cfs @ 12.09 hrs, Volume= 7.592 af, Atten= 0%, Lag= 0.0 min
Primary = 61.38 cfs @ 12.09 hrs, Volume= 7.592 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 16.13' @ 12.09 hrs
Flood Elev= 30.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	12.50'	**48.0" Round Culvert** L= 42.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 12.50' / 11.00' S= 0.0357 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=61.36 cfs @ 12.09 hrs HW=16.13' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 61.36 cfs @ 5.12 fps)

Summary for Pond dmh59: dmh59

Inflow Area = 2.287 ac, 61.62% Impervious, Inflow Depth > 2.69" for 10-year event
Inflow = 5.18 cfs @ 12.09 hrs, Volume= 0.513 af
Outflow = 5.18 cfs @ 12.09 hrs, Volume= 0.513 af, Atten= 0%, Lag= 0.0 min
Primary = 5.18 cfs @ 12.09 hrs, Volume= 0.513 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.35' @ 12.09 hrs
Flood Elev= 59.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.30'	**12.0" Round Culvert** L= 294.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.30' / 52.83' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.17 cfs @ 12.09 hrs HW=61.33' (Free Discharge)
1=Culvert (Barrel Controls 5.17 cfs @ 6.59 fps)

Summary for Pond dmh6: dmh6

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 3.24" for 10-year event
Inflow = 9.98 cfs @ 12.08 hrs, Volume= 0.851 af
Outflow = 9.98 cfs @ 12.08 hrs, Volume= 0.851 af, Atten= 0%, Lag= 0.0 min
Primary = 9.98 cfs @ 12.08 hrs, Volume= 0.851 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.61' @ 12.08 hrs
Flood Elev= 68.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	58.58'	**24.0" Round Culvert** L= 170.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.58' / 57.73' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 3.14 sf

Primary OutFlow Max=9.97 cfs @ 12.08 hrs HW=60.61' (Free Discharge)
1=Culvert (Barrel Controls 9.97 cfs @ 3.89 fps)

Summary for Pond dmh60: dhm60

Inflow Area = 31.609 ac, 73.05% Impervious, Inflow Depth > 2.79" for 10-year event
Inflow = 59.66 cfs @ 12.09 hrs, Volume= 7.361 af
Outflow = 59.66 cfs @ 12.09 hrs, Volume= 7.361 af, Atten= 0%, Lag= 0.0 min
Primary = 59.66 cfs @ 12.09 hrs, Volume= 7.361 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 39.05' @ 12.09 hrs
Flood Elev= 44.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	35.50'	**48.0" Round Culvert** L= 114.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 35.50' / 33.50' S= 0.0175 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=59.61 cfs @ 12.09 hrs HW=39.05' (Free Discharge)
↑**1=Culvert** (Inlet Controls 59.61 cfs @ 5.06 fps)

Summary for Pond dmh7: dmh7

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 3.24" for 10-year event
Inflow = 9.98 cfs @ 12.08 hrs, Volume= 0.851 af
Outflow = 9.98 cfs @ 12.08 hrs, Volume= 0.851 af, Atten= 0%, Lag= 0.0 min
Primary = 9.98 cfs @ 12.08 hrs, Volume= 0.851 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.41' @ 12.08 hrs
Flood Elev= 67.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.71'	**24.0" Round Culvert** L= 170.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.71' / 56.86' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=9.97 cfs @ 12.08 hrs HW=59.41' (Free Discharge)
↑**1=Culvert** (Inlet Controls 9.97 cfs @ 3.50 fps)

Summary for Pond dmh8: dmh8

Inflow Area = 5.738 ac, 92.79% Impervious, Inflow Depth > 3.36" for 10-year event
Inflow = 19.94 cfs @ 12.08 hrs, Volume= 1.607 af
Outflow = 19.94 cfs @ 12.08 hrs, Volume= 1.607 af, Atten= 0%, Lag= 0.0 min
Primary = 19.94 cfs @ 12.08 hrs, Volume= 1.607 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.16' @ 12.08 hrs
Flood Elev= 66.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	56.84'	**24.0" Round Culvert** L= 296.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.84' / 55.66' S= 0.0040 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=19.91 cfs @ 12.08 hrs HW=61.15' (Free Discharge)
└**1=Culvert** (Barrel Controls 19.91 cfs @ 6.34 fps)

Summary for Pond dmh9a: dmh9a

Inflow Area = 5.738 ac, 92.79% Impervious, Inflow Depth > 3.36" for 10-year event
Inflow = 19.94 cfs @ 12.08 hrs, Volume= 1.607 af
Outflow = 19.94 cfs @ 12.08 hrs, Volume= 1.607 af, Atten= 0%, Lag= 0.0 min
Primary = 19.94 cfs @ 12.08 hrs, Volume= 1.607 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.43' @ 12.08 hrs
Flood Elev= 65.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	55.64'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.64' / 54.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=19.91 cfs @ 12.08 hrs HW=59.42' (Free Discharge)
└**1=Culvert** (Inlet Controls 19.91 cfs @ 6.34 fps)

Summary for Pond DP 9B: off site pond to strm 5/6

Inflow Area = 15.254 ac, 2.94% Impervious, Inflow Depth = 1.76" for 10-year event
Inflow = 16.80 cfs @ 12.36 hrs, Volume= 2.243 af
Outflow = 16.79 cfs @ 12.37 hrs, Volume= 2.243 af, Atten= 0%, Lag= 0.4 min
Primary = 16.79 cfs @ 12.37 hrs, Volume= 2.243 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.76' @ 12.37 hrs Surf.Area= 1,590 sf Storage= 557 cf

Plug-Flow detention time= 0.5 min calculated for 2.242 af (100% of inflow)
Center-of-Mass det. time= 0.5 min (862.3 - 861.8)

Volume	Invert	Avail.Storage	Storage Description
#1	62.00'	13,655 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.00	136	60.0	0	0	136
63.00	2,371	550.0	1,025	1,025	23,924
64.00	5,821	1,011.0	3,969	4,994	81,195
65.00	11,855	1,110.0	8,661	13,655	97,938

Device	Routing	Invert	Outlet Devices
#1	Primary	53.00'	**12.0" Round Culvert** L= 670.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 53.00' / 52.00' S= 0.0015 '/' Cc= 0.900
n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf
#2 Primary 62.50' **24.0" x 24.0" Horiz. Orifice/Grate X 4.00** C= 0.600
Limited to weir flow at low heads

Primary OutFlow Max=16.77 cfs @ 12.37 hrs HW=62.76' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.74 cfs @ 3.49 fps)
└**2=Orifice/Grate** (Weir Controls 14.03 cfs @ 1.67 fps)

Summary for Pond DP 9D: offsite pond strm 3

Inflow Area = 3.551 ac, 0.00% Impervious, Inflow Depth = 1.67" for 10-year event
Inflow = 2.83 cfs @ 12.78 hrs, Volume= 0.495 af
Outflow = 2.28 cfs @ 13.07 hrs, Volume= 0.495 af, Atten= 19%, Lag= 17.4 min
Primary = 2.28 cfs @ 13.07 hrs, Volume= 0.495 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 65.47' @ 13.07 hrs Surf.Area= 2,199 sf Storage= 766 cf

Plug-Flow detention time= 1.3 min calculated for 0.495 af (100% of inflow)
Center-of-Mass det. time= 1.3 min (895.2 - 893.9)

Volume	Invert	Avail.Storage	Storage Description
#1	65.00'	7,999 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.00	1,097	318.0	0	0	1,097
66.00	3,867	753.0	2,341	2,341	38,175
67.00	7,663	1,200.0	5,658	7,999	107,652

Device	Routing	Invert	Outlet Devices
#1	Primary	53.50'	**12.0" Round Culvert**
			L= 1,260.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 53.50' / 52.00' S= 0.0012 '/' Cc= 0.900
			n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf
#2	Primary	65.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=2.28 cfs @ 13.07 hrs HW=65.47' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.28 cfs @ 2.90 fps)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Summary for Pond GSF 11: grassed soil filter

Inflow Area = 0.991 ac, 36.78% Impervious, Inflow Depth = 2.46" for 10-year event
Inflow = 2.86 cfs @ 12.09 hrs, Volume= 0.203 af
Outflow = 0.45 cfs @ 12.59 hrs, Volume= 0.154 af, Atten= 84%, Lag= 29.9 min
Primary = 0.03 cfs @ 12.59 hrs, Volume= 0.073 af
Secondary = 0.43 cfs @ 12.59 hrs, Volume= 0.081 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.18' @ 12.59 hrs Surf.Area= 5,079 sf Storage= 4,648 cf
Flood Elev= 63.00' Surf.Area= 5,598 sf Storage= 7,213 cf

Plug-Flow detention time= 572.7 min calculated for 0.154 af (76% of inflow)
Center-of-Mass det. time= 486.7 min (1,307.4 - 820.7)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	5,560 cf	**gsf11 (Irregular)** Listed below (Recalc)
#2	58.24'	1,653 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		7,213 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,200	181.0	0	0	2,200
62.00	2,771	200.0	2,480	2,480	2,807
63.00	3,400	219.0	3,080	5,560	3,474

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.24	2,198	0.0	0	0
58.25	2,198	40.0	9	9
58.99	2,198	40.0	651	659
59.00	2,198	30.0	7	666
59.49	2,198	30.0	323	989
59.50	2,198	20.0	4	993
61.00	2,198	20.0	659	1,653

Device	Routing	Invert	Outlet Devices
#1	Primary	58.25'	**0.7" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	58.05'	**8.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.05' / 57.78' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	62.00'	**4.0" Vert. Orifice/Grate X 6.00** C= 0.600
#5	Device 3	62.50'	**25.7" Horiz. cb19 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 12.59 hrs HW=62.18' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.03 cfs @ 9.51 fps)
└─**2=Exfiltration** (Passes 0.03 cfs of 0.12 cfs potential flow)

Secondary OutFlow Max=0.43 cfs @ 12.59 hrs HW=62.18' (Free Discharge)
└─**3=Culvert** (Passes 0.43 cfs of 2.59 cfs potential flow)
├─**4=Orifice/Grate** (Orifice Controls 0.43 cfs @ 1.45 fps)
└─**5=cb19 beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 12: grassed soil filter

Inflow Area = 0.297 ac, 57.98% Impervious, Inflow Depth = 2.92" for 10-year event
Inflow = 1.00 cfs @ 12.09 hrs, Volume= 0.072 af
Outflow = 0.29 cfs @ 12.43 hrs, Volume= 0.051 af, Atten= 71%, Lag= 20.8 min
Primary = 0.01 cfs @ 12.43 hrs, Volume= 0.024 af
Secondary = 0.28 cfs @ 12.43 hrs, Volume= 0.027 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.95' @ 12.43 hrs Surf.Area= 2,072 sf Storage= 1,651 cf
Flood Elev= 62.50' Surf.Area= 2,255 sf Storage= 2,348 cf

Plug-Flow detention time= 576.3 min calculated for 0.051 af (70% of inflow)
Center-of-Mass det. time= 483.6 min (1,287.9 - 804.3)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	1,681 cf	**gsf12 (Irregular)** Listed below (Recalc)
#2	58.24'	667 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		2,348 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	886	151.0	0	0	886
62.00	1,201	164.0	1,040	1,040	1,248
62.50	1,368	170.0	642	1,681	1,428

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.24	887	0.0	0	0
58.25	887	40.0	4	4
58.99	887	40.0	263	266
59.00	887	30.0	3	269
59.49	887	30.0	130	399
59.50	887	20.0	2	401
61.00	887	20.0	266	667

Device	Routing	Invert	Outlet Devices
#1	Primary	58.25'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	58.20'	**8.0" Round Culvert** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.20' / 58.10' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	61.90'	**25.7" Horiz. cb15a beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.43 hrs HW=61.95' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.24 fps)
└**2=Exfiltration** (Passes 0.01 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=0.27 cfs @ 12.43 hrs HW=61.95' (Free Discharge)
└**3=Culvert** (Passes 0.27 cfs of 2.45 cfs potential flow)
└**4=cb15a beehive equiv** (Weir Controls 0.27 cfs @ 0.75 fps)

Summary for Pond GSF 13: grassed soil filter

Inflow Area = 1.037 ac, 46.46% Impervious, Inflow Depth = 2.64" for 10-year event
Inflow = 3.19 cfs @ 12.09 hrs, Volume= 0.228 af
Outflow = 0.66 cfs @ 12.52 hrs, Volume= 0.176 af, Atten= 79%, Lag= 26.1 min
Primary = 0.03 cfs @ 12.52 hrs, Volume= 0.096 af
Secondary = 0.63 cfs @ 12.52 hrs, Volume= 0.080 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.09' @ 12.52 hrs Surf.Area= 6,107 sf Storage= 5,204 cf
Flood Elev= 63.00' Surf.Area= 7,083 sf Storage= 8,909 cf

Plug-Flow detention time= 614.2 min calculated for 0.176 af (77% of inflow)
Center-of-Mass det. time= 532.0 min (1,346.5 - 814.5)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	7,028 cf	**gsf13 (Irregular)** Listed below (Recalc)
#2	58.24'	1,881 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		8,909 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,500	328.0	0	0	2,500
62.00	3,513	347.0	2,992	2,992	3,575
63.00	4,582	366.0	4,036	7,028	4,710

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.24	2,501	0.0	0	0
58.25	2,501	40.0	10	10
58.99	2,501	40.0	740	750
59.00	2,501	30.0	8	758
59.49	2,501	30.0	368	1,125
59.50	2,501	20.0	5	1,130
61.00	2,501	20.0	750	1,881

Device	Routing	Invert	Outlet Devices
#1	Primary	58.25'	**0.8" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	58.05'	**8.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900

			Inlet / Outlet Invert= 58.05' / 57.82' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	62.00'	**25.7" Horiz. cb18 beehive equiv** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 12.52 hrs HW=62.09' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.03 cfs @ 9.40 fps)
↑—**2=Exfiltration** (Passes 0.03 cfs of 0.14 cfs potential flow)

Secondary OutFlow Max=0.62 cfs @ 12.52 hrs HW=62.09' (Free Discharge)
↑—**3=Culvert** (Passes 0.62 cfs of 2.56 cfs potential flow)
↑—**4=cb18 beehive equiv** (Weir Controls 0.62 cfs @ 1.00 fps)

Summary for Pond GSF 15: grassed soil filter

Inflow Area = 0.210 ac, 1.92% Impervious, Inflow Depth = 1.74" for 10-year event
Inflow = 0.42 cfs @ 12.09 hrs, Volume= 0.031 af
Outflow = 0.12 cfs @ 12.48 hrs, Volume= 0.021 af, Atten= 72%, Lag= 23.6 min
Primary = 0.00 cfs @ 12.48 hrs, Volume= 0.005 af
Secondary = 0.12 cfs @ 12.48 hrs, Volume= 0.015 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.73' @ 12.48 hrs Surf.Area= 1,311 sf Storage= 600 cf
Flood Elev= 65.00' Surf.Area= 2,017 sf Storage= 1,939 cf

Plug-Flow detention time= 408.3 min calculated for 0.021 af (68% of inflow)
Center-of-Mass det. time= 304.2 min (1,150.6 - 846.3)

Volume	Invert	Avail.Storage	Storage Description
#1	63.50'	1,489 cf	**gsf15 (Irregular)** Listed below (Recalc)
#2	60.74'	450 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,939 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
63.50	600	168.0	0	0	600
64.00	858	177.0	363	363	862
65.00	1,418	196.0	1,126	1,489	1,456

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.74	599	0.0	0	0
60.75	599	40.0	2	2
61.49	599	40.0	177	180
61.50	599	30.0	2	181
61.99	599	30.0	88	270
62.00	599	20.0	1	271
63.50	599	20.0	180	450

Device	Routing	Invert	Outlet Devices
#1	Primary	60.75'	**0.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	60.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	60.70'	**8.0" Round Culvert** L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.52' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	63.70'	**25.7" Horiz. cb9 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.48 hrs HW=63.73' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.30 fps)
└─**2=Exfiltration** (Passes 0.00 cfs of 0.03 cfs potential flow)

Secondary OutFlow Max=0.11 cfs @ 12.48 hrs HW=63.73' (Free Discharge)
└─**3=Culvert** (Passes 0.11 cfs of 2.18 cfs potential flow)
└─**4=cb9 beehive equiv** (Weir Controls 0.11 cfs @ 0.55 fps)

Summary for Pond GSF 16: grassed soil filter

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth = 2.37" for 10-year event
Inflow = 0.97 cfs @ 12.09 hrs, Volume= 0.069 af
Outflow = 0.01 cfs @ 24.07 hrs, Volume= 0.023 af, Atten= 99%, Lag= 718.7 min
Primary = 0.01 cfs @ 24.07 hrs, Volume= 0.023 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 64.07' @ 24.07 hrs Surf.Area= 2,911 sf Storage= 2,644 cf

Plug-Flow detention time= 1,076.0 min calculated for 0.023 af (33% of inflow)
Center-of-Mass det. time= 947.6 min (1,771.3 - 823.7)

Volume	Invert	Avail.Storage	Storage Description
#1	62.75'	4,054 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	60.74'	753 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		4,806 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.75	1,000	215.0	0	0	1,000
63.00	1,165	220.0	270	270	1,181
64.00	1,858	241.0	1,498	1,768	1,986
65.00	2,741	270.0	2,285	4,054	3,192

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.74	1,001	0.0	0	0
60.75	1,001	40.0	4	4
61.49	1,001	40.0	296	300
61.50	1,001	30.0	3	303
61.99	1,001	30.0	147	450
62.00	1,001	20.0	2	452
63.50	1,001	20.0	300	753

Device	Routing	Invert	Outlet Devices
#1	Primary	60.75'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	60.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	60.70'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.54' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	64.40'	**25.7" Horiz. cb8 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 24.07 hrs HW=64.07' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 8.74 fps)
└─**2=Exfiltration** (Passes 0.01 cfs of 0.07 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=60.74' (Free Discharge)
└─**3=Culvert** (Passes 0.00 cfs of 0.00 cfs potential flow)
└─**4=cb8 beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 18A: grassed soil filter

Inflow Area = 0.146 ac, 40.91% Impervious, Inflow Depth = 2.55" for 10-year event
Inflow = 0.43 cfs @ 12.09 hrs, Volume= 0.031 af
Outflow = 0.01 cfs @ 17.50 hrs, Volume= 0.014 af, Atten= 98%, Lag= 324.7 min
Primary = 0.00 cfs @ 17.50 hrs, Volume= 0.012 af
Secondary = 0.01 cfs @ 17.50 hrs, Volume= 0.002 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.40' @ 17.50 hrs Surf.Area= 2,031 sf Storage= 1,090 cf

Plug-Flow detention time= 1,006.9 min calculated for 0.014 af (45% of inflow)
Center-of-Mass det. time= 889.4 min (1,707.0 - 817.6)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	1,183 cf	**gsf18a (Irregular)** Listed below (Recalc)
#2	54.24'	686 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,868 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	900	183.0	0	0	900
58.00	1,490	202.0	1,183	1,183	1,513

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
54.24	912	0.0	0	0
54.25	912	40.0	4	4
54.99	912	40.0	270	274
55.00	912	30.0	3	276
55.49	912	30.0	134	410
55.50	912	20.0	2	412
57.00	912	20.0	274	686

Device	Routing	Invert	Outlet Devices
#1	Primary	54.25'	**0.3" Vert. Orifice/Grate** C= 0.600
#2	Device 1	54.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.40'	**25.7" Horiz. cb24 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 17.50 hrs HW=57.40' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.53 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 17.50 hrs HW=57.40' (Free Discharge)
↑—**3=Culvert** (Passes 0.00 cfs of 2.32 cfs potential flow)
↑—**4=cb24 beehive equiv** (Weir Controls 0.00 cfs @ 0.12 fps)

Summary for Pond GSF 18B: grassed soil filter

Inflow Area = 0.092 ac, 58.36% Impervious, Inflow Depth = 2.92" for 10-year event
Inflow = 0.31 cfs @ 12.09 hrs, Volume= 0.022 af
Outflow = 0.03 cfs @ 12.85 hrs, Volume= 0.013 af, Atten= 89%, Lag= 45.5 min
Primary = 0.00 cfs @ 12.85 hrs, Volume= 0.006 af
Secondary = 0.03 cfs @ 12.85 hrs, Volume= 0.007 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.91' @ 12.85 hrs Surf.Area= 850 sf Storage= 599 cf

Plug-Flow detention time= 629.9 min calculated for 0.013 af (56% of inflow)
Center-of-Mass det. time= 523.2 min (1,327.5 - 804.3)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	430 cf	**gsf18a (Irregular)** Listed below (Recalc)
#2	54.24'	221 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		651 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	290	88.0	0	0	290
58.00	587	107.0	430	430	601

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
54.24	294	0.0	0	0
54.25	294	40.0	1	1
54.99	294	40.0	87	88
55.00	294	30.0	1	89
55.49	294	30.0	43	132
55.50	294	20.0	1	133
57.00	294	20.0	88	221

Device	Routing	Invert	Outlet Devices
#1	Primary	54.25'	**0.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	54.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.90'	**25.7" Horiz. cb23 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.85 hrs HW=57.91' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 9.20 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.02 cfs potential flow)

Secondary OutFlow Max=0.02 cfs @ 12.85 hrs HW=57.91' (Free Discharge)
↑—**3=Culvert** (Passes 0.02 cfs of 2.51 cfs potential flow)
↑—**4=cb23 beehive equiv** (Weir Controls 0.02 cfs @ 0.31 fps)

Summary for Pond GSF 1A: Grassed soil filter

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth = 2.55" for 10-year event
Inflow = 1.22 cfs @ 12.09 hrs, Volume= 0.087 af
Outflow = 0.12 cfs @ 12.98 hrs, Volume= 0.059 af, Atten= 90%, Lag= 53.5 min
Primary = 0.01 cfs @ 12.98 hrs, Volume= 0.035 af
Secondary = 0.11 cfs @ 12.98 hrs, Volume= 0.024 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 66.32' @ 12.98 hrs Surf.Area= 3,601 sf Storage= 2,229 cf
Flood Elev= 68.00' Surf.Area= 5,086 sf Storage= 6,753 cf

Plug-Flow detention time= 699.1 min calculated for 0.059 af (68% of inflow)
Center-of-Mass det. time= 601.5 min (1,419.1 - 817.6)

Volume	Invert	Avail.Storage	Storage Description
#1	65.75'	5,554 cf	**Grassed Underdrain Soil Filter (Irregular)** Listed below (Recalc)
#2	62.99'	1,198 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		6,753 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.75	1,600	234.0	0	0	1,600
66.00	1,775	239.0	422	422	1,797
67.00	2,525	261.0	2,139	2,561	2,708
68.00	3,488	286.0	2,994	5,554	3,830

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.99	1,598	0.0	0	0
63.00	1,598	40.0	6	6
63.74	1,598	40.0	473	479
63.75	1,598	30.0	5	484
64.24	1,598	30.0	235	719
64.25	1,598	20.0	3	722
65.74	1,598	20.0	476	1,198

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	**0.5" Vert. Orifice/Grate** C= 0.600
#2	Device 1	62.99'	**2.400 in/hr Exfiltration over Surface area**
#3	Secondary	62.50'	**8.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.50' / 62.26' S= 0.0089 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	66.30'	**25.7" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.98 hrs HW=66.32' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 8.75 fps)
└─**2=Exfiltration** (Passes 0.01 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.08 cfs @ 12.98 hrs HW=66.32' (Free Discharge)
└─**3=Culvert** (Passes 0.08 cfs of 2.48 cfs potential flow)
└─**4=Orifice/Grate** (Weir Controls 0.08 cfs @ 0.49 fps)

Summary for Pond GSF 1B: grassed soil filter

Inflow Area = 0.570 ac, 27.49% Impervious, Inflow Depth = 2.29" for 10-year event
Inflow = 1.53 cfs @ 12.09 hrs, Volume= 0.109 af
Outflow = 0.81 cfs @ 12.23 hrs, Volume= 0.095 af, Atten= 47%, Lag= 8.6 min
Primary = 0.01 cfs @ 12.23 hrs, Volume= 0.039 af
Secondary = 0.80 cfs @ 12.23 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 66.97' @ 12.23 hrs Surf.Area= 2,266 sf Storage= 1,772 cf
Flood Elev= 67.00' Surf.Area= 2,309 sf Storage= 1,826 cf

Plug-Flow detention time= 450.5 min calculated for 0.095 af (87% of inflow)
Center-of-Mass det. time= 392.7 min (1,219.4 - 826.7)

Volume	Invert	Avail.Storage	Storage Description
#1	65.50'	32,509 cf	**gsf1B (Irregular)** Listed below (Recalc)
#2	62.74'	545 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		33,054 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.50	393	187.0	0	0	393
66.00	583	194.0	242	242	626
67.00	1,576	297.0	1,039	1,282	4,658
68.00	3,199	450.0	2,340	3,622	13,760
69.00	68,644	2,673.0	28,887	32,509	566,223

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.74	733	0.0	0	0
62.75	733	40.0	3	3
63.40	733	40.0	191	194
63.50	733	30.0	22	216
63.99	733	30.0	108	323
64.00	733	20.0	1	325
65.50	733	20.0	220	545

Device	Routing	Invert	Outlet Devices
#1	Primary	62.75'	**0.5" Vert. Orifice/Grate** C= 0.600
#2	Device 1	62.74'	**1.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#3	Secondary	62.70'	**8.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.70' / 62.60' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	66.90'	**25.7" Horiz. CB16 beehive grate equiv dbl X 2.00** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.23 hrs HW=66.97' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.86 fps)
└**2=Exfiltration** (Passes 0.01 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=0.73 cfs @ 12.23 hrs HW=66.97' (Free Discharge)
└**3=Culvert** (Passes 0.73 cfs of 2.63 cfs potential flow)
└**4=CB16 beehive grate equiv dbl** (Weir Controls 0.73 cfs @ 0.83 fps)

Summary for Pond GSF 2: grassed soil filter

Inflow Area = 0.713 ac, 25.93% Impervious, Inflow Depth = 2.21" for 10-year event
Inflow = 1.85 cfs @ 12.09 hrs, Volume= 0.131 af
Outflow = 0.44 cfs @ 12.50 hrs, Volume= 0.104 af, Atten= 76%, Lag= 24.9 min
Primary = 0.02 cfs @ 12.50 hrs, Volume= 0.052 af
Secondary = 0.42 cfs @ 12.50 hrs, Volume= 0.051 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.67' @ 12.50 hrs Surf.Area= 3,628 sf Storage= 2,793 cf
Flood Elev= 59.00' Surf.Area= 4,991 sf Storage= 6,448 cf

Plug-Flow detention time= 576.2 min calculated for 0.104 af (79% of inflow)
Center-of-Mass det. time= 496.1 min (1,325.7 - 829.6)

Volume	Invert	Avail.Storage	Storage Description
#1	56.75'	5,317 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	53.99'	1,130 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		6,448 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.75	1,500	218.0	0	0	1,500
57.00	1,669	223.0	396	396	1,684
58.00	2,371	245.0	2,010	2,406	2,536
59.00	3,488	283.0	2,912	5,317	4,154

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.99	1,503	0.0	0	0
54.00	1,503	40.0	6	6
54.74	1,503	40.0	445	451
54.75	1,503	30.0	5	455
55.24	1,503	30.0	221	676
55.25	1,503	20.0	3	679
56.75	1,503	20.0	451	1,130

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	53.99'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	53.95'	**8.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.95' / 53.76' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.60'	**25.7" Horiz. cb20 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.50 hrs HW=57.67' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.19 fps)
└**2=Exfiltration** (Passes 0.02 cfs of 0.08 cfs potential flow)

Secondary OutFlow Max=0.40 cfs @ 12.50 hrs HW=57.67' (Free Discharge)
└**3=Culvert** (Passes 0.40 cfs of 2.44 cfs potential flow)
└**4=cb20 beehive equiv** (Weir Controls 0.40 cfs @ 0.86 fps)

Summary for Pond GSF 24: grassed soil filter

Inflow Area = 0.419 ac, 67.19% Impervious, Inflow Depth = 3.31" for 10-year event
Inflow = 1.56 cfs @ 12.08 hrs, Volume= 0.116 af
Outflow = 0.54 cfs @ 12.36 hrs, Volume= 0.093 af, Atten= 65%, Lag= 16.4 min
Primary = 0.02 cfs @ 12.36 hrs, Volume= 0.054 af
Secondary = 0.53 cfs @ 12.36 hrs, Volume= 0.040 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 40.68' @ 12.36 hrs Surf.Area= 3,248 sf Storage= 2,561 cf

Plug-Flow detention time= 620.8 min calculated for 0.093 af (81% of inflow)
Center-of-Mass det. time= 547.1 min (1,335.5 - 788.3)

Volume	Invert	Avail.Storage	Storage Description
#1	39.75'	4,479 cf	**gsf24 (Irregular)** Listed below (Recalc)
#2	36.99'	1,054 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		5,533 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
39.75	1,400	150.0	0	0	1,400
40.00	1,516	156.0	364	364	1,551
41.00	2,013	176.0	1,759	2,123	2,105
42.00	2,717	200.0	2,356	4,479	2,847

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
36.99	1,401	0.0	0	0
37.00	1,401	40.0	6	6
37.74	1,401	40.0	415	420
37.75	1,401	30.0	4	425
38.24	1,401	30.0	206	630
38.25	1,401	20.0	3	633
39.75	1,401	20.0	420	1,054

Device	Routing	Invert	Outlet Devices
#1	Primary	37.00'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	36.99'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	36.80'	**8.0" Round Culvert** L= 40.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 36.80' / 36.00' S= 0.0200 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4 Device 3 40.60' **25.7" Horiz. cb32 beehive equiv** C= 0.600
Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.36 hrs HW=40.68' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.21 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.08 cfs potential flow)

Secondary OutFlow Max=0.51 cfs @ 12.36 hrs HW=40.68' (Free Discharge)
↑—**3=Culvert** (Passes 0.51 cfs of 2.50 cfs potential flow)
↑—**4=cb32 beehive equiv** (Weir Controls 0.51 cfs @ 0.93 fps)

Summary for Pond GSF 3: grassed soil filter

Inflow Area = 0.830 ac, 36.22% Impervious, Inflow Depth = 2.37" for 10-year event
Inflow = 2.31 cfs @ 12.09 hrs, Volume= 0.164 af
Outflow = 0.65 cfs @ 12.46 hrs, Volume= 0.125 af, Atten= 72%, Lag= 22.1 min
Primary = 0.02 cfs @ 12.46 hrs, Volume= 0.054 af
Secondary = 0.63 cfs @ 12.46 hrs, Volume= 0.071 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 55.84' @ 12.46 hrs Surf.Area= 4,122 sf Storage= 3,447 cf
Flood Elev= 57.00' Surf.Area= 5,449 sf Storage= 7,083 cf

Plug-Flow detention time= 525.4 min calculated for 0.125 af (76% of inflow)
Center-of-Mass det. time= 439.3 min (1,263.0 - 823.7)

Volume	Invert	Avail.Storage	Storage Description
#1	54.75'	5,872 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	51.99'	1,211 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		7,083 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.75	1,600	268.0	0	0	1,600
55.00	1,804	274.0	425	425	1,868
56.00	2,657	295.0	2,217	2,642	2,860
57.00	3,839	332.0	3,230	5,872	4,733

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.99	1,610	0.0	0	0
52.00	1,610	40.0	6	6
52.74	1,610	40.0	477	483
52.75	1,610	30.0	5	488
53.24	1,610	30.0	237	725
53.25	1,610	20.0	3	728
54.75	1,610	20.0	483	1,211

Device	Routing	Invert	Outlet Devices
#1	Primary	52.00'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.99'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.95'	**12.0" Round Culvert**
			L= 14.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 51.95' / 51.81' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	55.75'	**25.7" Horiz. cb25 beehive equiv** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.46 hrs HW=55.84' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.41 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.10 cfs potential flow)

Secondary OutFlow Max=0.62 cfs @ 12.46 hrs HW=55.84' (Free Discharge)
↑—**3=Culvert** (Passes 0.62 cfs of 5.50 cfs potential flow)
↑—**4=cb25 beehive equiv** (Weir Controls 0.62 cfs @ 1.00 fps)

Summary for Pond GSF 4: grassed soil filter

Inflow Area = 0.194 ac, 0.00% Impervious, Inflow Depth = 1.74" for 10-year event
Inflow = 0.39 cfs @ 12.09 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 13.19 hrs, Volume= 0.021 af, Atten= 90%, Lag= 65.9 min
Primary = 0.00 cfs @ 13.19 hrs, Volume= 0.013 af
Secondary = 0.03 cfs @ 13.19 hrs, Volume= 0.008 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.11' @ 13.19 hrs Surf.Area= 1,115 sf Storage= 683 cf
Flood Elev= 56.00' Surf.Area= 1,431 sf Storage= 1,405 cf

Plug-Flow detention time= 693.2 min calculated for 0.021 af (74% of inflow)
Center-of-Mass det. time= 599.5 min (1,445.8 - 846.3)

Volume	Invert	Avail.Storage	Storage Description
#1	54.50'	1,061 cf	**gsf4 (Irregular)** Listed below (Recalc)
#2	51.74'	344 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,405 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.50	457	163.0	0	0	457
55.00	623	169.0	269	269	636
56.00	974	182.0	792	1,061	1,039

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.74	457	0.0	0	0
51.75	457	40.0	2	2
52.49	457	40.0	135	137
52.50	457	30.0	1	138
52.99	457	30.0	67	206
53.00	457	20.0	1	207
54.50	457	20.0	137	344

Device	Routing	Invert	Outlet Devices
#1	Primary	51.75'	**0.3" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.70'	**8.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.70' / 51.53' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	55.10'	**25.7" Horiz. cb26 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 13.19 hrs HW=55.11' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.81 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.03 cfs potential flow)

Secondary OutFlow Max=0.02 cfs @ 13.19 hrs HW=55.11' (Free Discharge)
↑—**3=Culvert** (Passes 0.02 cfs of 2.33 cfs potential flow)
↑—**4=cb26 beehive equiv** (Weir Controls 0.02 cfs @ 0.33 fps)

Summary for Pond GSF 5: grassed soil filter

Inflow Area = 0.248 ac, 0.00% Impervious, Inflow Depth = 1.74" for 10-year event
Inflow = 0.50 cfs @ 12.09 hrs, Volume= 0.036 af
Outflow = 0.04 cfs @ 13.59 hrs, Volume= 0.023 af, Atten= 91%, Lag= 89.6 min
Primary = 0.00 cfs @ 13.59 hrs, Volume= 0.013 af
Secondary = 0.04 cfs @ 13.59 hrs, Volume= 0.011 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.61' @ 13.59 hrs Surf.Area= 1,573 sf Storage= 927 cf
Flood Elev= 55.00' Surf.Area= 1,857 sf Storage= 1,360 cf

Plug-Flow detention time= 679.3 min calculated for 0.023 af (65% of inflow)
Center-of-Mass det. time= 570.4 min (1,416.7 - 846.3)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	908 cf	**gsf5 (Irregular)** Listed below (Recalc)
#2	51.24'	451 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,360 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	600	210.0	0	0	600
55.00	1,257	228.0	908	908	1,265

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.24	600	0.0	0	0
51.25	600	40.0	2	2
51.99	600	40.0	178	180
52.00	600	30.0	2	182
52.49	600	30.0	88	270
52.50	600	20.0	1	271
54.00	600	20.0	180	451

Device	Routing	Invert	Outlet Devices
#1	Primary	51.25'	**0.3" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.00'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.95' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	54.60'	**25.7" Horiz. cb beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 13.59 hrs HW=54.61' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.81 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.04 cfs potential flow)

Secondary OutFlow Max=0.03 cfs @ 13.59 hrs HW=54.61' (Free Discharge)
↑—**3=Culvert** (Passes 0.03 cfs of 2.40 cfs potential flow)
↑—**4=cb beehive equiv** (Weir Controls 0.03 cfs @ 0.35 fps)

Summary for Pond GSF 6: grassed soil filter

Inflow Area = 0.321 ac, 32.06% Impervious, Inflow Depth = 2.37" for 10-year event
Inflow = 0.89 cfs @ 12.09 hrs, Volume= 0.064 af
Outflow = 0.09 cfs @ 12.98 hrs, Volume= 0.044 af, Atten= 90%, Lag= 53.7 min
Primary = 0.01 cfs @ 12.98 hrs, Volume= 0.023 af
Secondary = 0.08 cfs @ 12.98 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 48.27' @ 12.98 hrs Surf.Area= 2,172 sf Storage= 1,583 cf
Flood Elev= 50.00' Surf.Area= 2,772 sf Storage= 4,107 cf

Plug-Flow detention time= 642.2 min calculated for 0.044 af (69% of inflow)
Center-of-Mass det. time= 544.4 min (1,368.1 - 823.7)

Volume	Invert	Avail.Storage	Storage Description
#1	47.50'	3,352 cf	**gsf6 (Irregular)** Listed below (Recalc)
#2	44.74'	755 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		4,107 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
47.50	1,004	156.0	0	0	1,004
48.00	1,082	159.0	521	521	1,113
49.00	1,413	172.0	1,244	1,765	1,493
50.00	1,768	184.0	1,587	3,352	1,877

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
44.74	1,004	0.0	0	0
44.75	1,004	40.0	4	4
45.49	1,004	40.0	297	301
45.50	1,004	30.0	3	304
45.99	1,004	30.0	148	452
46.00	1,004	20.0	2	454
47.50	1,004	20.0	301	755

Device	Routing	Invert	Outlet Devices
#1	Primary	44.75'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	44.74'	**1.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#3	Secondary	44.70'	**8.0" Round culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.70' / 44.53' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	48.20'	**4.0" Vert. Orifice X 6.00** C= 0.600
#5	Device 3	49.00'	**25.7" Horiz. cb beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.98 hrs HW=48.27' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.02 fps)
└─**2=Exfiltration** (Passes 0.01 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=0.08 cfs @ 12.98 hrs HW=48.27' (Free Discharge)
└─**3=culvert** (Passes 0.08 cfs of 2.39 cfs potential flow)
├─**4=Orifice** (Orifice Controls 0.08 cfs @ 0.92 fps)
└─**5=cb beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 7: grassed soil filter

Inflow Area = 0.697 ac, 25.86% Impervious, Inflow Depth = 2.21" for 10-year event
Inflow = 1.80 cfs @ 12.09 hrs, Volume= 0.128 af
Outflow = 0.15 cfs @ 13.46 hrs, Volume= 0.086 af, Atten= 92%, Lag= 82.0 min
Primary = 0.02 cfs @ 13.46 hrs, Volume= 0.052 af
Secondary = 0.13 cfs @ 13.46 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 54.73' @ 13.46 hrs Surf.Area= 5,079 sf Storage= 3,371 cf
Flood Elev= 56.00' Surf.Area= 7,240 sf Storage= 8,558 cf

Plug-Flow detention time= 713.1 min calculated for 0.086 af (67% of inflow)
Center-of-Mass det. time= 611.9 min (1,441.5 - 829.6)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	7,026 cf	**gsf7 (Irregular)** Listed below (Recalc)
#2	51.24'	1,532 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		8,558 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	2,037	220.0	0	0	2,037
55.00	3,467	289.0	2,720	2,720	4,843
56.00	5,203	357.0	4,306	7,026	8,354

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.24	2,037	0.0	0	0
51.25	2,037	40.0	8	8
51.99	2,037	40.0	603	611
52.00	2,037	30.0	6	617
52.49	2,037	30.0	299	917
52.50	2,037	20.0	4	921
54.00	2,037	20.0	611	1,532

Device	Routing	Invert	Outlet Devices
#1	Primary	51.25'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.00'	**8.0" Round cb29** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.48' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	54.70'	**25.7" Horiz. cb beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 13.46 hrs HW=54.73' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 8.95 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.12 cfs potential flow)

Secondary OutFlow Max=0.11 cfs @ 13.46 hrs HW=54.73' (Free Discharge)
↑—**3=cb29** (Passes 0.11 cfs of 2.45 cfs potential flow)
↑—**4=cb beehive equiv** (Weir Controls 0.11 cfs @ 0.56 fps)

Summary for Pond GSF 8: grassed soil filter

Inflow Area = 1.046 ac, 55.78% Impervious, Inflow Depth = 2.82" for 10-year event
Inflow = 3.42 cfs @ 12.09 hrs, Volume= 0.246 af
Outflow = 1.13 cfs @ 12.39 hrs, Volume= 0.200 af, Atten= 67%, Lag= 18.2 min
Primary = 0.03 cfs @ 12.39 hrs, Volume= 0.098 af
Secondary = 1.10 cfs @ 12.39 hrs, Volume= 0.101 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.74' @ 12.39 hrs Surf.Area= 5,287 sf Storage= 5,118 cf
Flood Elev= 58.50' Surf.Area= 5,815 sf Storage= 7,903 cf

Plug-Flow detention time= 549.3 min calculated for 0.200 af (81% of inflow)
Center-of-Mass det. time= 475.8 min (1,283.6 - 807.8)

Volume	Invert	Avail.Storage	Storage Description
#1	56.50'	6,471 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	53.74'	1,433 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		7,903 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.50	2,600	200.0	0	0	2,600
57.50	3,227	218.0	2,908	2,908	3,234
58.50	3,910	237.0	3,563	6,471	3,959

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.74	1,905	0.0	0	0
53.75	1,905	40.0	8	8
54.49	1,905	40.0	564	572
54.50	1,905	30.0	6	577
54.99	1,905	30.0	280	857
55.00	1,905	20.0	4	861
56.50	1,905	20.0	572	1,433

Device	Routing	Invert	Outlet Devices
#1	Primary	53.75'	**0.8" Vert. Orifice/Grate** C= 0.600
#2	Device 1	53.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	53.50'	**8.0" Round cb10 culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.50' / 52.93' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.60'	**25.7" Horiz. cb10 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 12.39 hrs HW=57.74' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.03 cfs @ 9.57 fps)
└**2=Exfiltration** (Passes 0.03 cfs of 0.12 cfs potential flow)

Secondary OutFlow Max=1.10 cfs @ 12.39 hrs HW=57.74' (Free Discharge)
└**3=cb10 culvert** (Passes 1.10 cfs of 2.56 cfs potential flow)
└**4=cb10 beehive equiv** (Weir Controls 1.10 cfs @ 1.20 fps)

Summary for Pond GSF 9: grassed soil filter

Inflow Area = 0.647 ac, 63.29% Impervious, Inflow Depth = 3.01" for 10-year event
Inflow = 2.24 cfs @ 12.09 hrs, Volume= 0.162 af
Outflow = 1.44 cfs @ 12.18 hrs, Volume= 0.140 af, Atten= 36%, Lag= 5.6 min
Primary = 0.02 cfs @ 12.18 hrs, Volume= 0.052 af
Secondary = 1.42 cfs @ 12.18 hrs, Volume= 0.087 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.11' @ 12.18 hrs Surf.Area= 4,342 sf Storage= 2,757 cf
Flood Elev= 65.00' Surf.Area= 6,073 sf Storage= 8,972 cf

Plug-Flow detention time= 415.7 min calculated for 0.140 af (86% of inflow)
Center-of-Mass det. time= 354.5 min (1,155.1 - 800.7)

Volume	Invert	Avail.Storage	Storage Description
#1	62.50'	7,539 cf	**gsf9 (Irregular)** Listed below (Recalc)
#2	59.24'	1,433 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		8,972 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.50	1,905	437.0	0	0	1,905
63.00	2,345	443.0	1,061	1,061	2,379
64.00	3,244	455.0	2,782	3,843	3,347
65.00	4,168	468.0	3,696	7,539	4,408

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.24	1,905	0.0	0	0
59.25	1,905	40.0	8	8
59.99	1,905	40.0	564	572
60.00	1,905	30.0	6	577
60.49	1,905	30.0	280	857
60.50	1,905	20.0	4	861
62.00	1,905	20.0	572	1,433

Device	Routing	Invert	Outlet Devices
#1	Primary	59.25'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	59.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	59.00'	**8.0" Round Culvert** L= 54.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.00' / 57.92' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	62.95'	**25.7" Horiz. cb6 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.18 hrs HW=63.11' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.43 fps)
└**2=Exfiltration** (Passes 0.02 cfs of 0.10 cfs potential flow)

Secondary OutFlow Max=1.41 cfs @ 12.18 hrs HW=63.11' (Free Discharge)
└**3=Culvert** (Passes 1.41 cfs of 2.58 cfs potential flow)
└**4=cb6 beehive equiv** (Weir Controls 1.41 cfs @ 1.31 fps)

Summary for Pond ics 12: ICS 12

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 3.96" for 10-year event
Inflow = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af
Outflow = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af, Atten= 0%, Lag= 0.0 min
Primary = 9.88 cfs @ 12.08 hrs, Volume= 0.352 af
Secondary = 0.71 cfs @ 12.08 hrs, Volume= 0.501 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.78' @ 12.08 hrs
Flood Elev= 65.42'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**18.0" Round Culvert** L= 4.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.15' S= 0.1375 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	62.95'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	60.75'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.75' / 60.72' S= 0.0060 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	60.75'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=9.92 cfs @ 12.08 hrs HW=63.78' (Free Discharge)
└**1=Culvert** (Passes 9.92 cfs of 10.24 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 9.92 cfs @ 3.00 fps)

Secondary OutFlow Max=0.71 cfs @ 12.08 hrs HW=63.78' (Free Discharge)
└**3=Culvert** (Passes 0.71 cfs of 4.74 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 0.71 cfs @ 8.14 fps)

Summary for Pond ICS1: ICS 1

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 3.96" for 10-year event
Inflow = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af
Outflow = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af, Atten= 0%, Lag= 0.0 min
Primary = 0.70 cfs @ 12.08 hrs, Volume= 0.421 af
Secondary = 9.90 cfs @ 12.08 hrs, Volume= 0.432 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 66.29' @ 12.08 hrs
Flood Elev= 69.38'

Device	Routing	Invert	Outlet Devices
#1	Secondary	63.37'	**18.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.37' / 63.27' S= 0.0043 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	64.31'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	63.37'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.37' / 63.37' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	63.37'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.70 cfs @ 12.08 hrs HW=66.28' (Free Discharge)
↑—**3=Culvert** (Passes 0.70 cfs of 4.64 cfs potential flow)
↑—**4=Orifice/Grate** (Orifice Controls 0.70 cfs @ 7.98 fps)

Secondary OutFlow Max=9.88 cfs @ 12.08 hrs HW=66.28' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 9.88 cfs @ 5.59 fps)
↑—**2=Broad-Crested Rectangular Weir** (Passes 9.88 cfs of 36.80 cfs potential flow)

Summary for Pond ICS18: ICS18

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth = 3.96" for 10-year event
Inflow = 1.79 cfs @ 12.08 hrs, Volume= 0.144 af
Outflow = 1.79 cfs @ 12.08 hrs, Volume= 0.144 af, Atten= 0%, Lag= 0.0 min
Primary = 0.66 cfs @ 12.08 hrs, Volume= 0.127 af
Secondary = 1.12 cfs @ 12.08 hrs, Volume= 0.017 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.46' @ 12.08 hrs
Flood Elev= 62.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.81'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.81' / 57.80' S= 0.0020 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.81'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 4	60.25'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#4	Secondary	57.80'	**12.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.80' / 56.96' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.66 cfs @ 12.08 hrs HW=60.46' (Free Discharge)
↑—**1=Culvert** (Passes 0.66 cfs of 2.02 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.66 cfs @ 7.59 fps)

Secondary OutFlow Max=1.12 cfs @ 12.08 hrs HW=60.46' (Free Discharge)
↑—**4=Culvert** (Passes 1.12 cfs of 4.39 cfs potential flow)
↑—**3=Broad-Crested Rectangular Weir** (Weir Controls 1.12 cfs @ 1.30 fps)

Summary for Pond ics28: ICS28

Inflow Area =	0.275 ac,	100.00% Impervious,	Inflow Depth =	3.96" for 10-year event
Inflow =	1.13 cfs @	12.08 hrs, Volume=	0.091 af	
Outflow =	1.13 cfs @	12.08 hrs, Volume=	0.091 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.64 cfs @	12.08 hrs, Volume=	0.086 af	
Secondary =	0.49 cfs @	12.08 hrs, Volume=	0.005 af	

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.62' @ 12.08 hrs
Flood Elev= 63.95'

Device	Routing	Invert	Outlet Devices
#1	Secondary	58.00'	**8.0" Round Culvert** L= 10.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.00' / 57.90' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	60.50'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	58.15'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.15' / 58.12' S= 0.0060 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	58.15'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.64 cfs @ 12.08 hrs HW=60.62' (Free Discharge)
└**3=Culvert** (Passes 0.64 cfs of 1.94 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 0.64 cfs @ 7.31 fps)

Secondary OutFlow Max=0.49 cfs @ 12.08 hrs HW=60.62' (Free Discharge)
└**1=Culvert** (Passes 0.49 cfs of 2.01 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 0.49 cfs @ 0.98 fps)

Summary for Pond ICS37: ISC37

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 3.96" for 10-year event
Inflow = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af
Outflow = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af, Atten= 0%, Lag= 0.0 min
Primary = 5.19 cfs @ 12.08 hrs, Volume= 0.787 af
Secondary = 5.41 cfs @ 12.08 hrs, Volume= 0.067 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.58' @ 12.08 hrs
Flood Elev= 57.00'

Device	Routing	Invert	Outlet Devices
#1	Secondary	52.50'	**18.0" Round Culvert** L= 51.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.50' / 52.00' S= 0.0098 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	52.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Primary	52.80'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=5.19 cfs @ 12.08 hrs HW=55.58' (Free Discharge)
├**3=Culvert** (Inlet Controls 4.51 cfs @ 5.74 fps)
└**4=Orifice/Grate** (Orifice Controls 0.68 cfs @ 7.78 fps)

Secondary OutFlow Max=5.38 cfs @ 12.08 hrs HW=55.58' (Free Discharge)
└**1=Culvert** (Passes 5.38 cfs of 10.25 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 5.38 cfs @ 2.33 fps)

Summary for Pond ics46: ICS46

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 3.96" for 10-year event
Inflow = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af
Outflow = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af, Atten= 0%, Lag= 0.0 min
Primary = 0.71 cfs @ 12.08 hrs, Volume= 0.501 af
Secondary = 9.88 cfs @ 12.08 hrs, Volume= 0.353 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 49.82' @ 12.08 hrs
Flood Elev= 55.50'

Device	Routing	Invert	Outlet Devices
#1	Secondary	46.20'	**18.0" Round Culvert** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.20' / 46.00' S= 0.0091 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	49.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	46.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.80' / 46.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	46.80'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.71 cfs @ 12.08 hrs HW=49.82' (Free Discharge)
└**3=Culvert** (Passes 0.71 cfs of 4.74 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 0.71 cfs @ 8.14 fps)

Secondary OutFlow Max=9.87 cfs @ 12.08 hrs HW=49.82' (Free Discharge)
└**1=Culvert** (Passes 9.87 cfs of 11.39 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 9.87 cfs @ 3.00 fps)

Summary for Pond ICS9: ICS9

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 3.96" for 10-year event
Inflow = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af
Outflow = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af, Atten= 0%, Lag= 0.0 min
Primary = 0.71 cfs @ 12.08 hrs, Volume= 0.500 af
Secondary = 9.88 cfs @ 12.08 hrs, Volume= 0.353 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 65.00' @ 12.08 hrs
Flood Elev= 66.76'

Device	Routing	Invert	Outlet Devices
#1	Secondary	61.70'	**18.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.70' / 61.00' S= 0.0500 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	64.18'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	62.00'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.00' / 61.65' S= 0.0700 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

#4 Device 3 62.00' **4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.71 cfs @ 12.08 hrs HW=65.00' (Free Discharge)
└**3=Culvert** (Passes 0.71 cfs of 4.72 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 0.71 cfs @ 8.11 fps)

Secondary OutFlow Max=9.86 cfs @ 12.08 hrs HW=65.00' (Free Discharge)
└**1=Culvert** (Passes 9.86 cfs of 10.73 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 9.86 cfs @ 3.00 fps)

Summary for Pond ISC42: ICS 42

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 3.96" for 10-year event
Inflow = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af
Outflow = 10.59 cfs @ 12.08 hrs, Volume= 0.854 af, Atten= 0%, Lag= 0.0 min
Primary = 5.56 cfs @ 12.08 hrs, Volume= 0.796 af
Secondary = 5.03 cfs @ 12.08 hrs, Volume= 0.057 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.92' @ 12.08 hrs
Flood Elev= 57.00'

Device	Routing	Invert	Outlet Devices
#1	Secondary	52.20'	**18.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.20' / 51.88' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.37'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	52.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Primary	52.80'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=5.56 cfs @ 12.08 hrs HW=55.92' (Free Discharge)
├**3=Culvert** (Inlet Controls 4.84 cfs @ 6.16 fps)
└**4=Orifice/Grate** (Orifice Controls 0.72 cfs @ 8.28 fps)

Secondary OutFlow Max=5.01 cfs @ 12.08 hrs HW=55.92' (Free Discharge)
└**1=Culvert** (Passes 5.01 cfs of 11.58 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 5.01 cfs @ 2.26 fps)

Summary for Pond MPP 10: Rtank storage

Inflow Area = 0.710 ac,100.00% Impervious, Inflow Depth = 3.96" for 10-year event
Inflow = 2.91 cfs @ 12.08 hrs, Volume= 0.235 af
Outflow = 1.69 cfs @ 12.19 hrs, Volume= 0.216 af, Atten= 42%, Lag= 6.5 min
Primary = 1.69 cfs @ 12.19 hrs, Volume= 0.216 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.80' @ 12.19 hrs Surf.Area= 0.179 ac Storage= 0.067 af

Plug-Flow detention time= 128.1 min calculated for 0.216 af (92% of inflow)
Center-of-Mass det. time= 86.7 min (837.8 - 751.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.23'	0.091 af	**6.25'W x 1,248.97'L x 1.94'H Field A** 0.347 af Overall - 0.118 af Embedded = 0.229 af x 40.0% Voids
#2A	61.48'	0.112 af	**ACF R-Tank HD 0.5** x 2128 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 4 Rows of 532 Chambers
		0.204 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	61.48'	**8.0" Round Culvert X 6.00** L= 2.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.48' / 61.40' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.69 cfs @ 12.19 hrs HW=61.80' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 1.69 cfs @ 2.50 fps)

Summary for Pond MPP 14: Rtanks

Inflow Area = 0.215 ac, 94.36% Impervious, Inflow Depth = 3.85" for 10-year event
Inflow = 0.87 cfs @ 12.08 hrs, Volume= 0.069 af
Outflow = 0.53 cfs @ 12.18 hrs, Volume= 0.065 af, Atten= 39%, Lag= 6.1 min
Primary = 0.53 cfs @ 12.18 hrs, Volume= 0.065 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.59' @ 12.18 hrs Surf.Area= 1,935 sf Storage= 829 cf
Flood Elev= 60.50' Surf.Area= 1,935 sf Storage= 2,354 cf

Plug-Flow detention time= 118.5 min calculated for 0.065 af (94% of inflow)
Center-of-Mass det. time= 83.2 min (842.7 - 759.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	55.98'	1,011 cf	**15.44'W x 125.33'L x 2.04'H Field A** 3,941 cf Overall - 1,413 cf Embedded = 2,528 cf x 40.0% Voids
#2A	56.23'	1,343 cf	**ACF R-Tank HD 0.5** x 583 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 11 Rows of 53 Chambers
		2,354 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	56.23'	**8.0" Round Culvert X 2.00** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.23' / 56.12' S= 0.0052 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.53 cfs @ 12.18 hrs HW=56.59' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.53 cfs @ 1.99 fps)

Summary for Pond MPP 19: Rtanks

Inflow Area = 0.315 ac, 80.35% Impervious, Inflow Depth = 3.41" for 10-year event
Inflow = 1.20 cfs @ 12.08 hrs, Volume= 0.090 af
Outflow = 0.33 cfs @ 12.43 hrs, Volume= 0.081 af, Atten= 72%, Lag= 20.8 min
Primary = 0.33 cfs @ 12.43 hrs, Volume= 0.081 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.58' @ 12.43 hrs Surf.Area= 0.074 ac Storage= 0.042 af

Plug-Flow detention time= 208.7 min calculated for 0.081 af (90% of inflow)
Center-of-Mass det. time= 161.9 min (945.6 - 783.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.83'	0.033 af	**18.06'W x 179.28'L x 1.84'H Field A** 0.137 af Overall - 0.055 af Embedded = 0.082 af x 40.0% Voids
#2A	55.08'	0.052 af	**ACF R-Tank HD 0.5** x 988 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 76 Chambers
		0.085 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.08'	**6.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.08' / 55.00' S= 0.0042 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.33 cfs @ 12.43 hrs HW=55.58' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.33 cfs @ 2.08 fps)

Summary for Pond MPP 21: Rtanks

Inflow Area = 0.263 ac, 68.92% Impervious, Inflow Depth = 3.21" for 10-year event
Inflow = 0.96 cfs @ 12.09 hrs, Volume= 0.070 af
Outflow = 0.43 cfs @ 12.27 hrs, Volume= 0.067 af, Atten= 56%, Lag= 11.0 min
Primary = 0.43 cfs @ 12.27 hrs, Volume= 0.067 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.36' @ 12.27 hrs Surf.Area= 1,510 sf Storage= 1,011 cf

Plug-Flow detention time= 119.5 min calculated for 0.067 af (95% of inflow)
Center-of-Mass det. time= 89.6 min (882.3 - 792.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.48'	818 cf	**16.75'W x 90.14'L x 2.09'H Field A** 3,151 cf Overall - 1,105 cf Embedded = 2,046 cf x 40.0% Voids
#2A	54.73'	1,050 cf	**ACF R-Tank HD 0.5** x 456 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 38 Chambers
		1,868 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.73'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.73' / 54.73' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.43 cfs @ 12.27 hrs HW=55.36' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.43 cfs @ 2.23 fps)

Summary for Pond MPP 22: Rtanks

Inflow Area = 0.309 ac, 61.12% Impervious, Inflow Depth = 3.01" for 10-year event
Inflow = 1.07 cfs @ 12.09 hrs, Volume= 0.077 af
Outflow = 0.28 cfs @ 12.46 hrs, Volume= 0.069 af, Atten= 74%, Lag= 22.3 min
Primary = 0.28 cfs @ 12.46 hrs, Volume= 0.069 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.51' @ 12.46 hrs Surf.Area= 3,003 sf Storage= 1,571 cf

Plug-Flow detention time= 213.6 min calculated for 0.069 af (89% of inflow)
Center-of-Mass det. time= 163.2 min (963.9 - 800.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.80'	1,262 cf	**16.75'W x 179.28'L x 1.79'H Field A** 5,367 cf Overall - 2,211 cf Embedded = 3,156 cf x 40.0% Voids
#2A	55.05'	2,100 cf	**ACF R-Tank HD 0.5** x 912 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 76 Chambers
		3,363 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.05'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.05' / 55.05' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.28 cfs @ 12.46 hrs HW=55.51' (Free Discharge)
↑**1=Culvert** (Barrel Controls 0.28 cfs @ 1.92 fps)

Summary for Pond MPP 26: Rtanks

Inflow Area = 0.088 ac,100.00% Impervious, Inflow Depth = 3.96" for 10-year event
Inflow = 0.36 cfs @ 12.08 hrs, Volume= 0.029 af
Outflow = 0.19 cfs @ 12.21 hrs, Volume= 0.026 af, Atten= 48%, Lag= 7.9 min
Primary = 0.19 cfs @ 12.21 hrs, Volume= 0.026 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 34.89' @ 12.21 hrs Surf.Area= 1,289 sf Storage= 448 cf

Plug-Flow detention time= 165.2 min calculated for 0.026 af (89% of inflow)
Center-of-Mass det. time= 114.1 min (865.1 - 751.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	34.37'	492 cf	**18.06'W x 71.37'L x 1.69'H Field A** 2,175 cf Overall - 945 cf Embedded = 1,230 cf x 40.0% Voids
#2A	34.62'	898 cf	**ACF R-Tank HD 0.5** x 390 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 30 Chambers
		1,390 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	34.62'	**8.0" Round Culvert** L= 8.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 34.62' / 34.34' S= 0.0350 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.19 cfs @ 12.21 hrs HW=34.89' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.19 cfs @ 1.40 fps)

Summary for Pond MPP 50:

Inflow Area = 0.693 ac,100.00% Impervious, Inflow Depth = 3.96" for 10-year event
Inflow = 2.84 cfs @ 12.08 hrs, Volume= 0.229 af
Outflow = 1.85 cfs @ 12.17 hrs, Volume= 0.200 af, Atten= 35%, Lag= 5.4 min
Primary = 1.85 cfs @ 12.17 hrs, Volume= 0.200 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.95' @ 12.17 hrs Surf.Area= 5,946 sf Storage= 3,076 cf

Plug-Flow detention time= 149.5 min calculated for 0.200 af (87% of inflow)
Center-of-Mass det. time= 91.4 min (842.4 - 751.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.33'	2,878 cf	**4.94'W x 1,204.40'L x 1.84'H Field A** 10,925 cf Overall - 3,731 cf Embedded = 7,195 cf x 40.0% Voids
#2A	54.33'	3,544 cf	**ACF R-Tank HD 0.5** x 1539 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 3 Rows of 513 Chambers
		6,422 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.58'	**8.0" Round Culvert X 7.00** L= 3.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.58' / 54.55' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.84 cfs @ 12.17 hrs HW=54.95' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 1.84 cfs @ 1.94 fps)

Summary for Pond mpp30: Rtanks

Inflow Area = 1.205 ac, 54.78% Impervious, Inflow Depth = 2.58" for 10-year event
Inflow = 3.46 cfs @ 12.09 hrs, Volume= 0.259 af
Outflow = 0.55 cfs @ 12.58 hrs, Volume= 0.259 af, Atten= 84%, Lag= 29.6 min
Primary = 0.55 cfs @ 12.58 hrs, Volume= 0.259 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 31.13' @ 12.58 hrs Surf.Area= 9,089 sf Storage= 4,276 cf
Flood Elev= 31.78' Surf.Area= 9,089 sf Storage= 8,611 cf

Plug-Flow detention time= 87.6 min calculated for 0.259 af (100% of inflow)
Center-of-Mass det. time= 87.8 min (887.9 - 800.1)

Volume	Invert	Avail.Storage	Storage Description
#1B	30.73'	4,011 cf	**8.56'W x 815.99'L x 2.04'H Field B** 14,234 cf Overall - 4,206 cf Embedded = 10,028 cf x 40.0% Voids
#2B	30.98'	3,995 cf	**ACF R-Tank HD 0.5** x 1735 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 5 Rows of 347 Chambers
#3C	29.28'	259 cf	**10.56'W x 74.72'L x 1.69'H Field C** 1,337 cf Overall - 689 cf Embedded = 648 cf x 40.0% Voids
#4C	29.53'	654 cf	**ACF R-Tank HD 1.0** x 155 Inside #3 Inside= 15.7"W x 17.3"H => 1.80 sf x 2.35'L = 4.2 cf Outside= 15.7"W x 17.3"H => 1.89 sf x 2.35'L = 4.4 cf 5 Rows of 31 Chambers
#5D	29.28'	968 cf	**17.12'W x 76.72'L x 3.42'H Field D** 4,487 cf Overall - 2,066 cf Embedded = 2,420 cf x 40.0% Voids
#6D	29.53'	1,963 cf	**ACF R-Tank HD 1.5** x 310 Inside #5 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 10 Rows of 31 Chambers
		11,851 cf	Total Available Storage

Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard
Storage Group D created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	29.28'	**18.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 29.28' / 29.00' S= 0.0140 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Primary	29.28'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	30.00'	**3.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.55 cfs @ 12.58 hrs HW=31.13' (Free Discharge)
└─**1=Culvert** (Passes 0.24 cfs of 7.04 cfs potential flow)
  └─**3=Orifice/Grate** (Orifice Controls 0.24 cfs @ 4.82 fps)
└─**2=Orifice/Grate** (Orifice Controls 0.31 cfs @ 6.32 fps)

Summary for Pond SSF 36: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 1.96" for 10-year event
Inflow = 0.70 cfs @ 12.08 hrs, Volume= 0.421 af
Outflow = 0.32 cfs @ 15.82 hrs, Volume= 0.323 af, Atten= 54%, Lag= 224.1 min
Primary = 0.08 cfs @ 15.82 hrs, Volume= 0.235 af
Secondary = 0.24 cfs @ 15.82 hrs, Volume= 0.088 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 64.54' @ 15.82 hrs Surf.Area= 11,270 sf Storage= 11,075 cf
Flood Elev= 66.27' Surf.Area= 11,270 sf Storage= 16,373 cf

Plug-Flow detention time= 867.7 min calculated for 0.323 af (77% of inflow)
Center-of-Mass det. time= 747.3 min (1,523.2 - 775.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	62.77'	5,035 cf	**25.25'W x 223.16'L x 3.50'H Field A** 19,722 cf Overall - 7,135 cf Embedded = 12,587 cf x 40.0% Voids
#2A	63.27'	7,135 cf	**ADS_StormTech SC-740** x 155 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 5 rows
#3	60.02'	4,204 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,373 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.02	5,635	0.0	0	0
60.03	5,635	40.0	23	23
60.76	5,635	40.0	1,645	1,668
60.77	5,635	30.0	17	1,685
61.26	5,635	30.0	828	2,513
61.27	5,635	20.0	11	2,524
62.76	5,635	20.0	1,679	4,204

Device	Routing	Invert	Outlet Devices
#1	Primary	60.02'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	60.02'	**1.500 in/hr Exfiltration over Surface area above 60.02'** Excluded Surface area = 5,635 sf
#3	Secondary	64.31'	**12.0" Round Culvert X 2.00** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 64.31' / 64.31' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 15.82 hrs HW=64.54' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.19 fps)
└**2=Exfiltration** (Passes 0.08 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.23 cfs @ 15.82 hrs HW=64.54' (Free Discharge)
└**3=Culvert** (Barrel Controls 0.23 cfs @ 1.26 fps)

Summary for Pond ssf37: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.32" for 10-year event
Inflow = 0.71 cfs @ 12.08 hrs, Volume= 0.500 af
Outflow = 0.51 cfs @ 14.26 hrs, Volume= 0.402 af, Atten= 27%, Lag= 130.8 min
Primary = 0.08 cfs @ 14.26 hrs, Volume= 0.237 af
Secondary = 0.43 cfs @ 14.26 hrs, Volume= 0.165 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.34' @ 14.26 hrs Surf.Area= 11,332 sf Storage= 11,768 cf
Flood Elev= 64.85' Surf.Area= 11,332 sf Storage= 16,132 cf

Plug-Flow detention time= 726.9 min calculated for 0.402 af (80% of inflow)
Center-of-Mass det. time= 628.5 min (1,397.2 - 768.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.35'	5,284 cf	**11.00'W x 515.08'L x 3.50'H Field A** 19,831 cf Overall - 6,621 cf Embedded = 13,210 cf x 40.0% Voids
#2A	61.85'	6,621 cf	**ADS_StormTech SC-740** x 144 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	58.60'	4,227 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,132 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.60	5,666	0.0	0	0
58.61	5,666	40.0	23	23
59.34	5,666	40.0	1,654	1,677
59.35	5,666	30.0	17	1,694
59.84	5,666	30.0	833	2,527
59.85	5,666	20.0	11	2,538
61.34	5,666	20.0	1,688	4,227

Device	Routing	Invert	Outlet Devices
#1	Primary	58.60'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.60'	**1.500 in/hr Exfiltration over Surface area above 58.60'** Excluded Surface area = 5,666 sf
#3	Secondary	62.89'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.89' / 62.89' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 14.26 hrs HW=63.34' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.43 fps)
↑—**2=Exfiltration** (Passes 0.08 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.43 cfs @ 14.26 hrs HW=63.34' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.43 cfs @ 1.85 fps)

Summary for Pond ssf38: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 1.64" for 10-year event
Inflow = 9.88 cfs @ 12.08 hrs, Volume= 0.352 af
Outflow = 1.29 cfs @ 12.53 hrs, Volume= 0.255 af, Atten= 87%, Lag= 26.7 min
Primary = 0.08 cfs @ 12.53 hrs, Volume= 0.162 af
Secondary = 1.20 cfs @ 12.53 hrs, Volume= 0.093 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.45' @ 12.53 hrs Surf.Area= 11,332 sf Storage= 13,019 cf
Flood Elev= 63.62' Surf.Area= 11,332 sf Storage= 16,132 cf

Plug-Flow detention time= 518.3 min calculated for 0.255 af (72% of inflow)
Center-of-Mass det. time= 509.3 min (1,235.3 - 726.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	60.12'	5,284 cf	**11.00'W x 515.08'L x 3.50'H Field A** 19,831 cf Overall - 6,621 cf Embedded = 13,210 cf x 40.0% Voids
#2A	60.62'	6,621 cf	**ADS_StormTech SC-740** x 144 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	57.37'	4,227 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,132 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.37	5,666	0.0	0	0
57.38	5,666	40.0	23	23
58.11	5,666	40.0	1,654	1,677
58.12	5,666	30.0	17	1,694
58.61	5,666	30.0	833	2,527
58.62	5,666	20.0	11	2,538
60.11	5,666	20.0	1,688	4,227

Device	Routing	Invert	Outlet Devices
#1	Primary	57.37'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	57.37'	**1.500 in/hr Exfiltration over Surface area above 57.37'** Excluded Surface area = 5,666 sf
#3	Secondary	61.66'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.66' / 61.66' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 12.53 hrs HW=62.45' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.79 fps)
└**2=Exfiltration** (Passes 0.08 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=1.20 cfs @ 12.53 hrs HW=62.45' (Free Discharge)
└**3=Culvert** (Barrel Controls 1.20 cfs @ 2.49 fps)

Summary for Pond ssf39: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 3.65" for 10-year event
Inflow = 5.19 cfs @ 12.08 hrs, Volume= 0.787 af
Outflow = 3.06 cfs @ 12.41 hrs, Volume= 0.661 af, Atten= 41%, Lag= 19.5 min
Primary = 0.09 cfs @ 12.41 hrs, Volume= 0.240 af
Secondary = 2.97 cfs @ 12.41 hrs, Volume= 0.420 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.20' @ 12.41 hrs Surf.Area= 12,365 sf Storage= 17,179 cf
Flood Elev= 55.67' Surf.Area= 12,365 sf Storage= 18,385 cf

Plug-Flow detention time= 478.7 min calculated for 0.660 af (84% of inflow)
Center-of-Mass det. time= 408.6 min (1,161.8 - 753.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	52.17'	5,625 cf	**58.50'W x 109.24'L x 3.50'H Field A** 22,367 cf Overall - 8,303 cf Embedded = 14,064 cf x 40.0% Voids
#2A	52.67'	8,303 cf	**ADS_StormTech SC-740** x 180 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 12 rows
#3	49.42'	4,457 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		18,385 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
49.42	5,974	0.0	0	0
49.43	5,974	40.0	24	24
50.16	5,974	40.0	1,744	1,768
50.17	5,974	30.0	18	1,786
50.66	5,974	30.0	878	2,664
50.67	5,974	20.0	12	2,676
52.16	5,974	20.0	1,780	4,457

Device	Routing	Invert	Outlet Devices
#1	Primary	49.42'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	49.42'	**1.500 in/hr Exfiltration over Surface area above 49.42'** Excluded Surface area = 5,974 sf
#3	Secondary	53.71'	**12.0" Round Culvert**

L= 5.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 53.71' / 53.71' S= 0.0000 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.09 cfs @ 12.41 hrs HW=55.20' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.09 cfs @ 11.52 fps)
└**2=Exfiltration** (Passes 0.09 cfs of 0.22 cfs potential flow)

Secondary OutFlow Max=2.97 cfs @ 12.41 hrs HW=55.20' (Free Discharge)
└**3=Culvert** (Inlet Controls 2.97 cfs @ 3.78 fps)

Summary for Pond ssf40: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 3.70" for 10-year event
Inflow = 5.56 cfs @ 12.08 hrs, Volume= 0.796 af
Outflow = 3.51 cfs @ 12.36 hrs, Volume= 0.692 af, Atten= 37%, Lag= 16.8 min
Primary = 0.09 cfs @ 12.36 hrs, Volume= 0.239 af
Secondary = 3.42 cfs @ 12.36 hrs, Volume= 0.453 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.52' @ 12.36 hrs Surf.Area= 11,484 sf Storage= 16,286 cf
Flood Elev= 55.67' Surf.Area= 11,484 sf Storage= 16,630 cf

Plug-Flow detention time= 443.0 min calculated for 0.692 af (87% of inflow)
Center-of-Mass det. time= 381.5 min (1,134.4 - 752.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	52.17'	5,168 cf	**20.50'W x 280.12'L x 3.50'H Field A** 20,099 cf Overall - 7,178 cf Embedded = 12,921 cf x 40.0% Voids
#2A	52.67'	7,178 cf	**ADS_StormTech SC-740** x 156 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 4 rows
#3	49.42'	4,284 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,630 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
49.42	5,742	0.0	0	0
49.43	5,742	40.0	23	23
50.16	5,742	40.0	1,677	1,700
50.17	5,742	30.0	17	1,717
50.66	5,742	30.0	844	2,561
50.67	5,742	20.0	11	2,572
52.16	5,742	20.0	1,711	4,284

Device	Routing	Invert	Outlet Devices
#1	Primary	49.42'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	49.42'	**1.500 in/hr Exfiltration over Surface area above 49.42'** Excluded Surface area = 5,742 sf
#3	Secondary	53.71'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.71' / 53.71' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.09 cfs @ 12.36 hrs HW=55.52' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.09 cfs @ 11.84 fps)
└**2=Exfiltration** (Passes 0.09 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=3.42 cfs @ 12.36 hrs HW=55.52' (Free Discharge)
└**3=Culvert** (Inlet Controls 3.42 cfs @ 4.35 fps)

Summary for Pond ssf41: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.33" for 10-year event
Inflow = 0.71 cfs @ 12.08 hrs, Volume= 0.501 af
Outflow = 0.50 cfs @ 14.34 hrs, Volume= 0.400 af, Atten= 29%, Lag= 135.6 min
Primary = 0.08 cfs @ 14.34 hrs, Volume= 0.238 af
Secondary = 0.42 cfs @ 14.34 hrs, Volume= 0.162 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 48.15' @ 14.34 hrs Surf.Area= 11,270 sf Storage= 11,933 cf
Flood Elev= 49.67' Surf.Area= 11,270 sf Storage= 16,373 cf

Plug-Flow detention time= 735.3 min calculated for 0.400 af (80% of inflow)
Center-of-Mass det. time= 634.8 min (1,403.5 - 768.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	46.17'	5,035 cf	**25.25'W x 223.16'L x 3.50'H Field A** 19,722 cf Overall - 7,135 cf Embedded = 12,587 cf x 40.0% Voids
#2A	46.67'	7,135 cf	**ADS_StormTech SC-740** x 155 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 5 rows
#3	43.42'	4,204 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,373 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
43.42	5,635	0.0	0	0
43.43	5,635	40.0	23	23
44.16	5,635	40.0	1,645	1,668
44.17	5,635	30.0	17	1,685
44.66	5,635	30.0	828	2,513
44.67	5,635	20.0	11	2,524
46.16	5,635	20.0	1,679	4,204

Device	Routing	Invert	Outlet Devices
#1	Primary	43.42'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	43.42'	**1.500 in/hr Exfiltration over Surface area above 43.42'** Excluded Surface area = 5,635 sf
#3	Secondary	47.71'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 47.71' / 47.71' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 14.34 hrs HW=48.15' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.42 fps)
↑—**2=Exfiltration** (Passes 0.08 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.42 cfs @ 14.34 hrs HW=48.15' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.42 cfs @ 1.83 fps)

Summary for Pond ssf42: ssf

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth = 3.75" for 10-year event
Inflow = 0.64 cfs @ 12.08 hrs, Volume= 0.086 af
Outflow = 0.56 cfs @ 12.23 hrs, Volume= 0.069 af, Atten= 12%, Lag= 8.6 min
Primary = 0.01 cfs @ 12.23 hrs, Volume= 0.027 af
Secondary = 0.55 cfs @ 12.23 hrs, Volume= 0.042 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.66' @ 12.23 hrs Surf.Area= 1,422 sf Storage= 1,707 cf
Flood Elev= 61.67' Surf.Area= 1,422 sf Storage= 2,027 cf

Plug-Flow detention time= 496.3 min calculated for 0.069 af (81% of inflow)
Center-of-Mass det. time= 418.4 min (1,170.9 - 752.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	58.17'	662 cf	**15.75'W x 45.16'L x 3.50'H Field A** 2,489 cf Overall - 835 cf Embedded = 1,654 cf x 40.0% Voids
#2A	58.67'	835 cf	**ADS_StormTech SC-740** x 18 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 3 rows
#3	55.42'	530 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		2,027 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.42	711	0.0	0	0
55.43	711	40.0	3	3
56.16	711	40.0	208	210
56.17	711	30.0	2	213
56.66	711	30.0	105	317
56.67	711	20.0	1	319
58.16	711	20.0	212	530

Device	Routing	Invert	Outlet Devices
#1	Primary	55.42'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	55.42'	**1.500 in/hr Exfiltration over Surface area above 55.42'** Excluded Surface area = 711 sf
#3	Secondary	60.06'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.05' / 60.06' S= -0.0020 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.01 cfs @ 12.23 hrs HW=60.66' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 11.00 fps)
↑—**2=Exfiltration** (Passes 0.01 cfs of 0.02 cfs potential flow)

Secondary OutFlow Max=0.55 cfs @ 12.23 hrs HW=60.66' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.55 cfs @ 2.15 fps)

Summary for Pond ssf43: ssf

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth = 3.50" for 10-year event
Inflow = 0.66 cfs @ 12.08 hrs, Volume= 0.127 af
Outflow = 0.63 cfs @ 12.34 hrs, Volume= 0.108 af, Atten= 5%, Lag= 15.4 min
Primary = 0.02 cfs @ 12.34 hrs, Volume= 0.042 af
Secondary = 0.61 cfs @ 12.34 hrs, Volume= 0.065 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.93' @ 12.34 hrs Surf.Area= 1,934 sf Storage= 2,330 cf
Flood Elev= 60.90' Surf.Area= 1,934 sf Storage= 2,740 cf

Plug-Flow detention time= 484.9 min calculated for 0.108 af (85% of inflow)
Center-of-Mass det. time= 415.4 min (1,169.8 - 754.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	57.40'	910 cf	**11.00'W x 87.88'L x 3.50'H Field A** 3,383 cf Overall - 1,108 cf Embedded = 2,275 cf x 40.0% Voids
#2A	57.90'	1,108 cf	**ADS_StormTech SC-740** x 24 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	54.65'	721 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		2,740 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
54.65	967	0.0	0	0
54.66	967	40.0	4	4
55.39	967	40.0	282	286
55.40	967	30.0	3	289
55.89	967	30.0	142	431
55.90	967	20.0	2	433
57.39	967	20.0	288	721

Device	Routing	Invert	Outlet Devices
#1	Primary	54.65'	**0.5" Vert. Orifice/Grate** C= 0.600
#2	Device 1	54.65'	**1.500 in/hr Exfiltration over Surface area above 54.65'** Excluded Surface area = 967 sf
#3	Secondary	59.28'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.28' / 59.28' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.02 cfs @ 12.34 hrs HW=59.93' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 11.05 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.03 cfs potential flow)

Secondary OutFlow Max=0.61 cfs @ 12.34 hrs HW=59.93' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.61 cfs @ 2.23 fps)

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment1A: Runoff Area=17,785 sf 34.88% Impervious Runoff Depth=3.45"
Tc=6.0 min CN=84 Runoff=1.64 cfs 0.118 af

Subcatchment1B: Runoff Area=24,849 sf 27.49% Impervious Runoff Depth=3.16"
Tc=6.0 min CN=81 Runoff=2.11 cfs 0.150 af

Subcatchment2: Runoff Area=31,049 sf 25.93% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=80 Runoff=2.56 cfs 0.182 af

Subcatchment3: Runoff Area=36,147 sf 36.22% Impervious Runoff Depth=3.26"
Tc=6.0 min CN=82 Runoff=3.16 cfs 0.225 af

Subcatchment4: Runoff Area=8,448 sf 0.00% Impervious Runoff Depth=2.52"
Tc=6.0 min CN=74 Runoff=0.57 cfs 0.041 af

Subcatchment5: Runoff Area=10,807 sf 0.00% Impervious Runoff Depth=2.52"
Tc=6.0 min CN=74 Runoff=0.73 cfs 0.052 af

Subcatchment6: Runoff Area=13,985 sf 32.06% Impervious Runoff Depth=3.26"
Tc=6.0 min CN=82 Runoff=1.22 cfs 0.087 af

Subcatchment7: Runoff Area=30,345 sf 25.86% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=80 Runoff=2.50 cfs 0.178 af

Subcatchment8: Runoff Area=45,551 sf 55.78% Impervious Runoff Depth=3.76"
Tc=6.0 min CN=87 Runoff=4.51 cfs 0.327 af

Subcatchment9: Runoff Area=28,191 sf 63.29% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=89 Runoff=2.91 cfs 0.214 af

Subcatchment10: access drive north of Runoff Area=30,932 sf 100.00% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=98 Runoff=3.61 cfs 0.294 af

Subcatchment11: Runoff Area=43,174 sf 36.78% Impervious Runoff Depth=3.36"
Tc=6.0 min CN=83 Runoff=3.88 cfs 0.277 af

Subcatchment12: Runoff Area=12,920 sf 57.98% Impervious Runoff Depth=3.86"
Tc=6.0 min CN=88 Runoff=1.31 cfs 0.095 af

Subcatchment13: Runoff Area=45,163 sf 46.46% Impervious Runoff Depth=3.55"
Tc=6.0 min CN=85 Runoff=4.27 cfs 0.307 af

Subcatchment14: Runoff Area=9,378 sf 94.36% Impervious Runoff Depth=4.85"
Tc=6.0 min CN=97 Runoff=1.09 cfs 0.087 af

Subcatchment15: Runoff Area=9,157 sf 1.92% Impervious Runoff Depth=2.52"
Tc=6.0 min CN=74 Runoff=0.62 cfs 0.044 af

Subcatchment16: Runoff Area=15,110 sf 34.16% Impervious Runoff Depth=3.26"
Tc=6.0 min CN=82 Runoff=1.32 cfs 0.094 af

Subcatchment17: Runoff Area=13,300 sf 85.11% Impervious Runoff Depth=4.51"
Tc=6.0 min CN=94 Runoff=1.50 cfs 0.115 af

Subcatchment18A: Runoff Area=6,339 sf 40.91% Impervious Runoff Depth=3.45"
Tc=6.0 min CN=84 Runoff=0.58 cfs 0.042 af

Subcatchment18B: Runoff Area=4,023 sf 58.36% Impervious Runoff Depth=3.86"
Tc=6.0 min CN=88 Runoff=0.41 cfs 0.030 af

Subcatchment19: Runoff Area=13,711 sf 80.35% Impervious Runoff Depth=4.39"
Tc=6.0 min CN=93 Runoff=1.52 cfs 0.115 af

Subcatchment20: Runoff Area=28,459 sf 73.83% Impervious Runoff Depth=4.28"
Tc=6.0 min CN=92 Runoff=3.11 cfs 0.233 af

Subcatchment21: Runoff Area=11,452 sf 68.92% Impervious Runoff Depth=4.18"
Tc=6.0 min CN=91 Runoff=1.23 cfs 0.091 af

Subcatchment22: Runoff Area=13,444 sf 61.12% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=89 Runoff=1.39 cfs 0.102 af

Subcatchment23: sub 23 Runoff Area=28,475 sf 21.95% Impervious Runoff Depth=2.88"
Tc=6.0 min CN=78 Runoff=2.21 cfs 0.157 af

Subcatchment24: Runoff Area=18,261 sf 67.19% Impervious Runoff Depth=4.28"
Tc=6.0 min CN=92 Runoff=1.99 cfs 0.150 af

Subcatchment25: Runoff Area=118,223 sf 0.00% Impervious Runoff Depth=2.27"
Flow Length=438' Tc=67.0 min CN=71 Runoff=2.60 cfs 0.513 af

Subcatchment26: Runoff Area=3,816 sf 100.00% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=98 Runoff=0.45 cfs 0.036 af

Subcatchment27: Runoff Area=4,262 sf 100.00% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=98 Runoff=0.50 cfs 0.040 af

Subcatchment28: Runoff Area=79,698 sf 27.42% Impervious Runoff Depth=3.55"
Tc=6.0 min CN=85 Runoff=7.53 cfs 0.542 af

Subcatchment29: Runoff Area=1,306 sf 100.00% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=98 Runoff=0.15 cfs 0.012 af

Subcatchment30: Runoff Area=31,472 sf 77.98% Impervious Runoff Depth=4.39"
Tc=6.0 min CN=93 Runoff=3.49 cfs 0.265 af

Subcatchment31: Runoff Area=70,616 sf 0.00% Impervious Runoff Depth=2.27"
Flow Length=217' Tc=12.3 min CN=71 Runoff=3.46 cfs 0.307 af

Subcatchment32: Runoff Area=4,677 sf 60.42% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=89 Runoff=0.48 cfs 0.035 af

Subcatchment33: B3 green Runoff Area=107,893 sf 16.71% Impervious Runoff Depth=1.94"
Tc=6.0 min CN=67 Runoff=5.48 cfs 0.401 af

Subcatchment34: Runoff Area=24,099 sf 20.00% Impervious Runoff Depth=2.02"
Tc=6.0 min CN=68 Runoff=1.28 cfs 0.093 af

Subcatchment35: Runoff Area=20,997 sf 20.00% Impervious Runoff Depth=2.02"
Tc=6.0 min CN=68 Runoff=1.12 cfs 0.081 af

Subcatchment36: B1M1 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=98 Runoff=13.15 cfs 1.069 af

Subcatchment37: B1M2 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=98 Runoff=13.15 cfs 1.069 af

Subcatchment38: B1M3 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=98 Runoff=13.15 cfs 1.069 af

Subcatchment39: B2M4 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=98 Runoff=13.15 cfs 1.069 af

Subcatchment40: B2M5 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=98 Runoff=13.15 cfs 1.069 af

Subcatchment41: B2M6 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=98 Runoff=13.15 cfs 1.069 af

Subcatchment42: B6 Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=98 Runoff=1.40 cfs 0.114 af

Subcatchment43: B5 Runoff Area=18,983 sf 100.00% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=98 Runoff=2.22 cfs 0.180 af

Subcatchment44: onsite untreated Runoff Area=159,363 sf 0.00% Impervious Runoff Depth=2.27"
Flow Length=574' Tc=18.8 min CN=71 Runoff=6.64 cfs 0.692 af

Subcatchment45: Runoff Area=64,440 sf 0.00% Impervious Runoff Depth=2.19"
Flow Length=307' Tc=29.9 min CN=70 Runoff=2.11 cfs 0.269 af

Subcatchment46: SUBCAT8 Runoff Area=14,976 sf 0.00% Impervious Runoff Depth=2.27"
Flow Length=276' Tc=34.7 min CN=71 Runoff=0.48 cfs 0.065 af

Subcatchment47: Runoff Area=79,187 sf 6.00% Impervious Runoff Depth=2.61"
Flow Length=639' Tc=15.9 min CN=75 Runoff=4.10 cfs 0.396 af

Subcatchment48: Runoff Area=40,183 sf 0.00% Impervious Runoff Depth=2.19"
Flow Length=377' Tc=54.0 min CN=70 Runoff=0.97 cfs 0.168 af

Subcatchment49: Runoff Area=93,232 sf 0.59% Impervious Runoff Depth=2.27"
Flow Length=470' Tc=54.1 min CN=71 Runoff=2.34 cfs 0.405 af

Subcatchment50: Runoff Area=30,173 sf 100.00% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=98 Runoff=3.53 cfs 0.286 af

SubcatchmentOS10: OFFSITE 2 (above Runoff Area=1,644,982 sf 2.57% Impervious Runoff Depth=2.52"
Flow Length=2,221' Tc=94.2 min CN=74 Runoff=32.83 cfs 7.945 af

Subcatchmentos11a: OFFSITE 3 Runoff Area=192,533 sf 59.04% Impervious Runoff Depth=3.76"
Flow Length=532' Tc=6.8 min CN=87 Runoff=18.55 cfs 1.383 af

Subcatchmentos11b: OFFSITE 3 Runoff Area=320,814 sf 1.43% Impervious Runoff Depth=2.35"
Flow Length=528' Tc=18.9 min CN=72 Runoff=13.85 cfs 1.444 af

SubcatchmentOS9A: OFFSITE 1 (Below Runoff Area=153,823 sf 3.86% Impervious Runoff Depth=2.52"
Flow Length=561' Tc=26.6 min CN=74 Runoff=6.21 cfs 0.743 af

SubcatchmentOS9B: SUBCAT 4 Runoff Area=486,307 sf 2.34% Impervious Runoff Depth=2.52"
Flow Length=670' Tc=28.6 min CN=74 Runoff=18.98 cfs 2.349 af

SubcatchmentOS9C: SUBCAT 3 Runoff Area=178,147 sf 4.59% Impervious Runoff Depth=2.61"
Flow Length=655' Tc=10.1 min CN=75 Runoff=10.87 cfs 0.890 af

SubcatchmentOS9D: SUBCAT 2 Runoff Area=154,663 sf 0.00% Impervious Runoff Depth=2.44"
Flow Length=544' Tc=54.3 min CN=73 Runoff=4.20 cfs 0.721 af

Reach 9R: ANALYSISPOINT 9 Inflow=6.21 cfs 0.743 af
Outflow=6.21 cfs 0.743 af

Reach 10R: Perkins Road Culvert Avg. Flow Depth=1.69' Max Vel=11.61 fps Inflow=32.83 cfs 7.945 af
24.0" Round Pipe n=0.013 L=25.0' S=0.0200 '/' Capacity=31.99 cfs Outflow=32.83 cfs 7.945 af

Reach 11R: Stream 9 Inflow=18.55 cfs 1.383 af
Outflow=18.55 cfs 1.383 af

Reach 17R: untreated Inflow=1.50 cfs 0.115 af
Outflow=1.50 cfs 0.115 af

Reach 20R: untreated Inflow=3.11 cfs 0.233 af
Outflow=3.11 cfs 0.233 af

Reach 23R: sub 23 Inflow=2.21 cfs 0.157 af
Outflow=2.21 cfs 0.157 af

Reach 27R: extisting Inflow=0.50 cfs 0.040 af
Outflow=0.50 cfs 0.040 af

Reach 29R: untreated Inflow=0.15 cfs 0.012 af
Outflow=0.15 cfs 0.012 af

Reach 32R: untreated Inflow=0.48 cfs 0.035 af
Outflow=0.48 cfs 0.035 af

Reach 44R: Inflow=6.64 cfs 0.692 af
Outflow=6.64 cfs 0.692 af

Reach 47R: Inflow=4.10 cfs 0.396 af
Outflow=4.10 cfs 0.396 af

Reach 48R: (new Reach) Inflow=0.97 cfs 0.168 af
Outflow=0.97 cfs 0.168 af

Reach 49R: Inflow=2.34 cfs 0.405 af
Outflow=2.34 cfs 0.405 af

Reach PT1: ANALYSISPOINT 1 at BWD Little River Inflow=3.31 cfs 0.573 af
Outflow=3.31 cfs 0.573 af

Reach PT10: Analysis point at Little River Inflow=7.53 cfs 0.542 af
Outflow=7.53 cfs 0.542 af

Reach PT2: ANALYSISPOINT 2 at strm 3 Inflow=6.71 cfs 1.235 af
Outflow=6.71 cfs 1.235 af

Reach PT3: ANALYSISPOINT 3/4 at strm 5/6 Inflow=26.78 cfs 3.546 af
Outflow=26.78 cfs 3.546 af

Reach PT5: all BWD reservoir Inflow=30.02 cfs 4.780 af
Outflow=30.02 cfs 4.780 af

Reach PT6: stream 9 offsite Avg. Flow Depth=1.19' Max Vel=4.02 fps Inflow=35.51 cfs 10.072 af
n=0.040 L=483.0' S=0.0145 '/' Capacity=401.91 cfs Outflow=35.46 cfs 10.072 af

Reach PT7: ANALYSISPOINT7 at US Avg. Flow Depth=0.32' Max Vel=7.59 fps Inflow=2.11 cfs 0.269 af
18.0" Round Pipe n=0.013 L=83.0' S=0.0398 '/' Capacity=20.95 cfs Outflow=2.11 cfs 0.269 af

Reach PT8: ANALYSISPOINT 8 at US Avg. Flow Depth=0.04' Max Vel=3.93 fps Inflow=0.48 cfs 0.065 af
36.0" x 24.0" Box Pipe n=0.011 L=76.0' S=0.0632 '/' Capacity=144.91 cfs Outflow=0.48 cfs 0.065 af

Reach PT9: Analysis Point Stream 9 Avg. Flow Depth=0.97' Max Vel=22.88 fps Inflow=45.18 cfs 13.002 af
36.0" Round Pipe n=0.011 L=93.0' S=0.0645 '/' Capacity=200.22 cfs Outflow=45.18 cfs 13.002 af

Reach R9 B: offsite diversion strm 5/6 Inflow=24.51 cfs 3.239 af
Outflow=24.51 cfs 3.239 af

Reach R9D: offsite pont strm 3 Inflow=4.14 cfs 0.721 af
Outflow=4.14 cfs 0.721 af

Reach S9-2: Stream 9 Avg. Flow Depth=1.13' Max Vel=4.96 fps Inflow=41.73 cfs 12.208 af
n=0.040 L=1,580.0' S=0.0233 '/' Capacity=120.91 cfs Outflow=40.82 cfs 12.208 af

Reach S9-3: Stream 9 Avg. Flow Depth=1.09' Max Vel=4.96 fps Inflow=44.64 cfs 12.656 af
n=0.035 L=364.0' S=0.0199 '/' Capacity=152.29 cfs Outflow=44.59 cfs 12.656 af

Reach tank: existing clarifier Inflow=88.09 cfs 10.120 af
Outflow=88.09 cfs 10.120 af

Pond dmh10: dmh10 Peak Elev=60.54' Inflow=26.56 cfs 2.075 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=26.56 cfs 2.075 af

Pond dmh11: dmh11 Peak Elev=57.25' Inflow=29.24 cfs 3.322 af
30.0" Round Culvert n=0.013 L=84.0' S=0.0050 '/' Outflow=29.24 cfs 3.322 af

Pond dmh13: dmh13 Peak Elev=56.81' Inflow=29.24 cfs 3.322 af
30.0" Round Culvert n=0.013 L=201.0' S=0.0050 '/' Outflow=29.24 cfs 3.322 af

Pond dmh14: dmh14 Peak Elev=56.17' Inflow=31.52 cfs 3.513 af
30.0" Round Culvert n=0.020 L=23.0' S=0.0052 '/' Outflow=31.52 cfs 3.513 af

Pond dmh15: dmh15 Peak Elev=56.05' Inflow=31.52 cfs 3.513 af
30.0" Round Culvert n=0.013 L=90.0' S=0.0050 '/' Outflow=31.52 cfs 3.513 af

Pond dmh16: dmh16 Peak Elev=60.60' Inflow=0.04 cfs 0.033 af
12.0" Round Culvert n=0.013 L=198.0' S=0.0126 '/' Outflow=0.04 cfs 0.033 af

Pond dmh17: dmh17 Peak Elev=55.59' Inflow=31.53 cfs 3.581 af
30.0" Round Culvert n=0.013 L=35.0' S=0.0051 '/' Outflow=31.53 cfs 3.581 af

Pond dmh19: dmh 19 Peak Elev=55.51' Inflow=2.18 cfs 0.161 af
12.0" Round Culvert n=0.013 L=59.0' S=0.0100 '/' Outflow=2.18 cfs 0.161 af

Pond dmh2: dmh2 Peak Elev=67.15' Inflow=12.39 cfs 0.969 af
18.0" Round Culvert n=0.013 L=100.0' S=0.0150 '/' Outflow=12.39 cfs 0.969 af

Pond dmh20: dmh20 Peak Elev=55.79' Inflow=33.70 cfs 3.741 af
30.0" Round Culvert n=0.013 L=100.0' S=0.0050 '/' Outflow=33.70 cfs 3.741 af

Pond dmh21: dmh21 Peak Elev=57.14' Inflow=42.28 cfs 4.837 af
30.0" Round Culvert n=0.013 L=281.0' S=0.0169 '/' Outflow=42.28 cfs 4.837 af

Pond dmh22: dmh 22 Peak Elev=54.78' Inflow=7.61 cfs 0.815 af
15.0" Round Culvert n=0.013 L=93.0' S=0.0051 '/' Outflow=7.61 cfs 0.815 af

Pond dmh23: dmh23 Peak Elev=62.00' Inflow=6.44 cfs 0.598 af
12.0" Round Culvert n=0.013 L=138.0' S=0.0050 '/' Outflow=6.44 cfs 0.598 af

Pond dmh24: dmh24 Peak Elev=61.26' Inflow=6.44 cfs 0.598 af
12.0" Round Culvert n=0.013 L=72.0' S=0.0025 '/' Outflow=6.44 cfs 0.598 af

Pond dmh24a: dmh24a Peak Elev=60.91' Inflow=1.87 cfs 0.189 af
8.0" Round Culvert n=0.013 L=95.0' S=0.0095 '/' Outflow=1.87 cfs 0.189 af

Pond dmh25: dmh25 Peak Elev=60.45' Inflow=0.63 cfs 0.090 af
12.0" Round Culvert n=0.013 L=98.0' S=0.0510 '/' Outflow=0.63 cfs 0.090 af

Pond dmh26: dmh26 Peak Elev=59.64' Inflow=3.20 cfs 0.483 af
12.0" Round Culvert n=0.020 L=28.0' S=0.0050 '/' Outflow=3.20 cfs 0.483 af

Pond dmh27: dmh27 Peak Elev=57.59' Inflow=4.40 cfs 0.670 af
12.0" Round Culvert n=0.013 L=256.0' S=0.0050 '/' Outflow=4.40 cfs 0.670 af

Pond dmh29: dmh29 Peak Elev=59.22' Inflow=1.35 cfs 0.097 af
8.0" Round Culvert n=0.013 L=46.0' S=0.0100 '/' Outflow=1.35 cfs 0.097 af

Pond dmh3: dmh3 Peak Elev=62.89' Inflow=14.10 cfs 1.106 af
24.0" Round Culvert n=0.013 L=125.0' S=0.0053 '/' Outflow=14.10 cfs 1.106 af

Pond dmh30: dmh30 Peak Elev=56.12' Inflow=1.35 cfs 0.097 af
12.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=1.35 cfs 0.097 af

Pond dmh31: dmh31 Peak Elev=57.74' Inflow=3.82 cfs 0.580 af
12.0" Round Culvert n=0.013 L=259.0' S=0.0050 '/' Outflow=3.82 cfs 0.580 af

Pond dmh32: dmh32 Peak Elev=55.83' Inflow=5.67 cfs 0.824 af
12.0" Round Culvert n=0.013 L=36.0' S=0.0036 '/' Outflow=5.67 cfs 0.824 af

Pond dmh33: dmh33 Peak Elev=54.37' Inflow=0.43 cfs 0.107 af
12.0" Round Culvert n=0.013 L=201.0' S=0.0099 '/' Outflow=0.43 cfs 0.107 af

Pond dmh34: dmh34 Peak Elev=56.27' Inflow=5.80 cfs 0.553 af
12.0" Round Culvert n=0.013 L=39.0' S=0.0100 '/' Outflow=5.80 cfs 0.553 af

Pond dmh35: dmh35 Peak Elev=55.81' Inflow=10.95 cfs 1.563 af
18.0" Round Culvert n=0.013 L=276.0' S=0.0050 '/' Outflow=10.95 cfs 1.563 af

Pond dmh36: dmh36 Peak Elev=53.71' Inflow=10.95 cfs 1.563 af
18.0" Round Culvert n=0.013 L=159.0' S=0.0050 '/' Outflow=10.95 cfs 1.563 af

Pond dmh38: dmh38 Peak Elev=55.21' Inflow=10.58 cfs 0.941 af
18.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=10.58 cfs 0.941 af

Pond dmh39: dmh39 Peak Elev=53.82' Inflow=10.58 cfs 0.974 af
18.0" Round Culvert n=0.013 L=58.0' S=0.0047 '/' Outflow=10.58 cfs 0.974 af

Pond dmh4: dmh4 Peak Elev=62.27' Inflow=14.10 cfs 1.106 af
24.0" Round Culvert n=0.013 L=66.0' S=0.0041 '/' Outflow=14.10 cfs 1.106 af

Pond dmh40: dmh40 Peak Elev=52.70' Inflow=17.83 cfs 2.537 af
24.0" Round Culvert n=0.013 L=340.0' S=0.0050 '/' Outflow=17.83 cfs 2.537 af

Pond dmh43: dmh43 Peak Elev=54.37' Inflow=28.65 cfs 3.499 af
24.0" Round Culvert n=0.013 L=193.0' S=0.0050 '/' Outflow=28.65 cfs 3.499 af

Pond dmh44: dmh44 Peak Elev=50.23' Inflow=28.66 cfs 3.539 af
30.0" Round Culvert n=0.013 L=82.0' S=0.0050 '/' Outflow=28.66 cfs 3.539 af

Pond dmh45: dmh45 Peak Elev=52.37' Inflow=41.15 cfs 4.505 af
30.0" Round Culvert n=0.013 L=316.0' S=0.0050 '/' Outflow=41.15 cfs 4.505 af

Pond dmh47: dmh47 Peak Elev=50.11' Inflow=41.15 cfs 4.505 af
30.0" Round Culvert n=0.013 L=104.0' S=0.0100 '/' Outflow=41.15 cfs 4.505 af

Pond dmh48: dmh48 Peak Elev=49.53' Inflow=43.11 cfs 4.763 af
30.0" Round Culvert n=0.013 L=117.0' S=0.0050 '/' Outflow=43.11 cfs 4.763 af

Pond dmh49: dmh49 Peak Elev=46.41' Inflow=43.11 cfs 4.830 af
36.0" Round Culvert n=0.013 L=14.0' S=0.0071 '/' Outflow=43.11 cfs 4.830 af

Pond dmh5: dmh5 Peak Elev=61.87' Inflow=14.10 cfs 1.106 af
24.0" Round Culvert n=0.013 L=173.0' S=0.0050 '/' Outflow=14.10 cfs 1.106 af

Pond dmh50: dmh50 Peak Elev=51.14' Inflow=42.30 cfs 4.973 af
30.0" Round Culvert n=0.013 L=64.0' S=0.0100 '/' Outflow=42.30 cfs 4.973 af

Pond dmh51: dmh51 Peak Elev=50.48' Inflow=42.30 cfs 4.973 af
30.0" Round Culvert n=0.013 L=38.0' S=0.0287 '/' Outflow=42.30 cfs 4.973 af

Pond dmh52: dmh52 Peak Elev=48.18' Inflow=85.22 cfs 9.802 af
42.0" Round Culvert n=0.013 L=258.0' S=0.0194 '/' Outflow=85.22 cfs 9.802 af

Pond dmh53: CB53 Peak Elev=40.52' Inflow=87.89 cfs 10.087 af
42.0" Round Culvert n=0.013 L=120.0' S=0.0208 '/' Outflow=87.89 cfs 10.087 af

Pond dmh54: dmh54 Peak Elev=32.40' Inflow=88.09 cfs 10.120 af
48.0" Round Culvert n=0.013 L=152.0' S=0.0329 '/' Outflow=88.09 cfs 10.120 af

Pond dmh55: dhm55 Peak Elev=24.40' Inflow=88.09 cfs 10.120 af
48.0" Round Culvert n=0.013 L=115.0' S=0.0304 '/' Outflow=88.09 cfs 10.120 af

Pond dmh56: dmh56 Peak Elev=17.90' Inflow=88.09 cfs 10.120 af
48.0" Round Culvert n=0.013 L=42.0' S=0.0357 '/' Outflow=88.09 cfs 10.120 af

Pond dmh59: dmh59 Peak Elev=67.04' Inflow=6.87 cfs 0.685 af
12.0" Round Culvert n=0.013 L=294.0' S=0.0050 '/' Outflow=6.87 cfs 0.685 af

Pond dmh6: dmh6 Peak Elev=61.89' Inflow=14.10 cfs 1.106 af
24.0" Round Culvert n=0.020 L=170.0' S=0.0050 '/' Outflow=14.10 cfs 1.106 af

Pond dmh60: dhm60 Peak Elev=40.68' Inflow=85.22 cfs 9.802 af
48.0" Round Culvert n=0.013 L=114.0' S=0.0175 '/' Outflow=85.22 cfs 9.802 af

Pond dmh7: dmh7 Peak Elev=60.10' Inflow=14.10 cfs 1.106 af
24.0" Round Culvert n=0.013 L=170.0' S=0.0050 '/' Outflow=14.10 cfs 1.106 af

Pond dmh8: dmh8 Peak Elev=63.86' Inflow=26.56 cfs 2.075 af
24.0" Round Culvert n=0.013 L=296.0' S=0.0040 '/' Outflow=26.56 cfs 2.075 af

Pond dmh9a: dmh9a Peak Elev=61.59' Inflow=26.56 cfs 2.075 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=26.56 cfs 2.075 af

Pond DP 9B: off site pond to strm 5/6 Peak Elev=62.85' Storage=710 cf Inflow=24.53 cfs 3.239 af
Outflow=24.51 cfs 3.239 af

Pond DP 9D: offsite pond strm 3 Peak Elev=65.67' Storage=1,253 cf Inflow=4.20 cfs 0.721 af
Outflow=4.14 cfs 0.721 af

Pond GSF 11: grassed soil filter Peak Elev=62.42' Storage=5,339 cf Inflow=3.88 cfs 0.277 af
Primary=0.03 cfs 0.075 af Secondary=1.26 cfs 0.153 af Outflow=1.28 cfs 0.227 af

Pond GSF 12: grassed soil filter Peak Elev=62.01' Storage=1,721 cf Inflow=1.31 cfs 0.095 af
Primary=0.01 cfs 0.025 af Secondary=0.83 cfs 0.049 af Outflow=0.84 cfs 0.074 af

Pond GSF 13: grassed soil filter Peak Elev=62.20' Storage=5,600 cf Inflow=4.27 cfs 0.307 af
Primary=0.03 cfs 0.097 af Secondary=1.99 cfs 0.158 af Outflow=2.02 cfs 0.255 af

Pond GSF 15: grassed soil filter Peak Elev=63.77' Storage=629 cf Inflow=0.62 cfs 0.044 af
Primary=0.00 cfs 0.005 af Secondary=0.39 cfs 0.029 af Outflow=0.40 cfs 0.034 af

Pond GSF 16: grassed soil filter Peak Elev=64.41' Storage=3,348 cf Inflow=1.32 cfs 0.094 af
Primary=0.01 cfs 0.024 af Secondary=0.03 cfs 0.009 af Outflow=0.04 cfs 0.033 af

Pond GSF 18A: grassed soil filter Peak Elev=57.41' Storage=1,104 cf Inflow=0.58 cfs 0.042 af
Primary=0.00 cfs 0.013 af Secondary=0.06 cfs 0.012 af Outflow=0.06 cfs 0.025 af

Pond GSF 18B: grassed soil filter Peak Elev=57.94' Storage=616 cf Inflow=0.41 cfs 0.030 af
Primary=0.00 cfs 0.006 af Secondary=0.18 cfs 0.014 af Outflow=0.19 cfs 0.020 af

Pond GSF 1A: Grassed soil filter Peak Elev=66.39' Storage=2,368 cf Inflow=1.64 cfs 0.118 af
Primary=0.01 cfs 0.036 af Secondary=0.61 cfs 0.054 af Outflow=0.63 cfs 0.090 af

Pond GSF 1B: grassed soil filter Peak Elev=67.03' Storage=1,868 cf Inflow=2.11 cfs 0.150 af
Primary=0.01 cfs 0.040 af Secondary=1.95 cfs 0.097 af Outflow=1.96 cfs 0.136 af

Pond GSF 2: grassed soil filter Peak Elev=57.76' Storage=2,980 cf Inflow=2.56 cfs 0.182 af
Primary=0.02 cfs 0.053 af Secondary=1.36 cfs 0.102 af Outflow=1.38 cfs 0.155 af

Pond GSF 24: grassed soil filter Peak Elev=40.76' Storage=2,704 cf Inflow=1.99 cfs 0.150 af
Primary=0.02 cfs 0.055 af Secondary=1.38 cfs 0.072 af Outflow=1.40 cfs 0.127 af

Pond GSF 3: grassed soil filter Peak Elev=55.94' Storage=3,691 cf Inflow=3.16 cfs 0.225 af
Primary=0.02 cfs 0.055 af Secondary=1.81 cfs 0.131 af Outflow=1.83 cfs 0.186 af

Pond GSF 4: grassed soil filter Peak Elev=55.15' Storage=709 cf Inflow=0.57 cfs 0.041 af
Primary=0.00 cfs 0.013 af Secondary=0.24 cfs 0.021 af Outflow=0.25 cfs 0.033 af

Pond GSF 5: grassed soil filter Peak Elev=54.65' Storage=967 cf Inflow=0.73 cfs 0.052 af
Primary=0.00 cfs 0.013 af Secondary=0.27 cfs 0.027 af Outflow=0.27 cfs 0.039 af

Pond GSF 6: grassed soil filter Peak Elev=48.39' Storage=1,716 cf Inflow=1.22 cfs 0.087 af
Primary=0.01 cfs 0.023 af Secondary=0.44 cfs 0.044 af Outflow=0.45 cfs 0.067 af

Pond GSF 7: grassed soil filter Peak Elev=54.81' Storage=3,616 cf Inflow=2.50 cfs 0.178 af
Primary=0.02 cfs 0.052 af Secondary=0.78 cfs 0.084 af Outflow=0.80 cfs 0.136 af

Pond GSF 8: grassed soil filter Peak Elev=57.86' Storage=5,556 cf Inflow=4.51 cfs 0.327 af
Primary=0.03 cfs 0.100 af Secondary=2.56 cfs 0.181 af Outflow=2.59 cfs 0.281 af

Pond GSF 9: grassed soil filter Peak Elev=63.20' Storage=2,970 cf Inflow=2.91 cfs 0.214 af
Primary=0.02 cfs 0.053 af Secondary=2.45 cfs 0.138 af Outflow=2.46 cfs 0.191 af

Pond ics 12: ICS 12 Peak Elev=64.81' Inflow=13.15 cfs 1.069 af
Primary=12.32 cfs 0.484 af Secondary=0.83 cfs 0.584 af Outflow=13.15 cfs 1.069 af

Pond ICS1: ICS 1 Peak Elev=67.48' Inflow=13.15 cfs 1.069 af
Primary=0.83 cfs 0.481 af Secondary=12.32 cfs 0.588 af Outflow=13.15 cfs 1.069 af

Pond ICS18: ICS18 Peak Elev=60.51' Inflow=2.22 cfs 0.180 af
Primary=0.67 cfs 0.152 af Secondary=1.55 cfs 0.028 af Outflow=2.22 cfs 0.180 af

Pond ics28: ICS28 Peak Elev=60.67' Inflow=1.40 cfs 0.114 af
Primary=0.64 cfs 0.105 af Secondary=0.76 cfs 0.009 af Outflow=1.40 cfs 0.114 af

Pond ICS37: ISC37 Peak Elev=55.72' Inflow=13.15 cfs 1.069 af
Primary=5.34 cfs 0.951 af Secondary=7.81 cfs 0.117 af Outflow=13.15 cfs 1.069 af

Pond ics46: ICS46 Peak Elev=50.35' Inflow=13.15 cfs 1.069 af
Primary=0.77 cfs 0.584 af Secondary=12.38 cfs 0.485 af Outflow=13.15 cfs 1.069 af

Pond ICS9: ICS9 Peak Elev=65.83' Inflow=13.15 cfs 1.069 af
Primary=0.80 cfs 0.583 af Secondary=12.35 cfs 0.486 af Outflow=13.15 cfs 1.069 af

Pond ISC42: ICS 42 Peak Elev=56.07' Inflow=13.15 cfs 1.069 af
Primary=5.71 cfs 0.966 af Secondary=7.44 cfs 0.103 af Outflow=13.15 cfs 1.069 af

Pond MPP 10: Rtank storage Peak Elev=61.85' Storage=0.075 af Inflow=3.61 cfs 0.294 af
8.0" Round Culvert x 6.00 n=0.013 L=2.0' S=0.0400 '/' Outflow=2.18 cfs 0.275 af

Pond MPP 14: Rtanks Peak Elev=56.65' Storage=931 cf Inflow=1.09 cfs 0.087 af
8.0" Round Culvert x 2.00 n=0.013 L=21.0' S=0.0052 '/' Outflow=0.69 cfs 0.082 af

Pond MPP 19: Rtanks Peak Elev=55.72' Storage=0.051 af Inflow=1.52 cfs 0.115 af
6.0" Round Culvert n=0.013 L=19.0' S=0.0042 '/' Outflow=0.43 cfs 0.107 af

Pond MPP 21: Rtanks Peak Elev=55.51' Storage=1,220 cf Inflow=1.23 cfs 0.091 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.54 cfs 0.088 af

Pond MPP 22: Rtanks Peak Elev=55.65' Storage=1,953 cf Inflow=1.39 cfs 0.102 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.41 cfs 0.094 af

Pond MPP 26: Rtanks Peak Elev=34.94' Storage=500 cf Inflow=0.45 cfs 0.036 af
8.0" Round Culvert n=0.013 L=8.0' S=0.0350 '/' Outflow=0.25 cfs 0.033 af

Pond MPP 50: Peak Elev=55.01' Storage=3,365 cf Inflow=3.53 cfs 0.286 af
8.0" Round Culvert x 7.00 n=0.013 L=3.0' S=0.0100 '/' Outflow=2.38 cfs 0.258 af

Pond mpp30: Rtanks Peak Elev=31.39' Storage=6,066 cf Inflow=4.60 cfs 0.346 af
Outflow=0.60 cfs 0.346 af

Pond SSF 36: ssf Peak Elev=64.57' Storage=11,181 cf Inflow=0.83 cfs 0.481 af
Primary=0.08 cfs 0.241 af Secondary=0.29 cfs 0.140 af Outflow=0.37 cfs 0.381 af

Pond ssf37: ssf Peak Elev=63.38' Storage=11,930 cf Inflow=0.80 cfs 0.583 af
Primary=0.08 cfs 0.244 af Secondary=0.51 cfs 0.240 af Outflow=0.59 cfs 0.484 af

Pond ssf38: ssf Peak Elev=63.19' Storage=15,152 cf Inflow=12.32 cfs 0.484 af
Primary=0.09 cfs 0.166 af Secondary=3.03 cfs 0.221 af Outflow=3.12 cfs 0.387 af

Pond ssf39: ssf Peak Elev=56.35' Storage=18,385 cf Inflow=5.34 cfs 0.951 af
Primary=0.10 cfs 0.246 af Secondary=4.36 cfs 0.577 af Outflow=4.46 cfs 0.823 af

Pond ssf40: ssf Peak Elev=58.35' Storage=16,630 cf Inflow=5.71 cfs 0.966 af
Primary=0.11 cfs 0.246 af Secondary=6.07 cfs 0.614 af Outflow=6.19 cfs 0.860 af

Pond ssf41: ssf Peak Elev=48.20' Storage=12,122 cf Inflow=0.77 cfs 0.584 af
Primary=0.08 cfs 0.244 af Secondary=0.51 cfs 0.237 af Outflow=0.59 cfs 0.481 af

Pond ssf42: ssf Peak Elev=60.70' Storage=1,726 cf Inflow=0.64 cfs 0.105 af
Primary=0.01 cfs 0.028 af Secondary=0.62 cfs 0.060 af Outflow=0.63 cfs 0.088 af

Pond ssf43: ssf Peak Elev=59.95' Storage=2,339 cf Inflow=0.67 cfs 0.152 af
Primary=0.02 cfs 0.043 af Secondary=0.64 cfs 0.089 af Outflow=0.65 cfs 0.133 af

Total Runoff Area = 122.513 ac Runoff Volume = 30.599 af Average Runoff Depth = 3.00"
76.10% Pervious = 93.228 ac 23.90% Impervious = 29.285 ac

Summary for Subcatchment 1A:

Runoff = 1.64 cfs @ 12.09 hrs, Volume= 0.118 af, Depth= 3.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	11,582	77	>75% Grass cover, Good, HSG C/D
*	6,203	98	Impervious, HSG C/D
	17,785	84	Weighted Average
	11,582		65.12% Pervious Area
	6,203		34.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 1B:

Runoff = 2.11 cfs @ 12.09 hrs, Volume= 0.150 af, Depth= 3.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	6,832	98	Impervious
	18,017	74	>75% Grass cover, Good, HSG C
	24,849	81	Weighted Average
	18,017		72.51% Pervious Area
	6,832		27.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 2:

Runoff = 2.56 cfs @ 12.09 hrs, Volume= 0.182 af, Depth= 3.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	8,052	98	Impervious
	5,300	74	>75% Grass cover, Good, HSG C
*	17,697	74	>75% Grass cover, Good, HSG C/D
	31,049	80	Weighted Average
	22,997		74.07% Pervious Area
	8,052		25.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 3:

Runoff = 3.16 cfs @ 12.09 hrs, Volume= 0.225 af, Depth= 3.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	13,091	98	Impervious, HSG C
*	15,516	74	>75% Grass cover, Good, HSG C/D
*	7,540	70	Woods, Good, HSG C/D
	36,147	82	Weighted Average
	23,056		63.78% Pervious Area
	13,091		36.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 4:

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 0.041 af, Depth= 2.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
	8,448	74	>75% Grass cover, Good, HSG C
	8,448		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 5:

Runoff = 0.73 cfs @ 12.09 hrs, Volume= 0.052 af, Depth= 2.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

Area (sf)	CN	Description
10,807	74	>75% Grass cover, Good, HSG C
10,807		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 6:

Runoff = 1.22 cfs @ 12.09 hrs, Volume= 0.087 af, Depth= 3.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	4,484	98	Impervious
*	9,501	74	>75% Grass cover, Good, HSG C
	13,985	82	Weighted Average
	9,501		67.94% Pervious Area
	4,484		32.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 7:

Runoff = 2.50 cfs @ 12.09 hrs, Volume= 0.178 af, Depth= 3.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	7,846	98	Impervious
	3,270	74	>75% Grass cover, Good, HSG C
*	19,229	74	>75% Grass cover, Good, HSG C/D
	30,345	80	Weighted Average
	22,499		74.14% Pervious Area
	7,846		25.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 8:

Runoff = 4.51 cfs @ 12.09 hrs, Volume= 0.327 af, Depth= 3.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	25,409	98	Impervious
	20,142	74	>75% Grass cover, Good, HSG C
	45,551	87	Weighted Average
	20,142		44.22% Pervious Area
	25,409		55.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 9:

Runoff = 2.91 cfs @ 12.09 hrs, Volume= 0.214 af, Depth= 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	10,348	74	>75% Grass cover, Good, HSG C/D
*	17,843	98	Impervious
	28,191	89	Weighted Average
	10,348		36.71% Pervious Area
	17,843		63.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 10: access drive north of B1

Runoff = 3.61 cfs @ 12.08 hrs, Volume= 0.294 af, Depth= 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	30,932	98	Impervious
	30,932		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 11:

Runoff = 3.88 cfs @ 12.09 hrs, Volume= 0.277 af, Depth= 3.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	15,881	98	Impervious
*	27,293	74	>75% Grass cover, Good, HSG C/D
	43,174	83	Weighted Average
	27,293		63.22% Pervious Area
	15,881		36.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 12:

Runoff = 1.31 cfs @ 12.09 hrs, Volume= 0.095 af, Depth= 3.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	7,491	98	Impervious, HSG C/D
	5,429	74	>75% Grass cover, Good, HSG C
	12,920	88	Weighted Average
	5,429		42.02% Pervious Area
	7,491		57.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 13:

Runoff = 4.27 cfs @ 12.09 hrs, Volume= 0.307 af, Depth= 3.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	20,981	98	Impervious
*	24,182	74	>75% Grass cover, Good, HSG C/D
	45,163	85	Weighted Average
	24,182		53.54% Pervious Area
	20,981		46.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 14:

Runoff = 1.09 cfs @ 12.08 hrs, Volume= 0.087 af, Depth= 4.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	8,849	98	Impervious
	529	74	>75% Grass cover, Good, HSG C
	9,378	97	Weighted Average
	529		5.64% Pervious Area
	8,849		94.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 15:

Runoff = 0.62 cfs @ 12.09 hrs, Volume= 0.044 af, Depth= 2.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	176	98	Impervious
*	4,183	74	>75% Grass cover, Good, HSG C/D
*	4,798	74	vegetated roof
	9,157	74	Weighted Average
	8,981		98.08% Pervious Area
	176		1.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 16:

Runoff = 1.32 cfs @ 12.09 hrs, Volume= 0.094 af, Depth= 3.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	5,161	98	Impervious
*	9,949	74	>75% Grass cover, Good, HSG C/D
	15,110	82	Weighted Average
	9,949		65.84% Pervious Area
	5,161		34.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 17:

Runoff = 1.50 cfs @ 12.08 hrs, Volume= 0.115 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	11,320	98	Impervious
*	1,980	74	>75% Grass cover, Good, HSG C/D
	13,300	94	Weighted Average
	1,980		14.89% Pervious Area
	11,320		85.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18A:

Runoff = 0.58 cfs @ 12.09 hrs, Volume= 0.042 af, Depth= 3.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	2,593	98	Impervious
*	3,746	74	>75% Grass cover, Good, HSG C/D
	6,339	84	Weighted Average
	3,746		59.09% Pervious Area
	2,593		40.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18B:

Runoff = 0.41 cfs @ 12.09 hrs, Volume= 0.030 af, Depth= 3.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	2,348	98	Impervious
*	1,675	74	>75% Grass cover, Good, HSG C/D
	4,023	88	Weighted Average
	1,675		41.64% Pervious Area
	2,348		58.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 19:

Runoff = 1.52 cfs @ 12.08 hrs, Volume= 0.115 af, Depth= 4.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	11,017	98	Impervious
*	2,694	74	>75% Grass cover, Good, HSG C/D
	13,711	93	Weighted Average
	2,694		19.65% Pervious Area
	11,017		80.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 20:

Runoff = 3.11 cfs @ 12.08 hrs, Volume= 0.233 af, Depth= 4.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	21,010	98	Impervious
*	7,449	74	>75% Grass cover, Good, HSG C/D
	28,459	92	Weighted Average
	7,449		26.17% Pervious Area
	21,010		73.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 21:

Runoff = 1.23 cfs @ 12.08 hrs, Volume= 0.091 af, Depth= 4.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	7,893	98	Impervious
*	3,559	74	>75% Grass cover, Good, HSG C/D
	11,452	91	Weighted Average
	3,559		31.08% Pervious Area
	7,893		68.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 22:

Runoff = 1.39 cfs @ 12.09 hrs, Volume= 0.102 af, Depth= 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	8,217	98	Impervious
*	5,227	74	>75% Grass cover, Good, HSG C/D
	13,444	89	Weighted Average
	5,227		38.88% Pervious Area
	8,217		61.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 23: sub 23

Runoff = 2.21 cfs @ 12.09 hrs, Volume= 0.157 af, Depth= 2.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

Area (sf)	CN	Description
6,249	98	Paved parking, HSG C
2,450	74	>75% Grass cover, Good, HSG C
10,135	74	>75% Grass cover, Good, HSG C
9,641	70	Woods, Good, HSG C
28,475	78	Weighted Average
22,226		78.05% Pervious Area
6,249		21.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, direct**

Summary for Subcatchment 24:

Runoff = 1.99 cfs @ 12.08 hrs, Volume= 0.150 af, Depth= 4.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	12,270	98	Impervious
	5,991	80	>75% Grass cover, Good, HSG D
	18,261	92	Weighted Average
	5,991		32.81% Pervious Area
	12,270		67.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 25:

Runoff = 2.60 cfs @ 12.89 hrs, Volume= 0.513 af, Depth= 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	21,818	74	>75% Grass cover, Good, HSG C/D
*	96,405	70	Woods, Good, HSG C/D
	118,223	71	Weighted Average
	118,223		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
54.4	130	0.0150	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
11.9	253	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	55	0.3000	1.37		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
67.0	438	Total			

Summary for Subcatchment 26:

Runoff = 0.45 cfs @ 12.08 hrs, Volume= 0.036 af, Depth= 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	3,816	98	Impervious
	3,816		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 27:

Runoff = 0.50 cfs @ 12.08 hrs, Volume= 0.040 af, Depth= 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	4,262	98	Impervious
	4,262		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 28:

Runoff = 7.53 cfs @ 12.09 hrs, Volume= 0.542 af, Depth= 3.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	21,852	98	Impervious
	40,598	80	>75% Grass cover, Good, HSG D
	6,418	77	Woods, Good, HSG D
	10,830	79	Woods/grass comb., Good, HSG D
	79,698	85	Weighted Average
	57,846		72.58% Pervious Area
	21,852		27.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 29:

Runoff = 0.15 cfs @ 12.08 hrs, Volume= 0.012 af, Depth= 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	1,306	98	Impervious
	1,306		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 30:

Runoff = 3.49 cfs @ 12.08 hrs, Volume= 0.265 af, Depth= 4.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	24,541	98	Impervious
*	6,931	74	>75% Grass cover, Good, HSG C/D
	31,472	93	Weighted Average
	6,931		22.02% Pervious Area
	24,541		77.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 31:

Runoff = 3.46 cfs @ 12.18 hrs, Volume= 0.307 af, Depth= 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	24,011	74	>75% Grass cover, Good, HSG C/D
*	46,605	70	Woods, Good, HSG C/D
	70,616	71	Weighted Average
	70,616		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0500	0.16		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
1.7	86	0.1200	0.87		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	31	0.0300	2.60		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
12.3	217	Total			

Summary for Subcatchment 32:

Runoff = 0.48 cfs @ 12.09 hrs, Volume= 0.035 af, Depth= 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	2,826	98	Impervious
*	1,851	74	>75% Grass cover, Good, HSG C/D
	4,677	89	Weighted Average
	1,851		39.58% Pervious Area
	2,826		60.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 33: B3 green

Runoff = 5.48 cfs @ 12.09 hrs, Volume= 0.401 af, Depth= 1.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	89,860	61	vegetated roof
*	18,033	98	penthouse
	107,893	67	Weighted Average
	89,860		83.29% Pervious Area
	18,033		16.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 34:

Runoff = 1.28 cfs @ 12.09 hrs, Volume= 0.093 af, Depth= 2.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	19,279	61	vegetated roof
*	4,820	98	penthouse/walks on roof
	24,099	68	Weighted Average
	19,279		80.00% Pervious Area
	4,820		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 35:

Runoff = 1.12 cfs @ 12.09 hrs, Volume= 0.081 af, Depth= 2.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	16,797	61	vegetated roof
*	4,200	98	penthouse/walks on roof
	20,997	68	Weighted Average
	16,797		80.00% Pervious Area
	4,200		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 36: B1M1

Runoff = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af, Depth= 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 37: B1M2

Runoff = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af, Depth= 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 38: B1M3

Runoff = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af, Depth= 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 39: B2M4

Runoff = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af, Depth= 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 40: B2M5

Runoff = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af, Depth= 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 41: B2M6

Runoff = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af, Depth= 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 42: B6

Runoff = 1.40 cfs @ 12.08 hrs, Volume= 0.114 af, Depth= 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	12,000	98	Impervious
	12,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 43: B5

Runoff = 2.22 cfs @ 12.08 hrs, Volume= 0.180 af, Depth= 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	18,983	98	Impervious
	18,983		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 44: onsite untreated

Runoff = 6.64 cfs @ 12.26 hrs, Volume= 0.692 af, Depth= 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	29,531	74	>75% Grass cover, Good, HSG C/D
*	129,832	70	Woods, Good, HSG C/D
	159,363	71	Weighted Average
	159,363		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	97	0.0620	0.25		**Sheet Flow, a-b** Grass: Short n= 0.150 P2= 2.90"
4.3	170	0.0090	0.66		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
1.3	97	0.0320	1.25		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
6.8	210	0.0430	0.52		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
18.8	574	Total			

Summary for Subcatchment 45:

Runoff = 2.11 cfs @ 12.43 hrs, Volume= 0.269 af, Depth= 2.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	5,799	74	>75% Grass cover, Good, HSG C/D
*	58,641	70	Woods, Good, HSG C/D
	64,440	70	Weighted Average
	64,440		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.3	79	0.0340	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
2.9	121	0.0800	0.71		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	34	0.0600	3.67		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
0.5	73	0.0600	2.64	10.56	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage

29.9	307	Total

Summary for Subcatchment 46: SUBCAT 8

Runoff = 0.48 cfs @ 12.50 hrs, Volume= 0.065 af, Depth= 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	12,652	70	Woods, Good, HSG C/D
*	2,324	74	>75% Grass cover, Good, HSG C/D
	14,976	71	Weighted Average
	14,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
1.1	43	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.7100	2.11		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
1.5	152	0.0240	1.67	6.68	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100
34.7	276	Total			

Summary for Subcatchment 47:

Runoff = 4.10 cfs @ 12.22 hrs, Volume= 0.396 af, Depth= 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
	16,941	80	>75% Grass cover, Good, HSG D
*	27,433	74	>75% Grass cover, Good, HSG C/D
*	30,061	70	Woods, Good, HSG C/D
*	4,752	98	Impervious
	79,187	75	Weighted Average
	74,435		94.00% Pervious Area
	4,752		6.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.5	102	0.0400	0.15		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
0.6	30	0.1000	0.79		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.6	100	0.0300	2.60		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
3.2	407	0.0200	2.12		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
15.9	639	Total			

Summary for Subcatchment 48:

Runoff = 0.97 cfs @ 12.78 hrs, Volume= 0.168 af, Depth= 2.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	305	74	>75% Grass cover, Good, HSG C/D
*	36,887	70	Woods, Good, HSG C/D
	2,991	70	Woods, Good, HSG C
	40,183	70	Weighted Average
	40,183		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.6	127	0.0200	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
5.4	115	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	45	0.2000	1.12		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.3	90	0.0880	4.45		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
54.0	377	Total			

Summary for Subcatchment 49:

Runoff = 2.34 cfs @ 12.75 hrs, Volume= 0.405 af, Depth= 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	11,982	74	>75% Grass cover, Good, HSG C/D
*	80,702	70	Woods, Good, HSG C/D
*	548	98	Impervious
	93,232	71	Weighted Average
	92,684		99.41% Pervious Area
	548		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.4	115	0.0500	0.06		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
23.7	355	0.0100	0.25		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
54.1	470	Total			

Summary for Subcatchment 50:

Runoff = 3.53 cfs @ 12.08 hrs, Volume= 0.286 af, Depth= 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	30,173	98	Impervious
	30,173		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment OS10: OFFSITE 2 (above Perkins Rd)

Runoff = 32.83 cfs @ 13.29 hrs, Volume= 7.945 af, Depth= 2.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	298,066	70	Woods, Good, HSG C/D
*	42,276	98	Impervious
*	1,304,640	74	>75% Grass cover, Good, HSG C/D
	1,644,982	74	Weighted Average
	1,602,706		97.43% Pervious Area
	42,276		2.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.2	141	0.0280	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
15.3	384	0.0280	0.42		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.5	227	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
18.6	780	0.0100	0.70		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
12.6	689	0.0170	0.91		**Shallow Concentrated Flow, e-f** Short Grass Pasture Kv= 7.0 fps
94.2	2,221	Total			

Summary for Subcatchment os11a: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 18.55 cfs @ 12.10 hrs, Volume= 1.383 af, Depth= 3.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	113,681	98	Impervious
*	33,806	70	Woods, Good, HSG C/D
*	45,046	74	>75% Grass cover, Good, HSG C/D
	192,533	87	Weighted Average
	78,852		40.96% Pervious Area
	113,681		59.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	16	0.1870	2.22		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
4.7	419	0.0100	1.50		**Shallow Concentrated Flow, b-c** Grassed Waterway Kv= 15.0 fps
2.0	97	0.1000	0.79		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.8	532	Total			

Summary for Subcatchment os11b: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 13.85 cfs @ 12.27 hrs, Volume= 1.444 af, Depth= 2.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	4,576	98	Impervious
*	203,815	70	Woods, Good, HSG C/D
*	112,423	74	>75% Grass cover, Good, HSG C/D
	320,814	72	Weighted Average
	316,238		98.57% Pervious Area
	4,576		1.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	96	0.0880	0.13		**Sheet Flow, a-b** Woods: Light underbrush n= 0.400 P2= 2.90"
4.6	357	0.0340	1.29		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
2.2	75	0.0534	0.58		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
18.9	528	Total			

Summary for Subcatchment OS9A: OFFSITE 1 (Below Perkins Rd)

Runoff = 6.21 cfs @ 12.38 hrs, Volume= 0.743 af, Depth= 2.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	5,945	98	Impervious
	19,384	70	Woods, Good, HSG C
	128,494	74	>75% Grass cover, Good, HSG C
	153,823	74	Weighted Average
	147,878		96.14% Pervious Area
	5,945		3.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	90	0.0110	0.09		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
1.5	171	0.0700	1.85		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
6.9	257	0.0620	0.62		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.7	43	0.1860	1.08		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
26.6	561	Total			

Summary for Subcatchment OS9B: SUBCAT 4

Runoff = 18.98 cfs @ 12.42 hrs, Volume= 2.349 af, Depth= 2.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	11,390	98	impervious
	346,747	74	>75% Grass cover, Good, HSG C
	128,170	70	Woods, Good, HSG C
	486,307	74	Weighted Average
	474,917		97.66% Pervious Area
	11,390		2.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.3	163	0.0250	0.13		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
8.3	507	0.0210	1.01		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
28.6	670	Total			

Summary for Subcatchment OS9C: SUBCAT 3

Runoff = 10.87 cfs @ 12.14 hrs, Volume= 0.890 af, Depth= 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	8,178	98	impervious
	156,155	74	>75% Grass cover, Good, HSG C
	13,814	70	Woods, Good, HSG C
	178,147	75	Weighted Average
	169,969		95.41% Pervious Area
	8,178		4.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	22	0.0900	1.77		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
9.9	633	0.0230	1.06		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
10.1	655	Total			

Summary for Subcatchment OS9D: SUBCAT 2

Runoff = 4.20 cfs @ 12.73 hrs, Volume= 0.721 af, Depth= 2.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	34,250	70	Woods, Good, HSG C/D
*	120,413	74	>75% Grass cover, Good, HSG C/D
	154,663	73	Weighted Average
	154,663		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
46.5	206	0.0050	0.07		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
5.6	258	0.0120	0.77		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
2.2	80	0.0600	0.61		**Shallow Concentrated Flow, C-D** Forest w/Heavy Litter Kv= 2.5 fps
54.3	544	Total			

Summary for Reach 9R: ANALYSIS POINT 9

Inflow Area = 3.531 ac, 3.86% Impervious, Inflow Depth = 2.52" for 25-year event
Inflow = 6.21 cfs @ 12.38 hrs, Volume= 0.743 af
Outflow = 6.21 cfs @ 12.38 hrs, Volume= 0.743 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

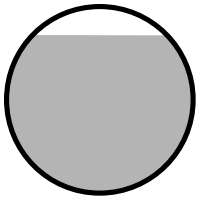
Summary for Reach 10R: Perkins Road Culvert

Inflow Area = 37.764 ac, 2.57% Impervious, Inflow Depth = 2.52" for 25-year event
Inflow = 32.83 cfs @ 13.29 hrs, Volume= 7.945 af
Outflow = 32.83 cfs @ 13.29 hrs, Volume= 7.945 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 11.61 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 5.64 fps, Avg. Travel Time= 0.1 min

Peak Storage= 71 cf @ 13.29 hrs
Average Depth at Peak Storage= 1.69'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.99 cfs

24.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 25.0' Slope= 0.0200 '/'
Inlet Invert= 75.50', Outlet Invert= 75.00'



Summary for Reach 11R: Stream 9

Inflow Area = 4.420 ac, 59.04% Impervious, Inflow Depth = 3.76" for 25-year event
Inflow = 18.55 cfs @ 12.10 hrs, Volume= 1.383 af
Outflow = 18.55 cfs @ 12.10 hrs, Volume= 1.383 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 17R: untreated

Inflow Area = 0.305 ac, 85.11% Impervious, Inflow Depth = 4.51" for 25-year event
Inflow = 1.50 cfs @ 12.08 hrs, Volume= 0.115 af
Outflow = 1.50 cfs @ 12.08 hrs, Volume= 0.115 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 20R: untreated

Inflow Area = 0.653 ac, 73.83% Impervious, Inflow Depth = 4.28" for 25-year event
Inflow = 3.11 cfs @ 12.08 hrs, Volume= 0.233 af
Outflow = 3.11 cfs @ 12.08 hrs, Volume= 0.233 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 23R: sub 23

Inflow Area = 0.654 ac, 21.95% Impervious, Inflow Depth = 2.88" for 25-year event
Inflow = 2.21 cfs @ 12.09 hrs, Volume= 0.157 af
Outflow = 2.21 cfs @ 12.09 hrs, Volume= 0.157 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 27R: extisting

Inflow Area = 0.098 ac,100.00% Impervious, Inflow Depth = 4.96" for 25-year event
Inflow = 0.50 cfs @ 12.08 hrs, Volume= 0.040 af
Outflow = 0.50 cfs @ 12.08 hrs, Volume= 0.040 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 29R: untreated

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth = 4.96" for 25-year event
Inflow = 0.15 cfs @ 12.08 hrs, Volume= 0.012 af
Outflow = 0.15 cfs @ 12.08 hrs, Volume= 0.012 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 32R: untreated

Inflow Area = 0.107 ac, 60.42% Impervious, Inflow Depth = 3.96" for 25-year event
Inflow = 0.48 cfs @ 12.09 hrs, Volume= 0.035 af
Outflow = 0.48 cfs @ 12.09 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 44R:

Inflow Area = 3.658 ac, 0.00% Impervious, Inflow Depth = 2.27" for 25-year event
Inflow = 6.64 cfs @ 12.26 hrs, Volume= 0.692 af
Outflow = 6.64 cfs @ 12.26 hrs, Volume= 0.692 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 47R:

Inflow Area = 1.818 ac, 6.00% Impervious, Inflow Depth = 2.61" for 25-year event
Inflow = 4.10 cfs @ 12.22 hrs, Volume= 0.396 af
Outflow = 4.10 cfs @ 12.22 hrs, Volume= 0.396 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 48R: (new Reach)

Inflow Area = 0.922 ac, 0.00% Impervious, Inflow Depth = 2.19" for 25-year event
Inflow = 0.97 cfs @ 12.78 hrs, Volume= 0.168 af
Outflow = 0.97 cfs @ 12.78 hrs, Volume= 0.168 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 49R:

Inflow Area = 2.140 ac, 0.59% Impervious, Inflow Depth = 2.27" for 25-year event
Inflow = 2.34 cfs @ 12.75 hrs, Volume= 0.405 af
Outflow = 2.34 cfs @ 12.75 hrs, Volume= 0.405 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT1: ANALYSIS POINT 1 at BWD Little River

Inflow Area = 3.063 ac, 0.41% Impervious, Inflow Depth = 2.24" for 25-year event
Inflow = 3.31 cfs @ 12.78 hrs, Volume= 0.573 af
Outflow = 3.31 cfs @ 12.78 hrs, Volume= 0.573 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT10: Analysis point at Little River

Inflow Area = 1.830 ac, 27.42% Impervious, Inflow Depth = 3.55" for 25-year event
Inflow = 7.53 cfs @ 12.09 hrs, Volume= 0.542 af
Outflow = 7.53 cfs @ 12.09 hrs, Volume= 0.542 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT2: ANALYSIS POINT 2 at strm 3

Inflow Area = 6.265 ac, 0.00% Impervious, Inflow Depth = 2.36" for 25-year event
Inflow = 6.71 cfs @ 12.87 hrs, Volume= 1.235 af
Outflow = 6.71 cfs @ 12.87 hrs, Volume= 1.235 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT3: ANALYSIS POINT 3/4 at strm 5/6

Inflow Area = 16.875 ac, 2.66% Impervious, Inflow Depth = 2.52" for 25-year event
Inflow = 26.78 cfs @ 12.34 hrs, Volume= 3.546 af
Outflow = 26.78 cfs @ 12.34 hrs, Volume= 3.546 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT5: all BWD reservoir

Inflow Area = 23.139 ac, 1.94% Impervious, Inflow Depth = 2.48" for 25-year event
Inflow = 30.02 cfs @ 12.36 hrs, Volume= 4.780 af
Outflow = 30.02 cfs @ 12.36 hrs, Volume= 4.780 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT6: stream 9 offsite

Inflow Area = 45.715 ac, 8.13% Impervious, Inflow Depth = 2.64" for 25-year event
Inflow = 35.51 cfs @ 13.29 hrs, Volume= 10.072 af
Outflow = 35.46 cfs @ 13.30 hrs, Volume= 10.072 af, Atten= 0%, Lag= 0.7 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.02 fps, Min. Travel Time= 2.0 min
Avg. Velocity = 1.61 fps, Avg. Travel Time= 5.0 min

Peak Storage= 4,258 cf @ 13.30 hrs
Average Depth at Peak Storage= 1.19'
Bank-Full Depth= 4.00' Flow Area= 52.0 sf, Capacity= 401.91 cfs

5.00' x 4.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 21.00'
Length= 483.0' Slope= 0.0145 '/'
Inlet Invert= 71.00', Outlet Invert= 64.00'



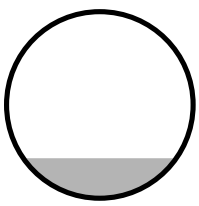
Summary for Reach PT7: ANALYSIS POINT7 at US Route 1 culvert

Inflow Area = 1.479 ac, 0.00% Impervious, Inflow Depth = 2.19" for 25-year event
Inflow = 2.11 cfs @ 12.43 hrs, Volume= 0.269 af
Outflow = 2.11 cfs @ 12.43 hrs, Volume= 0.269 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 7.59 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.20 fps, Avg. Travel Time= 0.4 min

Peak Storage= 23 cf @ 12.43 hrs
Average Depth at Peak Storage= 0.32'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0398 '/'
Inlet Invert= 21.60', Outlet Invert= 18.30'



Summary for Reach PT8: ANALYSIS POINT 8 at US Route 1 culvert

Inflow Area = 0.344 ac, 0.00% Impervious, Inflow Depth = 2.27" for 25-year event
Inflow = 0.48 cfs @ 12.50 hrs, Volume= 0.065 af
Outflow = 0.48 cfs @ 12.50 hrs, Volume= 0.065 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 3.93 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.54 fps, Avg. Travel Time= 0.5 min

Peak Storage= 9 cf @ 12.50 hrs
Average Depth at Peak Storage= 0.04'
Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 144.91 cfs

36.0" W x 24.0" H Box Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 76.0' Slope= 0.0632 '/'
Inlet Invert= 23.40', Outlet Invert= 18.60'



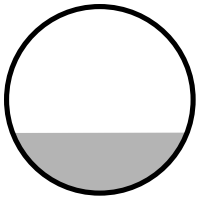
Summary for Reach PT9: Analysis Point Stream 9 at US Route 1 culvert

Inflow Area = 59.888 ac, 7.88% Impervious, Inflow Depth = 2.61" for 25-year event
Inflow = 45.18 cfs @ 12.32 hrs, Volume= 13.002 af
Outflow = 45.18 cfs @ 12.32 hrs, Volume= 13.002 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 22.88 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 7.75 fps, Avg. Travel Time= 0.2 min

Peak Storage= 184 cf @ 12.32 hrs
Average Depth at Peak Storage= 0.97'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 200.22 cfs

36.0" Round Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 93.0' Slope= 0.0645 '/'
Inlet Invert= 20.00', Outlet Invert= 14.00'



Summary for Reach R9 B: offsite diversion strm 5/6

Inflow Area = 15.254 ac, 2.94% Impervious, Inflow Depth = 2.55" for 25-year event
Inflow = 24.51 cfs @ 12.36 hrs, Volume= 3.239 af
Outflow = 24.51 cfs @ 12.36 hrs, Volume= 3.239 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach R9D: offsite pont strm 3

Inflow Area = 3.551 ac, 0.00% Impervious, Inflow Depth = 2.44" for 25-year event
Inflow = 4.14 cfs @ 12.82 hrs, Volume= 0.721 af
Outflow = 4.14 cfs @ 12.82 hrs, Volume= 0.721 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach S9-2: Stream 9

Inflow Area = 56.738 ac, 6.74% Impervious, Inflow Depth = 2.58" for 25-year event
Inflow = 41.73 cfs @ 12.24 hrs, Volume= 12.208 af
Outflow = 40.82 cfs @ 12.33 hrs, Volume= 12.208 af, Atten= 2%, Lag= 5.2 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.96 fps, Min. Travel Time= 5.3 min
Avg. Velocity = 1.67 fps, Avg. Travel Time= 15.8 min

Peak Storage= 13,014 cf @ 12.33 hrs
Average Depth at Peak Storage= 1.13'
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 120.91 cfs

5.00' x 2.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 13.00'
Length= 1,580.0' Slope= 0.0233 '/'
Inlet Invert= 64.00', Outlet Invert= 27.25'



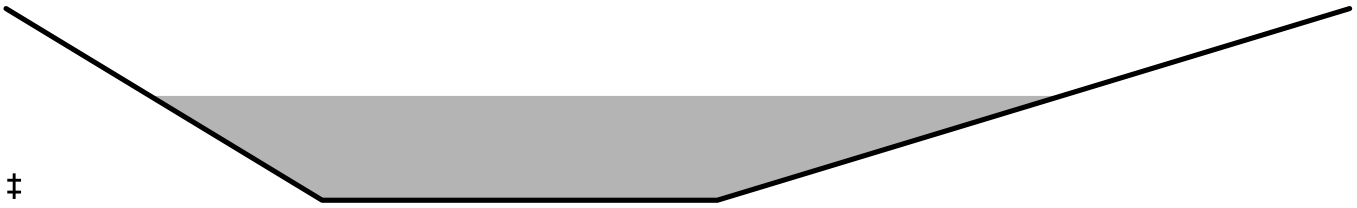
Summary for Reach S9-3: Stream 9

Inflow Area = 58.684 ac, 6.92% Impervious, Inflow Depth = 2.59" for 25-year event
Inflow = 44.64 cfs @ 12.30 hrs, Volume= 12.656 af
Outflow = 44.59 cfs @ 12.32 hrs, Volume= 12.656 af, Atten= 0%, Lag= 0.9 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.96 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 1.53 fps, Avg. Travel Time= 4.0 min

Peak Storage= 3,270 cf @ 12.32 hrs
Average Depth at Peak Storage= 1.09'
Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 152.29 cfs

5.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 2.0 4.0 '/' Top Width= 17.00'
Length= 364.0' Slope= 0.0199 '/'
Inlet Invert= 27.25', Outlet Invert= 20.00'



‡

Summary for Reach tank: existing clarifier

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 3.71" for 25-year event
Inflow = 88.09 cfs @ 12.10 hrs, Volume= 10.120 af
Outflow = 88.09 cfs @ 12.10 hrs, Volume= 10.120 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond dmh10: dmh10

Inflow Area = 5.738 ac, 92.79% Impervious, Inflow Depth > 4.34" for 25-year event
Inflow = 26.56 cfs @ 12.09 hrs, Volume= 2.075 af
Outflow = 26.56 cfs @ 12.09 hrs, Volume= 2.075 af, Atten= 0%, Lag= 0.0 min
Primary = 26.56 cfs @ 12.09 hrs, Volume= 2.075 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.54' @ 12.09 hrs
Flood Elev= 65.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.59'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.59' / 53.56' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=26.53 cfs @ 12.09 hrs HW=60.53' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 26.53 cfs @ 8.45 fps)

Summary for Pond dmh11: dmh11

Inflow Area = 9.033 ac, 95.42% Impervious, Inflow Depth > 4.41" for 25-year event
Inflow = 29.24 cfs @ 12.09 hrs, Volume= 3.322 af
Outflow = 29.24 cfs @ 12.09 hrs, Volume= 3.322 af, Atten= 0%, Lag= 0.0 min
Primary = 29.24 cfs @ 12.09 hrs, Volume= 3.322 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.25' @ 12.09 hrs
Flood Elev= 65.56'

Device	Routing	Invert	Outlet Devices
#1	Primary	53.54'	**30.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.54' / 53.12' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=29.22 cfs @ 12.09 hrs HW=57.24' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 29.22 cfs @ 5.95 fps)

Summary for Pond dmh13: dmh13

Inflow Area = 9.033 ac, 95.42% Impervious, Inflow Depth > 4.41" for 25-year event
Inflow = 29.24 cfs @ 12.09 hrs, Volume= 3.322 af
Outflow = 29.24 cfs @ 12.09 hrs, Volume= 3.322 af, Atten= 0%, Lag= 0.0 min
Primary = 29.24 cfs @ 12.09 hrs, Volume= 3.322 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.81' @ 12.09 hrs
Flood Elev= 65.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	53.10'	**30.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.10' / 52.09' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=29.22 cfs @ 12.09 hrs HW=56.80' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 29.22 cfs @ 5.95 fps)

Summary for Pond dmh14: dmh14

Inflow Area = 9.680 ac, 93.27% Impervious, Inflow Depth > 4.36" for 25-year event
Inflow = 31.52 cfs @ 12.09 hrs, Volume= 3.513 af
Outflow = 31.52 cfs @ 12.09 hrs, Volume= 3.513 af, Atten= 0%, Lag= 0.0 min
Primary = 31.52 cfs @ 12.09 hrs, Volume= 3.513 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.17' @ 12.09 hrs
Flood Elev= 65.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	52.07'	**30.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.07' / 51.95' S= 0.0052 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 4.91 sf

Primary OutFlow Max=31.47 cfs @ 12.09 hrs HW=56.16' (Free Discharge)
1=Culvert (Inlet Controls 31.47 cfs @ 6.41 fps)

Summary for Pond dmh15: dmh15

Inflow Area = 9.680 ac, 93.27% Impervious, Inflow Depth > 4.36" for 25-year event
Inflow = 31.52 cfs @ 12.09 hrs, Volume= 3.513 af
Outflow = 31.52 cfs @ 12.09 hrs, Volume= 3.513 af, Atten= 0%, Lag= 0.0 min
Primary = 31.52 cfs @ 12.09 hrs, Volume= 3.513 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.05' @ 12.09 hrs
Flood Elev= 64.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.95'	**30.0" Round Culvert** L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.95' / 51.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=31.47 cfs @ 12.09 hrs HW=56.04' (Free Discharge)
1=Culvert (Inlet Controls 31.47 cfs @ 6.41 fps)

Summary for Pond dmh16: dmh16

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth > 1.14" for 25-year event
Inflow = 0.04 cfs @ 16.93 hrs, Volume= 0.033 af
Outflow = 0.04 cfs @ 16.93 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min
Primary = 0.04 cfs @ 16.93 hrs, Volume= 0.033 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 60.60' @ 16.93 hrs
Flood Elev= 64.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**12.0" Round Culvert** L= 198.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.50' / 58.00' S= 0.0126 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.03 cfs @ 16.93 hrs HW=60.60' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.03 cfs @ 0.85 fps)

Summary for Pond dmh17: dmh17

Inflow Area = 10.237 ac, 89.39% Impervious, Inflow Depth > 4.20" for 25-year event
Inflow = 31.53 cfs @ 12.09 hrs, Volume= 3.581 af
Outflow = 31.53 cfs @ 12.09 hrs, Volume= 3.581 af, Atten= 0%, Lag= 0.0 min
Primary = 31.53 cfs @ 12.09 hrs, Volume= 3.581 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.59' @ 12.09 hrs
Flood Elev= 63.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.48'	**30.0" Round Culvert** L= 35.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.48' / 51.30' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=31.48 cfs @ 12.09 hrs HW=55.58' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 31.48 cfs @ 6.41 fps)

Summary for Pond dmh19: dmh 19

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth > 4.42" for 25-year event
Inflow = 2.18 cfs @ 12.08 hrs, Volume= 0.161 af
Outflow = 2.18 cfs @ 12.08 hrs, Volume= 0.161 af, Atten= 0%, Lag= 0.0 min
Primary = 2.18 cfs @ 12.08 hrs, Volume= 0.161 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.51' @ 12.08 hrs
Flood Elev= 61.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.48'	**12.0" Round Culvert** L= 59.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.48' / 53.89' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.18 cfs @ 12.08 hrs HW=55.51' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.18 cfs @ 2.77 fps)

Summary for Pond dmh2: dmh2

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 4.50" for 25-year event
Inflow = 12.39 cfs @ 12.08 hrs, Volume= 0.969 af
Outflow = 12.39 cfs @ 12.08 hrs, Volume= 0.969 af, Atten= 0%, Lag= 0.0 min
Primary = 12.39 cfs @ 12.08 hrs, Volume= 0.969 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 67.15' @ 12.08 hrs
Flood Elev= 69.15'

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	**18.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.00' / 61.50' S= 0.0150 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=12.37 cfs @ 12.08 hrs HW=67.14' (Free Discharge)
└**1=Culvert** (Inlet Controls 12.37 cfs @ 7.00 fps)

Summary for Pond dmh20: dmh20

Inflow Area = 10.673 ac, 89.83% Impervious, Inflow Depth > 4.21" for 25-year event
Inflow = 33.70 cfs @ 12.09 hrs, Volume= 3.741 af
Outflow = 33.70 cfs @ 12.09 hrs, Volume= 3.741 af, Atten= 0%, Lag= 0.0 min
Primary = 33.70 cfs @ 12.09 hrs, Volume= 3.741 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.79' @ 12.09 hrs
Flood Elev= 61.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.28'	**30.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.28' / 50.78' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=33.65 cfs @ 12.09 hrs HW=55.78' (Free Discharge)
└**1=Culvert** (Inlet Controls 33.65 cfs @ 6.86 fps)

Summary for Pond dmh21: dmh21

Inflow Area = 14.421 ac, 82.05% Impervious, Inflow Depth > 4.02" for 25-year event
Inflow = 42.28 cfs @ 12.10 hrs, Volume= 4.837 af
Outflow = 42.28 cfs @ 12.10 hrs, Volume= 4.837 af, Atten= 0%, Lag= 0.0 min
Primary = 42.28 cfs @ 12.10 hrs, Volume= 4.837 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.14' @ 12.10 hrs
Flood Elev= 58.55'

Device	Routing	Invert	Outlet Devices
#1	Primary	50.76'	**30.0" Round Culvert** L= 281.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.76' / 46.00' S= 0.0169 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=42.25 cfs @ 12.10 hrs HW=57.14' (Free Discharge)
1=Culvert (Inlet Controls 42.25 cfs @ 8.61 fps)

Summary for Pond dmh22: dmh 22

Inflow Area = 2.703 ac, 61.52% Impervious, Inflow Depth > 3.62" for 25-year event
Inflow = 7.61 cfs @ 12.09 hrs, Volume= 0.815 af
Outflow = 7.61 cfs @ 12.09 hrs, Volume= 0.815 af, Atten= 0%, Lag= 0.0 min
Primary = 7.61 cfs @ 12.09 hrs, Volume= 0.815 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.78' @ 12.09 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.50'	**15.0" Round Culvert** L= 93.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.50' / 51.03' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=7.60 cfs @ 12.09 hrs HW=54.78' (Free Discharge)
1=Culvert (Inlet Controls 7.60 cfs @ 6.19 fps)

Summary for Pond dmh23: dmh23

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 3.54" for 25-year event
Inflow = 6.44 cfs @ 12.09 hrs, Volume= 0.598 af
Outflow = 6.44 cfs @ 12.09 hrs, Volume= 0.598 af, Atten= 0%, Lag= 0.0 min
Primary = 6.44 cfs @ 12.09 hrs, Volume= 0.598 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 62.00' @ 12.09 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	55.19'	**12.0" Round Culvert** L= 138.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.19' / 54.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=6.44 cfs @ 12.09 hrs HW=62.00' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 6.44 cfs @ 8.19 fps)

Summary for Pond dmh24: dmh24

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 3.54" for 25-year event
Inflow = 6.44 cfs @ 12.09 hrs, Volume= 0.598 af
Outflow = 6.44 cfs @ 12.09 hrs, Volume= 0.598 af, Atten= 0%, Lag= 0.0 min
Primary = 6.44 cfs @ 12.09 hrs, Volume= 0.598 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.26' @ 12.09 hrs
Flood Elev= 61.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	56.10'	**12.0" Round Culvert** L= 72.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.10' / 55.92' S= 0.0025 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=6.44 cfs @ 12.09 hrs HW=61.26' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 6.44 cfs @ 8.19 fps)

Summary for Pond dmh24a: dmh24a

Inflow Area = 0.602 ac, 71.74% Impervious, Inflow Depth > 3.76" for 25-year event
Inflow = 1.87 cfs @ 12.15 hrs, Volume= 0.189 af
Outflow = 1.87 cfs @ 12.15 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.0 min
Primary = 1.87 cfs @ 12.15 hrs, Volume= 0.189 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.91' @ 12.15 hrs
Flood Elev= 63.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	**8.0" Round Culvert** L= 95.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.00' / 57.10' S= 0.0095 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.87 cfs @ 12.15 hrs HW=60.89' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 1.87 cfs @ 5.35 fps)

Summary for Pond dmh25: dmh25

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth > 2.64" for 25-year event
Inflow = 0.63 cfs @ 12.34 hrs, Volume= 0.090 af
Outflow = 0.63 cfs @ 12.34 hrs, Volume= 0.090 af, Atten= 0%, Lag= 0.0 min
Primary = 0.63 cfs @ 12.34 hrs, Volume= 0.090 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.45' @ 12.34 hrs
Flood Elev= 67.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.00'	**12.0" Round Culvert** L= 98.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.00' / 55.00' S= 0.0510 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.62 cfs @ 12.34 hrs HW=60.45' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.62 cfs @ 1.81 fps)

Summary for Pond dmh26: dmh26

Inflow Area = 2.028 ac, 41.73% Impervious, Inflow Depth > 2.86" for 25-year event
Inflow = 3.20 cfs @ 12.28 hrs, Volume= 0.483 af
Outflow = 3.20 cfs @ 12.28 hrs, Volume= 0.483 af, Atten= 0%, Lag= 0.0 min
Primary = 3.20 cfs @ 12.28 hrs, Volume= 0.483 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.64' @ 12.28 hrs
Flood Elev= 63.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.75'	**12.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.75' / 57.61' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.20 cfs @ 12.28 hrs HW=59.64' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 3.20 cfs @ 4.07 fps)

Summary for Pond dmh27: dmh27

Inflow Area = 2.712 ac, 46.62% Impervious, Inflow Depth > 2.96" for 25-year event
Inflow = 4.40 cfs @ 12.29 hrs, Volume= 0.670 af
Outflow = 4.40 cfs @ 12.29 hrs, Volume= 0.670 af, Atten= 0%, Lag= 0.0 min
Primary = 4.40 cfs @ 12.29 hrs, Volume= 0.670 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.59' @ 12.29 hrs
Flood Elev= 63.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	53.03'	**12.0" Round Culvert** L= 256.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.03' / 51.75' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=4.40 cfs @ 12.29 hrs HW=57.59' (Free Discharge)
1=Culvert (Barrel Controls 4.40 cfs @ 5.60 fps)

Summary for Pond dmh29: dmh29

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 4.23" for 25-year event
Inflow = 1.35 cfs @ 12.09 hrs, Volume= 0.097 af
Outflow = 1.35 cfs @ 12.09 hrs, Volume= 0.097 af, Atten= 0%, Lag= 0.0 min
Primary = 1.35 cfs @ 12.09 hrs, Volume= 0.097 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.22' @ 12.09 hrs
Flood Elev= 63.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.85'	**8.0" Round Culvert** L= 46.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.85' / 57.39' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.35 cfs @ 12.09 hrs HW=59.21' (Free Discharge)
1=Culvert (Inlet Controls 1.35 cfs @ 3.86 fps)

Summary for Pond dmh3: dmh3

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 4.21" for 25-year event
Inflow = 14.10 cfs @ 12.09 hrs, Volume= 1.106 af
Outflow = 14.10 cfs @ 12.09 hrs, Volume= 1.106 af, Atten= 0%, Lag= 0.0 min
Primary = 14.10 cfs @ 12.09 hrs, Volume= 1.106 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 62.89' @ 12.09 hrs
Flood Elev= 68.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**24.0" Round Culvert** L= 125.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.50' / 59.84' S= 0.0053 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=14.07 cfs @ 12.09 hrs HW=62.89' (Free Discharge)
↑**1=Culvert** (Inlet Controls 14.07 cfs @ 4.48 fps)

Summary for Pond dmh30: dmh30

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 4.23" for 25-year event
Inflow = 1.35 cfs @ 12.09 hrs, Volume= 0.097 af
Outflow = 1.35 cfs @ 12.09 hrs, Volume= 0.097 af, Atten= 0%, Lag= 0.0 min
Primary = 1.35 cfs @ 12.09 hrs, Volume= 0.097 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.12' @ 12.09 hrs
Flood Elev= 63.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	55.40'	**12.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.40' / 54.37' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.35 cfs @ 12.09 hrs HW=56.12' (Free Discharge)
↑**1=Culvert** (Barrel Controls 1.35 cfs @ 3.12 fps)

Summary for Pond dmh31: dmh31

Inflow Area = 2.303 ac, 48.70% Impervious, Inflow Depth > 3.02" for 25-year event
Inflow = 3.82 cfs @ 12.27 hrs, Volume= 0.580 af
Outflow = 3.82 cfs @ 12.27 hrs, Volume= 0.580 af, Atten= 0%, Lag= 0.0 min
Primary = 3.82 cfs @ 12.27 hrs, Volume= 0.580 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.74' @ 12.27 hrs
Flood Elev= 63.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.35'	**12.0" Round Culvert** L= 259.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.35' / 53.05' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.82 cfs @ 12.27 hrs HW=57.73' (Free Discharge)
└**1=Culvert** (Barrel Controls 3.82 cfs @ 4.86 fps)

Summary for Pond dmh32: dmh32

Inflow Area = 3.424 ac, 42.31% Impervious, Inflow Depth > 2.89" for 25-year event
Inflow = 5.67 cfs @ 12.28 hrs, Volume= 0.824 af
Outflow = 5.67 cfs @ 12.28 hrs, Volume= 0.824 af, Atten= 0%, Lag= 0.0 min
Primary = 5.67 cfs @ 12.28 hrs, Volume= 0.824 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.83' @ 12.28 hrs
Flood Elev= 58.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.73'	**12.0" Round Culvert** L= 36.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.73' / 51.60' S= 0.0036 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.66 cfs @ 12.28 hrs HW=55.83' (Free Discharge)
└**1=Culvert** (Inlet Controls 5.66 cfs @ 7.21 fps)

Summary for Pond dmh33: dmh33

Inflow Area = 0.315 ac, 80.35% Impervious, Inflow Depth > 4.07" for 25-year event
Inflow = 0.43 cfs @ 12.42 hrs, Volume= 0.107 af
Outflow = 0.43 cfs @ 12.42 hrs, Volume= 0.107 af, Atten= 0%, Lag= 0.0 min
Primary = 0.43 cfs @ 12.42 hrs, Volume= 0.107 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.37' @ 12.42 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**12.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 52.01' S= 0.0099 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.43 cfs @ 12.42 hrs HW=54.37' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.43 cfs @ 1.63 fps)

Summary for Pond dmh34: dmh34

Inflow Area = 3.030 ac, 25.76% Impervious, Inflow Depth > 2.19" for 25-year event
Inflow = 5.80 cfs @ 12.10 hrs, Volume= 0.553 af
Outflow = 5.80 cfs @ 12.10 hrs, Volume= 0.553 af, Atten= 0%, Lag= 0.0 min
Primary = 5.80 cfs @ 12.10 hrs, Volume= 0.553 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.27' @ 12.10 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.99'	**12.0" Round Culvert** L= 39.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.99' / 51.60' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.79 cfs @ 12.10 hrs HW=56.26' (Free Discharge)
↑**1=Culvert** (Inlet Controls 5.79 cfs @ 7.38 fps)

Summary for Pond dmh35: dmh35

Inflow Area = 7.284 ac, 34.73% Impervious, Inflow Depth > 2.57" for 25-year event
Inflow = 10.95 cfs @ 12.23 hrs, Volume= 1.563 af
Outflow = 10.95 cfs @ 12.23 hrs, Volume= 1.563 af, Atten= 0%, Lag= 0.0 min
Primary = 10.95 cfs @ 12.23 hrs, Volume= 1.563 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.81' @ 12.23 hrs
Flood Elev= 58.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.55'	**18.0" Round Culvert** L= 276.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.55' / 50.17' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=10.94 cfs @ 12.23 hrs HW=55.81' (Free Discharge)
↑**1=Culvert** (Barrel Controls 10.94 cfs @ 6.19 fps)

Summary for Pond dmh36: dmh36

Inflow Area = 7.284 ac, 34.73% Impervious, Inflow Depth > 2.57" for 25-year event
Inflow = 10.95 cfs @ 12.23 hrs, Volume= 1.563 af
Outflow = 10.95 cfs @ 12.23 hrs, Volume= 1.563 af, Atten= 0%, Lag= 0.0 min
Primary = 10.95 cfs @ 12.23 hrs, Volume= 1.563 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 53.71' @ 12.23 hrs
Flood Elev= 53.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	50.15'	**18.0" Round Culvert** L= 159.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.15' / 49.35' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=10.94 cfs @ 12.23 hrs HW=53.71' (Free Discharge)
↑**1=Culvert** (Barrel Controls 10.94 cfs @ 6.19 fps)

Summary for Pond dmh38: dmh38

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 4.37" for 25-year event
Inflow = 10.58 cfs @ 12.09 hrs, Volume= 0.941 af
Outflow = 10.58 cfs @ 12.09 hrs, Volume= 0.941 af, Atten= 0%, Lag= 0.0 min
Primary = 10.58 cfs @ 12.09 hrs, Volume= 0.941 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.21' @ 12.09 hrs
Flood Elev= 56.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.98'	**18.0" Round Culvert** L= 106.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.98' / 50.92' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=10.57 cfs @ 12.09 hrs HW=55.21' (Free Discharge)
↑**1=Culvert** (Inlet Controls 10.57 cfs @ 5.98 fps)

Summary for Pond dmh39: dmh39

Inflow Area = 2.778 ac, 93.02% Impervious, Inflow Depth > 4.21" for 25-year event
Inflow = 10.58 cfs @ 12.09 hrs, Volume= 0.974 af
Outflow = 10.58 cfs @ 12.09 hrs, Volume= 0.974 af, Atten= 0%, Lag= 0.0 min
Primary = 10.58 cfs @ 12.09 hrs, Volume= 0.974 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 53.82' @ 12.09 hrs
Flood Elev= 56.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	50.59'	**18.0" Round Culvert** L= 58.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.59' / 50.32' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=10.58 cfs @ 12.09 hrs HW=53.82' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 10.58 cfs @ 5.99 fps)

Summary for Pond dmh4: dmh4

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 4.21" for 25-year event
Inflow = 14.10 cfs @ 12.09 hrs, Volume= 1.106 af
Outflow = 14.10 cfs @ 12.09 hrs, Volume= 1.106 af, Atten= 0%, Lag= 0.0 min
Primary = 14.10 cfs @ 12.09 hrs, Volume= 1.106 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.27' @ 12.09 hrs
Flood Elev= 68.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	59.84'	**24.0" Round Culvert** L= 66.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.84' / 59.57' S= 0.0041 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=14.08 cfs @ 12.09 hrs HW=62.26' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 14.08 cfs @ 4.70 fps)

Summary for Pond dmh40: dmh40

Inflow Area = 10.062 ac, 50.82% Impervious, Inflow Depth > 3.03" for 25-year event
Inflow = 17.83 cfs @ 12.09 hrs, Volume= 2.537 af
Outflow = 17.83 cfs @ 12.09 hrs, Volume= 2.537 af, Atten= 0%, Lag= 0.0 min
Primary = 17.83 cfs @ 12.09 hrs, Volume= 2.537 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 52.70' @ 12.09 hrs
Flood Elev= 57.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	49.33'	**24.0" Round Culvert** L= 340.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 49.33' / 47.63' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=17.81 cfs @ 12.09 hrs HW=52.69' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 17.81 cfs @ 5.67 fps)

Summary for Pond dmh43: dmh43

Inflow Area = 12.646 ac, 60.87% Impervious, Inflow Depth > 3.32" for 25-year event
Inflow = 28.65 cfs @ 12.09 hrs, Volume= 3.499 af
Outflow = 28.65 cfs @ 12.09 hrs, Volume= 3.499 af, Atten= 0%, Lag= 0.0 min
Primary = 28.65 cfs @ 12.09 hrs, Volume= 3.499 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.37' @ 12.09 hrs
Flood Elev= 56.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	47.61'	**24.0" Round Culvert** L= 193.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 47.61' / 46.64' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=28.64 cfs @ 12.09 hrs HW=54.36' (Free Discharge)
1=Culvert (Inlet Controls 28.64 cfs @ 9.12 fps)

Summary for Pond dmh44: dmh44

Inflow Area = 12.894 ac, 59.70% Impervious, Inflow Depth > 3.29" for 25-year event
Inflow = 28.66 cfs @ 12.09 hrs, Volume= 3.539 af
Outflow = 28.66 cfs @ 12.09 hrs, Volume= 3.539 af, Atten= 0%, Lag= 0.0 min
Primary = 28.66 cfs @ 12.09 hrs, Volume= 3.539 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 50.23' @ 12.09 hrs
Flood Elev= 56.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	46.62'	**30.0" Round Culvert** L= 82.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.62' / 46.21' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=28.64 cfs @ 12.09 hrs HW=50.23' (Free Discharge)
1=Culvert (Inlet Controls 28.64 cfs @ 5.84 fps)

Summary for Pond dmh45: dmh45

Inflow Area = 15.478 ac, 66.43% Impervious, Inflow Depth > 3.49" for 25-year event
Inflow = 41.15 cfs @ 12.09 hrs, Volume= 4.505 af
Outflow = 41.15 cfs @ 12.09 hrs, Volume= 4.505 af, Atten= 0%, Lag= 0.0 min
Primary = 41.15 cfs @ 12.09 hrs, Volume= 4.505 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 52.37' @ 12.09 hrs
Flood Elev= 56.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	46.19'	**30.0" Round Culvert** L= 316.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.19' / 44.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=41.09 cfs @ 12.09 hrs HW=52.36' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 41.09 cfs @ 8.37 fps)

Summary for Pond dmh47: dmh47

Inflow Area = 15.478 ac, 66.43% Impervious, Inflow Depth > 3.49" for 25-year event
Inflow = 41.15 cfs @ 12.09 hrs, Volume= 4.505 af
Outflow = 41.15 cfs @ 12.09 hrs, Volume= 4.505 af, Atten= 0%, Lag= 0.0 min
Primary = 41.15 cfs @ 12.09 hrs, Volume= 4.505 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 50.11' @ 12.09 hrs
Flood Elev= 55.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	44.00'	**30.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.00' / 42.96' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=41.09 cfs @ 12.09 hrs HW=50.10' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 41.09 cfs @ 8.37 fps)

Summary for Pond dmh48: dmh48

Inflow Area = 16.171 ac, 67.87% Impervious, Inflow Depth > 3.53" for 25-year event
Inflow = 43.11 cfs @ 12.09 hrs, Volume= 4.763 af
Outflow = 43.11 cfs @ 12.09 hrs, Volume= 4.763 af, Atten= 0%, Lag= 0.0 min
Primary = 43.11 cfs @ 12.09 hrs, Volume= 4.763 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 49.53' @ 12.09 hrs
Flood Elev= 50.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	42.94'	**30.0" Round Culvert** L= 117.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 42.94' / 42.35' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=43.08 cfs @ 12.09 hrs HW=49.52' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 43.08 cfs @ 8.78 fps)

Summary for Pond dmh49: dmh49

Inflow Area = 16.492 ac, 67.17% Impervious, Inflow Depth > 3.51" for 25-year event
Inflow = 43.11 cfs @ 12.09 hrs, Volume= 4.830 af
Outflow = 43.11 cfs @ 12.09 hrs, Volume= 4.830 af, Atten= 0%, Lag= 0.0 min
Primary = 43.11 cfs @ 12.09 hrs, Volume= 4.830 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 46.41' @ 12.09 hrs
Flood Elev= 50.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	42.33'	**36.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 42.33' / 42.23' S= 0.0071 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=43.13 cfs @ 12.09 hrs HW=46.41' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 43.13 cfs @ 6.10 fps)

Summary for Pond dmh5: dmh5

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 4.21" for 25-year event
Inflow = 14.10 cfs @ 12.09 hrs, Volume= 1.106 af
Outflow = 14.10 cfs @ 12.09 hrs, Volume= 1.106 af, Atten= 0%, Lag= 0.0 min
Primary = 14.10 cfs @ 12.09 hrs, Volume= 1.106 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.87' @ 12.09 hrs
Flood Elev= 69.04'

Device	Routing	Invert	Outlet Devices
#1	Primary	59.48'	**24.0" Round Culvert** L= 173.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.48' / 58.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=14.07 cfs @ 12.09 hrs HW=61.87' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 14.07 cfs @ 4.48 fps)

Summary for Pond dmh50: dmh50

Inflow Area = 15.118 ac, 79.46% Impervious, Inflow Depth > 3.95" for 25-year event
Inflow = 42.30 cfs @ 12.10 hrs, Volume= 4.973 af
Outflow = 42.30 cfs @ 12.10 hrs, Volume= 4.973 af, Atten= 0%, Lag= 0.0 min
Primary = 42.30 cfs @ 12.10 hrs, Volume= 4.973 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 51.14' @ 12.10 hrs
Flood Elev= 56.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	44.75'	**30.0" Round Culvert** L= 64.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.75' / 44.11' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=42.27 cfs @ 12.10 hrs HW=51.13' (Free Discharge)
1=Culvert (Inlet Controls 42.27 cfs @ 8.61 fps)

Summary for Pond dmh51: dmh51

Inflow Area = 15.118 ac, 79.46% Impervious, Inflow Depth > 3.95" for 25-year event
Inflow = 42.30 cfs @ 12.10 hrs, Volume= 4.973 af
Outflow = 42.30 cfs @ 12.10 hrs, Volume= 4.973 af, Atten= 0%, Lag= 0.0 min
Primary = 42.30 cfs @ 12.10 hrs, Volume= 4.973 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 50.48' @ 12.10 hrs
Flood Elev= 55.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	44.09'	**30.0" Round Culvert** L= 38.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.09' / 43.00' S= 0.0287 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=42.27 cfs @ 12.10 hrs HW=50.47' (Free Discharge)
1=Culvert (Inlet Controls 42.27 cfs @ 8.61 fps)

Summary for Pond dmh52: dmh52

Inflow Area = 31.609 ac, 73.05% Impervious, Inflow Depth > 3.72" for 25-year event
Inflow = 85.22 cfs @ 12.09 hrs, Volume= 9.802 af
Outflow = 85.22 cfs @ 12.09 hrs, Volume= 9.802 af, Atten= 0%, Lag= 0.0 min
Primary = 85.22 cfs @ 12.09 hrs, Volume= 9.802 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 48.18' @ 12.09 hrs
Flood Elev= 50.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	41.00'	**42.0" Round Culvert** L= 258.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 41.00' / 36.00' S= 0.0194 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 9.62 sf

Primary OutFlow Max=85.07 cfs @ 12.09 hrs HW=48.16' (Free Discharge)
↑**1=Culvert** (Inlet Controls 85.07 cfs @ 8.84 fps)

Summary for Pond dmh53: CB53

Inflow Area = 32.682 ac, 71.95% Impervious, Inflow Depth > 3.70" for 25-year event
Inflow = 87.89 cfs @ 12.10 hrs, Volume= 10.087 af
Outflow = 87.89 cfs @ 12.10 hrs, Volume= 10.087 af, Atten= 0%, Lag= 0.0 min
Primary = 87.89 cfs @ 12.10 hrs, Volume= 10.087 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 40.52' @ 12.10 hrs
Flood Elev= 41.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	33.00'	**42.0" Round Culvert** L= 120.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 33.00' / 30.50' S= 0.0208 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 9.62 sf

Primary OutFlow Max=87.79 cfs @ 12.10 hrs HW=40.51' (Free Discharge)
↑**1=Culvert** (Inlet Controls 87.79 cfs @ 9.12 fps)

Summary for Pond dmh54: dmh54

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 3.71" for 25-year event
Inflow = 88.09 cfs @ 12.10 hrs, Volume= 10.120 af
Outflow = 88.09 cfs @ 12.10 hrs, Volume= 10.120 af, Atten= 0%, Lag= 0.0 min
Primary = 88.09 cfs @ 12.10 hrs, Volume= 10.120 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 32.40' @ 12.10 hrs
Flood Elev= 38.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	27.00'	**48.0" Round Culvert** L= 152.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.00' / 22.00' S= 0.0329 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=87.99 cfs @ 12.10 hrs HW=32.39' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 87.99 cfs @ 7.00 fps)

Summary for Pond dmh55: dhm55

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 3.71" for 25-year event
Inflow = 88.09 cfs @ 12.10 hrs, Volume= 10.120 af
Outflow = 88.09 cfs @ 12.10 hrs, Volume= 10.120 af, Atten= 0%, Lag= 0.0 min
Primary = 88.09 cfs @ 12.10 hrs, Volume= 10.120 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 24.40' @ 12.10 hrs
Flood Elev= 30.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	19.00'	**48.0" Round Culvert** L= 115.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 19.00' / 15.50' S= 0.0304 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=87.99 cfs @ 12.10 hrs HW=24.39' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 87.99 cfs @ 7.00 fps)

Summary for Pond dmh56: dmh56

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 3.71" for 25-year event
Inflow = 88.09 cfs @ 12.10 hrs, Volume= 10.120 af
Outflow = 88.09 cfs @ 12.10 hrs, Volume= 10.120 af, Atten= 0%, Lag= 0.0 min
Primary = 88.09 cfs @ 12.10 hrs, Volume= 10.120 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 17.90' @ 12.10 hrs
Flood Elev= 30.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	12.50'	**48.0" Round Culvert** L= 42.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 12.50' / 11.00' S= 0.0357 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=88.00 cfs @ 12.10 hrs HW=17.89' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 88.00 cfs @ 7.00 fps)

Summary for Pond dmh59: dmh59

Inflow Area = 2.287 ac, 61.62% Impervious, Inflow Depth > 3.60" for 25-year event
Inflow = 6.87 cfs @ 12.09 hrs, Volume= 0.685 af
Outflow = 6.87 cfs @ 12.09 hrs, Volume= 0.685 af, Atten= 0%, Lag= 0.0 min
Primary = 6.87 cfs @ 12.09 hrs, Volume= 0.685 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 67.04' @ 12.09 hrs
Flood Elev= 59.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.30'	**12.0" Round Culvert** L= 294.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.30' / 52.83' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=6.86 cfs @ 12.09 hrs HW=67.02' (Free Discharge)
↑**1=Culvert** (Barrel Controls 6.86 cfs @ 8.74 fps)

Summary for Pond dmh6: dmh6

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 4.21" for 25-year event
Inflow = 14.10 cfs @ 12.09 hrs, Volume= 1.106 af
Outflow = 14.10 cfs @ 12.09 hrs, Volume= 1.106 af, Atten= 0%, Lag= 0.0 min
Primary = 14.10 cfs @ 12.09 hrs, Volume= 1.106 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.89' @ 12.09 hrs
Flood Elev= 68.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	58.58'	**24.0" Round Culvert** L= 170.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.58' / 57.73' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 3.14 sf

Primary OutFlow Max=14.07 cfs @ 12.09 hrs HW=61.88' (Free Discharge)
↑**1=Culvert** (Barrel Controls 14.07 cfs @ 4.48 fps)

Summary for Pond dmh60: dhm60

Inflow Area = 31.609 ac, 73.05% Impervious, Inflow Depth > 3.72" for 25-year event
Inflow = 85.22 cfs @ 12.09 hrs, Volume= 9.802 af
Outflow = 85.22 cfs @ 12.09 hrs, Volume= 9.802 af, Atten= 0%, Lag= 0.0 min
Primary = 85.22 cfs @ 12.09 hrs, Volume= 9.802 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 40.68' @ 12.09 hrs
Flood Elev= 44.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	35.50'	**48.0" Round Culvert** L= 114.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 35.50' / 33.50' S= 0.0175 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=85.07 cfs @ 12.09 hrs HW=40.67' (Free Discharge)
↑**1=Culvert** (Inlet Controls 85.07 cfs @ 6.77 fps)

Summary for Pond dmh7: dmh7

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 4.21" for 25-year event
Inflow = 14.10 cfs @ 12.09 hrs, Volume= 1.106 af
Outflow = 14.10 cfs @ 12.09 hrs, Volume= 1.106 af, Atten= 0%, Lag= 0.0 min
Primary = 14.10 cfs @ 12.09 hrs, Volume= 1.106 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.10' @ 12.09 hrs
Flood Elev= 67.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.71'	**24.0" Round Culvert** L= 170.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.71' / 56.86' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=14.07 cfs @ 12.09 hrs HW=60.10' (Free Discharge)
↑**1=Culvert** (Inlet Controls 14.07 cfs @ 4.48 fps)

Summary for Pond dmh8: dmh8

Inflow Area = 5.738 ac, 92.79% Impervious, Inflow Depth > 4.34" for 25-year event
Inflow = 26.56 cfs @ 12.09 hrs, Volume= 2.075 af
Outflow = 26.56 cfs @ 12.09 hrs, Volume= 2.075 af, Atten= 0%, Lag= 0.0 min
Primary = 26.56 cfs @ 12.09 hrs, Volume= 2.075 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.86' @ 12.09 hrs
Flood Elev= 66.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	56.84'	**24.0" Round Culvert** L= 296.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.84' / 55.66' S= 0.0040 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=26.53 cfs @ 12.09 hrs HW=63.85' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 26.53 cfs @ 8.45 fps)

Summary for Pond dmh9a: dmh9a

Inflow Area = 5.738 ac, 92.79% Impervious, Inflow Depth > 4.34" for 25-year event
Inflow = 26.56 cfs @ 12.09 hrs, Volume= 2.075 af
Outflow = 26.56 cfs @ 12.09 hrs, Volume= 2.075 af, Atten= 0%, Lag= 0.0 min
Primary = 26.56 cfs @ 12.09 hrs, Volume= 2.075 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.59' @ 12.09 hrs
Flood Elev= 65.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	55.64'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.64' / 54.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=26.53 cfs @ 12.09 hrs HW=61.58' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 26.53 cfs @ 8.45 fps)

Summary for Pond DP 9B: off site pond to strm 5/6

Inflow Area = 15.254 ac, 2.94% Impervious, Inflow Depth = 2.55" for 25-year event
Inflow = 24.53 cfs @ 12.36 hrs, Volume= 3.239 af
Outflow = 24.51 cfs @ 12.36 hrs, Volume= 3.239 af, Atten= 0%, Lag= 0.3 min
Primary = 24.51 cfs @ 12.36 hrs, Volume= 3.239 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.85' @ 12.36 hrs Surf.Area= 1,864 sf Storage= 710 cf

Plug-Flow detention time= 0.5 min calculated for 3.239 af (100% of inflow)
Center-of-Mass det. time= 0.5 min (851.6 - 851.1)

Volume	Invert	Avail.Storage	Storage Description
#1	62.00'	13,655 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.00	136	60.0	0	0	136
63.00	2,371	550.0	1,025	1,025	23,924
64.00	5,821	1,011.0	3,969	4,994	81,195
65.00	11,855	1,110.0	8,661	13,655	97,938

Device	Routing	Invert	Outlet Devices
#1	Primary	53.00'	**12.0" Round Culvert** L= 670.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 53.00' / 52.00' S= 0.0015 '/' Cc= 0.900
n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf
#2 Primary 62.50' **24.0" x 24.0" Horiz. Orifice/Grate X 4.00** C= 0.600
Limited to weir flow at low heads

Primary OutFlow Max=24.49 cfs @ 12.36 hrs HW=62.85' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.75 cfs @ 3.50 fps)
└**2=Orifice/Grate** (Weir Controls 21.74 cfs @ 1.94 fps)

Summary for Pond DP 9D: offsite pond strm 3

Inflow Area = 3.551 ac, 0.00% Impervious, Inflow Depth = 2.44" for 25-year event
Inflow = 4.20 cfs @ 12.73 hrs, Volume= 0.721 af
Outflow = 4.14 cfs @ 12.82 hrs, Volume= 0.721 af, Atten= 2%, Lag= 5.4 min
Primary = 4.14 cfs @ 12.82 hrs, Volume= 0.721 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 65.67' @ 12.82 hrs Surf.Area= 2,768 sf Storage= 1,253 cf

Plug-Flow detention time= 2.3 min calculated for 0.721 af (100% of inflow)
Center-of-Mass det. time= 2.3 min (885.2 - 882.8)

Volume	Invert	Avail.Storage	Storage Description
#1	65.00'	7,999 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.00	1,097	318.0	0	0	1,097
66.00	3,867	753.0	2,341	2,341	38,175
67.00	7,663	1,200.0	5,658	7,999	107,652

Device	Routing	Invert	Outlet Devices
#1	Primary	53.50'	**12.0" Round Culvert**
			L= 1,260.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 53.50' / 52.00' S= 0.0012 '/' Cc= 0.900
			n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf
#2	Primary	65.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=4.14 cfs @ 12.82 hrs HW=65.67' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.30 cfs @ 2.92 fps)
└**2=Orifice/Grate** (Weir Controls 1.84 cfs @ 1.35 fps)

Summary for Pond GSF 11: grassed soil filter

Inflow Area = 0.991 ac, 36.78% Impervious, Inflow Depth = 3.36" for 25-year event
Inflow = 3.88 cfs @ 12.09 hrs, Volume= 0.277 af
Outflow = 1.28 cfs @ 12.39 hrs, Volume= 0.227 af, Atten= 67%, Lag= 18.3 min
Primary = 0.03 cfs @ 12.39 hrs, Volume= 0.075 af
Secondary = 1.26 cfs @ 12.39 hrs, Volume= 0.153 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.42' @ 12.39 hrs Surf.Area= 5,223 sf Storage= 5,339 cf
Flood Elev= 63.00' Surf.Area= 5,598 sf Storage= 7,213 cf

Plug-Flow detention time= 411.9 min calculated for 0.227 af (82% of inflow)
Center-of-Mass det. time= 340.1 min (1,151.9 - 811.9)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	5,560 cf	**gsf11 (Irregular)** Listed below (Recalc)
#2	58.24'	1,653 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		7,213 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,200	181.0	0	0	2,200
62.00	2,771	200.0	2,480	2,480	2,807
63.00	3,400	219.0	3,080	5,560	3,474

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.24	2,198	0.0	0	0
58.25	2,198	40.0	9	9
58.99	2,198	40.0	651	659
59.00	2,198	30.0	7	666
59.49	2,198	30.0	323	989
59.50	2,198	20.0	4	993
61.00	2,198	20.0	659	1,653

Device	Routing	Invert	Outlet Devices
#1	Primary	58.25'	**0.7" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	58.05'	**8.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.05' / 57.78' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	62.00'	**4.0" Vert. Orifice/Grate X 6.00** C= 0.600
#5	Device 3	62.50'	**25.7" Horiz. cb19 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 12.39 hrs HW=62.42' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.03 cfs @ 9.79 fps)
└─**2=Exfiltration** (Passes 0.03 cfs of 0.12 cfs potential flow)

Secondary OutFlow Max=1.26 cfs @ 12.39 hrs HW=62.42' (Free Discharge)
└─**3=Culvert** (Passes 1.26 cfs of 2.66 cfs potential flow)
├─**4=Orifice/Grate** (Orifice Controls 1.26 cfs @ 2.41 fps)
└─**5=cb19 beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 12: grassed soil filter

Inflow Area = 0.297 ac, 57.98% Impervious, Inflow Depth = 3.86" for 25-year event
Inflow = 1.31 cfs @ 12.09 hrs, Volume= 0.095 af
Outflow = 0.84 cfs @ 12.18 hrs, Volume= 0.074 af, Atten= 36%, Lag= 5.6 min
Primary = 0.01 cfs @ 12.18 hrs, Volume= 0.025 af
Secondary = 0.83 cfs @ 12.18 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.01' @ 12.18 hrs Surf.Area= 2,092 sf Storage= 1,721 cf
Flood Elev= 62.50' Surf.Area= 2,255 sf Storage= 2,348 cf

Plug-Flow detention time= 420.7 min calculated for 0.074 af (78% of inflow)
Center-of-Mass det. time= 340.3 min (1,136.8 - 796.5)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	1,681 cf	**gsf12 (Irregular)** Listed below (Recalc)
#2	58.24'	667 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		2,348 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	886	151.0	0	0	886
62.00	1,201	164.0	1,040	1,040	1,248
62.50	1,368	170.0	642	1,681	1,428

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.24	887	0.0	0	0
58.25	887	40.0	4	4
58.99	887	40.0	263	266
59.00	887	30.0	3	269
59.49	887	30.0	130	399
59.50	887	20.0	2	401
61.00	887	20.0	266	667

Device	Routing	Invert	Outlet Devices
#1	Primary	58.25'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	58.20'	**8.0" Round Culvert** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.20' / 58.10' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	61.90'	**25.7" Horiz. cb15a beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.18 hrs HW=62.01' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.32 fps)
└**2=Exfiltration** (Passes 0.01 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=0.83 cfs @ 12.18 hrs HW=62.01' (Free Discharge)
└**3=Culvert** (Passes 0.83 cfs of 2.47 cfs potential flow)
└**4=cb15a beehive equiv** (Weir Controls 0.83 cfs @ 1.10 fps)

Summary for Pond GSF 13: grassed soil filter

Inflow Area = 1.037 ac, 46.46% Impervious, Inflow Depth = 3.55" for 25-year event
Inflow = 4.27 cfs @ 12.09 hrs, Volume= 0.307 af
Outflow = 2.02 cfs @ 12.25 hrs, Volume= 0.255 af, Atten= 53%, Lag= 10.0 min
Primary = 0.03 cfs @ 12.25 hrs, Volume= 0.097 af
Secondary = 1.99 cfs @ 12.25 hrs, Volume= 0.158 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.20' @ 12.25 hrs Surf.Area= 6,218 sf Storage= 5,600 cf
Flood Elev= 63.00' Surf.Area= 7,083 sf Storage= 8,909 cf

Plug-Flow detention time= 444.8 min calculated for 0.255 af (83% of inflow)
Center-of-Mass det. time= 376.2 min (1,182.2 - 806.0)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	7,028 cf	**gsf13 (Irregular)** Listed below (Recalc)
#2	58.24'	1,881 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		8,909 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,500	328.0	0	0	2,500
62.00	3,513	347.0	2,992	2,992	3,575
63.00	4,582	366.0	4,036	7,028	4,710

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.24	2,501	0.0	0	0
58.25	2,501	40.0	10	10
58.99	2,501	40.0	740	750
59.00	2,501	30.0	8	758
59.49	2,501	30.0	368	1,125
59.50	2,501	20.0	5	1,130
61.00	2,501	20.0	750	1,881

Device	Routing	Invert	Outlet Devices
#1	Primary	58.25'	**0.8" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	58.05'	**8.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900

			Inlet / Outlet Invert= 58.05' / 57.82' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	62.00'	**25.7" Horiz. cb18 beehive equiv** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 12.25 hrs HW=62.20' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.03 cfs @ 9.53 fps)
↑—**2=Exfiltration** (Passes 0.03 cfs of 0.14 cfs potential flow)

Secondary OutFlow Max=1.98 cfs @ 12.25 hrs HW=62.20' (Free Discharge)
↑—**3=Culvert** (Passes 1.98 cfs of 2.59 cfs potential flow)
↑—**4=cb18 beehive equiv** (Weir Controls 1.98 cfs @ 1.47 fps)

Summary for Pond GSF 15: grassed soil filter

Inflow Area = 0.210 ac, 1.92% Impervious, Inflow Depth = 2.52" for 25-year event
Inflow = 0.62 cfs @ 12.09 hrs, Volume= 0.044 af
Outflow = 0.40 cfs @ 12.19 hrs, Volume= 0.034 af, Atten= 36%, Lag= 6.0 min
Primary = 0.00 cfs @ 12.19 hrs, Volume= 0.005 af
Secondary = 0.39 cfs @ 12.19 hrs, Volume= 0.029 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.77' @ 12.19 hrs Surf.Area= 1,332 sf Storage= 629 cf
Flood Elev= 65.00' Surf.Area= 2,017 sf Storage= 1,939 cf

Plug-Flow detention time= 270.7 min calculated for 0.034 af (78% of inflow)
Center-of-Mass det. time= 187.1 min (1,022.6 - 835.5)

Volume	Invert	Avail.Storage	Storage Description
#1	63.50'	1,489 cf	**gsf15 (Irregular)** Listed below (Recalc)
#2	60.74'	450 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,939 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
63.50	600	168.0	0	0	600
64.00	858	177.0	363	363	862
65.00	1,418	196.0	1,126	1,489	1,456

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.74	599	0.0	0	0
60.75	599	40.0	2	2
61.49	599	40.0	177	180
61.50	599	30.0	2	181
61.99	599	30.0	88	270
62.00	599	20.0	1	271
63.50	599	20.0	180	450

Device	Routing	Invert	Outlet Devices
#1	Primary	60.75'	**0.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	60.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	60.70'	**8.0" Round Culvert**
			L= 18.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 60.70' / 60.52' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	63.70'	**25.7" Horiz. cb9 beehive equiv** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.19 hrs HW=63.77' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.35 fps)
└**2=Exfiltration** (Passes 0.00 cfs of 0.03 cfs potential flow)

Secondary OutFlow Max=0.39 cfs @ 12.19 hrs HW=63.77' (Free Discharge)
└**3=Culvert** (Passes 0.39 cfs of 2.19 cfs potential flow)
└**4=cb9 beehive equiv** (Weir Controls 0.39 cfs @ 0.85 fps)

Summary for Pond GSF 16: grassed soil filter

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth = 3.26" for 25-year event
Inflow = 1.32 cfs @ 12.09 hrs, Volume= 0.094 af
Outflow = 0.04 cfs @ 16.93 hrs, Volume= 0.033 af, Atten= 97%, Lag= 290.3 min
Primary = 0.01 cfs @ 16.93 hrs, Volume= 0.024 af
Secondary = 0.03 cfs @ 16.93 hrs, Volume= 0.009 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 64.41' @ 16.93 hrs Surf.Area= 3,199 sf Storage= 3,348 cf

Plug-Flow detention time= 911.1 min calculated for 0.033 af (35% of inflow)
Center-of-Mass det. time= 784.5 min (1,599.1 - 814.7)

Volume	Invert	Avail.Storage	Storage Description
#1	62.75'	4,054 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	60.74'	753 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		4,806 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.75	1,000	215.0	0	0	1,000
63.00	1,165	220.0	270	270	1,181
64.00	1,858	241.0	1,498	1,768	1,986
65.00	2,741	270.0	2,285	4,054	3,192

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.74	1,001	0.0	0	0
60.75	1,001	40.0	4	4
61.49	1,001	40.0	296	300
61.50	1,001	30.0	3	303
61.99	1,001	30.0	147	450
62.00	1,001	20.0	2	452
63.50	1,001	20.0	300	753

Device	Routing	Invert	Outlet Devices
#1	Primary	60.75'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	60.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	60.70'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.54' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	64.40'	**25.7" Horiz. cb8 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 16.93 hrs HW=64.41' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.19 fps)
↑—**2=Exfiltration** (Passes 0.01 cfs of 0.07 cfs potential flow)

Secondary OutFlow Max=0.02 cfs @ 16.93 hrs HW=64.41' (Free Discharge)
↑—**3=Culvert** (Passes 0.02 cfs of 2.44 cfs potential flow)
↑—**4=cb8 beehive equiv** (Weir Controls 0.02 cfs @ 0.29 fps)

Summary for Pond GSF 18A: grassed soil filter

Inflow Area = 0.146 ac, 40.91% Impervious, Inflow Depth = 3.45" for 25-year event
Inflow = 0.58 cfs @ 12.09 hrs, Volume= 0.042 af
Outflow = 0.06 cfs @ 12.88 hrs, Volume= 0.025 af, Atten= 90%, Lag= 47.9 min
Primary = 0.00 cfs @ 12.88 hrs, Volume= 0.013 af
Secondary = 0.06 cfs @ 12.88 hrs, Volume= 0.012 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.41' @ 12.88 hrs Surf.Area= 2,038 sf Storage= 1,104 cf

Plug-Flow detention time= 645.4 min calculated for 0.025 af (60% of inflow)
Center-of-Mass det. time= 540.3 min (1,349.3 - 809.0)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	1,183 cf	**gsf18a (Irregular)** Listed below (Recalc)
#2	54.24'	686 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,868 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	900	183.0	0	0	900
58.00	1,490	202.0	1,183	1,183	1,513

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
54.24	912	0.0	0	0
54.25	912	40.0	4	4
54.99	912	40.0	270	274
55.00	912	30.0	3	276
55.49	912	30.0	134	410
55.50	912	20.0	2	412
57.00	912	20.0	274	686

Device	Routing	Invert	Outlet Devices
#1	Primary	54.25'	**0.3" Vert. Orifice/Grate** C= 0.600
#2	Device 1	54.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.40'	**25.7" Horiz. cb24 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.88 hrs HW=57.41' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.55 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=0.04 cfs @ 12.88 hrs HW=57.41' (Free Discharge)
↑—**3=Culvert** (Passes 0.04 cfs of 2.33 cfs potential flow)
↑—**4=cb24 beehive equiv** (Weir Controls 0.04 cfs @ 0.38 fps)

Summary for Pond GSF 18B: grassed soil filter

Inflow Area = 0.092 ac, 58.36% Impervious, Inflow Depth = 3.86" for 25-year event
Inflow = 0.41 cfs @ 12.09 hrs, Volume= 0.030 af
Outflow = 0.19 cfs @ 12.26 hrs, Volume= 0.020 af, Atten= 54%, Lag= 10.6 min
Primary = 0.00 cfs @ 12.26 hrs, Volume= 0.006 af
Secondary = 0.18 cfs @ 12.26 hrs, Volume= 0.014 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.94' @ 12.26 hrs Surf.Area= 860 sf Storage= 616 cf

Plug-Flow detention time= 439.6 min calculated for 0.020 af (67% of inflow)
Center-of-Mass det. time= 343.9 min (1,140.4 - 796.5)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	430 cf	**gsf18a (Irregular)** Listed below (Recalc)
#2	54.24'	221 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		651 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	290	88.0	0	0	290
58.00	587	107.0	430	430	601

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
54.24	294	0.0	0	0
54.25	294	40.0	1	1
54.99	294	40.0	87	88
55.00	294	30.0	1	89
55.49	294	30.0	43	132
55.50	294	20.0	1	133
57.00	294	20.0	88	221

Device	Routing	Invert	Outlet Devices
#1	Primary	54.25'	**0.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	54.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.90'	**25.7" Horiz. cb23 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.26 hrs HW=57.94' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 9.24 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.02 cfs potential flow)

Secondary OutFlow Max=0.17 cfs @ 12.26 hrs HW=57.94' (Free Discharge)
↑—**3=Culvert** (Passes 0.17 cfs of 2.52 cfs potential flow)
↑—**4=cb23 beehive equiv** (Weir Controls 0.17 cfs @ 0.65 fps)

Summary for Pond GSF 1A: Grassed soil filter

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth = 3.45" for 25-year event
Inflow = 1.64 cfs @ 12.09 hrs, Volume= 0.118 af
Outflow = 0.63 cfs @ 12.34 hrs, Volume= 0.090 af, Atten= 62%, Lag= 15.0 min
Primary = 0.01 cfs @ 12.34 hrs, Volume= 0.036 af
Secondary = 0.61 cfs @ 12.34 hrs, Volume= 0.054 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 66.39' @ 12.34 hrs Surf.Area= 3,651 sf Storage= 2,368 cf
Flood Elev= 68.00' Surf.Area= 5,086 sf Storage= 6,753 cf

Plug-Flow detention time= 488.9 min calculated for 0.090 af (76% of inflow)
Center-of-Mass det. time= 405.4 min (1,214.4 - 809.0)

Volume	Invert	Avail.Storage	Storage Description
#1	65.75'	5,554 cf	**Grassed Underdrain Soil Filter (Irregular)** Listed below (Recalc)
#2	62.99'	1,198 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		6,753 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.75	1,600	234.0	0	0	1,600
66.00	1,775	239.0	422	422	1,797
67.00	2,525	261.0	2,139	2,561	2,708
68.00	3,488	286.0	2,994	5,554	3,830

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.99	1,598	0.0	0	0
63.00	1,598	40.0	6	6
63.74	1,598	40.0	473	479
63.75	1,598	30.0	5	484
64.24	1,598	30.0	235	719
64.25	1,598	20.0	3	722
65.74	1,598	20.0	476	1,198

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	**0.5" Vert. Orifice/Grate** C= 0.600
#2	Device 1	62.99'	**2.400 in/hr Exfiltration over Surface area**
#3	Secondary	62.50'	**8.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.50' / 62.26' S= 0.0089 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	66.30'	**25.7" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.34 hrs HW=66.39' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 8.84 fps)
└─**2=Exfiltration** (Passes 0.01 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.61 cfs @ 12.34 hrs HW=66.39' (Free Discharge)
└─**3=Culvert** (Passes 0.61 cfs of 2.50 cfs potential flow)
└─**4=Orifice/Grate** (Weir Controls 0.61 cfs @ 0.99 fps)

Summary for Pond GSF 1B: grassed soil filter

Inflow Area = 0.570 ac, 27.49% Impervious, Inflow Depth = 3.16" for 25-year event
Inflow = 2.11 cfs @ 12.09 hrs, Volume= 0.150 af
Outflow = 1.96 cfs @ 12.12 hrs, Volume= 0.136 af, Atten= 7%, Lag= 1.9 min
Primary = 0.01 cfs @ 12.12 hrs, Volume= 0.040 af
Secondary = 1.95 cfs @ 12.12 hrs, Volume= 0.097 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 67.03' @ 12.12 hrs Surf.Area= 2,344 sf Storage= 1,868 cf
Flood Elev= 67.00' Surf.Area= 2,309 sf Storage= 1,826 cf

Plug-Flow detention time= 324.5 min calculated for 0.136 af (91% of inflow)
Center-of-Mass det. time= 278.8 min (1,096.2 - 817.4)

Volume	Invert	Avail.Storage	Storage Description
#1	65.50'	32,509 cf	**gsf1B (Irregular)** Listed below (Recalc)
#2	62.74'	545 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		33,054 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.50	393	187.0	0	0	393
66.00	583	194.0	242	242	626
67.00	1,576	297.0	1,039	1,282	4,658
68.00	3,199	450.0	2,340	3,622	13,760
69.00	68,644	2,673.0	28,887	32,509	566,223

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.74	733	0.0	0	0
62.75	733	40.0	3	3
63.40	733	40.0	191	194
63.50	733	30.0	22	216
63.99	733	30.0	108	323
64.00	733	20.0	1	325
65.50	733	20.0	220	545

Device	Routing	Invert	Outlet Devices
#1	Primary	62.75'	**0.5" Vert. Orifice/Grate** C= 0.600
#2	Device 1	62.74'	**1.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#3	Secondary	62.70'	**8.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.70' / 62.60' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	66.90'	**25.7" Horiz. CB16 beehive grate equiv dbl X 2.00** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.12 hrs HW=67.03' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.93 fps)
└**2=Exfiltration** (Passes 0.01 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=1.97 cfs @ 12.12 hrs HW=67.03' (Free Discharge)
└**3=Culvert** (Passes 1.97 cfs of 2.65 cfs potential flow)
└**4=CB16 beehive grate equiv dbl** (Weir Controls 1.97 cfs @ 1.16 fps)

Summary for Pond GSF 2: grassed soil filter

Inflow Area = 0.713 ac, 25.93% Impervious, Inflow Depth = 3.07" for 25-year event
Inflow = 2.56 cfs @ 12.09 hrs, Volume= 0.182 af
Outflow = 1.38 cfs @ 12.22 hrs, Volume= 0.155 af, Atten= 46%, Lag= 8.1 min
Primary = 0.02 cfs @ 12.22 hrs, Volume= 0.053 af
Secondary = 1.36 cfs @ 12.22 hrs, Volume= 0.102 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.76' @ 12.22 hrs Surf.Area= 3,691 sf Storage= 2,980 cf
Flood Elev= 59.00' Surf.Area= 4,991 sf Storage= 6,448 cf

Plug-Flow detention time= 404.1 min calculated for 0.155 af (85% of inflow)
Center-of-Mass det. time= 339.1 min (1,159.2 - 820.1)

Volume	Invert	Avail.Storage	Storage Description
#1	56.75'	5,317 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	53.99'	1,130 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		6,448 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.75	1,500	218.0	0	0	1,500
57.00	1,669	223.0	396	396	1,684
58.00	2,371	245.0	2,010	2,406	2,536
59.00	3,488	283.0	2,912	5,317	4,154

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.99	1,503	0.0	0	0
54.00	1,503	40.0	6	6
54.74	1,503	40.0	445	451
54.75	1,503	30.0	5	455
55.24	1,503	30.0	221	676
55.25	1,503	20.0	3	679
56.75	1,503	20.0	451	1,130

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	53.99'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	53.95'	**8.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.95' / 53.76' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.60'	**25.7" Horiz. cb20 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.22 hrs HW=57.76' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.30 fps)
└**2=Exfiltration** (Passes 0.02 cfs of 0.09 cfs potential flow)

Secondary OutFlow Max=1.35 cfs @ 12.22 hrs HW=57.76' (Free Discharge)
└**3=Culvert** (Passes 1.35 cfs of 2.47 cfs potential flow)
└**4=cb20 beehive equiv** (Weir Controls 1.35 cfs @ 1.29 fps)

Summary for Pond GSF 24: grassed soil filter

Inflow Area = 0.419 ac, 67.19% Impervious, Inflow Depth = 4.28" for 25-year event
Inflow = 1.99 cfs @ 12.08 hrs, Volume= 0.150 af
Outflow = 1.40 cfs @ 12.16 hrs, Volume= 0.127 af, Atten= 30%, Lag= 4.8 min
Primary = 0.02 cfs @ 12.16 hrs, Volume= 0.055 af
Secondary = 1.38 cfs @ 12.16 hrs, Volume= 0.072 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 40.76' @ 12.16 hrs Surf.Area= 3,287 sf Storage= 2,704 cf

Plug-Flow detention time= 474.9 min calculated for 0.127 af (85% of inflow)
Center-of-Mass det. time= 411.5 min (1,193.0 - 781.5)

Volume	Invert	Avail.Storage	Storage Description
#1	39.75'	4,479 cf	**gsf24 (Irregular)** Listed below (Recalc)
#2	36.99'	1,054 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		5,533 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
39.75	1,400	150.0	0	0	1,400
40.00	1,516	156.0	364	364	1,551
41.00	2,013	176.0	1,759	2,123	2,105
42.00	2,717	200.0	2,356	4,479	2,847

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
36.99	1,401	0.0	0	0
37.00	1,401	40.0	6	6
37.74	1,401	40.0	415	420
37.75	1,401	30.0	4	425
38.24	1,401	30.0	206	630
38.25	1,401	20.0	3	633
39.75	1,401	20.0	420	1,054

Device	Routing	Invert	Outlet Devices
#1	Primary	37.00'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	36.99'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	36.80'	**8.0" Round Culvert** L= 40.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 36.80' / 36.00' S= 0.0200 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4 Device 3 40.60' **25.7" Horiz. cb32 beehive equiv** C= 0.600
Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.16 hrs HW=40.76' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.30 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.08 cfs potential flow)

Secondary OutFlow Max=1.37 cfs @ 12.16 hrs HW=40.76' (Free Discharge)
↑—**3=Culvert** (Passes 1.37 cfs of 2.53 cfs potential flow)
↑—**4=cb32 beehive equiv** (Weir Controls 1.37 cfs @ 1.30 fps)

Summary for Pond GSF 3: grassed soil filter

Inflow Area = 0.830 ac, 36.22% Impervious, Inflow Depth = 3.26" for 25-year event
Inflow = 3.16 cfs @ 12.09 hrs, Volume= 0.225 af
Outflow = 1.83 cfs @ 12.20 hrs, Volume= 0.186 af, Atten= 42%, Lag= 6.9 min
Primary = 0.02 cfs @ 12.20 hrs, Volume= 0.055 af
Secondary = 1.81 cfs @ 12.20 hrs, Volume= 0.131 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 55.94' @ 12.20 hrs Surf.Area= 4,210 sf Storage= 3,691 cf
Flood Elev= 57.00' Surf.Area= 5,449 sf Storage= 7,083 cf

Plug-Flow detention time= 373.2 min calculated for 0.186 af (82% of inflow)
Center-of-Mass det. time= 302.0 min (1,116.7 - 814.7)

Volume	Invert	Avail.Storage	Storage Description
#1	54.75'	5,872 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	51.99'	1,211 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		7,083 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.75	1,600	268.0	0	0	1,600
55.00	1,804	274.0	425	425	1,868
56.00	2,657	295.0	2,217	2,642	2,860
57.00	3,839	332.0	3,230	5,872	4,733

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.99	1,610	0.0	0	0
52.00	1,610	40.0	6	6
52.74	1,610	40.0	477	483
52.75	1,610	30.0	5	488
53.24	1,610	30.0	237	725
53.25	1,610	20.0	3	728
54.75	1,610	20.0	483	1,211

Device	Routing	Invert	Outlet Devices
#1	Primary	52.00'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.99'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.95'	**12.0" Round Culvert**
			L= 14.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 51.95' / 51.81' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	55.75'	**25.7" Horiz. cb25 beehive equiv** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.20 hrs HW=55.94' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.53 fps)
└**2=Exfiltration** (Passes 0.02 cfs of 0.10 cfs potential flow)

Secondary OutFlow Max=1.80 cfs @ 12.20 hrs HW=55.94' (Free Discharge)
└**3=Culvert** (Passes 1.80 cfs of 5.58 cfs potential flow)
└**4=cb25 beehive equiv** (Weir Controls 1.80 cfs @ 1.42 fps)

Summary for Pond GSF 4: grassed soil filter

Inflow Area = 0.194 ac, 0.00% Impervious, Inflow Depth = 2.52" for 25-year event
Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.041 af
Outflow = 0.25 cfs @ 12.32 hrs, Volume= 0.033 af, Atten= 57%, Lag= 13.9 min
Primary = 0.00 cfs @ 12.32 hrs, Volume= 0.013 af
Secondary = 0.24 cfs @ 12.32 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.15' @ 12.32 hrs Surf.Area= 1,127 sf Storage= 709 cf
Flood Elev= 56.00' Surf.Area= 1,431 sf Storage= 1,405 cf

Plug-Flow detention time= 454.3 min calculated for 0.033 af (82% of inflow)
Center-of-Mass det. time= 379.9 min (1,215.5 - 835.5)

Volume	Invert	Avail.Storage	Storage Description
#1	54.50'	1,061 cf	**gsf4 (Irregular)** Listed below (Recalc)
#2	51.74'	344 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,405 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.50	457	163.0	0	0	457
55.00	623	169.0	269	269	636
56.00	974	182.0	792	1,061	1,039

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.74	457	0.0	0	0
51.75	457	40.0	2	2
52.49	457	40.0	135	137
52.50	457	30.0	1	138
52.99	457	30.0	67	206
53.00	457	20.0	1	207
54.50	457	20.0	137	344

Device	Routing	Invert	Outlet Devices
#1	Primary	51.75'	**0.3" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.70'	**8.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.70' / 51.53' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	55.10'	**25.7" Horiz. cb26 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.32 hrs HW=55.15' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.86 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.03 cfs potential flow)

Secondary OutFlow Max=0.24 cfs @ 12.32 hrs HW=55.15' (Free Discharge)
↑—**3=Culvert** (Passes 0.24 cfs of 2.34 cfs potential flow)
↑—**4=cb26 beehive equiv** (Weir Controls 0.24 cfs @ 0.72 fps)

Summary for Pond GSF 5: grassed soil filter

Inflow Area = 0.248 ac, 0.00% Impervious, Inflow Depth = 2.52" for 25-year event
Inflow = 0.73 cfs @ 12.09 hrs, Volume= 0.052 af
Outflow = 0.27 cfs @ 12.38 hrs, Volume= 0.039 af, Atten= 63%, Lag= 17.2 min
Primary = 0.00 cfs @ 12.38 hrs, Volume= 0.013 af
Secondary = 0.27 cfs @ 12.38 hrs, Volume= 0.027 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.65' @ 12.38 hrs Surf.Area= 1,601 sf Storage= 967 cf
Flood Elev= 55.00' Surf.Area= 1,857 sf Storage= 1,360 cf

Plug-Flow detention time= 434.2 min calculated for 0.039 af (75% of inflow)
Center-of-Mass det. time= 345.6 min (1,181.1 - 835.5)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	908 cf	**gsf5 (Irregular)** Listed below (Recalc)
#2	51.24'	451 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,360 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	600	210.0	0	0	600
55.00	1,257	228.0	908	908	1,265

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.24	600	0.0	0	0
51.25	600	40.0	2	2
51.99	600	40.0	178	180
52.00	600	30.0	2	182
52.49	600	30.0	88	270
52.50	600	20.0	1	271
54.00	600	20.0	180	451

Device	Routing	Invert	Outlet Devices
#1	Primary	51.25'	**0.3" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.00'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.95' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	54.60'	**25.7" Horiz. cb beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.38 hrs HW=54.65' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.86 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.04 cfs potential flow)

Secondary OutFlow Max=0.26 cfs @ 12.38 hrs HW=54.65' (Free Discharge)
↑—**3=Culvert** (Passes 0.26 cfs of 2.42 cfs potential flow)
↑—**4=cb beehive equiv** (Weir Controls 0.26 cfs @ 0.74 fps)

Summary for Pond GSF 6: grassed soil filter

Inflow Area = 0.321 ac, 32.06% Impervious, Inflow Depth = 3.26" for 25-year event
Inflow = 1.22 cfs @ 12.09 hrs, Volume= 0.087 af
Outflow = 0.45 cfs @ 12.36 hrs, Volume= 0.067 af, Atten= 63%, Lag= 16.3 min
Primary = 0.01 cfs @ 12.36 hrs, Volume= 0.023 af
Secondary = 0.44 cfs @ 12.36 hrs, Volume= 0.044 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 48.39' @ 12.36 hrs Surf.Area= 2,208 sf Storage= 1,716 cf
Flood Elev= 50.00' Surf.Area= 2,772 sf Storage= 4,107 cf

Plug-Flow detention time= 446.1 min calculated for 0.067 af (77% of inflow)
Center-of-Mass det. time= 363.2 min (1,177.9 - 814.7)

Volume	Invert	Avail.Storage	Storage Description
#1	47.50'	3,352 cf	**gsf6 (Irregular)** Listed below (Recalc)
#2	44.74'	755 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		4,107 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
47.50	1,004	156.0	0	0	1,004
48.00	1,082	159.0	521	521	1,113
49.00	1,413	172.0	1,244	1,765	1,493
50.00	1,768	184.0	1,587	3,352	1,877

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
44.74	1,004	0.0	0	0
44.75	1,004	40.0	4	4
45.49	1,004	40.0	297	301
45.50	1,004	30.0	3	304
45.99	1,004	30.0	148	452
46.00	1,004	20.0	2	454
47.50	1,004	20.0	301	755

Device	Routing	Invert	Outlet Devices
#1	Primary	44.75'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	44.74'	**1.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#3	Secondary	44.70'	**8.0" Round culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.70' / 44.53' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	48.20'	**4.0" Vert. Orifice X 6.00** C= 0.600
#5	Device 3	49.00'	**25.7" Horiz. cb beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.36 hrs HW=48.39' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.16 fps)
└─**2=Exfiltration** (Passes 0.01 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=0.44 cfs @ 12.36 hrs HW=48.39' (Free Discharge)
└─**3=culvert** (Passes 0.44 cfs of 2.43 cfs potential flow)
├─**4=Orifice** (Orifice Controls 0.44 cfs @ 1.46 fps)
└─**5=cb beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 7: grassed soil filter

Inflow Area = 0.697 ac, 25.86% Impervious, Inflow Depth = 3.07" for 25-year event
Inflow = 2.50 cfs @ 12.09 hrs, Volume= 0.178 af
Outflow = 0.80 cfs @ 12.41 hrs, Volume= 0.136 af, Atten= 68%, Lag= 19.4 min
Primary = 0.02 cfs @ 12.41 hrs, Volume= 0.052 af
Secondary = 0.78 cfs @ 12.41 hrs, Volume= 0.084 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 54.81' @ 12.41 hrs Surf.Area= 5,200 sf Storage= 3,616 cf
Flood Elev= 56.00' Surf.Area= 7,240 sf Storage= 8,558 cf

Plug-Flow detention time= 483.0 min calculated for 0.136 af (76% of inflow)
Center-of-Mass det. time= 397.9 min (1,218.0 - 820.1)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	7,026 cf	**gsf7 (Irregular)** Listed below (Recalc)
#2	51.24'	1,532 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		8,558 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	2,037	220.0	0	0	2,037
55.00	3,467	289.0	2,720	2,720	4,843
56.00	5,203	357.0	4,306	7,026	8,354

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.24	2,037	0.0	0	0
51.25	2,037	40.0	8	8
51.99	2,037	40.0	603	611
52.00	2,037	30.0	6	617
52.49	2,037	30.0	299	917
52.50	2,037	20.0	4	921
54.00	2,037	20.0	611	1,532

Device	Routing	Invert	Outlet Devices
#1	Primary	51.25'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.00'	**8.0" Round cb29** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.48' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	54.70'	**25.7" Horiz. cb beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.41 hrs HW=54.81' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.05 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.12 cfs potential flow)

Secondary OutFlow Max=0.78 cfs @ 12.41 hrs HW=54.81' (Free Discharge)
↑—**3=cb29** (Passes 0.78 cfs of 2.47 cfs potential flow)
↑—**4=cb beehive equiv** (Weir Controls 0.78 cfs @ 1.07 fps)

Summary for Pond GSF 8: grassed soil filter

Inflow Area = 1.046 ac, 55.78% Impervious, Inflow Depth = 3.76" for 25-year event
Inflow = 4.51 cfs @ 12.09 hrs, Volume= 0.327 af
Outflow = 2.59 cfs @ 12.20 hrs, Volume= 0.281 af, Atten= 43%, Lag= 6.8 min
Primary = 0.03 cfs @ 12.20 hrs, Volume= 0.100 af
Secondary = 2.56 cfs @ 12.20 hrs, Volume= 0.181 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.86' @ 12.20 hrs Surf.Area= 5,373 sf Storage= 5,556 cf
Flood Elev= 58.50' Surf.Area= 5,815 sf Storage= 7,903 cf

Plug-Flow detention time= 407.9 min calculated for 0.281 af (86% of inflow)
Center-of-Mass det. time= 346.6 min (1,146.4 - 799.8)

Volume	Invert	Avail.Storage	Storage Description
#1	56.50'	6,471 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	53.74'	1,433 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		7,903 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.50	2,600	200.0	0	0	2,600
57.50	3,227	218.0	2,908	2,908	3,234
58.50	3,910	237.0	3,563	6,471	3,959

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.74	1,905	0.0	0	0
53.75	1,905	40.0	8	8
54.49	1,905	40.0	564	572
54.50	1,905	30.0	6	577
54.99	1,905	30.0	280	857
55.00	1,905	20.0	4	861
56.50	1,905	20.0	572	1,433

Device	Routing	Invert	Outlet Devices
#1	Primary	53.75'	**0.8" Vert. Orifice/Grate** C= 0.600
#2	Device 1	53.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	53.50'	**8.0" Round cb10 culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.50' / 52.93' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.60'	**25.7" Horiz. cb10 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 12.20 hrs HW=57.86' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.03 cfs @ 9.73 fps)
└**2=Exfiltration** (Passes 0.03 cfs of 0.12 cfs potential flow)

Secondary OutFlow Max=2.59 cfs @ 12.20 hrs HW=57.86' (Free Discharge)
└**3=cb10 culvert** (Barrel Controls 2.59 cfs @ 7.43 fps)
└**4=cb10 beehive equiv** (Passes 2.59 cfs of 2.97 cfs potential flow)

Summary for Pond GSF 9: grassed soil filter

Inflow Area = 0.647 ac, 63.29% Impervious, Inflow Depth = 3.96" for 25-year event
Inflow = 2.91 cfs @ 12.09 hrs, Volume= 0.214 af
Outflow = 2.46 cfs @ 12.14 hrs, Volume= 0.191 af, Atten= 15%, Lag= 3.0 min
Primary = 0.02 cfs @ 12.14 hrs, Volume= 0.053 af
Secondary = 2.45 cfs @ 12.14 hrs, Volume= 0.138 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.20' @ 12.14 hrs Surf.Area= 4,415 sf Storage= 2,970 cf
Flood Elev= 65.00' Surf.Area= 6,073 sf Storage= 8,972 cf

Plug-Flow detention time= 318.8 min calculated for 0.191 af (89% of inflow)
Center-of-Mass det. time= 267.9 min (1,060.9 - 793.0)

Volume	Invert	Avail.Storage	Storage Description
#1	62.50'	7,539 cf	**gsf9 (Irregular)** Listed below (Recalc)
#2	59.24'	1,433 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		8,972 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.50	1,905	437.0	0	0	1,905
63.00	2,345	443.0	1,061	1,061	2,379
64.00	3,244	455.0	2,782	3,843	3,347
65.00	4,168	468.0	3,696	7,539	4,408

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.24	1,905	0.0	0	0
59.25	1,905	40.0	8	8
59.99	1,905	40.0	564	572
60.00	1,905	30.0	6	577
60.49	1,905	30.0	280	857
60.50	1,905	20.0	4	861
62.00	1,905	20.0	572	1,433

Device	Routing	Invert	Outlet Devices
#1	Primary	59.25'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	59.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	59.00'	**8.0" Round Culvert** L= 54.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.00' / 57.92' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	62.95'	**25.7" Horiz. cb6 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.14 hrs HW=63.20' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.53 fps)
└**2=Exfiltration** (Passes 0.02 cfs of 0.10 cfs potential flow)

Secondary OutFlow Max=2.61 cfs @ 12.14 hrs HW=63.20' (Free Discharge)
└**3=Culvert** (Inlet Controls 2.61 cfs @ 7.47 fps)
└**4=cb6 beehive equiv** (Passes 2.61 cfs of 2.69 cfs potential flow)

Summary for Pond ics 12: ICS 12

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 4.96" for 25-year event
Inflow = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af
Outflow = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af, Atten= 0%, Lag= 0.0 min
Primary = 12.32 cfs @ 12.08 hrs, Volume= 0.484 af
Secondary = 0.83 cfs @ 12.08 hrs, Volume= 0.584 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 64.81' @ 12.08 hrs
Flood Elev= 65.42'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**18.0" Round Culvert** L= 4.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.15' S= 0.1375 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	62.95'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	60.75'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.75' / 60.72' S= 0.0060 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	60.75'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=12.30 cfs @ 12.08 hrs HW=64.80' (Free Discharge)
└**1=Culvert** (Inlet Controls 12.30 cfs @ 6.96 fps)
└**2=Broad-Crested Rectangular Weir** (Passes 12.30 cfs of 33.51 cfs potential flow)

Secondary OutFlow Max=0.83 cfs @ 12.08 hrs HW=64.80' (Free Discharge)
└**3=Culvert** (Passes 0.83 cfs of 5.63 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 0.83 cfs @ 9.49 fps)

Summary for Pond ICS1: ICS 1

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 4.96" for 25-year event
Inflow = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af
Outflow = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af, Atten= 0%, Lag= 0.0 min
Primary = 0.83 cfs @ 12.08 hrs, Volume= 0.481 af
Secondary = 12.32 cfs @ 12.08 hrs, Volume= 0.588 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 67.48' @ 12.08 hrs
Flood Elev= 69.38'

Device	Routing	Invert	Outlet Devices
#1	Secondary	63.37'	**18.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.37' / 63.27' S= 0.0043 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	64.31'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	63.37'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.37' / 63.37' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	63.37'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.83 cfs @ 12.08 hrs HW=67.47' (Free Discharge)
└─**3=Culvert** (Passes 0.83 cfs of 5.67 cfs potential flow)
└─**4=Orifice/Grate** (Orifice Controls 0.83 cfs @ 9.55 fps)

Secondary OutFlow Max=12.30 cfs @ 12.08 hrs HW=67.47' (Free Discharge)
└─**1=Culvert** (Inlet Controls 12.30 cfs @ 6.96 fps)
└─**2=Broad-Crested Rectangular Weir** (Passes 12.30 cfs of 74.62 cfs potential flow)

Summary for Pond ICS18: ICS18

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth = 4.96" for 25-year event
Inflow = 2.22 cfs @ 12.08 hrs, Volume= 0.180 af
Outflow = 2.22 cfs @ 12.08 hrs, Volume= 0.180 af, Atten= 0%, Lag= 0.0 min
Primary = 0.67 cfs @ 12.08 hrs, Volume= 0.152 af
Secondary = 1.55 cfs @ 12.08 hrs, Volume= 0.028 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.51' @ 12.08 hrs
Flood Elev= 62.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.81'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.81' / 57.80' S= 0.0020 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.81'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 4	60.25'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#4	Secondary	57.80'	**12.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.80' / 56.96' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.67 cfs @ 12.08 hrs HW=60.51' (Free Discharge)
↑—**1=Culvert** (Passes 0.67 cfs of 2.04 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.67 cfs @ 7.67 fps)

Secondary OutFlow Max=1.54 cfs @ 12.08 hrs HW=60.51' (Free Discharge)
↑—**4=Culvert** (Passes 1.54 cfs of 4.44 cfs potential flow)
↑—**3=Broad-Crested Rectangular Weir** (Weir Controls 1.54 cfs @ 1.46 fps)

Summary for Pond ics28: ICS28

Inflow Area =	0.275 ac,100.00% Impervious,	Inflow Depth =	4.96"	for 25-year event
Inflow =	1.40 cfs @	12.08 hrs, Volume=	0.114 af	
Outflow =	1.40 cfs @	12.08 hrs, Volume=	0.114 af, Atten= 0%, Lag= 0.0 min	
Primary =	0.64 cfs @	12.08 hrs, Volume=	0.105 af	
Secondary =	0.76 cfs @	12.08 hrs, Volume=	0.009 af	

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.67' @ 12.08 hrs
Flood Elev= 63.95'

Device	Routing	Invert	Outlet Devices
#1	Secondary	58.00'	**8.0" Round Culvert** L= 10.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.00' / 57.90' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	60.50'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	58.15'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.15' / 58.12' S= 0.0060 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	58.15'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.64 cfs @ 12.08 hrs HW=60.66' (Free Discharge)
└**3=Culvert** (Passes 0.64 cfs of 1.96 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 0.64 cfs @ 7.38 fps)

Secondary OutFlow Max=0.75 cfs @ 12.08 hrs HW=60.66' (Free Discharge)
└**1=Culvert** (Passes 0.75 cfs of 2.03 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 0.75 cfs @ 1.14 fps)

Summary for Pond ICS37: ISC37

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 4.96" for 25-year event
Inflow = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af
Outflow = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af, Atten= 0%, Lag= 0.0 min
Primary = 5.34 cfs @ 12.08 hrs, Volume= 0.951 af
Secondary = 7.81 cfs @ 12.08 hrs, Volume= 0.117 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.72' @ 12.08 hrs
Flood Elev= 57.00'

Device	Routing	Invert	Outlet Devices
#1	Secondary	52.50'	**18.0" Round Culvert** L= 51.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.50' / 52.00' S= 0.0098 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	52.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Primary	52.80'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=5.34 cfs @ 12.08 hrs HW=55.72' (Free Discharge)
├**3=Culvert** (Inlet Controls 4.64 cfs @ 5.91 fps)
└**4=Orifice/Grate** (Orifice Controls 0.70 cfs @ 7.98 fps)

Secondary OutFlow Max=7.79 cfs @ 12.08 hrs HW=55.72' (Free Discharge)
└**1=Culvert** (Passes 7.79 cfs of 10.55 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 7.79 cfs @ 2.72 fps)

Summary for Pond ics46: ICS46

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 4.96" for 25-year event
Inflow = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af
Outflow = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af, Atten= 0%, Lag= 0.0 min
Primary = 0.77 cfs @ 12.08 hrs, Volume= 0.584 af
Secondary = 12.38 cfs @ 12.08 hrs, Volume= 0.485 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 50.35' @ 12.08 hrs
Flood Elev= 55.50'

Device	Routing	Invert	Outlet Devices
#1	Secondary	46.20'	**18.0" Round Culvert** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.20' / 46.00' S= 0.0091 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	49.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	46.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.80' / 46.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	46.80'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.77 cfs @ 12.08 hrs HW=50.33' (Free Discharge)
↑—**3=Culvert** (Passes 0.77 cfs of 5.20 cfs potential flow)
↑—**4=Orifice/Grate** (Orifice Controls 0.77 cfs @ 8.84 fps)

Secondary OutFlow Max=12.36 cfs @ 12.08 hrs HW=50.33' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 12.36 cfs @ 6.99 fps)
↑—**2=Broad-Crested Rectangular Weir** (Passes 12.36 cfs of 20.48 cfs potential flow)

Summary for Pond ICS9: ICS9

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 4.96" for 25-year event
Inflow = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af
Outflow = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af, Atten= 0%, Lag= 0.0 min
Primary = 0.80 cfs @ 12.08 hrs, Volume= 0.583 af
Secondary = 12.35 cfs @ 12.08 hrs, Volume= 0.486 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 65.83' @ 12.08 hrs
Flood Elev= 66.76'

Device	Routing	Invert	Outlet Devices
#1	Secondary	61.70'	**18.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.70' / 61.00' S= 0.0500 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	64.18'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	62.00'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.00' / 61.65' S= 0.0700 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

#4 Device 3 62.00' **4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.80 cfs @ 12.08 hrs HW=65.82' (Free Discharge)
└**3=Culvert** (Passes 0.80 cfs of 5.44 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 0.80 cfs @ 9.20 fps)

Secondary OutFlow Max=12.33 cfs @ 12.08 hrs HW=65.82' (Free Discharge)
└**1=Culvert** (Inlet Controls 12.33 cfs @ 6.98 fps)
└**2=Broad-Crested Rectangular Weir** (Passes 12.33 cfs of 27.82 cfs potential flow)

Summary for Pond ISC42: ICS 42

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 4.96" for 25-year event
Inflow = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af
Outflow = 13.15 cfs @ 12.08 hrs, Volume= 1.069 af, Atten= 0%, Lag= 0.0 min
Primary = 5.71 cfs @ 12.08 hrs, Volume= 0.966 af
Secondary = 7.44 cfs @ 12.08 hrs, Volume= 0.103 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.07' @ 12.08 hrs
Flood Elev= 57.00'

Device	Routing	Invert	Outlet Devices
#1	Secondary	52.20'	**18.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.20' / 51.88' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.37'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	52.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Primary	52.80'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=5.71 cfs @ 12.08 hrs HW=56.07' (Free Discharge)
├**3=Culvert** (Inlet Controls 4.97 cfs @ 6.32 fps)
└**4=Orifice/Grate** (Orifice Controls 0.74 cfs @ 8.48 fps)

Secondary OutFlow Max=7.42 cfs @ 12.08 hrs HW=56.07' (Free Discharge)
└**1=Culvert** (Passes 7.42 cfs of 11.86 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 7.42 cfs @ 2.66 fps)

Summary for Pond MPP 10: Rtank storage

Inflow Area = 0.710 ac,100.00% Impervious, Inflow Depth = 4.96" for 25-year event
Inflow = 3.61 cfs @ 12.08 hrs, Volume= 0.294 af
Outflow = 2.18 cfs @ 12.19 hrs, Volume= 0.275 af, Atten= 40%, Lag= 6.1 min
Primary = 2.18 cfs @ 12.19 hrs, Volume= 0.275 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.85' @ 12.19 hrs Surf.Area= 0.179 ac Storage= 0.075 af

Plug-Flow detention time= 112.8 min calculated for 0.275 af (94% of inflow)
Center-of-Mass det. time= 77.9 min (825.3 - 747.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.23'	0.091 af	**6.25'W x 1,248.97'L x 1.94'H Field A** 0.347 af Overall - 0.118 af Embedded = 0.229 af x 40.0% Voids
#2A	61.48'	0.112 af	**ACF R-Tank HD 0.5** x 2128 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 4 Rows of 532 Chambers
		0.204 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	61.48'	**8.0" Round Culvert X 6.00** L= 2.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.48' / 61.40' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=2.18 cfs @ 12.19 hrs HW=61.85' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.18 cfs @ 2.62 fps)

Summary for Pond MPP 14: Rtanks

Inflow Area = 0.215 ac, 94.36% Impervious, Inflow Depth = 4.85" for 25-year event
Inflow = 1.09 cfs @ 12.08 hrs, Volume= 0.087 af
Outflow = 0.69 cfs @ 12.18 hrs, Volume= 0.082 af, Atten= 37%, Lag= 5.7 min
Primary = 0.69 cfs @ 12.18 hrs, Volume= 0.082 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.65' @ 12.18 hrs Surf.Area= 1,935 sf Storage= 931 cf
Flood Elev= 60.50' Surf.Area= 1,935 sf Storage= 2,354 cf

Plug-Flow detention time= 104.1 min calculated for 0.082 af (95% of inflow)
Center-of-Mass det. time= 74.7 min (829.7 - 755.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	55.98'	1,011 cf	**15.44'W x 125.33'L x 2.04'H Field A** 3,941 cf Overall - 1,413 cf Embedded = 2,528 cf x 40.0% Voids
#2A	56.23'	1,343 cf	**ACF R-Tank HD 0.5** x 583 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 11 Rows of 53 Chambers
		2,354 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	56.23'	**8.0" Round Culvert X 2.00** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.23' / 56.12' S= 0.0052 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.68 cfs @ 12.18 hrs HW=56.65' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.68 cfs @ 2.12 fps)

Summary for Pond MPP 19: Rtanks

Inflow Area = 0.315 ac, 80.35% Impervious, Inflow Depth = 4.39" for 25-year event
Inflow = 1.52 cfs @ 12.08 hrs, Volume= 0.115 af
Outflow = 0.43 cfs @ 12.42 hrs, Volume= 0.107 af, Atten= 72%, Lag= 20.4 min
Primary = 0.43 cfs @ 12.42 hrs, Volume= 0.107 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.72' @ 12.42 hrs Surf.Area= 0.074 ac Storage= 0.051 af

Plug-Flow detention time= 184.7 min calculated for 0.107 af (93% of inflow)
Center-of-Mass det. time= 145.8 min (923.0 - 777.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.83'	0.033 af	**18.06'W x 179.28'L x 1.84'H Field A** 0.137 af Overall - 0.055 af Embedded = 0.082 af x 40.0% Voids
#2A	55.08'	0.052 af	**ACF R-Tank HD 0.5** x 988 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 76 Chambers
		0.085 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.08'	**6.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.08' / 55.00' S= 0.0042 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.43 cfs @ 12.42 hrs HW=55.72' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.43 cfs @ 2.21 fps)

Summary for Pond MPP 21: Rtanks

Inflow Area = 0.263 ac, 68.92% Impervious, Inflow Depth = 4.18" for 25-year event
Inflow = 1.23 cfs @ 12.08 hrs, Volume= 0.091 af
Outflow = 0.54 cfs @ 12.27 hrs, Volume= 0.088 af, Atten= 56%, Lag= 11.0 min
Primary = 0.54 cfs @ 12.27 hrs, Volume= 0.088 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.51' @ 12.27 hrs Surf.Area= 1,510 sf Storage= 1,220 cf

Plug-Flow detention time= 103.9 min calculated for 0.088 af (96% of inflow)
Center-of-Mass det. time= 80.2 min (865.8 - 785.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.48'	818 cf	**16.75'W x 90.14'L x 2.09'H Field A** 3,151 cf Overall - 1,105 cf Embedded = 2,046 cf x 40.0% Voids
#2A	54.73'	1,050 cf	**ACF R-Tank HD 0.5** x 456 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 38 Chambers
		1,868 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.73'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.73' / 54.73' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.54 cfs @ 12.27 hrs HW=55.51' (Free Discharge)
↑**1=Culvert** (Inlet Controls 0.54 cfs @ 2.76 fps)

Summary for Pond MPP 22: Rtanks

Inflow Area = 0.309 ac, 61.12% Impervious, Inflow Depth = 3.96" for 25-year event
Inflow = 1.39 cfs @ 12.09 hrs, Volume= 0.102 af
Outflow = 0.41 cfs @ 12.42 hrs, Volume= 0.094 af, Atten= 71%, Lag= 19.9 min
Primary = 0.41 cfs @ 12.42 hrs, Volume= 0.094 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.65' @ 12.42 hrs Surf.Area= 3,003 sf Storage= 1,953 cf

Plug-Flow detention time= 184.5 min calculated for 0.094 af (92% of inflow)
Center-of-Mass det. time= 143.4 min (936.4 - 793.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.80'	1,262 cf	**16.75'W x 179.28'L x 1.79'H Field A** 5,367 cf Overall - 2,211 cf Embedded = 3,156 cf x 40.0% Voids
#2A	55.05'	2,100 cf	**ACF R-Tank HD 0.5** x 912 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 76 Chambers
		3,363 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.05'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.05' / 55.05' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.41 cfs @ 12.42 hrs HW=55.65' (Free Discharge)
↑**1=Culvert** (Barrel Controls 0.41 cfs @ 2.19 fps)

Summary for Pond MPP 26: Rtanks

Inflow Area = 0.088 ac,100.00% Impervious, Inflow Depth = 4.96" for 25-year event
Inflow = 0.45 cfs @ 12.08 hrs, Volume= 0.036 af
Outflow = 0.25 cfs @ 12.20 hrs, Volume= 0.033 af, Atten= 45%, Lag= 7.1 min
Primary = 0.25 cfs @ 12.20 hrs, Volume= 0.033 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 34.94' @ 12.20 hrs Surf.Area= 1,289 sf Storage= 500 cf

Plug-Flow detention time= 146.4 min calculated for 0.033 af (92% of inflow)
Center-of-Mass det. time= 102.4 min (849.7 - 747.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	34.37'	492 cf	**18.06'W x 71.37'L x 1.69'H Field A** 2,175 cf Overall - 945 cf Embedded = 1,230 cf x 40.0% Voids
#2A	34.62'	898 cf	**ACF R-Tank HD 0.5** x 390 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 30 Chambers
		1,390 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	34.62'	**8.0" Round Culvert** L= 8.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 34.62' / 34.34' S= 0.0350 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.25 cfs @ 12.20 hrs HW=34.94' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.25 cfs @ 1.51 fps)

Summary for Pond MPP 50:

Inflow Area = 0.693 ac,100.00% Impervious, Inflow Depth = 4.96" for 25-year event
Inflow = 3.53 cfs @ 12.08 hrs, Volume= 0.286 af
Outflow = 2.38 cfs @ 12.17 hrs, Volume= 0.258 af, Atten= 33%, Lag= 5.1 min
Primary = 2.38 cfs @ 12.17 hrs, Volume= 0.258 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.01' @ 12.17 hrs Surf.Area= 5,946 sf Storage= 3,365 cf

Plug-Flow detention time= 132.1 min calculated for 0.258 af (90% of inflow)
Center-of-Mass det. time= 81.9 min (829.3 - 747.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.33'	2,878 cf	**4.94'W x 1,204.40'L x 1.84'H Field A** 10,925 cf Overall - 3,731 cf Embedded = 7,195 cf x 40.0% Voids
#2A	54.33'	3,544 cf	**ACF R-Tank HD 0.5** x 1539 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 3 Rows of 513 Chambers
		6,422 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.58'	**8.0" Round Culvert X 7.00** L= 3.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.58' / 54.55' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=2.38 cfs @ 12.17 hrs HW=55.01' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.38 cfs @ 2.06 fps)

Summary for Pond mpp30: Rtanks

Inflow Area = 1.205 ac, 54.78% Impervious, Inflow Depth = 3.45" for 25-year event
Inflow = 4.60 cfs @ 12.09 hrs, Volume= 0.346 af
Outflow = 0.60 cfs @ 12.66 hrs, Volume= 0.346 af, Atten= 87%, Lag= 34.3 min
Primary = 0.60 cfs @ 12.66 hrs, Volume= 0.346 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 31.39' @ 12.66 hrs Surf.Area= 9,089 sf Storage= 6,066 cf
Flood Elev= 31.78' Surf.Area= 9,089 sf Storage= 8,611 cf

Plug-Flow detention time= 107.7 min calculated for 0.346 af (100% of inflow)
Center-of-Mass det. time= 107.6 min (902.0 - 794.4)

Volume	Invert	Avail.Storage	Storage Description
#1B	30.73'	4,011 cf	**8.56'W x 815.99'L x 2.04'H Field B** 14,234 cf Overall - 4,206 cf Embedded = 10,028 cf x 40.0% Voids
#2B	30.98'	3,995 cf	**ACF R-Tank HD 0.5** x 1735 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 5 Rows of 347 Chambers
#3C	29.28'	259 cf	**10.56'W x 74.72'L x 1.69'H Field C** 1,337 cf Overall - 689 cf Embedded = 648 cf x 40.0% Voids
#4C	29.53'	654 cf	**ACF R-Tank HD 1.0** x 155 Inside #3 Inside= 15.7"W x 17.3"H => 1.80 sf x 2.35'L = 4.2 cf Outside= 15.7"W x 17.3"H => 1.89 sf x 2.35'L = 4.4 cf 5 Rows of 31 Chambers
#5D	29.28'	968 cf	**17.12'W x 76.72'L x 3.42'H Field D** 4,487 cf Overall - 2,066 cf Embedded = 2,420 cf x 40.0% Voids
#6D	29.53'	1,963 cf	**ACF R-Tank HD 1.5** x 310 Inside #5 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 10 Rows of 31 Chambers
		11,851 cf	Total Available Storage

Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard
Storage Group D created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	29.28'	**18.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 29.28' / 29.00' S= 0.0140 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Primary	29.28'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	30.00'	**3.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.60 cfs @ 12.66 hrs HW=31.39' (Free Discharge)
└─**1=Culvert** (Passes 0.27 cfs of 7.84 cfs potential flow)
  └─**3=Orifice/Grate** (Orifice Controls 0.27 cfs @ 5.42 fps)
└─**2=Orifice/Grate** (Orifice Controls 0.33 cfs @ 6.79 fps)

Summary for Pond SSF 36: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.23" for 25-year event
Inflow = 0.83 cfs @ 12.08 hrs, Volume= 0.481 af
Outflow = 0.37 cfs @ 15.83 hrs, Volume= 0.381 af, Atten= 55%, Lag= 224.7 min
Primary = 0.08 cfs @ 15.83 hrs, Volume= 0.241 af
Secondary = 0.29 cfs @ 15.83 hrs, Volume= 0.140 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 64.57' @ 15.83 hrs Surf.Area= 11,270 sf Storage= 11,181 cf
Flood Elev= 66.27' Surf.Area= 11,270 sf Storage= 16,373 cf

Plug-Flow detention time= 782.8 min calculated for 0.381 af (79% of inflow)
Center-of-Mass det. time= 668.6 min (1,441.1 - 772.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	62.77'	5,035 cf	**25.25'W x 223.16'L x 3.50'H Field A** 19,722 cf Overall - 7,135 cf Embedded = 12,587 cf x 40.0% Voids
#2A	63.27'	7,135 cf	**ADS_StormTech SC-740** x 155 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 5 rows
#3	60.02'	4,204 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,373 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.02	5,635	0.0	0	0
60.03	5,635	40.0	23	23
60.76	5,635	40.0	1,645	1,668
60.77	5,635	30.0	17	1,685
61.26	5,635	30.0	828	2,513
61.27	5,635	20.0	11	2,524
62.76	5,635	20.0	1,679	4,204

Device	Routing	Invert	Outlet Devices
#1	Primary	60.02'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	60.02'	**1.500 in/hr Exfiltration over Surface area above 60.02'** Excluded Surface area = 5,635 sf
#3	Secondary	64.31'	**12.0" Round Culvert X 2.00** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 64.31' / 64.31' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 15.83 hrs HW=64.57' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.21 fps)
└**2=Exfiltration** (Passes 0.08 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.29 cfs @ 15.83 hrs HW=64.57' (Free Discharge)
└**3=Culvert** (Barrel Controls 0.29 cfs @ 1.34 fps)

Summary for Pond ssf37: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.71" for 25-year event
Inflow = 0.80 cfs @ 12.08 hrs, Volume= 0.583 af
Outflow = 0.59 cfs @ 14.53 hrs, Volume= 0.484 af, Atten= 26%, Lag= 147.0 min
Primary = 0.08 cfs @ 14.53 hrs, Volume= 0.244 af
Secondary = 0.51 cfs @ 14.53 hrs, Volume= 0.240 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.38' @ 14.53 hrs Surf.Area= 11,332 sf Storage= 11,930 cf
Flood Elev= 64.85' Surf.Area= 11,332 sf Storage= 16,132 cf

Plug-Flow detention time= 644.4 min calculated for 0.484 af (83% of inflow)
Center-of-Mass det. time= 552.7 min (1,317.8 - 765.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.35'	5,284 cf	**11.00'W x 515.08'L x 3.50'H Field A** 19,831 cf Overall - 6,621 cf Embedded = 13,210 cf x 40.0% Voids
#2A	61.85'	6,621 cf	**ADS_StormTech SC-740** x 144 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	58.60'	4,227 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,132 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.60	5,666	0.0	0	0
58.61	5,666	40.0	23	23
59.34	5,666	40.0	1,654	1,677
59.35	5,666	30.0	17	1,694
59.84	5,666	30.0	833	2,527
59.85	5,666	20.0	11	2,538
61.34	5,666	20.0	1,688	4,227

Device	Routing	Invert	Outlet Devices
#1	Primary	58.60'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.60'	**1.500 in/hr Exfiltration over Surface area above 58.60'** Excluded Surface area = 5,666 sf
#3	Secondary	62.89'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.89' / 62.89' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 14.53 hrs HW=63.38' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.47 fps)
↑—**2=Exfiltration** (Passes 0.08 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.51 cfs @ 14.53 hrs HW=63.38' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.51 cfs @ 1.94 fps)

Summary for Pond ssf38: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.25" for 25-year event
Inflow = 12.32 cfs @ 12.08 hrs, Volume= 0.484 af
Outflow = 3.12 cfs @ 12.41 hrs, Volume= 0.387 af, Atten= 75%, Lag= 19.6 min
Primary = 0.09 cfs @ 12.41 hrs, Volume= 0.166 af
Secondary = 3.03 cfs @ 12.41 hrs, Volume= 0.221 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.19' @ 12.41 hrs Surf.Area= 11,332 sf Storage= 15,152 cf
Flood Elev= 63.62' Surf.Area= 11,332 sf Storage= 16,132 cf

Plug-Flow detention time= 370.4 min calculated for 0.387 af (80% of inflow)
Center-of-Mass det. time= 360.5 min (1,086.6 - 726.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	60.12'	5,284 cf	**11.00'W x 515.08'L x 3.50'H Field A** 19,831 cf Overall - 6,621 cf Embedded = 13,210 cf x 40.0% Voids
#2A	60.62'	6,621 cf	**ADS_StormTech SC-740** x 144 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	57.37'	4,227 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,132 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.37	5,666	0.0	0	0
57.38	5,666	40.0	23	23
58.11	5,666	40.0	1,654	1,677
58.12	5,666	30.0	17	1,694
58.61	5,666	30.0	833	2,527
58.62	5,666	20.0	11	2,538
60.11	5,666	20.0	1,688	4,227

Device	Routing	Invert	Outlet Devices
#1	Primary	57.37'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	57.37'	**1.500 in/hr Exfiltration over Surface area above 57.37'** Excluded Surface area = 5,666 sf
#3	Secondary	61.66'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.66' / 61.66' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.09 cfs @ 12.41 hrs HW=63.19' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.09 cfs @ 11.56 fps)
└**2=Exfiltration** (Passes 0.09 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=3.03 cfs @ 12.41 hrs HW=63.19' (Free Discharge)
└**3=Culvert** (Inlet Controls 3.03 cfs @ 3.85 fps)

Summary for Pond ssf39: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 4.42" for 25-year event
Inflow = 5.34 cfs @ 12.08 hrs, Volume= 0.951 af
Outflow = 4.46 cfs @ 12.38 hrs, Volume= 0.823 af, Atten= 16%, Lag= 17.7 min
Primary = 0.10 cfs @ 12.38 hrs, Volume= 0.246 af
Secondary = 4.36 cfs @ 12.38 hrs, Volume= 0.577 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.35' @ 12.38 hrs Surf.Area= 12,365 sf Storage= 18,385 cf
Flood Elev= 55.67' Surf.Area= 12,365 sf Storage= 18,385 cf

Plug-Flow detention time= 411.1 min calculated for 0.823 af (87% of inflow)
Center-of-Mass det. time= 347.3 min (1,097.3 - 750.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	52.17'	5,625 cf	**58.50'W x 109.24'L x 3.50'H Field A** 22,367 cf Overall - 8,303 cf Embedded = 14,064 cf x 40.0% Voids
#2A	52.67'	8,303 cf	**ADS_StormTech SC-740** x 180 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 12 rows
#3	49.42'	4,457 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		18,385 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
49.42	5,974	0.0	0	0
49.43	5,974	40.0	24	24
50.16	5,974	40.0	1,744	1,768
50.17	5,974	30.0	18	1,786
50.66	5,974	30.0	878	2,664
50.67	5,974	20.0	12	2,676
52.16	5,974	20.0	1,780	4,457

Device	Routing	Invert	Outlet Devices
#1	Primary	49.42'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	49.42'	**1.500 in/hr Exfiltration over Surface area above 49.42'** Excluded Surface area = 5,974 sf
#3	Secondary	53.71'	**12.0" Round Culvert**

L= 5.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 53.71' / 53.71' S= 0.0000 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.10 cfs @ 12.38 hrs HW=56.30' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.10 cfs @ 12.58 fps)
↑—**2=Exfiltration** (Passes 0.10 cfs of 0.22 cfs potential flow)

Secondary OutFlow Max=4.31 cfs @ 12.38 hrs HW=56.30' (Free Discharge)
↑—**3=Culvert** (Inlet Controls 4.31 cfs @ 5.49 fps)

Summary for Pond ssf40: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 4.48" for 25-year event
Inflow = 5.71 cfs @ 12.08 hrs, Volume= 0.966 af
Outflow = 6.19 cfs @ 12.17 hrs, Volume= 0.860 af, Atten= 0%, Lag= 5.2 min
Primary = 0.11 cfs @ 12.17 hrs, Volume= 0.246 af
Secondary = 6.07 cfs @ 12.17 hrs, Volume= 0.614 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 58.35' @ 12.17 hrs Surf.Area= 11,484 sf Storage= 16,630 cf
Flood Elev= 55.67' Surf.Area= 11,484 sf Storage= 16,630 cf

Plug-Flow detention time= 379.8 min calculated for 0.860 af (89% of inflow)
Center-of-Mass det. time= 324.3 min (1,074.1 - 749.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	52.17'	5,168 cf	**20.50'W x 280.12'L x 3.50'H Field A** 20,099 cf Overall - 7,178 cf Embedded = 12,921 cf x 40.0% Voids
#2A	52.67'	7,178 cf	**ADS_StormTech SC-740** x 156 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 4 rows
#3	49.42'	4,284 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,630 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
49.42	5,742	0.0	0	0
49.43	5,742	40.0	23	23
50.16	5,742	40.0	1,677	1,700
50.17	5,742	30.0	17	1,717
50.66	5,742	30.0	844	2,561
50.67	5,742	20.0	11	2,572
52.16	5,742	20.0	1,711	4,284

Device	Routing	Invert	Outlet Devices
#1	Primary	49.42'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	49.42'	**1.500 in/hr Exfiltration over Surface area above 49.42'** Excluded Surface area = 5,742 sf
#3	Secondary	53.71'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.71' / 53.71' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.11 cfs @ 12.17 hrs HW=58.35' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.11 cfs @ 14.35 fps)
└**2=Exfiltration** (Passes 0.11 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=6.07 cfs @ 12.17 hrs HW=58.35' (Free Discharge)
└**3=Culvert** (Inlet Controls 6.07 cfs @ 7.73 fps)

Summary for Pond ssf41: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.71" for 25-year event
Inflow = 0.77 cfs @ 12.08 hrs, Volume= 0.584 af
Outflow = 0.59 cfs @ 14.53 hrs, Volume= 0.481 af, Atten= 23%, Lag= 147.0 min
Primary = 0.08 cfs @ 14.53 hrs, Volume= 0.244 af
Secondary = 0.51 cfs @ 14.53 hrs, Volume= 0.237 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 48.20' @ 14.53 hrs Surf.Area= 11,270 sf Storage= 12,122 cf
Flood Elev= 49.67' Surf.Area= 11,270 sf Storage= 16,373 cf

Plug-Flow detention time= 651.7 min calculated for 0.481 af (82% of inflow)
Center-of-Mass det. time= 558.0 min (1,323.1 - 765.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	46.17'	5,035 cf	**25.25'W x 223.16'L x 3.50'H Field A** 19,722 cf Overall - 7,135 cf Embedded = 12,587 cf x 40.0% Voids
#2A	46.67'	7,135 cf	**ADS_StormTech SC-740** x 155 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 5 rows
#3	43.42'	4,204 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,373 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
43.42	5,635	0.0	0	0
43.43	5,635	40.0	23	23
44.16	5,635	40.0	1,645	1,668
44.17	5,635	30.0	17	1,685
44.66	5,635	30.0	828	2,513
44.67	5,635	20.0	11	2,524
46.16	5,635	20.0	1,679	4,204

Device	Routing	Invert	Outlet Devices
#1	Primary	43.42'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	43.42'	**1.500 in/hr Exfiltration over Surface area above 43.42'** Excluded Surface area = 5,635 sf
#3	Secondary	47.71'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 47.71' / 47.71' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 14.53 hrs HW=48.20' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.47 fps)
↑—**2=Exfiltration** (Passes 0.08 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.51 cfs @ 14.53 hrs HW=48.20' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.51 cfs @ 1.94 fps)

Summary for Pond ssf42: ssf

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth = 4.56" for 25-year event
Inflow = 0.64 cfs @ 12.08 hrs, Volume= 0.105 af
Outflow = 0.63 cfs @ 12.22 hrs, Volume= 0.088 af, Atten= 3%, Lag= 8.1 min
Primary = 0.01 cfs @ 12.22 hrs, Volume= 0.028 af
Secondary = 0.62 cfs @ 12.22 hrs, Volume= 0.060 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.70' @ 12.22 hrs Surf.Area= 1,422 sf Storage= 1,726 cf
Flood Elev= 61.67' Surf.Area= 1,422 sf Storage= 2,027 cf

Plug-Flow detention time= 416.8 min calculated for 0.088 af (84% of inflow)
Center-of-Mass det. time= 346.3 min (1,095.6 - 749.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	58.17'	662 cf	**15.75'W x 45.16'L x 3.50'H Field A** 2,489 cf Overall - 835 cf Embedded = 1,654 cf x 40.0% Voids
#2A	58.67'	835 cf	**ADS_StormTech SC-740** x 18 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 3 rows
#3	55.42'	530 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		2,027 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.42	711	0.0	0	0
55.43	711	40.0	3	3
56.16	711	40.0	208	210
56.17	711	30.0	2	213
56.66	711	30.0	105	317
56.67	711	20.0	1	319
58.16	711	20.0	212	530

Device	Routing	Invert	Outlet Devices
#1	Primary	55.42'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	55.42'	**1.500 in/hr Exfiltration over Surface area above 55.42'** Excluded Surface area = 711 sf
#3	Secondary	60.06'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.05' / 60.06' S= -0.0020 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.01 cfs @ 12.22 hrs HW=60.70' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 11.05 fps)
↑—**2=Exfiltration** (Passes 0.01 cfs of 0.02 cfs potential flow)

Secondary OutFlow Max=0.62 cfs @ 12.22 hrs HW=60.70' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.62 cfs @ 2.23 fps)

Summary for Pond ssf43: ssf

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth = 4.20" for 25-year event
Inflow = 0.67 cfs @ 12.08 hrs, Volume= 0.152 af
Outflow = 0.65 cfs @ 12.20 hrs, Volume= 0.133 af, Atten= 3%, Lag= 7.2 min
Primary = 0.02 cfs @ 12.20 hrs, Volume= 0.043 af
Secondary = 0.64 cfs @ 12.20 hrs, Volume= 0.089 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.95' @ 12.20 hrs Surf.Area= 1,934 sf Storage= 2,339 cf
Flood Elev= 60.90' Surf.Area= 1,934 sf Storage= 2,740 cf

Plug-Flow detention time= 416.6 min calculated for 0.133 af (87% of inflow)
Center-of-Mass det. time= 353.1 min (1,104.4 - 751.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	57.40'	910 cf	**11.00'W x 87.88'L x 3.50'H Field A** 3,383 cf Overall - 1,108 cf Embedded = 2,275 cf x 40.0% Voids
#2A	57.90'	1,108 cf	**ADS_StormTech SC-740** x 24 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	54.65'	721 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		2,740 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
54.65	967	0.0	0	0
54.66	967	40.0	4	4
55.39	967	40.0	282	286
55.40	967	30.0	3	289
55.89	967	30.0	142	431
55.90	967	20.0	2	433
57.39	967	20.0	288	721

Device	Routing	Invert	Outlet Devices
#1	Primary	54.65'	**0.5" Vert. Orifice/Grate** C= 0.600
#2	Device 1	54.65'	**1.500 in/hr Exfiltration over Surface area above 54.65'** Excluded Surface area = 967 sf
#3	Secondary	59.28'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.28' / 59.28' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.02 cfs @ 12.20 hrs HW=59.95' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 11.06 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.03 cfs potential flow)

Secondary OutFlow Max=0.64 cfs @ 12.20 hrs HW=59.95' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.64 cfs @ 2.26 fps)

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment1A: Runoff Area=17,785 sf 34.88% Impervious Runoff Depth=4.29"
Tc=6.0 min CN=84 Runoff=2.02 cfs 0.146 af

Subcatchment1B: Runoff Area=24,849 sf 27.49% Impervious Runoff Depth=3.97"
Tc=6.0 min CN=81 Runoff=2.64 cfs 0.189 af

Subcatchment2: Runoff Area=31,049 sf 25.93% Impervious Runoff Depth=3.87"
Tc=6.0 min CN=80 Runoff=3.22 cfs 0.230 af

Subcatchment3: Runoff Area=36,147 sf 36.22% Impervious Runoff Depth=4.08"
Tc=6.0 min CN=82 Runoff=3.93 cfs 0.282 af

Subcatchment4: Runoff Area=8,448 sf 0.00% Impervious Runoff Depth=3.27"
Tc=6.0 min CN=74 Runoff=0.74 cfs 0.053 af

Subcatchment5: Runoff Area=10,807 sf 0.00% Impervious Runoff Depth=3.27"
Tc=6.0 min CN=74 Runoff=0.95 cfs 0.068 af

Subcatchment6: Runoff Area=13,985 sf 32.06% Impervious Runoff Depth=4.08"
Tc=6.0 min CN=82 Runoff=1.52 cfs 0.109 af

Subcatchment7: Runoff Area=30,345 sf 25.86% Impervious Runoff Depth=3.87"
Tc=6.0 min CN=80 Runoff=3.15 cfs 0.225 af

Subcatchment8: Runoff Area=45,551 sf 55.78% Impervious Runoff Depth=4.61"
Tc=6.0 min CN=87 Runoff=5.49 cfs 0.402 af

Subcatchment9: Runoff Area=28,191 sf 63.29% Impervious Runoff Depth=4.83"
Tc=6.0 min CN=89 Runoff=3.52 cfs 0.261 af

Subcatchment10: access drive north of Runoff Area=30,932 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=4.25 cfs 0.347 af

Subcatchment11: Runoff Area=43,174 sf 36.78% Impervious Runoff Depth=4.18"
Tc=6.0 min CN=83 Runoff=4.80 cfs 0.346 af

Subcatchment12: Runoff Area=12,920 sf 57.98% Impervious Runoff Depth=4.72"
Tc=6.0 min CN=88 Runoff=1.58 cfs 0.117 af

Subcatchment13: Runoff Area=45,163 sf 46.46% Impervious Runoff Depth=4.40"
Tc=6.0 min CN=85 Runoff=5.24 cfs 0.380 af

Subcatchment14: Runoff Area=9,378 sf 94.36% Impervious Runoff Depth=5.74"
Tc=6.0 min CN=97 Runoff=1.28 cfs 0.103 af

Subcatchment15: Runoff Area=9,157 sf 1.92% Impervious Runoff Depth=3.27"
Tc=6.0 min CN=74 Runoff=0.81 cfs 0.057 af

Subcatchment16: Runoff Area=15,110 sf 34.16% Impervious Runoff Depth=4.08"
Tc=6.0 min CN=82 Runoff=1.64 cfs 0.118 af

Subcatchment17: Runoff Area=13,300 sf 85.11% Impervious Runoff Depth=5.40"
Tc=6.0 min CN=94 Runoff=1.77 cfs 0.137 af

Subcatchment18A: Runoff Area=6,339 sf 40.91% Impervious Runoff Depth=4.29"
Tc=6.0 min CN=84 Runoff=0.72 cfs 0.052 af

Subcatchment18B: Runoff Area=4,023 sf 58.36% Impervious Runoff Depth=4.72"
Tc=6.0 min CN=88 Runoff=0.49 cfs 0.036 af

Subcatchment19: Runoff Area=13,711 sf 80.35% Impervious Runoff Depth=5.28"
Tc=6.0 min CN=93 Runoff=1.81 cfs 0.139 af

Subcatchment20: Runoff Area=28,459 sf 73.83% Impervious Runoff Depth=5.17"
Tc=6.0 min CN=92 Runoff=3.71 cfs 0.281 af

Subcatchment21: Runoff Area=11,452 sf 68.92% Impervious Runoff Depth=5.06"
Tc=6.0 min CN=91 Runoff=1.47 cfs 0.111 af

Subcatchment22: Runoff Area=13,444 sf 61.12% Impervious Runoff Depth=4.83"
Tc=6.0 min CN=89 Runoff=1.68 cfs 0.124 af

Subcatchment23: sub 23 Runoff Area=28,475 sf 21.95% Impervious Runoff Depth=3.67"
Tc=6.0 min CN=78 Runoff=2.81 cfs 0.200 af

Subcatchment24: Runoff Area=18,261 sf 67.19% Impervious Runoff Depth=5.17"
Tc=6.0 min CN=92 Runoff=2.38 cfs 0.181 af

Subcatchment25: Runoff Area=118,223 sf 0.00% Impervious Runoff Depth=2.98"
Flow Length=438' Tc=67.0 min CN=71 Runoff=3.47 cfs 0.674 af

Subcatchment26: Runoff Area=3,816 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=0.52 cfs 0.043 af

Subcatchment27: Runoff Area=4,262 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=0.58 cfs 0.048 af

Subcatchment28: Runoff Area=79,698 sf 27.42% Impervious Runoff Depth=4.40"
Tc=6.0 min CN=85 Runoff=9.24 cfs 0.670 af

Subcatchment29: Runoff Area=1,306 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af

Subcatchment30: Runoff Area=31,472 sf 77.98% Impervious Runoff Depth=5.28"
Tc=6.0 min CN=93 Runoff=4.15 cfs 0.318 af

Subcatchment31: Runoff Area=70,616 sf 0.00% Impervious Runoff Depth=2.98"
Flow Length=217' Tc=12.3 min CN=71 Runoff=4.59 cfs 0.403 af

Subcatchment32: Runoff Area=4,677 sf 60.42% Impervious Runoff Depth=4.83"
Tc=6.0 min CN=89 Runoff=0.58 cfs 0.043 af

Subcatchment33: B3 green Runoff Area=107,893 sf 16.71% Impervious Runoff Depth=2.61"
Tc=6.0 min CN=67 Runoff=7.47 cfs 0.538 af

Subcatchment34: Runoff Area=24,099 sf 20.00% Impervious Runoff Depth=2.70"
Tc=6.0 min CN=68 Runoff=1.73 cfs 0.124 af

Subcatchment35: Runoff Area=20,997 sf 20.00% Impervious Runoff Depth=2.70"
Tc=6.0 min CN=68 Runoff=1.51 cfs 0.108 af

Subcatchment36: B1M1 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=15.45 cfs 1.262 af

Subcatchment37: B1M2 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=15.45 cfs 1.262 af

Subcatchment38: B1M3 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=15.45 cfs 1.262 af

Subcatchment39: B2M4 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=15.45 cfs 1.262 af

Subcatchment40: B2M5 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=15.45 cfs 1.262 af

Subcatchment41: B2M6 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=15.45 cfs 1.262 af

Subcatchment42: B6 Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=1.65 cfs 0.135 af

Subcatchment43: B5 Runoff Area=18,983 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=2.61 cfs 0.213 af

Subcatchment44: onsite untreated Runoff Area=159,363 sf 0.00% Impervious Runoff Depth=2.98"
Flow Length=574' Tc=18.8 min CN=71 Runoff=8.80 cfs 0.908 af

Subcatchment45: Runoff Area=64,440 sf 0.00% Impervious Runoff Depth=2.88"
Flow Length=307' Tc=29.9 min CN=70 Runoff=2.81 cfs 0.356 af

Subcatchment46: SUBCAT8 Runoff Area=14,976 sf 0.00% Impervious Runoff Depth=2.98"
Flow Length=276' Tc=34.7 min CN=71 Runoff=0.63 cfs 0.085 af

Subcatchment47: Runoff Area=79,187 sf 6.00% Impervious Runoff Depth=3.37"
Flow Length=639' Tc=15.9 min CN=75 Runoff=5.31 cfs 0.510 af

Subcatchment48: Runoff Area=40,183 sf 0.00% Impervious Runoff Depth=2.88"
Flow Length=377' Tc=54.0 min CN=70 Runoff=1.30 cfs 0.222 af

Subcatchment49: Runoff Area=93,232 sf 0.59% Impervious Runoff Depth=2.98"
Flow Length=470' Tc=54.1 min CN=71 Runoff=3.10 cfs 0.531 af

Subcatchment50: Runoff Area=30,173 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=4.14 cfs 0.338 af

SubcatchmentOS10: OFFSITE 2 (above Runoff Area=1,644,982 sf 2.57% Impervious Runoff Depth=3.27"
Flow Length=2,221' Tc=94.2 min CN=74 Runoff=42.79 cfs 10.288 af

Subcatchmentos11a: OFFSITE 3 Runoff Area=192,533 sf 59.04% Impervious Runoff Depth=4.61"
Flow Length=532' Tc=6.8 min CN=87 Runoff=22.57 cfs 1.699 af

Subcatchmentos11b: OFFSITE 3 Runoff Area=320,814 sf 1.43% Impervious Runoff Depth=3.08"
Flow Length=528' Tc=18.9 min CN=72 Runoff=18.25 cfs 1.887 af

SubcatchmentOS9A: OFFSITE 1 (Below Runoff Area=153,823 sf 3.86% Impervious Runoff Depth=3.27"
Flow Length=561' Tc=26.6 min CN=74 Runoff=8.07 cfs 0.962 af

SubcatchmentOS9B: SUBCAT 4 Runoff Area=486,307 sf 2.34% Impervious Runoff Depth=3.27"
Flow Length=670' Tc=28.6 min CN=74 Runoff=24.67 cfs 3.041 af

SubcatchmentOS9C: SUBCAT 3 Runoff Area=178,147 sf 4.59% Impervious Runoff Depth=3.37"
Flow Length=655' Tc=10.1 min CN=75 Runoff=14.06 cfs 1.148 af

SubcatchmentOS9D: SUBCAT 2 Runoff Area=154,663 sf 0.00% Impervious Runoff Depth=3.17"
Flow Length=544' Tc=54.3 min CN=73 Runoff=5.51 cfs 0.938 af

Reach 9R: ANALYSISPOINT 9 Inflow=8.07 cfs 0.962 af
Outflow=8.07 cfs 0.962 af

Reach 10R: Perkins Road Culvert Avg. Flow Depth=2.00' Max Vel=11.61 fps Inflow=42.79 cfs 10.288 af
24.0" Round Pipe n=0.013 L=25.0' S=0.0200 '/' Capacity=31.99 cfs Outflow=34.39 cfs 10.288 af

Reach 11R: Stream 9 Inflow=22.57 cfs 1.699 af
Outflow=22.57 cfs 1.699 af

Reach 17R: untreated Inflow=1.77 cfs 0.137 af
Outflow=1.77 cfs 0.137 af

Reach 20R: untreated Inflow=3.71 cfs 0.281 af
Outflow=3.71 cfs 0.281 af

Reach 23R: sub 23 Inflow=2.81 cfs 0.200 af
Outflow=2.81 cfs 0.200 af

Reach 27R: extisting Inflow=0.58 cfs 0.048 af
Outflow=0.58 cfs 0.048 af

Reach 29R: untreated Inflow=0.18 cfs 0.015 af
Outflow=0.18 cfs 0.015 af

Reach 32R: untreated Inflow=0.58 cfs 0.043 af
Outflow=0.58 cfs 0.043 af

Reach 44R: Inflow=8.80 cfs 0.908 af
Outflow=8.80 cfs 0.908 af

Reach 47R: Inflow=5.31 cfs 0.510 af
Outflow=5.31 cfs 0.510 af

Reach 48R: (new Reach) Inflow=1.30 cfs 0.222 af
Outflow=1.30 cfs 0.222 af

Reach 49R: Inflow=3.10 cfs 0.531 af
Outflow=3.10 cfs 0.531 af

Reach PT1: ANALYSISPOINT 1 at BWD Little River Inflow=4.39 cfs 0.753 af
Outflow=4.39 cfs 0.753 af

Reach PT10: Analysis point at Little River Inflow=9.24 cfs 0.670 af
Outflow=9.24 cfs 0.670 af

Reach PT2: ANALYSISPOINT 2 at strm 3 Inflow=8.84 cfs 1.612 af
Outflow=8.84 cfs 1.612 af

Reach PT3: ANALYSISPOINT 3/4 at strm 5/6 Inflow=34.78 cfs 4.592 af
Outflow=34.78 cfs 4.592 af

Reach PT5: all BWD reservoir Inflow=38.40 cfs 6.204 af
Outflow=38.40 cfs 6.204 af

Reach PT6: stream 9 offsite Avg. Flow Depth=1.26' Max Vel=4.13 fps Inflow=39.95 cfs 12.950 af
n=0.040 L=483.0' S=0.0145 '/' Capacity=401.91 cfs Outflow=38.97 cfs 12.950 af

Reach PT7: ANALYSISPOINT7 at US Avg. Flow Depth=0.37' Max Vel=8.26 fps Inflow=2.81 cfs 0.356 af
18.0" Round Pipe n=0.013 L=83.0' S=0.0398 '/' Capacity=20.95 cfs Outflow=2.81 cfs 0.356 af

Reach PT8: ANALYSISPOINT 8 at US Avg. Flow Depth=0.05' Max Vel=4.44 fps Inflow=0.63 cfs 0.085 af
36.0" x 24.0" Box Pipe n=0.011 L=76.0' S=0.0632 '/' Capacity=144.91 cfs Outflow=0.63 cfs 0.085 af

Reach PT9: Analysis Point Stream 9 Avg. Flow Depth=1.12' Max Vel=24.65 fps Inflow=59.13 cfs 16.744 af
36.0" Round Pipe n=0.011 L=93.0' S=0.0645 '/' Capacity=200.22 cfs Outflow=59.13 cfs 16.744 af

Reach R9 B: offsite diversion strm 5/6 Inflow=31.78 cfs 4.189 af
Outflow=31.78 cfs 4.189 af

Reach R9D: offsite pont strm 3 Inflow=5.46 cfs 0.938 af
Outflow=5.46 cfs 0.938 af

Reach S9-2: Stream 9 Avg. Flow Depth=1.31' Max Vel=5.36 fps Inflow=54.61 cfs 15.745 af
n=0.040 L=1,580.0' S=0.0233 '/' Capacity=120.91 cfs Outflow=53.62 cfs 15.745 af

Reach S9-3: Stream 9 Avg. Flow Depth=1.25' Max Vel=5.35 fps Inflow=58.56 cfs 16.318 af
n=0.035 L=364.0' S=0.0199 '/' Capacity=152.29 cfs Outflow=58.51 cfs 16.318 af

Reach tank: existing clarifier Inflow=124.56 cfs 12.446 af
Outflow=124.56 cfs 12.446 af

Pond dmh10: dmh10 Peak Elev=62.75' Inflow=31.96 cfs 2.499 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=31.96 cfs 2.499 af

Pond dmh11: dmh11 Peak Elev=58.59' Inflow=36.36 cfs 3.993 af
30.0" Round Culvert n=0.013 L=84.0' S=0.0050 '/' Outflow=36.36 cfs 3.993 af

Pond dmh13: dmh13 Peak Elev=58.15' Inflow=36.36 cfs 3.993 af
30.0" Round Culvert n=0.013 L=201.0' S=0.0050 '/' Outflow=36.36 cfs 3.993 af

Pond dmh14: dmh14 Peak Elev=57.69' Inflow=38.99 cfs 4.231 af
30.0" Round Culvert n=0.020 L=23.0' S=0.0052 '/' Outflow=38.99 cfs 4.231 af

Pond dmh15: dmh15 Peak Elev=57.57' Inflow=38.99 cfs 4.231 af
30.0" Round Culvert n=0.013 L=90.0' S=0.0050 '/' Outflow=38.99 cfs 4.231 af

Pond dmh16: dmh16 Peak Elev=60.69' Inflow=0.12 cfs 0.057 af
12.0" Round Culvert n=0.013 L=198.0' S=0.0126 '/' Outflow=0.12 cfs 0.057 af

Pond dmh17: dmh17 Peak Elev=57.26' Inflow=39.70 cfs 4.335 af
30.0" Round Culvert n=0.013 L=35.0' S=0.0051 '/' Outflow=39.70 cfs 4.335 af

Pond dmh19: dmh 19 Peak Elev=55.73' Inflow=2.58 cfs 0.193 af
12.0" Round Culvert n=0.013 L=59.0' S=0.0100 '/' Outflow=2.58 cfs 0.193 af

Pond dmh2: dmh2 Peak Elev=68.45' Inflow=14.56 cfs 1.162 af
18.0" Round Culvert n=0.013 L=100.0' S=0.0150 '/' Outflow=14.56 cfs 1.162 af

Pond dmh20: dmh20 Peak Elev=57.66' Inflow=42.25 cfs 4.528 af
30.0" Round Culvert n=0.013 L=100.0' S=0.0050 '/' Outflow=42.25 cfs 4.528 af

Pond dmh21: dmh21 Peak Elev=60.88' Inflow=55.58 cfs 5.887 af
30.0" Round Culvert n=0.013 L=281.0' S=0.0169 '/' Outflow=55.58 cfs 5.887 af

Pond dmh22: dmh 22 Peak Elev=57.36' Inflow=10.68 cfs 1.003 af
15.0" Round Culvert n=0.013 L=93.0' S=0.0051 '/' Outflow=10.68 cfs 1.003 af

Pond dmh23: dmh23 Peak Elev=68.80' Inflow=9.21 cfs 0.737 af
12.0" Round Culvert n=0.013 L=138.0' S=0.0050 '/' Outflow=9.21 cfs 0.737 af

Pond dmh24: dmh24 Peak Elev=66.11' Inflow=9.21 cfs 0.737 af
12.0" Round Culvert n=0.013 L=72.0' S=0.0025 '/' Outflow=9.21 cfs 0.737 af

Pond dmh24a: dmh24a Peak Elev=66.54' Inflow=3.13 cfs 0.233 af
8.0" Round Culvert n=0.013 L=95.0' S=0.0095 '/' Outflow=3.13 cfs 0.233 af

Pond dmh25: dmh25 Peak Elev=60.69' Inflow=1.29 cfs 0.118 af
12.0" Round Culvert n=0.013 L=98.0' S=0.0510 '/' Outflow=1.29 cfs 0.118 af

Pond dmh26: dmh26 Peak Elev=61.27' Inflow=5.15 cfs 0.624 af
12.0" Round Culvert n=0.020 L=28.0' S=0.0050 '/' Outflow=5.15 cfs 0.624 af

Pond dmh27: dmh27 Peak Elev=65.99' Inflow=7.27 cfs 0.860 af
12.0" Round Culvert n=0.013 L=256.0' S=0.0050 '/' Outflow=7.27 cfs 0.860 af

Pond dmh29: dmh29 Peak Elev=59.69' Inflow=1.63 cfs 0.118 af
8.0" Round Culvert n=0.013 L=46.0' S=0.0100 '/' Outflow=1.63 cfs 0.118 af

Pond dmh3: dmh3 Peak Elev=63.54' Inflow=17.04 cfs 1.337 af
24.0" Round Culvert n=0.013 L=125.0' S=0.0053 '/' Outflow=17.04 cfs 1.337 af

Pond dmh30: dmh30 Peak Elev=56.21' Inflow=1.63 cfs 0.118 af
12.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=1.63 cfs 0.118 af

Pond dmh31: dmh31 Peak Elev=63.15' Inflow=6.00 cfs 0.741 af
12.0" Round Culvert n=0.013 L=259.0' S=0.0050 '/' Outflow=6.00 cfs 0.741 af

Pond dmh32: dmh32 Peak Elev=62.73' Inflow=9.67 cfs 1.062 af
12.0" Round Culvert n=0.013 L=36.0' S=0.0036 '/' Outflow=9.67 cfs 1.062 af

Pond dmh33: dmh33 Peak Elev=54.40' Inflow=0.50 cfs 0.130 af
12.0" Round Culvert n=0.013 L=201.0' S=0.0099 '/' Outflow=0.50 cfs 0.130 af

Pond dmh34: dmh34 Peak Elev=59.74' Inflow=8.04 cfs 0.729 af
12.0" Round Culvert n=0.013 L=39.0' S=0.0100 '/' Outflow=8.04 cfs 0.729 af

Pond dmh35: dmh35 Peak Elev=65.21' Inflow=19.80 cfs 2.034 af
18.0" Round Culvert n=0.013 L=276.0' S=0.0050 '/' Outflow=19.80 cfs 2.034 af

Pond dmh36: dmh36 Peak Elev=60.22' Inflow=19.80 cfs 2.034 af
18.0" Round Culvert n=0.013 L=159.0' S=0.0050 '/' Outflow=19.80 cfs 2.034 af

Pond dmh38: dmh38 Peak Elev=56.70' Inflow=13.39 cfs 1.133 af
18.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=13.39 cfs 1.133 af

Pond dmh39: dmh39 Peak Elev=55.31' Inflow=13.39 cfs 1.178 af
18.0" Round Culvert n=0.013 L=58.0' S=0.0047 '/' Outflow=13.39 cfs 1.178 af

Pond dmh4: dmh4 Peak Elev=62.88' Inflow=17.04 cfs 1.337 af
24.0" Round Culvert n=0.013 L=66.0' S=0.0041 '/' Outflow=17.04 cfs 1.337 af

Pond dmh40: dmh40 Peak Elev=59.66' Inflow=32.22 cfs 3.212 af
24.0" Round Culvert n=0.013 L=340.0' S=0.0050 '/' Outflow=32.22 cfs 3.212 af

Pond dmh43: dmh43 Peak Elev=64.25' Inflow=47.22 cfs 4.367 af
24.0" Round Culvert n=0.013 L=193.0' S=0.0050 '/' Outflow=47.22 cfs 4.367 af

Pond dmh44: dmh44 Peak Elev=54.28' Inflow=47.23 cfs 4.422 af
30.0" Round Culvert n=0.013 L=82.0' S=0.0050 '/' Outflow=47.23 cfs 4.422 af

Pond dmh45: dmh45 Peak Elev=58.83' Inflow=61.40 cfs 5.581 af
30.0" Round Culvert n=0.013 L=316.0' S=0.0050 '/' Outflow=61.40 cfs 5.581 af

Pond dmh47: dmh47 Peak Elev=56.08' Inflow=61.40 cfs 5.581 af
30.0" Round Culvert n=0.013 L=104.0' S=0.0100 '/' Outflow=61.40 cfs 5.581 af

Pond dmh48: dmh48 Peak Elev=56.00' Inflow=64.14 cfs 5.890 af
30.0" Round Culvert n=0.013 L=117.0' S=0.0050 '/' Outflow=64.14 cfs 5.890 af

Pond dmh49: dmh49 Peak Elev=49.59' Inflow=64.46 cfs 5.979 af
36.0" Round Culvert n=0.013 L=14.0' S=0.0071 '/' Outflow=64.46 cfs 5.979 af

Pond dmh5: dmh5 Peak Elev=62.52' Inflow=17.04 cfs 1.337 af
24.0" Round Culvert n=0.013 L=173.0' S=0.0050 '/' Outflow=17.04 cfs 1.337 af

Pond dmh50: dmh50 Peak Elev=54.87' Inflow=55.58 cfs 6.069 af
30.0" Round Culvert n=0.013 L=64.0' S=0.0100 '/' Outflow=55.58 cfs 6.069 af

Pond dmh51: dmh51 Peak Elev=54.21' Inflow=55.58 cfs 6.069 af
30.0" Round Culvert n=0.013 L=38.0' S=0.0287 '/' Outflow=55.58 cfs 6.069 af

Pond dmh52: dmh52 Peak Elev=53.43' Inflow=119.50 cfs 12.048 af
42.0" Round Culvert n=0.013 L=258.0' S=0.0194 '/' Outflow=119.50 cfs 12.048 af

Pond dmh53: CB53 Peak Elev=46.30' Inflow=124.30 cfs 12.406 af
42.0" Round Culvert n=0.013 L=120.0' S=0.0208 '/' Outflow=124.30 cfs 12.406 af

Pond dmh54: dmh54 Peak Elev=35.80' Inflow=124.56 cfs 12.446 af
48.0" Round Culvert n=0.013 L=152.0' S=0.0329 '/' Outflow=124.56 cfs 12.446 af

Pond dmh55: dhm55 Peak Elev=27.80' Inflow=124.56 cfs 12.446 af
48.0" Round Culvert n=0.013 L=115.0' S=0.0304 '/' Outflow=124.56 cfs 12.446 af

Pond dmh56: dmh56 Peak Elev=21.30' Inflow=124.56 cfs 12.446 af
48.0" Round Culvert n=0.013 L=42.0' S=0.0357 '/' Outflow=124.56 cfs 12.446 af

Pond dmh59: dmh59 Peak Elev=80.39' Inflow=9.74 cfs 0.844 af
12.0" Round Culvert n=0.013 L=294.0' S=0.0050 '/' Outflow=9.74 cfs 0.844 af

Pond dmh6: dmh6 Peak Elev=62.89' Inflow=17.04 cfs 1.337 af
24.0" Round Culvert n=0.020 L=170.0' S=0.0050 '/' Outflow=17.04 cfs 1.337 af

Pond dmh60: dhm60 Peak Elev=43.76' Inflow=119.50 cfs 12.048 af
48.0" Round Culvert n=0.013 L=114.0' S=0.0175 '/' Outflow=119.50 cfs 12.048 af

Pond dmh7: dmh7 Peak Elev=60.75' Inflow=17.04 cfs 1.337 af
24.0" Round Culvert n=0.013 L=170.0' S=0.0050 '/' Outflow=17.04 cfs 1.337 af

Pond dmh8: dmh8 Peak Elev=66.64' Inflow=31.96 cfs 2.499 af
24.0" Round Culvert n=0.013 L=296.0' S=0.0040 '/' Outflow=31.96 cfs 2.499 af

Pond dmh9a: dmh9a Peak Elev=63.80' Inflow=31.96 cfs 2.499 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=31.96 cfs 2.499 af

Pond DP 9B: off site pond to strm 5/6 Peak Elev=62.93' Storage=857 cf Inflow=31.80 cfs 4.189 af
Outflow=31.78 cfs 4.189 af

Pond DP 9D: offsite pond strm 3 Peak Elev=65.74' Storage=1,466 cf Inflow=5.51 cfs 0.938 af
Outflow=5.46 cfs 0.938 af

Pond GSF 11: grassed soil filter Peak Elev=62.61' Storage=5,923 cf Inflow=4.80 cfs 0.346 af
Primary=0.03 cfs 0.076 af Secondary=2.44 cfs 0.220 af Outflow=2.46 cfs 0.296 af

Pond GSF 12: grassed soil filter Peak Elev=62.06' Storage=1,782 cf Inflow=1.58 cfs 0.117 af
Primary=0.01 cfs 0.025 af Secondary=1.44 cfs 0.070 af Outflow=1.45 cfs 0.095 af

Pond GSF 13: grassed soil filter Peak Elev=62.38' Storage=6,282 cf Inflow=5.24 cfs 0.380 af
Primary=0.03 cfs 0.099 af Secondary=2.65 cfs 0.229 af Outflow=2.69 cfs 0.328 af

Pond GSF 15: grassed soil filter Peak Elev=63.80' Storage=656 cf Inflow=0.81 cfs 0.057 af
Primary=0.00 cfs 0.005 af Secondary=0.75 cfs 0.042 af Outflow=0.75 cfs 0.047 af

Pond GSF 16: grassed soil filter Peak Elev=64.42' Storage=3,385 cf Inflow=1.64 cfs 0.118 af
Primary=0.01 cfs 0.025 af Secondary=0.11 cfs 0.032 af Outflow=0.12 cfs 0.057 af

Pond GSF 18A: grassed soil filter Peak Elev=57.45' Storage=1,143 cf Inflow=0.72 cfs 0.052 af
Primary=0.00 cfs 0.013 af Secondary=0.25 cfs 0.022 af Outflow=0.25 cfs 0.035 af

Pond GSF 18B: grassed soil filter Peak Elev=57.97' Storage=633 cf Inflow=0.49 cfs 0.036 af
Primary=0.00 cfs 0.006 af Secondary=0.40 cfs 0.020 af Outflow=0.41 cfs 0.027 af

Pond GSF 1A: Grassed soil filter Peak Elev=66.45' Storage=2,490 cf Inflow=2.02 cfs 0.146 af
Primary=0.01 cfs 0.036 af Secondary=1.28 cfs 0.082 af Outflow=1.29 cfs 0.118 af

Pond GSF 1B: grassed soil filter Peak Elev=67.05' Storage=1,913 cf Inflow=2.64 cfs 0.189 af
Primary=0.01 cfs 0.040 af Secondary=2.55 cfs 0.135 af Outflow=2.56 cfs 0.175 af

Pond GSF 2: grassed soil filter Peak Elev=57.85' Storage=3,189 cf Inflow=3.22 cfs 0.230 af
Primary=0.02 cfs 0.054 af Secondary=2.51 cfs 0.149 af Outflow=2.52 cfs 0.202 af

Pond GSF 24: grassed soil filter Peak Elev=40.81' Storage=2,806 cf Inflow=2.38 cfs 0.181 af
Primary=0.02 cfs 0.056 af Secondary=2.10 cfs 0.102 af Outflow=2.12 cfs 0.158 af

Pond GSF 3: grassed soil filter Peak Elev=56.03' Storage=3,931 cf Inflow=3.93 cfs 0.282 af
Primary=0.02 cfs 0.056 af Secondary=3.25 cfs 0.187 af Outflow=3.27 cfs 0.242 af

Pond GSF 4: grassed soil filter Peak Elev=55.19' Storage=734 cf Inflow=0.74 cfs 0.053 af
Primary=0.00 cfs 0.013 af Secondary=0.56 cfs 0.033 af Outflow=0.56 cfs 0.045 af

Pond GSF 5: grassed soil filter Peak Elev=54.69' Storage=1,006 cf Inflow=0.95 cfs 0.068 af
Primary=0.00 cfs 0.013 af Secondary=0.60 cfs 0.042 af Outflow=0.60 cfs 0.055 af

Pond GSF 6: grassed soil filter Peak Elev=48.48' Storage=1,836 cf Inflow=1.52 cfs 0.109 af
Primary=0.01 cfs 0.024 af Secondary=0.85 cfs 0.065 af Outflow=0.86 cfs 0.089 af

Pond GSF 7: grassed soil filter Peak Elev=54.88' Storage=3,831 cf Inflow=3.15 cfs 0.225 af
Primary=0.02 cfs 0.053 af Secondary=1.62 cfs 0.129 af Outflow=1.64 cfs 0.182 af

Pond GSF 8: grassed soil filter Peak Elev=58.13' Storage=6,490 cf Inflow=5.49 cfs 0.402 af
Primary=0.04 cfs 0.102 af Secondary=2.67 cfs 0.254 af Outflow=2.71 cfs 0.356 af

Pond GSF 9: grassed soil filter Peak Elev=63.27' Storage=3,167 cf Inflow=3.52 cfs 0.261 af
Primary=0.02 cfs 0.054 af Secondary=2.63 cfs 0.183 af Outflow=2.65 cfs 0.238 af

Pond ics 12: ICS 12 Peak Elev=66.10' Inflow=15.45 cfs 1.262 af
Primary=14.49 cfs 0.614 af Secondary=0.96 cfs 0.649 af Outflow=15.45 cfs 1.262 af

Pond ICS1: ICS 1 Peak Elev=68.77' Inflow=15.45 cfs 1.262 af
Primary=0.96 cfs 0.529 af Secondary=14.49 cfs 0.733 af Outflow=15.45 cfs 1.262 af

Pond ICS18: ICS18 Peak Elev=60.55' Inflow=2.61 cfs 0.213 af
Primary=0.67 cfs 0.174 af Secondary=1.93 cfs 0.039 af Outflow=2.61 cfs 0.213 af

Pond ics28: ICS28 Peak Elev=60.70' Inflow=1.65 cfs 0.135 af
Primary=0.65 cfs 0.120 af Secondary=1.00 cfs 0.014 af Outflow=1.65 cfs 0.135 af

Pond ICS37: ISC37 Peak Elev=55.83' Inflow=15.45 cfs 1.262 af
Primary=5.46 cfs 1.091 af Secondary=9.99 cfs 0.172 af Outflow=15.45 cfs 1.262 af

Pond ics46: ICS46 Peak Elev=51.64' Inflow=15.45 cfs 1.262 af
Primary=0.91 cfs 0.648 af Secondary=14.54 cfs 0.614 af Outflow=15.45 cfs 1.262 af

Pond ICS9: ICS9 Peak Elev=67.12' Inflow=15.45 cfs 1.262 af
Primary=0.94 cfs 0.647 af Secondary=14.51 cfs 0.615 af Outflow=15.45 cfs 1.262 af

Pond ISC42: ICS 42 Peak Elev=56.18' Inflow=15.45 cfs 1.262 af
Primary=5.82 cfs 1.109 af Secondary=9.63 cfs 0.154 af Outflow=15.45 cfs 1.262 af

Pond MPP 10: Rtank storage Peak Elev=61.90' Storage=0.082 af Inflow=4.25 cfs 0.347 af
8.0" Round Culvert x 6.00 n=0.013 L=2.0' S=0.0400 '/' Outflow=2.63 cfs 0.329 af

Pond MPP 14: Rtanks Peak Elev=56.70' Storage=1,019 cf Inflow=1.28 cfs 0.103 af
8.0" Round Culvert x 2.00 n=0.013 L=21.0' S=0.0052 '/' Outflow=0.83 cfs 0.099 af

Pond MPP 19: Rtanks Peak Elev=55.84' Storage=0.059 af Inflow=1.81 cfs 0.139 af
6.0" Round Culvert n=0.013 L=19.0' S=0.0042 '/' Outflow=0.50 cfs 0.130 af

Pond MPP 21: Rtanks Peak Elev=55.79' Storage=1,396 cf Inflow=1.47 cfs 0.111 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.67 cfs 0.107 af

Pond MPP 22: Rtanks Peak Elev=55.77' Storage=2,285 cf Inflow=1.68 cfs 0.124 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.51 cfs 0.116 af

Pond MPP 26: Rtanks Peak Elev=34.97' Storage=543 cf Inflow=0.52 cfs 0.043 af
8.0" Round Culvert n=0.013 L=8.0' S=0.0350 '/' Outflow=0.30 cfs 0.040 af

Pond MPP 50: Peak Elev=55.05' Storage=3,610 cf Inflow=4.14 cfs 0.338 af
8.0" Round Culvert x 7.00 n=0.013 L=3.0' S=0.0100 '/' Outflow=2.86 cfs 0.310 af

Pond mpp30: Rtanks Peak Elev=31.65' Storage=7,791 cf Inflow=5.66 cfs 0.426 af
Outflow=0.65 cfs 0.426 af

Pond SSF 36: ssf Peak Elev=64.58' Storage=11,206 cf Inflow=0.96 cfs 0.529 af
Primary=0.08 cfs 0.246 af Secondary=0.30 cfs 0.183 af Outflow=0.38 cfs 0.429 af

Pond ssf37: ssf Peak Elev=63.39' Storage=11,958 cf Inflow=0.94 cfs 0.647 af
Primary=0.08 cfs 0.249 af Secondary=0.53 cfs 0.298 af Outflow=0.61 cfs 0.546 af

Pond ssf38: ssf Peak Elev=70.62' Storage=16,132 cf Inflow=14.49 cfs 0.614 af
Primary=0.14 cfs 0.170 af Secondary=8.83 cfs 0.346 af Outflow=8.96 cfs 0.516 af

Pond ssf39: ssf Peak Elev=58.40' Storage=18,385 cf Inflow=5.46 cfs 1.091 af
Primary=0.11 cfs 0.252 af Secondary=6.11 cfs 0.709 af Outflow=6.22 cfs 0.961 af

Pond ssf40: ssf Peak Elev=58.33' Storage=16,630 cf Inflow=5.82 cfs 1.109 af
Primary=0.11 cfs 0.251 af Secondary=6.06 cfs 0.750 af Outflow=6.18 cfs 1.001 af

Pond ssf41: ssf Peak Elev=48.21' Storage=12,151 cf Inflow=0.91 cfs 0.648 af
Primary=0.08 cfs 0.249 af Secondary=0.53 cfs 0.295 af Outflow=0.61 cfs 0.544 af

Pond ssf42: ssf Peak Elev=60.71' Storage=1,730 cf Inflow=0.65 cfs 0.120 af
Primary=0.01 cfs 0.028 af Secondary=0.63 cfs 0.075 af Outflow=0.64 cfs 0.104 af

Pond ssf43: ssf Peak Elev=59.96' Storage=2,342 cf Inflow=0.67 cfs 0.174 af
Primary=0.02 cfs 0.044 af Secondary=0.65 cfs 0.110 af Outflow=0.66 cfs 0.154 af

Total Runoff Area = 122.513 ac Runoff Volume = 38.512 af Average Runoff Depth = 3.77"
76.10% Pervious = 93.228 ac 23.90% Impervious = 29.285 ac

Summary for Subcatchment 1A:

Runoff = 2.02 cfs @ 12.09 hrs, Volume= 0.146 af, Depth= 4.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	11,582	77	>75% Grass cover, Good, HSG C/D
*	6,203	98	Impervious, HSG C/D
	17,785	84	Weighted Average
	11,582		65.12% Pervious Area
	6,203		34.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 1B:

Runoff = 2.64 cfs @ 12.09 hrs, Volume= 0.189 af, Depth= 3.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	6,832	98	Impervious
	18,017	74	>75% Grass cover, Good, HSG C
	24,849	81	Weighted Average
	18,017		72.51% Pervious Area
	6,832		27.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 2:

Runoff = 3.22 cfs @ 12.09 hrs, Volume= 0.230 af, Depth= 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	8,052	98	Impervious
	5,300	74	>75% Grass cover, Good, HSG C
*	17,697	74	>75% Grass cover, Good, HSG C/D
	31,049	80	Weighted Average
	22,997		74.07% Pervious Area
	8,052		25.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 3:

Runoff = 3.93 cfs @ 12.09 hrs, Volume= 0.282 af, Depth= 4.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	13,091	98	Impervious, HSG C
*	15,516	74	>75% Grass cover, Good, HSG C/D
*	7,540	70	Woods, Good, HSG C/D
	36,147	82	Weighted Average
	23,056		63.78% Pervious Area
	13,091		36.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 4:

Runoff = 0.74 cfs @ 12.09 hrs, Volume= 0.053 af, Depth= 3.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
	8,448	74	>75% Grass cover, Good, HSG C
	8,448		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 5:

Runoff = 0.95 cfs @ 12.09 hrs, Volume= 0.068 af, Depth= 3.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

Area (sf)	CN	Description
10,807	74	>75% Grass cover, Good, HSG C
10,807		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 6:

Runoff = 1.52 cfs @ 12.09 hrs, Volume= 0.109 af, Depth= 4.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	4,484	98	Impervious
*	9,501	74	>75% Grass cover, Good, HSG C
	13,985	82	Weighted Average
	9,501		67.94% Pervious Area
	4,484		32.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 7:

Runoff = 3.15 cfs @ 12.09 hrs, Volume= 0.225 af, Depth= 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	7,846	98	Impervious
	3,270	74	>75% Grass cover, Good, HSG C
*	19,229	74	>75% Grass cover, Good, HSG C/D
	30,345	80	Weighted Average
	22,499		74.14% Pervious Area
	7,846		25.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 8:

Runoff = 5.49 cfs @ 12.09 hrs, Volume= 0.402 af, Depth= 4.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	25,409	98	Impervious
	20,142	74	>75% Grass cover, Good, HSG C
	45,551	87	Weighted Average
	20,142		44.22% Pervious Area
	25,409		55.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 9:

Runoff = 3.52 cfs @ 12.08 hrs, Volume= 0.261 af, Depth= 4.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	10,348	74	>75% Grass cover, Good, HSG C/D
*	17,843	98	Impervious
	28,191	89	Weighted Average
	10,348		36.71% Pervious Area
	17,843		63.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 10: access drive north of B1

Runoff = 4.25 cfs @ 12.08 hrs, Volume= 0.347 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	30,932	98	Impervious
	30,932		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 11:

Runoff = 4.80 cfs @ 12.09 hrs, Volume= 0.346 af, Depth= 4.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	15,881	98	Impervious
*	27,293	74	>75% Grass cover, Good, HSG C/D
	43,174	83	Weighted Average
	27,293		63.22% Pervious Area
	15,881		36.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 12:

Runoff = 1.58 cfs @ 12.09 hrs, Volume= 0.117 af, Depth= 4.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	7,491	98	Impervious, HSG C/D
	5,429	74	>75% Grass cover, Good, HSG C
	12,920	88	Weighted Average
	5,429		42.02% Pervious Area
	7,491		57.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 13:

Runoff = 5.24 cfs @ 12.09 hrs, Volume= 0.380 af, Depth= 4.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	20,981	98	Impervious
*	24,182	74	>75% Grass cover, Good, HSG C/D
	45,163	85	Weighted Average
	24,182		53.54% Pervious Area
	20,981		46.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 14:

Runoff = 1.28 cfs @ 12.08 hrs, Volume= 0.103 af, Depth= 5.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	8,849	98	Impervious
	529	74	>75% Grass cover, Good, HSG C
	9,378	97	Weighted Average
	529		5.64% Pervious Area
	8,849		94.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 15:

Runoff = 0.81 cfs @ 12.09 hrs, Volume= 0.057 af, Depth= 3.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	176	98	Impervious
*	4,183	74	>75% Grass cover, Good, HSG C/D
*	4,798	74	vegetated roof
	9,157	74	Weighted Average
	8,981		98.08% Pervious Area
	176		1.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 16:

Runoff = 1.64 cfs @ 12.09 hrs, Volume= 0.118 af, Depth= 4.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	5,161	98	Impervious
*	9,949	74	>75% Grass cover, Good, HSG C/D
	15,110	82	Weighted Average
	9,949		65.84% Pervious Area
	5,161		34.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 17:

Runoff = 1.77 cfs @ 12.08 hrs, Volume= 0.137 af, Depth= 5.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	11,320	98	Impervious
*	1,980	74	>75% Grass cover, Good, HSG C/D
	13,300	94	Weighted Average
	1,980		14.89% Pervious Area
	11,320		85.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18A:

Runoff = 0.72 cfs @ 12.09 hrs, Volume= 0.052 af, Depth= 4.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	2,593	98	Impervious
*	3,746	74	>75% Grass cover, Good, HSG C/D
	6,339	84	Weighted Average
	3,746		59.09% Pervious Area
	2,593		40.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18B:

Runoff = 0.49 cfs @ 12.09 hrs, Volume= 0.036 af, Depth= 4.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	2,348	98	Impervious
*	1,675	74	>75% Grass cover, Good, HSG C/D
	4,023	88	Weighted Average
	1,675		41.64% Pervious Area
	2,348		58.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 19:

Runoff = 1.81 cfs @ 12.08 hrs, Volume= 0.139 af, Depth= 5.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	11,017	98	Impervious
*	2,694	74	>75% Grass cover, Good, HSG C/D
	13,711	93	Weighted Average
	2,694		19.65% Pervious Area
	11,017		80.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 20:

Runoff = 3.71 cfs @ 12.08 hrs, Volume= 0.281 af, Depth= 5.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	21,010	98	Impervious
*	7,449	74	>75% Grass cover, Good, HSG C/D
	28,459	92	Weighted Average
	7,449		26.17% Pervious Area
	21,010		73.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 21:

Runoff = 1.47 cfs @ 12.08 hrs, Volume= 0.111 af, Depth= 5.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	7,893	98	Impervious
*	3,559	74	>75% Grass cover, Good, HSG C/D
	11,452	91	Weighted Average
	3,559		31.08% Pervious Area
	7,893		68.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 22:

Runoff = 1.68 cfs @ 12.08 hrs, Volume= 0.124 af, Depth= 4.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	8,217	98	Impervious
*	5,227	74	>75% Grass cover, Good, HSG C/D
	13,444	89	Weighted Average
	5,227		38.88% Pervious Area
	8,217		61.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 23: sub 23

Runoff = 2.81 cfs @ 12.09 hrs, Volume= 0.200 af, Depth= 3.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

Area (sf)	CN	Description
6,249	98	Paved parking, HSG C
2,450	74	>75% Grass cover, Good, HSG C
10,135	74	>75% Grass cover, Good, HSG C
9,641	70	Woods, Good, HSG C
28,475	78	Weighted Average
22,226		78.05% Pervious Area
6,249		21.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, direct**

Summary for Subcatchment 24:

Runoff = 2.38 cfs @ 12.08 hrs, Volume= 0.181 af, Depth= 5.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	12,270	98	Impervious
	5,991	80	>75% Grass cover, Good, HSG D
	18,261	92	Weighted Average
	5,991		32.81% Pervious Area
	12,270		67.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 25:

Runoff = 3.47 cfs @ 12.88 hrs, Volume= 0.674 af, Depth= 2.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	21,818	74	>75% Grass cover, Good, HSG C/D
*	96,405	70	Woods, Good, HSG C/D
	118,223	71	Weighted Average
	118,223		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
54.4	130	0.0150	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
11.9	253	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	55	0.3000	1.37		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
67.0	438	Total			

Summary for Subcatchment 26:

Runoff = 0.52 cfs @ 12.08 hrs, Volume= 0.043 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	3,816	98	Impervious
	3,816		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 27:

Runoff = 0.58 cfs @ 12.08 hrs, Volume= 0.048 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	4,262	98	Impervious
	4,262		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 28:

Runoff = 9.24 cfs @ 12.09 hrs, Volume= 0.670 af, Depth= 4.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	21,852	98	Impervious
	40,598	80	>75% Grass cover, Good, HSG D
	6,418	77	Woods, Good, HSG D
	10,830	79	Woods/grass comb., Good, HSG D
	79,698	85	Weighted Average
	57,846		72.58% Pervious Area
	21,852		27.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 29:

Runoff = 0.18 cfs @ 12.08 hrs, Volume= 0.015 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	1,306	98	Impervious
	1,306		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 30:

Runoff = 4.15 cfs @ 12.08 hrs, Volume= 0.318 af, Depth= 5.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	24,541	98	Impervious
*	6,931	74	>75% Grass cover, Good, HSG C/D
	31,472	93	Weighted Average
	6,931		22.02% Pervious Area
	24,541		77.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 31:

Runoff = 4.59 cfs @ 12.17 hrs, Volume= 0.403 af, Depth= 2.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	24,011	74	>75% Grass cover, Good, HSG C/D
*	46,605	70	Woods, Good, HSG C/D
	70,616	71	Weighted Average
	70,616		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0500	0.16		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
1.7	86	0.1200	0.87		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	31	0.0300	2.60		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
12.3	217	Total			

Summary for Subcatchment 32:

Runoff = 0.58 cfs @ 12.08 hrs, Volume= 0.043 af, Depth= 4.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	2,826	98	Impervious
*	1,851	74	>75% Grass cover, Good, HSG C/D
	4,677	89	Weighted Average
	1,851		39.58% Pervious Area
	2,826		60.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 33: B3 green

Runoff = 7.47 cfs @ 12.09 hrs, Volume= 0.538 af, Depth= 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	89,860	61	vegetated roof
*	18,033	98	penthouse
	107,893	67	Weighted Average
	89,860		83.29% Pervious Area
	18,033		16.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 34:

Runoff = 1.73 cfs @ 12.09 hrs, Volume= 0.124 af, Depth= 2.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	19,279	61	vegetated roof
*	4,820	98	penthouse/walks on roof
	24,099	68	Weighted Average
	19,279		80.00% Pervious Area
	4,820		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 35:

Runoff = 1.51 cfs @ 12.09 hrs, Volume= 0.108 af, Depth= 2.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	16,797	61	vegetated roof
*	4,200	98	penthouse/walks on roof
	20,997	68	Weighted Average
	16,797		80.00% Pervious Area
	4,200		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 36: B1M1

Runoff = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 37: B1M2

Runoff = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 38: B1M3

Runoff = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 39: B2M4

Runoff = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 40: B2M5

Runoff = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 41: B2M6

Runoff = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 42: B6

Runoff = 1.65 cfs @ 12.08 hrs, Volume= 0.135 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	12,000	98	Impervious
	12,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 43: B5

Runoff = 2.61 cfs @ 12.08 hrs, Volume= 0.213 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	18,983	98	Impervious
	18,983		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 44: onsite untreated

Runoff = 8.80 cfs @ 12.26 hrs, Volume= 0.908 af, Depth= 2.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	29,531	74	>75% Grass cover, Good, HSG C/D
*	129,832	70	Woods, Good, HSG C/D
	159,363	71	Weighted Average
	159,363		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	97	0.0620	0.25		**Sheet Flow, a-b** Grass: Short n= 0.150 P2= 2.90"
4.3	170	0.0090	0.66		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
1.3	97	0.0320	1.25		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
6.8	210	0.0430	0.52		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
18.8	574	Total			

Summary for Subcatchment 45:

Runoff = 2.81 cfs @ 12.43 hrs, Volume= 0.356 af, Depth= 2.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	5,799	74	>75% Grass cover, Good, HSG C/D
*	58,641	70	Woods, Good, HSG C/D
	64,440	70	Weighted Average
	64,440		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.3	79	0.0340	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
2.9	121	0.0800	0.71		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	34	0.0600	3.67		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
0.5	73	0.0600	2.64	10.56	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage

29.9	307	Total

Summary for Subcatchment 46: SUBCAT 8

Runoff = 0.63 cfs @ 12.49 hrs, Volume= 0.085 af, Depth= 2.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	12,652	70	Woods, Good, HSG C/D
*	2,324	74	>75% Grass cover, Good, HSG C/D
	14,976	71	Weighted Average
	14,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
1.1	43	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.7100	2.11		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
1.5	152	0.0240	1.67	6.68	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100
34.7	276	Total			

Summary for Subcatchment 47:

Runoff = 5.31 cfs @ 12.21 hrs, Volume= 0.510 af, Depth= 3.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
	16,941	80	>75% Grass cover, Good, HSG D
*	27,433	74	>75% Grass cover, Good, HSG C/D
*	30,061	70	Woods, Good, HSG C/D
*	4,752	98	Impervious
	79,187	75	Weighted Average
	74,435		94.00% Pervious Area
	4,752		6.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.5	102	0.0400	0.15		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
0.6	30	0.1000	0.79		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.6	100	0.0300	2.60		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
3.2	407	0.0200	2.12		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
15.9	639	Total			

Summary for Subcatchment 48:

Runoff = 1.30 cfs @ 12.78 hrs, Volume= 0.222 af, Depth= 2.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	305	74	>75% Grass cover, Good, HSG C/D
*	36,887	70	Woods, Good, HSG C/D
	2,991	70	Woods, Good, HSG C
	40,183	70	Weighted Average
	40,183		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.6	127	0.0200	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
5.4	115	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	45	0.2000	1.12		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.3	90	0.0880	4.45		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
54.0	377	Total			

Summary for Subcatchment 49:

Runoff = 3.10 cfs @ 12.75 hrs, Volume= 0.531 af, Depth= 2.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	11,982	74	>75% Grass cover, Good, HSG C/D
*	80,702	70	Woods, Good, HSG C/D
*	548	98	Impervious
	93,232	71	Weighted Average
	92,684		99.41% Pervious Area
	548		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.4	115	0.0500	0.06		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
23.7	355	0.0100	0.25		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
54.1	470	Total			

Summary for Subcatchment 50:

Runoff = 4.14 cfs @ 12.08 hrs, Volume= 0.338 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	30,173	98	Impervious
	30,173		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment OS10: OFFSITE 2 (above Perkins Rd)

Runoff = 42.79 cfs @ 13.29 hrs, Volume= 10.288 af, Depth= 3.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	298,066	70	Woods, Good, HSG C/D
*	42,276	98	Impervious
*	1,304,640	74	>75% Grass cover, Good, HSG C/D
	1,644,982	74	Weighted Average
	1,602,706		97.43% Pervious Area
	42,276		2.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.2	141	0.0280	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
15.3	384	0.0280	0.42		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.5	227	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
18.6	780	0.0100	0.70		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
12.6	689	0.0170	0.91		**Shallow Concentrated Flow, e-f** Short Grass Pasture Kv= 7.0 fps
94.2	2,221	Total			

Summary for Subcatchment os11a: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 22.57 cfs @ 12.10 hrs, Volume= 1.699 af, Depth= 4.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	113,681	98	Impervious
*	33,806	70	Woods, Good, HSG C/D
*	45,046	74	>75% Grass cover, Good, HSG C/D
	192,533	87	Weighted Average
	78,852		40.96% Pervious Area
	113,681		59.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	16	0.1870	2.22		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
4.7	419	0.0100	1.50		**Shallow Concentrated Flow, b-c** Grassed Waterway Kv= 15.0 fps
2.0	97	0.1000	0.79		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.8	532	Total			

Summary for Subcatchment os11b: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 18.25 cfs @ 12.26 hrs, Volume= 1.887 af, Depth= 3.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	4,576	98	Impervious
*	203,815	70	Woods, Good, HSG C/D
*	112,423	74	>75% Grass cover, Good, HSG C/D
	320,814	72	Weighted Average
	316,238		98.57% Pervious Area
	4,576		1.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	96	0.0880	0.13		**Sheet Flow, a-b** Woods: Light underbrush n= 0.400 P2= 2.90"
4.6	357	0.0340	1.29		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
2.2	75	0.0534	0.58		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
18.9	528	Total			

Summary for Subcatchment OS9A: OFFSITE 1 (Below Perkins Rd)

Runoff = 8.07 cfs @ 12.38 hrs, Volume= 0.962 af, Depth= 3.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	5,945	98	Impervious
	19,384	70	Woods, Good, HSG C
	128,494	74	>75% Grass cover, Good, HSG C
	153,823	74	Weighted Average
	147,878		96.14% Pervious Area
	5,945		3.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	90	0.0110	0.09		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
1.5	171	0.0700	1.85		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
6.9	257	0.0620	0.62		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.7	43	0.1860	1.08		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
26.6	561	Total			

Summary for Subcatchment OS9B: SUBCAT 4

Runoff = 24.67 cfs @ 12.40 hrs, Volume= 3.041 af, Depth= 3.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	11,390	98	impervious
	346,747	74	>75% Grass cover, Good, HSG C
	128,170	70	Woods, Good, HSG C
	486,307	74	Weighted Average
	474,917		97.66% Pervious Area
	11,390		2.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.3	163	0.0250	0.13		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
8.3	507	0.0210	1.01		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
28.6	670	Total			

Summary for Subcatchment OS9C: SUBCAT 3

Runoff = 14.06 cfs @ 12.14 hrs, Volume= 1.148 af, Depth= 3.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	8,178	98	impervious
	156,155	74	>75% Grass cover, Good, HSG C
	13,814	70	Woods, Good, HSG C
	178,147	75	Weighted Average
	169,969		95.41% Pervious Area
	8,178		4.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	22	0.0900	1.77		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
9.9	633	0.0230	1.06		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
10.1	655	Total			

Summary for Subcatchment OS9D: SUBCAT 2

Runoff = 5.51 cfs @ 12.73 hrs, Volume= 0.938 af, Depth= 3.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-year Rainfall=6.10"

	Area (sf)	CN	Description
*	34,250	70	Woods, Good, HSG C/D
*	120,413	74	>75% Grass cover, Good, HSG C/D
	154,663	73	Weighted Average
	154,663		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
46.5	206	0.0050	0.07		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
5.6	258	0.0120	0.77		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
2.2	80	0.0600	0.61		**Shallow Concentrated Flow, C-D** Forest w/Heavy Litter Kv= 2.5 fps
54.3	544	Total			

Summary for Reach 9R: ANALYSIS POINT 9

Inflow Area = 3.531 ac, 3.86% Impervious, Inflow Depth = 3.27" for 50-year event
Inflow = 8.07 cfs @ 12.38 hrs, Volume= 0.962 af
Outflow = 8.07 cfs @ 12.38 hrs, Volume= 0.962 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

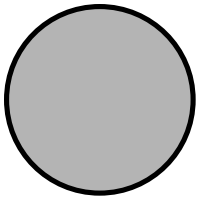
Summary for Reach 10R: Perkins Road Culvert

Inflow Area = 37.764 ac, 2.57% Impervious, Inflow Depth = 3.27" for 50-year event
Inflow = 42.79 cfs @ 13.29 hrs, Volume= 10.288 af
Outflow = 34.39 cfs @ 12.87 hrs, Volume= 10.288 af, Atten= 20%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 11.61 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 5.84 fps, Avg. Travel Time= 0.1 min

Peak Storage= 79 cf @ 12.88 hrs
Average Depth at Peak Storage= 2.00'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.99 cfs

24.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 25.0' Slope= 0.0200 '/'
Inlet Invert= 75.50', Outlet Invert= 75.00'



Summary for Reach 11R: Stream 9

Inflow Area = 4.420 ac, 59.04% Impervious, Inflow Depth = 4.61" for 50-year event
Inflow = 22.57 cfs @ 12.10 hrs, Volume= 1.699 af
Outflow = 22.57 cfs @ 12.10 hrs, Volume= 1.699 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 17R: untreated

Inflow Area = 0.305 ac, 85.11% Impervious, Inflow Depth = 5.40" for 50-year event
Inflow = 1.77 cfs @ 12.08 hrs, Volume= 0.137 af
Outflow = 1.77 cfs @ 12.08 hrs, Volume= 0.137 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 20R: untreated

Inflow Area = 0.653 ac, 73.83% Impervious, Inflow Depth = 5.17" for 50-year event
Inflow = 3.71 cfs @ 12.08 hrs, Volume= 0.281 af
Outflow = 3.71 cfs @ 12.08 hrs, Volume= 0.281 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 23R: sub 23

Inflow Area = 0.654 ac, 21.95% Impervious, Inflow Depth = 3.67" for 50-year event
Inflow = 2.81 cfs @ 12.09 hrs, Volume= 0.200 af
Outflow = 2.81 cfs @ 12.09 hrs, Volume= 0.200 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 27R: extisting

Inflow Area = 0.098 ac,100.00% Impervious, Inflow Depth = 5.86" for 50-year event
Inflow = 0.58 cfs @ 12.08 hrs, Volume= 0.048 af
Outflow = 0.58 cfs @ 12.08 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 29R: untreated

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth = 5.86" for 50-year event
Inflow = 0.18 cfs @ 12.08 hrs, Volume= 0.015 af
Outflow = 0.18 cfs @ 12.08 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 32R: untreated

Inflow Area = 0.107 ac, 60.42% Impervious, Inflow Depth = 4.83" for 50-year event
Inflow = 0.58 cfs @ 12.08 hrs, Volume= 0.043 af
Outflow = 0.58 cfs @ 12.08 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 44R:

Inflow Area = 3.658 ac, 0.00% Impervious, Inflow Depth = 2.98" for 50-year event
Inflow = 8.80 cfs @ 12.26 hrs, Volume= 0.908 af
Outflow = 8.80 cfs @ 12.26 hrs, Volume= 0.908 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 47R:

Inflow Area = 1.818 ac, 6.00% Impervious, Inflow Depth = 3.37" for 50-year event
Inflow = 5.31 cfs @ 12.21 hrs, Volume= 0.510 af
Outflow = 5.31 cfs @ 12.21 hrs, Volume= 0.510 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 48R: (new Reach)

Inflow Area = 0.922 ac, 0.00% Impervious, Inflow Depth = 2.88" for 50-year event
Inflow = 1.30 cfs @ 12.78 hrs, Volume= 0.222 af
Outflow = 1.30 cfs @ 12.78 hrs, Volume= 0.222 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 49R:

Inflow Area = 2.140 ac, 0.59% Impervious, Inflow Depth = 2.98" for 50-year event
Inflow = 3.10 cfs @ 12.75 hrs, Volume= 0.531 af
Outflow = 3.10 cfs @ 12.75 hrs, Volume= 0.531 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT1: ANALYSIS POINT 1 at BWD Little River

Inflow Area = 3.063 ac, 0.41% Impervious, Inflow Depth = 2.95" for 50-year event
Inflow = 4.39 cfs @ 12.75 hrs, Volume= 0.753 af
Outflow = 4.39 cfs @ 12.75 hrs, Volume= 0.753 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT10: Analysis point at Little River

Inflow Area = 1.830 ac, 27.42% Impervious, Inflow Depth = 4.40" for 50-year event
Inflow = 9.24 cfs @ 12.09 hrs, Volume= 0.670 af
Outflow = 9.24 cfs @ 12.09 hrs, Volume= 0.670 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT2: ANALYSIS POINT 2 at strm 3

Inflow Area = 6.265 ac, 0.00% Impervious, Inflow Depth = 3.09" for 50-year event
Inflow = 8.84 cfs @ 12.84 hrs, Volume= 1.612 af
Outflow = 8.84 cfs @ 12.84 hrs, Volume= 1.612 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT3: ANALYSIS POINT 3/4 at strm 5/6

Inflow Area = 16.875 ac, 2.66% Impervious, Inflow Depth = 3.27" for 50-year event
Inflow = 34.78 cfs @ 12.33 hrs, Volume= 4.592 af
Outflow = 34.78 cfs @ 12.33 hrs, Volume= 4.592 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT5: all BWD reservoir

Inflow Area = 23.139 ac, 1.94% Impervious, Inflow Depth = 3.22" for 50-year event
Inflow = 38.40 cfs @ 12.34 hrs, Volume= 6.204 af
Outflow = 38.40 cfs @ 12.34 hrs, Volume= 6.204 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT6: stream 9 offsite

Inflow Area = 45.715 ac, 8.13% Impervious, Inflow Depth = 3.40" for 50-year event
Inflow = 39.95 cfs @ 12.87 hrs, Volume= 12.950 af
Outflow = 38.97 cfs @ 12.87 hrs, Volume= 12.950 af, Atten= 2%, Lag= 0.4 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.13 fps, Min. Travel Time= 1.9 min
Avg. Velocity = 1.71 fps, Avg. Travel Time= 4.7 min

Peak Storage= 4,554 cf @ 12.87 hrs
Average Depth at Peak Storage= 1.26'
Bank-Full Depth= 4.00' Flow Area= 52.0 sf, Capacity= 401.91 cfs

5.00' x 4.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 21.00'
Length= 483.0' Slope= 0.0145 '/'
Inlet Invert= 71.00', Outlet Invert= 64.00'



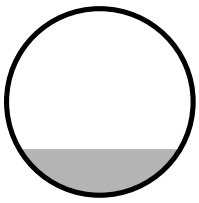
Summary for Reach PT7: ANALYSIS POINT7 at US Route 1 culvert

Inflow Area = 1.479 ac, 0.00% Impervious, Inflow Depth = 2.88" for 50-year event
Inflow = 2.81 cfs @ 12.43 hrs, Volume= 0.356 af
Outflow = 2.81 cfs @ 12.43 hrs, Volume= 0.356 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 8.26 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.41 fps, Avg. Travel Time= 0.4 min

Peak Storage= 28 cf @ 12.43 hrs
Average Depth at Peak Storage= 0.37'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0398 '/'
Inlet Invert= 21.60', Outlet Invert= 18.30'



Summary for Reach PT8: ANALYSIS POINT 8 at US Route 1 culvert

Inflow Area = 0.344 ac, 0.00% Impervious, Inflow Depth = 2.98" for 50-year event
Inflow = 0.63 cfs @ 12.49 hrs, Volume= 0.085 af
Outflow = 0.63 cfs @ 12.49 hrs, Volume= 0.085 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 4.44 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.57 fps, Avg. Travel Time= 0.5 min

Peak Storage= 11 cf @ 12.49 hrs
Average Depth at Peak Storage= 0.05'
Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 144.91 cfs

36.0" W x 24.0" H Box Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 76.0' Slope= 0.0632 '/'
Inlet Invert= 23.40', Outlet Invert= 18.60'



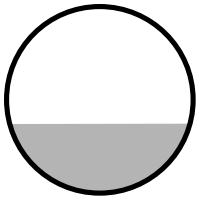
Summary for Reach PT9: Analysis Point Stream 9 at US Route 1 culvert

Inflow Area = 59.888 ac, 7.88% Impervious, Inflow Depth = 3.36" for 50-year event
Inflow = 59.13 cfs @ 12.31 hrs, Volume= 16.744 af
Outflow = 59.13 cfs @ 12.31 hrs, Volume= 16.744 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 24.65 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 8.29 fps, Avg. Travel Time= 0.2 min

Peak Storage= 223 cf @ 12.31 hrs
Average Depth at Peak Storage= 1.12'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 200.22 cfs

36.0" Round Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 93.0' Slope= 0.0645 '/'
Inlet Invert= 20.00', Outlet Invert= 14.00'



Summary for Reach R9 B: offsite diversion strm 5/6

Inflow Area = 15.254 ac, 2.94% Impervious, Inflow Depth = 3.30" for 50-year event
Inflow = 31.78 cfs @ 12.36 hrs, Volume= 4.189 af
Outflow = 31.78 cfs @ 12.36 hrs, Volume= 4.189 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach R9D: offsite pont strm 3

Inflow Area = 3.551 ac, 0.00% Impervious, Inflow Depth = 3.17" for 50-year event
Inflow = 5.46 cfs @ 12.79 hrs, Volume= 0.938 af
Outflow = 5.46 cfs @ 12.79 hrs, Volume= 0.938 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach S9-2: Stream 9

Inflow Area = 56.738 ac, 6.74% Impervious, Inflow Depth = 3.33" for 50-year event
Inflow = 54.61 cfs @ 12.24 hrs, Volume= 15.745 af
Outflow = 53.62 cfs @ 12.32 hrs, Volume= 15.745 af, Atten= 2%, Lag= 4.7 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.36 fps, Min. Travel Time= 4.9 min
Avg. Velocity = 1.78 fps, Avg. Travel Time= 14.8 min

Peak Storage= 15,802 cf @ 12.32 hrs
Average Depth at Peak Storage= 1.31'
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 120.91 cfs

5.00' x 2.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 13.00'
Length= 1,580.0' Slope= 0.0233 '/'
Inlet Invert= 64.00', Outlet Invert= 27.25'



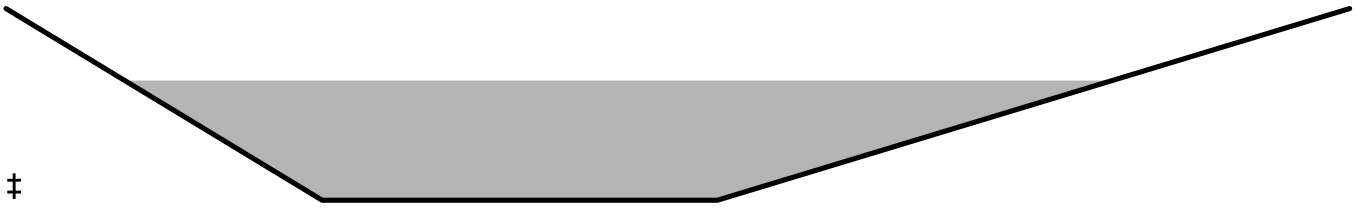
Summary for Reach S9-3: Stream 9

Inflow Area = 58.684 ac, 6.92% Impervious, Inflow Depth = 3.34" for 50-year event
Inflow = 58.56 cfs @ 12.30 hrs, Volume= 16.318 af
Outflow = 58.51 cfs @ 12.31 hrs, Volume= 16.318 af, Atten= 0%, Lag= 0.9 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.35 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.65 fps, Avg. Travel Time= 3.7 min

Peak Storage= 3,979 cf @ 12.31 hrs
Average Depth at Peak Storage= 1.25'
Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 152.29 cfs

5.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 2.0 4.0 '/' Top Width= 17.00'
Length= 364.0' Slope= 0.0199 '/'
Inlet Invert= 27.25', Outlet Invert= 20.00'



‡

Summary for Reach tank: existing clarifier

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 4.56" for 50-year event
Inflow = 124.56 cfs @ 12.11 hrs, Volume= 12.446 af
Outflow = 124.56 cfs @ 12.11 hrs, Volume= 12.446 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond dmh10: dmh10

Inflow Area = 5.738 ac, 92.79% Impervious, Inflow Depth > 5.23" for 50-year event
Inflow = 31.96 cfs @ 12.09 hrs, Volume= 2.499 af
Outflow = 31.96 cfs @ 12.09 hrs, Volume= 2.499 af, Atten= 0%, Lag= 0.0 min
Primary = 31.96 cfs @ 12.09 hrs, Volume= 2.499 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.75' @ 12.09 hrs
Flood Elev= 65.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.59'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.59' / 53.56' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=31.90 cfs @ 12.09 hrs HW=62.73' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 31.90 cfs @ 10.16 fps)

Summary for Pond dmh11: dmh11

Inflow Area = 9.033 ac, 95.42% Impervious, Inflow Depth > 5.30" for 50-year event
Inflow = 36.36 cfs @ 12.09 hrs, Volume= 3.993 af
Outflow = 36.36 cfs @ 12.09 hrs, Volume= 3.993 af, Atten= 0%, Lag= 0.0 min
Primary = 36.36 cfs @ 12.09 hrs, Volume= 3.993 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 58.59' @ 12.09 hrs
Flood Elev= 65.56'

Device	Routing	Invert	Outlet Devices
#1	Primary	53.54'	**30.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.54' / 53.12' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=36.30 cfs @ 12.09 hrs HW=58.57' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 36.30 cfs @ 7.40 fps)

Summary for Pond dmh13: dmh13

Inflow Area = 9.033 ac, 95.42% Impervious, Inflow Depth > 5.30" for 50-year event
Inflow = 36.36 cfs @ 12.09 hrs, Volume= 3.993 af
Outflow = 36.36 cfs @ 12.09 hrs, Volume= 3.993 af, Atten= 0%, Lag= 0.0 min
Primary = 36.36 cfs @ 12.09 hrs, Volume= 3.993 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 58.15' @ 12.09 hrs
Flood Elev= 65.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	53.10'	**30.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.10' / 52.09' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=36.30 cfs @ 12.09 hrs HW=58.13' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 36.30 cfs @ 7.40 fps)

Summary for Pond dmh14: dmh14

Inflow Area = 9.680 ac, 93.27% Impervious, Inflow Depth > 5.24" for 50-year event
Inflow = 38.99 cfs @ 12.10 hrs, Volume= 4.231 af
Outflow = 38.99 cfs @ 12.10 hrs, Volume= 4.231 af, Atten= 0%, Lag= 0.0 min
Primary = 38.99 cfs @ 12.10 hrs, Volume= 4.231 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.69' @ 12.10 hrs
Flood Elev= 65.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	52.07'	**30.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.07' / 51.95' S= 0.0052 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 4.91 sf

Primary OutFlow Max=38.94 cfs @ 12.10 hrs HW=57.68' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 38.94 cfs @ 7.93 fps)

Summary for Pond dmh15: dmh15

Inflow Area = 9.680 ac, 93.27% Impervious, Inflow Depth > 5.24" for 50-year event
Inflow = 38.99 cfs @ 12.10 hrs, Volume= 4.231 af
Outflow = 38.99 cfs @ 12.10 hrs, Volume= 4.231 af, Atten= 0%, Lag= 0.0 min
Primary = 38.99 cfs @ 12.10 hrs, Volume= 4.231 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.57' @ 12.10 hrs
Flood Elev= 64.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.95'	**30.0" Round Culvert** L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.95' / 51.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=38.94 cfs @ 12.10 hrs HW=57.56' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 38.94 cfs @ 7.93 fps)

Summary for Pond dmh16: dmh16

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth > 1.96" for 50-year event
Inflow = 0.12 cfs @ 13.51 hrs, Volume= 0.057 af
Outflow = 0.12 cfs @ 13.51 hrs, Volume= 0.057 af, Atten= 0%, Lag= 0.0 min
Primary = 0.12 cfs @ 13.51 hrs, Volume= 0.057 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 60.69' @ 13.51 hrs
Flood Elev= 64.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**12.0" Round Culvert** L= 198.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.50' / 58.00' S= 0.0126 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.12 cfs @ 13.51 hrs HW=60.69' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.12 cfs @ 1.16 fps)

Summary for Pond dmh17: dmh17

Inflow Area = 10.237 ac, 89.39% Impervious, Inflow Depth > 5.08" for 50-year event
Inflow = 39.70 cfs @ 12.10 hrs, Volume= 4.335 af
Outflow = 39.70 cfs @ 12.10 hrs, Volume= 4.335 af, Atten= 0%, Lag= 0.0 min
Primary = 39.70 cfs @ 12.10 hrs, Volume= 4.335 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.26' @ 12.10 hrs
Flood Elev= 63.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.48'	**30.0" Round Culvert** L= 35.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.48' / 51.30' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=39.64 cfs @ 12.10 hrs HW=57.24' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 39.64 cfs @ 8.08 fps)

Summary for Pond dmh19: dmh 19

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth > 5.32" for 50-year event
Inflow = 2.58 cfs @ 12.08 hrs, Volume= 0.193 af
Outflow = 2.58 cfs @ 12.08 hrs, Volume= 0.193 af, Atten= 0%, Lag= 0.0 min
Primary = 2.58 cfs @ 12.08 hrs, Volume= 0.193 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.73' @ 12.08 hrs
Flood Elev= 61.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.48'	**12.0" Round Culvert** L= 59.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.48' / 53.89' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.58 cfs @ 12.08 hrs HW=55.73' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 2.58 cfs @ 3.28 fps)

Summary for Pond dmh2: dmh2

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 5.40" for 50-year event
Inflow = 14.56 cfs @ 12.08 hrs, Volume= 1.162 af
Outflow = 14.56 cfs @ 12.08 hrs, Volume= 1.162 af, Atten= 0%, Lag= 0.0 min
Primary = 14.56 cfs @ 12.08 hrs, Volume= 1.162 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 68.45' @ 12.08 hrs
Flood Elev= 69.15'

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	**18.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.00' / 61.50' S= 0.0150 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=14.54 cfs @ 12.08 hrs HW=68.44' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 14.54 cfs @ 8.23 fps)

Summary for Pond dmh20: dmh20

Inflow Area = 10.673 ac, 89.83% Impervious, Inflow Depth > 5.09" for 50-year event
Inflow = 42.25 cfs @ 12.10 hrs, Volume= 4.528 af
Outflow = 42.25 cfs @ 12.10 hrs, Volume= 4.528 af, Atten= 0%, Lag= 0.0 min
Primary = 42.25 cfs @ 12.10 hrs, Volume= 4.528 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.66' @ 12.10 hrs
Flood Elev= 61.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.28'	**30.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.28' / 50.78' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=42.19 cfs @ 12.10 hrs HW=57.64' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 42.19 cfs @ 8.60 fps)

Summary for Pond dmh21: dmh21

Inflow Area = 14.421 ac, 82.05% Impervious, Inflow Depth > 4.90" for 50-year event
Inflow = 55.58 cfs @ 12.10 hrs, Volume= 5.887 af
Outflow = 55.58 cfs @ 12.10 hrs, Volume= 5.887 af, Atten= 0%, Lag= 0.0 min
Primary = 55.58 cfs @ 12.10 hrs, Volume= 5.887 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.88' @ 12.10 hrs
Flood Elev= 58.55'

Device	Routing	Invert	Outlet Devices
#1	Primary	50.76'	**30.0" Round Culvert** L= 281.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.76' / 46.00' S= 0.0169 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=55.51 cfs @ 12.10 hrs HW=60.86' (Free Discharge)
1=Culvert (Inlet Controls 55.51 cfs @ 11.31 fps)

Summary for Pond dmh22: dmh 22

Inflow Area = 2.703 ac, 61.52% Impervious, Inflow Depth > 4.45" for 50-year event
Inflow = 10.68 cfs @ 12.10 hrs, Volume= 1.003 af
Outflow = 10.68 cfs @ 12.10 hrs, Volume= 1.003 af, Atten= 0%, Lag= 0.0 min
Primary = 10.68 cfs @ 12.10 hrs, Volume= 1.003 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.36' @ 12.10 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.50'	**15.0" Round Culvert** L= 93.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.50' / 51.03' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=10.66 cfs @ 12.10 hrs HW=57.35' (Free Discharge)
1=Culvert (Inlet Controls 10.66 cfs @ 8.69 fps)

Summary for Pond dmh23: dmh23

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 4.37" for 50-year event
Inflow = 9.21 cfs @ 12.10 hrs, Volume= 0.737 af
Outflow = 9.21 cfs @ 12.10 hrs, Volume= 0.737 af, Atten= 0%, Lag= 0.0 min
Primary = 9.21 cfs @ 12.10 hrs, Volume= 0.737 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 68.80' @ 12.10 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	55.19'	**12.0" Round Culvert** L= 138.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.19' / 54.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=9.19 cfs @ 12.10 hrs HW=68.76' (Free Discharge)
↑**1=Culvert** (Barrel Controls 9.19 cfs @ 11.70 fps)

Summary for Pond dmh24: dmh24

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 4.37" for 50-year event
Inflow = 9.21 cfs @ 12.10 hrs, Volume= 0.737 af
Outflow = 9.21 cfs @ 12.10 hrs, Volume= 0.737 af, Atten= 0%, Lag= 0.0 min
Primary = 9.21 cfs @ 12.10 hrs, Volume= 0.737 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 66.11' @ 12.10 hrs
Flood Elev= 61.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	56.10'	**12.0" Round Culvert** L= 72.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.10' / 55.92' S= 0.0025 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=9.19 cfs @ 12.10 hrs HW=66.08' (Free Discharge)
↑**1=Culvert** (Inlet Controls 9.19 cfs @ 11.70 fps)

Summary for Pond dmh24a: dmh24a

Inflow Area = 0.602 ac, 71.74% Impervious, Inflow Depth > 4.64" for 50-year event
Inflow = 3.13 cfs @ 12.10 hrs, Volume= 0.233 af
Outflow = 3.13 cfs @ 12.10 hrs, Volume= 0.233 af, Atten= 0%, Lag= 0.0 min
Primary = 3.13 cfs @ 12.10 hrs, Volume= 0.233 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 66.54' @ 12.10 hrs
Flood Elev= 63.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	**8.0" Round Culvert** L= 95.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.00' / 57.10' S= 0.0095 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=3.12 cfs @ 12.10 hrs HW=66.49' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 3.12 cfs @ 8.95 fps)

Summary for Pond dmh25: dmh25

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth > 3.48" for 50-year event
Inflow = 1.29 cfs @ 12.18 hrs, Volume= 0.118 af
Outflow = 1.29 cfs @ 12.18 hrs, Volume= 0.118 af, Atten= 0%, Lag= 0.0 min
Primary = 1.29 cfs @ 12.18 hrs, Volume= 0.118 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.69' @ 12.18 hrs
Flood Elev= 67.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.00'	**12.0" Round Culvert** L= 98.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.00' / 55.00' S= 0.0510 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.29 cfs @ 12.18 hrs HW=60.69' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 1.29 cfs @ 2.23 fps)

Summary for Pond dmh26: dmh26

Inflow Area = 2.028 ac, 41.73% Impervious, Inflow Depth > 3.69" for 50-year event
Inflow = 5.15 cfs @ 12.23 hrs, Volume= 0.624 af
Outflow = 5.15 cfs @ 12.23 hrs, Volume= 0.624 af, Atten= 0%, Lag= 0.0 min
Primary = 5.15 cfs @ 12.23 hrs, Volume= 0.624 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.27' @ 12.23 hrs
Flood Elev= 63.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.75'	**12.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.75' / 57.61' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.15 cfs @ 12.23 hrs HW=61.27' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 5.15 cfs @ 6.56 fps)

Summary for Pond dmh27: dmh27

Inflow Area = 2.712 ac, 46.62% Impervious, Inflow Depth > 3.80" for 50-year event
Inflow = 7.27 cfs @ 12.19 hrs, Volume= 0.860 af
Outflow = 7.27 cfs @ 12.19 hrs, Volume= 0.860 af, Atten= 0%, Lag= 0.0 min
Primary = 7.27 cfs @ 12.19 hrs, Volume= 0.860 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 65.99' @ 12.19 hrs
Flood Elev= 63.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	53.03'	**12.0" Round Culvert** L= 256.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.03' / 51.75' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=7.27 cfs @ 12.19 hrs HW=65.97' (Free Discharge)
1=Culvert (Barrel Controls 7.27 cfs @ 9.26 fps)

Summary for Pond dmh29: dmh29

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 5.13" for 50-year event
Inflow = 1.63 cfs @ 12.08 hrs, Volume= 0.118 af
Outflow = 1.63 cfs @ 12.08 hrs, Volume= 0.118 af, Atten= 0%, Lag= 0.0 min
Primary = 1.63 cfs @ 12.08 hrs, Volume= 0.118 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.69' @ 12.08 hrs
Flood Elev= 63.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.85'	**8.0" Round Culvert** L= 46.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.85' / 57.39' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.62 cfs @ 12.08 hrs HW=59.68' (Free Discharge)
1=Culvert (Inlet Controls 1.62 cfs @ 4.65 fps)

Summary for Pond dmh3: dmh3

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 5.09" for 50-year event
Inflow = 17.04 cfs @ 12.09 hrs, Volume= 1.337 af
Outflow = 17.04 cfs @ 12.09 hrs, Volume= 1.337 af, Atten= 0%, Lag= 0.0 min
Primary = 17.04 cfs @ 12.09 hrs, Volume= 1.337 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 63.54' @ 12.09 hrs
Flood Elev= 68.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**24.0" Round Culvert** L= 125.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.50' / 59.84' S= 0.0053 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=17.01 cfs @ 12.09 hrs HW=63.53' (Free Discharge)
↑**1=Culvert** (Inlet Controls 17.01 cfs @ 5.41 fps)

Summary for Pond dmh30: dmh30

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 5.13" for 50-year event
Inflow = 1.63 cfs @ 12.08 hrs, Volume= 0.118 af
Outflow = 1.63 cfs @ 12.08 hrs, Volume= 0.118 af, Atten= 0%, Lag= 0.0 min
Primary = 1.63 cfs @ 12.08 hrs, Volume= 0.118 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.21' @ 12.08 hrs
Flood Elev= 63.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	55.40'	**12.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.40' / 54.37' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.62 cfs @ 12.08 hrs HW=56.21' (Free Discharge)
↑**1=Culvert** (Barrel Controls 1.62 cfs @ 3.26 fps)

Summary for Pond dmh31: dmh31

Inflow Area = 2.303 ac, 48.70% Impervious, Inflow Depth > 3.86" for 50-year event
Inflow = 6.00 cfs @ 12.20 hrs, Volume= 0.741 af
Outflow = 6.00 cfs @ 12.20 hrs, Volume= 0.741 af, Atten= 0%, Lag= 0.0 min
Primary = 6.00 cfs @ 12.20 hrs, Volume= 0.741 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.15' @ 12.20 hrs
Flood Elev= 63.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.35'	**12.0" Round Culvert** L= 259.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.35' / 53.05' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=6.00 cfs @ 12.20 hrs HW=63.15' (Free Discharge)
└**1=Culvert** (Barrel Controls 6.00 cfs @ 7.64 fps)

Summary for Pond dmh32: dmh32

Inflow Area = 3.424 ac, 42.31% Impervious, Inflow Depth > 3.72" for 50-year event
Inflow = 9.67 cfs @ 12.18 hrs, Volume= 1.062 af
Outflow = 9.67 cfs @ 12.18 hrs, Volume= 1.062 af, Atten= 0%, Lag= 0.0 min
Primary = 9.67 cfs @ 12.18 hrs, Volume= 1.062 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.73' @ 12.18 hrs
Flood Elev= 58.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.73'	**12.0" Round Culvert** L= 36.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.73' / 51.60' S= 0.0036 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=9.67 cfs @ 12.18 hrs HW=62.73' (Free Discharge)
└**1=Culvert** (Inlet Controls 9.67 cfs @ 12.32 fps)

Summary for Pond dmh33: dmh33

Inflow Area = 0.315 ac, 80.35% Impervious, Inflow Depth > 4.95" for 50-year event
Inflow = 0.50 cfs @ 12.43 hrs, Volume= 0.130 af
Outflow = 0.50 cfs @ 12.43 hrs, Volume= 0.130 af, Atten= 0%, Lag= 0.0 min
Primary = 0.50 cfs @ 12.43 hrs, Volume= 0.130 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.40' @ 12.43 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**12.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 52.01' S= 0.0099 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.50 cfs @ 12.43 hrs HW=54.40' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.50 cfs @ 1.70 fps)

Summary for Pond dmh34: dmh34

Inflow Area = 3.030 ac, 25.76% Impervious, Inflow Depth > 2.89" for 50-year event
Inflow = 8.04 cfs @ 12.10 hrs, Volume= 0.729 af
Outflow = 8.04 cfs @ 12.10 hrs, Volume= 0.729 af, Atten= 0%, Lag= 0.0 min
Primary = 8.04 cfs @ 12.10 hrs, Volume= 0.729 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.74' @ 12.10 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.99'	**12.0" Round Culvert** L= 39.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.99' / 51.60' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=8.02 cfs @ 12.10 hrs HW=59.71' (Free Discharge)
1=Culvert (Inlet Controls 8.02 cfs @ 10.21 fps)

Summary for Pond dmh35: dmh35

Inflow Area = 7.284 ac, 34.73% Impervious, Inflow Depth > 3.35" for 50-year event
Inflow = 19.80 cfs @ 12.13 hrs, Volume= 2.034 af
Outflow = 19.80 cfs @ 12.13 hrs, Volume= 2.034 af, Atten= 0%, Lag= 0.0 min
Primary = 19.80 cfs @ 12.13 hrs, Volume= 2.034 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 65.21' @ 12.13 hrs
Flood Elev= 58.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.55'	**18.0" Round Culvert** L= 276.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.55' / 50.17' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=19.79 cfs @ 12.13 hrs HW=65.20' (Free Discharge)
1=Culvert (Barrel Controls 19.79 cfs @ 11.20 fps)

Summary for Pond dmh36: dmh36

Inflow Area = 7.284 ac, 34.73% Impervious, Inflow Depth > 3.35" for 50-year event
Inflow = 19.80 cfs @ 12.13 hrs, Volume= 2.034 af
Outflow = 19.80 cfs @ 12.13 hrs, Volume= 2.034 af, Atten= 0%, Lag= 0.0 min
Primary = 19.80 cfs @ 12.13 hrs, Volume= 2.034 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 60.22' @ 12.13 hrs
Flood Elev= 53.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	50.15'	**18.0" Round Culvert** L= 159.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.15' / 49.35' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=19.79 cfs @ 12.13 hrs HW=60.21' (Free Discharge)
↑**1=Culvert** (Barrel Controls 19.79 cfs @ 11.20 fps)

Summary for Pond dmh38: dmh38

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 5.26" for 50-year event
Inflow = 13.39 cfs @ 12.09 hrs, Volume= 1.133 af
Outflow = 13.39 cfs @ 12.09 hrs, Volume= 1.133 af, Atten= 0%, Lag= 0.0 min
Primary = 13.39 cfs @ 12.09 hrs, Volume= 1.133 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.70' @ 12.09 hrs
Flood Elev= 56.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.98'	**18.0" Round Culvert** L= 106.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.98' / 50.92' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=13.36 cfs @ 12.09 hrs HW=56.68' (Free Discharge)
↑**1=Culvert** (Inlet Controls 13.36 cfs @ 7.56 fps)

Summary for Pond dmh39: dmh39

Inflow Area = 2.778 ac, 93.02% Impervious, Inflow Depth > 5.09" for 50-year event
Inflow = 13.39 cfs @ 12.09 hrs, Volume= 1.178 af
Outflow = 13.39 cfs @ 12.09 hrs, Volume= 1.178 af, Atten= 0%, Lag= 0.0 min
Primary = 13.39 cfs @ 12.09 hrs, Volume= 1.178 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.31' @ 12.09 hrs
Flood Elev= 56.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	50.59'	**18.0" Round Culvert** L= 58.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.59' / 50.32' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=13.36 cfs @ 12.09 hrs HW=55.30' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 13.36 cfs @ 7.56 fps)

Summary for Pond dmh4: dmh4

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 5.09" for 50-year event
Inflow = 17.04 cfs @ 12.09 hrs, Volume= 1.337 af
Outflow = 17.04 cfs @ 12.09 hrs, Volume= 1.337 af, Atten= 0%, Lag= 0.0 min
Primary = 17.04 cfs @ 12.09 hrs, Volume= 1.337 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.88' @ 12.09 hrs
Flood Elev= 68.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	59.84'	**24.0" Round Culvert** L= 66.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.84' / 59.57' S= 0.0041 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=17.01 cfs @ 12.09 hrs HW=62.87' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 17.01 cfs @ 5.41 fps)

Summary for Pond dmh40: dmh40

Inflow Area = 10.062 ac, 50.82% Impervious, Inflow Depth > 3.83" for 50-year event
Inflow = 32.22 cfs @ 12.11 hrs, Volume= 3.212 af
Outflow = 32.22 cfs @ 12.11 hrs, Volume= 3.212 af, Atten= 0%, Lag= 0.0 min
Primary = 32.22 cfs @ 12.11 hrs, Volume= 3.212 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.66' @ 12.11 hrs
Flood Elev= 57.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	49.33'	**24.0" Round Culvert** L= 340.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 49.33' / 47.63' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=32.17 cfs @ 12.11 hrs HW=59.62' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 32.17 cfs @ 10.24 fps)

Summary for Pond dmh43: dmh43

Inflow Area = 12.646 ac, 60.87% Impervious, Inflow Depth > 4.14" for 50-year event
Inflow = 47.22 cfs @ 12.11 hrs, Volume= 4.367 af
Outflow = 47.22 cfs @ 12.11 hrs, Volume= 4.367 af, Atten= 0%, Lag= 0.0 min
Primary = 47.22 cfs @ 12.11 hrs, Volume= 4.367 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 64.25' @ 12.11 hrs
Flood Elev= 56.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	47.61'	**24.0" Round Culvert** L= 193.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 47.61' / 46.64' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=47.08 cfs @ 12.11 hrs HW=64.15' (Free Discharge)
1=Culvert (Inlet Controls 47.08 cfs @ 14.99 fps)

Summary for Pond dmh44: dmh44

Inflow Area = 12.894 ac, 59.70% Impervious, Inflow Depth > 4.12" for 50-year event
Inflow = 47.23 cfs @ 12.11 hrs, Volume= 4.422 af
Outflow = 47.23 cfs @ 12.11 hrs, Volume= 4.422 af, Atten= 0%, Lag= 0.0 min
Primary = 47.23 cfs @ 12.11 hrs, Volume= 4.422 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.28' @ 12.11 hrs
Flood Elev= 56.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	46.62'	**30.0" Round Culvert** L= 82.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.62' / 46.21' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=47.09 cfs @ 12.11 hrs HW=54.24' (Free Discharge)
1=Culvert (Inlet Controls 47.09 cfs @ 9.59 fps)

Summary for Pond dmh45: dmh45

Inflow Area = 15.478 ac, 66.43% Impervious, Inflow Depth > 4.33" for 50-year event
Inflow = 61.40 cfs @ 12.11 hrs, Volume= 5.581 af
Outflow = 61.40 cfs @ 12.11 hrs, Volume= 5.581 af, Atten= 0%, Lag= 0.0 min
Primary = 61.40 cfs @ 12.11 hrs, Volume= 5.581 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 58.83' @ 12.11 hrs
Flood Elev= 56.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	46.19'	**30.0" Round Culvert** L= 316.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.19' / 44.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=61.40 cfs @ 12.11 hrs HW=58.83' (Free Discharge)
↑**1=Culvert** (Barrel Controls 61.40 cfs @ 12.51 fps)

Summary for Pond dmh47: dmh47

Inflow Area = 15.478 ac, 66.43% Impervious, Inflow Depth > 4.33" for 50-year event
Inflow = 61.40 cfs @ 12.11 hrs, Volume= 5.581 af
Outflow = 61.40 cfs @ 12.11 hrs, Volume= 5.581 af, Atten= 0%, Lag= 0.0 min
Primary = 61.40 cfs @ 12.11 hrs, Volume= 5.581 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.08' @ 12.11 hrs
Flood Elev= 55.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	44.00'	**30.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.00' / 42.96' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=61.40 cfs @ 12.11 hrs HW=56.08' (Free Discharge)
↑**1=Culvert** (Inlet Controls 61.40 cfs @ 12.51 fps)

Summary for Pond dmh48: dmh48

Inflow Area = 16.171 ac, 67.87% Impervious, Inflow Depth > 4.37" for 50-year event
Inflow = 64.14 cfs @ 12.11 hrs, Volume= 5.890 af
Outflow = 64.14 cfs @ 12.11 hrs, Volume= 5.890 af, Atten= 0%, Lag= 0.0 min
Primary = 64.14 cfs @ 12.11 hrs, Volume= 5.890 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.00' @ 12.11 hrs
Flood Elev= 50.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	42.94'	**30.0" Round Culvert** L= 117.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 42.94' / 42.35' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=63.90 cfs @ 12.11 hrs HW=55.92' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 63.90 cfs @ 13.02 fps)

Summary for Pond dmh49: dmh49

Inflow Area = 16.492 ac, 67.17% Impervious, Inflow Depth > 4.35" for 50-year event
Inflow = 64.46 cfs @ 12.11 hrs, Volume= 5.979 af
Outflow = 64.46 cfs @ 12.11 hrs, Volume= 5.979 af, Atten= 0%, Lag= 0.0 min
Primary = 64.46 cfs @ 12.11 hrs, Volume= 5.979 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 49.59' @ 12.11 hrs
Flood Elev= 50.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	42.33'	**36.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 42.33' / 42.23' S= 0.0071 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=64.25 cfs @ 12.11 hrs HW=49.55' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 64.25 cfs @ 9.09 fps)

Summary for Pond dmh5: dmh5

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 5.09" for 50-year event
Inflow = 17.04 cfs @ 12.09 hrs, Volume= 1.337 af
Outflow = 17.04 cfs @ 12.09 hrs, Volume= 1.337 af, Atten= 0%, Lag= 0.0 min
Primary = 17.04 cfs @ 12.09 hrs, Volume= 1.337 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.52' @ 12.09 hrs
Flood Elev= 69.04'

Device	Routing	Invert	Outlet Devices
#1	Primary	59.48'	**24.0" Round Culvert** L= 173.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.48' / 58.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=17.01 cfs @ 12.09 hrs HW=62.51' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 17.01 cfs @ 5.41 fps)

Summary for Pond dmh50: dmh50

Inflow Area = 15.118 ac, 79.46% Impervious, Inflow Depth > 4.82" for 50-year event
Inflow = 55.58 cfs @ 12.10 hrs, Volume= 6.069 af
Outflow = 55.58 cfs @ 12.10 hrs, Volume= 6.069 af, Atten= 0%, Lag= 0.0 min
Primary = 55.58 cfs @ 12.10 hrs, Volume= 6.069 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.87' @ 12.10 hrs
Flood Elev= 56.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	44.75'	**30.0" Round Culvert** L= 64.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.75' / 44.11' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=55.52 cfs @ 12.10 hrs HW=54.85' (Free Discharge)
1=Culvert (Inlet Controls 55.52 cfs @ 11.31 fps)

Summary for Pond dmh51: dmh51

Inflow Area = 15.118 ac, 79.46% Impervious, Inflow Depth > 4.82" for 50-year event
Inflow = 55.58 cfs @ 12.10 hrs, Volume= 6.069 af
Outflow = 55.58 cfs @ 12.10 hrs, Volume= 6.069 af, Atten= 0%, Lag= 0.0 min
Primary = 55.58 cfs @ 12.10 hrs, Volume= 6.069 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.21' @ 12.10 hrs
Flood Elev= 55.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	44.09'	**30.0" Round Culvert** L= 38.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.09' / 43.00' S= 0.0287 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=55.52 cfs @ 12.10 hrs HW=54.19' (Free Discharge)
1=Culvert (Inlet Controls 55.52 cfs @ 11.31 fps)

Summary for Pond dmh52: dmh52

Inflow Area = 31.609 ac, 73.05% Impervious, Inflow Depth > 4.57" for 50-year event
Inflow = 119.50 cfs @ 12.11 hrs, Volume= 12.048 af
Outflow = 119.50 cfs @ 12.11 hrs, Volume= 12.048 af, Atten= 0%, Lag= 0.0 min
Primary = 119.50 cfs @ 12.11 hrs, Volume= 12.048 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 53.43' @ 12.11 hrs
Flood Elev= 50.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	41.00'	**42.0" Round Culvert** L= 258.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 41.00' / 36.00' S= 0.0194 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 9.62 sf

Primary OutFlow Max=119.50 cfs @ 12.11 hrs HW=53.43' (Free Discharge)
↑**1=Culvert** (Inlet Controls 119.50 cfs @ 12.42 fps)

Summary for Pond dmh53: CB53

Inflow Area = 32.682 ac, 71.95% Impervious, Inflow Depth > 4.56" for 50-year event
Inflow = 124.30 cfs @ 12.11 hrs, Volume= 12.406 af
Outflow = 124.30 cfs @ 12.11 hrs, Volume= 12.406 af, Atten= 0%, Lag= 0.0 min
Primary = 124.30 cfs @ 12.11 hrs, Volume= 12.406 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 46.30' @ 12.11 hrs
Flood Elev= 41.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	33.00'	**42.0" Round Culvert** L= 120.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 33.00' / 30.50' S= 0.0208 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 9.62 sf

Primary OutFlow Max=124.30 cfs @ 12.11 hrs HW=46.30' (Free Discharge)
↑**1=Culvert** (Inlet Controls 124.30 cfs @ 12.92 fps)

Summary for Pond dmh54: dmh54

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 4.56" for 50-year event
Inflow = 124.56 cfs @ 12.11 hrs, Volume= 12.446 af
Outflow = 124.56 cfs @ 12.11 hrs, Volume= 12.446 af, Atten= 0%, Lag= 0.0 min
Primary = 124.56 cfs @ 12.11 hrs, Volume= 12.446 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 35.80' @ 12.11 hrs
Flood Elev= 38.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	27.00'	**48.0" Round Culvert** L= 152.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.00' / 22.00' S= 0.0329 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=124.56 cfs @ 12.11 hrs HW=35.80' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 124.56 cfs @ 9.91 fps)

Summary for Pond dmh55: dhm55

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 4.56" for 50-year event
Inflow = 124.56 cfs @ 12.11 hrs, Volume= 12.446 af
Outflow = 124.56 cfs @ 12.11 hrs, Volume= 12.446 af, Atten= 0%, Lag= 0.0 min
Primary = 124.56 cfs @ 12.11 hrs, Volume= 12.446 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 27.80' @ 12.11 hrs
Flood Elev= 30.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	19.00'	**48.0" Round Culvert** L= 115.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 19.00' / 15.50' S= 0.0304 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=124.56 cfs @ 12.11 hrs HW=27.80' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 124.56 cfs @ 9.91 fps)

Summary for Pond dmh56: dmh56

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 4.56" for 50-year event
Inflow = 124.56 cfs @ 12.11 hrs, Volume= 12.446 af
Outflow = 124.56 cfs @ 12.11 hrs, Volume= 12.446 af, Atten= 0%, Lag= 0.0 min
Primary = 124.56 cfs @ 12.11 hrs, Volume= 12.446 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 21.30' @ 12.11 hrs
Flood Elev= 30.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	12.50'	**48.0" Round Culvert** L= 42.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 12.50' / 11.00' S= 0.0357 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=124.56 cfs @ 12.11 hrs HW=21.30' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 124.56 cfs @ 9.91 fps)

Summary for Pond dmh59: dmh59

Inflow Area = 2.287 ac, 61.62% Impervious, Inflow Depth > 4.43" for 50-year event
Inflow = 9.74 cfs @ 12.10 hrs, Volume= 0.844 af
Outflow = 9.74 cfs @ 12.10 hrs, Volume= 0.844 af, Atten= 0%, Lag= 0.0 min
Primary = 9.74 cfs @ 12.10 hrs, Volume= 0.844 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 80.39' @ 12.10 hrs
Flood Elev= 59.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.30'	**12.0" Round Culvert** L= 294.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.30' / 52.83' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=9.72 cfs @ 12.10 hrs HW=80.31' (Free Discharge)
1=Culvert (Barrel Controls 9.72 cfs @ 12.38 fps)

Summary for Pond dmh6: dmh6

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 5.09" for 50-year event
Inflow = 17.04 cfs @ 12.09 hrs, Volume= 1.337 af
Outflow = 17.04 cfs @ 12.09 hrs, Volume= 1.337 af, Atten= 0%, Lag= 0.0 min
Primary = 17.04 cfs @ 12.09 hrs, Volume= 1.337 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.89' @ 12.09 hrs
Flood Elev= 68.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	58.58'	**24.0" Round Culvert** L= 170.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.58' / 57.73' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 3.14 sf

Primary OutFlow Max=17.01 cfs @ 12.09 hrs HW=62.88' (Free Discharge)
1=Culvert (Barrel Controls 17.01 cfs @ 5.41 fps)

Summary for Pond dmh60: dhm60

Inflow Area = 31.609 ac, 73.05% Impervious, Inflow Depth > 4.57" for 50-year event
Inflow = 119.50 cfs @ 12.11 hrs, Volume= 12.048 af
Outflow = 119.50 cfs @ 12.11 hrs, Volume= 12.048 af, Atten= 0%, Lag= 0.0 min
Primary = 119.50 cfs @ 12.11 hrs, Volume= 12.048 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 43.76' @ 12.11 hrs
Flood Elev= 44.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	35.50'	**48.0" Round Culvert** L= 114.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 35.50' / 33.50' S= 0.0175 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=119.50 cfs @ 12.11 hrs HW=43.76' (Free Discharge)
↑**1=Culvert** (Inlet Controls 119.50 cfs @ 9.51 fps)

Summary for Pond dmh7: dmh7

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 5.09" for 50-year event
Inflow = 17.04 cfs @ 12.09 hrs, Volume= 1.337 af
Outflow = 17.04 cfs @ 12.09 hrs, Volume= 1.337 af, Atten= 0%, Lag= 0.0 min
Primary = 17.04 cfs @ 12.09 hrs, Volume= 1.337 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.75' @ 12.09 hrs
Flood Elev= 67.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.71'	**24.0" Round Culvert** L= 170.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.71' / 56.86' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=17.01 cfs @ 12.09 hrs HW=60.74' (Free Discharge)
↑**1=Culvert** (Inlet Controls 17.01 cfs @ 5.41 fps)

Summary for Pond dmh8: dmh8

Inflow Area = 5.738 ac, 92.79% Impervious, Inflow Depth > 5.23" for 50-year event
Inflow = 31.96 cfs @ 12.09 hrs, Volume= 2.499 af
Outflow = 31.96 cfs @ 12.09 hrs, Volume= 2.499 af, Atten= 0%, Lag= 0.0 min
Primary = 31.96 cfs @ 12.09 hrs, Volume= 2.499 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 66.64' @ 12.09 hrs
Flood Elev= 66.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	56.84'	**24.0" Round Culvert** L= 296.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.84' / 55.66' S= 0.0040 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=31.90 cfs @ 12.09 hrs HW=66.61' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 31.90 cfs @ 10.16 fps)

Summary for Pond dmh9a: dmh9a

Inflow Area = 5.738 ac, 92.79% Impervious, Inflow Depth > 5.23" for 50-year event
Inflow = 31.96 cfs @ 12.09 hrs, Volume= 2.499 af
Outflow = 31.96 cfs @ 12.09 hrs, Volume= 2.499 af, Atten= 0%, Lag= 0.0 min
Primary = 31.96 cfs @ 12.09 hrs, Volume= 2.499 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.80' @ 12.09 hrs
Flood Elev= 65.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	55.64'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.64' / 54.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=31.90 cfs @ 12.09 hrs HW=63.78' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 31.90 cfs @ 10.16 fps)

Summary for Pond DP 9B: off site pond to strm 5/6

Inflow Area = 15.254 ac, 2.94% Impervious, Inflow Depth = 3.30" for 50-year event
Inflow = 31.80 cfs @ 12.36 hrs, Volume= 4.189 af
Outflow = 31.78 cfs @ 12.36 hrs, Volume= 4.189 af, Atten= 0%, Lag= 0.2 min
Primary = 31.78 cfs @ 12.36 hrs, Volume= 4.189 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.93' @ 12.36 hrs Surf.Area= 2,109 sf Storage= 857 cf

Plug-Flow detention time= 0.5 min calculated for 4.188 af (100% of inflow)
Center-of-Mass det. time= 0.5 min (844.2 - 843.7)

Volume	Invert	Avail.Storage	Storage Description
#1	62.00'	13,655 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.00	136	60.0	0	0	136
63.00	2,371	550.0	1,025	1,025	23,924
64.00	5,821	1,011.0	3,969	4,994	81,195
65.00	11,855	1,110.0	8,661	13,655	97,938

Device	Routing	Invert	Outlet Devices
#1	Primary	53.00'	**12.0" Round Culvert** L= 670.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 53.00' / 52.00' S= 0.0015 '/' Cc= 0.900
n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf
#2 Primary 62.50' **24.0" x 24.0" Horiz. Orifice/Grate X 4.00** C= 0.600
Limited to weir flow at low heads

Primary OutFlow Max=31.77 cfs @ 12.36 hrs HW=62.93' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.76 cfs @ 3.52 fps)
└**2=Orifice/Grate** (Weir Controls 29.01 cfs @ 2.13 fps)

Summary for Pond DP 9D: offsite pond strm 3

Inflow Area = 3.551 ac, 0.00% Impervious, Inflow Depth = 3.17" for 50-year event
Inflow = 5.51 cfs @ 12.73 hrs, Volume= 0.938 af
Outflow = 5.46 cfs @ 12.79 hrs, Volume= 0.938 af, Atten= 1%, Lag= 3.5 min
Primary = 5.46 cfs @ 12.79 hrs, Volume= 0.938 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 65.74' @ 12.79 hrs Surf.Area= 2,998 sf Storage= 1,466 cf

Plug-Flow detention time= 2.5 min calculated for 0.938 af (100% of inflow)
Center-of-Mass det. time= 2.5 min (877.7 - 875.2)

Volume	Invert	Avail.Storage	Storage Description
#1	65.00'	7,999 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.00	1,097	318.0	0	0	1,097
66.00	3,867	753.0	2,341	2,341	38,175
67.00	7,663	1,200.0	5,658	7,999	107,652

Device	Routing	Invert	Outlet Devices
#1	Primary	53.50'	**12.0" Round Culvert**
			L= 1,260.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 53.50' / 52.00' S= 0.0012 '/' Cc= 0.900
			n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf
#2	Primary	65.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=5.46 cfs @ 12.79 hrs HW=65.74' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.30 cfs @ 2.93 fps)
└**2=Orifice/Grate** (Weir Controls 3.16 cfs @ 1.62 fps)

Summary for Pond GSF 11: grassed soil filter

Inflow Area = 0.991 ac, 36.78% Impervious, Inflow Depth = 4.18" for 50-year event
Inflow = 4.80 cfs @ 12.09 hrs, Volume= 0.346 af
Outflow = 2.46 cfs @ 12.23 hrs, Volume= 0.296 af, Atten= 49%, Lag= 8.6 min
Primary = 0.03 cfs @ 12.23 hrs, Volume= 0.076 af
Secondary = 2.44 cfs @ 12.23 hrs, Volume= 0.220 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.61' @ 12.23 hrs Surf.Area= 5,342 sf Storage= 5,923 cf
Flood Elev= 63.00' Surf.Area= 5,598 sf Storage= 7,213 cf

Plug-Flow detention time= 332.0 min calculated for 0.296 af (86% of inflow)
Center-of-Mass det. time= 269.3 min (1,074.9 - 805.6)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	5,560 cf	**gsf11 (Irregular)** Listed below (Recalc)
#2	58.24'	1,653 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		7,213 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,200	181.0	0	0	2,200
62.00	2,771	200.0	2,480	2,480	2,807
63.00	3,400	219.0	3,080	5,560	3,474

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.24	2,198	0.0	0	0
58.25	2,198	40.0	9	9
58.99	2,198	40.0	651	659
59.00	2,198	30.0	7	666
59.49	2,198	30.0	323	989
59.50	2,198	20.0	4	993
61.00	2,198	20.0	659	1,653

Device	Routing	Invert	Outlet Devices
#1	Primary	58.25'	**0.7" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	58.05'	**8.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.05' / 57.78' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	62.00'	**4.0" Vert. Orifice/Grate X 6.00** C= 0.600
#5	Device 3	62.50'	**25.7" Horiz. cb19 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 12.23 hrs HW=62.61' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.03 cfs @ 10.02 fps)
└─**2=Exfiltration** (Passes 0.03 cfs of 0.12 cfs potential flow)

Secondary OutFlow Max=2.43 cfs @ 12.23 hrs HW=62.61' (Free Discharge)
└─**3=Culvert** (Passes 2.43 cfs of 2.73 cfs potential flow)
├─**4=Orifice/Grate** (Orifice Controls 1.67 cfs @ 3.19 fps)
└─**5=cb19 beehive equiv** (Weir Controls 0.76 cfs @ 1.06 fps)

Summary for Pond GSF 12: grassed soil filter

Inflow Area = 0.297 ac, 57.98% Impervious, Inflow Depth = 4.72" for 50-year event
Inflow = 1.58 cfs @ 12.09 hrs, Volume= 0.117 af
Outflow = 1.45 cfs @ 12.12 hrs, Volume= 0.095 af, Atten= 8%, Lag= 2.2 min
Primary = 0.01 cfs @ 12.12 hrs, Volume= 0.025 af
Secondary = 1.44 cfs @ 12.12 hrs, Volume= 0.070 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.06' @ 12.12 hrs Surf.Area= 2,108 sf Storage= 1,782 cf
Flood Elev= 62.50' Surf.Area= 2,255 sf Storage= 2,348 cf

Plug-Flow detention time= 342.6 min calculated for 0.095 af (82% of inflow)
Center-of-Mass det. time= 271.1 min (1,062.0 - 790.9)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	1,681 cf	**gsf12 (Irregular)** Listed below (Recalc)
#2	58.24'	667 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		2,348 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	886	151.0	0	0	886
62.00	1,201	164.0	1,040	1,040	1,248
62.50	1,368	170.0	642	1,681	1,428

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.24	887	0.0	0	0
58.25	887	40.0	4	4
58.99	887	40.0	263	266
59.00	887	30.0	3	269
59.49	887	30.0	130	399
59.50	887	20.0	2	401
61.00	887	20.0	266	667

Device	Routing	Invert	Outlet Devices
#1	Primary	58.25'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	58.20'	**8.0" Round Culvert** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.20' / 58.10' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	61.90'	**25.7" Horiz. cb15a beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.12 hrs HW=62.06' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.38 fps)
└**2=Exfiltration** (Passes 0.01 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=1.43 cfs @ 12.12 hrs HW=62.06' (Free Discharge)
└**3=Culvert** (Passes 1.43 cfs of 2.49 cfs potential flow)
└**4=cb15a beehive equiv** (Weir Controls 1.43 cfs @ 1.32 fps)

Summary for Pond GSF 13: grassed soil filter

Inflow Area = 1.037 ac, 46.46% Impervious, Inflow Depth = 4.40" for 50-year event
Inflow = 5.24 cfs @ 12.09 hrs, Volume= 0.380 af
Outflow = 2.69 cfs @ 12.23 hrs, Volume= 0.328 af, Atten= 49%, Lag= 8.4 min
Primary = 0.03 cfs @ 12.23 hrs, Volume= 0.099 af
Secondary = 2.65 cfs @ 12.23 hrs, Volume= 0.229 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.38' @ 12.23 hrs Surf.Area= 6,404 sf Storage= 6,282 cf
Flood Elev= 63.00' Surf.Area= 7,083 sf Storage= 8,909 cf

Plug-Flow detention time= 360.0 min calculated for 0.328 af (86% of inflow)
Center-of-Mass det. time= 299.8 min (1,099.8 - 800.0)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	7,028 cf	**gsf13 (Irregular)** Listed below (Recalc)
#2	58.24'	1,881 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		8,909 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,500	328.0	0	0	2,500
62.00	3,513	347.0	2,992	2,992	3,575
63.00	4,582	366.0	4,036	7,028	4,710

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.24	2,501	0.0	0	0
58.25	2,501	40.0	10	10
58.99	2,501	40.0	740	750
59.00	2,501	30.0	8	758
59.49	2,501	30.0	368	1,125
59.50	2,501	20.0	5	1,130
61.00	2,501	20.0	750	1,881

Device	Routing	Invert	Outlet Devices
#1	Primary	58.25'	**0.8" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	58.05'	**8.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900

			Inlet / Outlet Invert= 58.05' / 57.82' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	62.00'	**25.7" Horiz. cb18 beehive equiv** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 12.23 hrs HW=62.38' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.03 cfs @ 9.75 fps)
↑—**2=Exfiltration** (Passes 0.03 cfs of 0.15 cfs potential flow)

Secondary OutFlow Max=2.65 cfs @ 12.23 hrs HW=62.38' (Free Discharge)
↑—**3=Culvert** (Inlet Controls 2.65 cfs @ 7.60 fps)
↑—**4=cb18 beehive equiv** (Passes 2.65 cfs of 5.16 cfs potential flow)

Summary for Pond GSF 15: grassed soil filter

Inflow Area = 0.210 ac, 1.92% Impervious, Inflow Depth = 3.27" for 50-year event
Inflow = 0.81 cfs @ 12.09 hrs, Volume= 0.057 af
Outflow = 0.75 cfs @ 12.12 hrs, Volume= 0.047 af, Atten= 7%, Lag= 1.9 min
Primary = 0.00 cfs @ 12.12 hrs, Volume= 0.005 af
Secondary = 0.75 cfs @ 12.12 hrs, Volume= 0.042 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.80' @ 12.12 hrs Surf.Area= 1,351 sf Storage= 656 cf
Flood Elev= 65.00' Surf.Area= 2,017 sf Storage= 1,939 cf

Plug-Flow detention time= 209.6 min calculated for 0.047 af (83% of inflow)
Center-of-Mass det. time= 138.8 min (966.9 - 828.1)

Volume	Invert	Avail.Storage	Storage Description
#1	63.50'	1,489 cf	**gsf15 (Irregular)** Listed below (Recalc)
#2	60.74'	450 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,939 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
63.50	600	168.0	0	0	600
64.00	858	177.0	363	363	862
65.00	1,418	196.0	1,126	1,489	1,456

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.74	599	0.0	0	0
60.75	599	40.0	2	2
61.49	599	40.0	177	180
61.50	599	30.0	2	181
61.99	599	30.0	88	270
62.00	599	20.0	1	271
63.50	599	20.0	180	450

Device	Routing	Invert	Outlet Devices
#1	Primary	60.75'	**0.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	60.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	60.70'	**8.0" Round Culvert**
			L= 18.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 60.70' / 60.52' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	63.70'	**25.7" Horiz. cb9 beehive equiv** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.12 hrs HW=63.80' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.40 fps)
└**2=Exfiltration** (Passes 0.00 cfs of 0.03 cfs potential flow)

Secondary OutFlow Max=0.75 cfs @ 12.12 hrs HW=63.80' (Free Discharge)
└**3=Culvert** (Passes 0.75 cfs of 2.21 cfs potential flow)
└**4=cb9 beehive equiv** (Weir Controls 0.75 cfs @ 1.06 fps)

Summary for Pond GSF 16: grassed soil filter

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth = 4.08" for 50-year event
Inflow = 1.64 cfs @ 12.09 hrs, Volume= 0.118 af
Outflow = 0.12 cfs @ 13.51 hrs, Volume= 0.057 af, Atten= 93%, Lag= 85.5 min
Primary = 0.01 cfs @ 13.51 hrs, Volume= 0.025 af
Secondary = 0.11 cfs @ 13.51 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 64.42' @ 13.51 hrs Surf.Area= 3,213 sf Storage= 3,385 cf

Plug-Flow detention time= 617.0 min calculated for 0.057 af (48% of inflow)
Center-of-Mass det. time= 502.9 min (1,311.2 - 808.3)

Volume	Invert	Avail.Storage	Storage Description
#1	62.75'	4,054 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	60.74'	753 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		4,806 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.75	1,000	215.0	0	0	1,000
63.00	1,165	220.0	270	270	1,181
64.00	1,858	241.0	1,498	1,768	1,986
65.00	2,741	270.0	2,285	4,054	3,192

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.74	1,001	0.0	0	0
60.75	1,001	40.0	4	4
61.49	1,001	40.0	296	300
61.50	1,001	30.0	3	303
61.99	1,001	30.0	147	450
62.00	1,001	20.0	2	452
63.50	1,001	20.0	300	753

Device	Routing	Invert	Outlet Devices
#1	Primary	60.75'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	60.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	60.70'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.54' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	64.40'	**25.7" Horiz. cb8 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 13.51 hrs HW=64.42' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.21 fps)
└─**2=Exfiltration** (Passes 0.01 cfs of 0.07 cfs potential flow)

Secondary OutFlow Max=0.09 cfs @ 13.51 hrs HW=64.42' (Free Discharge)
└─**3=Culvert** (Passes 0.09 cfs of 2.44 cfs potential flow)
└─**4=cb8 beehive equiv** (Weir Controls 0.09 cfs @ 0.51 fps)

Summary for Pond GSF 18A: grassed soil filter

Inflow Area = 0.146 ac, 40.91% Impervious, Inflow Depth = 4.29" for 50-year event
Inflow = 0.72 cfs @ 12.09 hrs, Volume= 0.052 af
Outflow = 0.25 cfs @ 12.37 hrs, Volume= 0.035 af, Atten= 65%, Lag= 17.0 min
Primary = 0.00 cfs @ 12.37 hrs, Volume= 0.013 af
Secondary = 0.25 cfs @ 12.37 hrs, Volume= 0.022 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.45' @ 12.37 hrs Surf.Area= 2,058 sf Storage= 1,143 cf

Plug-Flow detention time= 489.2 min calculated for 0.035 af (67% of inflow)
Center-of-Mass det. time= 393.2 min (1,196.1 - 802.9)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	1,183 cf	**gsf18a (Irregular)** Listed below (Recalc)
#2	54.24'	686 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,868 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	900	183.0	0	0	900
58.00	1,490	202.0	1,183	1,183	1,513

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
54.24	912	0.0	0	0
54.25	912	40.0	4	4
54.99	912	40.0	270	274
55.00	912	30.0	3	276
55.49	912	30.0	134	410
55.50	912	20.0	2	412
57.00	912	20.0	274	686

Device	Routing	Invert	Outlet Devices
#1	Primary	54.25'	**0.3" Vert. Orifice/Grate** C= 0.600
#2	Device 1	54.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.40'	**25.7" Horiz. cb24 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.37 hrs HW=57.45' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.59 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=0.23 cfs @ 12.37 hrs HW=57.45' (Free Discharge)
↑—**3=Culvert** (Passes 0.23 cfs of 2.34 cfs potential flow)
↑—**4=cb24 beehive equiv** (Weir Controls 0.23 cfs @ 0.72 fps)

Summary for Pond GSF 18B: grassed soil filter

Inflow Area = 0.092 ac, 58.36% Impervious, Inflow Depth = 4.72" for 50-year event
Inflow = 0.49 cfs @ 12.09 hrs, Volume= 0.036 af
Outflow = 0.41 cfs @ 12.14 hrs, Volume= 0.027 af, Atten= 18%, Lag= 3.4 min
Primary = 0.00 cfs @ 12.14 hrs, Volume= 0.006 af
Secondary = 0.40 cfs @ 12.14 hrs, Volume= 0.020 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.97' @ 12.14 hrs Surf.Area= 870 sf Storage= 633 cf

Plug-Flow detention time= 353.2 min calculated for 0.027 af (73% of inflow)
Center-of-Mass det. time= 265.4 min (1,056.3 - 790.9)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	430 cf	**gsf18a (Irregular)** Listed below (Recalc)
#2	54.24'	221 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		651 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	290	88.0	0	0	290
58.00	587	107.0	430	430	601

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
54.24	294	0.0	0	0
54.25	294	40.0	1	1
54.99	294	40.0	87	88
55.00	294	30.0	1	89
55.49	294	30.0	43	132
55.50	294	20.0	1	133
57.00	294	20.0	88	221

Device	Routing	Invert	Outlet Devices
#1	Primary	54.25'	**0.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	54.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.90'	**25.7" Horiz. cb23 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.14 hrs HW=57.97' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 9.27 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.02 cfs potential flow)

Secondary OutFlow Max=0.40 cfs @ 12.14 hrs HW=57.97' (Free Discharge)
↑—**3=Culvert** (Passes 0.40 cfs of 2.53 cfs potential flow)
↑—**4=cb23 beehive equiv** (Weir Controls 0.40 cfs @ 0.86 fps)

Summary for Pond GSF 1A: Grassed soil filter

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth = 4.29" for 50-year event
Inflow = 2.02 cfs @ 12.09 hrs, Volume= 0.146 af
Outflow = 1.29 cfs @ 12.18 hrs, Volume= 0.118 af, Atten= 36%, Lag= 5.7 min
Primary = 0.01 cfs @ 12.18 hrs, Volume= 0.036 af
Secondary = 1.28 cfs @ 12.18 hrs, Volume= 0.082 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 66.45' @ 12.18 hrs Surf.Area= 3,694 sf Storage= 2,490 cf
Flood Elev= 68.00' Surf.Area= 5,086 sf Storage= 6,753 cf

Plug-Flow detention time= 387.8 min calculated for 0.118 af (81% of inflow)
Center-of-Mass det. time= 314.4 min (1,117.3 - 802.9)

Volume	Invert	Avail.Storage	Storage Description
#1	65.75'	5,554 cf	**Grassed Underdrain Soil Filter (Irregular)** Listed below (Recalc)
#2	62.99'	1,198 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		6,753 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.75	1,600	234.0	0	0	1,600
66.00	1,775	239.0	422	422	1,797
67.00	2,525	261.0	2,139	2,561	2,708
68.00	3,488	286.0	2,994	5,554	3,830

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.99	1,598	0.0	0	0
63.00	1,598	40.0	6	6
63.74	1,598	40.0	473	479
63.75	1,598	30.0	5	484
64.24	1,598	30.0	235	719
64.25	1,598	20.0	3	722
65.74	1,598	20.0	476	1,198

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	**0.5" Vert. Orifice/Grate** C= 0.600
#2	Device 1	62.99'	**2.400 in/hr Exfiltration over Surface area**
#3	Secondary	62.50'	**8.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.50' / 62.26' S= 0.0089 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	66.30'	**25.7" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.18 hrs HW=66.45' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 8.92 fps)
└**2=Exfiltration** (Passes 0.01 cfs of 0.21 cfs potential flow)

Secondary OutFlow Max=1.28 cfs @ 12.18 hrs HW=66.45' (Free Discharge)
└**3=Culvert** (Passes 1.28 cfs of 2.52 cfs potential flow)
└**4=Orifice/Grate** (Weir Controls 1.28 cfs @ 1.27 fps)

Summary for Pond GSF 1B: grassed soil filter

Inflow Area = 0.570 ac, 27.49% Impervious, Inflow Depth = 3.97" for 50-year event
Inflow = 2.64 cfs @ 12.09 hrs, Volume= 0.189 af
Outflow = 2.56 cfs @ 12.11 hrs, Volume= 0.175 af, Atten= 3%, Lag= 1.2 min
Primary = 0.01 cfs @ 12.11 hrs, Volume= 0.040 af
Secondary = 2.55 cfs @ 12.11 hrs, Volume= 0.135 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 67.05' @ 12.11 hrs Surf.Area= 2,382 sf Storage= 1,913 cf
Flood Elev= 67.00' Surf.Area= 2,309 sf Storage= 1,826 cf

Plug-Flow detention time= 259.9 min calculated for 0.175 af (93% of inflow)
Center-of-Mass det. time= 221.7 min (1,032.6 - 810.9)

Volume	Invert	Avail.Storage	Storage Description
#1	65.50'	32,509 cf	**gsf1B (Irregular)** Listed below (Recalc)
#2	62.74'	545 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		33,054 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.50	393	187.0	0	0	393
66.00	583	194.0	242	242	626
67.00	1,576	297.0	1,039	1,282	4,658
68.00	3,199	450.0	2,340	3,622	13,760
69.00	68,644	2,673.0	28,887	32,509	566,223

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.74	733	0.0	0	0
62.75	733	40.0	3	3
63.40	733	40.0	191	194
63.50	733	30.0	22	216
63.99	733	30.0	108	323
64.00	733	20.0	1	325
65.50	733	20.0	220	545

Device	Routing	Invert	Outlet Devices
#1	Primary	62.75'	**0.5" Vert. Orifice/Grate** C= 0.600
#2	Device 1	62.74'	**1.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#3	Secondary	62.70'	**8.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.70' / 62.60' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	66.90'	**25.7" Horiz. CB16 beehive grate equiv dbl X 2.00** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.11 hrs HW=67.05' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.96 fps)
└─**2=Exfiltration** (Passes 0.01 cfs of 0.06 cfs potential flow)

Secondary OutFlow Max=2.65 cfs @ 12.11 hrs HW=67.05' (Free Discharge)
└─**3=Culvert** (Passes 2.65 cfs of 2.66 cfs potential flow)
└─**4=CB16 beehive grate equiv dbl** (Weir Controls 2.65 cfs @ 1.28 fps)

Summary for Pond GSF 2: grassed soil filter

Inflow Area = 0.713 ac, 25.93% Impervious, Inflow Depth = 3.87" for 50-year event
Inflow = 3.22 cfs @ 12.09 hrs, Volume= 0.230 af
Outflow = 2.52 cfs @ 12.15 hrs, Volume= 0.202 af, Atten= 22%, Lag= 3.8 min
Primary = 0.02 cfs @ 12.15 hrs, Volume= 0.054 af
Secondary = 2.51 cfs @ 12.15 hrs, Volume= 0.149 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.85' @ 12.15 hrs Surf.Area= 3,761 sf Storage= 3,189 cf
Flood Elev= 59.00' Surf.Area= 4,991 sf Storage= 6,448 cf

Plug-Flow detention time= 319.3 min calculated for 0.202 af (88% of inflow)
Center-of-Mass det. time= 264.2 min (1,077.7 - 813.5)

Volume	Invert	Avail.Storage	Storage Description
#1	56.75'	5,317 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	53.99'	1,130 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		6,448 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.75	1,500	218.0	0	0	1,500
57.00	1,669	223.0	396	396	1,684
58.00	2,371	245.0	2,010	2,406	2,536
59.00	3,488	283.0	2,912	5,317	4,154

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.99	1,503	0.0	0	0
54.00	1,503	40.0	6	6
54.74	1,503	40.0	445	451
54.75	1,503	30.0	5	455
55.24	1,503	30.0	221	676
55.25	1,503	20.0	3	679
56.75	1,503	20.0	451	1,130

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	53.99'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	53.95'	**8.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.95' / 53.76' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.60'	**25.7" Horiz. cb20 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.15 hrs HW=57.85' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.42 fps)
└**2=Exfiltration** (Passes 0.02 cfs of 0.09 cfs potential flow)

Secondary OutFlow Max=2.51 cfs @ 12.15 hrs HW=57.85' (Free Discharge)
└**3=Culvert** (Inlet Controls 2.51 cfs @ 7.18 fps)
└**4=cb20 beehive equiv** (Passes 2.51 cfs of 2.75 cfs potential flow)

Summary for Pond GSF 24: grassed soil filter

Inflow Area = 0.419 ac, 67.19% Impervious, Inflow Depth = 5.17" for 50-year event
Inflow = 2.38 cfs @ 12.08 hrs, Volume= 0.181 af
Outflow = 2.12 cfs @ 12.12 hrs, Volume= 0.158 af, Atten= 11%, Lag= 2.4 min
Primary = 0.02 cfs @ 12.12 hrs, Volume= 0.056 af
Secondary = 2.10 cfs @ 12.12 hrs, Volume= 0.102 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 40.81' @ 12.12 hrs Surf.Area= 3,315 sf Storage= 2,806 cf

Plug-Flow detention time= 395.5 min calculated for 0.158 af (88% of inflow)
Center-of-Mass det. time= 339.2 min (1,115.8 - 776.7)

Volume	Invert	Avail.Storage	Storage Description
#1	39.75'	4,479 cf	**gsf24 (Irregular)** Listed below (Recalc)
#2	36.99'	1,054 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		5,533 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
39.75	1,400	150.0	0	0	1,400
40.00	1,516	156.0	364	364	1,551
41.00	2,013	176.0	1,759	2,123	2,105
42.00	2,717	200.0	2,356	4,479	2,847

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
36.99	1,401	0.0	0	0
37.00	1,401	40.0	6	6
37.74	1,401	40.0	415	420
37.75	1,401	30.0	4	425
38.24	1,401	30.0	206	630
38.25	1,401	20.0	3	633
39.75	1,401	20.0	420	1,054

Device	Routing	Invert	Outlet Devices
#1	Primary	37.00'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	36.99'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	36.80'	**8.0" Round Culvert** L= 40.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 36.80' / 36.00' S= 0.0200 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4 Device 3 40.60' **25.7" Horiz. cb32 beehive equiv** C= 0.600
Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.12 hrs HW=40.81' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.37 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.08 cfs potential flow)

Secondary OutFlow Max=2.13 cfs @ 12.12 hrs HW=40.81' (Free Discharge)
↑—**3=Culvert** (Passes 2.13 cfs of 2.54 cfs potential flow)
↑—**4=cb32 beehive equiv** (Weir Controls 2.13 cfs @ 1.50 fps)

Summary for Pond GSF 3: grassed soil filter

Inflow Area = 0.830 ac, 36.22% Impervious, Inflow Depth = 4.08" for 50-year event
Inflow = 3.93 cfs @ 12.09 hrs, Volume= 0.282 af
Outflow = 3.27 cfs @ 12.14 hrs, Volume= 0.242 af, Atten= 17%, Lag= 3.2 min
Primary = 0.02 cfs @ 12.14 hrs, Volume= 0.056 af
Secondary = 3.25 cfs @ 12.14 hrs, Volume= 0.187 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 56.03' @ 12.14 hrs Surf.Area= 4,298 sf Storage= 3,931 cf
Flood Elev= 57.00' Surf.Area= 5,449 sf Storage= 7,083 cf

Plug-Flow detention time= 298.5 min calculated for 0.242 af (86% of inflow)
Center-of-Mass det. time= 236.9 min (1,045.2 - 808.3)

Volume	Invert	Avail.Storage	Storage Description
#1	54.75'	5,872 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	51.99'	1,211 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		7,083 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.75	1,600	268.0	0	0	1,600
55.00	1,804	274.0	425	425	1,868
56.00	2,657	295.0	2,217	2,642	2,860
57.00	3,839	332.0	3,230	5,872	4,733

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.99	1,610	0.0	0	0
52.00	1,610	40.0	6	6
52.74	1,610	40.0	477	483
52.75	1,610	30.0	5	488
53.24	1,610	30.0	237	725
53.25	1,610	20.0	3	728
54.75	1,610	20.0	483	1,211

Device	Routing	Invert	Outlet Devices
#1	Primary	52.00'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.99'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.95'	**12.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.95' / 51.81' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	55.75'	**25.7" Horiz. cb25 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.14 hrs HW=56.03' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.63 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.10 cfs potential flow)

Secondary OutFlow Max=3.25 cfs @ 12.14 hrs HW=56.03' (Free Discharge)
↑—**3=Culvert** (Passes 3.25 cfs of 5.65 cfs potential flow)
↑—**4=cb25 beehive equiv** (Weir Controls 3.25 cfs @ 1.73 fps)

Summary for Pond GSF 4: grassed soil filter

Inflow Area = 0.194 ac, 0.00% Impervious, Inflow Depth = 3.27" for 50-year event
Inflow = 0.74 cfs @ 12.09 hrs, Volume= 0.053 af
Outflow = 0.56 cfs @ 12.16 hrs, Volume= 0.045 af, Atten= 25%, Lag= 4.2 min
Primary = 0.00 cfs @ 12.16 hrs, Volume= 0.013 af
Secondary = 0.56 cfs @ 12.16 hrs, Volume= 0.033 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.19' @ 12.16 hrs Surf.Area= 1,139 sf Storage= 734 cf
Flood Elev= 56.00' Surf.Area= 1,431 sf Storage= 1,405 cf

Plug-Flow detention time= 344.9 min calculated for 0.045 af (86% of inflow)
Center-of-Mass det. time= 282.9 min (1,110.9 - 828.1)

Volume	Invert	Avail.Storage	Storage Description
#1	54.50'	1,061 cf	**gsf4 (Irregular)** Listed below (Recalc)
#2	51.74'	344 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,405 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.50	457	163.0	0	0	457
55.00	623	169.0	269	269	636
56.00	974	182.0	792	1,061	1,039

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.74	457	0.0	0	0
51.75	457	40.0	2	2
52.49	457	40.0	135	137
52.50	457	30.0	1	138
52.99	457	30.0	67	206
53.00	457	20.0	1	207
54.50	457	20.0	137	344

Device	Routing	Invert	Outlet Devices
#1	Primary	51.75'	**0.3" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.70'	**8.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.70' / 51.53' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	55.10'	**25.7" Horiz. cb26 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.16 hrs HW=55.19' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.91 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.03 cfs potential flow)

Secondary OutFlow Max=0.55 cfs @ 12.16 hrs HW=55.19' (Free Discharge)
↑—**3=Culvert** (Passes 0.55 cfs of 2.36 cfs potential flow)
↑—**4=cb26 beehive equiv** (Weir Controls 0.55 cfs @ 0.96 fps)

Summary for Pond GSF 5: grassed soil filter

Inflow Area = 0.248 ac, 0.00% Impervious, Inflow Depth = 3.27" for 50-year event
Inflow = 0.95 cfs @ 12.09 hrs, Volume= 0.068 af
Outflow = 0.60 cfs @ 12.19 hrs, Volume= 0.055 af, Atten= 36%, Lag= 6.0 min
Primary = 0.00 cfs @ 12.19 hrs, Volume= 0.013 af
Secondary = 0.60 cfs @ 12.19 hrs, Volume= 0.042 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.69' @ 12.19 hrs Surf.Area= 1,628 sf Storage= 1,006 cf
Flood Elev= 55.00' Surf.Area= 1,857 sf Storage= 1,360 cf

Plug-Flow detention time= 327.9 min calculated for 0.055 af (81% of inflow)
Center-of-Mass det. time= 252.4 min (1,080.4 - 828.1)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	908 cf	**gsf5 (Irregular)** Listed below (Recalc)
#2	51.24'	451 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,360 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	600	210.0	0	0	600
55.00	1,257	228.0	908	908	1,265

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.24	600	0.0	0	0
51.25	600	40.0	2	2
51.99	600	40.0	178	180
52.00	600	30.0	2	182
52.49	600	30.0	88	270
52.50	600	20.0	1	271
54.00	600	20.0	180	451

Device	Routing	Invert	Outlet Devices
#1	Primary	51.25'	**0.3" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.00'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.95' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	54.60'	**25.7" Horiz. cb beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.19 hrs HW=54.69' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.91 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.04 cfs potential flow)

Secondary OutFlow Max=0.59 cfs @ 12.19 hrs HW=54.69' (Free Discharge)
↑—**3=Culvert** (Passes 0.59 cfs of 2.43 cfs potential flow)
↑—**4=cb beehive equiv** (Weir Controls 0.59 cfs @ 0.98 fps)

Summary for Pond GSF 6: grassed soil filter

Inflow Area = 0.321 ac, 32.06% Impervious, Inflow Depth = 4.08" for 50-year event
Inflow = 1.52 cfs @ 12.09 hrs, Volume= 0.109 af
Outflow = 0.86 cfs @ 12.21 hrs, Volume= 0.089 af, Atten= 43%, Lag= 7.1 min
Primary = 0.01 cfs @ 12.21 hrs, Volume= 0.024 af
Secondary = 0.85 cfs @ 12.21 hrs, Volume= 0.065 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 48.48' @ 12.21 hrs Surf.Area= 2,240 sf Storage= 1,836 cf
Flood Elev= 50.00' Surf.Area= 2,772 sf Storage= 4,107 cf

Plug-Flow detention time= 353.0 min calculated for 0.089 af (82% of inflow)
Center-of-Mass det. time= 280.4 min (1,088.7 - 808.3)

Volume	Invert	Avail.Storage	Storage Description
#1	47.50'	3,352 cf	**gsf6 (Irregular)** Listed below (Recalc)
#2	44.74'	755 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		4,107 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
47.50	1,004	156.0	0	0	1,004
48.00	1,082	159.0	521	521	1,113
49.00	1,413	172.0	1,244	1,765	1,493
50.00	1,768	184.0	1,587	3,352	1,877

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
44.74	1,004	0.0	0	0
44.75	1,004	40.0	4	4
45.49	1,004	40.0	297	301
45.50	1,004	30.0	3	304
45.99	1,004	30.0	148	452
46.00	1,004	20.0	2	454
47.50	1,004	20.0	301	755

Device	Routing	Invert	Outlet Devices
#1	Primary	44.75'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	44.74'	**1.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#3	Secondary	44.70'	**8.0" Round culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.70' / 44.53' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	48.20'	**4.0" Vert. Orifice X 6.00** C= 0.600
#5	Device 3	49.00'	**25.7" Horiz. cb beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.21 hrs HW=48.48' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.28 fps)
└─**2=Exfiltration** (Passes 0.01 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=0.86 cfs @ 12.21 hrs HW=48.48' (Free Discharge)
└─**3=culvert** (Passes 0.86 cfs of 2.46 cfs potential flow)
├─**4=Orifice** (Orifice Controls 0.86 cfs @ 1.81 fps)
└─**5=cb beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 7: grassed soil filter

Inflow Area = 0.697 ac, 25.86% Impervious, Inflow Depth = 3.87" for 50-year event
Inflow = 3.15 cfs @ 12.09 hrs, Volume= 0.225 af
Outflow = 1.64 cfs @ 12.23 hrs, Volume= 0.182 af, Atten= 48%, Lag= 8.5 min
Primary = 0.02 cfs @ 12.23 hrs, Volume= 0.053 af
Secondary = 1.62 cfs @ 12.23 hrs, Volume= 0.129 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 54.88' @ 12.23 hrs Surf.Area= 5,305 sf Storage= 3,831 cf
Flood Elev= 56.00' Surf.Area= 7,240 sf Storage= 8,558 cf

Plug-Flow detention time= 376.4 min calculated for 0.182 af (81% of inflow)
Center-of-Mass det. time= 302.2 min (1,115.7 - 813.5)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	7,026 cf	**gsf7 (Irregular)** Listed below (Recalc)
#2	51.24'	1,532 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		8,558 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	2,037	220.0	0	0	2,037
55.00	3,467	289.0	2,720	2,720	4,843
56.00	5,203	357.0	4,306	7,026	8,354

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.24	2,037	0.0	0	0
51.25	2,037	40.0	8	8
51.99	2,037	40.0	603	611
52.00	2,037	30.0	6	617
52.49	2,037	30.0	299	917
52.50	2,037	20.0	4	921
54.00	2,037	20.0	611	1,532

Device	Routing	Invert	Outlet Devices
#1	Primary	51.25'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.00'	**8.0" Round cb29** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.48' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	54.70'	**25.7" Horiz. cb beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.23 hrs HW=54.87' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.14 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.12 cfs potential flow)

Secondary OutFlow Max=1.61 cfs @ 12.23 hrs HW=54.87' (Free Discharge)
↑—**3=cb29** (Passes 1.61 cfs of 2.50 cfs potential flow)
↑—**4=cb beehive equiv** (Weir Controls 1.61 cfs @ 1.37 fps)

Summary for Pond GSF 8: grassed soil filter

Inflow Area = 1.046 ac, 55.78% Impervious, Inflow Depth = 4.61" for 50-year event
Inflow = 5.49 cfs @ 12.09 hrs, Volume= 0.402 af
Outflow = 2.71 cfs @ 12.24 hrs, Volume= 0.356 af, Atten= 51%, Lag= 9.0 min
Primary = 0.04 cfs @ 12.24 hrs, Volume= 0.102 af
Secondary = 2.67 cfs @ 12.24 hrs, Volume= 0.254 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 58.13' @ 12.24 hrs Surf.Area= 5,552 sf Storage= 6,490 cf
Flood Elev= 58.50' Surf.Area= 5,815 sf Storage= 7,903 cf

Plug-Flow detention time= 335.2 min calculated for 0.356 af (88% of inflow)
Center-of-Mass det. time= 281.8 min (1,075.9 - 794.1)

Volume	Invert	Avail.Storage	Storage Description
#1	56.50'	6,471 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	53.74'	1,433 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		7,903 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.50	2,600	200.0	0	0	2,600
57.50	3,227	218.0	2,908	2,908	3,234
58.50	3,910	237.0	3,563	6,471	3,959

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.74	1,905	0.0	0	0
53.75	1,905	40.0	8	8
54.49	1,905	40.0	564	572
54.50	1,905	30.0	6	577
54.99	1,905	30.0	280	857
55.00	1,905	20.0	4	861
56.50	1,905	20.0	572	1,433

Device	Routing	Invert	Outlet Devices
#1	Primary	53.75'	**0.8" Vert. Orifice/Grate** C= 0.600
#2	Device 1	53.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	53.50'	**8.0" Round cb10 culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.50' / 52.93' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.60'	**25.7" Horiz. cb10 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.04 cfs @ 12.24 hrs HW=58.13' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.04 cfs @ 10.03 fps)
└**2=Exfiltration** (Passes 0.04 cfs of 0.13 cfs potential flow)

Secondary OutFlow Max=2.67 cfs @ 12.24 hrs HW=58.13' (Free Discharge)
└**3=cb10 culvert** (Barrel Controls 2.67 cfs @ 7.66 fps)
└**4=cb10 beehive equiv** (Passes 2.67 cfs of 8.39 cfs potential flow)

Summary for Pond GSF 9: grassed soil filter

Inflow Area = 0.647 ac, 63.29% Impervious, Inflow Depth = 4.83" for 50-year event
Inflow = 3.52 cfs @ 12.08 hrs, Volume= 0.261 af
Outflow = 2.65 cfs @ 12.15 hrs, Volume= 0.238 af, Atten= 25%, Lag= 4.1 min
Primary = 0.02 cfs @ 12.15 hrs, Volume= 0.054 af
Secondary = 2.63 cfs @ 12.15 hrs, Volume= 0.183 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.27' @ 12.15 hrs Surf.Area= 4,482 sf Storage= 3,167 cf
Flood Elev= 65.00' Surf.Area= 6,073 sf Storage= 8,972 cf

Plug-Flow detention time= 266.2 min calculated for 0.238 af (91% of inflow)
Center-of-Mass det. time= 222.0 min (1,009.6 - 787.6)

Volume	Invert	Avail.Storage	Storage Description
#1	62.50'	7,539 cf	**gsf9 (Irregular)** Listed below (Recalc)
#2	59.24'	1,433 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		8,972 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.50	1,905	437.0	0	0	1,905
63.00	2,345	443.0	1,061	1,061	2,379
64.00	3,244	455.0	2,782	3,843	3,347
65.00	4,168	468.0	3,696	7,539	4,408

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.24	1,905	0.0	0	0
59.25	1,905	40.0	8	8
59.99	1,905	40.0	564	572
60.00	1,905	30.0	6	577
60.49	1,905	30.0	280	857
60.50	1,905	20.0	4	861
62.00	1,905	20.0	572	1,433

Device	Routing	Invert	Outlet Devices
#1	Primary	59.25'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	59.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	59.00'	**8.0" Round Culvert** L= 54.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.00' / 57.92' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	62.95'	**25.7" Horiz. cb6 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.15 hrs HW=63.27' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.63 fps)
└**2=Exfiltration** (Passes 0.02 cfs of 0.10 cfs potential flow)

Secondary OutFlow Max=2.63 cfs @ 12.15 hrs HW=63.27' (Free Discharge)
└**3=Culvert** (Inlet Controls 2.63 cfs @ 7.55 fps)
└**4=cb6 beehive equiv** (Passes 2.63 cfs of 4.05 cfs potential flow)

Summary for Pond ics 12: ICS 12

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 5.86" for 50-year event
Inflow = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af
Outflow = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af, Atten= 0%, Lag= 0.0 min
Primary = 14.49 cfs @ 12.08 hrs, Volume= 0.614 af
Secondary = 0.96 cfs @ 12.08 hrs, Volume= 0.649 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 66.10' @ 12.08 hrs
Flood Elev= 65.42'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**18.0" Round Culvert** L= 4.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.15' S= 0.1375 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	62.95'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	60.75'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.75' / 60.72' S= 0.0060 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	60.75'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=14.47 cfs @ 12.08 hrs HW=66.09' (Free Discharge)
└**1=Culvert** (Inlet Controls 14.47 cfs @ 8.19 fps)
└**2=Broad-Crested Rectangular Weir** (Passes 14.47 cfs of 73.87 cfs potential flow)

Secondary OutFlow Max=0.96 cfs @ 12.08 hrs HW=66.09' (Free Discharge)
└**3=Culvert** (Passes 0.96 cfs of 6.57 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 0.96 cfs @ 10.95 fps)

Summary for Pond ICS1: ICS 1

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 5.86" for 50-year event
Inflow = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af
Outflow = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af, Atten= 0%, Lag= 0.0 min
Primary = 0.96 cfs @ 12.08 hrs, Volume= 0.529 af
Secondary = 14.49 cfs @ 12.08 hrs, Volume= 0.733 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 68.77' @ 12.08 hrs
Flood Elev= 69.38'

Device	Routing	Invert	Outlet Devices
#1	Secondary	63.37'	**18.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.37' / 63.27' S= 0.0043 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	64.31'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	63.37'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.37' / 63.37' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	63.37'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.96 cfs @ 12.08 hrs HW=68.76' (Free Discharge)
↑—**3=Culvert** (Passes 0.96 cfs of 6.60 cfs potential flow)
↑—**4=Orifice/Grate** (Orifice Controls 0.96 cfs @ 11.00 fps)

Secondary OutFlow Max=14.46 cfs @ 12.08 hrs HW=68.76' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 14.46 cfs @ 8.19 fps)
↑—**2=Broad-Crested Rectangular Weir** (Passes 14.46 cfs of 124.52 cfs potential flow)

Summary for Pond ICS18: ICS18

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth = 5.86" for 50-year event
Inflow = 2.61 cfs @ 12.08 hrs, Volume= 0.213 af
Outflow = 2.61 cfs @ 12.08 hrs, Volume= 0.213 af, Atten= 0%, Lag= 0.0 min
Primary = 0.67 cfs @ 12.08 hrs, Volume= 0.174 af
Secondary = 1.93 cfs @ 12.08 hrs, Volume= 0.039 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.55' @ 12.08 hrs
Flood Elev= 62.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.81'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.81' / 57.80' S= 0.0020 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.81'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 4	60.25'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#4	Secondary	57.80'	**12.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.80' / 56.96' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.67 cfs @ 12.08 hrs HW=60.55' (Free Discharge)
↑—**1=Culvert** (Passes 0.67 cfs of 2.06 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.67 cfs @ 7.73 fps)

Secondary OutFlow Max=1.92 cfs @ 12.08 hrs HW=60.55' (Free Discharge)
↑—**4=Culvert** (Passes 1.92 cfs of 4.48 cfs potential flow)
↑—**3=Broad-Crested Rectangular Weir** (Weir Controls 1.92 cfs @ 1.58 fps)

Summary for Pond ics28: ICS28

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth = 5.86" for 50-year event
Inflow = 1.65 cfs @ 12.08 hrs, Volume= 0.135 af
Outflow = 1.65 cfs @ 12.08 hrs, Volume= 0.135 af, Atten= 0%, Lag= 0.0 min
Primary = 0.65 cfs @ 12.08 hrs, Volume= 0.120 af
Secondary = 1.00 cfs @ 12.08 hrs, Volume= 0.014 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.70' @ 12.08 hrs
Flood Elev= 63.95'

Device	Routing	Invert	Outlet Devices
#1	Secondary	58.00'	**8.0" Round Culvert** L= 10.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.00' / 57.90' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	60.50'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	58.15'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.15' / 58.12' S= 0.0060 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	58.15'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.65 cfs @ 12.08 hrs HW=60.70' (Free Discharge)
└**3=Culvert** (Passes 0.65 cfs of 1.97 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 0.65 cfs @ 7.43 fps)

Secondary OutFlow Max=0.99 cfs @ 12.08 hrs HW=60.70' (Free Discharge)
└**1=Culvert** (Passes 0.99 cfs of 2.04 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 0.99 cfs @ 1.25 fps)

Summary for Pond ICS37: ISC37

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 5.86" for 50-year event
Inflow = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af
Outflow = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af, Atten= 0%, Lag= 0.0 min
Primary = 5.46 cfs @ 12.08 hrs, Volume= 1.091 af
Secondary = 9.99 cfs @ 12.08 hrs, Volume= 0.172 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.83' @ 12.08 hrs
Flood Elev= 57.00'

Device	Routing	Invert	Outlet Devices
#1	Secondary	52.50'	**18.0" Round Culvert** L= 51.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.50' / 52.00' S= 0.0098 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	52.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Primary	52.80'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=5.46 cfs @ 12.08 hrs HW=55.83' (Free Discharge)
├**3=Culvert** (Inlet Controls 4.75 cfs @ 6.04 fps)
└**4=Orifice/Grate** (Orifice Controls 0.71 cfs @ 8.15 fps)

Secondary OutFlow Max=9.97 cfs @ 12.08 hrs HW=55.83' (Free Discharge)
└**1=Culvert** (Passes 9.97 cfs of 10.79 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 9.97 cfs @ 3.01 fps)

Summary for Pond ics46: ICS46

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 5.86" for 50-year event
Inflow = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af
Outflow = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af, Atten= 0%, Lag= 0.0 min
Primary = 0.91 cfs @ 12.08 hrs, Volume= 0.648 af
Secondary = 14.54 cfs @ 12.08 hrs, Volume= 0.614 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 51.64' @ 12.08 hrs
Flood Elev= 55.50'

Device	Routing	Invert	Outlet Devices
#1	Secondary	46.20'	**18.0" Round Culvert** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.20' / 46.00' S= 0.0091 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	49.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	46.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.80' / 46.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	46.80'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.91 cfs @ 12.08 hrs HW=51.62' (Free Discharge)
↑—**3=Culvert** (Passes 0.91 cfs of 6.21 cfs potential flow)
↑—**4=Orifice/Grate** (Orifice Controls 0.91 cfs @ 10.39 fps)

Secondary OutFlow Max=14.52 cfs @ 12.08 hrs HW=51.62' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 14.52 cfs @ 8.22 fps)
↑—**2=Broad-Crested Rectangular Weir** (Passes 14.52 cfs of 56.35 cfs potential flow)

Summary for Pond ICS9: ICS9

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 5.86" for 50-year event
Inflow = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af
Outflow = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af, Atten= 0%, Lag= 0.0 min
Primary = 0.94 cfs @ 12.08 hrs, Volume= 0.647 af
Secondary = 14.51 cfs @ 12.08 hrs, Volume= 0.615 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 67.12' @ 12.08 hrs
Flood Elev= 66.76'

Device	Routing	Invert	Outlet Devices
#1	Secondary	61.70'	**18.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.70' / 61.00' S= 0.0500 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	64.18'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	62.00'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.00' / 61.65' S= 0.0700 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

#4	Device 3	62.00'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.93 cfs @ 12.08 hrs HW=67.10' (Free Discharge)
└**3=Culvert** (Passes 0.93 cfs of 6.41 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 0.93 cfs @ 10.70 fps)

Secondary OutFlow Max=14.49 cfs @ 12.08 hrs HW=67.10' (Free Discharge)
└**1=Culvert** (Inlet Controls 14.49 cfs @ 8.20 fps)
└**2=Broad-Crested Rectangular Weir** (Passes 14.49 cfs of 66.38 cfs potential flow)

Summary for Pond ISC42: ICS 42

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 5.86" for 50-year event
Inflow = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af
Outflow = 15.45 cfs @ 12.08 hrs, Volume= 1.262 af, Atten= 0%, Lag= 0.0 min
Primary = 5.82 cfs @ 12.08 hrs, Volume= 1.109 af
Secondary = 9.63 cfs @ 12.08 hrs, Volume= 0.154 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.18' @ 12.08 hrs
Flood Elev= 57.00'

Device	Routing	Invert	Outlet Devices
#1	Secondary	52.20'	**18.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.20' / 51.88' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.37'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	52.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Primary	52.80'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=5.82 cfs @ 12.08 hrs HW=56.18' (Free Discharge)
├**3=Culvert** (Inlet Controls 5.07 cfs @ 6.45 fps)
└**4=Orifice/Grate** (Orifice Controls 0.75 cfs @ 8.63 fps)

Secondary OutFlow Max=9.61 cfs @ 12.08 hrs HW=56.18' (Free Discharge)
└**1=Culvert** (Passes 9.61 cfs of 12.07 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 9.61 cfs @ 2.97 fps)

Summary for Pond MPP 10: Rtank storage

Inflow Area = 0.710 ac,100.00% Impervious, Inflow Depth = 5.86" for 50-year event
Inflow = 4.25 cfs @ 12.08 hrs, Volume= 0.347 af
Outflow = 2.63 cfs @ 12.18 hrs, Volume= 0.329 af, Atten= 38%, Lag= 5.9 min
Primary = 2.63 cfs @ 12.18 hrs, Volume= 0.329 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.90' @ 12.18 hrs Surf.Area= 0.179 ac Storage= 0.082 af

Plug-Flow detention time= 102.1 min calculated for 0.329 af (95% of inflow)
Center-of-Mass det. time= 71.8 min (816.7 - 744.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.23'	0.091 af	**6.25'W x 1,248.97'L x 1.94'H Field A** 0.347 af Overall - 0.118 af Embedded = 0.229 af x 40.0% Voids
#2A	61.48'	0.112 af	**ACF R-Tank HD 0.5** x 2128 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 4 Rows of 532 Chambers
		0.204 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	61.48'	**8.0" Round Culvert X 6.00** L= 2.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.48' / 61.40' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=2.63 cfs @ 12.18 hrs HW=61.90' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.63 cfs @ 2.71 fps)

Summary for Pond MPP 14: Rtanks

Inflow Area = 0.215 ac, 94.36% Impervious, Inflow Depth = 5.74" for 50-year event
Inflow = 1.28 cfs @ 12.08 hrs, Volume= 0.103 af
Outflow = 0.83 cfs @ 12.17 hrs, Volume= 0.099 af, Atten= 35%, Lag= 5.5 min
Primary = 0.83 cfs @ 12.17 hrs, Volume= 0.099 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.70' @ 12.17 hrs Surf.Area= 1,935 sf Storage= 1,019 cf
Flood Elev= 60.50' Surf.Area= 1,935 sf Storage= 2,354 cf

Plug-Flow detention time= 94.4 min calculated for 0.099 af (96% of inflow)
Center-of-Mass det. time= 68.9 min (820.8 - 751.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	55.98'	1,011 cf	**15.44'W x 125.33'L x 2.04'H Field A** 3,941 cf Overall - 1,413 cf Embedded = 2,528 cf x 40.0% Voids
#2A	56.23'	1,343 cf	**ACF R-Tank HD 0.5** x 583 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 11 Rows of 53 Chambers
		2,354 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	56.23'	**8.0" Round Culvert X 2.00** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.23' / 56.12' S= 0.0052 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.83 cfs @ 12.17 hrs HW=56.70' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.83 cfs @ 2.21 fps)

Summary for Pond MPP 19: Rtanks

Inflow Area = 0.315 ac, 80.35% Impervious, Inflow Depth = 5.28" for 50-year event
Inflow = 1.81 cfs @ 12.08 hrs, Volume= 0.139 af
Outflow = 0.50 cfs @ 12.43 hrs, Volume= 0.130 af, Atten= 72%, Lag= 20.6 min
Primary = 0.50 cfs @ 12.43 hrs, Volume= 0.130 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.84' @ 12.43 hrs Surf.Area= 0.074 ac Storage= 0.059 af

Plug-Flow detention time= 171.0 min calculated for 0.130 af (94% of inflow)
Center-of-Mass det. time= 136.9 min (909.4 - 772.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.83'	0.033 af	**18.06'W x 179.28'L x 1.84'H Field A** 0.137 af Overall - 0.055 af Embedded = 0.082 af x 40.0% Voids
#2A	55.08'	0.052 af	**ACF R-Tank HD 0.5** x 988 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 76 Chambers
		0.085 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.08'	**6.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.08' / 55.00' S= 0.0042 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.50 cfs @ 12.43 hrs HW=55.84' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.50 cfs @ 2.55 fps)

Summary for Pond MPP 21: Rtanks

Inflow Area = 0.263 ac, 68.92% Impervious, Inflow Depth = 5.06" for 50-year event
Inflow = 1.47 cfs @ 12.08 hrs, Volume= 0.111 af
Outflow = 0.67 cfs @ 12.26 hrs, Volume= 0.107 af, Atten= 55%, Lag= 10.3 min
Primary = 0.67 cfs @ 12.26 hrs, Volume= 0.107 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.79' @ 12.26 hrs Surf.Area= 1,510 sf Storage= 1,396 cf

Plug-Flow detention time= 94.6 min calculated for 0.107 af (97% of inflow)
Center-of-Mass det. time= 74.2 min (854.7 - 780.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.48'	818 cf	**16.75'W x 90.14'L x 2.09'H Field A** 3,151 cf Overall - 1,105 cf Embedded = 2,046 cf x 40.0% Voids
#2A	54.73'	1,050 cf	**ACF R-Tank HD 0.5** x 456 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 38 Chambers
		1,868 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.73'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.73' / 54.73' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.67 cfs @ 12.26 hrs HW=55.78' (Free Discharge)
↑**1=Culvert** (Inlet Controls 0.67 cfs @ 3.41 fps)

Summary for Pond MPP 22: Rtanks

Inflow Area = 0.309 ac, 61.12% Impervious, Inflow Depth = 4.83" for 50-year event
Inflow = 1.68 cfs @ 12.08 hrs, Volume= 0.124 af
Outflow = 0.51 cfs @ 12.40 hrs, Volume= 0.116 af, Atten= 69%, Lag= 19.0 min
Primary = 0.51 cfs @ 12.40 hrs, Volume= 0.116 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.77' @ 12.40 hrs Surf.Area= 3,003 sf Storage= 2,285 cf

Plug-Flow detention time= 167.1 min calculated for 0.116 af (93% of inflow)
Center-of-Mass det. time= 132.0 min (919.7 - 787.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.80'	1,262 cf	**16.75'W x 179.28'L x 1.79'H Field A** 5,367 cf Overall - 2,211 cf Embedded = 3,156 cf x 40.0% Voids
#2A	55.05'	2,100 cf	**ACF R-Tank HD 0.5** x 912 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 76 Chambers
		3,363 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.05'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.05' / 55.05' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.51 cfs @ 12.40 hrs HW=55.77' (Free Discharge)
↑**1=Culvert** (Inlet Controls 0.51 cfs @ 2.61 fps)

Summary for Pond MPP 26: Rtanks

Inflow Area = 0.088 ac,100.00% Impervious, Inflow Depth = 5.86" for 50-year event
Inflow = 0.52 cfs @ 12.08 hrs, Volume= 0.043 af
Outflow = 0.30 cfs @ 12.19 hrs, Volume= 0.040 af, Atten= 43%, Lag= 6.7 min
Primary = 0.30 cfs @ 12.19 hrs, Volume= 0.040 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 34.97' @ 12.19 hrs Surf.Area= 1,289 sf Storage= 543 cf

Plug-Flow detention time= 133.1 min calculated for 0.040 af (93% of inflow)
Center-of-Mass det. time= 94.4 min (839.3 - 744.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	34.37'	492 cf	**18.06'W x 71.37'L x 1.69'H Field A** 2,175 cf Overall - 945 cf Embedded = 1,230 cf x 40.0% Voids
#2A	34.62'	898 cf	**ACF R-Tank HD 0.5** x 390 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 30 Chambers
		1,390 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	34.62'	**8.0" Round Culvert** L= 8.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 34.62' / 34.34' S= 0.0350 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.30 cfs @ 12.19 hrs HW=34.97' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.30 cfs @ 1.60 fps)

Summary for Pond MPP 50:

Inflow Area = 0.693 ac,100.00% Impervious, Inflow Depth = 5.86" for 50-year event
Inflow = 4.14 cfs @ 12.08 hrs, Volume= 0.338 af
Outflow = 2.86 cfs @ 12.16 hrs, Volume= 0.310 af, Atten= 31%, Lag= 4.8 min
Primary = 2.86 cfs @ 12.16 hrs, Volume= 0.310 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.05' @ 12.16 hrs Surf.Area= 5,946 sf Storage= 3,610 cf

Plug-Flow detention time= 120.1 min calculated for 0.310 af (91% of inflow)
Center-of-Mass det. time= 75.4 min (820.3 - 744.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.33'	2,878 cf	**4.94'W x 1,204.40'L x 1.84'H Field A** 10,925 cf Overall - 3,731 cf Embedded = 7,195 cf x 40.0% Voids
#2A	54.33'	3,544 cf	**ACF R-Tank HD 0.5** x 1539 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 3 Rows of 513 Chambers
		6,422 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.58'	**8.0" Round Culvert X 7.00** L= 3.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.58' / 54.55' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=2.86 cfs @ 12.16 hrs HW=55.05' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.86 cfs @ 2.16 fps)

Summary for Pond mpp30: Rtanks

Inflow Area = 1.205 ac, 54.78% Impervious, Inflow Depth = 4.25" for 50-year event
Inflow = 5.66 cfs @ 12.09 hrs, Volume= 0.426 af
Outflow = 0.65 cfs @ 12.78 hrs, Volume= 0.426 af, Atten= 89%, Lag= 41.5 min
Primary = 0.65 cfs @ 12.78 hrs, Volume= 0.426 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 31.65' @ 12.78 hrs Surf.Area= 9,089 sf Storage= 7,791 cf
Flood Elev= 31.78' Surf.Area= 9,089 sf Storage= 8,611 cf

Plug-Flow detention time= 127.1 min calculated for 0.426 af (100% of inflow)
Center-of-Mass det. time= 127.0 min (917.2 - 790.2)

Volume	Invert	Avail.Storage	Storage Description
#1B	30.73'	4,011 cf	**8.56'W x 815.99'L x 2.04'H Field B** 14,234 cf Overall - 4,206 cf Embedded = 10,028 cf x 40.0% Voids
#2B	30.98'	3,995 cf	**ACF R-Tank HD 0.5** x 1735 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 5 Rows of 347 Chambers
#3C	29.28'	259 cf	**10.56'W x 74.72'L x 1.69'H Field C** 1,337 cf Overall - 689 cf Embedded = 648 cf x 40.0% Voids
#4C	29.53'	654 cf	**ACF R-Tank HD 1.0** x 155 Inside #3 Inside= 15.7"W x 17.3"H => 1.80 sf x 2.35'L = 4.2 cf Outside= 15.7"W x 17.3"H => 1.89 sf x 2.35'L = 4.4 cf 5 Rows of 31 Chambers
#5D	29.28'	968 cf	**17.12'W x 76.72'L x 3.42'H Field D** 4,487 cf Overall - 2,066 cf Embedded = 2,420 cf x 40.0% Voids
#6D	29.53'	1,963 cf	**ACF R-Tank HD 1.5** x 310 Inside #5 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 10 Rows of 31 Chambers
		11,851 cf	Total Available Storage

Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard
Storage Group D created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	29.28'	**18.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 29.28' / 29.00' S= 0.0140 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Primary	29.28'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	30.00'	**3.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.65 cfs @ 12.78 hrs HW=31.65' (Free Discharge)
└─**1=Culvert** (Passes 0.29 cfs of 8.54 cfs potential flow)
  └─**3=Orifice/Grate** (Orifice Controls 0.29 cfs @ 5.94 fps)
└─**2=Orifice/Grate** (Orifice Controls 0.35 cfs @ 7.21 fps)

Summary for Pond SSF 36: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.46" for 50-year event
Inflow = 0.96 cfs @ 12.08 hrs, Volume= 0.529 af
Outflow = 0.38 cfs @ 15.13 hrs, Volume= 0.429 af, Atten= 60%, Lag= 182.7 min
Primary = 0.08 cfs @ 15.13 hrs, Volume= 0.246 af
Secondary = 0.30 cfs @ 15.13 hrs, Volume= 0.183 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 64.58' @ 15.13 hrs Surf.Area= 11,270 sf Storage= 11,206 cf
Flood Elev= 66.27' Surf.Area= 11,270 sf Storage= 16,373 cf

Plug-Flow detention time= 727.5 min calculated for 0.429 af (81% of inflow)
Center-of-Mass det. time= 618.5 min (1,388.5 - 769.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	62.77'	5,035 cf	**25.25'W x 223.16'L x 3.50'H Field A** 19,722 cf Overall - 7,135 cf Embedded = 12,587 cf x 40.0% Voids
#2A	63.27'	7,135 cf	**ADS_StormTech SC-740** x 155 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 5 rows
#3	60.02'	4,204 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,373 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.02	5,635	0.0	0	0
60.03	5,635	40.0	23	23
60.76	5,635	40.0	1,645	1,668
60.77	5,635	30.0	17	1,685
61.26	5,635	30.0	828	2,513
61.27	5,635	20.0	11	2,524
62.76	5,635	20.0	1,679	4,204

Device	Routing	Invert	Outlet Devices
#1	Primary	60.02'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	60.02'	**1.500 in/hr Exfiltration over Surface area above 60.02'** Excluded Surface area = 5,635 sf
#3	Secondary	64.31'	**12.0" Round Culvert X 2.00** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 64.31' / 64.31' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 15.13 hrs HW=64.58' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.22 fps)
↑—**2=Exfiltration** (Passes 0.08 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.30 cfs @ 15.13 hrs HW=64.58' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.30 cfs @ 1.36 fps)

Summary for Pond ssf37: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 3.01" for 50-year event
Inflow = 0.94 cfs @ 12.08 hrs, Volume= 0.647 af
Outflow = 0.61 cfs @ 13.80 hrs, Volume= 0.546 af, Atten= 35%, Lag= 103.0 min
Primary = 0.08 cfs @ 13.80 hrs, Volume= 0.249 af
Secondary = 0.53 cfs @ 13.80 hrs, Volume= 0.298 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.39' @ 13.80 hrs Surf.Area= 11,332 sf Storage= 11,958 cf
Flood Elev= 64.85' Surf.Area= 11,332 sf Storage= 16,132 cf

Plug-Flow detention time= 595.9 min calculated for 0.546 af (84% of inflow)
Center-of-Mass det. time= 508.9 min (1,271.6 - 762.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.35'	5,284 cf	**11.00'W x 515.08'L x 3.50'H Field A** 19,831 cf Overall - 6,621 cf Embedded = 13,210 cf x 40.0% Voids
#2A	61.85'	6,621 cf	**ADS_StormTech SC-740** x 144 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	58.60'	4,227 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,132 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.60	5,666	0.0	0	0
58.61	5,666	40.0	23	23
59.34	5,666	40.0	1,654	1,677
59.35	5,666	30.0	17	1,694
59.84	5,666	30.0	833	2,527
59.85	5,666	20.0	11	2,538
61.34	5,666	20.0	1,688	4,227

Device	Routing	Invert	Outlet Devices
#1	Primary	58.60'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.60'	**1.500 in/hr Exfiltration over Surface area above 58.60'** Excluded Surface area = 5,666 sf
#3	Secondary	62.89'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.89' / 62.89' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 13.80 hrs HW=63.39' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.48 fps)
↑—**2=Exfiltration** (Passes 0.08 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.52 cfs @ 13.80 hrs HW=63.39' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.52 cfs @ 1.95 fps)

Summary for Pond ssf38: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.85" for 50-year event
Inflow = 14.49 cfs @ 12.08 hrs, Volume= 0.614 af
Outflow = 8.96 cfs @ 12.19 hrs, Volume= 0.516 af, Atten= 38%, Lag= 6.6 min
Primary = 0.14 cfs @ 12.19 hrs, Volume= 0.170 af
Secondary = 8.83 cfs @ 12.19 hrs, Volume= 0.346 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 70.62' @ 12.19 hrs Surf.Area= 11,332 sf Storage= 16,132 cf
Flood Elev= 63.62' Surf.Area= 11,332 sf Storage= 16,132 cf

Plug-Flow detention time= 297.0 min calculated for 0.516 af (84% of inflow)
Center-of-Mass det. time= 286.5 min (1,012.6 - 726.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	60.12'	5,284 cf	**11.00'W x 515.08'L x 3.50'H Field A** 19,831 cf Overall - 6,621 cf Embedded = 13,210 cf x 40.0% Voids
#2A	60.62'	6,621 cf	**ADS_StormTech SC-740** x 144 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	57.37'	4,227 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,132 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.37	5,666	0.0	0	0
57.38	5,666	40.0	23	23
58.11	5,666	40.0	1,654	1,677
58.12	5,666	30.0	17	1,694
58.61	5,666	30.0	833	2,527
58.62	5,666	20.0	11	2,538
60.11	5,666	20.0	1,688	4,227

Device	Routing	Invert	Outlet Devices
#1	Primary	57.37'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	57.37'	**1.500 in/hr Exfiltration over Surface area above 57.37'** Excluded Surface area = 5,666 sf
#3	Secondary	61.66'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.66' / 61.66' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.13 cfs @ 12.19 hrs HW=69.72' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.13 cfs @ 16.89 fps)
└**2=Exfiltration** (Passes 0.13 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=8.18 cfs @ 12.19 hrs HW=69.67' (Free Discharge)
└**3=Culvert** (Inlet Controls 8.18 cfs @ 10.42 fps)

Summary for Pond ssf39: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 5.06" for 50-year event
Inflow = 5.46 cfs @ 12.08 hrs, Volume= 1.091 af
Outflow = 6.22 cfs @ 12.19 hrs, Volume= 0.961 af, Atten= 0%, Lag= 6.4 min
Primary = 0.11 cfs @ 12.19 hrs, Volume= 0.252 af
Secondary = 6.11 cfs @ 12.19 hrs, Volume= 0.709 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 58.40' @ 12.19 hrs Surf.Area= 12,365 sf Storage= 18,385 cf
Flood Elev= 55.67' Surf.Area= 12,365 sf Storage= 18,385 cf

Plug-Flow detention time= 370.3 min calculated for 0.961 af (88% of inflow)
Center-of-Mass det. time= 310.9 min (1,058.8 - 747.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	52.17'	5,625 cf	**58.50'W x 109.24'L x 3.50'H Field A** 22,367 cf Overall - 8,303 cf Embedded = 14,064 cf x 40.0% Voids
#2A	52.67'	8,303 cf	**ADS_StormTech SC-740** x 180 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 12 rows
#3	49.42'	4,457 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		18,385 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
49.42	5,974	0.0	0	0
49.43	5,974	40.0	24	24
50.16	5,974	40.0	1,744	1,768
50.17	5,974	30.0	18	1,786
50.66	5,974	30.0	878	2,664
50.67	5,974	20.0	12	2,676
52.16	5,974	20.0	1,780	4,457

Device	Routing	Invert	Outlet Devices
#1	Primary	49.42'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	49.42'	**1.500 in/hr Exfiltration over Surface area above 49.42'** Excluded Surface area = 5,974 sf
#3	Secondary	53.71'	**12.0" Round Culvert**

L= 5.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 53.71' / 53.71' S= 0.0000 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.11 cfs @ 12.19 hrs HW=58.40' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.11 cfs @ 14.39 fps)
↑—**2=Exfiltration** (Passes 0.11 cfs of 0.22 cfs potential flow)

Secondary OutFlow Max=6.11 cfs @ 12.19 hrs HW=58.40' (Free Discharge)
↑—**3=Culvert** (Inlet Controls 6.11 cfs @ 7.78 fps)

Summary for Pond ssf40: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 5.15" for 50-year event
Inflow = 5.82 cfs @ 12.08 hrs, Volume= 1.109 af
Outflow = 6.18 cfs @ 12.09 hrs, Volume= 1.001 af, Atten= 0%, Lag= 0.4 min
Primary = 0.11 cfs @ 12.09 hrs, Volume= 0.251 af
Secondary = 6.06 cfs @ 12.09 hrs, Volume= 0.750 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 58.33' @ 12.09 hrs Surf.Area= 11,484 sf Storage= 16,630 cf
Flood Elev= 55.67' Surf.Area= 11,484 sf Storage= 16,630 cf

Plug-Flow detention time= 341.4 min calculated for 1.001 af (90% of inflow)
Center-of-Mass det. time= 290.6 min (1,038.1 - 747.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	52.17'	5,168 cf	**20.50'W x 280.12'L x 3.50'H Field A** 20,099 cf Overall - 7,178 cf Embedded = 12,921 cf x 40.0% Voids
#2A	52.67'	7,178 cf	**ADS_StormTech SC-740** x 156 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 4 rows
#3	49.42'	4,284 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,630 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
49.42	5,742	0.0	0	0
49.43	5,742	40.0	23	23
50.16	5,742	40.0	1,677	1,700
50.17	5,742	30.0	17	1,717
50.66	5,742	30.0	844	2,561
50.67	5,742	20.0	11	2,572
52.16	5,742	20.0	1,711	4,284

Device	Routing	Invert	Outlet Devices
#1	Primary	49.42'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	49.42'	**1.500 in/hr Exfiltration over Surface area above 49.42'** Excluded Surface area = 5,742 sf
#3	Secondary	53.71'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.71' / 53.71' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.11 cfs @ 12.09 hrs HW=58.33' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.11 cfs @ 14.33 fps)
└**2=Exfiltration** (Passes 0.11 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=6.06 cfs @ 12.09 hrs HW=58.33' (Free Discharge)
└**3=Culvert** (Inlet Controls 6.06 cfs @ 7.71 fps)

Summary for Pond ssf41: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 3.01" for 50-year event
Inflow = 0.91 cfs @ 12.08 hrs, Volume= 0.648 af
Outflow = 0.61 cfs @ 13.99 hrs, Volume= 0.544 af, Atten= 33%, Lag= 114.5 min
Primary = 0.08 cfs @ 13.99 hrs, Volume= 0.249 af
Secondary = 0.53 cfs @ 13.99 hrs, Volume= 0.295 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 48.21' @ 13.99 hrs Surf.Area= 11,270 sf Storage= 12,151 cf
Flood Elev= 49.67' Surf.Area= 11,270 sf Storage= 16,373 cf

Plug-Flow detention time= 602.7 min calculated for 0.544 af (84% of inflow)
Center-of-Mass det. time= 513.7 min (1,276.4 - 762.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	46.17'	5,035 cf	**25.25'W x 223.16'L x 3.50'H Field A** 19,722 cf Overall - 7,135 cf Embedded = 12,587 cf x 40.0% Voids
#2A	46.67'	7,135 cf	**ADS_StormTech SC-740** x 155 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 5 rows
#3	43.42'	4,204 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,373 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
43.42	5,635	0.0	0	0
43.43	5,635	40.0	23	23
44.16	5,635	40.0	1,645	1,668
44.17	5,635	30.0	17	1,685
44.66	5,635	30.0	828	2,513
44.67	5,635	20.0	11	2,524
46.16	5,635	20.0	1,679	4,204

Device	Routing	Invert	Outlet Devices
#1	Primary	43.42'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	43.42'	**1.500 in/hr Exfiltration over Surface area above 43.42'** Excluded Surface area = 5,635 sf
#3	Secondary	47.71'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 47.71' / 47.71' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 13.99 hrs HW=48.21' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.48 fps)
↑—**2=Exfiltration** (Passes 0.08 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.52 cfs @ 13.99 hrs HW=48.21' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.52 cfs @ 1.95 fps)

Summary for Pond ssf42: ssf

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth = 5.25" for 50-year event
Inflow = 0.65 cfs @ 12.08 hrs, Volume= 0.120 af
Outflow = 0.64 cfs @ 12.17 hrs, Volume= 0.104 af, Atten= 2%, Lag= 4.9 min
Primary = 0.01 cfs @ 12.17 hrs, Volume= 0.028 af
Secondary = 0.63 cfs @ 12.17 hrs, Volume= 0.075 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.71' @ 12.17 hrs Surf.Area= 1,422 sf Storage= 1,730 cf
Flood Elev= 61.67' Surf.Area= 1,422 sf Storage= 2,027 cf

Plug-Flow detention time= 371.1 min calculated for 0.104 af (86% of inflow)
Center-of-Mass det. time= 305.6 min (1,052.7 - 747.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	58.17'	662 cf	**15.75'W x 45.16'L x 3.50'H Field A** 2,489 cf Overall - 835 cf Embedded = 1,654 cf x 40.0% Voids
#2A	58.67'	835 cf	**ADS_StormTech SC-740** x 18 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 3 rows
#3	55.42'	530 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		2,027 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.42	711	0.0	0	0
55.43	711	40.0	3	3
56.16	711	40.0	208	210
56.17	711	30.0	2	213
56.66	711	30.0	105	317
56.67	711	20.0	1	319
58.16	711	20.0	212	530

Device	Routing	Invert	Outlet Devices
#1	Primary	55.42'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	55.42'	**1.500 in/hr Exfiltration over Surface area above 55.42'** Excluded Surface area = 711 sf
#3	Secondary	60.06'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.05' / 60.06' S= -0.0020 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.01 cfs @ 12.17 hrs HW=60.71' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 11.06 fps)
└**2=Exfiltration** (Passes 0.01 cfs of 0.02 cfs potential flow)

Secondary OutFlow Max=0.63 cfs @ 12.17 hrs HW=60.71' (Free Discharge)
└**3=Culvert** (Barrel Controls 0.63 cfs @ 2.25 fps)

Summary for Pond ssf43: ssf

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth = 4.79" for 50-year event
Inflow = 0.67 cfs @ 12.08 hrs, Volume= 0.174 af
Outflow = 0.66 cfs @ 12.17 hrs, Volume= 0.154 af, Atten= 2%, Lag= 5.2 min
Primary = 0.02 cfs @ 12.17 hrs, Volume= 0.044 af
Secondary = 0.65 cfs @ 12.17 hrs, Volume= 0.110 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.96' @ 12.17 hrs Surf.Area= 1,934 sf Storage= 2,342 cf
Flood Elev= 60.90' Surf.Area= 1,934 sf Storage= 2,740 cf

Plug-Flow detention time= 374.3 min calculated for 0.154 af (89% of inflow)
Center-of-Mass det. time= 315.4 min (1,064.6 - 749.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	57.40'	910 cf	**11.00'W x 87.88'L x 3.50'H Field A** 3,383 cf Overall - 1,108 cf Embedded = 2,275 cf x 40.0% Voids
#2A	57.90'	1,108 cf	**ADS_StormTech SC-740** x 24 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	54.65'	721 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		2,740 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
54.65	967	0.0	0	0
54.66	967	40.0	4	4
55.39	967	40.0	282	286
55.40	967	30.0	3	289
55.89	967	30.0	142	431
55.90	967	20.0	2	433
57.39	967	20.0	288	721

Device	Routing	Invert	Outlet Devices
#1	Primary	54.65'	**0.5" Vert. Orifice/Grate** C= 0.600
#2	Device 1	54.65'	**1.500 in/hr Exfiltration over Surface area above 54.65'** Excluded Surface area = 967 sf
#3	Secondary	59.28'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.28' / 59.28' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.02 cfs @ 12.17 hrs HW=59.96' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 11.07 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.03 cfs potential flow)

Secondary OutFlow Max=0.65 cfs @ 12.17 hrs HW=59.96' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.65 cfs @ 2.27 fps)

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment1A: Runoff Area=17,785 sf 34.88% Impervious Runoff Depth=5.33"
Tc=6.0 min CN=84 Runoff=2.49 cfs 0.181 af

Subcatchment1B: Runoff Area=24,849 sf 27.49% Impervious Runoff Depth=4.99"
Tc=6.0 min CN=81 Runoff=3.29 cfs 0.237 af

Subcatchment2: Runoff Area=31,049 sf 25.93% Impervious Runoff Depth=4.88"
Tc=6.0 min CN=80 Runoff=4.03 cfs 0.290 af

Subcatchment3: Runoff Area=36,147 sf 36.22% Impervious Runoff Depth=5.10"
Tc=6.0 min CN=82 Runoff=4.88 cfs 0.353 af

Subcatchment4: Runoff Area=8,448 sf 0.00% Impervious Runoff Depth=4.22"
Tc=6.0 min CN=74 Runoff=0.96 cfs 0.068 af

Subcatchment5: Runoff Area=10,807 sf 0.00% Impervious Runoff Depth=4.22"
Tc=6.0 min CN=74 Runoff=1.23 cfs 0.087 af

Subcatchment6: Runoff Area=13,985 sf 32.06% Impervious Runoff Depth=5.10"
Tc=6.0 min CN=82 Runoff=1.89 cfs 0.137 af

Subcatchment7: Runoff Area=30,345 sf 25.86% Impervious Runoff Depth=4.88"
Tc=6.0 min CN=80 Runoff=3.94 cfs 0.283 af

Subcatchment8: Runoff Area=45,551 sf 55.78% Impervious Runoff Depth=5.67"
Tc=6.0 min CN=87 Runoff=6.68 cfs 0.494 af

Subcatchment9: Runoff Area=28,191 sf 63.29% Impervious Runoff Depth=5.90"
Tc=6.0 min CN=89 Runoff=4.25 cfs 0.318 af

Subcatchment10: access drive north of Runoff Area=30,932 sf 100.00% Impervious Runoff Depth=6.96"
Tc=6.0 min CN=98 Runoff=5.02 cfs 0.412 af

Subcatchment11: Runoff Area=43,174 sf 36.78% Impervious Runoff Depth=5.22"
Tc=6.0 min CN=83 Runoff=5.94 cfs 0.431 af

Subcatchment12: Runoff Area=12,920 sf 57.98% Impervious Runoff Depth=5.79"
Tc=6.0 min CN=88 Runoff=1.92 cfs 0.143 af

Subcatchment13: Runoff Area=45,163 sf 46.46% Impervious Runoff Depth=5.44"
Tc=6.0 min CN=85 Runoff=6.42 cfs 0.470 af

Subcatchment14: Runoff Area=9,378 sf 94.36% Impervious Runoff Depth=6.84"
Tc=6.0 min CN=97 Runoff=1.52 cfs 0.123 af

Subcatchment15: Runoff Area=9,157 sf 1.92% Impervious Runoff Depth=4.22"
Tc=6.0 min CN=74 Runoff=1.04 cfs 0.074 af

Subcatchment16: Runoff Area=15,110 sf 34.16% Impervious Runoff Depth=5.10"
Tc=6.0 min CN=82 Runoff=2.04 cfs 0.148 af

Subcatchment17: Runoff Area=13,300 sf 85.11% Impervious Runoff Depth=6.49"
Tc=6.0 min CN=94 Runoff=2.11 cfs 0.165 af

Subcatchment18A: Runoff Area=6,339 sf 40.91% Impervious Runoff Depth=5.33"
Tc=6.0 min CN=84 Runoff=0.89 cfs 0.065 af

Subcatchment18B: Runoff Area=4,023 sf 58.36% Impervious Runoff Depth=5.79"
Tc=6.0 min CN=88 Runoff=0.60 cfs 0.045 af

Subcatchment19: Runoff Area=13,711 sf 80.35% Impervious Runoff Depth=6.37"
Tc=6.0 min CN=93 Runoff=2.16 cfs 0.167 af

Subcatchment20: Runoff Area=28,459 sf 73.83% Impervious Runoff Depth=6.25"
Tc=6.0 min CN=92 Runoff=4.44 cfs 0.340 af

Subcatchment21: Runoff Area=11,452 sf 68.92% Impervious Runoff Depth=6.14"
Tc=6.0 min CN=91 Runoff=1.77 cfs 0.134 af

Subcatchment22: Runoff Area=13,444 sf 61.12% Impervious Runoff Depth=5.90"
Tc=6.0 min CN=89 Runoff=2.03 cfs 0.152 af

Subcatchment23: sub 23 Runoff Area=28,475 sf 21.95% Impervious Runoff Depth=4.66"
Tc=6.0 min CN=78 Runoff=3.55 cfs 0.254 af

Subcatchment24: Runoff Area=18,261 sf 67.19% Impervious Runoff Depth=6.25"
Tc=6.0 min CN=92 Runoff=2.85 cfs 0.218 af

Subcatchment25: Runoff Area=118,223 sf 0.00% Impervious Runoff Depth=3.89"
Flow Length=438' Tc=67.0 min CN=71 Runoff=4.56 cfs 0.880 af

Subcatchment26: Runoff Area=3,816 sf 100.00% Impervious Runoff Depth=6.96"
Tc=6.0 min CN=98 Runoff=0.62 cfs 0.051 af

Subcatchment27: Runoff Area=4,262 sf 100.00% Impervious Runoff Depth=6.96"
Tc=6.0 min CN=98 Runoff=0.69 cfs 0.057 af

Subcatchment28: Runoff Area=79,698 sf 27.42% Impervious Runoff Depth=5.44"
Tc=6.0 min CN=85 Runoff=11.34 cfs 0.830 af

Subcatchment29: Runoff Area=1,306 sf 100.00% Impervious Runoff Depth=6.96"
Tc=6.0 min CN=98 Runoff=0.21 cfs 0.017 af

Subcatchment30: Runoff Area=31,472 sf 77.98% Impervious Runoff Depth=6.37"
Tc=6.0 min CN=93 Runoff=4.95 cfs 0.383 af

Subcatchment31: Runoff Area=70,616 sf 0.00% Impervious Runoff Depth=3.89"
Flow Length=217' Tc=12.3 min CN=71 Runoff=6.02 cfs 0.526 af

Subcatchment32: Runoff Area=4,677 sf 60.42% Impervious Runoff Depth=5.90"
Tc=6.0 min CN=89 Runoff=0.70 cfs 0.053 af

Subcatchment33: B3 green Runoff Area=107,893 sf 16.71% Impervious Runoff Depth=3.47"
Tc=6.0 min CN=67 Runoff=10.04 cfs 0.716 af

Subcatchment34: Runoff Area=24,099 sf 20.00% Impervious Runoff Depth=3.57"
Tc=6.0 min CN=68 Runoff=2.31 cfs 0.165 af

Subcatchment35: Runoff Area=20,997 sf 20.00% Impervious Runoff Depth=3.57"
Tc=6.0 min CN=68 Runoff=2.02 cfs 0.144 af

Subcatchment36: B1M1 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=6.96"
Tc=6.0 min CN=98 Runoff=18.26 cfs 1.499 af

Subcatchment37: B1M2 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=6.96"
Tc=6.0 min CN=98 Runoff=18.26 cfs 1.499 af

Subcatchment38: B1M3 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=6.96"
Tc=6.0 min CN=98 Runoff=18.26 cfs 1.499 af

Subcatchment39: B2M4 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=6.96"
Tc=6.0 min CN=98 Runoff=18.26 cfs 1.499 af

Subcatchment40: B2M5 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=6.96"
Tc=6.0 min CN=98 Runoff=18.26 cfs 1.499 af

Subcatchment41: B2M6 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth=6.96"
Tc=6.0 min CN=98 Runoff=18.26 cfs 1.499 af

Subcatchment42: B6 Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=6.96"
Tc=6.0 min CN=98 Runoff=1.95 cfs 0.160 af

Subcatchment43: B5 Runoff Area=18,983 sf 100.00% Impervious Runoff Depth=6.96"
Tc=6.0 min CN=98 Runoff=3.08 cfs 0.253 af

Subcatchment44: onsite untreated Runoff Area=159,363 sf 0.00% Impervious Runoff Depth=3.89"
Flow Length=574' Tc=18.8 min CN=71 Runoff=11.56 cfs 1.187 af

Subcatchment45: Runoff Area=64,440 sf 0.00% Impervious Runoff Depth=3.79"
Flow Length=307' Tc=29.9 min CN=70 Runoff=3.71 cfs 0.467 af

Subcatchment46: SUBCAT8 Runoff Area=14,976 sf 0.00% Impervious Runoff Depth=3.89"
Flow Length=276' Tc=34.7 min CN=71 Runoff=0.83 cfs 0.112 af

Subcatchment47: Runoff Area=79,187 sf 6.00% Impervious Runoff Depth=4.33"
Flow Length=639' Tc=15.9 min CN=75 Runoff=6.82 cfs 0.655 af

Subcatchment48: Runoff Area=40,183 sf 0.00% Impervious Runoff Depth=3.79"
Flow Length=377' Tc=54.0 min CN=70 Runoff=1.71 cfs 0.291 af

Subcatchment49: Runoff Area=93,232 sf 0.59% Impervious Runoff Depth=3.89"
Flow Length=470' Tc=54.1 min CN=71 Runoff=4.07 cfs 0.694 af

Subcatchment50: Runoff Area=30,173 sf 100.00% Impervious Runoff Depth=6.96"
Tc=6.0 min CN=98 Runoff=4.89 cfs 0.402 af

SubcatchmentOS10: OFFSITE 2 (above Runoff Area=1,644,982 sf 2.57% Impervious Runoff Depth=4.22"
Flow Length=2,221' Tc=94.2 min CN=74 Runoff=55.33 cfs 13.271 af

Subcatchmentos11a: OFFSITE 3 Runoff Area=192,533 sf 59.04% Impervious Runoff Depth=5.67"
Flow Length=532' Tc=6.8 min CN=87 Runoff=27.47 cfs 2.089 af

Subcatchmentos11b: OFFSITE 3 Runoff Area=320,814 sf 1.43% Impervious Runoff Depth=4.00"
Flow Length=528' Tc=18.9 min CN=72 Runoff=23.82 cfs 2.455 af

SubcatchmentOS9A: OFFSITE 1 (Below Runoff Area=153,823 sf 3.86% Impervious Runoff Depth=4.22"
Flow Length=561' Tc=26.6 min CN=74 Runoff=10.42 cfs 1.241 af

SubcatchmentOS9B: SUBCAT 4 Runoff Area=486,307 sf 2.34% Impervious Runoff Depth=4.22"
Flow Length=670' Tc=28.6 min CN=74 Runoff=31.85 cfs 3.923 af

SubcatchmentOS9C: SUBCAT 3 Runoff Area=178,147 sf 4.59% Impervious Runoff Depth=4.33"
Flow Length=655' Tc=10.1 min CN=75 Runoff=18.04 cfs 1.474 af

SubcatchmentOS9D: SUBCAT 2 Runoff Area=154,663 sf 0.00% Impervious Runoff Depth=4.11"
Flow Length=544' Tc=54.3 min CN=73 Runoff=7.16 cfs 1.216 af

Reach 9R: ANALYSISPOINT 9 Inflow=10.42 cfs 1.241 af
Outflow=10.42 cfs 1.241 af

Reach 10R: Perkins Road Culvert Avg. Flow Depth=2.00' Max Vel=11.61 fps Inflow=55.33 cfs 13.271 af
24.0" Round Pipe n=0.013 L=25.0' S=0.0200 '/' Capacity=31.99 cfs Outflow=34.15 cfs 13.271 af

Reach 11R: Stream 9 Inflow=27.47 cfs 2.089 af
Outflow=27.47 cfs 2.089 af

Reach 17R: untreated Inflow=2.11 cfs 0.165 af
Outflow=2.11 cfs 0.165 af

Reach 20R: untreated Inflow=4.44 cfs 0.340 af
Outflow=4.44 cfs 0.340 af

Reach 23R: sub 23 Inflow=3.55 cfs 0.254 af
Outflow=3.55 cfs 0.254 af

Reach 27R: extisting Inflow=0.69 cfs 0.057 af
Outflow=0.69 cfs 0.057 af

Reach 29R: untreated Inflow=0.21 cfs 0.017 af
Outflow=0.21 cfs 0.017 af

Reach 32R: untreated Inflow=0.70 cfs 0.053 af
Outflow=0.70 cfs 0.053 af

Reach 44R: Inflow=11.56 cfs 1.187 af
Outflow=11.56 cfs 1.187 af

Reach 47R: Inflow=6.82 cfs 0.655 af
Outflow=6.82 cfs 0.655 af

Reach 48R: (new Reach) Inflow=1.71 cfs 0.291 af
Outflow=1.71 cfs 0.291 af

Reach 49R: Inflow=4.07 cfs 0.694 af
Outflow=4.07 cfs 0.694 af

Reach PT1: ANALYSISPOINT 1 at BWD Little River Inflow=5.78 cfs 0.985 af
Outflow=5.78 cfs 0.985 af

Reach PT10: Analysis point at Little River Inflow=11.34 cfs 0.830 af
Outflow=11.34 cfs 0.830 af

Reach PT2: ANALYSISPOINT 2 at strm 3 Inflow=11.54 cfs 2.096 af
Outflow=11.54 cfs 2.096 af

Reach PT3: ANALYSISPOINT 3/4 at strm 5/6 Inflow=44.89 cfs 5.923 af
Outflow=44.89 cfs 5.923 af

Reach PT5: all BWD reservoir Inflow=48.98 cfs 8.019 af
Outflow=48.98 cfs 8.019 af

Reach PT6: stream 9 offsite Avg. Flow Depth=1.32' Max Vel=4.24 fps Inflow=43.87 cfs 16.601 af
n=0.040 L=483.0' S=0.0145 '/' Capacity=401.91 cfs Outflow=42.81 cfs 16.601 af

Reach PT7: ANALYSISPOINT7 at US Avg. Flow Depth=0.43' Max Vel=8.94 fps Inflow=3.71 cfs 0.467 af
18.0" Round Pipe n=0.013 L=83.0' S=0.0398 '/' Capacity=20.95 cfs Outflow=3.71 cfs 0.467 af

Reach PT8: ANALYSISPOINT 8 at US Avg. Flow Depth=0.06' Max Vel=4.91 fps Inflow=0.83 cfs 0.112 af
36.0" x 24.0" Box Pipe n=0.011 L=76.0' S=0.0632 '/' Capacity=144.91 cfs Outflow=0.83 cfs 0.112 af

Reach PT9: Analysis Point Stream 9 Avg. Flow Depth=1.29' Max Vel=26.46 fps Inflow=76.85 cfs 21.499 af
36.0" Round Pipe n=0.011 L=93.0' S=0.0645 '/' Capacity=200.22 cfs Outflow=76.85 cfs 21.499 af

Reach R9 B: offsite diversion strm 5/6 Inflow=40.91 cfs 5.398 af
Outflow=40.91 cfs 5.398 af

Reach R9D: offsite pont strm 3 Inflow=7.10 cfs 1.216 af
Outflow=7.10 cfs 1.216 af

Reach S9-2: Stream 9 Avg. Flow Depth=1.51' Max Vel=5.78 fps Inflow=70.98 cfs 20.243 af
n=0.040 L=1,580.0' S=0.0233 '/' Capacity=120.91 cfs Outflow=69.88 cfs 20.243 af

Reach S9-3: Stream 9 Avg. Flow Depth=1.43' Max Vel=5.75 fps Inflow=76.24 cfs 20.972 af
n=0.035 L=364.0' S=0.0199 '/' Capacity=152.29 cfs Outflow=76.18 cfs 20.972 af

Reach tank: existing clarifier Inflow=185.21 cfs 15.322 af
Outflow=185.21 cfs 15.322 af

Pond dmh10: dmh10 Peak Elev=65.55' Inflow=37.69 cfs 3.019 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=37.69 cfs 3.019 af

Pond dmh11: dmh11 Peak Elev=67.50' Inflow=66.54 cfs 4.814 af
30.0" Round Culvert n=0.013 L=84.0' S=0.0050 '/' Outflow=66.54 cfs 4.814 af

Pond dmh13: dmh13 Peak Elev=67.06' Inflow=66.54 cfs 4.814 af
30.0" Round Culvert n=0.013 L=201.0' S=0.0050 '/' Outflow=66.54 cfs 4.814 af

Pond dmh14: dmh14 Peak Elev=67.07' Inflow=69.20 cfs 5.110 af
30.0" Round Culvert n=0.020 L=23.0' S=0.0052 '/' Outflow=69.20 cfs 5.110 af

Pond dmh15: dmh15 Peak Elev=66.95' Inflow=69.20 cfs 5.110 af
30.0" Round Culvert n=0.013 L=90.0' S=0.0050 '/' Outflow=69.20 cfs 5.110 af

Pond dmh16: dmh16 Peak Elev=60.90' Inflow=0.51 cfs 0.086 af
12.0" Round Culvert n=0.013 L=198.0' S=0.0126 '/' Outflow=0.51 cfs 0.086 af

Pond dmh17: dmh17 Peak Elev=66.89' Inflow=70.22 cfs 5.260 af
30.0" Round Culvert n=0.013 L=35.0' S=0.0051 '/' Outflow=70.22 cfs 5.260 af

Pond dmh19: dmh 19 Peak Elev=56.03' Inflow=3.06 cfs 0.233 af
12.0" Round Culvert n=0.013 L=59.0' S=0.0100 '/' Outflow=3.06 cfs 0.233 af

Pond dmh2: dmh2 Peak Elev=70.33' Inflow=17.24 cfs 1.398 af
18.0" Round Culvert n=0.013 L=100.0' S=0.0150 '/' Outflow=17.24 cfs 1.398 af

Pond dmh20: dmh20 Peak Elev=67.93' Inflow=73.22 cfs 5.493 af
30.0" Round Culvert n=0.013 L=100.0' S=0.0050 '/' Outflow=73.22 cfs 5.493 af

Pond dmh21: dmh21 Peak Elev=74.84' Inflow=89.17 cfs 7.178 af
30.0" Round Culvert n=0.013 L=281.0' S=0.0169 '/' Outflow=89.17 cfs 7.178 af

Pond dmh22: dmh 22 Peak Elev=60.21' Inflow=13.26 cfs 1.237 af
15.0" Round Culvert n=0.013 L=93.0' S=0.0051 '/' Outflow=13.26 cfs 1.237 af

Pond dmh23: dmh23 Peak Elev=76.19' Inflow=11.48 cfs 0.910 af
12.0" Round Culvert n=0.013 L=138.0' S=0.0050 '/' Outflow=11.48 cfs 0.910 af

Pond dmh24: dmh24 Peak Elev=71.39' Inflow=11.48 cfs 0.910 af
12.0" Round Culvert n=0.013 L=72.0' S=0.0025 '/' Outflow=11.48 cfs 0.910 af

Pond dmh24a: dmh24a Peak Elev=71.50' Inflow=3.92 cfs 0.287 af
8.0" Round Culvert n=0.013 L=95.0' S=0.0095 '/' Outflow=3.92 cfs 0.287 af

Pond dmh25: dmh25 Peak Elev=61.02' Inflow=2.15 cfs 0.154 af
12.0" Round Culvert n=0.013 L=98.0' S=0.0510 '/' Outflow=2.15 cfs 0.154 af

Pond dmh26: dmh26 Peak Elev=61.82' Inflow=5.64 cfs 0.799 af
12.0" Round Culvert n=0.020 L=28.0' S=0.0050 '/' Outflow=5.64 cfs 0.799 af

Pond dmh27: dmh27 Peak Elev=75.07' Inflow=9.45 cfs 1.096 af
12.0" Round Culvert n=0.013 L=256.0' S=0.0050 '/' Outflow=9.45 cfs 1.096 af

Pond dmh29: dmh29 Peak Elev=60.30' Inflow=1.93 cfs 0.143 af
8.0" Round Culvert n=0.013 L=46.0' S=0.0100 '/' Outflow=1.93 cfs 0.143 af

Pond dmh3: dmh3 Peak Elev=64.28' Inflow=19.92 cfs 1.621 af
24.0" Round Culvert n=0.013 L=125.0' S=0.0053 '/' Outflow=19.92 cfs 1.621 af

Pond dmh30: dmh30 Peak Elev=56.32' Inflow=1.93 cfs 0.143 af
12.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=1.93 cfs 0.143 af

Pond dmh31: dmh31 Peak Elev=67.86' Inflow=7.40 cfs 0.942 af
12.0" Round Culvert n=0.013 L=259.0' S=0.0050 '/' Outflow=7.40 cfs 0.942 af

Pond dmh32: dmh32 Peak Elev=68.43' Inflow=12.02 cfs 1.358 af
12.0" Round Culvert n=0.013 L=36.0' S=0.0036 '/' Outflow=12.02 cfs 1.358 af

Pond dmh33: dmh33 Peak Elev=54.46' Inflow=0.65 cfs 0.158 af
12.0" Round Culvert n=0.013 L=201.0' S=0.0099 '/' Outflow=0.65 cfs 0.158 af

Pond dmh34: dmh34 Peak Elev=66.18' Inflow=11.05 cfs 0.957 af
12.0" Round Culvert n=0.013 L=39.0' S=0.0100 '/' Outflow=11.05 cfs 0.957 af

Pond dmh35: dmh35 Peak Elev=77.42' Inflow=27.30 cfs 2.628 af
18.0" Round Culvert n=0.013 L=276.0' S=0.0050 '/' Outflow=27.30 cfs 2.628 af

Pond dmh36: dmh36 Peak Elev=68.67' Inflow=27.30 cfs 2.628 af
18.0" Round Culvert n=0.013 L=159.0' S=0.0050 '/' Outflow=27.30 cfs 2.628 af

Pond dmh38: dmh38 Peak Elev=60.33' Inflow=18.55 cfs 1.368 af
18.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=18.55 cfs 1.368 af

Pond dmh39: dmh39 Peak Elev=59.69' Inflow=19.43 cfs 1.429 af
18.0" Round Culvert n=0.013 L=58.0' S=0.0047 '/' Outflow=19.43 cfs 1.429 af

Pond dmh4: dmh4 Peak Elev=63.62' Inflow=19.92 cfs 1.621 af
24.0" Round Culvert n=0.013 L=66.0' S=0.0041 '/' Outflow=19.92 cfs 1.621 af

Pond dmh40: dmh40 Peak Elev=70.23' Inflow=46.19 cfs 4.057 af
24.0" Round Culvert n=0.013 L=340.0' S=0.0050 '/' Outflow=46.19 cfs 4.057 af

Pond dmh43: dmh43 Peak Elev=78.01' Inflow=64.75 cfs 5.447 af
24.0" Round Culvert n=0.013 L=193.0' S=0.0050 '/' Outflow=64.75 cfs 5.447 af

Pond dmh44: dmh44 Peak Elev=60.31' Inflow=65.81 cfs 5.522 af
30.0" Round Culvert n=0.013 L=82.0' S=0.0050 '/' Outflow=65.81 cfs 5.522 af

Pond dmh45: dmh45 Peak Elev=68.62' Inflow=83.17 cfs 6.916 af
30.0" Round Culvert n=0.013 L=316.0' S=0.0050 '/' Outflow=83.17 cfs 6.916 af

Pond dmh47: dmh47 Peak Elev=65.12' Inflow=83.17 cfs 6.916 af
30.0" Round Culvert n=0.013 L=104.0' S=0.0100 '/' Outflow=83.17 cfs 6.916 af

Pond dmh48: dmh48 Peak Elev=65.60' Inflow=86.35 cfs 7.289 af
30.0" Round Culvert n=0.013 L=117.0' S=0.0050 '/' Outflow=86.35 cfs 7.289 af

Pond dmh49: dmh49 Peak Elev=54.43' Inflow=87.47 cfs 7.405 af
36.0" Round Culvert n=0.013 L=14.0' S=0.0071 '/' Outflow=87.47 cfs 7.405 af

Pond dmh5: dmh5 Peak Elev=63.26' Inflow=19.92 cfs 1.621 af
24.0" Round Culvert n=0.013 L=173.0' S=0.0050 '/' Outflow=19.92 cfs 1.621 af

Pond dmh50: dmh50 Peak Elev=70.04' Inflow=91.49 cfs 7.419 af
30.0" Round Culvert n=0.013 L=64.0' S=0.0100 '/' Outflow=91.49 cfs 7.419 af

Pond dmh51: dmh51 Peak Elev=69.38' Inflow=91.49 cfs 7.419 af
30.0" Round Culvert n=0.013 L=38.0' S=0.0287 '/' Outflow=91.49 cfs 7.419 af

Pond dmh52: dmh52 Peak Elev=66.66' Inflow=178.84 cfs 14.825 af
42.0" Round Culvert n=0.013 L=258.0' S=0.0194 '/' Outflow=178.84 cfs 14.825 af

Pond dmh53: CB53 Peak Elev=60.31' Inflow=184.90 cfs 15.274 af
42.0" Round Culvert n=0.013 L=120.0' S=0.0208 '/' Outflow=184.90 cfs 15.274 af

Pond dmh54: dmh54 Peak Elev=44.03' Inflow=185.21 cfs 15.322 af
48.0" Round Culvert n=0.013 L=152.0' S=0.0329 '/' Outflow=185.21 cfs 15.322 af

Pond dmh55: dhm55 Peak Elev=36.03' Inflow=185.21 cfs 15.322 af
48.0" Round Culvert n=0.013 L=115.0' S=0.0304 '/' Outflow=185.21 cfs 15.322 af

Pond dmh56: dmh56 Peak Elev=29.53' Inflow=185.21 cfs 15.322 af
48.0" Round Culvert n=0.013 L=42.0' S=0.0357 '/' Outflow=185.21 cfs 15.322 af

Pond dmh59: dmh59 Peak Elev=94.95' Inflow=12.11 cfs 1.041 af
12.0" Round Culvert n=0.013 L=294.0' S=0.0050 '/' Outflow=12.11 cfs 1.041 af

Pond dmh6: dmh6 Peak Elev=64.05' Inflow=19.92 cfs 1.621 af
24.0" Round Culvert n=0.020 L=170.0' S=0.0050 '/' Outflow=19.92 cfs 1.621 af

Pond dmh60: dhm60 Peak Elev=51.52' Inflow=178.84 cfs 14.825 af
48.0" Round Culvert n=0.013 L=114.0' S=0.0175 '/' Outflow=178.84 cfs 14.825 af

Pond dmh7: dmh7 Peak Elev=61.49' Inflow=19.92 cfs 1.621 af
24.0" Round Culvert n=0.013 L=170.0' S=0.0050 '/' Outflow=19.92 cfs 1.621 af

Pond dmh8: dmh8 Peak Elev=70.15' Inflow=37.69 cfs 3.019 af
24.0" Round Culvert n=0.013 L=296.0' S=0.0040 '/' Outflow=37.69 cfs 3.019 af

Pond dmh9a: dmh9a Peak Elev=66.60' Inflow=37.69 cfs 3.019 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=37.69 cfs 3.019 af

Pond DP 9B: off site pond to strm 5/6 Peak Elev=63.01' Storage=1,049 cf Inflow=40.93 cfs 5.398 af
Outflow=40.91 cfs 5.398 af

Pond DP 9D: offsite pond strm 3 Peak Elev=65.82' Storage=1,711 cf Inflow=7.16 cfs 1.216 af
Outflow=7.10 cfs 1.216 af

Pond GSF 11: grassed soil filter Peak Elev=62.90' Storage=6,891 cf Inflow=5.94 cfs 0.431 af
Primary=0.03 cfs 0.077 af Secondary=2.82 cfs 0.303 af Outflow=2.85 cfs 0.381 af

Pond GSF 12: grassed soil filter Peak Elev=62.09' Storage=1,817 cf Inflow=1.92 cfs 0.143 af
Primary=0.01 cfs 0.025 af Secondary=1.84 cfs 0.096 af Outflow=1.85 cfs 0.122 af

Pond GSF 13: grassed soil filter Peak Elev=62.69' Storage=7,544 cf Inflow=6.42 cfs 0.470 af
Primary=0.04 cfs 0.100 af Secondary=2.75 cfs 0.318 af Outflow=2.79 cfs 0.418 af

Pond GSF 15: grassed soil filter Peak Elev=63.83' Storage=673 cf Inflow=1.04 cfs 0.074 af
Primary=0.00 cfs 0.005 af Secondary=1.01 cfs 0.059 af Outflow=1.01 cfs 0.064 af

Pond GSF 16: grassed soil filter Peak Elev=64.48' Storage=3,506 cf Inflow=2.04 cfs 0.148 af
Primary=0.01 cfs 0.025 af Secondary=0.50 cfs 0.061 af Outflow=0.51 cfs 0.086 af

Pond GSF 18A: grassed soil filter Peak Elev=57.48' Storage=1,185 cf Inflow=0.89 cfs 0.065 af
Primary=0.00 cfs 0.013 af Secondary=0.55 cfs 0.035 af Outflow=0.55 cfs 0.048 af

Pond GSF 18B: grassed soil filter Peak Elev=57.99' Storage=644 cf Inflow=0.60 cfs 0.045 af
Primary=0.00 cfs 0.006 af Secondary=0.58 cfs 0.028 af Outflow=0.58 cfs 0.035 af

Pond GSF 1A: Grassed soil filter Peak Elev=66.51' Storage=2,626 cf Inflow=2.49 cfs 0.181 af
Primary=0.01 cfs 0.037 af Secondary=2.14 cfs 0.117 af Outflow=2.15 cfs 0.154 af

Pond GSF 1B: grassed soil filter Peak Elev=67.14' Storage=2,055 cf Inflow=3.29 cfs 0.237 af
Primary=0.01 cfs 0.041 af Secondary=2.69 cfs 0.182 af Outflow=2.70 cfs 0.223 af

Pond GSF 2: grassed soil filter Peak Elev=58.04' Storage=3,643 cf Inflow=4.03 cfs 0.290 af
Primary=0.02 cfs 0.055 af Secondary=2.57 cfs 0.208 af Outflow=2.59 cfs 0.262 af

Pond GSF 24: grassed soil filter Peak Elev=40.85' Storage=2,883 cf Inflow=2.85 cfs 0.218 af
Primary=0.02 cfs 0.057 af Secondary=2.56 cfs 0.139 af Outflow=2.58 cfs 0.196 af

Pond GSF 3: grassed soil filter Peak Elev=56.09' Storage=4,106 cf Inflow=4.88 cfs 0.353 af
Primary=0.02 cfs 0.057 af Secondary=4.43 cfs 0.257 af Outflow=4.45 cfs 0.313 af

Pond GSF 4: grassed soil filter Peak Elev=55.22' Storage=757 cf Inflow=0.96 cfs 0.068 af
Primary=0.00 cfs 0.013 af Secondary=0.93 cfs 0.048 af Outflow=0.93 cfs 0.061 af

Pond GSF 5: grassed soil filter Peak Elev=54.74' Storage=1,056 cf Inflow=1.23 cfs 0.087 af
Primary=0.00 cfs 0.013 af Secondary=1.13 cfs 0.061 af Outflow=1.13 cfs 0.074 af

Pond GSF 6: grassed soil filter Peak Elev=48.63' Storage=2,027 cf Inflow=1.89 cfs 0.137 af
Primary=0.01 cfs 0.024 af Secondary=1.31 cfs 0.092 af Outflow=1.31 cfs 0.116 af

Pond GSF 7: grassed soil filter Peak Elev=54.99' Storage=4,223 cf Inflow=3.94 cfs 0.283 af
Primary=0.02 cfs 0.054 af Secondary=2.54 cfs 0.187 af Outflow=2.56 cfs 0.241 af

Pond GSF 8: grassed soil filter Peak Elev=58.43' Storage=7,650 cf Inflow=6.68 cfs 0.494 af
Primary=0.04 cfs 0.104 af Secondary=2.76 cfs 0.344 af Outflow=2.80 cfs 0.448 af

Pond GSF 9: grassed soil filter Peak Elev=63.41' Storage=3,518 cf Inflow=4.25 cfs 0.318 af
Primary=0.02 cfs 0.055 af Secondary=2.68 cfs 0.240 af Outflow=2.70 cfs 0.296 af

Pond ics 12: ICS 12 Peak Elev=67.96' Inflow=18.26 cfs 1.499 af
Primary=17.14 cfs 0.781 af Secondary=1.12 cfs 0.718 af Outflow=18.26 cfs 1.499 af

Pond ICS1: ICS 1 Peak Elev=70.63' Inflow=18.26 cfs 1.499 af
Primary=1.12 cfs 0.581 af Secondary=17.14 cfs 0.918 af Outflow=18.26 cfs 1.499 af

Pond ICS18: ICS18 Peak Elev=60.60' Inflow=3.08 cfs 0.253 af
Primary=0.68 cfs 0.200 af Secondary=2.40 cfs 0.053 af Outflow=3.08 cfs 0.253 af

Pond ics28: ICS28 Peak Elev=60.74' Inflow=1.95 cfs 0.160 af
Primary=0.65 cfs 0.139 af Secondary=1.29 cfs 0.021 af Outflow=1.95 cfs 0.160 af

Pond ICS37: ISC37 Peak Elev=56.51' Inflow=18.26 cfs 1.499 af
Primary=6.14 cfs 1.256 af Secondary=12.12 cfs 0.243 af Outflow=18.26 cfs 1.499 af

Pond ics46: ICS46 Peak Elev=53.49' Inflow=18.26 cfs 1.499 af
Primary=1.07 cfs 0.717 af Secondary=17.18 cfs 0.782 af Outflow=18.26 cfs 1.499 af

Pond ICS9: ICS9 Peak Elev=68.98' Inflow=18.26 cfs 1.499 af
Primary=1.10 cfs 0.716 af Secondary=17.16 cfs 0.783 af Outflow=18.26 cfs 1.499 af

Pond ISC42: ICS 42 Peak Elev=56.33' Inflow=18.26 cfs 1.499 af
Primary=5.96 cfs 1.275 af Secondary=12.29 cfs 0.224 af Outflow=18.26 cfs 1.499 af

Pond MPP 10: Rtank storage Peak Elev=61.95' Storage=0.091 af Inflow=5.02 cfs 0.412 af
8.0" Round Culvert x 6.00 n=0.013 L=2.0' S=0.0400 '/' Outflow=3.18 cfs 0.394 af

Pond MPP 14: Rtanks Peak Elev=56.76' Storage=1,121 cf Inflow=1.52 cfs 0.123 af
8.0" Round Culvert x 2.00 n=0.013 L=21.0' S=0.0052 '/' Outflow=1.00 cfs 0.118 af

Pond MPP 19: Rtanks Peak Elev=56.10' Storage=0.068 af Inflow=2.16 cfs 0.167 af
6.0" Round Culvert n=0.013 L=19.0' S=0.0042 '/' Outflow=0.65 cfs 0.158 af

Pond MPP 21: Rtanks Peak Elev=56.14' Storage=1,609 cf Inflow=1.77 cfs 0.134 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.80 cfs 0.131 af

Pond MPP 22: Rtanks Peak Elev=56.02' Storage=2,676 cf Inflow=2.03 cfs 0.152 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.63 cfs 0.144 af

Pond MPP 26: Rtanks Peak Elev=35.02' Storage=594 cf Inflow=0.62 cfs 0.051 af
8.0" Round Culvert n=0.013 L=8.0' S=0.0350 '/' Outflow=0.36 cfs 0.048 af

Pond MPP 50: Peak Elev=55.11' Storage=3,895 cf Inflow=4.89 cfs 0.402 af
8.0" Round Culvert x 7.00 n=0.013 L=3.0' S=0.0100 '/' Outflow=3.46 cfs 0.373 af

Pond mpp30: Rtanks Peak Elev=32.18' Storage=9,944 cf Inflow=6.96 cfs 0.527 af
Outflow=0.73 cfs 0.527 af

Pond SSF 36: ssf Peak Elev=64.58' Storage=11,236 cf Inflow=1.12 cfs 0.581 af
Primary=0.08 cfs 0.251 af Secondary=0.32 cfs 0.229 af Outflow=0.40 cfs 0.480 af

Pond ssf37: ssf Peak Elev=63.42' Storage=12,071 cf Inflow=1.10 cfs 0.716 af
Primary=0.08 cfs 0.254 af Secondary=0.58 cfs 0.361 af Outflow=0.67 cfs 0.615 af

Pond ssf38: ssf Peak Elev=135.10' Storage=16,132 cf Inflow=17.14 cfs 0.781 af
Primary=0.20 cfs 0.176 af Secondary=25.54 cfs 0.508 af Outflow=25.73 cfs 0.684 af

Pond ssf39: ssf Peak Elev=58.59' Storage=18,385 cf Inflow=6.14 cfs 1.256 af
Primary=0.11 cfs 0.257 af Secondary=6.02 cfs 0.868 af Outflow=6.13 cfs 1.125 af

Pond ssf40: ssf Peak Elev=59.05' Storage=16,630 cf Inflow=5.96 cfs 1.275 af
Primary=0.12 cfs 0.257 af Secondary=6.57 cfs 0.910 af Outflow=6.69 cfs 1.167 af

Pond ssf41: ssf Peak Elev=48.23' Storage=12,241 cf Inflow=1.07 cfs 0.717 af
Primary=0.08 cfs 0.254 af Secondary=0.57 cfs 0.358 af Outflow=0.65 cfs 0.612 af

Pond ssf42: ssf Peak Elev=60.72' Storage=1,731 cf Inflow=0.65 cfs 0.139 af
Primary=0.01 cfs 0.029 af Secondary=0.64 cfs 0.093 af Outflow=0.65 cfs 0.122 af

Pond ssf43: ssf Peak Elev=59.96' Storage=2,345 cf Inflow=0.68 cfs 0.200 af
Primary=0.02 cfs 0.045 af Secondary=0.65 cfs 0.135 af Outflow=0.67 cfs 0.180 af

Total Runoff Area = 122.513 ac Runoff Volume = 48.493 af Average Runoff Depth = 4.75"
76.10% Pervious = 93.228 ac 23.90% Impervious = 29.285 ac

Summary for Subcatchment 1A:

Runoff = 2.49 cfs @ 12.09 hrs, Volume= 0.181 af, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	11,582	77	>75% Grass cover, Good, HSG C/D
*	6,203	98	Impervious, HSG C/D
	17,785	84	Weighted Average
	11,582		65.12% Pervious Area
	6,203		34.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 1B:

Runoff = 3.29 cfs @ 12.09 hrs, Volume= 0.237 af, Depth= 4.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	6,832	98	Impervious
	18,017	74	>75% Grass cover, Good, HSG C
	24,849	81	Weighted Average
	18,017		72.51% Pervious Area
	6,832		27.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 2:

Runoff = 4.03 cfs @ 12.09 hrs, Volume= 0.290 af, Depth= 4.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	8,052	98	Impervious
	5,300	74	>75% Grass cover, Good, HSG C
*	17,697	74	>75% Grass cover, Good, HSG C/D
	31,049	80	Weighted Average
	22,997		74.07% Pervious Area
	8,052		25.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 3:

Runoff = 4.88 cfs @ 12.09 hrs, Volume= 0.353 af, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	13,091	98	Impervious, HSG C
*	15,516	74	>75% Grass cover, Good, HSG C/D
*	7,540	70	Woods, Good, HSG C/D
	36,147	82	Weighted Average
	23,056		63.78% Pervious Area
	13,091		36.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 4:

Runoff = 0.96 cfs @ 12.09 hrs, Volume= 0.068 af, Depth= 4.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
	8,448	74	>75% Grass cover, Good, HSG C
	8,448		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 5:

Runoff = 1.23 cfs @ 12.09 hrs, Volume= 0.087 af, Depth= 4.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

Area (sf)	CN	Description
10,807	74	>75% Grass cover, Good, HSG C
10,807		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 6:

Runoff = 1.89 cfs @ 12.09 hrs, Volume= 0.137 af, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	4,484	98	Impervious
*	9,501	74	>75% Grass cover, Good, HSG C
	13,985	82	Weighted Average
	9,501		67.94% Pervious Area
	4,484		32.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 7:

Runoff = 3.94 cfs @ 12.09 hrs, Volume= 0.283 af, Depth= 4.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	7,846	98	Impervious
	3,270	74	>75% Grass cover, Good, HSG C
*	19,229	74	>75% Grass cover, Good, HSG C/D
	30,345	80	Weighted Average
	22,499		74.14% Pervious Area
	7,846		25.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 8:

Runoff = 6.68 cfs @ 12.08 hrs, Volume= 0.494 af, Depth= 5.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	25,409	98	Impervious
	20,142	74	>75% Grass cover, Good, HSG C
	45,551	87	Weighted Average
	20,142		44.22% Pervious Area
	25,409		55.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 9:

Runoff = 4.25 cfs @ 12.08 hrs, Volume= 0.318 af, Depth= 5.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	10,348	74	>75% Grass cover, Good, HSG C/D
*	17,843	98	Impervious
	28,191	89	Weighted Average
	10,348		36.71% Pervious Area
	17,843		63.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 10: access drive north of B1

Runoff = 5.02 cfs @ 12.08 hrs, Volume= 0.412 af, Depth= 6.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	30,932	98	Impervious
	30,932		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 11:

Runoff = 5.94 cfs @ 12.09 hrs, Volume= 0.431 af, Depth= 5.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	15,881	98	Impervious
*	27,293	74	>75% Grass cover, Good, HSG C/D
	43,174	83	Weighted Average
	27,293		63.22% Pervious Area
	15,881		36.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 12:

Runoff = 1.92 cfs @ 12.08 hrs, Volume= 0.143 af, Depth= 5.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	7,491	98	Impervious, HSG C/D
	5,429	74	>75% Grass cover, Good, HSG C
	12,920	88	Weighted Average
	5,429		42.02% Pervious Area
	7,491		57.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 13:

Runoff = 6.42 cfs @ 12.09 hrs, Volume= 0.470 af, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	20,981	98	Impervious
*	24,182	74	>75% Grass cover, Good, HSG C/D
	45,163	85	Weighted Average
	24,182		53.54% Pervious Area
	20,981		46.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 14:

Runoff = 1.52 cfs @ 12.08 hrs, Volume= 0.123 af, Depth= 6.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	8,849	98	Impervious
	529	74	>75% Grass cover, Good, HSG C
	9,378	97	Weighted Average
	529		5.64% Pervious Area
	8,849		94.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 15:

Runoff = 1.04 cfs @ 12.09 hrs, Volume= 0.074 af, Depth= 4.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	176	98	Impervious
*	4,183	74	>75% Grass cover, Good, HSG C/D
*	4,798	74	vegetated roof
	9,157	74	Weighted Average
	8,981		98.08% Pervious Area
	176		1.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 16:

Runoff = 2.04 cfs @ 12.09 hrs, Volume= 0.148 af, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	5,161	98	Impervious
*	9,949	74	>75% Grass cover, Good, HSG C/D
	15,110	82	Weighted Average
	9,949		65.84% Pervious Area
	5,161		34.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 17:

Runoff = 2.11 cfs @ 12.08 hrs, Volume= 0.165 af, Depth= 6.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	11,320	98	Impervious
*	1,980	74	>75% Grass cover, Good, HSG C/D
	13,300	94	Weighted Average
	1,980		14.89% Pervious Area
	11,320		85.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18A:

Runoff = 0.89 cfs @ 12.09 hrs, Volume= 0.065 af, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	2,593	98	Impervious
*	3,746	74	>75% Grass cover, Good, HSG C/D
	6,339	84	Weighted Average
	3,746		59.09% Pervious Area
	2,593		40.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18B:

Runoff = 0.60 cfs @ 12.08 hrs, Volume= 0.045 af, Depth= 5.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	2,348	98	Impervious
*	1,675	74	>75% Grass cover, Good, HSG C/D
	4,023	88	Weighted Average
	1,675		41.64% Pervious Area
	2,348		58.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 19:

Runoff = 2.16 cfs @ 12.08 hrs, Volume= 0.167 af, Depth= 6.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	11,017	98	Impervious
*	2,694	74	>75% Grass cover, Good, HSG C/D
	13,711	93	Weighted Average
	2,694		19.65% Pervious Area
	11,017		80.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 20:

Runoff = 4.44 cfs @ 12.08 hrs, Volume= 0.340 af, Depth= 6.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	21,010	98	Impervious
*	7,449	74	>75% Grass cover, Good, HSG C/D
	28,459	92	Weighted Average
	7,449		26.17% Pervious Area
	21,010		73.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 21:

Runoff = 1.77 cfs @ 12.08 hrs, Volume= 0.134 af, Depth= 6.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	7,893	98	Impervious
*	3,559	74	>75% Grass cover, Good, HSG C/D
	11,452	91	Weighted Average
	3,559		31.08% Pervious Area
	7,893		68.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 22:

Runoff = 2.03 cfs @ 12.08 hrs, Volume= 0.152 af, Depth= 5.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	8,217	98	Impervious
*	5,227	74	>75% Grass cover, Good, HSG C/D
	13,444	89	Weighted Average
	5,227		38.88% Pervious Area
	8,217		61.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 23: sub 23

Runoff = 3.55 cfs @ 12.09 hrs, Volume= 0.254 af, Depth= 4.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

Area (sf)	CN	Description
6,249	98	Paved parking, HSG C
2,450	74	>75% Grass cover, Good, HSG C
10,135	74	>75% Grass cover, Good, HSG C
9,641	70	Woods, Good, HSG C
28,475	78	Weighted Average
22,226		78.05% Pervious Area
6,249		21.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, direct**

Summary for Subcatchment 24:

Runoff = 2.85 cfs @ 12.08 hrs, Volume= 0.218 af, Depth= 6.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	12,270	98	Impervious
	5,991	80	>75% Grass cover, Good, HSG D
	18,261	92	Weighted Average
	5,991		32.81% Pervious Area
	12,270		67.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 25:

Runoff = 4.56 cfs @ 12.88 hrs, Volume= 0.880 af, Depth= 3.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	21,818	74	>75% Grass cover, Good, HSG C/D
*	96,405	70	Woods, Good, HSG C/D
	118,223	71	Weighted Average
	118,223		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
54.4	130	0.0150	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
11.9	253	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	55	0.3000	1.37		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
67.0	438	Total			

Summary for Subcatchment 26:

Runoff = 0.62 cfs @ 12.08 hrs, Volume= 0.051 af, Depth= 6.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	3,816	98	Impervious
	3,816		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 27:

Runoff = 0.69 cfs @ 12.08 hrs, Volume= 0.057 af, Depth= 6.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	4,262	98	Impervious
	4,262		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 28:

Runoff = 11.34 cfs @ 12.09 hrs, Volume= 0.830 af, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	21,852	98	Impervious
	40,598	80	>75% Grass cover, Good, HSG D
	6,418	77	Woods, Good, HSG D
	10,830	79	Woods/grass comb., Good, HSG D
	79,698	85	Weighted Average
	57,846		72.58% Pervious Area
	21,852		27.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 29:

Runoff = 0.21 cfs @ 12.08 hrs, Volume= 0.017 af, Depth= 6.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	1,306	98	Impervious
	1,306		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 30:

Runoff = 4.95 cfs @ 12.08 hrs, Volume= 0.383 af, Depth= 6.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	24,541	98	Impervious
*	6,931	74	>75% Grass cover, Good, HSG C/D
	31,472	93	Weighted Average
	6,931		22.02% Pervious Area
	24,541		77.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 31:

Runoff = 6.02 cfs @ 12.17 hrs, Volume= 0.526 af, Depth= 3.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	24,011	74	>75% Grass cover, Good, HSG C/D
*	46,605	70	Woods, Good, HSG C/D
	70,616	71	Weighted Average
	70,616		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0500	0.16		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
1.7	86	0.1200	0.87		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	31	0.0300	2.60		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
12.3	217	Total			

Summary for Subcatchment 32:

Runoff = 0.70 cfs @ 12.08 hrs, Volume= 0.053 af, Depth= 5.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	2,826	98	Impervious
*	1,851	74	>75% Grass cover, Good, HSG C/D
	4,677	89	Weighted Average
	1,851		39.58% Pervious Area
	2,826		60.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 33: B3 green

Runoff = 10.04 cfs @ 12.09 hrs, Volume= 0.716 af, Depth= 3.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	89,860	61	vegetated roof
*	18,033	98	penthouse
	107,893	67	Weighted Average
	89,860		83.29% Pervious Area
	18,033		16.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 34:

Runoff = 2.31 cfs @ 12.09 hrs, Volume= 0.165 af, Depth= 3.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	19,279	61	vegetated roof
*	4,820	98	penthouse/walks on roof
	24,099	68	Weighted Average
	19,279		80.00% Pervious Area
	4,820		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 35:

Runoff = 2.02 cfs @ 12.09 hrs, Volume= 0.144 af, Depth= 3.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	16,797	61	vegetated roof
*	4,200	98	penthouse/walks on roof
	20,997	68	Weighted Average
	16,797		80.00% Pervious Area
	4,200		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 36: B1M1

Runoff = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af, Depth= 6.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 37: B1M2

Runoff = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af, Depth= 6.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 38: B1M3

Runoff = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af, Depth= 6.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 39: B2M4

Runoff = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af, Depth= 6.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 40: B2M5

Runoff = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af, Depth= 6.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 41: B2M6

Runoff = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af, Depth= 6.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 42: B6

Runoff = 1.95 cfs @ 12.08 hrs, Volume= 0.160 af, Depth= 6.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	12,000	98	Impervious
	12,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 43: B5

Runoff = 3.08 cfs @ 12.08 hrs, Volume= 0.253 af, Depth= 6.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	18,983	98	Impervious
	18,983		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 44: onsite untreated

Runoff = 11.56 cfs @ 12.26 hrs, Volume= 1.187 af, Depth= 3.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	29,531	74	>75% Grass cover, Good, HSG C/D
*	129,832	70	Woods, Good, HSG C/D
	159,363	71	Weighted Average
	159,363		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	97	0.0620	0.25		**Sheet Flow, a-b** Grass: Short n= 0.150 P2= 2.90"
4.3	170	0.0090	0.66		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
1.3	97	0.0320	1.25		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
6.8	210	0.0430	0.52		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
18.8	574	Total			

Summary for Subcatchment 45:

Runoff = 3.71 cfs @ 12.42 hrs, Volume= 0.467 af, Depth= 3.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	5,799	74	>75% Grass cover, Good, HSG C/D
*	58,641	70	Woods, Good, HSG C/D
	64,440	70	Weighted Average
	64,440		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.3	79	0.0340	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
2.9	121	0.0800	0.71		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	34	0.0600	3.67		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
0.5	73	0.0600	2.64	10.56	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage

29.9	307	Total

Summary for Subcatchment 46: SUBCAT 8

Runoff = 0.83 cfs @ 12.49 hrs, Volume= 0.112 af, Depth= 3.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	12,652	70	Woods, Good, HSG C/D
*	2,324	74	>75% Grass cover, Good, HSG C/D
	14,976	71	Weighted Average
	14,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
1.1	43	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.7100	2.11		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
1.5	152	0.0240	1.67	6.68	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100
34.7	276	Total			

Summary for Subcatchment 47:

Runoff = 6.82 cfs @ 12.21 hrs, Volume= 0.655 af, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
	16,941	80	>75% Grass cover, Good, HSG D
*	27,433	74	>75% Grass cover, Good, HSG C/D
*	30,061	70	Woods, Good, HSG C/D
*	4,752	98	Impervious
	79,187	75	Weighted Average
	74,435		94.00% Pervious Area
	4,752		6.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.5	102	0.0400	0.15		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
0.6	30	0.1000	0.79		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.6	100	0.0300	2.60		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
3.2	407	0.0200	2.12		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
15.9	639	Total			

Summary for Subcatchment 48:

Runoff = 1.71 cfs @ 12.77 hrs, Volume= 0.291 af, Depth= 3.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	305	74	>75% Grass cover, Good, HSG C/D
*	36,887	70	Woods, Good, HSG C/D
	2,991	70	Woods, Good, HSG C
	40,183	70	Weighted Average
	40,183		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.6	127	0.0200	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
5.4	115	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	45	0.2000	1.12		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.3	90	0.0880	4.45		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
54.0	377	Total			

Summary for Subcatchment 49:

Runoff = 4.07 cfs @ 12.74 hrs, Volume= 0.694 af, Depth= 3.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	11,982	74	>75% Grass cover, Good, HSG C/D
*	80,702	70	Woods, Good, HSG C/D
*	548	98	Impervious
	93,232	71	Weighted Average
	92,684		99.41% Pervious Area
	548		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.4	115	0.0500	0.06		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
23.7	355	0.0100	0.25		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
54.1	470	Total			

Summary for Subcatchment 50:

Runoff = 4.89 cfs @ 12.08 hrs, Volume= 0.402 af, Depth= 6.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	30,173	98	Impervious
	30,173		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment OS10: OFFSITE 2 (above Perkins Rd)

Runoff = 55.33 cfs @ 13.29 hrs, Volume= 13.271 af, Depth= 4.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	298,066	70	Woods, Good, HSG C/D
*	42,276	98	Impervious
*	1,304,640	74	>75% Grass cover, Good, HSG C/D
	1,644,982	74	Weighted Average
	1,602,706		97.43% Pervious Area
	42,276		2.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.2	141	0.0280	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
15.3	384	0.0280	0.42		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.5	227	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
18.6	780	0.0100	0.70		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
12.6	689	0.0170	0.91		**Shallow Concentrated Flow, e-f** Short Grass Pasture Kv= 7.0 fps
94.2	2,221	Total			

Summary for Subcatchment os11a: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 27.47 cfs @ 12.10 hrs, Volume= 2.089 af, Depth= 5.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	113,681	98	Impervious
*	33,806	70	Woods, Good, HSG C/D
*	45,046	74	>75% Grass cover, Good, HSG C/D
	192,533	87	Weighted Average
	78,852		40.96% Pervious Area
	113,681		59.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	16	0.1870	2.22		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
4.7	419	0.0100	1.50		**Shallow Concentrated Flow, b-c** Grassed Waterway Kv= 15.0 fps
2.0	97	0.1000	0.79		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.8	532	Total			

Summary for Subcatchment os11b: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 23.82 cfs @ 12.26 hrs, Volume= 2.455 af, Depth= 4.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	4,576	98	Impervious
*	203,815	70	Woods, Good, HSG C/D
*	112,423	74	>75% Grass cover, Good, HSG C/D
	320,814	72	Weighted Average
	316,238		98.57% Pervious Area
	4,576		1.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	96	0.0880	0.13		**Sheet Flow, a-b** Woods: Light underbrush n= 0.400 P2= 2.90"
4.6	357	0.0340	1.29		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
2.2	75	0.0534	0.58		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
18.9	528	Total			

Summary for Subcatchment OS9A: OFFSITE 1 (Below Perkins Rd)

Runoff = 10.42 cfs @ 12.38 hrs, Volume= 1.241 af, Depth= 4.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	5,945	98	Impervious
	19,384	70	Woods, Good, HSG C
	128,494	74	>75% Grass cover, Good, HSG C
	153,823	74	Weighted Average
	147,878		96.14% Pervious Area
	5,945		3.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	90	0.0110	0.09		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
1.5	171	0.0700	1.85		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
6.9	257	0.0620	0.62		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.7	43	0.1860	1.08		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
26.6	561	Total			

Summary for Subcatchment OS9B: SUBCAT 4

Runoff = 31.85 cfs @ 12.39 hrs, Volume= 3.923 af, Depth= 4.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	11,390	98	impervious
	346,747	74	>75% Grass cover, Good, HSG C
	128,170	70	Woods, Good, HSG C
	486,307	74	Weighted Average
	474,917		97.66% Pervious Area
	11,390		2.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.3	163	0.0250	0.13		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
8.3	507	0.0210	1.01		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
28.6	670	Total			

Summary for Subcatchment OS9C: SUBCAT 3

Runoff = 18.04 cfs @ 12.14 hrs, Volume= 1.474 af, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	8,178	98	impervious
	156,155	74	>75% Grass cover, Good, HSG C
	13,814	70	Woods, Good, HSG C
	178,147	75	Weighted Average
	169,969		95.41% Pervious Area
	8,178		4.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	22	0.0900	1.77		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
9.9	633	0.0230	1.06		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
10.1	655	Total			

Summary for Subcatchment OS9D: SUBCAT 2

Runoff = 7.16 cfs @ 12.73 hrs, Volume= 1.216 af, Depth= 4.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	34,250	70	Woods, Good, HSG C/D
*	120,413	74	>75% Grass cover, Good, HSG C/D
	154,663	73	Weighted Average
	154,663		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
46.5	206	0.0050	0.07		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
5.6	258	0.0120	0.77		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
2.2	80	0.0600	0.61		**Shallow Concentrated Flow, C-D** Forest w/Heavy Litter Kv= 2.5 fps
54.3	544	Total			

Summary for Reach 9R: ANALYSIS POINT 9

Inflow Area = 3.531 ac, 3.86% Impervious, Inflow Depth = 4.22" for 100-year event
Inflow = 10.42 cfs @ 12.38 hrs, Volume= 1.241 af
Outflow = 10.42 cfs @ 12.38 hrs, Volume= 1.241 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

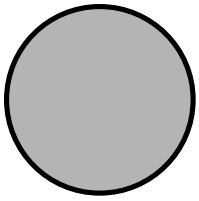
Summary for Reach 10R: Perkins Road Culvert

Inflow Area = 37.764 ac, 2.57% Impervious, Inflow Depth = 4.22" for 100-year event
Inflow = 55.33 cfs @ 13.29 hrs, Volume= 13.271 af
Outflow = 34.15 cfs @ 12.69 hrs, Volume= 13.271 af, Atten= 38%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 11.61 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 6.12 fps, Avg. Travel Time= 0.1 min

Peak Storage= 79 cf @ 12.70 hrs
Average Depth at Peak Storage= 2.00'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.99 cfs

24.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 25.0' Slope= 0.0200 '/'
Inlet Invert= 75.50', Outlet Invert= 75.00'



Summary for Reach 11R: Stream 9

Inflow Area = 4.420 ac, 59.04% Impervious, Inflow Depth = 5.67" for 100-year event
Inflow = 27.47 cfs @ 12.10 hrs, Volume= 2.089 af
Outflow = 27.47 cfs @ 12.10 hrs, Volume= 2.089 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 17R: untreated

Inflow Area = 0.305 ac, 85.11% Impervious, Inflow Depth = 6.49" for 100-year event
Inflow = 2.11 cfs @ 12.08 hrs, Volume= 0.165 af
Outflow = 2.11 cfs @ 12.08 hrs, Volume= 0.165 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 20R: untreated

Inflow Area = 0.653 ac, 73.83% Impervious, Inflow Depth = 6.25" for 100-year event
Inflow = 4.44 cfs @ 12.08 hrs, Volume= 0.340 af
Outflow = 4.44 cfs @ 12.08 hrs, Volume= 0.340 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 23R: sub 23

Inflow Area = 0.654 ac, 21.95% Impervious, Inflow Depth = 4.66" for 100-year event
Inflow = 3.55 cfs @ 12.09 hrs, Volume= 0.254 af
Outflow = 3.55 cfs @ 12.09 hrs, Volume= 0.254 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 27R: extisting

Inflow Area = 0.098 ac,100.00% Impervious, Inflow Depth = 6.96" for 100-year event
Inflow = 0.69 cfs @ 12.08 hrs, Volume= 0.057 af
Outflow = 0.69 cfs @ 12.08 hrs, Volume= 0.057 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 29R: untreated

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth = 6.96" for 100-year event
Inflow = 0.21 cfs @ 12.08 hrs, Volume= 0.017 af
Outflow = 0.21 cfs @ 12.08 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 32R: untreated

Inflow Area = 0.107 ac, 60.42% Impervious, Inflow Depth = 5.90" for 100-year event
Inflow = 0.70 cfs @ 12.08 hrs, Volume= 0.053 af
Outflow = 0.70 cfs @ 12.08 hrs, Volume= 0.053 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 44R:

Inflow Area = 3.658 ac, 0.00% Impervious, Inflow Depth = 3.89" for 100-year event
Inflow = 11.56 cfs @ 12.26 hrs, Volume= 1.187 af
Outflow = 11.56 cfs @ 12.26 hrs, Volume= 1.187 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 47R:

Inflow Area = 1.818 ac, 6.00% Impervious, Inflow Depth = 4.33" for 100-year event
Inflow = 6.82 cfs @ 12.21 hrs, Volume= 0.655 af
Outflow = 6.82 cfs @ 12.21 hrs, Volume= 0.655 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 48R: (new Reach)

Inflow Area = 0.922 ac, 0.00% Impervious, Inflow Depth = 3.79" for 100-year event
Inflow = 1.71 cfs @ 12.77 hrs, Volume= 0.291 af
Outflow = 1.71 cfs @ 12.77 hrs, Volume= 0.291 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 49R:

Inflow Area = 2.140 ac, 0.59% Impervious, Inflow Depth = 3.89" for 100-year event
Inflow = 4.07 cfs @ 12.74 hrs, Volume= 0.694 af
Outflow = 4.07 cfs @ 12.74 hrs, Volume= 0.694 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT1: ANALYSIS POINT 1 at BWD Little River

Inflow Area = 3.063 ac, 0.41% Impervious, Inflow Depth = 3.86" for 100-year event
Inflow = 5.78 cfs @ 12.74 hrs, Volume= 0.985 af
Outflow = 5.78 cfs @ 12.74 hrs, Volume= 0.985 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT10: Analysis point at Little River

Inflow Area = 1.830 ac, 27.42% Impervious, Inflow Depth = 5.44" for 100-year event
Inflow = 11.34 cfs @ 12.09 hrs, Volume= 0.830 af
Outflow = 11.34 cfs @ 12.09 hrs, Volume= 0.830 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT2: ANALYSIS POINT 2 at strm 3

Inflow Area = 6.265 ac, 0.00% Impervious, Inflow Depth = 4.01" for 100-year event
Inflow = 11.54 cfs @ 12.82 hrs, Volume= 2.096 af
Outflow = 11.54 cfs @ 12.82 hrs, Volume= 2.096 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT3: ANALYSIS POINT 3/4 at strm 5/6

Inflow Area = 16.875 ac, 2.66% Impervious, Inflow Depth = 4.21" for 100-year event
Inflow = 44.89 cfs @ 12.31 hrs, Volume= 5.923 af
Outflow = 44.89 cfs @ 12.31 hrs, Volume= 5.923 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT5: all BWD reservoir

Inflow Area = 23.139 ac, 1.94% Impervious, Inflow Depth = 4.16" for 100-year event
Inflow = 48.98 cfs @ 12.34 hrs, Volume= 8.019 af
Outflow = 48.98 cfs @ 12.34 hrs, Volume= 8.019 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach PT6: stream 9 offsite

Inflow Area = 45.715 ac, 8.13% Impervious, Inflow Depth = 4.36" for 100-year event
Inflow = 43.87 cfs @ 12.69 hrs, Volume= 16.601 af
Outflow = 42.81 cfs @ 12.69 hrs, Volume= 16.601 af, Atten= 2%, Lag= 0.4 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.24 fps, Min. Travel Time= 1.9 min
Avg. Velocity = 1.84 fps, Avg. Travel Time= 4.4 min

Peak Storage= 4,871 cf @ 12.69 hrs
Average Depth at Peak Storage= 1.32'
Bank-Full Depth= 4.00' Flow Area= 52.0 sf, Capacity= 401.91 cfs

5.00' x 4.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 21.00'
Length= 483.0' Slope= 0.0145 '/'
Inlet Invert= 71.00', Outlet Invert= 64.00'



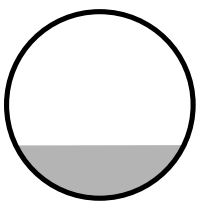
Summary for Reach PT7: ANALYSIS POINT7 at US Route 1 culvert

Inflow Area = 1.479 ac, 0.00% Impervious, Inflow Depth = 3.79" for 100-year event
Inflow = 3.71 cfs @ 12.42 hrs, Volume= 0.467 af
Outflow = 3.71 cfs @ 12.42 hrs, Volume= 0.467 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 8.94 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.63 fps, Avg. Travel Time= 0.4 min

Peak Storage= 34 cf @ 12.42 hrs
Average Depth at Peak Storage= 0.43'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0398 '/'
Inlet Invert= 21.60', Outlet Invert= 18.30'



Summary for Reach PT8: ANALYSIS POINT 8 at US Route 1 culvert

Inflow Area = 0.344 ac, 0.00% Impervious, Inflow Depth = 3.89" for 100-year event
Inflow = 0.83 cfs @ 12.49 hrs, Volume= 0.112 af
Outflow = 0.83 cfs @ 12.49 hrs, Volume= 0.112 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 4.91 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.60 fps, Avg. Travel Time= 0.5 min

Peak Storage= 13 cf @ 12.49 hrs
Average Depth at Peak Storage= 0.06'
Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 144.91 cfs

36.0" W x 24.0" H Box Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 76.0' Slope= 0.0632 '/'
Inlet Invert= 23.40', Outlet Invert= 18.60'



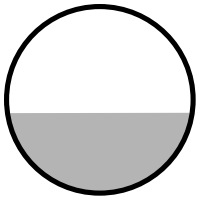
Summary for Reach PT9: Analysis Point Stream 9 at US Route 1 culvert

Inflow Area = 59.888 ac, 7.88% Impervious, Inflow Depth = 4.31" for 100-year event
Inflow = 76.85 cfs @ 12.31 hrs, Volume= 21.499 af
Outflow = 76.85 cfs @ 12.31 hrs, Volume= 21.499 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 26.46 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 8.89 fps, Avg. Travel Time= 0.2 min

Peak Storage= 270 cf @ 12.31 hrs
Average Depth at Peak Storage= 1.29'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 200.22 cfs

36.0" Round Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 93.0' Slope= 0.0645 '/'
Inlet Invert= 20.00', Outlet Invert= 14.00'



Summary for Reach R9 B: offsite diversion strm 5/6

Inflow Area = 15.254 ac, 2.94% Impervious, Inflow Depth = 4.25" for 100-year event
Inflow = 40.91 cfs @ 12.36 hrs, Volume= 5.398 af
Outflow = 40.91 cfs @ 12.36 hrs, Volume= 5.398 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach R9D: offsite pont strm 3

Inflow Area = 3.551 ac, 0.00% Impervious, Inflow Depth = 4.11" for 100-year event
Inflow = 7.10 cfs @ 12.78 hrs, Volume= 1.216 af
Outflow = 7.10 cfs @ 12.78 hrs, Volume= 1.216 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach S9-2: Stream 9

Inflow Area = 56.738 ac, 6.74% Impervious, Inflow Depth = 4.28" for 100-year event
Inflow = 70.98 cfs @ 12.24 hrs, Volume= 20.243 af
Outflow = 69.88 cfs @ 12.31 hrs, Volume= 20.243 af, Atten= 2%, Lag= 4.3 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.78 fps, Min. Travel Time= 4.6 min
Avg. Velocity = 1.92 fps, Avg. Travel Time= 13.7 min

Peak Storage= 19,111 cf @ 12.31 hrs
Average Depth at Peak Storage= 1.51'
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 120.91 cfs

5.00' x 2.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 13.00'
Length= 1,580.0' Slope= 0.0233 '/'
Inlet Invert= 64.00', Outlet Invert= 27.25'



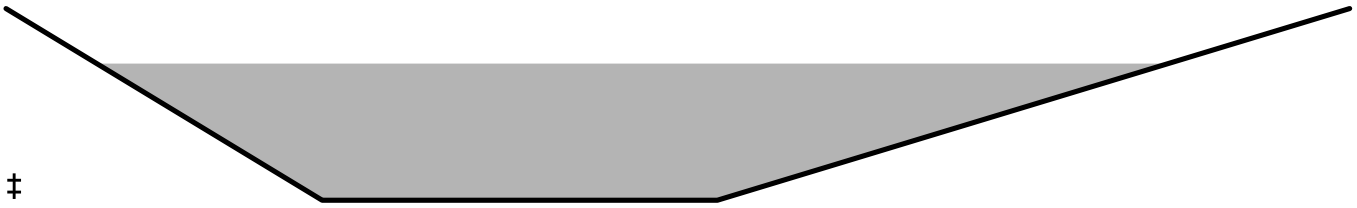
Summary for Reach S9-3: Stream 9

Inflow Area = 58.684 ac, 6.92% Impervious, Inflow Depth = 4.29" for 100-year event
Inflow = 76.24 cfs @ 12.29 hrs, Volume= 20.972 af
Outflow = 76.18 cfs @ 12.31 hrs, Volume= 20.972 af, Atten= 0%, Lag= 0.8 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.75 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.79 fps, Avg. Travel Time= 3.4 min

Peak Storage= 4,820 cf @ 12.31 hrs
Average Depth at Peak Storage= 1.43'
Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 152.29 cfs

5.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 2.0 4.0 '/' Top Width= 17.00'
Length= 364.0' Slope= 0.0199 '/'
Inlet Invert= 27.25', Outlet Invert= 20.00'



‡

Summary for Reach tank: existing clarifier

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 5.61" for 100-year event
Inflow = 185.21 cfs @ 12.10 hrs, Volume= 15.322 af
Outflow = 185.21 cfs @ 12.10 hrs, Volume= 15.322 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond dmh10: dmh10

Inflow Area = 5.738 ac, 92.79% Impervious, Inflow Depth > 6.31" for 100-year event
Inflow = 37.69 cfs @ 12.08 hrs, Volume= 3.019 af
Outflow = 37.69 cfs @ 12.08 hrs, Volume= 3.019 af, Atten= 0%, Lag= 0.0 min
Primary = 37.69 cfs @ 12.08 hrs, Volume= 3.019 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 65.55' @ 12.08 hrs
Flood Elev= 65.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.59'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.59' / 53.56' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=37.63 cfs @ 12.08 hrs HW=65.52' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 37.63 cfs @ 11.98 fps)

Summary for Pond dmh11: dmh11

Inflow Area = 9.033 ac, 95.42% Impervious, Inflow Depth > 6.40" for 100-year event
Inflow = 66.54 cfs @ 12.10 hrs, Volume= 4.814 af
Outflow = 66.54 cfs @ 12.10 hrs, Volume= 4.814 af, Atten= 0%, Lag= 0.0 min
Primary = 66.54 cfs @ 12.10 hrs, Volume= 4.814 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 67.50' @ 12.10 hrs
Flood Elev= 65.56'

Device	Routing	Invert	Outlet Devices
#1	Primary	53.54'	**30.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.54' / 53.12' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=66.06 cfs @ 12.10 hrs HW=67.32' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 66.06 cfs @ 13.46 fps)

Summary for Pond dmh13: dmh13

Inflow Area = 9.033 ac, 95.42% Impervious, Inflow Depth > 6.40" for 100-year event
Inflow = 66.54 cfs @ 12.10 hrs, Volume= 4.814 af
Outflow = 66.54 cfs @ 12.10 hrs, Volume= 4.814 af, Atten= 0%, Lag= 0.0 min
Primary = 66.54 cfs @ 12.10 hrs, Volume= 4.814 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 67.06' @ 12.10 hrs
Flood Elev= 65.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	53.10'	**30.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.10' / 52.09' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=66.06 cfs @ 12.10 hrs HW=66.88' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 66.06 cfs @ 13.46 fps)

Summary for Pond dmh14: dmh14

Inflow Area = 9.680 ac, 93.27% Impervious, Inflow Depth > 6.33" for 100-year event
Inflow = 69.20 cfs @ 12.10 hrs, Volume= 5.110 af
Outflow = 69.20 cfs @ 12.10 hrs, Volume= 5.110 af, Atten= 0%, Lag= 0.0 min
Primary = 69.20 cfs @ 12.10 hrs, Volume= 5.110 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 67.07' @ 12.10 hrs
Flood Elev= 65.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	52.07'	**30.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.07' / 51.95' S= 0.0052 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 4.91 sf

Primary OutFlow Max=68.72 cfs @ 12.10 hrs HW=66.88' (Free Discharge)
1=Culvert (Inlet Controls 68.72 cfs @ 14.00 fps)

Summary for Pond dmh15: dmh15

Inflow Area = 9.680 ac, 93.27% Impervious, Inflow Depth > 6.33" for 100-year event
Inflow = 69.20 cfs @ 12.10 hrs, Volume= 5.110 af
Outflow = 69.20 cfs @ 12.10 hrs, Volume= 5.110 af, Atten= 0%, Lag= 0.0 min
Primary = 69.20 cfs @ 12.10 hrs, Volume= 5.110 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 66.95' @ 12.10 hrs
Flood Elev= 64.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.95'	**30.0" Round Culvert** L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.95' / 51.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=68.72 cfs @ 12.10 hrs HW=66.76' (Free Discharge)
1=Culvert (Inlet Controls 68.72 cfs @ 14.00 fps)

Summary for Pond dmh16: dmh16

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth > 2.99" for 100-year event
Inflow = 0.51 cfs @ 12.47 hrs, Volume= 0.086 af
Outflow = 0.51 cfs @ 12.47 hrs, Volume= 0.086 af, Atten= 0%, Lag= 0.0 min
Primary = 0.51 cfs @ 12.47 hrs, Volume= 0.086 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 60.90' @ 12.47 hrs
Flood Elev= 64.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**12.0" Round Culvert** L= 198.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.50' / 58.00' S= 0.0126 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.51 cfs @ 12.47 hrs HW=60.90' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.51 cfs @ 1.71 fps)

Summary for Pond dmh17: dmh17

Inflow Area = 10.237 ac, 89.39% Impervious, Inflow Depth > 6.17" for 100-year event
Inflow = 70.22 cfs @ 12.10 hrs, Volume= 5.260 af
Outflow = 70.22 cfs @ 12.10 hrs, Volume= 5.260 af, Atten= 0%, Lag= 0.0 min
Primary = 70.22 cfs @ 12.10 hrs, Volume= 5.260 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 66.89' @ 12.10 hrs
Flood Elev= 63.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.48'	**30.0" Round Culvert** L= 35.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.48' / 51.30' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=69.74 cfs @ 12.10 hrs HW=66.70' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 69.74 cfs @ 14.21 fps)

Summary for Pond dmh19: dmh 19

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth > 6.41" for 100-year event
Inflow = 3.06 cfs @ 12.08 hrs, Volume= 0.233 af
Outflow = 3.06 cfs @ 12.08 hrs, Volume= 0.233 af, Atten= 0%, Lag= 0.0 min
Primary = 3.06 cfs @ 12.08 hrs, Volume= 0.233 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.03' @ 12.08 hrs
Flood Elev= 61.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.48'	**12.0" Round Culvert** L= 59.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.48' / 53.89' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.05 cfs @ 12.08 hrs HW=56.03' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 3.05 cfs @ 3.89 fps)

Summary for Pond dmh2: dmh2

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 6.49" for 100-year event
Inflow = 17.24 cfs @ 12.08 hrs, Volume= 1.398 af
Outflow = 17.24 cfs @ 12.08 hrs, Volume= 1.398 af, Atten= 0%, Lag= 0.0 min
Primary = 17.24 cfs @ 12.08 hrs, Volume= 1.398 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 70.33' @ 12.08 hrs
Flood Elev= 69.15'

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	**18.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.00' / 61.50' S= 0.0150 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=17.21 cfs @ 12.08 hrs HW=70.31' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 17.21 cfs @ 9.74 fps)

Summary for Pond dmh20: dmh20

Inflow Area = 10.673 ac, 89.83% Impervious, Inflow Depth > 6.18" for 100-year event
Inflow = 73.22 cfs @ 12.10 hrs, Volume= 5.493 af
Outflow = 73.22 cfs @ 12.10 hrs, Volume= 5.493 af, Atten= 0%, Lag= 0.0 min
Primary = 73.22 cfs @ 12.10 hrs, Volume= 5.493 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 67.93' @ 12.10 hrs
Flood Elev= 61.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.28'	**30.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.28' / 50.78' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=72.76 cfs @ 12.10 hrs HW=67.73' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 72.76 cfs @ 14.82 fps)

Summary for Pond dmh21: dmh21

Inflow Area = 14.421 ac, 82.05% Impervious, Inflow Depth > 5.97" for 100-year event
Inflow = 89.17 cfs @ 12.10 hrs, Volume= 7.178 af
Outflow = 89.17 cfs @ 12.10 hrs, Volume= 7.178 af, Atten= 0%, Lag= 0.0 min
Primary = 89.17 cfs @ 12.10 hrs, Volume= 7.178 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 74.84' @ 12.10 hrs
Flood Elev= 58.55'

Device	Routing	Invert	Outlet Devices
#1	Primary	50.76'	**30.0" Round Culvert** L= 281.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.76' / 46.00' S= 0.0169 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=88.73 cfs @ 12.10 hrs HW=74.62' (Free Discharge)
1=Culvert (Inlet Controls 88.73 cfs @ 18.08 fps)

Summary for Pond dmh22: dmh 22

Inflow Area = 2.703 ac, 61.52% Impervious, Inflow Depth > 5.49" for 100-year event
Inflow = 13.26 cfs @ 12.09 hrs, Volume= 1.237 af
Outflow = 13.26 cfs @ 12.09 hrs, Volume= 1.237 af, Atten= 0%, Lag= 0.0 min
Primary = 13.26 cfs @ 12.09 hrs, Volume= 1.237 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.21' @ 12.09 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.50'	**15.0" Round Culvert** L= 93.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.50' / 51.03' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=13.24 cfs @ 12.09 hrs HW=60.18' (Free Discharge)
1=Culvert (Inlet Controls 13.24 cfs @ 10.79 fps)

Summary for Pond dmh23: dmh23

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 5.40" for 100-year event
Inflow = 11.48 cfs @ 12.09 hrs, Volume= 0.910 af
Outflow = 11.48 cfs @ 12.09 hrs, Volume= 0.910 af, Atten= 0%, Lag= 0.0 min
Primary = 11.48 cfs @ 12.09 hrs, Volume= 0.910 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 76.19' @ 12.09 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	55.19'	**12.0" Round Culvert** L= 138.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.19' / 54.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=11.47 cfs @ 12.09 hrs HW=76.15' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 11.47 cfs @ 14.61 fps)

Summary for Pond dmh24: dmh24

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 5.40" for 100-year event
Inflow = 11.48 cfs @ 12.09 hrs, Volume= 0.910 af
Outflow = 11.48 cfs @ 12.09 hrs, Volume= 0.910 af, Atten= 0%, Lag= 0.0 min
Primary = 11.48 cfs @ 12.09 hrs, Volume= 0.910 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 71.39' @ 12.09 hrs
Flood Elev= 61.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	56.10'	**12.0" Round Culvert** L= 72.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.10' / 55.92' S= 0.0025 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=11.47 cfs @ 12.09 hrs HW=71.36' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 11.47 cfs @ 14.61 fps)

Summary for Pond dmh24a: dmh24a

Inflow Area = 0.602 ac, 71.74% Impervious, Inflow Depth > 5.72" for 100-year event
Inflow = 3.92 cfs @ 12.09 hrs, Volume= 0.287 af
Outflow = 3.92 cfs @ 12.09 hrs, Volume= 0.287 af, Atten= 0%, Lag= 0.0 min
Primary = 3.92 cfs @ 12.09 hrs, Volume= 0.287 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 71.50' @ 12.09 hrs
Flood Elev= 63.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	**8.0" Round Culvert** L= 95.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.00' / 57.10' S= 0.0095 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=3.91 cfs @ 12.09 hrs HW=71.45' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 3.91 cfs @ 11.20 fps)

Summary for Pond dmh25: dmh25

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth > 4.52" for 100-year event
Inflow = 2.15 cfs @ 12.13 hrs, Volume= 0.154 af
Outflow = 2.15 cfs @ 12.13 hrs, Volume= 0.154 af, Atten= 0%, Lag= 0.0 min
Primary = 2.15 cfs @ 12.13 hrs, Volume= 0.154 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.02' @ 12.13 hrs
Flood Elev= 67.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.00'	**12.0" Round Culvert** L= 98.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.00' / 55.00' S= 0.0510 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.14 cfs @ 12.13 hrs HW=61.02' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 2.14 cfs @ 2.73 fps)

Summary for Pond dmh26: dmh26

Inflow Area = 2.028 ac, 41.73% Impervious, Inflow Depth > 4.73" for 100-year event
Inflow = 5.64 cfs @ 12.26 hrs, Volume= 0.799 af
Outflow = 5.64 cfs @ 12.26 hrs, Volume= 0.799 af, Atten= 0%, Lag= 0.0 min
Primary = 5.64 cfs @ 12.26 hrs, Volume= 0.799 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.82' @ 12.26 hrs
Flood Elev= 63.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.75'	**12.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.75' / 57.61' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.64 cfs @ 12.26 hrs HW=61.82' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 5.64 cfs @ 7.18 fps)

Summary for Pond dmh27: dmh27

Inflow Area = 2.712 ac, 46.62% Impervious, Inflow Depth > 4.85" for 100-year event
Inflow = 9.45 cfs @ 12.11 hrs, Volume= 1.096 af
Outflow = 9.45 cfs @ 12.11 hrs, Volume= 1.096 af, Atten= 0%, Lag= 0.0 min
Primary = 9.45 cfs @ 12.11 hrs, Volume= 1.096 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 75.07' @ 12.11 hrs
Flood Elev= 63.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	53.03'	**12.0" Round Culvert** L= 256.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.03' / 51.75' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=9.44 cfs @ 12.11 hrs HW=75.04' (Free Discharge)
1=Culvert (Barrel Controls 9.44 cfs @ 12.02 fps)

Summary for Pond dmh29: dmh29

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 6.23" for 100-year event
Inflow = 1.93 cfs @ 12.08 hrs, Volume= 0.143 af
Outflow = 1.93 cfs @ 12.08 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.0 min
Primary = 1.93 cfs @ 12.08 hrs, Volume= 0.143 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.30' @ 12.08 hrs
Flood Elev= 63.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.85'	**8.0" Round Culvert** L= 46.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.85' / 57.39' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.93 cfs @ 12.08 hrs HW=60.30' (Free Discharge)
1=Culvert (Inlet Controls 1.93 cfs @ 5.52 fps)

Summary for Pond dmh3: dmh3

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 6.17" for 100-year event
Inflow = 19.92 cfs @ 12.08 hrs, Volume= 1.621 af
Outflow = 19.92 cfs @ 12.08 hrs, Volume= 1.621 af, Atten= 0%, Lag= 0.0 min
Primary = 19.92 cfs @ 12.08 hrs, Volume= 1.621 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 64.28' @ 12.08 hrs
Flood Elev= 68.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**24.0" Round Culvert** L= 125.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.50' / 59.84' S= 0.0053 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=19.89 cfs @ 12.08 hrs HW=64.28' (Free Discharge)
↑**1=Culvert** (Inlet Controls 19.89 cfs @ 6.33 fps)

Summary for Pond dmh30: dmh30

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 6.23" for 100-year event
Inflow = 1.93 cfs @ 12.08 hrs, Volume= 0.143 af
Outflow = 1.93 cfs @ 12.08 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.0 min
Primary = 1.93 cfs @ 12.08 hrs, Volume= 0.143 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.32' @ 12.08 hrs
Flood Elev= 63.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	55.40'	**12.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.40' / 54.37' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.94 cfs @ 12.08 hrs HW=56.32' (Free Discharge)
↑**1=Culvert** (Inlet Controls 1.94 cfs @ 2.57 fps)

Summary for Pond dmh31: dmh31

Inflow Area = 2.303 ac, 48.70% Impervious, Inflow Depth > 4.91" for 100-year event
Inflow = 7.40 cfs @ 12.10 hrs, Volume= 0.942 af
Outflow = 7.40 cfs @ 12.10 hrs, Volume= 0.942 af, Atten= 0%, Lag= 0.0 min
Primary = 7.40 cfs @ 12.10 hrs, Volume= 0.942 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 67.86' @ 12.10 hrs
Flood Elev= 63.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.35'	**12.0" Round Culvert** L= 259.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.35' / 53.05' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=7.39 cfs @ 12.10 hrs HW=67.84' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 7.39 cfs @ 9.41 fps)

Summary for Pond dmh32: dmh32

Inflow Area = 3.424 ac, 42.31% Impervious, Inflow Depth > 4.76" for 100-year event
Inflow = 12.02 cfs @ 12.11 hrs, Volume= 1.358 af
Outflow = 12.02 cfs @ 12.11 hrs, Volume= 1.358 af, Atten= 0%, Lag= 0.0 min
Primary = 12.02 cfs @ 12.11 hrs, Volume= 1.358 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 68.43' @ 12.11 hrs
Flood Elev= 58.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.73'	**12.0" Round Culvert** L= 36.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.73' / 51.60' S= 0.0036 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=12.01 cfs @ 12.11 hrs HW=68.41' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 12.01 cfs @ 15.29 fps)

Summary for Pond dmh33: dmh33

Inflow Area = 0.315 ac, 80.35% Impervious, Inflow Depth > 6.04" for 100-year event
Inflow = 0.65 cfs @ 12.40 hrs, Volume= 0.158 af
Outflow = 0.65 cfs @ 12.40 hrs, Volume= 0.158 af, Atten= 0%, Lag= 0.0 min
Primary = 0.65 cfs @ 12.40 hrs, Volume= 0.158 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.46' @ 12.40 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**12.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 52.01' S= 0.0099 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.65 cfs @ 12.40 hrs HW=54.46' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.65 cfs @ 1.83 fps)

Summary for Pond dmh34: dmh34

Inflow Area = 3.030 ac, 25.76% Impervious, Inflow Depth > 3.79" for 100-year event
Inflow = 11.05 cfs @ 12.09 hrs, Volume= 0.957 af
Outflow = 11.05 cfs @ 12.09 hrs, Volume= 0.957 af, Atten= 0%, Lag= 0.0 min
Primary = 11.05 cfs @ 12.09 hrs, Volume= 0.957 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 66.18' @ 12.09 hrs
Flood Elev= 59.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.99'	**12.0" Round Culvert** L= 39.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.99' / 51.60' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=11.04 cfs @ 12.09 hrs HW=66.15' (Free Discharge)
1=Culvert (Inlet Controls 11.04 cfs @ 14.05 fps)

Summary for Pond dmh35: dmh35

Inflow Area = 7.284 ac, 34.73% Impervious, Inflow Depth > 4.33" for 100-year event
Inflow = 27.30 cfs @ 12.10 hrs, Volume= 2.628 af
Outflow = 27.30 cfs @ 12.10 hrs, Volume= 2.628 af, Atten= 0%, Lag= 0.0 min
Primary = 27.30 cfs @ 12.10 hrs, Volume= 2.628 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 77.42' @ 12.10 hrs
Flood Elev= 58.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.55'	**18.0" Round Culvert** L= 276.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.55' / 50.17' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=27.27 cfs @ 12.10 hrs HW=77.36' (Free Discharge)
1=Culvert (Barrel Controls 27.27 cfs @ 15.43 fps)

Summary for Pond dmh36: dmh36

Inflow Area = 7.284 ac, 34.73% Impervious, Inflow Depth > 4.33" for 100-year event
Inflow = 27.30 cfs @ 12.10 hrs, Volume= 2.628 af
Outflow = 27.30 cfs @ 12.10 hrs, Volume= 2.628 af, Atten= 0%, Lag= 0.0 min
Primary = 27.30 cfs @ 12.10 hrs, Volume= 2.628 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 68.67' @ 12.10 hrs
Flood Elev= 53.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	50.15'	**18.0" Round Culvert** L= 159.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.15' / 49.35' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=27.27 cfs @ 12.10 hrs HW=68.63' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 27.27 cfs @ 15.43 fps)

Summary for Pond dmh38: dmh38

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 6.35" for 100-year event
Inflow = 18.55 cfs @ 12.08 hrs, Volume= 1.368 af
Outflow = 18.55 cfs @ 12.08 hrs, Volume= 1.368 af, Atten= 0%, Lag= 0.0 min
Primary = 18.55 cfs @ 12.08 hrs, Volume= 1.368 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.33' @ 12.08 hrs
Flood Elev= 56.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	51.98'	**18.0" Round Culvert** L= 106.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.98' / 50.92' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=18.22 cfs @ 12.08 hrs HW=60.09' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 18.22 cfs @ 10.31 fps)

Summary for Pond dmh39: dmh39

Inflow Area = 2.778 ac, 93.02% Impervious, Inflow Depth > 6.17" for 100-year event
Inflow = 19.43 cfs @ 12.08 hrs, Volume= 1.429 af
Outflow = 19.43 cfs @ 12.08 hrs, Volume= 1.429 af, Atten= 0%, Lag= 0.0 min
Primary = 19.43 cfs @ 12.08 hrs, Volume= 1.429 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.69' @ 12.08 hrs
Flood Elev= 56.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	50.59'	**18.0" Round Culvert** L= 58.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.59' / 50.32' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=19.10 cfs @ 12.08 hrs HW=59.42' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 19.10 cfs @ 10.81 fps)

Summary for Pond dmh4: dmh4

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 6.17" for 100-year event
Inflow = 19.92 cfs @ 12.08 hrs, Volume= 1.621 af
Outflow = 19.92 cfs @ 12.08 hrs, Volume= 1.621 af, Atten= 0%, Lag= 0.0 min
Primary = 19.92 cfs @ 12.08 hrs, Volume= 1.621 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.62' @ 12.08 hrs
Flood Elev= 68.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	59.84'	**24.0" Round Culvert** L= 66.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.84' / 59.57' S= 0.0041 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=19.89 cfs @ 12.08 hrs HW=63.62' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 19.89 cfs @ 6.33 fps)

Summary for Pond dmh40: dmh40

Inflow Area = 10.062 ac, 50.82% Impervious, Inflow Depth > 4.84" for 100-year event
Inflow = 46.19 cfs @ 12.09 hrs, Volume= 4.057 af
Outflow = 46.19 cfs @ 12.09 hrs, Volume= 4.057 af, Atten= 0%, Lag= 0.0 min
Primary = 46.19 cfs @ 12.09 hrs, Volume= 4.057 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 70.23' @ 12.09 hrs
Flood Elev= 57.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	49.33'	**24.0" Round Culvert** L= 340.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 49.33' / 47.63' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=46.12 cfs @ 12.09 hrs HW=70.16' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 46.12 cfs @ 14.68 fps)

Summary for Pond dmh43: dmh43

Inflow Area = 12.646 ac, 60.87% Impervious, Inflow Depth > 5.17" for 100-year event
Inflow = 64.75 cfs @ 12.10 hrs, Volume= 5.447 af
Outflow = 64.75 cfs @ 12.10 hrs, Volume= 5.447 af, Atten= 0%, Lag= 0.0 min
Primary = 64.75 cfs @ 12.10 hrs, Volume= 5.447 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 78.01' @ 12.10 hrs
Flood Elev= 56.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	47.61'	**24.0" Round Culvert** L= 193.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 47.61' / 46.64' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=64.46 cfs @ 12.10 hrs HW=77.74' (Free Discharge)
1=Culvert (Inlet Controls 64.46 cfs @ 20.52 fps)

Summary for Pond dmh44: dmh44

Inflow Area = 12.894 ac, 59.70% Impervious, Inflow Depth > 5.14" for 100-year event
Inflow = 65.81 cfs @ 12.10 hrs, Volume= 5.522 af
Outflow = 65.81 cfs @ 12.10 hrs, Volume= 5.522 af, Atten= 0%, Lag= 0.0 min
Primary = 65.81 cfs @ 12.10 hrs, Volume= 5.522 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.31' @ 12.10 hrs
Flood Elev= 56.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	46.62'	**30.0" Round Culvert** L= 82.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.62' / 46.21' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=65.53 cfs @ 12.10 hrs HW=60.20' (Free Discharge)
1=Culvert (Inlet Controls 65.53 cfs @ 13.35 fps)

Summary for Pond dmh45: dmh45

Inflow Area = 15.478 ac, 66.43% Impervious, Inflow Depth > 5.36" for 100-year event
Inflow = 83.17 cfs @ 12.08 hrs, Volume= 6.916 af
Outflow = 83.17 cfs @ 12.08 hrs, Volume= 6.916 af, Atten= 0%, Lag= 0.0 min
Primary = 83.17 cfs @ 12.08 hrs, Volume= 6.916 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 68.62' @ 12.08 hrs
Flood Elev= 56.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	46.19'	**30.0" Round Culvert** L= 316.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.19' / 44.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=83.17 cfs @ 12.08 hrs HW=68.62' (Free Discharge)
↑**1=Culvert** (Barrel Controls 83.17 cfs @ 16.94 fps)

Summary for Pond dmh47: dmh47

Inflow Area = 15.478 ac, 66.43% Impervious, Inflow Depth > 5.36" for 100-year event
Inflow = 83.17 cfs @ 12.08 hrs, Volume= 6.916 af
Outflow = 83.17 cfs @ 12.08 hrs, Volume= 6.916 af, Atten= 0%, Lag= 0.0 min
Primary = 83.17 cfs @ 12.08 hrs, Volume= 6.916 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 65.12' @ 12.08 hrs
Flood Elev= 55.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	44.00'	**30.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.00' / 42.96' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=83.17 cfs @ 12.08 hrs HW=65.12' (Free Discharge)
↑**1=Culvert** (Inlet Controls 83.17 cfs @ 16.94 fps)

Summary for Pond dmh48: dmh48

Inflow Area = 16.171 ac, 67.87% Impervious, Inflow Depth > 5.41" for 100-year event
Inflow = 86.35 cfs @ 12.10 hrs, Volume= 7.289 af
Outflow = 86.35 cfs @ 12.10 hrs, Volume= 7.289 af, Atten= 0%, Lag= 0.0 min
Primary = 86.35 cfs @ 12.10 hrs, Volume= 7.289 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 65.60' @ 12.10 hrs
Flood Elev= 50.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	42.94'	**30.0" Round Culvert** L= 117.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 42.94' / 42.35' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=85.99 cfs @ 12.10 hrs HW=65.43' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 85.99 cfs @ 17.52 fps)

Summary for Pond dmh49: dmh49

Inflow Area = 16.492 ac, 67.17% Impervious, Inflow Depth > 5.39" for 100-year event
Inflow = 87.47 cfs @ 12.10 hrs, Volume= 7.405 af
Outflow = 87.47 cfs @ 12.10 hrs, Volume= 7.405 af, Atten= 0%, Lag= 0.0 min
Primary = 87.47 cfs @ 12.10 hrs, Volume= 7.405 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.43' @ 12.10 hrs
Flood Elev= 50.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	42.33'	**36.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 42.33' / 42.23' S= 0.0071 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=87.13 cfs @ 12.10 hrs HW=54.34' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 87.13 cfs @ 12.33 fps)

Summary for Pond dmh5: dmh5

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 6.17" for 100-year event
Inflow = 19.92 cfs @ 12.08 hrs, Volume= 1.621 af
Outflow = 19.92 cfs @ 12.08 hrs, Volume= 1.621 af, Atten= 0%, Lag= 0.0 min
Primary = 19.92 cfs @ 12.08 hrs, Volume= 1.621 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.26' @ 12.08 hrs
Flood Elev= 69.04'

Device	Routing	Invert	Outlet Devices
#1	Primary	59.48'	**24.0" Round Culvert** L= 173.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.48' / 58.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=19.89 cfs @ 12.08 hrs HW=63.26' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 19.89 cfs @ 6.33 fps)

Summary for Pond dmh50: dmh50

Inflow Area = 15.118 ac, 79.46% Impervious, Inflow Depth > 5.89" for 100-year event
Inflow = 91.49 cfs @ 12.10 hrs, Volume= 7.419 af
Outflow = 91.49 cfs @ 12.10 hrs, Volume= 7.419 af, Atten= 0%, Lag= 0.0 min
Primary = 91.49 cfs @ 12.10 hrs, Volume= 7.419 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 70.04' @ 12.10 hrs
Flood Elev= 56.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	44.75'	**30.0" Round Culvert** L= 64.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.75' / 44.11' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=90.98 cfs @ 12.10 hrs HW=69.77' (Free Discharge)
1=Culvert (Inlet Controls 90.98 cfs @ 18.53 fps)

Summary for Pond dmh51: dmh51

Inflow Area = 15.118 ac, 79.46% Impervious, Inflow Depth > 5.89" for 100-year event
Inflow = 91.49 cfs @ 12.10 hrs, Volume= 7.419 af
Outflow = 91.49 cfs @ 12.10 hrs, Volume= 7.419 af, Atten= 0%, Lag= 0.0 min
Primary = 91.49 cfs @ 12.10 hrs, Volume= 7.419 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 69.38' @ 12.10 hrs
Flood Elev= 55.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	44.09'	**30.0" Round Culvert** L= 38.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.09' / 43.00' S= 0.0287 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=90.98 cfs @ 12.10 hrs HW=69.11' (Free Discharge)
1=Culvert (Inlet Controls 90.98 cfs @ 18.53 fps)

Summary for Pond dmh52: dmh52

Inflow Area = 31.609 ac, 73.05% Impervious, Inflow Depth > 5.63" for 100-year event
Inflow = 178.84 cfs @ 12.10 hrs, Volume= 14.825 af
Outflow = 178.84 cfs @ 12.10 hrs, Volume= 14.825 af, Atten= 0%, Lag= 0.0 min
Primary = 178.84 cfs @ 12.10 hrs, Volume= 14.825 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 66.66' @ 12.10 hrs
Flood Elev= 50.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	41.00'	**42.0" Round Culvert** L= 258.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 41.00' / 36.00' S= 0.0194 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 9.62 sf

Primary OutFlow Max=178.72 cfs @ 12.10 hrs HW=66.63' (Free Discharge)
↑**1=Culvert** (Inlet Controls 178.72 cfs @ 18.58 fps)

Summary for Pond dmh53: CB53

Inflow Area = 32.682 ac, 71.95% Impervious, Inflow Depth > 5.61" for 100-year event
Inflow = 184.90 cfs @ 12.10 hrs, Volume= 15.274 af
Outflow = 184.90 cfs @ 12.10 hrs, Volume= 15.274 af, Atten= 0%, Lag= 0.0 min
Primary = 184.90 cfs @ 12.10 hrs, Volume= 15.274 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.31' @ 12.10 hrs
Flood Elev= 41.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	33.00'	**42.0" Round Culvert** L= 120.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 33.00' / 30.50' S= 0.0208 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 9.62 sf

Primary OutFlow Max=184.79 cfs @ 12.10 hrs HW=60.28' (Free Discharge)
↑**1=Culvert** (Inlet Controls 184.79 cfs @ 19.21 fps)

Summary for Pond dmh54: dmh54

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 5.61" for 100-year event
Inflow = 185.21 cfs @ 12.10 hrs, Volume= 15.322 af
Outflow = 185.21 cfs @ 12.10 hrs, Volume= 15.322 af, Atten= 0%, Lag= 0.0 min
Primary = 185.21 cfs @ 12.10 hrs, Volume= 15.322 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 44.03' @ 12.10 hrs
Flood Elev= 38.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	27.00'	**48.0" Round Culvert** L= 152.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.00' / 22.00' S= 0.0329 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=185.09 cfs @ 12.10 hrs HW=44.01' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 185.09 cfs @ 14.73 fps)

Summary for Pond dmh55: dhm55

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 5.61" for 100-year event
Inflow = 185.21 cfs @ 12.10 hrs, Volume= 15.322 af
Outflow = 185.21 cfs @ 12.10 hrs, Volume= 15.322 af, Atten= 0%, Lag= 0.0 min
Primary = 185.21 cfs @ 12.10 hrs, Volume= 15.322 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 36.03' @ 12.10 hrs
Flood Elev= 30.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	19.00'	**48.0" Round Culvert** L= 115.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 19.00' / 15.50' S= 0.0304 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=185.09 cfs @ 12.10 hrs HW=36.01' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 185.09 cfs @ 14.73 fps)

Summary for Pond dmh56: dmh56

Inflow Area = 32.770 ac, 72.03% Impervious, Inflow Depth > 5.61" for 100-year event
Inflow = 185.21 cfs @ 12.10 hrs, Volume= 15.322 af
Outflow = 185.21 cfs @ 12.10 hrs, Volume= 15.322 af, Atten= 0%, Lag= 0.0 min
Primary = 185.21 cfs @ 12.10 hrs, Volume= 15.322 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 29.53' @ 12.10 hrs
Flood Elev= 30.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	12.50'	**48.0" Round Culvert** L= 42.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 12.50' / 11.00' S= 0.0357 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=185.09 cfs @ 12.10 hrs HW=29.51' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 185.09 cfs @ 14.73 fps)

Summary for Pond dmh59: dmh59

Inflow Area = 2.287 ac, 61.62% Impervious, Inflow Depth > 5.46" for 100-year event
Inflow = 12.11 cfs @ 12.09 hrs, Volume= 1.041 af
Outflow = 12.11 cfs @ 12.09 hrs, Volume= 1.041 af, Atten= 0%, Lag= 0.0 min
Primary = 12.11 cfs @ 12.09 hrs, Volume= 1.041 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 94.95' @ 12.09 hrs
Flood Elev= 59.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	54.30'	**12.0" Round Culvert** L= 294.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.30' / 52.83' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=12.09 cfs @ 12.09 hrs HW=94.82' (Free Discharge)
1=Culvert (Barrel Controls 12.09 cfs @ 15.40 fps)

Summary for Pond dmh6: dmh6

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 6.17" for 100-year event
Inflow = 19.92 cfs @ 12.08 hrs, Volume= 1.621 af
Outflow = 19.92 cfs @ 12.08 hrs, Volume= 1.621 af, Atten= 0%, Lag= 0.0 min
Primary = 19.92 cfs @ 12.08 hrs, Volume= 1.621 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 64.05' @ 12.08 hrs
Flood Elev= 68.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	58.58'	**24.0" Round Culvert** L= 170.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.58' / 57.73' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 3.14 sf

Primary OutFlow Max=19.89 cfs @ 12.08 hrs HW=64.04' (Free Discharge)
1=Culvert (Barrel Controls 19.89 cfs @ 6.33 fps)

Summary for Pond dmh60: dhm60

Inflow Area = 31.609 ac, 73.05% Impervious, Inflow Depth > 5.63" for 100-year event
Inflow = 178.84 cfs @ 12.10 hrs, Volume= 14.825 af
Outflow = 178.84 cfs @ 12.10 hrs, Volume= 14.825 af, Atten= 0%, Lag= 0.0 min
Primary = 178.84 cfs @ 12.10 hrs, Volume= 14.825 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 51.52' @ 12.10 hrs
Flood Elev= 44.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	35.50'	**48.0" Round Culvert** L= 114.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 35.50' / 33.50' S= 0.0175 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=178.72 cfs @ 12.10 hrs HW=51.50' (Free Discharge)
↑**1=Culvert** (Inlet Controls 178.72 cfs @ 14.22 fps)

Summary for Pond dmh7: dmh7

Inflow Area = 3.154 ac, 86.89% Impervious, Inflow Depth > 6.17" for 100-year event
Inflow = 19.92 cfs @ 12.08 hrs, Volume= 1.621 af
Outflow = 19.92 cfs @ 12.08 hrs, Volume= 1.621 af, Atten= 0%, Lag= 0.0 min
Primary = 19.92 cfs @ 12.08 hrs, Volume= 1.621 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.49' @ 12.08 hrs
Flood Elev= 67.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.71'	**24.0" Round Culvert** L= 170.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.71' / 56.86' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=19.89 cfs @ 12.08 hrs HW=61.49' (Free Discharge)
↑**1=Culvert** (Inlet Controls 19.89 cfs @ 6.33 fps)

Summary for Pond dmh8: dmh8

Inflow Area = 5.738 ac, 92.79% Impervious, Inflow Depth > 6.31" for 100-year event
Inflow = 37.69 cfs @ 12.08 hrs, Volume= 3.019 af
Outflow = 37.69 cfs @ 12.08 hrs, Volume= 3.019 af, Atten= 0%, Lag= 0.0 min
Primary = 37.69 cfs @ 12.08 hrs, Volume= 3.019 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 70.15' @ 12.08 hrs
Flood Elev= 66.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	56.84'	**24.0" Round Culvert** L= 296.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.84' / 55.66' S= 0.0040 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=37.63 cfs @ 12.08 hrs HW=70.11' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 37.63 cfs @ 11.98 fps)

Summary for Pond dmh9a: dmh9a

Inflow Area = 5.738 ac, 92.79% Impervious, Inflow Depth > 6.31" for 100-year event
Inflow = 37.69 cfs @ 12.08 hrs, Volume= 3.019 af
Outflow = 37.69 cfs @ 12.08 hrs, Volume= 3.019 af, Atten= 0%, Lag= 0.0 min
Primary = 37.69 cfs @ 12.08 hrs, Volume= 3.019 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 66.60' @ 12.08 hrs
Flood Elev= 65.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	55.64'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.64' / 54.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=37.63 cfs @ 12.08 hrs HW=66.57' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 37.63 cfs @ 11.98 fps)

Summary for Pond DP 9B: off site pond to strm 5/6

Inflow Area = 15.254 ac, 2.94% Impervious, Inflow Depth = 4.25" for 100-year event
Inflow = 40.93 cfs @ 12.36 hrs, Volume= 5.398 af
Outflow = 40.91 cfs @ 12.36 hrs, Volume= 5.398 af, Atten= 0%, Lag= 0.1 min
Primary = 40.91 cfs @ 12.36 hrs, Volume= 5.398 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.01' @ 12.36 hrs Surf.Area= 2,398 sf Storage= 1,049 cf

Plug-Flow detention time= 0.5 min calculated for 5.396 af (100% of inflow)
Center-of-Mass det. time= 0.5 min (836.9 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	62.00'	13,655 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.00	136	60.0	0	0	136
63.00	2,371	550.0	1,025	1,025	23,924
64.00	5,821	1,011.0	3,969	4,994	81,195
65.00	11,855	1,110.0	8,661	13,655	97,938

Device	Routing	Invert	Outlet Devices
#1	Primary	53.00'	**12.0" Round Culvert** L= 670.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 53.00' / 52.00' S= 0.0015 '/' Cc= 0.900
n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf
#2 Primary 62.50' **24.0" x 24.0" Horiz. Orifice/Grate X 4.00** C= 0.600
Limited to weir flow at low heads

Primary OutFlow Max=40.89 cfs @ 12.36 hrs HW=63.01' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.77 cfs @ 3.53 fps)
└**2=Orifice/Grate** (Weir Controls 38.12 cfs @ 2.34 fps)

Summary for Pond DP 9D: offsite pond strm 3

Inflow Area = 3.551 ac, 0.00% Impervious, Inflow Depth = 4.11" for 100-year event
Inflow = 7.16 cfs @ 12.73 hrs, Volume= 1.216 af
Outflow = 7.10 cfs @ 12.78 hrs, Volume= 1.216 af, Atten= 1%, Lag= 2.7 min
Primary = 7.10 cfs @ 12.78 hrs, Volume= 1.216 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 65.82' @ 12.78 hrs Surf.Area= 3,252 sf Storage= 1,711 cf

Plug-Flow detention time= 2.6 min calculated for 1.215 af (100% of inflow)
Center-of-Mass det. time= 2.6 min (870.3 - 867.8)

Volume	Invert	Avail.Storage	Storage Description
#1	65.00'	7,999 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.00	1,097	318.0	0	0	1,097
66.00	3,867	753.0	2,341	2,341	38,175
67.00	7,663	1,200.0	5,658	7,999	107,652

Device	Routing	Invert	Outlet Devices
#1	Primary	53.50'	**12.0" Round Culvert**
			L= 1,260.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 53.50' / 52.00' S= 0.0012 '/' Cc= 0.900
			n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf
#2	Primary	65.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600
			Limited to weir flow at low heads

Primary OutFlow Max=7.10 cfs @ 12.78 hrs HW=65.82' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.31 cfs @ 2.94 fps)
└**2=Orifice/Grate** (Weir Controls 4.79 cfs @ 1.86 fps)

Summary for Pond GSF 11: grassed soil filter

Inflow Area = 0.991 ac, 36.78% Impervious, Inflow Depth = 5.22" for 100-year event
Inflow = 5.94 cfs @ 12.09 hrs, Volume= 0.431 af
Outflow = 2.85 cfs @ 12.25 hrs, Volume= 0.381 af, Atten= 52%, Lag= 9.6 min
Primary = 0.03 cfs @ 12.25 hrs, Volume= 0.077 af
Secondary = 2.82 cfs @ 12.25 hrs, Volume= 0.303 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.90' @ 12.25 hrs Surf.Area= 5,535 sf Storage= 6,891 cf
Flood Elev= 63.00' Surf.Area= 5,598 sf Storage= 7,213 cf

Plug-Flow detention time= 271.7 min calculated for 0.381 af (88% of inflow)
Center-of-Mass det. time= 217.5 min (1,016.9 - 799.4)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	5,560 cf	**gsf11 (Irregular)** Listed below (Recalc)
#2	58.24'	1,653 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		7,213 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,200	181.0	0	0	2,200
62.00	2,771	200.0	2,480	2,480	2,807
63.00	3,400	219.0	3,080	5,560	3,474

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.24	2,198	0.0	0	0
58.25	2,198	40.0	9	9
58.99	2,198	40.0	651	659
59.00	2,198	30.0	7	666
59.49	2,198	30.0	323	989
59.50	2,198	20.0	4	993
61.00	2,198	20.0	659	1,653

Device	Routing	Invert	Outlet Devices
#1	Primary	58.25'	**0.7" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	58.05'	**8.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.05' / 57.78' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	62.00'	**4.0" Vert. Orifice/Grate X 6.00** C= 0.600
#5	Device 3	62.50'	**25.7" Horiz. cb19 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 12.25 hrs HW=62.90' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.03 cfs @ 10.36 fps)
└─**2=Exfiltration** (Passes 0.03 cfs of 0.13 cfs potential flow)

Secondary OutFlow Max=2.82 cfs @ 12.25 hrs HW=62.90' (Free Discharge)
└─**3=Culvert** (Inlet Controls 2.82 cfs @ 8.08 fps)
├─**4=Orifice/Grate** (Passes < 2.17 cfs potential flow)
└─**5=cb19 beehive equiv** (Passes < 5.66 cfs potential flow)

Summary for Pond GSF 12: grassed soil filter

Inflow Area = 0.297 ac, 57.98% Impervious, Inflow Depth = 5.79" for 100-year event
Inflow = 1.92 cfs @ 12.08 hrs, Volume= 0.143 af
Outflow = 1.85 cfs @ 12.11 hrs, Volume= 0.122 af, Atten= 4%, Lag= 1.4 min
Primary = 0.01 cfs @ 12.11 hrs, Volume= 0.025 af
Secondary = 1.84 cfs @ 12.11 hrs, Volume= 0.096 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.09' @ 12.11 hrs Surf.Area= 2,117 sf Storage= 1,817 cf
Flood Elev= 62.50' Surf.Area= 2,255 sf Storage= 2,348 cf

Plug-Flow detention time= 282.9 min calculated for 0.122 af (85% of inflow)
Center-of-Mass det. time= 219.6 min (1,005.0 - 785.4)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	1,681 cf	**gsf12 (Irregular)** Listed below (Recalc)
#2	58.24'	667 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		2,348 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	886	151.0	0	0	886
62.00	1,201	164.0	1,040	1,040	1,248
62.50	1,368	170.0	642	1,681	1,428

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.24	887	0.0	0	0
58.25	887	40.0	4	4
58.99	887	40.0	263	266
59.00	887	30.0	3	269
59.49	887	30.0	130	399
59.50	887	20.0	2	401
61.00	887	20.0	266	667

Device	Routing	Invert	Outlet Devices
#1	Primary	58.25'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	58.20'	**8.0" Round Culvert** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.20' / 58.10' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	61.90'	**25.7" Horiz. cb15a beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.11 hrs HW=62.09' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.42 fps)
└**2=Exfiltration** (Passes 0.01 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=1.83 cfs @ 12.11 hrs HW=62.09' (Free Discharge)
└**3=Culvert** (Passes 1.83 cfs of 2.50 cfs potential flow)
└**4=cb15a beehive equiv** (Weir Controls 1.83 cfs @ 1.43 fps)

Summary for Pond GSF 13: grassed soil filter

Inflow Area = 1.037 ac, 46.46% Impervious, Inflow Depth = 5.44" for 100-year event
Inflow = 6.42 cfs @ 12.09 hrs, Volume= 0.470 af
Outflow = 2.79 cfs @ 12.28 hrs, Volume= 0.418 af, Atten= 57%, Lag= 11.5 min
Primary = 0.04 cfs @ 12.28 hrs, Volume= 0.100 af
Secondary = 2.75 cfs @ 12.28 hrs, Volume= 0.318 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.69' @ 12.28 hrs Surf.Area= 6,737 sf Storage= 7,544 cf
Flood Elev= 63.00' Surf.Area= 7,083 sf Storage= 8,909 cf

Plug-Flow detention time= 296.3 min calculated for 0.418 af (89% of inflow)
Center-of-Mass det. time= 244.1 min (1,038.2 - 794.1)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	7,028 cf	**gsf13 (Irregular)** Listed below (Recalc)
#2	58.24'	1,881 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		8,909 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,500	328.0	0	0	2,500
62.00	3,513	347.0	2,992	2,992	3,575
63.00	4,582	366.0	4,036	7,028	4,710

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.24	2,501	0.0	0	0
58.25	2,501	40.0	10	10
58.99	2,501	40.0	740	750
59.00	2,501	30.0	8	758
59.49	2,501	30.0	368	1,125
59.50	2,501	20.0	5	1,130
61.00	2,501	20.0	750	1,881

Device	Routing	Invert	Outlet Devices
#1	Primary	58.25'	**0.8" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	58.05'	**8.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900

			Inlet / Outlet Invert= 58.05' / 57.82' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	62.00'	**25.7" Horiz. cb18 beehive equiv** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.04 cfs @ 12.28 hrs HW=62.69' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.04 cfs @ 10.11 fps)
↑—**2=Exfiltration** (Passes 0.04 cfs of 0.16 cfs potential flow)

Secondary OutFlow Max=2.75 cfs @ 12.28 hrs HW=62.69' (Free Discharge)
↑—**3=Culvert** (Inlet Controls 2.75 cfs @ 7.89 fps)
↑—**4=cb18 beehive equiv** (Passes 2.75 cfs of 12.62 cfs potential flow)

Summary for Pond GSF 15: grassed soil filter

Inflow Area = 0.210 ac, 1.92% Impervious, Inflow Depth = 4.22" for 100-year event
Inflow = 1.04 cfs @ 12.09 hrs, Volume= 0.074 af
Outflow = 1.01 cfs @ 12.11 hrs, Volume= 0.064 af, Atten= 2%, Lag= 1.1 min
Primary = 0.00 cfs @ 12.11 hrs, Volume= 0.005 af
Secondary = 1.01 cfs @ 12.11 hrs, Volume= 0.059 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.83' @ 12.11 hrs Surf.Area= 1,363 sf Storage= 673 cf
Flood Elev= 65.00' Surf.Area= 2,017 sf Storage= 1,939 cf

Plug-Flow detention time= 166.0 min calculated for 0.064 af (87% of inflow)
Center-of-Mass det. time= 106.5 min (927.3 - 820.7)

Volume	Invert	Avail.Storage	Storage Description
#1	63.50'	1,489 cf	**gsf15 (Irregular)** Listed below (Recalc)
#2	60.74'	450 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,939 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
63.50	600	168.0	0	0	600
64.00	858	177.0	363	363	862
65.00	1,418	196.0	1,126	1,489	1,456

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.74	599	0.0	0	0
60.75	599	40.0	2	2
61.49	599	40.0	177	180
61.50	599	30.0	2	181
61.99	599	30.0	88	270
62.00	599	20.0	1	271
63.50	599	20.0	180	450

Device	Routing	Invert	Outlet Devices
#1	Primary	60.75'	**0.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	60.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	60.70'	**8.0" Round Culvert** L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.52' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	63.70'	**25.7" Horiz. cb9 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.11 hrs HW=63.83' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.44 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.03 cfs potential flow)

Secondary OutFlow Max=1.00 cfs @ 12.11 hrs HW=63.83' (Free Discharge)
↑—**3=Culvert** (Passes 1.00 cfs of 2.22 cfs potential flow)
↑—**4=cb9 beehive equiv** (Weir Controls 1.00 cfs @ 1.17 fps)

Summary for Pond GSF 16: grassed soil filter

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth = 5.10" for 100-year event
Inflow = 2.04 cfs @ 12.09 hrs, Volume= 0.148 af
Outflow = 0.51 cfs @ 12.47 hrs, Volume= 0.086 af, Atten= 75%, Lag= 23.2 min
Primary = 0.01 cfs @ 12.47 hrs, Volume= 0.025 af
Secondary = 0.50 cfs @ 12.47 hrs, Volume= 0.061 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 64.48' @ 12.47 hrs Surf.Area= 3,261 sf Storage= 3,506 cf

Plug-Flow detention time= 448.5 min calculated for 0.086 af (59% of inflow)
Center-of-Mass det. time= 343.8 min (1,145.8 - 802.0)

Volume	Invert	Avail.Storage	Storage Description
#1	62.75'	4,054 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	60.74'	753 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		4,806 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.75	1,000	215.0	0	0	1,000
63.00	1,165	220.0	270	270	1,181
64.00	1,858	241.0	1,498	1,768	1,986
65.00	2,741	270.0	2,285	4,054	3,192

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.74	1,001	0.0	0	0
60.75	1,001	40.0	4	4
61.49	1,001	40.0	296	300
61.50	1,001	30.0	3	303
61.99	1,001	30.0	147	450
62.00	1,001	20.0	2	452
63.50	1,001	20.0	300	753

Device	Routing	Invert	Outlet Devices
#1	Primary	60.75'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	60.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	60.70'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.54' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	64.40'	**25.7" Horiz. cb8 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.47 hrs HW=64.48' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.28 fps)
└**2=Exfiltration** (Passes 0.01 cfs of 0.08 cfs potential flow)

Secondary OutFlow Max=0.49 cfs @ 12.47 hrs HW=64.48' (Free Discharge)
└**3=Culvert** (Passes 0.49 cfs of 2.46 cfs potential flow)
└**4=cb8 beehive equiv** (Weir Controls 0.49 cfs @ 0.92 fps)

Summary for Pond GSF 18A: grassed soil filter

Inflow Area = 0.146 ac, 40.91% Impervious, Inflow Depth = 5.33" for 100-year event
Inflow = 0.89 cfs @ 12.09 hrs, Volume= 0.065 af
Outflow = 0.55 cfs @ 12.18 hrs, Volume= 0.048 af, Atten= 38%, Lag= 5.9 min
Primary = 0.00 cfs @ 12.18 hrs, Volume= 0.013 af
Secondary = 0.55 cfs @ 12.18 hrs, Volume= 0.035 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.48' @ 12.18 hrs Surf.Area= 2,079 sf Storage= 1,185 cf

Plug-Flow detention time= 383.6 min calculated for 0.048 af (74% of inflow)
Center-of-Mass det. time= 296.9 min (1,093.6 - 796.8)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	1,183 cf	**gsf18a (Irregular)** Listed below (Recalc)
#2	54.24'	686 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,868 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	900	183.0	0	0	900
58.00	1,490	202.0	1,183	1,183	1,513

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
54.24	912	0.0	0	0
54.25	912	40.0	4	4
54.99	912	40.0	270	274
55.00	912	30.0	3	276
55.49	912	30.0	134	410
55.50	912	20.0	2	412
57.00	912	20.0	274	686

Device	Routing	Invert	Outlet Devices
#1	Primary	54.25'	**0.3" Vert. Orifice/Grate** C= 0.600
#2	Device 1	54.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.40'	**25.7" Horiz. cb24 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.18 hrs HW=57.48' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.64 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=0.54 cfs @ 12.18 hrs HW=57.48' (Free Discharge)
↑—**3=Culvert** (Passes 0.54 cfs of 2.36 cfs potential flow)
↑—**4=cb24 beehive equiv** (Weir Controls 0.54 cfs @ 0.95 fps)

Summary for Pond GSF 18B: grassed soil filter

Inflow Area = 0.092 ac, 58.36% Impervious, Inflow Depth = 5.79" for 100-year event
Inflow = 0.60 cfs @ 12.08 hrs, Volume= 0.045 af
Outflow = 0.58 cfs @ 12.10 hrs, Volume= 0.035 af, Atten= 2%, Lag= 1.1 min
Primary = 0.00 cfs @ 12.10 hrs, Volume= 0.006 af
Secondary = 0.58 cfs @ 12.10 hrs, Volume= 0.028 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 57.99' @ 12.10 hrs Surf.Area= 877 sf Storage= 644 cf

Plug-Flow detention time= 289.4 min calculated for 0.035 af (78% of inflow)
Center-of-Mass det. time= 210.6 min (996.0 - 785.4)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	430 cf	**gsf18a (Irregular)** Listed below (Recalc)
#2	54.24'	221 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		651 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	290	88.0	0	0	290
58.00	587	107.0	430	430	601

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
54.24	294	0.0	0	0
54.25	294	40.0	1	1
54.99	294	40.0	87	88
55.00	294	30.0	1	89
55.49	294	30.0	43	132
55.50	294	20.0	1	133
57.00	294	20.0	88	221

Device	Routing	Invert	Outlet Devices
#1	Primary	54.25'	**0.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	54.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.90'	**25.7" Horiz. cb23 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.10 hrs HW=57.99' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 9.30 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.02 cfs potential flow)

Secondary OutFlow Max=0.57 cfs @ 12.10 hrs HW=57.99' (Free Discharge)
↑—**3=Culvert** (Passes 0.57 cfs of 2.54 cfs potential flow)
↑—**4=cb23 beehive equiv** (Weir Controls 0.57 cfs @ 0.97 fps)

Summary for Pond GSF 1A: Grassed soil filter

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth = 5.33" for 100-year event
Inflow = 2.49 cfs @ 12.09 hrs, Volume= 0.181 af
Outflow = 2.15 cfs @ 12.13 hrs, Volume= 0.154 af, Atten= 14%, Lag= 2.8 min
Primary = 0.01 cfs @ 12.13 hrs, Volume= 0.037 af
Secondary = 2.14 cfs @ 12.13 hrs, Volume= 0.117 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 66.51' @ 12.13 hrs Surf.Area= 3,742 sf Storage= 2,626 cf
Flood Elev= 68.00' Surf.Area= 5,086 sf Storage= 6,753 cf

Plug-Flow detention time= 313.4 min calculated for 0.154 af (85% of inflow)
Center-of-Mass det. time= 248.8 min (1,045.6 - 796.8)

Volume	Invert	Avail.Storage	Storage Description
#1	65.75'	5,554 cf	**Grassed Underdrain Soil Filter (Irregular)** Listed below (Recalc)
#2	62.99'	1,198 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		6,753 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.75	1,600	234.0	0	0	1,600
66.00	1,775	239.0	422	422	1,797
67.00	2,525	261.0	2,139	2,561	2,708
68.00	3,488	286.0	2,994	5,554	3,830

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.99	1,598	0.0	0	0
63.00	1,598	40.0	6	6
63.74	1,598	40.0	473	479
63.75	1,598	30.0	5	484
64.24	1,598	30.0	235	719
64.25	1,598	20.0	3	722
65.74	1,598	20.0	476	1,198

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	**0.5" Vert. Orifice/Grate** C= 0.600
#2	Device 1	62.99'	**2.400 in/hr Exfiltration over Surface area**
#3	Secondary	62.50'	**8.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.50' / 62.26' S= 0.0089 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	66.30'	**25.7" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.13 hrs HW=66.51' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.00 fps)
└─**2=Exfiltration** (Passes 0.01 cfs of 0.21 cfs potential flow)

Secondary OutFlow Max=2.18 cfs @ 12.13 hrs HW=66.51' (Free Discharge)
└─**3=Culvert** (Passes 2.18 cfs of 2.55 cfs potential flow)
└─**4=Orifice/Grate** (Weir Controls 2.18 cfs @ 1.51 fps)

Summary for Pond GSF 1B: grassed soil filter

Inflow Area = 0.570 ac, 27.49% Impervious, Inflow Depth = 4.99" for 100-year event
Inflow = 3.29 cfs @ 12.09 hrs, Volume= 0.237 af
Outflow = 2.70 cfs @ 12.14 hrs, Volume= 0.223 af, Atten= 18%, Lag= 3.3 min
Primary = 0.01 cfs @ 12.14 hrs, Volume= 0.041 af
Secondary = 2.69 cfs @ 12.14 hrs, Volume= 0.182 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 67.14' @ 12.14 hrs Surf.Area= 2,497 sf Storage= 2,055 cf
Flood Elev= 67.00' Surf.Area= 2,309 sf Storage= 1,826 cf

Plug-Flow detention time= 210.3 min calculated for 0.223 af (94% of inflow)
Center-of-Mass det. time= 178.5 min (983.0 - 804.5)

Volume	Invert	Avail.Storage	Storage Description
#1	65.50'	32,509 cf	**gsf1B (Irregular)** Listed below (Recalc)
#2	62.74'	545 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		33,054 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.50	393	187.0	0	0	393
66.00	583	194.0	242	242	626
67.00	1,576	297.0	1,039	1,282	4,658
68.00	3,199	450.0	2,340	3,622	13,760
69.00	68,644	2,673.0	28,887	32,509	566,223

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.74	733	0.0	0	0
62.75	733	40.0	3	3
63.40	733	40.0	191	194
63.50	733	30.0	22	216
63.99	733	30.0	108	323
64.00	733	20.0	1	325
65.50	733	20.0	220	545

Device	Routing	Invert	Outlet Devices
#1	Primary	62.75'	**0.5" Vert. Orifice/Grate** C= 0.600
#2	Device 1	62.74'	**1.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#3	Secondary	62.70'	**8.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.70' / 62.60' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	66.90'	**25.7" Horiz. CB16 beehive grate equiv dbl X 2.00** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.14 hrs HW=67.14' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 10.06 fps)
└**2=Exfiltration** (Passes 0.01 cfs of 0.06 cfs potential flow)

Secondary OutFlow Max=2.69 cfs @ 12.14 hrs HW=67.14' (Free Discharge)
└**3=Culvert** (Inlet Controls 2.69 cfs @ 7.70 fps)
└**4=CB16 beehive grate equiv dbl** (Passes 2.69 cfs of 5.06 cfs potential flow)

Summary for Pond GSF 2: grassed soil filter

Inflow Area = 0.713 ac, 25.93% Impervious, Inflow Depth = 4.88" for 100-year event
Inflow = 4.03 cfs @ 12.09 hrs, Volume= 0.290 af
Outflow = 2.59 cfs @ 12.18 hrs, Volume= 0.262 af, Atten= 36%, Lag= 5.6 min
Primary = 0.02 cfs @ 12.18 hrs, Volume= 0.055 af
Secondary = 2.57 cfs @ 12.18 hrs, Volume= 0.208 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 58.04' @ 12.18 hrs Surf.Area= 3,919 sf Storage= 3,643 cf
Flood Elev= 59.00' Surf.Area= 4,991 sf Storage= 6,448 cf

Plug-Flow detention time= 256.6 min calculated for 0.262 af (90% of inflow)
Center-of-Mass det. time= 209.8 min (1,016.7 - 806.9)

Volume	Invert	Avail.Storage	Storage Description
#1	56.75'	5,317 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	53.99'	1,130 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		6,448 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.75	1,500	218.0	0	0	1,500
57.00	1,669	223.0	396	396	1,684
58.00	2,371	245.0	2,010	2,406	2,536
59.00	3,488	283.0	2,912	5,317	4,154

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.99	1,503	0.0	0	0
54.00	1,503	40.0	6	6
54.74	1,503	40.0	445	451
54.75	1,503	30.0	5	455
55.24	1,503	30.0	221	676
55.25	1,503	20.0	3	679
56.75	1,503	20.0	451	1,130

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	53.99'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	53.95'	**8.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.95' / 53.76' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.60'	**25.7" Horiz. cb20 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.18 hrs HW=58.04' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.65 fps)
└**2=Exfiltration** (Passes 0.02 cfs of 0.09 cfs potential flow)

Secondary OutFlow Max=2.57 cfs @ 12.18 hrs HW=58.04' (Free Discharge)
└**3=Culvert** (Inlet Controls 2.57 cfs @ 7.37 fps)
└**4=cb20 beehive equiv** (Passes 2.57 cfs of 6.52 cfs potential flow)

Summary for Pond GSF 24: grassed soil filter

Inflow Area = 0.419 ac, 67.19% Impervious, Inflow Depth = 6.25" for 100-year event
Inflow = 2.85 cfs @ 12.08 hrs, Volume= 0.218 af
Outflow = 2.58 cfs @ 12.12 hrs, Volume= 0.196 af, Atten= 9%, Lag= 2.2 min
Primary = 0.02 cfs @ 12.12 hrs, Volume= 0.057 af
Secondary = 2.56 cfs @ 12.12 hrs, Volume= 0.139 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 40.85' @ 12.12 hrs Surf.Area= 3,336 sf Storage= 2,883 cf

Plug-Flow detention time= 331.4 min calculated for 0.196 af (90% of inflow)
Center-of-Mass det. time= 281.8 min (1,053.7 - 771.9)

Volume	Invert	Avail.Storage	Storage Description
#1	39.75'	4,479 cf	**gsf24 (Irregular)** Listed below (Recalc)
#2	36.99'	1,054 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		5,533 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
39.75	1,400	150.0	0	0	1,400
40.00	1,516	156.0	364	364	1,551
41.00	2,013	176.0	1,759	2,123	2,105
42.00	2,717	200.0	2,356	4,479	2,847

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
36.99	1,401	0.0	0	0
37.00	1,401	40.0	6	6
37.74	1,401	40.0	415	420
37.75	1,401	30.0	4	425
38.24	1,401	30.0	206	630
38.25	1,401	20.0	3	633
39.75	1,401	20.0	420	1,054

Device	Routing	Invert	Outlet Devices
#1	Primary	37.00'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	36.99'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	36.80'	**8.0" Round Culvert** L= 40.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 36.80' / 36.00' S= 0.0200 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4 Device 3 40.60' **25.7" Horiz. cb32 beehive equiv** C= 0.600
Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.12 hrs HW=40.85' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.42 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.08 cfs potential flow)

Secondary OutFlow Max=2.56 cfs @ 12.12 hrs HW=40.85' (Free Discharge)
↑—**3=Culvert** (Inlet Controls 2.56 cfs @ 7.33 fps)
↑—**4=cb32 beehive equiv** (Passes 2.56 cfs of 2.77 cfs potential flow)

Summary for Pond GSF 3: grassed soil filter

Inflow Area = 0.830 ac, 36.22% Impervious, Inflow Depth = 5.10" for 100-year event
Inflow = 4.88 cfs @ 12.09 hrs, Volume= 0.353 af
Outflow = 4.45 cfs @ 12.12 hrs, Volume= 0.313 af, Atten= 9%, Lag= 2.2 min
Primary = 0.02 cfs @ 12.12 hrs, Volume= 0.057 af
Secondary = 4.43 cfs @ 12.12 hrs, Volume= 0.257 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 56.09' @ 12.12 hrs Surf.Area= 4,368 sf Storage= 4,106 cf
Flood Elev= 57.00' Surf.Area= 5,449 sf Storage= 7,083 cf

Plug-Flow detention time= 241.7 min calculated for 0.313 af (89% of inflow)
Center-of-Mass det. time= 189.2 min (991.1 - 802.0)

Volume	Invert	Avail.Storage	Storage Description
#1	54.75'	5,872 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	51.99'	1,211 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		7,083 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.75	1,600	268.0	0	0	1,600
55.00	1,804	274.0	425	425	1,868
56.00	2,657	295.0	2,217	2,642	2,860
57.00	3,839	332.0	3,230	5,872	4,733

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.99	1,610	0.0	0	0
52.00	1,610	40.0	6	6
52.74	1,610	40.0	477	483
52.75	1,610	30.0	5	488
53.24	1,610	30.0	237	725
53.25	1,610	20.0	3	728
54.75	1,610	20.0	483	1,211

Device	Routing	Invert	Outlet Devices
#1	Primary	52.00'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.99'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.95'	**12.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.95' / 51.81' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	55.75'	**25.7" Horiz. cb25 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.12 hrs HW=56.09' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.71 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.10 cfs potential flow)

Secondary OutFlow Max=4.42 cfs @ 12.12 hrs HW=56.09' (Free Discharge)
↑—**3=Culvert** (Passes 4.42 cfs of 5.70 cfs potential flow)
↑—**4=cb25 beehive equiv** (Weir Controls 4.42 cfs @ 1.92 fps)

Summary for Pond GSF 4: grassed soil filter

Inflow Area = 0.194 ac, 0.00% Impervious, Inflow Depth = 4.22" for 100-year event
Inflow = 0.96 cfs @ 12.09 hrs, Volume= 0.068 af
Outflow = 0.93 cfs @ 12.11 hrs, Volume= 0.061 af, Atten= 3%, Lag= 1.2 min
Primary = 0.00 cfs @ 12.11 hrs, Volume= 0.013 af
Secondary = 0.93 cfs @ 12.11 hrs, Volume= 0.048 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.22' @ 12.11 hrs Surf.Area= 1,151 sf Storage= 757 cf
Flood Elev= 56.00' Surf.Area= 1,431 sf Storage= 1,405 cf

Plug-Flow detention time= 267.0 min calculated for 0.061 af (89% of inflow)
Center-of-Mass det. time= 215.4 min (1,036.1 - 820.7)

Volume	Invert	Avail.Storage	Storage Description
#1	54.50'	1,061 cf	**gsf4 (Irregular)** Listed below (Recalc)
#2	51.74'	344 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,405 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.50	457	163.0	0	0	457
55.00	623	169.0	269	269	636
56.00	974	182.0	792	1,061	1,039

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.74	457	0.0	0	0
51.75	457	40.0	2	2
52.49	457	40.0	135	137
52.50	457	30.0	1	138
52.99	457	30.0	67	206
53.00	457	20.0	1	207
54.50	457	20.0	137	344

Device	Routing	Invert	Outlet Devices
#1	Primary	51.75'	**0.3" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.70'	**8.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.70' / 51.53' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	55.10'	**25.7" Horiz. cb26 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.11 hrs HW=55.22' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.95 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.03 cfs potential flow)

Secondary OutFlow Max=0.92 cfs @ 12.11 hrs HW=55.22' (Free Discharge)
↑—**3=Culvert** (Passes 0.92 cfs of 2.37 cfs potential flow)
↑—**4=cb26 beehive equiv** (Weir Controls 0.92 cfs @ 1.13 fps)

Summary for Pond GSF 5: grassed soil filter

Inflow Area = 0.248 ac, 0.00% Impervious, Inflow Depth = 4.22" for 100-year event
Inflow = 1.23 cfs @ 12.09 hrs, Volume= 0.087 af
Outflow = 1.13 cfs @ 12.12 hrs, Volume= 0.074 af, Atten= 8%, Lag= 2.1 min
Primary = 0.00 cfs @ 12.12 hrs, Volume= 0.013 af
Secondary = 1.13 cfs @ 12.12 hrs, Volume= 0.061 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 54.74' @ 12.12 hrs Surf.Area= 1,661 sf Storage= 1,056 cf
Flood Elev= 55.00' Surf.Area= 1,857 sf Storage= 1,360 cf

Plug-Flow detention time= 253.5 min calculated for 0.074 af (85% of inflow)
Center-of-Mass det. time= 190.0 min (1,010.7 - 820.7)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	908 cf	**gsf5 (Irregular)** Listed below (Recalc)
#2	51.24'	451 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		1,360 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	600	210.0	0	0	600
55.00	1,257	228.0	908	908	1,265

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.24	600	0.0	0	0
51.25	600	40.0	2	2
51.99	600	40.0	178	180
52.00	600	30.0	2	182
52.49	600	30.0	88	270
52.50	600	20.0	1	271
54.00	600	20.0	180	451

Device	Routing	Invert	Outlet Devices
#1	Primary	51.25'	**0.3" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.00'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.95' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	54.60'	**25.7" Horiz. cb beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 12.12 hrs HW=54.74' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.00 cfs @ 8.98 fps)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.04 cfs potential flow)

Secondary OutFlow Max=1.12 cfs @ 12.12 hrs HW=54.74' (Free Discharge)
↑—**3=Culvert** (Passes 1.12 cfs of 2.45 cfs potential flow)
↑—**4=cb beehive equiv** (Weir Controls 1.12 cfs @ 1.21 fps)

Summary for Pond GSF 6: grassed soil filter

Inflow Area = 0.321 ac, 32.06% Impervious, Inflow Depth = 5.10" for 100-year event
Inflow = 1.89 cfs @ 12.09 hrs, Volume= 0.137 af
Outflow = 1.31 cfs @ 12.17 hrs, Volume= 0.116 af, Atten= 30%, Lag= 4.9 min
Primary = 0.01 cfs @ 12.17 hrs, Volume= 0.024 af
Secondary = 1.31 cfs @ 12.17 hrs, Volume= 0.092 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 48.63' @ 12.17 hrs Surf.Area= 2,291 sf Storage= 2,027 cf
Flood Elev= 50.00' Surf.Area= 2,772 sf Storage= 4,107 cf

Plug-Flow detention time= 284.3 min calculated for 0.116 af (85% of inflow)
Center-of-Mass det. time= 221.4 min (1,023.4 - 802.0)

Volume	Invert	Avail.Storage	Storage Description
#1	47.50'	3,352 cf	**gsf6 (Irregular)** Listed below (Recalc)
#2	44.74'	755 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		4,107 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
47.50	1,004	156.0	0	0	1,004
48.00	1,082	159.0	521	521	1,113
49.00	1,413	172.0	1,244	1,765	1,493
50.00	1,768	184.0	1,587	3,352	1,877

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
44.74	1,004	0.0	0	0
44.75	1,004	40.0	4	4
45.49	1,004	40.0	297	301
45.50	1,004	30.0	3	304
45.99	1,004	30.0	148	452
46.00	1,004	20.0	2	454
47.50	1,004	20.0	301	755

Device	Routing	Invert	Outlet Devices
#1	Primary	44.75'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	44.74'	**1.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#3	Secondary	44.70'	**8.0" Round culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.70' / 44.53' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	48.20'	**4.0" Vert. Orifice X 6.00** C= 0.600
#5	Device 3	49.00'	**25.7" Horiz. cb beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 12.17 hrs HW=48.63' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 9.47 fps)
└**2=Exfiltration** (Passes 0.01 cfs of 0.05 cfs potential flow)

Secondary OutFlow Max=1.30 cfs @ 12.17 hrs HW=48.63' (Free Discharge)
└**3=culvert** (Passes 1.30 cfs of 2.52 cfs potential flow)
├**4=Orifice** (Orifice Controls 1.30 cfs @ 2.49 fps)
└**5=cb beehive equiv** (Controls 0.00 cfs)

Summary for Pond GSF 7: grassed soil filter

Inflow Area = 0.697 ac, 25.86% Impervious, Inflow Depth = 4.88" for 100-year event
Inflow = 3.94 cfs @ 12.09 hrs, Volume= 0.283 af
Outflow = 2.56 cfs @ 12.18 hrs, Volume= 0.241 af, Atten= 35%, Lag= 5.6 min
Primary = 0.02 cfs @ 12.18 hrs, Volume= 0.054 af
Secondary = 2.54 cfs @ 12.18 hrs, Volume= 0.187 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 54.99' @ 12.18 hrs Surf.Area= 5,490 sf Storage= 4,223 cf
Flood Elev= 56.00' Surf.Area= 7,240 sf Storage= 8,558 cf

Plug-Flow detention time= 299.3 min calculated for 0.241 af (85% of inflow)
Center-of-Mass det. time= 235.1 min (1,042.0 - 806.9)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	7,026 cf	**gsf7 (Irregular)** Listed below (Recalc)
#2	51.24'	1,532 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		8,558 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	2,037	220.0	0	0	2,037
55.00	3,467	289.0	2,720	2,720	4,843
56.00	5,203	357.0	4,306	7,026	8,354

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.24	2,037	0.0	0	0
51.25	2,037	40.0	8	8
51.99	2,037	40.0	603	611
52.00	2,037	30.0	6	617
52.49	2,037	30.0	299	917
52.50	2,037	20.0	4	921
54.00	2,037	20.0	611	1,532

Device	Routing	Invert	Outlet Devices
#1	Primary	51.25'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	51.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	51.00'	**8.0" Round cb29** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.48' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	54.70'	**25.7" Horiz. cb beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.18 hrs HW=54.99' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.28 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.13 cfs potential flow)

Secondary OutFlow Max=2.54 cfs @ 12.18 hrs HW=54.99' (Free Discharge)
↑—**3=cb29** (Inlet Controls 2.54 cfs @ 7.27 fps)
↑—**4=cb beehive equiv** (Passes 2.54 cfs of 3.46 cfs potential flow)

Summary for Pond GSF 8: grassed soil filter

Inflow Area = 1.046 ac, 55.78% Impervious, Inflow Depth = 5.67" for 100-year event
Inflow = 6.68 cfs @ 12.08 hrs, Volume= 0.494 af
Outflow = 2.80 cfs @ 12.29 hrs, Volume= 0.448 af, Atten= 58%, Lag= 12.2 min
Primary = 0.04 cfs @ 12.29 hrs, Volume= 0.104 af
Secondary = 2.76 cfs @ 12.29 hrs, Volume= 0.344 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 58.43' @ 12.29 hrs Surf.Area= 5,768 sf Storage= 7,650 cf
Flood Elev= 58.50' Surf.Area= 5,815 sf Storage= 7,903 cf

Plug-Flow detention time= 279.2 min calculated for 0.448 af (91% of inflow)
Center-of-Mass det. time= 232.9 min (1,021.4 - 788.4)

Volume	Invert	Avail.Storage	Storage Description
#1	56.50'	6,471 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)
#2	53.74'	1,433 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		7,903 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.50	2,600	200.0	0	0	2,600
57.50	3,227	218.0	2,908	2,908	3,234
58.50	3,910	237.0	3,563	6,471	3,959

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.74	1,905	0.0	0	0
53.75	1,905	40.0	8	8
54.49	1,905	40.0	564	572
54.50	1,905	30.0	6	577
54.99	1,905	30.0	280	857
55.00	1,905	20.0	4	861
56.50	1,905	20.0	572	1,433

Device	Routing	Invert	Outlet Devices
#1	Primary	53.75'	**0.8" Vert. Orifice/Grate** C= 0.600
#2	Device 1	53.74'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	53.50'	**8.0" Round cb10 culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.50' / 52.93' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	57.60'	**25.7" Horiz. cb10 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.04 cfs @ 12.29 hrs HW=58.43' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.04 cfs @ 10.38 fps)
└─**2=Exfiltration** (Passes 0.04 cfs of 0.13 cfs potential flow)

Secondary OutFlow Max=2.76 cfs @ 12.29 hrs HW=58.43' (Free Discharge)
└─**3=cb10 culvert** (Barrel Controls 2.76 cfs @ 7.92 fps)
└─**4=cb10 beehive equiv** (Passes 2.76 cfs of 15.85 cfs potential flow)

Summary for Pond GSF 9: grassed soil filter

Inflow Area = 0.647 ac, 63.29% Impervious, Inflow Depth = 5.90" for 100-year event
Inflow = 4.25 cfs @ 12.08 hrs, Volume= 0.318 af
Outflow = 2.70 cfs @ 12.18 hrs, Volume= 0.296 af, Atten= 36%, Lag= 5.7 min
Primary = 0.02 cfs @ 12.18 hrs, Volume= 0.055 af
Secondary = 2.68 cfs @ 12.18 hrs, Volume= 0.240 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.41' @ 12.18 hrs Surf.Area= 4,598 sf Storage= 3,518 cf
Flood Elev= 65.00' Surf.Area= 6,073 sf Storage= 8,972 cf

Plug-Flow detention time= 223.5 min calculated for 0.295 af (93% of inflow)
Center-of-Mass det. time= 185.8 min (968.1 - 782.3)

Volume	Invert	Avail.Storage	Storage Description
#1	62.50'	7,539 cf	**gsf9 (Irregular)** Listed below (Recalc)
#2	59.24'	1,433 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		8,972 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.50	1,905	437.0	0	0	1,905
63.00	2,345	443.0	1,061	1,061	2,379
64.00	3,244	455.0	2,782	3,843	3,347
65.00	4,168	468.0	3,696	7,539	4,408

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.24	1,905	0.0	0	0
59.25	1,905	40.0	8	8
59.99	1,905	40.0	564	572
60.00	1,905	30.0	6	577
60.49	1,905	30.0	280	857
60.50	1,905	20.0	4	861
62.00	1,905	20.0	572	1,433

Device	Routing	Invert	Outlet Devices
#1	Primary	59.25'	**0.6" Vert. Orifice/Grate** C= 0.600
#2	Device 1	59.24'	**1.000 in/hr Exfiltration over Surface area**
#3	Secondary	59.00'	**8.0" Round Culvert** L= 54.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.00' / 57.92' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	62.95'	**25.7" Horiz. cb6 beehive equiv** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.18 hrs HW=63.41' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 9.79 fps)
└─**2=Exfiltration** (Passes 0.02 cfs of 0.11 cfs potential flow)

Secondary OutFlow Max=2.68 cfs @ 12.18 hrs HW=63.41' (Free Discharge)
└─**3=Culvert** (Inlet Controls 2.68 cfs @ 7.67 fps)
└─**4=cb6 beehive equiv** (Passes 2.68 cfs of 6.79 cfs potential flow)

Summary for Pond ics 12: ICS 12

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 6.96" for 100-year event
Inflow = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af
Outflow = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af, Atten= 0%, Lag= 0.0 min
Primary = 17.14 cfs @ 12.08 hrs, Volume= 0.781 af
Secondary = 1.12 cfs @ 12.08 hrs, Volume= 0.718 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 67.96' @ 12.08 hrs
Flood Elev= 65.42'

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**18.0" Round Culvert** L= 4.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.15' S= 0.1375 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	62.95'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	60.75'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.75' / 60.72' S= 0.0060 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	60.75'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=17.11 cfs @ 12.08 hrs HW=67.94' (Free Discharge)
└─**1=Culvert** (Inlet Controls 17.11 cfs @ 9.68 fps)
└─**2=Broad-Crested Rectangular Weir** (Passes 17.11 cfs of 148.03 cfs potential flow)

Secondary OutFlow Max=1.11 cfs @ 12.08 hrs HW=67.94' (Free Discharge)
└─**3=Culvert** (Passes 1.11 cfs of 7.72 cfs potential flow)
└─**4=Orifice/Grate** (Orifice Controls 1.11 cfs @ 12.76 fps)

Summary for Pond ICS1: ICS 1

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 6.96" for 100-year event
Inflow = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af
Outflow = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af, Atten= 0%, Lag= 0.0 min
Primary = 1.12 cfs @ 12.08 hrs, Volume= 0.581 af
Secondary = 17.14 cfs @ 12.08 hrs, Volume= 0.918 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 70.63' @ 12.08 hrs
Flood Elev= 69.38'

Device	Routing	Invert	Outlet Devices
#1	Secondary	63.37'	**18.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.37' / 63.27' S= 0.0043 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	64.31'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	63.37'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.37' / 63.37' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	63.37'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=1.12 cfs @ 12.08 hrs HW=70.61' (Free Discharge)
↑—**3=Culvert** (Passes 1.12 cfs of 7.75 cfs potential flow)
↑—**4=Orifice/Grate** (Orifice Controls 1.12 cfs @ 12.80 fps)

Secondary OutFlow Max=17.11 cfs @ 12.08 hrs HW=70.61' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 17.11 cfs @ 9.68 fps)
↑—**2=Broad-Crested Rectangular Weir** (Passes 17.11 cfs of 209.86 cfs potential flow)

Summary for Pond ICS18: ICS18

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth = 6.96" for 100-year event
Inflow = 3.08 cfs @ 12.08 hrs, Volume= 0.253 af
Outflow = 3.08 cfs @ 12.08 hrs, Volume= 0.253 af, Atten= 0%, Lag= 0.0 min
Primary = 0.68 cfs @ 12.08 hrs, Volume= 0.200 af
Secondary = 2.40 cfs @ 12.08 hrs, Volume= 0.053 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.60' @ 12.08 hrs
Flood Elev= 62.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.81'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.81' / 57.80' S= 0.0020 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.81'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 4	60.25'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#4	Secondary	57.80'	**12.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.80' / 56.96' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.68 cfs @ 12.08 hrs HW=60.60' (Free Discharge)
↑—**1=Culvert** (Passes 0.68 cfs of 2.08 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.68 cfs @ 7.80 fps)

Secondary OutFlow Max=2.39 cfs @ 12.08 hrs HW=60.60' (Free Discharge)
↑—**4=Culvert** (Passes 2.39 cfs of 4.53 cfs potential flow)
↑—**3=Broad-Crested Rectangular Weir** (Weir Controls 2.39 cfs @ 1.71 fps)

Summary for Pond ics28: ICS28

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth = 6.96" for 100-year event
Inflow = 1.95 cfs @ 12.08 hrs, Volume= 0.160 af
Outflow = 1.95 cfs @ 12.08 hrs, Volume= 0.160 af, Atten= 0%, Lag= 0.0 min
Primary = 0.65 cfs @ 12.08 hrs, Volume= 0.139 af
Secondary = 1.29 cfs @ 12.08 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.74' @ 12.08 hrs
Flood Elev= 63.95'

Device	Routing	Invert	Outlet Devices
#1	Secondary	58.00'	**8.0" Round Culvert** L= 10.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.00' / 57.90' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	60.50'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	58.15'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.15' / 58.12' S= 0.0060 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Device 3	58.15'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.65 cfs @ 12.08 hrs HW=60.74' (Free Discharge)
└**3=Culvert** (Passes 0.65 cfs of 1.99 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 0.65 cfs @ 7.49 fps)

Secondary OutFlow Max=1.29 cfs @ 12.08 hrs HW=60.74' (Free Discharge)
└**1=Culvert** (Passes 1.29 cfs of 2.06 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 1.29 cfs @ 1.37 fps)

Summary for Pond ICS37: ISC37

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 6.96" for 100-year event
Inflow = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af
Outflow = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af, Atten= 0%, Lag= 0.0 min
Primary = 6.14 cfs @ 12.08 hrs, Volume= 1.256 af
Secondary = 12.12 cfs @ 12.08 hrs, Volume= 0.243 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.51' @ 12.08 hrs
Flood Elev= 57.00'

Device	Routing	Invert	Outlet Devices
#1	Secondary	52.50'	**18.0" Round Culvert** L= 51.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.50' / 52.00' S= 0.0098 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	52.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Primary	52.80'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=6.13 cfs @ 12.08 hrs HW=56.50' (Free Discharge)
├**3=Culvert** (Inlet Controls 5.34 cfs @ 6.79 fps)
└**4=Orifice/Grate** (Orifice Controls 0.79 cfs @ 9.04 fps)

Secondary OutFlow Max=12.10 cfs @ 12.08 hrs HW=56.50' (Free Discharge)
└**1=Culvert** (Inlet Controls 12.10 cfs @ 6.85 fps)
└**2=Broad-Crested Rectangular Weir** (Passes 12.10 cfs of 24.28 cfs potential flow)

Summary for Pond ics46: ICS46

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 6.96" for 100-year event
Inflow = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af
Outflow = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af, Atten= 0%, Lag= 0.0 min
Primary = 1.07 cfs @ 12.08 hrs, Volume= 0.717 af
Secondary = 17.18 cfs @ 12.08 hrs, Volume= 0.782 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 53.49' @ 12.08 hrs
Flood Elev= 55.50'

Device	Routing	Invert	Outlet Devices
#1	Secondary	46.20'	**18.0" Round Culvert** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.20' / 46.00' S= 0.0091 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	49.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	46.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.80' / 46.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	46.80'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=1.07 cfs @ 12.08 hrs HW=53.47' (Free Discharge)
└**3=Culvert** (Passes 1.07 cfs of 7.42 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 1.07 cfs @ 12.28 fps)

Secondary OutFlow Max=17.15 cfs @ 12.08 hrs HW=53.47' (Free Discharge)
└**1=Culvert** (Inlet Controls 17.15 cfs @ 9.71 fps)
└**2=Broad-Crested Rectangular Weir** (Passes 17.15 cfs of 125.58 cfs potential flow)

Summary for Pond ICS9: ICS9

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 6.96" for 100-year event
Inflow = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af
Outflow = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af, Atten= 0%, Lag= 0.0 min
Primary = 1.10 cfs @ 12.08 hrs, Volume= 0.716 af
Secondary = 17.16 cfs @ 12.08 hrs, Volume= 0.783 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 68.98' @ 12.08 hrs
Flood Elev= 66.76'

Device	Routing	Invert	Outlet Devices
#1	Secondary	61.70'	**18.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.70' / 61.00' S= 0.0500 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	64.18'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	62.00'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.00' / 61.65' S= 0.0700 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

#4 Device 3 62.00' **4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=1.09 cfs @ 12.08 hrs HW=68.95' (Free Discharge)
└**3=Culvert** (Passes 1.09 cfs of 7.58 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 1.09 cfs @ 12.54 fps)

Secondary OutFlow Max=17.13 cfs @ 12.08 hrs HW=68.95' (Free Discharge)
└**1=Culvert** (Inlet Controls 17.13 cfs @ 9.69 fps)
└**2=Broad-Crested Rectangular Weir** (Passes 17.13 cfs of 138.54 cfs potential flow)

Summary for Pond ISC42: ICS 42

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 6.96" for 100-year event
Inflow = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af
Outflow = 18.26 cfs @ 12.08 hrs, Volume= 1.499 af, Atten= 0%, Lag= 0.0 min
Primary = 5.96 cfs @ 12.08 hrs, Volume= 1.275 af
Secondary = 12.29 cfs @ 12.08 hrs, Volume= 0.224 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.33' @ 12.08 hrs
Flood Elev= 57.00'

Device	Routing	Invert	Outlet Devices
#1	Secondary	52.20'	**18.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.20' / 51.88' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.37'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	52.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Primary	52.80'	**4.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=5.96 cfs @ 12.08 hrs HW=56.32' (Free Discharge)
├**3=Culvert** (Inlet Controls 5.19 cfs @ 6.61 fps)
└**4=Orifice/Grate** (Orifice Controls 0.77 cfs @ 8.82 fps)

Secondary OutFlow Max=12.34 cfs @ 12.08 hrs HW=56.32' (Free Discharge)
└**1=Culvert** (Inlet Controls 12.34 cfs @ 6.98 fps)
└**2=Broad-Crested Rectangular Weir** (Passes 12.34 cfs of 12.35 cfs potential flow)

Summary for Pond MPP 10: Rtank storage

Inflow Area = 0.710 ac,100.00% Impervious, Inflow Depth = 6.96" for 100-year event
Inflow = 5.02 cfs @ 12.08 hrs, Volume= 0.412 af
Outflow = 3.18 cfs @ 12.18 hrs, Volume= 0.394 af, Atten= 37%, Lag= 5.6 min
Primary = 3.18 cfs @ 12.18 hrs, Volume= 0.394 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.95' @ 12.18 hrs Surf.Area= 0.179 ac Storage= 0.091 af

Plug-Flow detention time= 92.2 min calculated for 0.394 af (96% of inflow)
Center-of-Mass det. time= 65.9 min (808.4 - 742.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.23'	0.091 af	**6.25'W x 1,248.97'L x 1.94'H Field A** 0.347 af Overall - 0.118 af Embedded = 0.229 af x 40.0% Voids
#2A	61.48'	0.112 af	**ACF R-Tank HD 0.5** x 2128 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 4 Rows of 532 Chambers
		0.204 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	61.48'	**8.0" Round Culvert X 6.00** L= 2.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.48' / 61.40' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=3.18 cfs @ 12.18 hrs HW=61.95' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 3.18 cfs @ 2.82 fps)

Summary for Pond MPP 14: Rtanks

Inflow Area = 0.215 ac, 94.36% Impervious, Inflow Depth = 6.84" for 100-year event
Inflow = 1.52 cfs @ 12.08 hrs, Volume= 0.123 af
Outflow = 1.00 cfs @ 12.17 hrs, Volume= 0.118 af, Atten= 34%, Lag= 5.3 min
Primary = 1.00 cfs @ 12.17 hrs, Volume= 0.118 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.76' @ 12.17 hrs Surf.Area= 1,935 sf Storage= 1,121 cf
Flood Elev= 60.50' Surf.Area= 1,935 sf Storage= 2,354 cf

Plug-Flow detention time= 85.5 min calculated for 0.118 af (96% of inflow)
Center-of-Mass det. time= 63.2 min (812.1 - 748.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	55.98'	1,011 cf	**15.44'W x 125.33'L x 2.04'H Field A** 3,941 cf Overall - 1,413 cf Embedded = 2,528 cf x 40.0% Voids
#2A	56.23'	1,343 cf	**ACF R-Tank HD 0.5** x 583 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 11 Rows of 53 Chambers
		2,354 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	56.23'	**8.0" Round Culvert X 2.00** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.23' / 56.12' S= 0.0052 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.00 cfs @ 12.17 hrs HW=56.76' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.00 cfs @ 2.32 fps)

Summary for Pond MPP 19: Rtanks

Inflow Area = 0.315 ac, 80.35% Impervious, Inflow Depth = 6.37" for 100-year event
Inflow = 2.16 cfs @ 12.08 hrs, Volume= 0.167 af
Outflow = 0.65 cfs @ 12.40 hrs, Volume= 0.158 af, Atten= 70%, Lag= 18.8 min
Primary = 0.65 cfs @ 12.40 hrs, Volume= 0.158 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.10' @ 12.40 hrs Surf.Area= 0.074 ac Storage= 0.068 af

Plug-Flow detention time= 156.6 min calculated for 0.158 af (95% of inflow)
Center-of-Mass det. time= 127.6 min (895.6 - 768.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.83'	0.033 af	**18.06'W x 179.28'L x 1.84'H Field A** 0.137 af Overall - 0.055 af Embedded = 0.082 af x 40.0% Voids
#2A	55.08'	0.052 af	**ACF R-Tank HD 0.5** x 988 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 76 Chambers
		0.085 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.08'	**6.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.08' / 55.00' S= 0.0042 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.65 cfs @ 12.40 hrs HW=56.09' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.65 cfs @ 3.32 fps)

Summary for Pond MPP 21: Rtanks

Inflow Area = 0.263 ac, 68.92% Impervious, Inflow Depth = 6.14" for 100-year event
Inflow = 1.77 cfs @ 12.08 hrs, Volume= 0.134 af
Outflow = 0.80 cfs @ 12.25 hrs, Volume= 0.131 af, Atten= 55%, Lag= 10.2 min
Primary = 0.80 cfs @ 12.25 hrs, Volume= 0.131 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.14' @ 12.25 hrs Surf.Area= 1,510 sf Storage= 1,609 cf

Plug-Flow detention time= 85.6 min calculated for 0.131 af (97% of inflow)
Center-of-Mass det. time= 68.7 min (844.3 - 775.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.48'	818 cf	**16.75'W x 90.14'L x 2.09'H Field A** 3,151 cf Overall - 1,105 cf Embedded = 2,046 cf x 40.0% Voids
#2A	54.73'	1,050 cf	**ACF R-Tank HD 0.5** x 456 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 38 Chambers
		1,868 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.73'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.73' / 54.73' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.80 cfs @ 12.25 hrs HW=56.14' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.80 cfs @ 4.09 fps)

Summary for Pond MPP 22: Rtanks

Inflow Area = 0.309 ac, 61.12% Impervious, Inflow Depth = 5.90" for 100-year event
Inflow = 2.03 cfs @ 12.08 hrs, Volume= 0.152 af
Outflow = 0.63 cfs @ 12.39 hrs, Volume= 0.144 af, Atten= 69%, Lag= 18.5 min
Primary = 0.63 cfs @ 12.39 hrs, Volume= 0.144 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 56.02' @ 12.39 hrs Surf.Area= 3,003 sf Storage= 2,676 cf

Plug-Flow detention time= 152.5 min calculated for 0.144 af (95% of inflow)
Center-of-Mass det. time= 122.4 min (904.7 - 782.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.80'	1,262 cf	**16.75'W x 179.28'L x 1.79'H Field A** 5,367 cf Overall - 2,211 cf Embedded = 3,156 cf x 40.0% Voids
#2A	55.05'	2,100 cf	**ACF R-Tank HD 0.5** x 912 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 76 Chambers
		3,363 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.05'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.05' / 55.05' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.63 cfs @ 12.39 hrs HW=56.02' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.63 cfs @ 3.21 fps)

Summary for Pond MPP 26: Rtanks

Inflow Area = 0.088 ac,100.00% Impervious, Inflow Depth = 6.96" for 100-year event
Inflow = 0.62 cfs @ 12.08 hrs, Volume= 0.051 af
Outflow = 0.36 cfs @ 12.19 hrs, Volume= 0.048 af, Atten= 41%, Lag= 6.4 min
Primary = 0.36 cfs @ 12.19 hrs, Volume= 0.048 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 35.02' @ 12.19 hrs Surf.Area= 1,289 sf Storage= 594 cf

Plug-Flow detention time= 120.6 min calculated for 0.048 af (94% of inflow)
Center-of-Mass det. time= 86.8 min (829.3 - 742.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	34.37'	492 cf	**18.06'W x 71.37'L x 1.69'H Field A** 2,175 cf Overall - 945 cf Embedded = 1,230 cf x 40.0% Voids
#2A	34.62'	898 cf	**ACF R-Tank HD 0.5** x 390 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 30 Chambers
		1,390 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	34.62'	**8.0" Round Culvert** L= 8.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 34.62' / 34.34' S= 0.0350 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.36 cfs @ 12.19 hrs HW=35.02' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.36 cfs @ 1.69 fps)

Summary for Pond MPP 50:

Inflow Area = 0.693 ac,100.00% Impervious, Inflow Depth = 6.96" for 100-year event
Inflow = 4.89 cfs @ 12.08 hrs, Volume= 0.402 af
Outflow = 3.46 cfs @ 12.16 hrs, Volume= 0.373 af, Atten= 29%, Lag= 4.7 min
Primary = 3.46 cfs @ 12.16 hrs, Volume= 0.373 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 55.11' @ 12.16 hrs Surf.Area= 5,946 sf Storage= 3,895 cf

Plug-Flow detention time= 108.5 min calculated for 0.373 af (93% of inflow)
Center-of-Mass det. time= 69.1 min (811.7 - 742.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.33'	2,878 cf	**4.94'W x 1,204.40'L x 1.84'H Field A** 10,925 cf Overall - 3,731 cf Embedded = 7,195 cf x 40.0% Voids
#2A	54.33'	3,544 cf	**ACF R-Tank HD 0.5** x 1539 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 3 Rows of 513 Chambers
		6,422 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.58'	**8.0" Round Culvert X 7.00** L= 3.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.58' / 54.55' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=3.45 cfs @ 12.16 hrs HW=55.11' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 3.45 cfs @ 2.27 fps)

Summary for Pond mpp30: Rtanks

Inflow Area = 1.205 ac, 54.78% Impervious, Inflow Depth = 5.25" for 100-year event
Inflow = 6.96 cfs @ 12.09 hrs, Volume= 0.527 af
Outflow = 0.73 cfs @ 12.85 hrs, Volume= 0.527 af, Atten= 89%, Lag= 46.0 min
Primary = 0.73 cfs @ 12.85 hrs, Volume= 0.527 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 32.18' @ 12.85 hrs Surf.Area= 9,089 sf Storage= 9,944 cf
Flood Elev= 31.78' Surf.Area= 9,089 sf Storage= 8,611 cf

Plug-Flow detention time= 147.8 min calculated for 0.527 af (100% of inflow)
Center-of-Mass det. time= 147.7 min (933.7 - 786.0)

Volume	Invert	Avail.Storage	Storage Description
#1B	30.73'	4,011 cf	**8.56'W x 815.99'L x 2.04'H Field B** 14,234 cf Overall - 4,206 cf Embedded = 10,028 cf x 40.0% Voids
#2B	30.98'	3,995 cf	**ACF R-Tank HD 0.5** x 1735 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 5 Rows of 347 Chambers
#3C	29.28'	259 cf	**10.56'W x 74.72'L x 1.69'H Field C** 1,337 cf Overall - 689 cf Embedded = 648 cf x 40.0% Voids
#4C	29.53'	654 cf	**ACF R-Tank HD 1.0** x 155 Inside #3 Inside= 15.7"W x 17.3"H => 1.80 sf x 2.35'L = 4.2 cf Outside= 15.7"W x 17.3"H => 1.89 sf x 2.35'L = 4.4 cf 5 Rows of 31 Chambers
#5D	29.28'	968 cf	**17.12'W x 76.72'L x 3.42'H Field D** 4,487 cf Overall - 2,066 cf Embedded = 2,420 cf x 40.0% Voids
#6D	29.53'	1,963 cf	**ACF R-Tank HD 1.5** x 310 Inside #5 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 10 Rows of 31 Chambers
		11,851 cf	Total Available Storage

Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard
Storage Group D created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	29.28'	**18.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 29.28' / 29.00' S= 0.0140 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Primary	29.28'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	30.00'	**3.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.73 cfs @ 12.85 hrs HW=32.18' (Free Discharge)
└─**1=Culvert** (Passes 0.34 cfs of 9.85 cfs potential flow)
  └─**3=Orifice/Grate** (Orifice Controls 0.34 cfs @ 6.90 fps)
└─**2=Orifice/Grate** (Orifice Controls 0.39 cfs @ 8.02 fps)

Summary for Pond SSF 36: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 2.70" for 100-year event
Inflow = 1.12 cfs @ 12.08 hrs, Volume= 0.581 af
Outflow = 0.40 cfs @ 13.96 hrs, Volume= 0.480 af, Atten= 64%, Lag= 112.8 min
Primary = 0.08 cfs @ 13.96 hrs, Volume= 0.251 af
Secondary = 0.32 cfs @ 13.96 hrs, Volume= 0.229 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 64.58' @ 13.96 hrs Surf.Area= 11,270 sf Storage= 11,236 cf
Flood Elev= 66.27' Surf.Area= 11,270 sf Storage= 16,373 cf

Plug-Flow detention time= 678.7 min calculated for 0.480 af (83% of inflow)
Center-of-Mass det. time= 574.6 min (1,342.0 - 767.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	62.77'	5,035 cf	**25.25'W x 223.16'L x 3.50'H Field A** 19,722 cf Overall - 7,135 cf Embedded = 12,587 cf x 40.0% Voids
#2A	63.27'	7,135 cf	**ADS_StormTech SC-740** x 155 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 5 rows
#3	60.02'	4,204 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,373 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.02	5,635	0.0	0	0
60.03	5,635	40.0	23	23
60.76	5,635	40.0	1,645	1,668
60.77	5,635	30.0	17	1,685
61.26	5,635	30.0	828	2,513
61.27	5,635	20.0	11	2,524
62.76	5,635	20.0	1,679	4,204

Device	Routing	Invert	Outlet Devices
#1	Primary	60.02'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	60.02'	**1.500 in/hr Exfiltration over Surface area above 60.02'** Excluded Surface area = 5,635 sf
#3	Secondary	64.31'	**12.0" Round Culvert X 2.00** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 64.31' / 64.31' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 13.96 hrs HW=64.58' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.23 fps)
└**2=Exfiltration** (Passes 0.08 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.32 cfs @ 13.96 hrs HW=64.58' (Free Discharge)
└**3=Culvert** (Barrel Controls 0.32 cfs @ 1.38 fps)

Summary for Pond ssf37: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 3.33" for 100-year event
Inflow = 1.10 cfs @ 12.08 hrs, Volume= 0.716 af
Outflow = 0.67 cfs @ 12.42 hrs, Volume= 0.615 af, Atten= 39%, Lag= 20.3 min
Primary = 0.08 cfs @ 12.42 hrs, Volume= 0.254 af
Secondary = 0.58 cfs @ 12.42 hrs, Volume= 0.361 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.42' @ 12.42 hrs Surf.Area= 11,332 sf Storage= 12,071 cf
Flood Elev= 64.85' Surf.Area= 11,332 sf Storage= 16,132 cf

Plug-Flow detention time= 553.8 min calculated for 0.614 af (86% of inflow)
Center-of-Mass det. time= 471.2 min (1,231.7 - 760.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.35'	5,284 cf	**11.00'W x 515.08'L x 3.50'H Field A** 19,831 cf Overall - 6,621 cf Embedded = 13,210 cf x 40.0% Voids
#2A	61.85'	6,621 cf	**ADS_StormTech SC-740** x 144 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	58.60'	4,227 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,132 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.60	5,666	0.0	0	0
58.61	5,666	40.0	23	23
59.34	5,666	40.0	1,654	1,677
59.35	5,666	30.0	17	1,694
59.84	5,666	30.0	833	2,527
59.85	5,666	20.0	11	2,538
61.34	5,666	20.0	1,688	4,227

Device	Routing	Invert	Outlet Devices
#1	Primary	58.60'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	58.60'	**1.500 in/hr Exfiltration over Surface area above 58.60'** Excluded Surface area = 5,666 sf
#3	Secondary	62.89'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.89' / 62.89' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 12.42 hrs HW=63.42' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.51 fps)
↑—**2=Exfiltration** (Passes 0.08 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.58 cfs @ 12.42 hrs HW=63.42' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.58 cfs @ 2.02 fps)

Summary for Pond ssf38: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 3.63" for 100-year event
Inflow = 17.14 cfs @ 12.08 hrs, Volume= 0.781 af
Outflow = 25.73 cfs @ 12.10 hrs, Volume= 0.684 af, Atten= 0%, Lag= 1.0 min
Primary = 0.20 cfs @ 12.10 hrs, Volume= 0.176 af
Secondary = 25.54 cfs @ 12.10 hrs, Volume= 0.508 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 135.10' @ 12.10 hrs Surf.Area= 11,332 sf Storage= 16,132 cf
Flood Elev= 63.62' Surf.Area= 11,332 sf Storage= 16,132 cf

Plug-Flow detention time= 241.9 min calculated for 0.684 af (88% of inflow)
Center-of-Mass det. time= 230.1 min (956.3 - 726.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	60.12'	5,284 cf	**11.00'W x 515.08'L x 3.50'H Field A** 19,831 cf Overall - 6,621 cf Embedded = 13,210 cf x 40.0% Voids
#2A	60.62'	6,621 cf	**ADS_StormTech SC-740** x 144 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	57.37'	4,227 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,132 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.37	5,666	0.0	0	0
57.38	5,666	40.0	23	23
58.11	5,666	40.0	1,654	1,677
58.12	5,666	30.0	17	1,694
58.61	5,666	30.0	833	2,527
58.62	5,666	20.0	11	2,538
60.11	5,666	20.0	1,688	4,227

Device	Routing	Invert	Outlet Devices
#1	Primary	57.37'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	57.37'	**1.500 in/hr Exfiltration over Surface area above 57.37'** Excluded Surface area = 5,666 sf
#3	Secondary	61.66'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.66' / 61.66' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.20 cfs @ 12.10 hrs HW=135.08' (Free Discharge)
↑—**1=Orifice/Grate** (Passes 0.20 cfs of 0.33 cfs potential flow)
↑—**2=Exfiltration** (Exfiltration Controls 0.20 cfs)

Secondary OutFlow Max=24.95 cfs @ 12.10 hrs HW=132.02' (Free Discharge)
↑—**3=Culvert** (Inlet Controls 24.95 cfs @ 31.77 fps)

Summary for Pond ssf39: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 5.83" for 100-year event
Inflow = 6.14 cfs @ 12.08 hrs, Volume= 1.256 af
Outflow = 6.13 cfs @ 12.08 hrs, Volume= 1.125 af, Atten= 0%, Lag= 0.0 min
Primary = 0.11 cfs @ 12.08 hrs, Volume= 0.257 af
Secondary = 6.02 cfs @ 12.08 hrs, Volume= 0.868 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 58.59' @ 12.08 hrs Surf.Area= 12,365 sf Storage= 18,385 cf
Flood Elev= 55.67' Surf.Area= 12,365 sf Storage= 18,385 cf

Plug-Flow detention time= 333.4 min calculated for 1.125 af (90% of inflow)
Center-of-Mass det. time= 278.4 min (1,024.3 - 745.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	52.17'	5,625 cf	**58.50'W x 109.24'L x 3.50'H Field A** 22,367 cf Overall - 8,303 cf Embedded = 14,064 cf x 40.0% Voids
#2A	52.67'	8,303 cf	**ADS_StormTech SC-740** x 180 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 12 rows
#3	49.42'	4,457 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		18,385 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
49.42	5,974	0.0	0	0
49.43	5,974	40.0	24	24
50.16	5,974	40.0	1,744	1,768
50.17	5,974	30.0	18	1,786
50.66	5,974	30.0	878	2,664
50.67	5,974	20.0	12	2,676
52.16	5,974	20.0	1,780	4,457

Device	Routing	Invert	Outlet Devices
#1	Primary	49.42'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	49.42'	**1.500 in/hr Exfiltration over Surface area above 49.42'** Excluded Surface area = 5,974 sf
#3	Secondary	53.71'	**12.0" Round Culvert**

L= 5.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 53.71' / 53.71' S= 0.0000 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.11 cfs @ 12.08 hrs HW=58.26' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.11 cfs @ 14.28 fps)
↑—**2=Exfiltration** (Passes 0.11 cfs of 0.22 cfs potential flow)

Secondary OutFlow Max=6.02 cfs @ 12.08 hrs HW=58.27' (Free Discharge)
↑—**3=Culvert** (Inlet Controls 6.02 cfs @ 7.66 fps)

Summary for Pond ssf40: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 5.92" for 100-year event
Inflow = 5.96 cfs @ 12.08 hrs, Volume= 1.275 af
Outflow = 6.69 cfs @ 12.08 hrs, Volume= 1.167 af, Atten= 0%, Lag= 0.0 min
Primary = 0.12 cfs @ 12.08 hrs, Volume= 0.257 af
Secondary = 6.57 cfs @ 12.08 hrs, Volume= 0.910 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.05' @ 12.08 hrs Surf.Area= 11,484 sf Storage= 16,630 cf
Flood Elev= 55.67' Surf.Area= 11,484 sf Storage= 16,630 cf

Plug-Flow detention time= 307.9 min calculated for 1.167 af (92% of inflow)
Center-of-Mass det. time= 260.9 min (1,006.5 - 745.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	52.17'	5,168 cf	**20.50'W x 280.12'L x 3.50'H Field A** 20,099 cf Overall - 7,178 cf Embedded = 12,921 cf x 40.0% Voids
#2A	52.67'	7,178 cf	**ADS_StormTech SC-740** x 156 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 4 rows
#3	49.42'	4,284 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,630 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
49.42	5,742	0.0	0	0
49.43	5,742	40.0	23	23
50.16	5,742	40.0	1,677	1,700
50.17	5,742	30.0	17	1,717
50.66	5,742	30.0	844	2,561
50.67	5,742	20.0	11	2,572
52.16	5,742	20.0	1,711	4,284

Device	Routing	Invert	Outlet Devices
#1	Primary	49.42'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	49.42'	**1.500 in/hr Exfiltration over Surface area above 49.42'** Excluded Surface area = 5,742 sf
#3	Secondary	53.71'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.71' / 53.71' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.12 cfs @ 12.08 hrs HW=59.05' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.12 cfs @ 14.90 fps)
└**2=Exfiltration** (Passes 0.12 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=6.57 cfs @ 12.08 hrs HW=59.05' (Free Discharge)
└**3=Culvert** (Inlet Controls 6.57 cfs @ 8.36 fps)

Summary for Pond ssf41: ssf

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 3.33" for 100-year event
Inflow = 1.07 cfs @ 12.08 hrs, Volume= 0.717 af
Outflow = 0.65 cfs @ 12.52 hrs, Volume= 0.612 af, Atten= 39%, Lag= 26.0 min
Primary = 0.08 cfs @ 12.52 hrs, Volume= 0.254 af
Secondary = 0.57 cfs @ 12.52 hrs, Volume= 0.358 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 48.23' @ 12.52 hrs Surf.Area= 11,270 sf Storage= 12,241 cf
Flood Elev= 49.67' Surf.Area= 11,270 sf Storage= 16,373 cf

Plug-Flow detention time= 560.1 min calculated for 0.612 af (85% of inflow)
Center-of-Mass det. time= 475.5 min (1,236.0 - 760.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	46.17'	5,035 cf	**25.25'W x 223.16'L x 3.50'H Field A** 19,722 cf Overall - 7,135 cf Embedded = 12,587 cf x 40.0% Voids
#2A	46.67'	7,135 cf	**ADS_StormTech SC-740** x 155 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 5 rows
#3	43.42'	4,204 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		16,373 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
43.42	5,635	0.0	0	0
43.43	5,635	40.0	23	23
44.16	5,635	40.0	1,645	1,668
44.17	5,635	30.0	17	1,685
44.66	5,635	30.0	828	2,513
44.67	5,635	20.0	11	2,524
46.16	5,635	20.0	1,679	4,204

Device	Routing	Invert	Outlet Devices
#1	Primary	43.42'	**1.2" Vert. Orifice/Grate** C= 0.600
#2	Device 1	43.42'	**1.500 in/hr Exfiltration over Surface area above 43.42'** Excluded Surface area = 5,635 sf
#3	Secondary	47.71'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 47.71' / 47.71' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 12.52 hrs HW=48.23' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.51 fps)
↑—**2=Exfiltration** (Passes 0.08 cfs of 0.20 cfs potential flow)

Secondary OutFlow Max=0.57 cfs @ 12.52 hrs HW=48.23' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.57 cfs @ 2.00 fps)

Summary for Pond ssf42: ssf

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth = 6.04" for 100-year event
Inflow = 0.65 cfs @ 12.08 hrs, Volume= 0.139 af
Outflow = 0.65 cfs @ 12.15 hrs, Volume= 0.122 af, Atten= 1%, Lag= 4.1 min
Primary = 0.01 cfs @ 12.15 hrs, Volume= 0.029 af
Secondary = 0.64 cfs @ 12.15 hrs, Volume= 0.093 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.72' @ 12.15 hrs Surf.Area= 1,422 sf Storage= 1,731 cf
Flood Elev= 61.67' Surf.Area= 1,422 sf Storage= 2,027 cf

Plug-Flow detention time= 332.0 min calculated for 0.122 af (88% of inflow)
Center-of-Mass det. time= 271.4 min (1,016.6 - 745.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	58.17'	662 cf	**15.75'W x 45.16'L x 3.50'H Field A** 2,489 cf Overall - 835 cf Embedded = 1,654 cf x 40.0% Voids
#2A	58.67'	835 cf	**ADS_StormTech SC-740** x 18 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 3 rows
#3	55.42'	530 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		2,027 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.42	711	0.0	0	0
55.43	711	40.0	3	3
56.16	711	40.0	208	210
56.17	711	30.0	2	213
56.66	711	30.0	105	317
56.67	711	20.0	1	319
58.16	711	20.0	212	530

Device	Routing	Invert	Outlet Devices
#1	Primary	55.42'	**0.4" Vert. Orifice/Grate** C= 0.600
#2	Device 1	55.42'	**1.500 in/hr Exfiltration over Surface area above 55.42'** Excluded Surface area = 711 sf
#3	Secondary	60.06'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.05' / 60.06' S= -0.0020 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.01 cfs @ 12.15 hrs HW=60.72' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 11.07 fps)
↑—**2=Exfiltration** (Passes 0.01 cfs of 0.02 cfs potential flow)

Secondary OutFlow Max=0.64 cfs @ 12.15 hrs HW=60.72' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.64 cfs @ 2.26 fps)

Summary for Pond ssf43: ssf

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth = 5.50" for 100-year event
Inflow = 0.68 cfs @ 12.08 hrs, Volume= 0.200 af
Outflow = 0.67 cfs @ 12.16 hrs, Volume= 0.180 af, Atten= 2%, Lag= 4.7 min
Primary = 0.02 cfs @ 12.16 hrs, Volume= 0.045 af
Secondary = 0.65 cfs @ 12.16 hrs, Volume= 0.135 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 59.96' @ 12.16 hrs Surf.Area= 1,934 sf Storage= 2,345 cf
Flood Elev= 60.90' Surf.Area= 1,934 sf Storage= 2,740 cf

Plug-Flow detention time= 335.6 min calculated for 0.180 af (90% of inflow)
Center-of-Mass det. time= 281.5 min (1,028.6 - 747.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	57.40'	910 cf	**11.00'W x 87.88'L x 3.50'H Field A** 3,383 cf Overall - 1,108 cf Embedded = 2,275 cf x 40.0% Voids
#2A	57.90'	1,108 cf	**ADS_StormTech SC-740** x 24 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	54.65'	721 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		2,740 cf	Total Available Storage

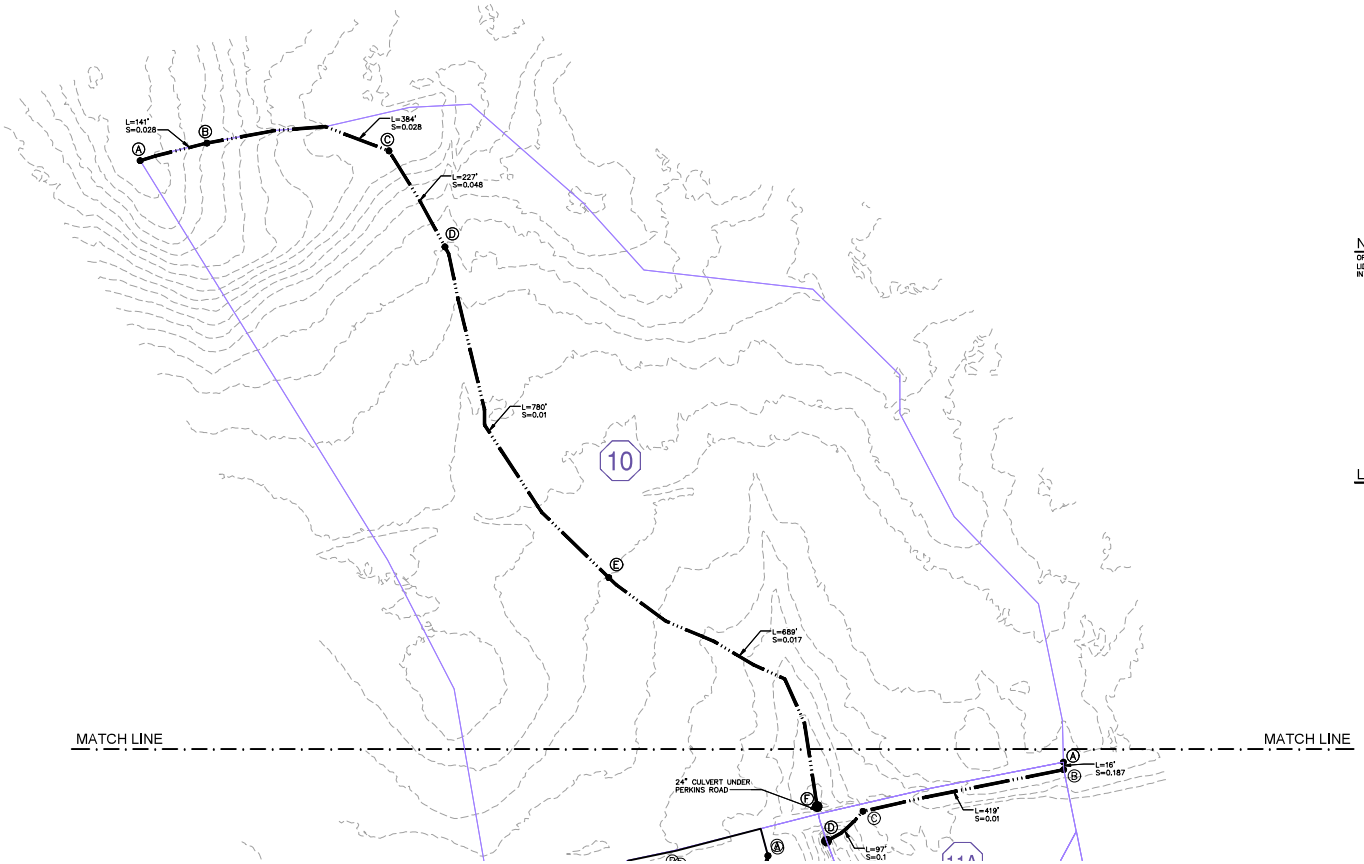
Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
54.65	967	0.0	0	0
54.66	967	40.0	4	4
55.39	967	40.0	282	286
55.40	967	30.0	3	289
55.89	967	30.0	142	431
55.90	967	20.0	2	433
57.39	967	20.0	288	721

Device	Routing	Invert	Outlet Devices
#1	Primary	54.65'	**0.5" Vert. Orifice/Grate** C= 0.600
#2	Device 1	54.65'	**1.500 in/hr Exfiltration over Surface area above 54.65'** Excluded Surface area = 967 sf
#3	Secondary	59.28'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.28' / 59.28' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.02 cfs @ 12.16 hrs HW=59.96' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.02 cfs @ 11.07 fps)
↑—**2=Exfiltration** (Passes 0.02 cfs of 0.03 cfs potential flow)

Secondary OutFlow Max=0.65 cfs @ 12.16 hrs HW=59.96' (Free Discharge)
↑—**3=Culvert** (Barrel Controls 0.65 cfs @ 2.28 fps)



NOTE

OFF-SITE TOPOGRAPHY PROVIDED BY LIDAR SURVEY. CONTOURS ARE AT 2' INTERVALS.

LEGEND

- SUBCATCHMENT BOUNDARY
- 9 — SUBCATCHMENT ID
- A — FLOW LINE BREAK POINTS
- HYDRAULIC FLOW LINE
- PT — ANALYSIS POINT

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NORDIC AQUAFARMS
MULTIPHASE PROJECT

158 HIGH STREET, BELFAST, MAINE

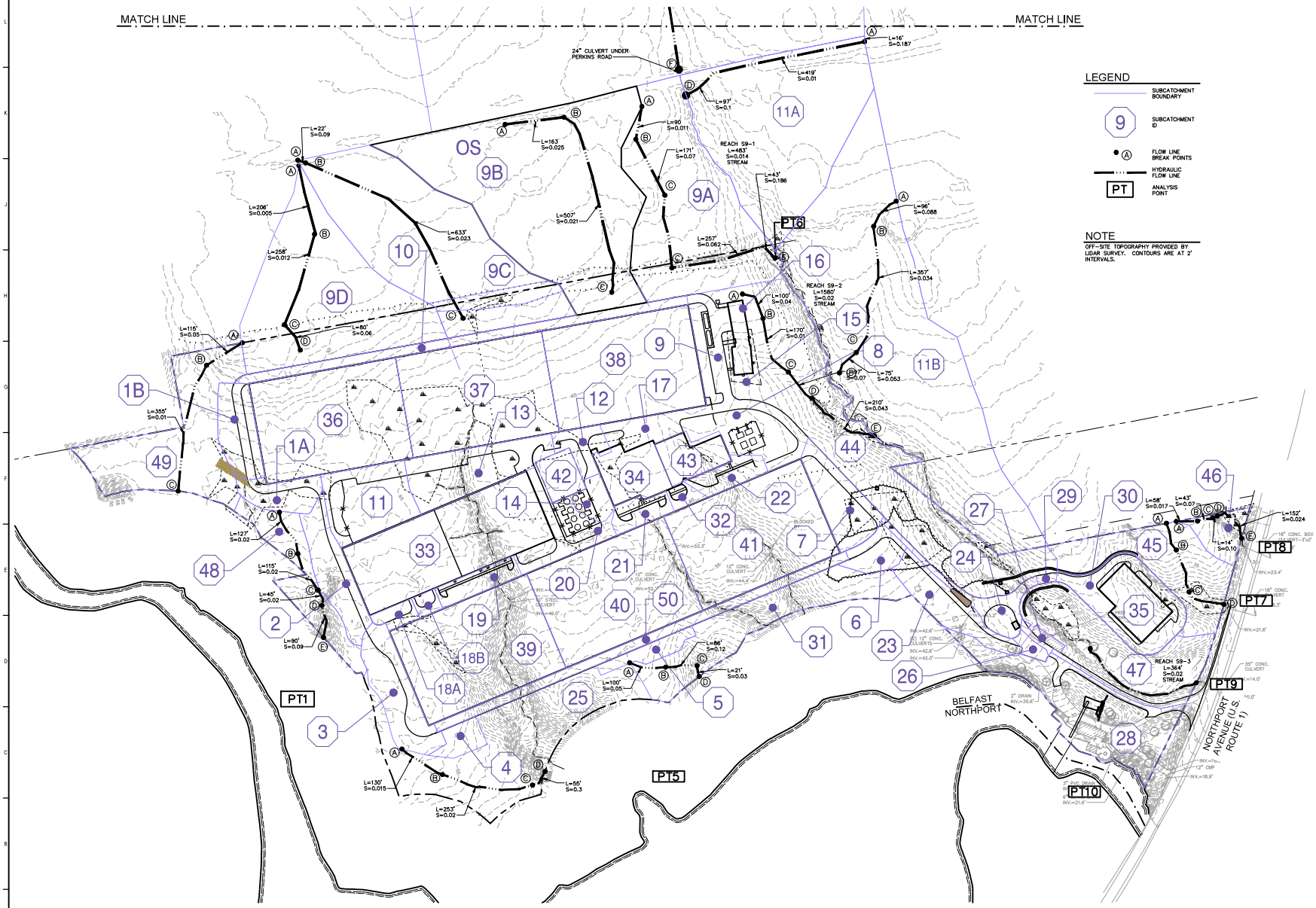
POST-DEVELOPMENT
WATERSHED PLAN -
OFF-SITE AREAS

0 60 120 240
SCALE in FEET
1"=120'

PROJECT MANAGER: MPM | PROJECT NO: 171.05027
DRAWN BY: JAR

CW-103

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NORDIC AQUAFARMS
MULTIPHASE PROJECT

158 HIGH STREET, BELFAST, MAINE

POST-DEVELOPMENT
WATERSHED PLAN -
ON-SITE AREAS

0 60 120 240
SCALE in FEET
1"=120'

PROJECT MANAGER: MPM | PROJECT NO: 171.05027
DRAWN BY: JAR

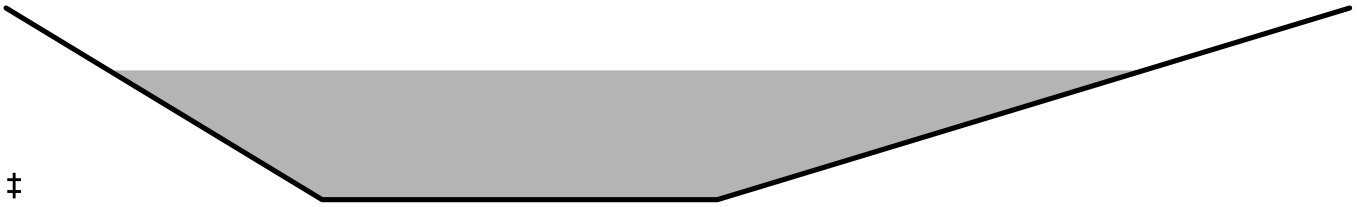
CW-104

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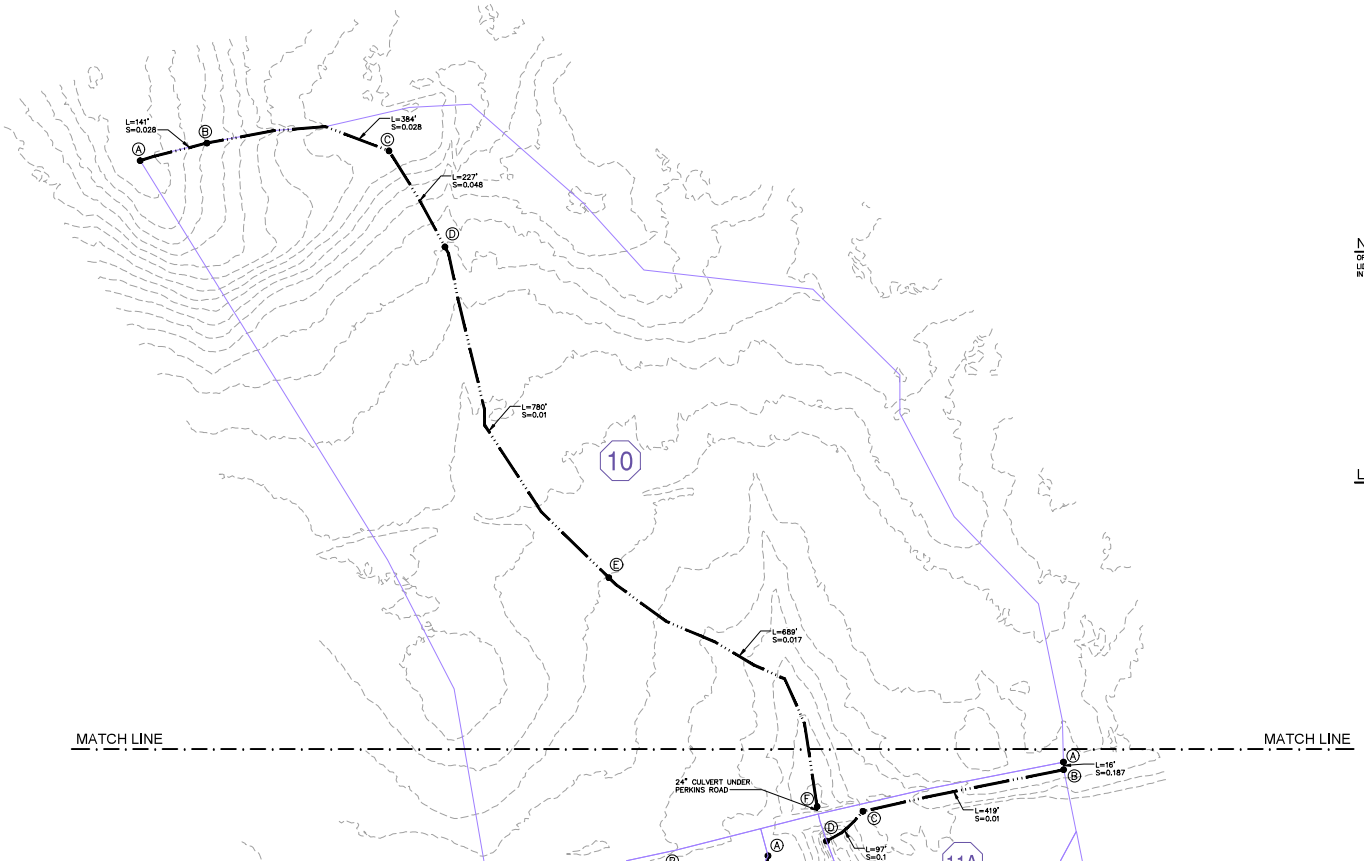
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.51 fps, Min. Travel Time= 0.9 min
Avg. Velocity = 3.23 fps, Avg. Travel Time= 1.9 min

Peak Storage= 4,449 cf @ 12.51 hrs
Average Depth at Peak Storage= 1.35'
Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 177.67 cfs

5.00' x 2.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 2.0 4.0 '/' Top Width= 17.00'
Length= 364.0' Slope= 0.0199 '/'
Inlet Invert= 27.25', Outlet Invert= 20.00'



‡



NOTE

OFF-SITE TOPOGRAPHY PROVIDED BY LIDAR SURVEY. CONTOURS ARE AT 2' INTERVALS.

LEGEND

- SUBCATCHMENT BOUNDARY
- 9 — SUBCATCHMENT ID
- A — FLOW LINE BREAK POINTS
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NORDIC AQUAFARMS
MULTIPHASE PROJECT

158 HIGH STREET, BELFAST, MAINE

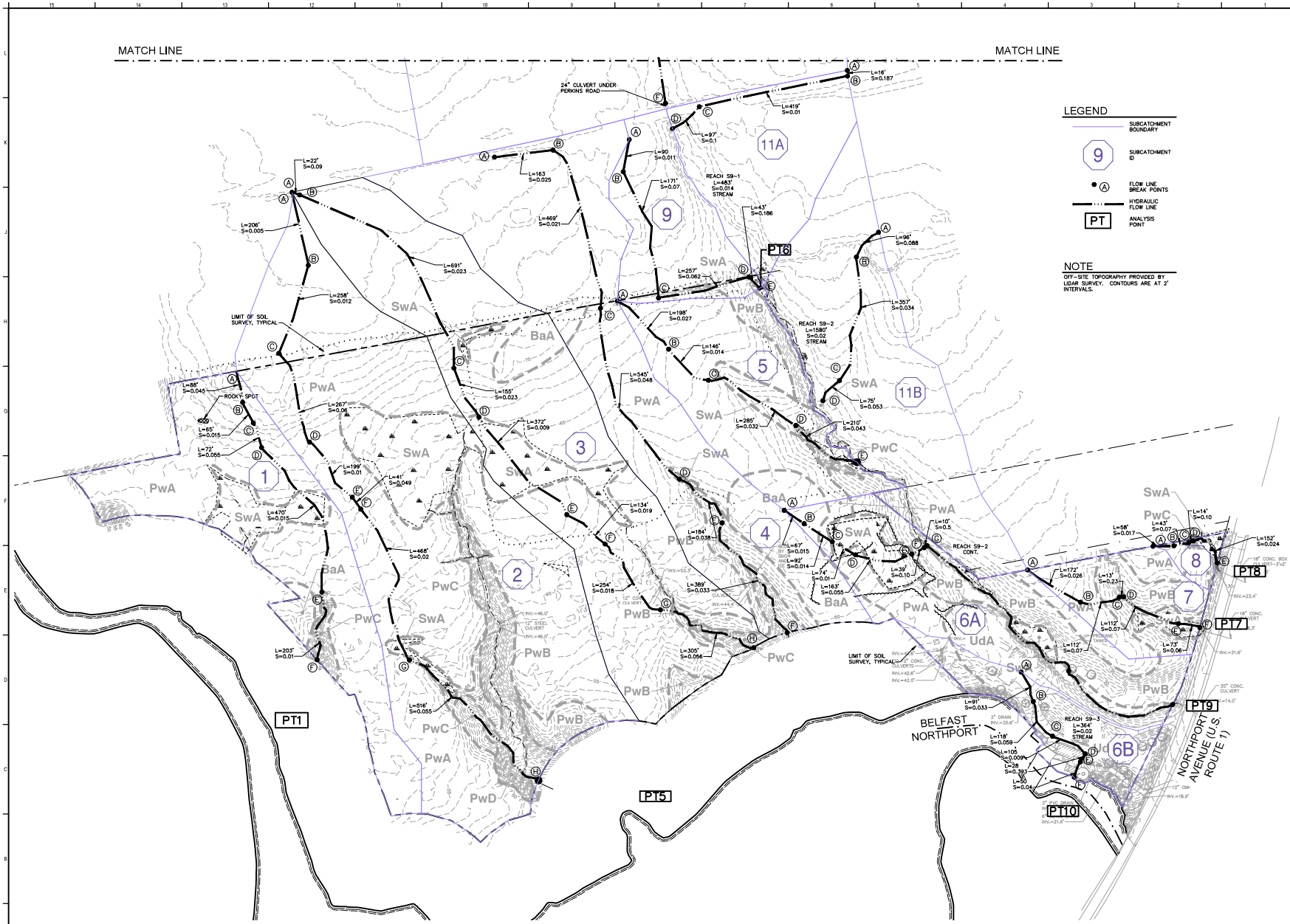
PRE-DEVELOPMENT
WATERSHED PLAN -
OFF-SITE AREAS

0 60 120 240
SCALE in FEET
1"=120'

PROJECT MANAGER: MPM | PROJECT NO: 171.05027
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NORDIC AQUAFARMS
MULTIPHASE PROJECT

158 HIGH STREET, BELFAST, MAINE

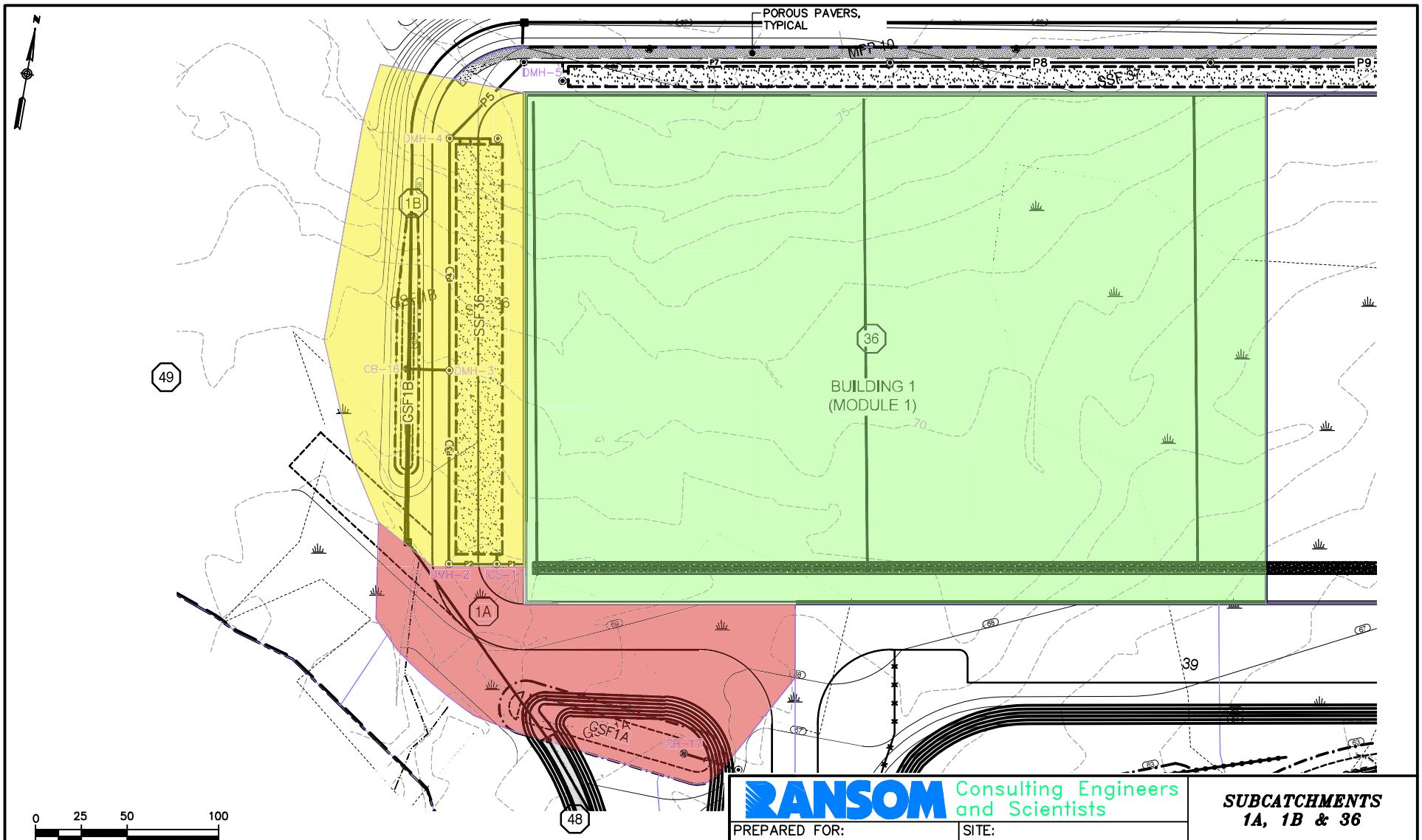
PRE-DEVELOPMENT
WATERSHED PLAN -
ON-SITE AREAS

0 60 120 240
SCALE in FEET
1"=120'

PROJECT MANAGER: MPM | PROJECT NO: 171.05027
DRAWN BY: JAR

CW-102

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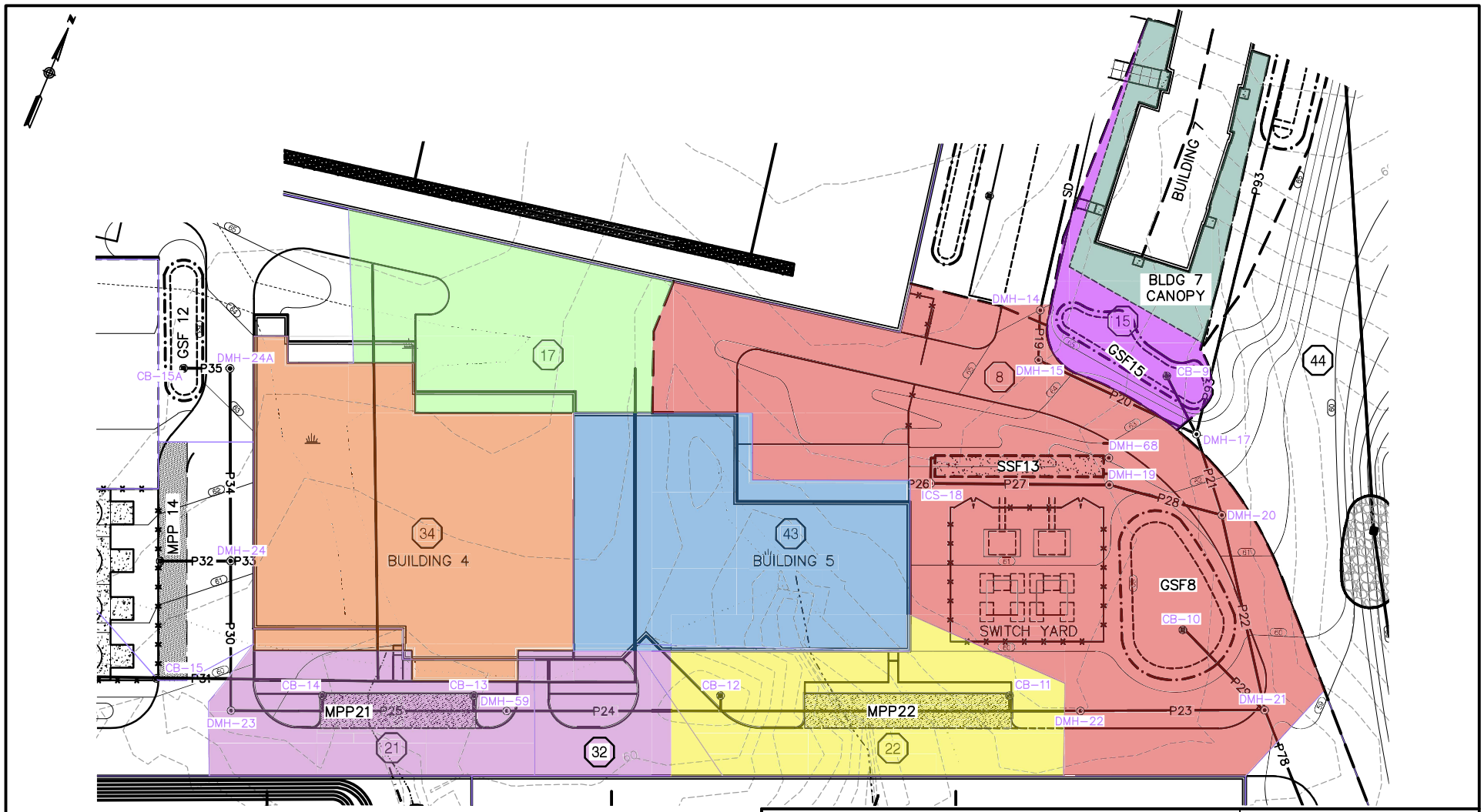
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PREPARED FOR:	SITE:
NORDIC AQUAFARMS 158 HIGH STREET BELFAST, MAINE	NORDIC AQUAFARMS 158 HIGH STREET BELFAST, MAINE

SUBCATCHMENTS 1A, 1B & 36

DATE:	MARCH 2019
PROJECT:	171.05027
FIGURE:	2

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0 25 50 100

SCALE in FEET
1"=50'

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PREPARED FOR:	SITE:
NORDIC AQUAFARMS 158 HIGH STREET BELFAST, MAINE	NORDIC AQUAFARMS 158 HIGH STREET BELFAST, MAINE

SUBCATCHMENTS 8, 15, 17, 21, 22, 34 & 43

DATE:	MARCH 2019
PROJECT:	171.05027
FIGURE:	6

P:\NAF\JR DWGS\11-01-19 DEP mods\171.05027DEP-SWP.dwg Nov 04, 2019 - 4:06pm

Figure 4

Structures

Structure	Rim Elevation	Inlets		Outlets		Weir Elevation
		Pipe Dia. (in.)	Elevation	Pipe Dia. (in.)	Elevation	
DMH-26	63	8	57.82	12	57.75	-
		8	57.78			
ICS-28	63.95	8	58.85	8	58.15	60.50
				8	58.00	
DMH-29	63.5	8	57.90	8	57.85	-
DMH-30	63.5	8	57.39	12	55.40	-
		6	55.52			
DMH-31	63.5	12	57.61	15	54.35	-
		12	54.37			

Catch Basins

Structure	Rim Elevation	Inlets		Outlets	
		Pipe Dia. (in.)	Elevation	Pipe Dia. (in.)	Elevation
CB-17	62.00	6	62.75	8	62.55
CB-18	62.00	6	58.25	8	58.05

Piping

Pipe	Pipe Dia (in.)	From Structure	Elevation	To Structure	Elevation	Length (ft)	Slope (ft/ft)
P38A	15	B3	55.43	DMH-34	54.77	33	0.020
P45	12	DMH-31	54.35	DMH-27	53.05	259	0.005
P46	12	DMH-30	55.4	DMH-31	54.37	206	0.005
P47	8	DMH-29	57.85	DMH-30	57.39	46	0.010
P48	8	ICS-28	58	DMH-29	57.9	10	0.010
P49	8	B6	59.2	ICS-28	58.85	71	0.005
P50	8	CB-19	58.05	DMH-26	57.78	27	0.010
P51	8	CB-18	58.05	DMH-26	57.82	23	0.010
P52	12	DMH-26	57.75	DMH-31	57.61	28	0.005

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PROJECT NO. 17105027 SITE MAF
SHEET NO. 1 OF
CALCULATED BY JRP DATE 11/4/19
CHECKED BY DATE
SCALE

Green Roof Systems

Subcatchment 15:

Total Area = 4810 SF
Access Areas - Unvegetated = 0
Available Vegetated Area = 4810 SF
Water quality volume = $1\text{in} \times \frac{1\text{ft}}{12\text{in}} \times 4810\text{ ft}^2 = 400.8\bar{3}\text{ CF}$

Semi Intensive Pregrown Modular Systems:
6" media depth (7.75" total height with moisture reservoirs)
Estimated weight at mat water holding capacity = 38-45 lb/ft^2
Estimated module storage volume = $\frac{0.2\text{ CF}}{\text{SF}}$ or 1.5 gal/ft^2
15"x20" Platform

15"x20" = $300\text{ in}^2 \times \frac{(1\text{ ft})^2}{(12\text{ in})^2} = 2.08\bar{3}\text{ ft}^2$ module size

$2.08\bar{3}\text{ SF} \times \frac{0.2\text{ CF}}{\text{SF}} = 0.41\bar{6}\text{ CF/module}$

Number of Platform modules Proposed = $\frac{400.8\bar{3}\text{ CF}}{0.41\bar{6}\text{ CF}} = \frac{\text{WQV}}{\text{module storage volume}}$

= 962 → 962 modules

Required Surface Area = $2.08\bar{3}\ \frac{\text{SF}}{\text{module}} \times 962$ module

= 2004.2 SF

Provided treatment volume > WQV
∴ 100% treated

2004.25 f < Available vegetated Area ✓

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Ref. No: G 311900695

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PROJECT NO. 17105027 SITE NAF
SHEET NO. 2 OF
CALCULATED BY JRP DATE 11/4/19
CHECKED BY DATE
SCALE

Subcatchment 28:

Total Area = 14075 SF
Access Areas - Unvegetated = 0
Available Vegetated Area = 14075 SF

$14075\,SF \times \frac{ft}{12in} = 117.25\,CF = WQv$

Semi Intensive Pregrown modular systems
(see GRS subcatchment 15 calculations for module size and storage volume)

Number of Platform modules proposed =

$\frac{117.25\,CF}{0.416\,CF/module} = \frac{WQv}{\frac{module\ storage}{volume}} = 281.4 \rightarrow 282$ modules

Required Surface Area = 2.083 SF × 282 modules
= 587.5 SF

Provided treatment volume > WQv

∴ 100% treated

587.5 SF < Available Vegetated Area ✓

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PROJECT NO. 1710502 7 SITE NAF
SHEET NO. 3 OF
CALCULATED BY JRP DATE 11/4/19
CHECKED BY DATE
SCALE

Subcatchment 33:

Total Area = 1078935f
Access Areas - Unvegetated = 17933Sf
Available Vegetated Area = 1078935f - 17933Sf
= 89960 Sf

$WQV = 1in \times \frac{1ft}{12in} \times 1078935f = 8991.08\bar{3}\ CF$

Semi Intensive modular Preygown Systems
(See GRS Subcatchment 15 and 28 calculations for modular size and storage volume)

Number of modules Proposed =

$\frac{WQV}{\text{module storage volume}} = \frac{8991.08\bar{3}\ CF}{0.41\bar{6}\ cf/module} = 21578.6 \rightarrow 21579$ modules

Required surface Area =

$2.08\bar{3}\ sf \times 21579\ modules = 44956.3\ 5f$

Provided treatment volume > WQV
∴ 100% treated

44956.35f < Available vegetated Area ✓

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PROJECT NO. 17105027 SITE VAF
SHEET NO. 4 OF
CALCULATED BY JRP DATE 11/4/19
CHECKED BY DATE
SCALE

Subcatchment 34:

Total Area = 24099 SF
Access Areas - Unvegetated = 4820 SF
Available Vegetated Area = 24099SF - 4820SF
= 19279 SF

$WQv = 24099\,sf \times \frac{ft}{12\,in} \times 1\,in = 2008.25\,CF$

Intensive Pregrown modular systems
Estimated module water storage volume = $\frac{0.26\,CF}{SF}$ or 1.9 $\frac{gal}{ft^2}$
15" x 20" x 8" media depth (9.75" total height with moisture reservoirs)
$15" \times 20" \times \frac{(ft)^2}{(12in)^2} = 2.08\bar{3}\,sf$

$\frac{0.26\,CF}{sf\ module} \quad 2.08\bar{3}\,sf = 0.54\bar{16}\,CF$

Number of Platform modules Proposed =

$\frac{WQv}{\text{module storage volume}} = \frac{2008.25\,CF}{0.54\bar{16}\,CF} = 3707.5 \rightarrow 3708$ modules

Required surface Area = 3708 modules $\times \frac{2.08\bar{3}\,sf}{module} = 7725\,sf$
Provided treatment volume > WQv
∴ 100% treated
7725 sf < Available vegetated Area ✓

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PROJECT NO. 17105027 SITE NAF
SHEET NO. 5 OF
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CHECKED BY DATE
SCALE

Subcatchment 35:
Total Area = 20997 sf
Access Areas - unvegetated = 4199 sf
Available vegetated Area = 20997 sf - 4199 sf
= 16798 sf
WQv = 20997 sf × 1 ft / 12 in = 1749.75 cf

(See GRS Subcatchment 34 for module size and storage volume)

Number of Platform modules proposed =
WQv / module storage volume = 1749.75 cf / 0.5416 cf = 3230.3 → 3231 modules

Required surface Area = 3231 modules × 2.083 sf / module
= 6731.25 sf

Provided treatment volume > WQv
∴ 100% treated

6731.25 sf < Available vegetated Area ✓

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Vegetated Roof

Input knowns or use standards from MEDEP stormwater design manual:					Intensive Pregrowth Modular System Specifications:					
Subcatchment Area #	**Total Area (sf)**	**Access Areas - unvegetated (sf)**	**Available Vegetated* (sf)**	**Water Quality Volume (cf)**	**Media Depth (in.)**	**Module Platform Surface Area Size (sq. ft)**	**Module Platform Storage Capacity (cf)**	**Number of Platform Modules Proposed**	**Req'd Surface Area (sq. ft)**	**Treated (%)**
15	4,810	-	4,810	401	6	2.08	0.417	962	2,004	100
28	1,407	-	1,407	117	6	2.08	0.417	282	587	100
33	107,893	17,933	89,960	8,991	6	2.08	0.417	21,579	44,956	100
34	24,099	4,820	19,279	2,008	8	2.08	0.542	3,708	7,725	100
35	20,997	4,199	16,798	1,750	8	2.08	0.542	3,231	6,731	100

* Available vegetated area approximated by current roof drawings

References:
https://www.maine.gov/dep/land/stormwater/stormwaterbmps/vol3/chapter7_6.pdf
See: Firestone Green Roof Skyscape-Brochure.pdf

https://doee.dc.gov/sites/default/files/dc/sites/ddoe/publication/attachments/Ch3.1GreenRoofs_0.pdf
https://www.wbdg.org/resources/extensive-vegetative-roofs
https://dec.vermont.gov/watershed/cwi/green-infrastructure/gsi/evaptrans#GreenRoofs
https://stormwater.pca.state.mn.us/index.php?title=General_characteristics_of_extensive_and_intensive_green_roofs

Figure 4

Structures

Structure	Rim Elevation	Inlets		Outlets		Weir Elevation
		Pipe Dia. (in.)	Elevation	Pipe Dia. (in.)	Elevation	
DMH-26	63	8	57.82	12	57.75	-
		8	57.78			
ICS-28	63.95	8	58.85	8	58.15	60.50
				8	58.00	
DMH-29	63.5	8	57.90	8	57.85	-
DMH-30	63.5	8	57.39	12	55.40	-
		6	55.52			
DMH-31	63.5	12	57.61	15	54.35	-
		12	54.37			

Catch Basins

Structure	Rim Elevation	Inlets		Outlets	
		Pipe Dia. (in.)	Elevation	Pipe Dia. (in.)	Elevation
CB-17	62.00	6	62.75	8	62.55
CB-18	62.00	6	58.25	8	58.05

Piping

Pipe	Pipe Dia (in.)	From Structure	Elevation	To Structure	Elevation	Length (ft)	Slope (ft/ft)
P38A	15	B3	55.43	DMH-34	54.77	33	0.020
P45	12	DMH-31	54.35	DMH-27	53.05	259	0.005
P46	12	DMH-30	55.4	DMH-31	54.37	206	0.005
P47	8	DMH-29	57.85	DMH-30	57.39	46	0.010
P48	8	ICS-28	58	DMH-29	57.9	10	0.010
P49	8	B6	59.2	ICS-28	58.85	71	0.005
P50	8	CB-19	58.05	DMH-26	57.78	27	0.010
P51	8	CB-18	58.05	DMH-26	57.82	23	0.010
P52	12	DMH-26	57.75	DMH-31	57.61	28	0.005

Nordic Aquafarms
Stormwater Management Plan

List of Appendices:

Appendix A: Stormwater Treatment Calculations
Appendix B: Post Construction Stormwater Management
Appendix C: Stormwater BMP Inspection and Maintenance Requirements
Appendix D: Pre-Development Calculations
Appendix E: Post Development Calculations

Site Description:

The site (refer to Site Location Map) is an approximately 54-acre development parcel consisting of several parcels under contract with multiple entities including the Belfast Water District (BWD), Mathews Brothers, and Sam Cassida (Refer to the attached Site Location Map). The portion of the site on the Mathews Brothers parcel in the northeast quadrant of the site is primarily grass, with a stand of trees along the drainage channel that defines the eastern boundary of the new parcel. The remainder of the development parcel (from Belfast Water District and Cassida parcels) is primarily vegetated (wooded) with an area in the south currently developed with structures and pavement associated with operations of the BWD. The Belfast Reservoir Number One exists south of the site with a 250-foot strip between the reservoir and the site being retained by the Belfast Water District, within the Resource Protection District, as a buffer to the reservoir.

Portions of the site within the land owned by the Belfast Water District are currently developed with buildings (office building, former filter house, maintenance garages) and associated driveways and parking associated with current BWD operations. A concrete dam controls the water level to the reservoir and piping associated with the former use of the reservoir as the water supply for the City of Belfast still exists adjacent to the dam and office building. Also adjacent to the office building and the dam is a former settling basin previously used in treatment of domestic water supply.

The topography of the undeveloped site slopes generally from north to south/southwest into Reservoir Number One. Groundwater in the area also appears to flow from north to south across the site toward the reservoir. The site slopes steepen within the 250-foot buffer with fingers of notable rivulets, drainage channels, and ravines exiting into the reservoir. The reservoir is controlled by a dam located just west of Route 1 and outlets into Belfast Bay. There is considerable area upgradient of the site which also drains to the reservoir. This Stormwater Management Plan also addresses the offsite areas currently draining onto and through the site.

A Class B high intensity soil survey (HISS) has been performed on this site and is included in *Section 11, Soils* of this Site Location of Development Act permit application. The results of the HISS mapping are included in the stormwater analysis.

Wetland areas and streams are identified on the existing conditions plans included as an attachment in this Section. In addition, these features are shown on the stormwater plans (also included as an attachment) as well as the HISS mapping discussed in the above paragraph.

Development Description:

Nordic Aquafarms proposes the development of a salmon fish growing operation capable of providing 33,000 metric tons per year of seafood to consumers in the northeastern US. While construction is proposed in two phases (see previous sections of this application for additional information on construction phasing), the stormwater management systems have been considered for the complete project build-out.

The salmon growing operation is done indoors and therefore requires a fair number of buildings to perform that function. Buildings proposed on-site consist of:

Building 1 – Consists of 3 grow modules constructed in succession.

Building 2 – Consists of 3 grow modules constructed in succession.

Building 3 – Smolt Building

Building 4 – Fish Processing Facility

Building 5 – Central Utility Plan

Building 6 – Oxygen generation. This area is currently designated as a building but may be modified based on the requirements of the oxygen generation contractor and their equipment. This may be an outdoor facility that houses generation equipment on a concrete pad. If this is the case, the concrete pad will be surrounded by curbing to collect stormwater runoff.

Building 7 – Office/Maintenance Building

Building 8 – Water/Wastewater Treatment Building

Building 9 – Gate House

The buildings are arranged such that operations central to the needs of the fish growing process will be performed in the middle of the complex, while the larger fish grow module buildings are on the exterior. Water and wastewater treatment will be closer to Route 1 to facilitate intake and discharge of seawater. The building complex will be supported by paved access drives surrounding the facility and between buildings. Efforts were made to group buildings adjacent to one another to minimize the amount of

pavement. Loading areas are located adjacent to access drives. Employee parking is scattered throughout the complex in areas that expect to see more employee activity such as the Smolt Building, the processing

facility, the office/maintenance garage, and the water/wastewater treatment facility. Additionally, a small parking area is provided adjacent to the entrance gate to facilitate public use of the existing trail system located on the property within the 250-foot resource protection district being retained by the BWD. Among and adjacent to the paved areas are landscaped islands and grassed areas.

Grading of the site post development still slopes from the north to the south/southwest. To accommodate the function of the buildings and associated access, the center of the site has less significant grade change while the northern and southern portions of the site include steeper slopes to match grading at the 40-foot "no disturbance" buffer at the site boundary.

While existing drainage channels in the center of the site will be filled to accommodate development, the channels to the south and through the 250-foot buffer retained by the BWD will remain. In addition, stormwater from off-site areas to the north will be diverted and underdrain piping will be included around building foundations and during construction to facilitate transport of any groundwater encountered toward the existing drainage channels to the south.

Stormwater Management – Basic Standards:

Erosion and sedimentation control measures during construction are detailed within *Section 14, Basic Standards Submissions* of this Site Location of Development Act Permit. Post-Construction stormwater management practices and good housekeeping practices will be in accordance with Maine DEP Best Management Practices. A post construction stormwater management plan as well as inspection and maintenance requirements and third-party inspection contract are provided in *Appendix C* of this Stormwater Management Plan.

Stormwater Management – Quality (General Standards):

A project must meet Maine's *Chapter 500, Stormwater Management* general standards if the project results in one or more acres of impervious area, or 5 acres or more of developed area for projects that are not within the direct watershed of an urban impaired stream or a lake most at risk (as defined by Chapter 502). To meet the general standards, the project's stormwater management system must include treatment measures that will provide pollutant removal or treatment (or both), mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, and mitigate potential temperature impacts. To do that a project must provide treatment of 95% of the impervious area and no less than 80% of the developed area. In addition, runoff from upgradient areas must either be redirected away from the project's stormwater treatment measures or that measure must be sized to address the runoff volume of the upgradient area at 50% of the sizing requirements. Although the amount of on-site treatment provided may be reduced by providing treatment on a currently untreated off-site area in the same watershed, this is not proposed for this project at this time.

Treatment of stormwater is addressed using Maine's Best Management Practices (BMPs). These BMPs are focused on meeting the following water quality objectives:

- Effective pollutant removal – removal of fine particles that carry nutrient and heavy metal load as well as dissolved pollutants and hydrocarbons.

- Cooling – to protect aquatic life within a river, stream, or brook watershed discharge must effectively cool down.

- Channel protection – discharge within a river, stream, or brook watershed must be released slowly to avoid destabilization and resulting sedimentation of receiving channels.

- Flood control – detention for large, infrequent storm events to avoid flooding infrastructure.

The water quality volume is the initial depth of runoff that is considered to carry the bulk of pollutants deposited since the last rain event. Studies have indicated that the first inch of runoff distributed over the watershed carries 90% of the pollutant load from a storm event. Maine's BMPs identified in Volume III of the Maine Stormwater Management Design Manual consider this when establishing the treatment volume identified within each BMP. The BMPs chosen for this site to meet the water quality objectives include:

- Subsurface Sand Filters: Filtration BMP discussed in *Maine's Stormwater Management Manual, Volume III, Chapter 7.3, Subsurface Sand Filters.*

- Grassed Underdrained Soil Filters: Filtration BMP discussed in *Maine's Stormwater Management Manual, Volume III, Chapter 7.1, Grassed Underdrained Soil Filters.*

- Manmade Pervious Paver Systems: Filtration BMP discussed in *Maine's Stormwater Management Manual, Volume III, Chapter 7.7, Manmade Pervious Surfaces.*

- Green Roof System: Filtration BMP discussed in *Maine's Stormwater Management Manual, Volume III, Chapter 7.6, Vegetated Roofs.*

Project Specific Water Quality Treatment Measures:

The stormwater management facilities identified above are used throughout the developed site. Calculations detailing the sizing of the treatment facilities are in *Appendix A.* The subcatchment areas being treated by each of the stormwater management facilities are identified on 11 x 17 figures at a scale of 1" = 50' within *Appendix B*. The areas are also included on the Post-Development watershed map, which is included as two 24"x36" drawings at a scale of 1" = 120' within *Appendix E*. Table 1 (at the end of this section) indicates the amount of treatment provided within each subcatchment area as well as for the whole site. The results of calculations indicate that greater than 95% of the new impervious surface and greater than 80% of the new developed area are treated by the stormwater management facilities proposed for this development. In addition, each of the stormwater BMPs are further described below with discussions about how they were used on this site.

- Diversion of Upgradient Runoff. A stormwater channel has been provided within the developed area of the site and downgradient of the 40-foot buffer adjacent to the northern property boundary to divert stormwater from off-site areas. Currently, stormwater from upgradient areas travels

south/southwest through the site and toward the stream that defines the eastern boundary of the site (Stream 9). Although the channel is currently not anticipated to provide treatment to runoff from the offsite areas, the channel is designed with a minimal slope of 0.5% to reduce velocity and erosion potential. Stone check dams are also provided to minimize release of sediment to the stream. Post-development hydraulic modelling is provided in *Appendix D*.

- Subsurface Sand Filters (SSF): Subsurface sand filters are being used exclusively to treat runoff from some of the flat building roofs. The chamber system and stone over the sand filter is designed to store stormwater and discharge it at an attenuated rate to reduce thermal impacts downstream of the system. The subsurface system with detention/retention uses sand and does not provide a source of organic matter for filtration. A pretreatment structure in the form of a fabric wrapped chamber provides the initial settlement and filtration of contaminants, although the intent is to minimize the sediment load (and subsequent maintenance) by using only stormwater runoff from roofs. The roofs of these buildings are an unlikely source of hydrocarbons and therefore hydrocarbon pretreatment is not considered.

  Buildings 1 and 2 are to be built with 3 grow modules each – constructed in succession. Each grow module has an individual subsurface sand filter that can be installed at the time of the construction of the module to treat the runoff from the roof. Building 5 (the Central Utility Plant) uses a SSF as does the roof runoff from Building 6 (or the enclosed concrete equipment pad) for a total of eight SSF systems provided. The SSF systems are located primarily beneath paved surfaces. Each is preceded by an inlet control structure which limits the volume of roof runoff discharged to the filter. A weir in the inlet control structure is provided to allow only the equivalent of the treatment volume (as defined by design guidance per Maine Stormwater Technical Design Manual) through a pipe to the chamber system. Storms with volumes in excess of the treatment volume of 1.0 inches times the subcatchment's impervious area is discharged over the weir to the closed piping network. The treatment volume is filtered through an 18-inch sand filter at a rate no less than 24 and no more than 48 hours and the sand filter is underlain with a drainage layer that collects and transports the treated stormwater to the discharge pipe network. six-inch slotted underdrain pipes are provided in the drainage layer beneath each chamber. A solid discharge collector pipe connects the underdrain pipe every 50 feet along the chamber length and discharges to the pipe network.

- Grassed Soil Filters (GSF): Grassed underdrained soil filters are used primarily for treatment of some paved areas as well as landscaped developed areas. The GSF systems capture and retain runoff and pass it through a soil filter media. The media is a mixture of silty sand and organic matter to remove a range of pollutants including suspended solids, phosphorus, nitrogen, metals, hydrocarbons, and other dissolved pollutants. The filter also provides for attenuation of discharge which provides reduction of thermal impacts to downstream areas as well as minimizing potential channel erosion. The system is sized to store the treatment volume (1.0 inches times the impervious area and 0.4 inches times the landscaped developed area) above the filter with the larger volume storms bypassing the filter through a catch basin and into the closed piping system. The 18-inch thick filter media is underlain with a drainage system and perforated underdrain collection piping which ultimately discharges to the catch basin.

  GSF systems are provided in grassed areas adjacent to pavement throughout the site. The size of the system varies depending on the area draining to it but does not exceed 3,000 sf surface area over the soil filter. Locations where the stormwater is transported to the GSF via a channel or a

pipe, a sediment forebay is provided to minimize discharge of sediment to the filter basin. Refer to calculations in *Appendix A*, and stormwater management facility drawings provided in *Appendix B.*

- Manmade Pervious Pavers (MPP): Pervious paver systems are used almost exclusively for the treatment of paved areas on site, though some systems in parking areas may see some runoff from adjacent landscaped area discharging to the system. The MPP system consists of a permeable surface, base, and subbase materials which allow the penetration of runoff into the underlying soil filter. The area of pervious pavers must be no less than 20% of the area being treated and the flow path to the pervious paver section must be no greater than 50 feet. A storage reservoir is provided below the paver bedding material and above the sand filter layer capable of storing the treatment area equivalent to 1.0 inches times the impervious area and 0.4 inches times the landscaped developed area. The 18-inch thick sand filter layer is underlain with a drainage system consisting of R-Tank storage tanks prior to discharge to the closed piping network. Catch basins in the pervious area capture overflow from larger storms and discharge to the R-Tank system. The use of the R-Tank system allows additional storage for attenuation of larger storm events.

  The pervious pavers proposed are H25 loaded so can be used in higher traffic areas, however the paver systems are proposed for parking areas in the center of the site as well as on the outer access drives adjacent to both Building 1 and Building 2. The interior pavers in the parking areas are the full length of the parking spaces and pick up runoff from local paved surfaces. The pavers in the access drives are 6 feet wide and are intended to pick up the runoff from the paved access drive itself.

- Grassed Roof Systems (GRS): The vegetated roofs are limited to those roofs which are technically flat and with limited protrusions or equipment and with minimal anticipated foot traffic. Rooftop vegetation provides advantages beyond stormwater treatment including the reduction in the heat island effect with improvements in building insulation and increases in the life expectancy of the base roof material. The vegetated roof also provides attenuation of stormwater runoff and peak flows as well as treatment under the General Standards of Chapter 500 within a layer of filter media and vegetation. There are two types of vegetated roof systems: extensive and intensive. The extensive roof systems typically provide coverage over the entire roof with a thinner media depth for the growth of sedums or similar arid plants and also provide little treatment. Intensive systems tend to provide access to the roof itself, provide for more open space on the roof and, with a thicker media, provide more nutrient uptake and greater flow attenuation. The containment of the treatment volume within the media provides stormwater treatment and enhances the overall effectiveness of the vegetated roof.

  Buildings on this site will utilize intensive green roof systems. Buildings 3, 4, and 8 will be constructed with green roofs although Building 3 will be constructed in two phases each with a mechanical penthouse extending through the roof system. The design of each green roof system considers up to 20 % of the entire roof area is taken up with the penthouse and/or elevated access pathways to access areas on the roof. The remaining area will utilize an intensive modular pre-grown roof system as manufactured by Firestone. The Firestone Skyscape module platforms are 15” x 20” and, with the number of modules that can fit on the roof, can provide storage and subsequent treatment for a volume equivalent to 1.0 inches x the impervious surface of the entire roof. Although the roof is vegetated, the area is still considered to be impervious. Roof drains

will be provided to collect runoff from the larger storm events and any stormwater that is not able to be stored in the filter media prior to evapotranspiration.

Stormwater Management – Quantity (Flooding Standards):

A project must meet Maine's *Chapter 500, Stormwater Management* flooding standards if the project results in three or more acres of impervious area, or 20 acres or more of developed area. To meet the flooding standard, the project's stormwater management systems must:

- detain, retain, or result in the infiltration of stormwater from 24-hour storms of the 2-year, 10-year, and 25-year frequencies such that peak flow of stormwater from the project site do not exceed the peak flows of stormwater prior to undertaking the project;

- design the piped or open channel systems based on a 10-year, 24-hour storm without overloading or flooding beyond channel limits;

- not flood the primary access road to the project and any public roads bordering the project a s a result of a 25-year, 24-hour storm event

A project is eligible for a waiver from the flooding standard for insignificant increases in peak flow rates from a project site. A waiver is also available for a project in the watershed of a coastal wetland, great pond, or major river segment provided the stormwater is conveyed via sheet flow, in a manmade open channel, or in a piped system directly into one of these resources.

As part of this application, Nordic Aquafarms is requesting a waiver from the flooding standard for the portion of the project which is currently in the watershed of a great pond and a coastal wetland and which is discharging directly to the coastal wetland, below the dam of the reservoir (great pond) through the existing on-site settling tank.

Nordic Aquafarms is not requesting a waiver from the flooding standard for the portion of the project which is currently in the watershed of a coastal wetland but is upstream from an existing culvert on US Route 1. The discharge from this culvert is routed through a downstream property on the opposite side of US Route 1 to the coastal wetland. The project does not intend to upgrade the existing culvert or increase the flow to the channel on the downstream property. It is anticipated that the runoff peak flow to the existing culvert after development will be below peak runoff pre- development for the 2-year, 10-year, and 25-year storm events as well as the 100-year frequency storm. Increase in peak runoff at PT6 (refer to tables below) is primarily due to additional area added to the off-site subcatchment OS 9. The stormwater channel located north of Building 1 to divert off-site runoff is included with OS 9 in the post-development condition.

Stormwater runoff in the pre-development condition is evaluated at multiple analysis points. Runoff from off-site subcatchments of 9, 10, and 11 is evaluated at a point where it enters the stream along the eastern boundary (PT6). Runoff is also evaluated at locations of culverts discharging under US Route 1 (PT7, PT8, and PT9). Runoff toward the Little River is evaluated at PT1. There are three separate analysis points (PT2, PT3, and PT4) which are combined as PT5 for runoff headed toward Reservoir Number One. Runoff from subcatchment 28, which consists of existing roadway and buildings, is evaluated at a point just below the dam (PT10). Pre-development stormwater plans, HydroCAD calculations, and backup

calculations are included in *Appendix D*. Subcatchments in the post-development condition were established based on subareas used to define treatment boundaries. The majority of the subcatchments discharge to the closed piping system which ultimately discharges through the existing settling basin below the dam at Reservoir Number One. In addition, there are analysis points that mimic the same locations evaluated in the pre-development condition; PT1, PT5, PT6, PT7, PT8, PT9 and PT10. Post-development stormwater plans, HydroCAD calculations, and backup calculations are included in *Appendix E*.

Hydraulic Analysis:

Stormwater runoff calculations for quantity were made using the HydroCAD 10.0 computer program, which is based on the Soil Conservation Service's TR-20 methodology. Runoff hydrographs are generated based on a standard Type III 24-hour storm for Waldo County identified in Appendix H of *Maine DEP Chapter 500, Stormwater Management.*

Four storm events were evaluated as follows:

1. 2-year frequency flood event: 2.9" rainfall
2. 10-year frequency flood event: 4.2" rainfall
3. 25-year frequency flood event: 5.2" rainfall
4. 100-year frequency flood event: 7.2" rainfall

Runoff Curve numbers were determined based on land coverage and hydro-geological soil type C. Times of concentration were developed based on runoff flow paths for each subarea and shown on the Pre and Post-Development plans. A minimum Tc of 6 minutes was set in the HydroCAD model.

Peak runoff flow rates and runoff volumes are provided at the analysis points, which are identified on the Pre and Post-Development plans. Comparison of the runoff peak flow rates are provided at each analysis point on Tables 2-5 below

Table 2 – 2-year Storm

Analysis Point	Pre-Development	Post-Development
1	1.9 cfs	0.9 cfs
5	11.4 cfs	9.5 cfs
6	11.1 cfs	11.2 cfs
7	0.6 cfs	0.6 cfs
8	0.1 cfs	0.1 cfs
9	14.1 cfs	13.8 cfs
10	3.1 sfs	3.2 cfs

Table 3 – 10-year Storm

Analysis Point	Pre-Development	Post-Development
1	4.8 cfs	2.0 cfs
5	15.0 cfs	3.7 cfs
6	28.0 cfs	29.5 cfs
7	1.4 cfs	1.4 cfs
8	0.3 cfs	0.3 cfs
9	42.0 cfs	40.1 cfs
10	5.8 cfs	5.6 cfs

Table 4 – 25-year Storm

Analysis Point	Pre-Development	Post-Development
1	7.3 cfs	3.5 cfs
5	39.0 cfs	30.0 cfs
6	35.2 cfs	35.5 cfs
7	2.1 cfs	2.1 cfs
8	0.5 cfs	0.5 cfs
9	46.7 cfs	45.2 cfs
10	7.9 cfs	7.5 cfs

Table 5 – 100-year Storm

Analysis Point	Pre-Development	Post-Development
1	12.9 cfs	5.8 cfs
5	66.9 cfs	44.0 cfs
6	40.8 cfs	42.8 cfs
7	3.7 cfs	3.7 cfs
8	0.8 cfs	0.8 cfs
9	79.5 cfs	76.9 cfs
10	12.2 cfs	11.3 cfs

Storm Sewer Piping Capacity:

Stormwater piping was sized to have capacity to handle the 10-year storm event at a minimum. HydroCAD was used to determine the water levels in the upstream and downstream structures, the maximum flow rate in the pipe, and the calculated velocity at the peak of the storm event. The Energy Grade Line (EGL) elevations were calculated from the water levels generated within the software. The pipe was sized to keep the velocity in the pipe between 2.5 feet per second (fps) and 10 fps with a preferred velocity closer to 6 fps. Although the 10-year storm is the basis for design, the 25-year event was also evaluated, and every effort was made to provide increased capacity if possible. The flow rate in the pipe (generated by HydroCAD) was compared to the full-flow capacity of the pipe (using Mannings equation). The slope of the EGL was also compared to the slope of the pipe invert. Piping runs with significant discrepancies were re-evaluated to consider resizing the pipe as necessary. The EGL

elevations were compared to the flood elevations (most often the rim of structures) to determine if there was too much pressure building in the lines. Refer to Table 6 – Pipe Capacity attached.