

Mark Taber

From: Mark Taber
Sent: Tuesday, March 04, 2014 12:29 PM
To: calambra@gw.dec.state.ny.us; Dave Gasper (djgasper@gw.dec.state.ny.us)
Cc: Kevin Franke (kfranke@thelagroup.com)
Subject: Windham Residential Links

Carol and Dave –

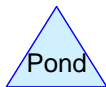
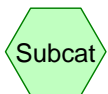
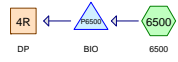
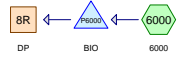
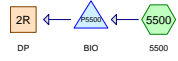
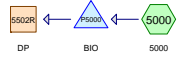
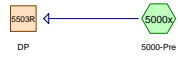
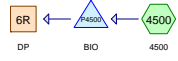
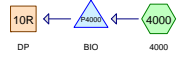
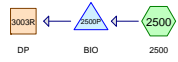
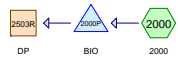
As discussed at our last meeting, attached are the Residential Links used within the larger HydroCAD model for the WMSC. A couple of notes:

- The ‘Residential Template’ is the model that was used to model each potential ‘max impervious area’ scenario. The goal was to model a bioretention area for each lot scenario sized in accordance with DEC/DEP requirements, based on the related max impervious area (Residential sizing calculations provided in previous submission). This template model could then be used in the context of the overall project model so that all residential areas could be assessed within the overall model. To do this, several ‘Link’ models were set up. Each Link includes a series of lots that drain to a common point. Each lot within the Link is modeled with the templates mentioned above. Each link model is then incorporated or ‘linked’ to the overall model. By doing this, the hydrologic impact of each home is included in the overall model, and can be included in the assessment at project design points. Each link model is attached, grouped within a single pdf for each design point.
- Within the ‘Residential Model Template’, a predevelopment model was also created for each lot scenario. This allowed us to compare pre and post flow rates for each lot to see how it might impact the overall project model. The model shows that under all scenarios, post development rates are below predevelopment rates. This told us that each lot could effectively be treated and attenuated at the source. The additional attenuation is mostly due to larger DEP sizing requirements.
- The links provided are directly related to the DEIS plan submission, and not the most recent plan adjustment. When more detailed information relating to the plan that was presented in late January is developed we will make sure we include the residential links.
- I’ve cleaned up some of the annotation that was a little confusing. Previously I had labeled some of the subcatchments based on the max. house footprint, and not on the max. impervious area of the lot. (ie, a 2500 label was given to a subcatchment/lot with a max of 3,500 sf of impervious area - a 2500sf house and 1000sf of additional impervious area) In the attached links, I have modified the subcatchment labels to reflect the max impervious area instead. (ie a 3500 label is for a subcatchment/lot with a max impervious area of 3,500 sf). Hopefully this is a little easier to follow.
- The pre and post rates for each lot scenario included in the “Residential Template” model will differ slightly from the rates presented in the “Lot Worksheet for Bioretention Areas” that is presented in Appendix B of the Stormwater Design Report. This is for various reasons which are not worth getting into here. As discussed in our previous meeting, information in that table will be updated and included with future submissions.

If you have any questions about the information attached, please don’t hesitate to call.

Thanks,
Mark

Mark Taber, RLA
Senior Associate
the LA group
Landscape Architecture



Routing Diagram for 08077_Residential_Bio Template
 Prepared by The LA group, Printed 3/4/2014
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08077_Residential_Bio Template

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.253	98	Driveway, extra imperv., HSG C (2000, 2500, 3000, 3500, 4000, 4500, 5000, 5500, 6000, 6500)
0.723	98	Roofs, HSG C (2000, 2500, 3000, 3500, 4000, 4500, 5000, 5500, 6000, 6500)
0.976	70	Woods, Good, HSG C (2000x, 2500x, 3000x, 3500x, 4000x, 4500x, 5000x, 5500x, 6000x, 6500x)
1.951	84	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
1.951	HSG C	2000, 2000x, 2500, 2500x, 3000, 3000x, 3500, 3500x, 4000, 4000x, 4500, 4500x, 5000, 5000x, 5500, 5500x, 6000, 6000x, 6500, 6500x
0.000	HSG D	
0.000	Other	
1.951		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 2000: 2000	Runoff Area=2,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.011 af
Subcatchment 2000x: 2000-Pre	Runoff Area=2,000 sf 0.00% Impervious Runoff Depth=0.71" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.05 cfs 0.003 af
Subcatchment 2500: 2500	Runoff Area=2,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.24 cfs 0.013 af
Subcatchment 2500x: 2500-Pre	Runoff Area=2,500 sf 0.00% Impervious Runoff Depth=0.71" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.06 cfs 0.003 af
Subcatchment 3000: 3000	Runoff Area=3,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.28 cfs 0.016 af
Subcatchment 3000x: 3000-Pre	Runoff Area=3,000 sf 0.00% Impervious Runoff Depth=0.71" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.07 cfs 0.004 af
Subcatchment 3500: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 3500x: 3500-Pre	Runoff Area=3,500 sf 0.00% Impervious Runoff Depth=0.71" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.09 cfs 0.005 af
Subcatchment 4000: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.38 cfs 0.021 af
Subcatchment 4000x: 4000-Pre	Runoff Area=4,000 sf 0.00% Impervious Runoff Depth=0.71" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.10 cfs 0.005 af
Subcatchment 4500: 4500	Runoff Area=4,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.43 cfs 0.024 af
Subcatchment 4500x: 4500-Pre	Runoff Area=4,500 sf 0.00% Impervious Runoff Depth=0.71" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.11 cfs 0.006 af
Subcatchment 5000: 5000	Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.47 cfs 0.026 af
Subcatchment 5000x: 5000-Pre	Runoff Area=5,000 sf 0.00% Impervious Runoff Depth=0.71" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.12 cfs 0.007 af
Subcatchment 5500: 5500	Runoff Area=5,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.52 cfs 0.029 af
Subcatchment 5500x: 5500-Pre	Runoff Area=5,500 sf 0.00% Impervious Runoff Depth=0.71" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.14 cfs 0.008 af

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Subcatchment 6000: 6000	Runoff Area=6,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.57 cfs 0.032 af
Subcatchment 6000x: 6000-Pre	Runoff Area=6,000 sf 0.00% Impervious Runoff Depth=0.71" Flow Length=100' Slope=0.2500 '/' Tc=8.1 min CN=70 Runoff=0.15 cfs 0.008 af
Subcatchment 6500: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.61 cfs 0.034 af
Subcatchment 6500x: 6500-Pre	Runoff Area=6,500 sf 0.00% Impervious Runoff Depth=0.71" Flow Length=100' Slope=0.2500 '/' Tc=8.1 min CN=70 Runoff=0.16 cfs 0.009 af
Reach 2R: DP	Inflow=0.02 cfs 0.029 af Outflow=0.02 cfs 0.029 af
Reach 3R: DP	Inflow=0.14 cfs 0.008 af Outflow=0.14 cfs 0.008 af
Reach 4R: DP	Inflow=0.02 cfs 0.034 af Outflow=0.02 cfs 0.034 af
Reach 5R: DP	Inflow=0.16 cfs 0.009 af Outflow=0.16 cfs 0.009 af
Reach 6R: DP	Inflow=0.01 cfs 0.024 af Outflow=0.01 cfs 0.024 af
Reach 7R: DP	Inflow=0.11 cfs 0.006 af Outflow=0.11 cfs 0.006 af
Reach 8R: DP	Inflow=0.02 cfs 0.032 af Outflow=0.02 cfs 0.032 af
Reach 9R: DP	Inflow=0.15 cfs 0.008 af Outflow=0.15 cfs 0.008 af
Reach 10R: DP	Inflow=0.01 cfs 0.021 af Outflow=0.01 cfs 0.021 af
Reach 11R: DP	Inflow=0.10 cfs 0.005 af Outflow=0.10 cfs 0.005 af
Reach 12R: DP	Inflow=0.01 cfs 0.016 af Outflow=0.01 cfs 0.016 af
Reach 13R: DP	Inflow=0.07 cfs 0.004 af Outflow=0.07 cfs 0.004 af
Reach 2503R: DP	Inflow=0.01 cfs 0.011 af Outflow=0.01 cfs 0.011 af

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Reach 2504R: DP		Inflow=0.05 cfs 0.003 af
		Outflow=0.05 cfs 0.003 af
Reach 3003R: DP		Inflow=0.01 cfs 0.013 af
		Outflow=0.01 cfs 0.013 af
Reach 3004R: DP		Inflow=0.06 cfs 0.003 af
		Outflow=0.06 cfs 0.003 af
Reach 4002R: DP		Inflow=0.01 cfs 0.019 af
		Outflow=0.01 cfs 0.019 af
Reach 4003R: DP		Inflow=0.09 cfs 0.005 af
		Outflow=0.09 cfs 0.005 af
Reach 5502R: DP		Inflow=0.01 cfs 0.026 af
		Outflow=0.01 cfs 0.026 af
Reach 5503R: DP		Inflow=0.12 cfs 0.007 af
		Outflow=0.12 cfs 0.007 af
Pond 2000P: BIO	Peak Elev=1,686.45' Storage=232 cf	Inflow=0.19 cfs 0.011 af
		Outflow=0.01 cfs 0.011 af
Pond 2500P: BIO	Peak Elev=1,686.47' Storage=292 cf	Inflow=0.24 cfs 0.013 af
		Outflow=0.01 cfs 0.013 af
Pond 3000P: BIO	Peak Elev=1,686.51' Storage=357 cf	Inflow=0.28 cfs 0.016 af
		Outflow=0.01 cfs 0.016 af
Pond P3500: BIO	Peak Elev=1,686.49' Storage=413 cf	Inflow=0.33 cfs 0.019 af
		Outflow=0.01 cfs 0.019 af
Pond P4000: BIO	Peak Elev=1,686.51' Storage=476 cf	Inflow=0.38 cfs 0.021 af
		Outflow=0.01 cfs 0.021 af
Pond P4500: BIO	Peak Elev=1,686.49' Storage=530 cf	Inflow=0.43 cfs 0.024 af
		Outflow=0.01 cfs 0.024 af
Pond P5000: BIO	Peak Elev=1,686.53' Storage=606 cf	Inflow=0.47 cfs 0.026 af
		Outflow=0.01 cfs 0.026 af
Pond P5500: BIO	Peak Elev=1,686.55' Storage=674 cf	Inflow=0.52 cfs 0.029 af
		Outflow=0.02 cfs 0.029 af
Pond P6000: BIO	Peak Elev=1,686.56' Storage=739 cf	Inflow=0.57 cfs 0.032 af
		Outflow=0.02 cfs 0.032 af
Pond P6500: BIO	Peak Elev=1,686.58' Storage=805 cf	Inflow=0.61 cfs 0.034 af
		Outflow=0.02 cfs 0.034 af

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Total Runoff Area = 1.951 ac Runoff Volume = 0.283 af Average Runoff Depth = 1.74"
50.00% Pervious = 0.976 ac 50.00% Impervious = 0.976 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 2000: 2000

Runoff = 0.19 cfs @ 11.96 hrs, Volume= 0.011 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
1,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
2,000	98	Weighted Average
2,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 2000x: 2000-Pre

Runoff = 0.05 cfs @ 12.01 hrs, Volume= 0.003 af, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,000	70	Woods, Good, HSG C
2,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 2500: 2500

Runoff = 0.24 cfs @ 11.96 hrs, Volume= 0.013 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
1,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
2,500	98	Weighted Average
2,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 2500x: 2500-Pre

Runoff = 0.06 cfs @ 12.01 hrs, Volume= 0.003 af, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	70	Woods, Good, HSG C
2,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 3000: 3000

Runoff = 0.28 cfs @ 11.96 hrs, Volume= 0.016 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,000	98	Weighted Average
3,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 3000x: 3000-Pre

Runoff = 0.07 cfs @ 12.01 hrs, Volume= 0.004 af, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,000	70	Woods, Good, HSG C
3,000		100.00% Pervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 3500: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 3500x: 3500-Pre

Runoff = 0.09 cfs @ 12.01 hrs, Volume= 0.005 af, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,500	70	Woods, Good, HSG C
3,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 4000: 4000

Runoff = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

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Type II 24-hr 1-Year Rainfall=3.00"

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Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 4000x: 4000-Pre

Runoff = 0.10 cfs @ 12.01 hrs, Volume= 0.005 af, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
4,000	70	Woods, Good, HSG C
4,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 4500: 4500

Runoff = 0.43 cfs @ 11.96 hrs, Volume= 0.024 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,500	98	Weighted Average
4,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 4500x: 4500-Pre

Runoff = 0.11 cfs @ 12.01 hrs, Volume= 0.006 af, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

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Type II 24-hr 1-Year Rainfall=3.00"

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Area (sf)	CN	Description
4,500	70	Woods, Good, HSG C
4,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 5000: 5000

Runoff = 0.47 cfs @ 11.96 hrs, Volume= 0.026 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 5000x: 5000-Pre

Runoff = 0.12 cfs @ 12.01 hrs, Volume= 0.007 af, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
5,000	70	Woods, Good, HSG C
5,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 5500: 5500

Runoff = 0.52 cfs @ 11.96 hrs, Volume= 0.029 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

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Type II 24-hr 1-Year Rainfall=3.00"

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Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,500	98	Weighted Average
5,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 5500x: 5500-Pre

Runoff = 0.14 cfs @ 12.01 hrs, Volume= 0.008 af, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
5,500	70	Woods, Good, HSG C
5,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 6000: 6000

Runoff = 0.57 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
5,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
6,000	98	Weighted Average
6,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 6000x: 6000-Pre

Runoff = 0.15 cfs @ 12.01 hrs, Volume= 0.008 af, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

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Type II 24-hr 1-Year Rainfall=3.00"

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Area (sf)	CN	Description
6,000	70	Woods, Good, HSG C
6,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 6500: 6500

Runoff = 0.61 cfs @ 11.96 hrs, Volume= 0.034 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 6500x: 6500-Pre

Runoff = 0.16 cfs @ 12.01 hrs, Volume= 0.009 af, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
6,500	70	Woods, Good, HSG C
6,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Reach 2R: DP

Inflow Area = 0.126 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.02 cfs @ 13.89 hrs, Volume= 0.029 af
 Outflow = 0.02 cfs @ 13.89 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 3R: DP

Inflow Area = 0.126 ac, 0.00% Impervious, Inflow Depth = 0.71" for 1-Year event
Inflow = 0.14 cfs @ 12.01 hrs, Volume= 0.008 af
Outflow = 0.14 cfs @ 12.01 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 4R: DP

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af
Outflow = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 5R: DP

Inflow Area = 0.149 ac, 0.00% Impervious, Inflow Depth = 0.71" for 1-Year event
Inflow = 0.16 cfs @ 12.01 hrs, Volume= 0.009 af
Outflow = 0.16 cfs @ 12.01 hrs, Volume= 0.009 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 6R: DP

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.01 cfs @ 13.67 hrs, Volume= 0.024 af
Outflow = 0.01 cfs @ 13.67 hrs, Volume= 0.024 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 7R: DP

Inflow Area = 0.103 ac, 0.00% Impervious, Inflow Depth = 0.71" for 1-Year event
Inflow = 0.11 cfs @ 12.01 hrs, Volume= 0.006 af
Outflow = 0.11 cfs @ 12.01 hrs, Volume= 0.006 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 8R: DP

Inflow Area = 0.138 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.02 cfs @ 13.95 hrs, Volume= 0.032 af
Outflow = 0.02 cfs @ 13.95 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 9R: DP

Inflow Area = 0.138 ac, 0.00% Impervious, Inflow Depth = 0.71" for 1-Year event
Inflow = 0.15 cfs @ 12.01 hrs, Volume= 0.008 af
Outflow = 0.15 cfs @ 12.01 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 10R: DP

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af
Outflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 11R: DP

Inflow Area = 0.092 ac, 0.00% Impervious, Inflow Depth = 0.71" for 1-Year event
Inflow = 0.10 cfs @ 12.01 hrs, Volume= 0.005 af
Outflow = 0.10 cfs @ 12.01 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 12R: DP

Inflow Area = 0.069 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.01 cfs @ 13.70 hrs, Volume= 0.016 af
Outflow = 0.01 cfs @ 13.70 hrs, Volume= 0.016 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 13R: DP

Inflow Area = 0.069 ac, 0.00% Impervious, Inflow Depth = 0.71" for 1-Year event
Inflow = 0.07 cfs @ 12.01 hrs, Volume= 0.004 af
Outflow = 0.07 cfs @ 12.01 hrs, Volume= 0.004 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 2503R: DP

Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.01 cfs @ 13.49 hrs, Volume= 0.011 af
Outflow = 0.01 cfs @ 13.49 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 2504R: DP

Inflow Area = 0.046 ac, 0.00% Impervious, Inflow Depth = 0.71" for 1-Year event
Inflow = 0.05 cfs @ 12.01 hrs, Volume= 0.003 af
Outflow = 0.05 cfs @ 12.01 hrs, Volume= 0.003 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 3003R: DP

Inflow Area = 0.057 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.01 cfs @ 13.51 hrs, Volume= 0.013 af
Outflow = 0.01 cfs @ 13.51 hrs, Volume= 0.013 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 3004R: DP

Inflow Area = 0.057 ac, 0.00% Impervious, Inflow Depth = 0.71" for 1-Year event
Inflow = 0.06 cfs @ 12.01 hrs, Volume= 0.003 af
Outflow = 0.06 cfs @ 12.01 hrs, Volume= 0.003 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 4002R: DP

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af
Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 4003R: DP

Inflow Area = 0.080 ac, 0.00% Impervious, Inflow Depth = 0.71" for 1-Year event
Inflow = 0.09 cfs @ 12.01 hrs, Volume= 0.005 af
Outflow = 0.09 cfs @ 12.01 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 5502R: DP

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.01 cfs @ 13.79 hrs, Volume= 0.026 af
Outflow = 0.01 cfs @ 13.79 hrs, Volume= 0.026 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 5503R: DP

Inflow Area = 0.115 ac, 0.00% Impervious, Inflow Depth = 0.71" for 1-Year event
 Inflow = 0.12 cfs @ 12.01 hrs, Volume= 0.007 af
 Outflow = 0.12 cfs @ 12.01 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Pond 2000P: BIO

Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.19 cfs @ 11.96 hrs, Volume= 0.011 af
 Outflow = 0.01 cfs @ 13.49 hrs, Volume= 0.011 af, Atten= 96%, Lag= 91.6 min
 Primary = 0.01 cfs @ 13.49 hrs, Volume= 0.011 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.45' @ 13.49 hrs Surf.Area= 595 sf Storage= 232 cf

Plug-Flow detention time= 310.0 min calculated for 0.011 af (100% of inflow)

Center-of-Mass det. time= 310.0 min (1,063.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	613 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	425	0	0
1,687.00	800	613	613

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.75'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.49 hrs HW=1,686.45' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond 2500P: BIO

Inflow Area = 0.057 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.24 cfs @ 11.96 hrs, Volume= 0.013 af
 Outflow = 0.01 cfs @ 13.51 hrs, Volume= 0.013 af, Atten= 96%, Lag= 92.7 min
 Primary = 0.01 cfs @ 13.51 hrs, Volume= 0.013 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.47' @ 13.51 hrs Surf.Area= 736 sf Storage= 292 cf

Plug-Flow detention time= 320.2 min calculated for 0.013 af (100% of inflow)

Center-of-Mass det. time= 320.3 min (1,074.2 - 753.9)

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	750 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	500	0	0
1,687.00	1,000	750	750

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.75'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.51 hrs HW=1,686.47' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond 3000P: BIO

Inflow Area = 0.069 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.28 cfs @ 11.96 hrs, Volume= 0.016 af
 Outflow = 0.01 cfs @ 13.70 hrs, Volume= 0.016 af, Atten= 97%, Lag= 104.2 min
 Primary = 0.01 cfs @ 13.70 hrs, Volume= 0.016 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.51' @ 13.70 hrs Surf.Area= 803 sf Storage= 357 cf

Plug-Flow detention time= 354.4 min calculated for 0.016 af (100% of inflow)
 Center-of-Mass det. time= 354.4 min (1,108.4 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	800 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	600	0	0
1,687.00	1,000	800	800

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.75'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.70 hrs HW=1,686.51' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Summary for Pond P3500: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P4000: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af
 Outflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af, Atten= 97%, Lag= 107.8 min
 Primary = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.51' @ 13.76 hrs Surf.Area= 1,042 sf Storage= 476 cf

Plug-Flow detention time= 360.8 min calculated for 0.021 af (100% of inflow)
 Center-of-Mass det. time= 360.8 min (1,114.7 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.76 hrs HW=1,686.51' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P4500: BIO

Inflow Area = 0.103 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.43 cfs @ 11.96 hrs, Volume= 0.024 af
 Outflow = 0.01 cfs @ 13.67 hrs, Volume= 0.024 af, Atten= 97%, Lag= 102.6 min
 Primary = 0.01 cfs @ 13.67 hrs, Volume= 0.024 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.67 hrs Surf.Area= 1,219 sf Storage= 530 cf

Plug-Flow detention time= 343.3 min calculated for 0.024 af (100% of inflow)
 Center-of-Mass det. time= 343.3 min (1,097.3 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,225 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	950	0	0
1,687.00	1,500	1,225	1,225

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.67 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P5000: BIO

Inflow Area = 0.115 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.47 cfs @ 11.96 hrs, Volume= 0.026 af
 Outflow = 0.01 cfs @ 13.79 hrs, Volume= 0.026 af, Atten= 97%, Lag= 109.9 min
 Primary = 0.01 cfs @ 13.79 hrs, Volume= 0.026 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.53' @ 13.79 hrs Surf.Area= 1,281 sf Storage= 606 cf

Plug-Flow detention time= 378.6 min calculated for 0.026 af (100% of inflow)
 Center-of-Mass det. time= 378.7 min (1,132.6 - 753.9)

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.79 hrs HW=1,686.53' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P5500: BIO

Inflow Area = 0.126 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.52 cfs @ 11.96 hrs, Volume= 0.029 af
 Outflow = 0.02 cfs @ 13.89 hrs, Volume= 0.029 af, Atten= 97%, Lag= 115.6 min
 Primary = 0.02 cfs @ 13.89 hrs, Volume= 0.029 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.55' @ 13.89 hrs Surf.Area= 1,348 sf Storage= 674 cf

Plug-Flow detention time= 399.6 min calculated for 0.029 af (100% of inflow)
 Center-of-Mass det. time= 399.7 min (1,153.6 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,100 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,100	0	0
1,688.00	2,000	3,100	3,100

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.02 cfs @ 13.89 hrs HW=1,686.55' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P6000: BIO

Inflow Area = 0.138 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.57 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.02 cfs @ 13.95 hrs, Volume= 0.032 af, Atten= 97%, Lag= 119.4 min
 Primary = 0.02 cfs @ 13.95 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.56' @ 13.95 hrs Surf.Area= 1,425 sf Storage= 739 cf

Plug-Flow detention time= 412.6 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 412.4 min (1,166.3 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,200 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,200	0	0
1,688.00	2,000	3,200	3,200

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.02 cfs @ 13.95 hrs HW=1,686.56' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P6500: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.61 cfs @ 11.96 hrs, Volume= 0.034 af
 Outflow = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af, Atten= 97%, Lag= 121.8 min
 Primary = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.58' @ 13.99 hrs Surf.Area= 1,513 sf Storage= 805 cf

Plug-Flow detention time= 423.8 min calculated for 0.034 af (100% of inflow)
 Center-of-Mass det. time= 423.7 min (1,177.6 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.02 cfs @ 13.99 hrs HW=1,686.58' (Free Discharge)

└─1=**Orifice/Grate** (Controls 0.00 cfs)

└─2=**Exfiltration** (Exfiltration Controls 0.02 cfs)

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 2000: 2000	Runoff Area=2,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.32 cfs 0.018 af
Subcatchment 2000x: 2000-Pre	Runoff Area=2,000 sf 0.00% Impervious Runoff Depth=2.04" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.15 cfs 0.008 af
Subcatchment 2500: 2500	Runoff Area=2,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.40 cfs 0.023 af
Subcatchment 2500x: 2500-Pre	Runoff Area=2,500 sf 0.00% Impervious Runoff Depth=2.04" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.19 cfs 0.010 af
Subcatchment 3000: 3000	Runoff Area=3,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.48 cfs 0.027 af
Subcatchment 3000x: 3000-Pre	Runoff Area=3,000 sf 0.00% Impervious Runoff Depth=2.04" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.23 cfs 0.012 af
Subcatchment 3500: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 3500x: 3500-Pre	Runoff Area=3,500 sf 0.00% Impervious Runoff Depth=2.04" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.27 cfs 0.014 af
Subcatchment 4000: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.64 cfs 0.036 af
Subcatchment 4000x: 4000-Pre	Runoff Area=4,000 sf 0.00% Impervious Runoff Depth=2.04" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.30 cfs 0.016 af
Subcatchment 4500: 4500	Runoff Area=4,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.72 cfs 0.041 af
Subcatchment 4500x: 4500-Pre	Runoff Area=4,500 sf 0.00% Impervious Runoff Depth=2.04" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.34 cfs 0.018 af
Subcatchment 5000: 5000	Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.79 cfs 0.046 af
Subcatchment 5000x: 5000-Pre	Runoff Area=5,000 sf 0.00% Impervious Runoff Depth=2.04" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.38 cfs 0.019 af
Subcatchment 5500: 5500	Runoff Area=5,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.87 cfs 0.050 af
Subcatchment 5500x: 5500-Pre	Runoff Area=5,500 sf 0.00% Impervious Runoff Depth=2.04" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.42 cfs 0.021 af

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Subcatchment 6000: 6000	Runoff Area=6,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.95 cfs 0.055 af
Subcatchment 6000x: 6000-Pre	Runoff Area=6,000 sf 0.00% Impervious Runoff Depth=2.04" Flow Length=100' Slope=0.2500 '/' Tc=8.1 min CN=70 Runoff=0.46 cfs 0.023 af
Subcatchment 6500: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=1.03 cfs 0.059 af
Subcatchment 6500x: 6500-Pre	Runoff Area=6,500 sf 0.00% Impervious Runoff Depth=2.04" Flow Length=100' Slope=0.2500 '/' Tc=8.1 min CN=70 Runoff=0.49 cfs 0.025 af
Reach 2R: DP	Inflow=0.30 cfs 0.050 af Outflow=0.30 cfs 0.050 af
Reach 3R: DP	Inflow=0.42 cfs 0.021 af Outflow=0.42 cfs 0.021 af
Reach 4R: DP	Inflow=0.38 cfs 0.059 af Outflow=0.38 cfs 0.059 af
Reach 5R: DP	Inflow=0.49 cfs 0.025 af Outflow=0.49 cfs 0.025 af
Reach 6R: DP	Inflow=0.18 cfs 0.041 af Outflow=0.18 cfs 0.041 af
Reach 7R: DP	Inflow=0.34 cfs 0.018 af Outflow=0.34 cfs 0.018 af
Reach 8R: DP	Inflow=0.34 cfs 0.055 af Outflow=0.34 cfs 0.055 af
Reach 9R: DP	Inflow=0.46 cfs 0.023 af Outflow=0.46 cfs 0.023 af
Reach 10R: DP	Inflow=0.20 cfs 0.036 af Outflow=0.20 cfs 0.036 af
Reach 11R: DP	Inflow=0.30 cfs 0.016 af Outflow=0.30 cfs 0.016 af
Reach 12R: DP	Inflow=0.04 cfs 0.027 af Outflow=0.04 cfs 0.027 af
Reach 13R: DP	Inflow=0.23 cfs 0.012 af Outflow=0.23 cfs 0.012 af
Reach 2503R: DP	Inflow=0.01 cfs 0.018 af Outflow=0.01 cfs 0.018 af

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Reach 2504R: DP		Inflow=0.15 cfs 0.008 af
		Outflow=0.15 cfs 0.008 af
Reach 3003R: DP		Inflow=0.02 cfs 0.023 af
		Outflow=0.02 cfs 0.023 af
Reach 3004R: DP		Inflow=0.19 cfs 0.010 af
		Outflow=0.19 cfs 0.010 af
Reach 4002R: DP		Inflow=0.15 cfs 0.032 af
		Outflow=0.15 cfs 0.032 af
Reach 4003R: DP		Inflow=0.27 cfs 0.014 af
		Outflow=0.27 cfs 0.014 af
Reach 5502R: DP		Inflow=0.25 cfs 0.046 af
		Outflow=0.25 cfs 0.046 af
Reach 5503R: DP		Inflow=0.38 cfs 0.019 af
		Outflow=0.38 cfs 0.019 af
Pond 2000P: BIO	Peak Elev=1,686.76' Storage=431 cf	Inflow=0.32 cfs 0.018 af
		Outflow=0.01 cfs 0.018 af
Pond 2500P: BIO	Peak Elev=1,686.77' Storage=529 cf	Inflow=0.40 cfs 0.023 af
		Outflow=0.02 cfs 0.023 af
Pond 3000P: BIO	Peak Elev=1,686.79' Storage=594 cf	Inflow=0.48 cfs 0.027 af
		Outflow=0.04 cfs 0.027 af
Pond P3500: BIO	Peak Elev=1,686.69' Storage=615 cf	Inflow=0.56 cfs 0.032 af
		Outflow=0.15 cfs 0.032 af
Pond P4000: BIO	Peak Elev=1,686.71' Storage=692 cf	Inflow=0.64 cfs 0.036 af
		Outflow=0.20 cfs 0.036 af
Pond P4500: BIO	Peak Elev=1,686.70' Storage=799 cf	Inflow=0.72 cfs 0.041 af
		Outflow=0.18 cfs 0.041 af
Pond P5000: BIO	Peak Elev=1,686.73' Storage=873 cf	Inflow=0.79 cfs 0.046 af
		Outflow=0.25 cfs 0.046 af
Pond P5500: BIO	Peak Elev=1,686.75' Storage=945 cf	Inflow=0.87 cfs 0.050 af
		Outflow=0.30 cfs 0.050 af
Pond P6000: BIO	Peak Elev=1,686.76' Storage=1,024 cf	Inflow=0.95 cfs 0.055 af
		Outflow=0.34 cfs 0.055 af
Pond P6500: BIO	Peak Elev=1,686.77' Storage=1,105 cf	Inflow=1.03 cfs 0.059 af
		Outflow=0.38 cfs 0.059 af

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Total Runoff Area = 1.951 ac Runoff Volume = 0.553 af Average Runoff Depth = 3.40"
50.00% Pervious = 0.976 ac 50.00% Impervious = 0.976 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 2000: 2000

Runoff = 0.32 cfs @ 11.96 hrs, Volume= 0.018 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
1,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
2,000	98	Weighted Average
2,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 2000x: 2000-Pre

Runoff = 0.15 cfs @ 12.00 hrs, Volume= 0.008 af, Depth= 2.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,000	70	Woods, Good, HSG C
2,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 2500: 2500

Runoff = 0.40 cfs @ 11.96 hrs, Volume= 0.023 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
1,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
2,500	98	Weighted Average
2,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 2500x: 2500-Pre

Runoff = 0.19 cfs @ 12.00 hrs, Volume= 0.010 af, Depth= 2.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	70	Woods, Good, HSG C
2,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 3000: 3000

Runoff = 0.48 cfs @ 11.96 hrs, Volume= 0.027 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,000	98	Weighted Average
3,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 3000x: 3000-Pre

Runoff = 0.23 cfs @ 12.00 hrs, Volume= 0.012 af, Depth= 2.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,000	70	Woods, Good, HSG C
3,000		100.00% Pervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 3500: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 3500x: 3500-Pre

Runoff = 0.27 cfs @ 12.00 hrs, Volume= 0.014 af, Depth= 2.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,500	70	Woods, Good, HSG C
3,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 4000: 4000

Runoff = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

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Type II 24-hr 10-Year Rainfall=5.00"

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Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 4000x: 4000-Pre

Runoff = 0.30 cfs @ 12.00 hrs, Volume= 0.016 af, Depth= 2.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
4,000	70	Woods, Good, HSG C
4,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 4500: 4500

Runoff = 0.72 cfs @ 11.96 hrs, Volume= 0.041 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,500	98	Weighted Average
4,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 4500x: 4500-Pre

Runoff = 0.34 cfs @ 12.00 hrs, Volume= 0.018 af, Depth= 2.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

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Type II 24-hr 10-Year Rainfall=5.00"

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Area (sf)	CN	Description
4,500	70	Woods, Good, HSG C
4,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 5000: 5000

Runoff = 0.79 cfs @ 11.96 hrs, Volume= 0.046 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 5000x: 5000-Pre

Runoff = 0.38 cfs @ 12.00 hrs, Volume= 0.019 af, Depth= 2.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
5,000	70	Woods, Good, HSG C
5,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 5500: 5500

Runoff = 0.87 cfs @ 11.96 hrs, Volume= 0.050 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

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Type II 24-hr 10-Year Rainfall=5.00"

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Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,500	98	Weighted Average
5,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 5500x: 5500-Pre

Runoff = 0.42 cfs @ 12.00 hrs, Volume= 0.021 af, Depth= 2.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
5,500	70	Woods, Good, HSG C
5,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 6000: 6000

Runoff = 0.95 cfs @ 11.96 hrs, Volume= 0.055 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
5,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
6,000	98	Weighted Average
6,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 6000x: 6000-Pre

Runoff = 0.46 cfs @ 12.00 hrs, Volume= 0.023 af, Depth= 2.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

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Type II 24-hr 10-Year Rainfall=5.00"

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Area (sf)	CN	Description
6,000	70	Woods, Good, HSG C
6,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 6500: 6500

Runoff = 1.03 cfs @ 11.96 hrs, Volume= 0.059 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 6500x: 6500-Pre

Runoff = 0.49 cfs @ 12.00 hrs, Volume= 0.025 af, Depth= 2.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
6,500	70	Woods, Good, HSG C
6,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Reach 2R: DP

Inflow Area = 0.126 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.30 cfs @ 12.10 hrs, Volume= 0.050 af
 Outflow = 0.30 cfs @ 12.10 hrs, Volume= 0.050 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 3R: DP

Inflow Area = 0.126 ac, 0.00% Impervious, Inflow Depth = 2.04" for 10-Year event
Inflow = 0.42 cfs @ 12.00 hrs, Volume= 0.021 af
Outflow = 0.42 cfs @ 12.00 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 4R: DP

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af
Outflow = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 5R: DP

Inflow Area = 0.149 ac, 0.00% Impervious, Inflow Depth = 2.04" for 10-Year event
Inflow = 0.49 cfs @ 12.00 hrs, Volume= 0.025 af
Outflow = 0.49 cfs @ 12.00 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 6R: DP

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.18 cfs @ 12.12 hrs, Volume= 0.041 af
Outflow = 0.18 cfs @ 12.12 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 7R: DP

Inflow Area = 0.103 ac, 0.00% Impervious, Inflow Depth = 2.04" for 10-Year event
Inflow = 0.34 cfs @ 12.00 hrs, Volume= 0.018 af
Outflow = 0.34 cfs @ 12.00 hrs, Volume= 0.018 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 8R: DP

Inflow Area = 0.138 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.34 cfs @ 12.10 hrs, Volume= 0.055 af
Outflow = 0.34 cfs @ 12.10 hrs, Volume= 0.055 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 9R: DP

Inflow Area = 0.138 ac, 0.00% Impervious, Inflow Depth = 2.04" for 10-Year event
Inflow = 0.46 cfs @ 12.00 hrs, Volume= 0.023 af
Outflow = 0.46 cfs @ 12.00 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 10R: DP

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af
Outflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 11R: DP

Inflow Area = 0.092 ac, 0.00% Impervious, Inflow Depth = 2.04" for 10-Year event
Inflow = 0.30 cfs @ 12.00 hrs, Volume= 0.016 af
Outflow = 0.30 cfs @ 12.00 hrs, Volume= 0.016 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 12R: DP

Inflow Area = 0.069 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.04 cfs @ 12.41 hrs, Volume= 0.027 af
Outflow = 0.04 cfs @ 12.41 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 13R: DP

Inflow Area = 0.069 ac, 0.00% Impervious, Inflow Depth = 2.04" for 10-Year event
Inflow = 0.23 cfs @ 12.00 hrs, Volume= 0.012 af
Outflow = 0.23 cfs @ 12.00 hrs, Volume= 0.012 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 2503R: DP

Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.01 cfs @ 13.24 hrs, Volume= 0.018 af
Outflow = 0.01 cfs @ 13.24 hrs, Volume= 0.018 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 2504R: DP

Inflow Area = 0.046 ac, 0.00% Impervious, Inflow Depth = 2.04" for 10-Year event
Inflow = 0.15 cfs @ 12.00 hrs, Volume= 0.008 af
Outflow = 0.15 cfs @ 12.00 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 3003R: DP

Inflow Area = 0.057 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.02 cfs @ 12.90 hrs, Volume= 0.023 af
Outflow = 0.02 cfs @ 12.90 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 3004R: DP

Inflow Area = 0.057 ac, 0.00% Impervious, Inflow Depth = 2.04" for 10-Year event
Inflow = 0.19 cfs @ 12.00 hrs, Volume= 0.010 af
Outflow = 0.19 cfs @ 12.00 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 4002R: DP

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af
Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 4003R: DP

Inflow Area = 0.080 ac, 0.00% Impervious, Inflow Depth = 2.04" for 10-Year event
Inflow = 0.27 cfs @ 12.00 hrs, Volume= 0.014 af
Outflow = 0.27 cfs @ 12.00 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 5502R: DP

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.25 cfs @ 12.11 hrs, Volume= 0.046 af
Outflow = 0.25 cfs @ 12.11 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 5503R: DP

Inflow Area = 0.115 ac, 0.00% Impervious, Inflow Depth = 2.04" for 10-Year event
 Inflow = 0.38 cfs @ 12.00 hrs, Volume= 0.019 af
 Outflow = 0.38 cfs @ 12.00 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Pond 2000P: BIO

Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.32 cfs @ 11.96 hrs, Volume= 0.018 af
 Outflow = 0.01 cfs @ 13.24 hrs, Volume= 0.018 af, Atten= 96%, Lag= 76.6 min
 Primary = 0.01 cfs @ 13.24 hrs, Volume= 0.018 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.76' @ 13.24 hrs Surf.Area= 710 sf Storage= 431 cf

Plug-Flow detention time= 495.0 min calculated for 0.018 af (100% of inflow)

Center-of-Mass det. time= 494.9 min (1,238.8 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	613 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	425	0	0
1,687.00	800	613	613

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.75'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.24 hrs HW=1,686.76' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.00 cfs @ 0.32 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond 2500P: BIO

Inflow Area = 0.057 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.40 cfs @ 11.96 hrs, Volume= 0.023 af
 Outflow = 0.02 cfs @ 12.90 hrs, Volume= 0.023 af, Atten= 95%, Lag= 56.2 min
 Primary = 0.02 cfs @ 12.90 hrs, Volume= 0.023 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.77' @ 12.90 hrs Surf.Area= 883 sf Storage= 529 cf

Plug-Flow detention time= 482.7 min calculated for 0.023 af (100% of inflow)

Center-of-Mass det. time= 482.8 min (1,226.8 - 743.9)

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	750 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	500	0	0
1,687.00	1,000	750	750

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.75'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.02 cfs @ 12.90 hrs HW=1,686.77' (Free Discharge)

- 1=Orifice/Grate (Weir Controls 0.01 cfs @ 0.41 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond 3000P: BIO

Inflow Area = 0.069 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.48 cfs @ 11.96 hrs, Volume= 0.027 af
 Outflow = 0.04 cfs @ 12.41 hrs, Volume= 0.027 af, Atten= 91%, Lag= 26.8 min
 Primary = 0.04 cfs @ 12.41 hrs, Volume= 0.027 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.79' @ 12.41 hrs Surf.Area= 914 sf Storage= 594 cf

Plug-Flow detention time= 469.8 min calculated for 0.027 af (100% of inflow)
 Center-of-Mass det. time= 469.9 min (1,213.8 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	800 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	600	0	0
1,687.00	1,000	800	800

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.75'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.04 cfs @ 12.41 hrs HW=1,686.79' (Free Discharge)

- 1=Orifice/Grate (Weir Controls 0.03 cfs @ 0.61 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P3500: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P4000: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af
 Outflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.71' @ 12.11 hrs Surf.Area= 1,126 sf Storage= 692 cf

Plug-Flow detention time= 340.5 min calculated for 0.036 af (100% of inflow)
 Center-of-Mass det. time= 340.7 min (1,084.6 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.19 cfs @ 12.11 hrs HW=1,686.71' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.18 cfs @ 1.07 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P4500: BIO

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.72 cfs @ 11.96 hrs, Volume= 0.041 af
 Outflow = 0.18 cfs @ 12.12 hrs, Volume= 0.041 af, Atten= 75%, Lag= 9.7 min
 Primary = 0.18 cfs @ 12.12 hrs, Volume= 0.041 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.70' @ 12.12 hrs Surf.Area= 1,335 sf Storage= 799 cf

Plug-Flow detention time= 347.8 min calculated for 0.041 af (100% of inflow)

Center-of-Mass det. time= 347.5 min (1,091.5 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,225 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	950	0	0
1,687.00	1,500	1,225	1,225

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.17 cfs @ 12.12 hrs HW=1,686.70' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.15 cfs @ 1.02 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P5000: BIO

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.79 cfs @ 11.96 hrs, Volume= 0.046 af
 Outflow = 0.25 cfs @ 12.11 hrs, Volume= 0.046 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.25 cfs @ 12.11 hrs, Volume= 0.046 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.73' @ 12.11 hrs Surf.Area= 1,379 sf Storage= 873 cf

Plug-Flow detention time= 340.8 min calculated for 0.046 af (100% of inflow)

Center-of-Mass det. time= 341.2 min (1,085.1 - 743.9)

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.24 cfs @ 12.11 hrs HW=1,686.72' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.23 cfs @ 1.15 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P5500: BIO

Inflow Area = 0.126 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.87 cfs @ 11.96 hrs, Volume= 0.050 af
 Outflow = 0.30 cfs @ 12.10 hrs, Volume= 0.050 af, Atten= 65%, Lag= 8.3 min
 Primary = 0.30 cfs @ 12.10 hrs, Volume= 0.050 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.75' @ 12.10 hrs Surf.Area= 1,435 sf Storage= 945 cf

Plug-Flow detention time= 335.2 min calculated for 0.050 af (100% of inflow)
 Center-of-Mass det. time= 335.5 min (1,079.4 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,100 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,100	0	0
1,688.00	2,000	3,100	3,100

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.30 cfs @ 12.10 hrs HW=1,686.75' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.28 cfs @ 1.25 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

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Summary for Pond P6000: BIO

Inflow Area = 0.138 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.95 cfs @ 11.96 hrs, Volume= 0.055 af
 Outflow = 0.34 cfs @ 12.10 hrs, Volume= 0.055 af, Atten= 64%, Lag= 8.1 min
 Primary = 0.34 cfs @ 12.10 hrs, Volume= 0.055 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.76' @ 12.10 hrs Surf.Area= 1,503 sf Storage= 1,024 cf

Plug-Flow detention time= 334.6 min calculated for 0.055 af (100% of inflow)
 Center-of-Mass det. time= 334.5 min (1,078.4 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,200 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,200	0	0
1,688.00	2,000	3,200	3,200

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.34 cfs @ 12.10 hrs HW=1,686.76' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.32 cfs @ 1.30 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P6500: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 1.03 cfs @ 11.96 hrs, Volume= 0.059 af
 Outflow = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af, Atten= 63%, Lag= 7.9 min
 Primary = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.77' @ 12.09 hrs Surf.Area= 1,593 sf Storage= 1,105 cf

Plug-Flow detention time= 331.1 min calculated for 0.059 af (100% of inflow)
 Center-of-Mass det. time= 331.0 min (1,074.9 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.38 cfs @ 12.09 hrs HW=1,686.77' (Free Discharge)

└─1=**Orifice/Grate** (Weir Controls 0.36 cfs @ 1.34 fps)

└─2=**Exfiltration** (Exfiltration Controls 0.02 cfs)

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 2000: 2000	Runoff Area=2,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.48 cfs 0.028 af
Subcatchment 2000x: 2000-Pre	Runoff Area=2,000 sf 0.00% Impervious Runoff Depth=4.04" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.30 cfs 0.015 af
Subcatchment 2500: 2500	Runoff Area=2,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.60 cfs 0.035 af
Subcatchment 2500x: 2500-Pre	Runoff Area=2,500 sf 0.00% Impervious Runoff Depth=4.04" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.38 cfs 0.019 af
Subcatchment 3000: 3000	Runoff Area=3,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.72 cfs 0.042 af
Subcatchment 3000x: 3000-Pre	Runoff Area=3,000 sf 0.00% Impervious Runoff Depth=4.04" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.45 cfs 0.023 af
Subcatchment 3500: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 3500x: 3500-Pre	Runoff Area=3,500 sf 0.00% Impervious Runoff Depth=4.04" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.53 cfs 0.027 af
Subcatchment 4000: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.96 cfs 0.056 af
Subcatchment 4000x: 4000-Pre	Runoff Area=4,000 sf 0.00% Impervious Runoff Depth=4.04" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.60 cfs 0.031 af
Subcatchment 4500: 4500	Runoff Area=4,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=1.08 cfs 0.063 af
Subcatchment 4500x: 4500-Pre	Runoff Area=4,500 sf 0.00% Impervious Runoff Depth=4.04" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.68 cfs 0.035 af
Subcatchment 5000: 5000	Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=1.20 cfs 0.069 af
Subcatchment 5000x: 5000-Pre	Runoff Area=5,000 sf 0.00% Impervious Runoff Depth=4.04" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.75 cfs 0.039 af
Subcatchment 5500: 5500	Runoff Area=5,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=1.31 cfs 0.076 af
Subcatchment 5500x: 5500-Pre	Runoff Area=5,500 sf 0.00% Impervious Runoff Depth=4.04" Flow Length=100' Slope=0.2500 1/' Tc=8.1 min CN=70 Runoff=0.83 cfs 0.042 af

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Type II 24-hr 100-Year Rainfall=7.50"

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Subcatchment 6000: 6000	Runoff Area=6,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=1.43 cfs 0.083 af
Subcatchment 6000x: 6000-Pre	Runoff Area=6,000 sf 0.00% Impervious Runoff Depth=4.04" Flow Length=100' Slope=0.2500 '/' Tc=8.1 min CN=70 Runoff=0.90 cfs 0.046 af
Subcatchment 6500: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=1.55 cfs 0.090 af
Subcatchment 6500x: 6500-Pre	Runoff Area=6,500 sf 0.00% Impervious Runoff Depth=4.04" Flow Length=100' Slope=0.2500 '/' Tc=8.1 min CN=70 Runoff=0.98 cfs 0.050 af
Reach 2R: DP	Inflow=0.60 cfs 0.076 af Outflow=0.60 cfs 0.076 af
Reach 3R: DP	Inflow=0.83 cfs 0.042 af Outflow=0.83 cfs 0.042 af
Reach 4R: DP	Inflow=0.65 cfs 0.090 af Outflow=0.65 cfs 0.090 af
Reach 5R: DP	Inflow=0.98 cfs 0.050 af Outflow=0.98 cfs 0.050 af
Reach 6R: DP	Inflow=0.53 cfs 0.063 af Outflow=0.53 cfs 0.063 af
Reach 7R: DP	Inflow=0.68 cfs 0.035 af Outflow=0.68 cfs 0.035 af
Reach 8R: DP	Inflow=0.63 cfs 0.083 af Outflow=0.63 cfs 0.083 af
Reach 9R: DP	Inflow=0.90 cfs 0.046 af Outflow=0.90 cfs 0.046 af
Reach 10R: DP	Inflow=0.52 cfs 0.056 af Outflow=0.52 cfs 0.056 af
Reach 11R: DP	Inflow=0.60 cfs 0.031 af Outflow=0.60 cfs 0.031 af
Reach 12R: DP	Inflow=0.42 cfs 0.042 af Outflow=0.42 cfs 0.042 af
Reach 13R: DP	Inflow=0.45 cfs 0.023 af Outflow=0.45 cfs 0.023 af
Reach 2503R: DP	Inflow=0.25 cfs 0.028 af Outflow=0.25 cfs 0.028 af

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Type II 24-hr 100-Year Rainfall=7.50"

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Reach 2504R: DP		Inflow=0.30 cfs 0.015 af
		Outflow=0.30 cfs 0.015 af
Reach 3003R: DP		Inflow=0.30 cfs 0.035 af
		Outflow=0.30 cfs 0.035 af
Reach 3004R: DP		Inflow=0.38 cfs 0.019 af
		Outflow=0.38 cfs 0.019 af
Reach 4002R: DP		Inflow=0.49 cfs 0.049 af
		Outflow=0.49 cfs 0.049 af
Reach 4003R: DP		Inflow=0.53 cfs 0.027 af
		Outflow=0.53 cfs 0.027 af
Reach 5502R: DP		Inflow=0.57 cfs 0.069 af
		Outflow=0.57 cfs 0.069 af
Reach 5503R: DP		Inflow=0.75 cfs 0.039 af
		Outflow=0.75 cfs 0.039 af
Pond 2000P: BIO	Peak Elev=1,686.88' Storage=519 cf	Inflow=0.48 cfs 0.028 af
		Outflow=0.25 cfs 0.028 af
Pond 2500P: BIO	Peak Elev=1,686.90' Storage=651 cf	Inflow=0.60 cfs 0.035 af
		Outflow=0.30 cfs 0.035 af
Pond 3000P: BIO	Peak Elev=1,686.94' Storage=740 cf	Inflow=0.72 cfs 0.042 af
		Outflow=0.42 cfs 0.042 af
Pond P3500: BIO	Peak Elev=1,686.85' Storage=789 cf	Inflow=0.84 cfs 0.049 af
		Outflow=0.49 cfs 0.049 af
Pond P4000: BIO	Peak Elev=1,686.89' Storage=904 cf	Inflow=0.96 cfs 0.056 af
		Outflow=0.52 cfs 0.056 af
Pond P4500: BIO	Peak Elev=1,686.89' Storage=1,063 cf	Inflow=1.08 cfs 0.063 af
		Outflow=0.53 cfs 0.063 af
Pond P5000: BIO	Peak Elev=1,686.94' Storage=1,179 cf	Inflow=1.20 cfs 0.069 af
		Outflow=0.57 cfs 0.069 af
Pond P5500: BIO	Peak Elev=1,686.98' Storage=1,299 cf	Inflow=1.31 cfs 0.076 af
		Outflow=0.60 cfs 0.076 af
Pond P6000: BIO	Peak Elev=1,687.02' Storage=1,428 cf	Inflow=1.43 cfs 0.083 af
		Outflow=0.63 cfs 0.083 af
Pond P6500: BIO	Peak Elev=1,687.04' Storage=1,557 cf	Inflow=1.55 cfs 0.090 af
		Outflow=0.65 cfs 0.090 af

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Type II 24-hr 100-Year Rainfall=7.50"

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Total Runoff Area = 1.951 ac Runoff Volume = 0.919 af Average Runoff Depth = 5.65"
50.00% Pervious = 0.976 ac 50.00% Impervious = 0.976 ac

Summary for Subcatchment 2000: 2000

Runoff = 0.48 cfs @ 11.96 hrs, Volume= 0.028 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
1,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
2,000	98	Weighted Average
2,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 2000x: 2000-Pre

Runoff = 0.30 cfs @ 12.00 hrs, Volume= 0.015 af, Depth= 4.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,000	70	Woods, Good, HSG C
2,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 2500: 2500

Runoff = 0.60 cfs @ 11.96 hrs, Volume= 0.035 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
1,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
2,500	98	Weighted Average
2,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 2500x: 2500-Pre

Runoff = 0.38 cfs @ 12.00 hrs, Volume= 0.019 af, Depth= 4.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	70	Woods, Good, HSG C
2,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 3000: 3000

Runoff = 0.72 cfs @ 11.96 hrs, Volume= 0.042 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,000	98	Weighted Average
3,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 3000x: 3000-Pre

Runoff = 0.45 cfs @ 12.00 hrs, Volume= 0.023 af, Depth= 4.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,000	70	Woods, Good, HSG C
3,000		100.00% Pervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 3500: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 3500x: 3500-Pre

Runoff = 0.53 cfs @ 12.00 hrs, Volume= 0.027 af, Depth= 4.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,500	70	Woods, Good, HSG C
3,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 4000: 4000

Runoff = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
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Type II 24-hr 100-Year Rainfall=7.50"

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Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 4000x: 4000-Pre

Runoff = 0.60 cfs @ 12.00 hrs, Volume= 0.031 af, Depth= 4.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
4,000	70	Woods, Good, HSG C
4,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 4500: 4500

Runoff = 1.08 cfs @ 11.96 hrs, Volume= 0.063 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,500	98	Weighted Average
4,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 4500x: 4500-Pre

Runoff = 0.68 cfs @ 12.00 hrs, Volume= 0.035 af, Depth= 4.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
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Type II 24-hr 100-Year Rainfall=7.50"

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Area (sf)	CN	Description
4,500	70	Woods, Good, HSG C
4,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 5000: 5000

Runoff = 1.20 cfs @ 11.96 hrs, Volume= 0.069 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 5000x: 5000-Pre

Runoff = 0.75 cfs @ 12.00 hrs, Volume= 0.039 af, Depth= 4.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
5,000	70	Woods, Good, HSG C
5,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 5500: 5500

Runoff = 1.31 cfs @ 11.96 hrs, Volume= 0.076 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

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Type II 24-hr 100-Year Rainfall=7.50"

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Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,500	98	Weighted Average
5,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 5500x: 5500-Pre

Runoff = 0.83 cfs @ 12.00 hrs, Volume= 0.042 af, Depth= 4.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
5,500	70	Woods, Good, HSG C
5,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 6000: 6000

Runoff = 1.43 cfs @ 11.96 hrs, Volume= 0.083 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
5,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
6,000	98	Weighted Average
6,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 6000x: 6000-Pre

Runoff = 0.90 cfs @ 12.00 hrs, Volume= 0.046 af, Depth= 4.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
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Type II 24-hr 100-Year Rainfall=7.50"

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Area (sf)	CN	Description
6,000	70	Woods, Good, HSG C
6,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment 6500: 6500

Runoff = 1.55 cfs @ 11.96 hrs, Volume= 0.090 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 6500x: 6500-Pre

Runoff = 0.98 cfs @ 12.00 hrs, Volume= 0.050 af, Depth= 4.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
6,500	70	Woods, Good, HSG C
6,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.2500	0.21		Sheet Flow, Existing Condition Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Reach 2R: DP

Inflow Area = 0.126 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.60 cfs @ 12.07 hrs, Volume= 0.076 af
 Outflow = 0.60 cfs @ 12.07 hrs, Volume= 0.076 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 3R: DP

Inflow Area = 0.126 ac, 0.00% Impervious, Inflow Depth = 4.04" for 100-Year event
Inflow = 0.83 cfs @ 12.00 hrs, Volume= 0.042 af
Outflow = 0.83 cfs @ 12.00 hrs, Volume= 0.042 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 4R: DP

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af
Outflow = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 5R: DP

Inflow Area = 0.149 ac, 0.00% Impervious, Inflow Depth = 4.04" for 100-Year event
Inflow = 0.98 cfs @ 12.00 hrs, Volume= 0.050 af
Outflow = 0.98 cfs @ 12.00 hrs, Volume= 0.050 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 6R: DP

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.53 cfs @ 12.07 hrs, Volume= 0.063 af
Outflow = 0.53 cfs @ 12.07 hrs, Volume= 0.063 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 7R: DP

Inflow Area = 0.103 ac, 0.00% Impervious, Inflow Depth = 4.04" for 100-Year event
Inflow = 0.68 cfs @ 12.00 hrs, Volume= 0.035 af
Outflow = 0.68 cfs @ 12.00 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 8R: DP

Inflow Area = 0.138 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.63 cfs @ 12.07 hrs, Volume= 0.083 af
Outflow = 0.63 cfs @ 12.07 hrs, Volume= 0.083 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 9R: DP

Inflow Area = 0.138 ac, 0.00% Impervious, Inflow Depth = 4.04" for 100-Year event
Inflow = 0.90 cfs @ 12.00 hrs, Volume= 0.046 af
Outflow = 0.90 cfs @ 12.00 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 10R: DP

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af
Outflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 11R: DP

Inflow Area = 0.092 ac, 0.00% Impervious, Inflow Depth = 4.04" for 100-Year event
Inflow = 0.60 cfs @ 12.00 hrs, Volume= 0.031 af
Outflow = 0.60 cfs @ 12.00 hrs, Volume= 0.031 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 12R: DP

Inflow Area = 0.069 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.42 cfs @ 12.05 hrs, Volume= 0.042 af
Outflow = 0.42 cfs @ 12.05 hrs, Volume= 0.042 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 13R: DP

Inflow Area = 0.069 ac, 0.00% Impervious, Inflow Depth = 4.04" for 100-Year event
Inflow = 0.45 cfs @ 12.00 hrs, Volume= 0.023 af
Outflow = 0.45 cfs @ 12.00 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 2503R: DP

Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.25 cfs @ 12.07 hrs, Volume= 0.028 af
Outflow = 0.25 cfs @ 12.07 hrs, Volume= 0.028 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 2504R: DP

Inflow Area = 0.046 ac, 0.00% Impervious, Inflow Depth = 4.04" for 100-Year event
Inflow = 0.30 cfs @ 12.00 hrs, Volume= 0.015 af
Outflow = 0.30 cfs @ 12.00 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 3003R: DP

Inflow Area = 0.057 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.30 cfs @ 12.07 hrs, Volume= 0.035 af
Outflow = 0.30 cfs @ 12.07 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 3004R: DP

Inflow Area = 0.057 ac, 0.00% Impervious, Inflow Depth = 4.04" for 100-Year event
Inflow = 0.38 cfs @ 12.00 hrs, Volume= 0.019 af
Outflow = 0.38 cfs @ 12.00 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 4002R: DP

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af
Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 4003R: DP

Inflow Area = 0.080 ac, 0.00% Impervious, Inflow Depth = 4.04" for 100-Year event
Inflow = 0.53 cfs @ 12.00 hrs, Volume= 0.027 af
Outflow = 0.53 cfs @ 12.00 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 5502R: DP

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.57 cfs @ 12.07 hrs, Volume= 0.069 af
Outflow = 0.57 cfs @ 12.07 hrs, Volume= 0.069 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Reach 5503R: DP

Inflow Area = 0.115 ac, 0.00% Impervious, Inflow Depth = 4.04" for 100-Year event
 Inflow = 0.75 cfs @ 12.00 hrs, Volume= 0.039 af
 Outflow = 0.75 cfs @ 12.00 hrs, Volume= 0.039 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Summary for Pond 2000P: BIO

Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.48 cfs @ 11.96 hrs, Volume= 0.028 af
 Outflow = 0.25 cfs @ 12.07 hrs, Volume= 0.028 af, Atten= 48%, Lag= 6.3 min
 Primary = 0.25 cfs @ 12.07 hrs, Volume= 0.028 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.88' @ 12.07 hrs Surf.Area= 755 sf Storage= 519 cf

Plug-Flow detention time= 383.1 min calculated for 0.028 af (100% of inflow)

Center-of-Mass det. time= 383.0 min (1,120.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	613 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	425	0	0
1,687.00	800	613	613

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.75'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.24 cfs @ 12.07 hrs HW=1,686.87' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.23 cfs @ 1.15 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond 2500P: BIO

Inflow Area = 0.057 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.60 cfs @ 11.96 hrs, Volume= 0.035 af
 Outflow = 0.30 cfs @ 12.07 hrs, Volume= 0.035 af, Atten= 49%, Lag= 6.3 min
 Primary = 0.30 cfs @ 12.07 hrs, Volume= 0.035 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.90' @ 12.07 hrs Surf.Area= 949 sf Storage= 651 cf

Plug-Flow detention time= 374.7 min calculated for 0.035 af (100% of inflow)

Center-of-Mass det. time= 374.4 min (1,112.3 - 737.8)

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	750 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	500	0	0
1,687.00	1,000	750	750

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.75'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.29 cfs @ 12.07 hrs HW=1,686.89' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.28 cfs @ 1.24 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond 3000P: BIO

Inflow Area = 0.069 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.72 cfs @ 11.96 hrs, Volume= 0.042 af
 Outflow = 0.42 cfs @ 12.05 hrs, Volume= 0.042 af, Atten= 41%, Lag= 5.6 min
 Primary = 0.42 cfs @ 12.05 hrs, Volume= 0.042 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.94' @ 12.05 hrs Surf.Area= 976 sf Storage= 740 cf

Plug-Flow detention time= 361.0 min calculated for 0.042 af (100% of inflow)

Center-of-Mass det. time= 361.7 min (1,099.5 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	800 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	600	0	0
1,687.00	1,000	800	800

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.75'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.42 cfs @ 12.05 hrs HW=1,686.94' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.41 cfs @ 2.09 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Summary for Pond P3500: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P4000: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af
 Outflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af, Atten= 45%, Lag= 5.8 min
 Primary = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.06 hrs Surf.Area= 1,204 sf Storage= 904 cf

Plug-Flow detention time= 266.2 min calculated for 0.056 af (100% of inflow)
 Center-of-Mass det. time= 267.0 min (1,004.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.06 hrs HW=1,686.89' (Free Discharge)

↑1=**Orifice/Grate** (Orifice Controls 0.51 cfs @ 2.59 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P4500: BIO

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.08 cfs @ 11.96 hrs, Volume= 0.063 af
 Outflow = 0.53 cfs @ 12.07 hrs, Volume= 0.063 af, Atten= 51%, Lag= 6.3 min
 Primary = 0.53 cfs @ 12.07 hrs, Volume= 0.063 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.07 hrs Surf.Area= 1,439 sf Storage= 1,063 cf

Plug-Flow detention time= 272.4 min calculated for 0.062 af (100% of inflow)
 Center-of-Mass det. time= 273.0 min (1,010.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,225 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	950	0	0
1,687.00	1,500	1,225	1,225

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.07 hrs HW=1,686.88' (Free Discharge)

↑1=**Orifice/Grate** (Orifice Controls 0.50 cfs @ 2.57 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.02 cfs)

Summary for Pond P5000: BIO

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.20 cfs @ 11.96 hrs, Volume= 0.069 af
 Outflow = 0.57 cfs @ 12.07 hrs, Volume= 0.069 af, Atten= 52%, Lag= 6.4 min
 Primary = 0.57 cfs @ 12.07 hrs, Volume= 0.069 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.94' @ 12.07 hrs Surf.Area= 1,483 sf Storage= 1,179 cf

Plug-Flow detention time= 267.8 min calculated for 0.069 af (100% of inflow)
 Center-of-Mass det. time= 267.9 min (1,005.8 - 737.8)

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.56 cfs @ 12.07 hrs HW=1,686.93' (Free Discharge)

- 1=Orifice/Grate (Orifice Controls 0.55 cfs @ 2.78 fps)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P5500: BIO

Inflow Area = 0.126 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.31 cfs @ 11.96 hrs, Volume= 0.076 af
 Outflow = 0.60 cfs @ 12.07 hrs, Volume= 0.076 af, Atten= 54%, Lag= 6.6 min
 Primary = 0.60 cfs @ 12.07 hrs, Volume= 0.076 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.98' @ 12.07 hrs Surf.Area= 1,542 sf Storage= 1,299 cf

Plug-Flow detention time= 262.8 min calculated for 0.076 af (100% of inflow)
 Center-of-Mass det. time= 263.0 min (1,000.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,100 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,100	0	0
1,688.00	2,000	3,100	3,100

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.60 cfs @ 12.07 hrs HW=1,686.98' (Free Discharge)

- 1=Orifice/Grate (Orifice Controls 0.58 cfs @ 2.96 fps)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Pond P6000: BIO

Inflow Area = 0.138 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.43 cfs @ 11.96 hrs, Volume= 0.083 af
 Outflow = 0.63 cfs @ 12.07 hrs, Volume= 0.083 af, Atten= 56%, Lag= 6.7 min
 Primary = 0.63 cfs @ 12.07 hrs, Volume= 0.083 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,687.02' @ 12.07 hrs Surf.Area= 1,607 sf Storage= 1,428 cf

Plug-Flow detention time= 261.2 min calculated for 0.083 af (100% of inflow)
 Center-of-Mass det. time= 261.6 min (999.4 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,200 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,200	0	0
1,688.00	2,000	3,200	3,200

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.62 cfs @ 12.07 hrs HW=1,687.01' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.61 cfs @ 3.09 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P6500: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.55 cfs @ 11.96 hrs, Volume= 0.090 af
 Outflow = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af, Atten= 58%, Lag= 7.0 min
 Primary = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,687.04' @ 12.08 hrs Surf.Area= 1,706 sf Storage= 1,557 cf

Plug-Flow detention time= 258.2 min calculated for 0.090 af (100% of inflow)
 Center-of-Mass det. time= 258.9 min (996.7 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

08077_Residential_Bio Template

Type II 24-hr 100-Year Rainfall=7.50"

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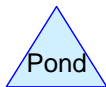
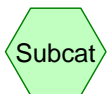
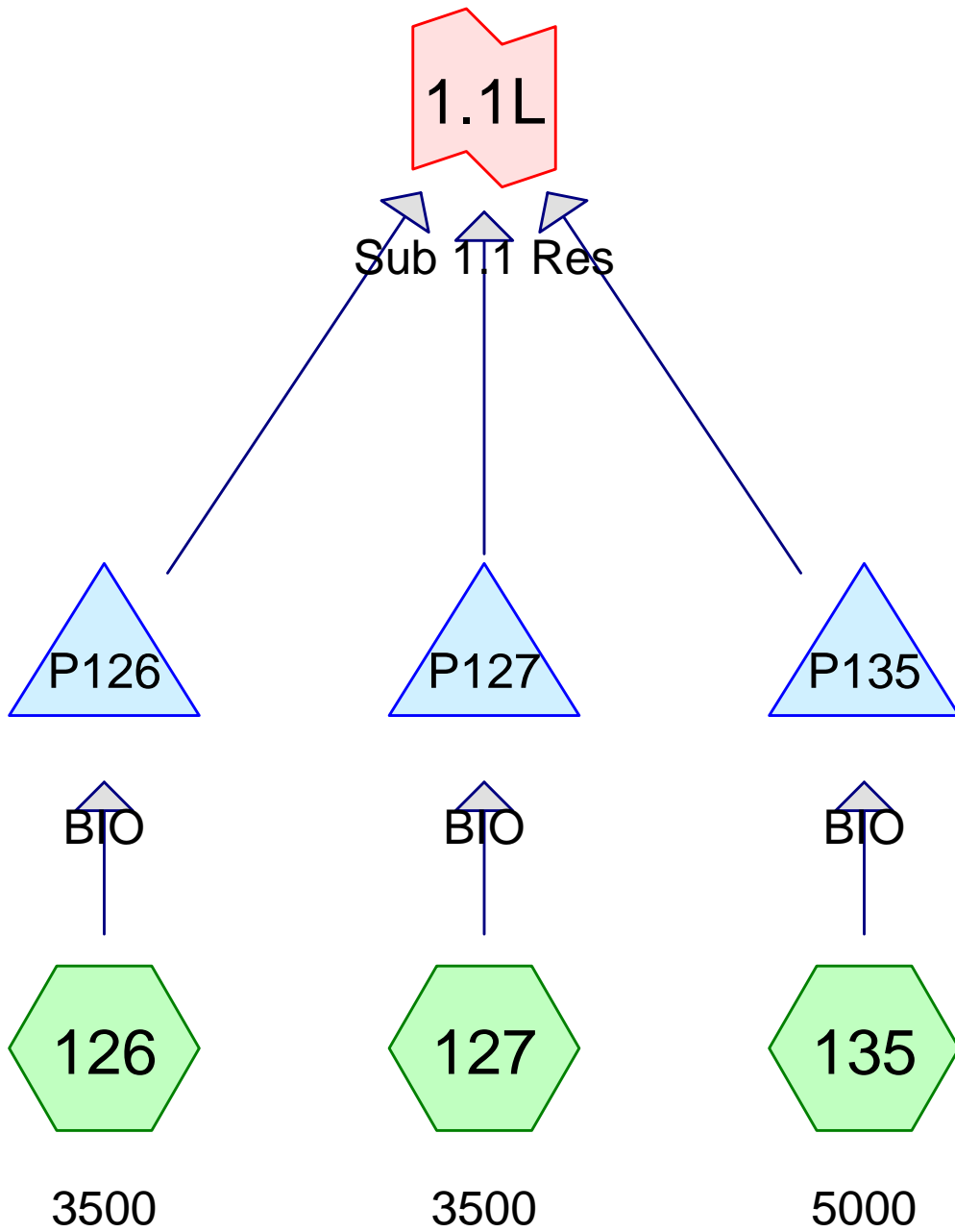
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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.65 cfs @ 12.08 hrs HW=1,687.04' (Free Discharge)

└─1=**Orifice/Grate** (Orifice Controls 0.63 cfs @ 3.20 fps)

└─2=**Exfiltration** (Exfiltration Controls 0.02 cfs)



Routing Diagram for 08077_Sub 1.1
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.069	98	Driveway, extra imperv., HSG C (126, 127, 135)
0.207	98	Roofs, HSG C (126, 127, 135)
0.275	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.275	HSG C	126, 127, 135
0.000	HSG D	
0.000	Other	
0.275		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 126: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 127: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 135: 5000	Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.47 cfs 0.026 af
Pond P126: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P127: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P135: BIO	Peak Elev=1,686.53' Storage=606 cf Inflow=0.47 cfs 0.026 af Outflow=0.01 cfs 0.026 af
Link 1.1L: Sub 1.1 Res	Inflow=0.04 cfs 0.064 af Primary=0.04 cfs 0.064 af

Total Runoff Area = 0.275 ac Runoff Volume = 0.064 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.275 ac

Summary for Subcatchment 126: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 127: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 135: 5000

Runoff = 0.47 cfs @ 11.96 hrs, Volume= 0.026 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P126: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)
 1=Orifice/Grate (Controls 0.00 cfs)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P127: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 1-Year Rainfall=3.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P135: BIO

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.47 cfs @ 11.96 hrs, Volume= 0.026 af
 Outflow = 0.01 cfs @ 13.79 hrs, Volume= 0.026 af, Atten= 97%, Lag= 109.9 min
 Primary = 0.01 cfs @ 13.79 hrs, Volume= 0.026 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.53' @ 13.79 hrs Surf.Area= 1,281 sf Storage= 606 cf

Plug-Flow detention time= 378.6 min calculated for 0.026 af (100% of inflow)
 Center-of-Mass det. time= 378.7 min (1,132.6 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.79 hrs HW=1,686.53' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 1.1L: Sub 1.1 Res

Inflow Area = 0.275 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.04 cfs @ 13.70 hrs, Volume= 0.064 af
 Primary = 0.04 cfs @ 13.70 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 126: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 127: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 135: 5000	Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.79 cfs 0.046 af
Pond P126: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P127: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P135: BIO	Peak Elev=1,686.73' Storage=873 cf Inflow=0.79 cfs 0.046 af Outflow=0.25 cfs 0.046 af
Link 1.1L: Sub 1.1 Res	Inflow=0.56 cfs 0.109 af Primary=0.56 cfs 0.109 af

Total Runoff Area = 0.275 ac Runoff Volume = 0.109 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.275 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 126: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 127: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 135: 5000

Runoff = 0.79 cfs @ 11.96 hrs, Volume= 0.046 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P126: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)
 1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P127: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 10-Year Rainfall=5.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P135: BIO

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.79 cfs @ 11.96 hrs, Volume= 0.046 af
 Outflow = 0.25 cfs @ 12.11 hrs, Volume= 0.046 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.25 cfs @ 12.11 hrs, Volume= 0.046 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.73' @ 12.11 hrs Surf.Area= 1,379 sf Storage= 873 cf

Plug-Flow detention time= 340.8 min calculated for 0.046 af (100% of inflow)
 Center-of-Mass det. time= 341.2 min (1,085.1 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.24 cfs @ 12.11 hrs HW=1,686.72' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.23 cfs @ 1.15 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 1.1L: Sub 1.1 Res

Inflow Area = 0.275 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 12.11 hrs, Volume= 0.109 af
 Primary = 0.56 cfs @ 12.11 hrs, Volume= 0.109 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 126: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 127: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 135: 5000 Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=1.20 cfs 0.069 af

Pond P126: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P127: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P135: BIO Peak Elev=1,686.94' Storage=1,179 cf Inflow=1.20 cfs 0.069 af
Outflow=0.57 cfs 0.069 af

Link 1.1L: Sub 1.1 Res Inflow=1.54 cfs 0.167 af
Primary=1.54 cfs 0.167 af

Total Runoff Area = 0.275 ac Runoff Volume = 0.167 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.275 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 126: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 127: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 135: 5000

Runoff = 1.20 cfs @ 11.96 hrs, Volume= 0.069 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P126: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume = 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume = 0.049 af, Atten = 42%, Lag = 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume = 0.049 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.85' @ 12.05 hrs Surf.Area = 1,129 sf Storage = 789 cf

Plug-Flow detention time = 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time = 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C = 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max = 0.49 cfs @ 12.05 hrs HW = 1,686.85' (Free Discharge)
 1 = **Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.41 fps)
 2 = **Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P127: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume = 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume = 0.049 af, Atten = 42%, Lag = 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume = 0.049 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.85' @ 12.05 hrs Surf.Area = 1,129 sf Storage = 789 cf

Plug-Flow detention time = 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time = 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 100-Year Rainfall=7.50"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P135: BIO

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.20 cfs @ 11.96 hrs, Volume= 0.069 af
 Outflow = 0.57 cfs @ 12.07 hrs, Volume= 0.069 af, Atten= 52%, Lag= 6.4 min
 Primary = 0.57 cfs @ 12.07 hrs, Volume= 0.069 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.94' @ 12.07 hrs Surf.Area= 1,483 sf Storage= 1,179 cf

Plug-Flow detention time= 267.8 min calculated for 0.069 af (100% of inflow)
 Center-of-Mass det. time= 267.9 min (1,005.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.56 cfs @ 12.07 hrs HW=1,686.93' (Free Discharge)

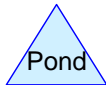
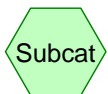
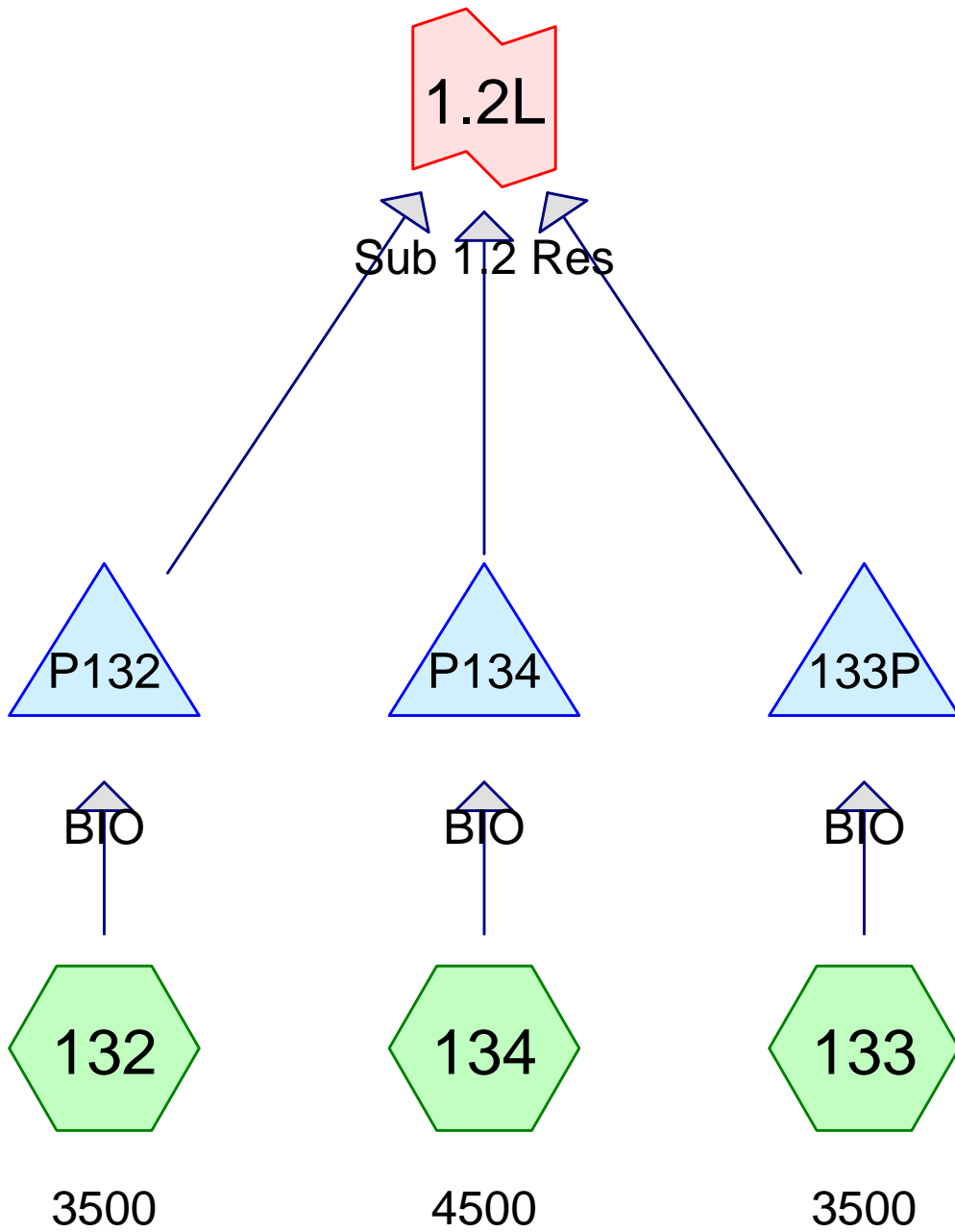
1=Orifice/Grate (Orifice Controls 0.55 cfs @ 2.78 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 1.1L: Sub 1.1 Res

Inflow Area = 0.275 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.54 cfs @ 12.06 hrs, Volume= 0.167 af
 Primary = 1.54 cfs @ 12.06 hrs, Volume= 0.167 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 1.2
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.069	98	Driveway, extra imperv., HSG C (132, 133, 134)
0.195	98	Roofs, HSG C (132, 133, 134)
0.264	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.264	HSG C	132, 133, 134
0.000	HSG D	
0.000	Other	
0.264		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 132: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 133: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 134: 4500 Runoff Area=4,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.43 cfs 0.024 af

Pond 133P: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P132: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P134: BIO Peak Elev=1,686.49' Storage=530 cf Inflow=0.43 cfs 0.024 af
Outflow=0.01 cfs 0.024 af

Link 1.2L: Sub 1.2 Res Inflow=0.04 cfs 0.061 af
Primary=0.04 cfs 0.061 af

Total Runoff Area = 0.264 ac Runoff Volume = 0.061 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.264 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 132: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 133: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 134: 4500

Runoff = 0.43 cfs @ 11.96 hrs, Volume= 0.024 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,500	98	Weighted Average
4,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond 133P: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume = 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af, Atten = 97%, Lag = 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.49' @ 13.65 hrs Surf.Area = 958 sf Storage = 413 cf

Plug-Flow detention time = 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time = 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C = 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max = 0.01 cfs @ 13.65 hrs HW = 1,686.49' (Free Discharge)
 1 = **Orifice/Grate** (Controls 0.00 cfs)
 2 = **Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P132: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume = 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af, Atten = 97%, Lag = 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.49' @ 13.65 hrs Surf.Area = 958 sf Storage = 413 cf

Plug-Flow detention time = 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time = 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 1-Year Rainfall=3.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P134: BIO

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.43 cfs @ 11.96 hrs, Volume= 0.024 af
 Outflow = 0.01 cfs @ 13.67 hrs, Volume= 0.024 af, Atten= 97%, Lag= 102.6 min
 Primary = 0.01 cfs @ 13.67 hrs, Volume= 0.024 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.67 hrs Surf.Area= 1,219 sf Storage= 530 cf

Plug-Flow detention time= 343.3 min calculated for 0.024 af (100% of inflow)
 Center-of-Mass det. time= 343.3 min (1,097.3 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,225 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	950	0	0
1,687.00	1,500	1,225	1,225

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.67 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 1.2L: Sub 1.2 Res

Inflow Area = 0.264 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.04 cfs @ 13.66 hrs, Volume= 0.061 af
 Primary = 0.04 cfs @ 13.66 hrs, Volume= 0.061 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 132: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Subcatchment 133: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Subcatchment 134: 4500 Runoff Area=4,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.72 cfs 0.041 af

Pond 133P: BIO Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Pond P132: BIO Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Pond P134: BIO Peak Elev=1,686.70' Storage=799 cf Inflow=0.72 cfs 0.041 af
Outflow=0.18 cfs 0.041 af

Link 1.2L: Sub 1.2 Res Inflow=0.49 cfs 0.105 af
Primary=0.49 cfs 0.105 af

Total Runoff Area = 0.264 ac Runoff Volume = 0.105 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.264 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 132: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 133: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 134: 4500

Runoff = 0.72 cfs @ 11.96 hrs, Volume= 0.041 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,500	98	Weighted Average
4,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond 133P: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)
 1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P132: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 10-Year Rainfall=5.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P134: BIO

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.72 cfs @ 11.96 hrs, Volume= 0.041 af
 Outflow = 0.18 cfs @ 12.12 hrs, Volume= 0.041 af, Atten= 75%, Lag= 9.7 min
 Primary = 0.18 cfs @ 12.12 hrs, Volume= 0.041 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.70' @ 12.12 hrs Surf.Area= 1,335 sf Storage= 799 cf

Plug-Flow detention time= 347.8 min calculated for 0.041 af (100% of inflow)
 Center-of-Mass det. time= 347.5 min (1,091.5 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,225 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	950	0	0
1,687.00	1,500	1,225	1,225

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.17 cfs @ 12.12 hrs HW=1,686.70' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.15 cfs @ 1.02 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 1.2L: Sub 1.2 Res

Inflow Area = 0.264 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.49 cfs @ 12.12 hrs, Volume= 0.105 af
 Primary = 0.49 cfs @ 12.12 hrs, Volume= 0.105 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 132: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 133: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 134: 4500 Runoff Area=4,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=1.08 cfs 0.063 af

Pond 133P: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P132: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P134: BIO Peak Elev=1,686.89' Storage=1,063 cf Inflow=1.08 cfs 0.063 af
Outflow=0.53 cfs 0.063 af

Link 1.2L: Sub 1.2 Res Inflow=1.50 cfs 0.160 af
Primary=1.50 cfs 0.160 af

Total Runoff Area = 0.264 ac Runoff Volume = 0.160 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.264 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 132: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 133: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 134: 4500

Runoff = 1.08 cfs @ 11.96 hrs, Volume= 0.063 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,500	98	Weighted Average
4,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond 133P: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume = 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume = 0.049 af, Atten = 42%, Lag = 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume = 0.049 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.85' @ 12.05 hrs Surf.Area = 1,129 sf Storage = 789 cf

Plug-Flow detention time = 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time = 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C = 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max = 0.49 cfs @ 12.05 hrs HW = 1,686.85' (Free Discharge)
 1 = **Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.41 fps)
 2 = **Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P132: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume = 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume = 0.049 af, Atten = 42%, Lag = 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume = 0.049 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.85' @ 12.05 hrs Surf.Area = 1,129 sf Storage = 789 cf

Plug-Flow detention time = 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time = 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 100-Year Rainfall=7.50"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P134: BIO

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.08 cfs @ 11.96 hrs, Volume= 0.063 af
 Outflow = 0.53 cfs @ 12.07 hrs, Volume= 0.063 af, Atten= 51%, Lag= 6.3 min
 Primary = 0.53 cfs @ 12.07 hrs, Volume= 0.063 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.07 hrs Surf.Area= 1,439 sf Storage= 1,063 cf

Plug-Flow detention time= 272.4 min calculated for 0.062 af (100% of inflow)
 Center-of-Mass det. time= 273.0 min (1,010.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,225 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	950	0	0
1,687.00	1,500	1,225	1,225

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.07 hrs HW=1,686.88' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.50 cfs @ 2.57 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

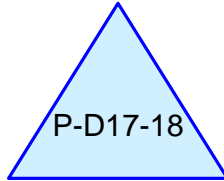
Summary for Link 1.2L: Sub 1.2 Res

Inflow Area = 0.264 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.50 cfs @ 12.06 hrs, Volume= 0.160 af
 Primary = 1.50 cfs @ 12.06 hrs, Volume= 0.160 af, Atten= 0%, Lag= 0.0 min

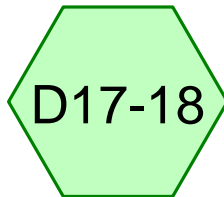
Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



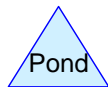
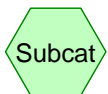
(new Link)



BIO



6500



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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.046	98	Driveway, extra imperv., HSG C (D17-18)
0.103	98	Roofs, HSG C (D17-18)
0.149	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.149	HSG C	D17-18
0.000	HSG D	
0.000	Other	
0.149		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D17-18: 6500

Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.61 cfs 0.034 af

Pond P-D17-18: BIO

Peak Elev=1,686.58' Storage=805 cf Inflow=0.61 cfs 0.034 af
Outflow=0.02 cfs 0.034 af

Link 1.3L: (new Link)

Inflow=0.02 cfs 0.034 af
Primary=0.02 cfs 0.034 af

Total Runoff Area = 0.149 ac Runoff Volume = 0.034 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.149 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment D17-18: 6500

Runoff = 0.61 cfs @ 11.96 hrs, Volume= 0.034 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P-D17-18: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.61 cfs @ 11.96 hrs, Volume= 0.034 af
 Outflow = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af, Atten= 97%, Lag= 121.8 min
 Primary = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.58' @ 13.99 hrs Surf.Area= 1,513 sf Storage= 805 cf

Plug-Flow detention time= 423.8 min calculated for 0.034 af (100% of inflow)
 Center-of-Mass det. time= 423.7 min (1,177.6 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.02 cfs @ 13.99 hrs HW=1,686.58' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 1.3L: (new Link)

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af
Primary = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D17-18: 6500

Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=1.03 cfs 0.059 af

Pond P-D17-18: BIO

Peak Elev=1,686.77' Storage=1,105 cf Inflow=1.03 cfs 0.059 af
Outflow=0.38 cfs 0.059 af

Link 1.3L: (new Link)

Inflow=0.38 cfs 0.059 af
Primary=0.38 cfs 0.059 af

Total Runoff Area = 0.149 ac Runoff Volume = 0.059 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.149 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment D17-18: 6500

Runoff = 1.03 cfs @ 11.96 hrs, Volume= 0.059 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P-D17-18: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 1.03 cfs @ 11.96 hrs, Volume= 0.059 af
 Outflow = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af, Atten= 63%, Lag= 7.9 min
 Primary = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.77' @ 12.09 hrs Surf.Area= 1,593 sf Storage= 1,105 cf

Plug-Flow detention time= 331.1 min calculated for 0.059 af (100% of inflow)
 Center-of-Mass det. time= 331.0 min (1,074.9 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.38 cfs @ 12.09 hrs HW=1,686.77' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.36 cfs @ 1.34 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 1.3L: (new Link)

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af
Primary = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D17-18: 6500

Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=1.55 cfs 0.090 af

Pond P-D17-18: BIO

Peak Elev=1,687.04' Storage=1,557 cf Inflow=1.55 cfs 0.090 af
Outflow=0.65 cfs 0.090 af

Link 1.3L: (new Link)

Inflow=0.65 cfs 0.090 af
Primary=0.65 cfs 0.090 af

Total Runoff Area = 0.149 ac Runoff Volume = 0.090 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.149 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment D17-18: 6500

Runoff = 1.55 cfs @ 11.96 hrs, Volume= 0.090 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P-D17-18: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.55 cfs @ 11.96 hrs, Volume= 0.090 af
 Outflow = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af, Atten= 58%, Lag= 7.0 min
 Primary = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,687.04' @ 12.08 hrs Surf.Area= 1,706 sf Storage= 1,557 cf

Plug-Flow detention time= 258.2 min calculated for 0.090 af (100% of inflow)
 Center-of-Mass det. time= 258.9 min (996.7 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.65 cfs @ 12.08 hrs HW=1,687.04' (Free Discharge)

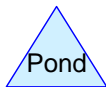
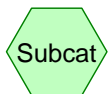
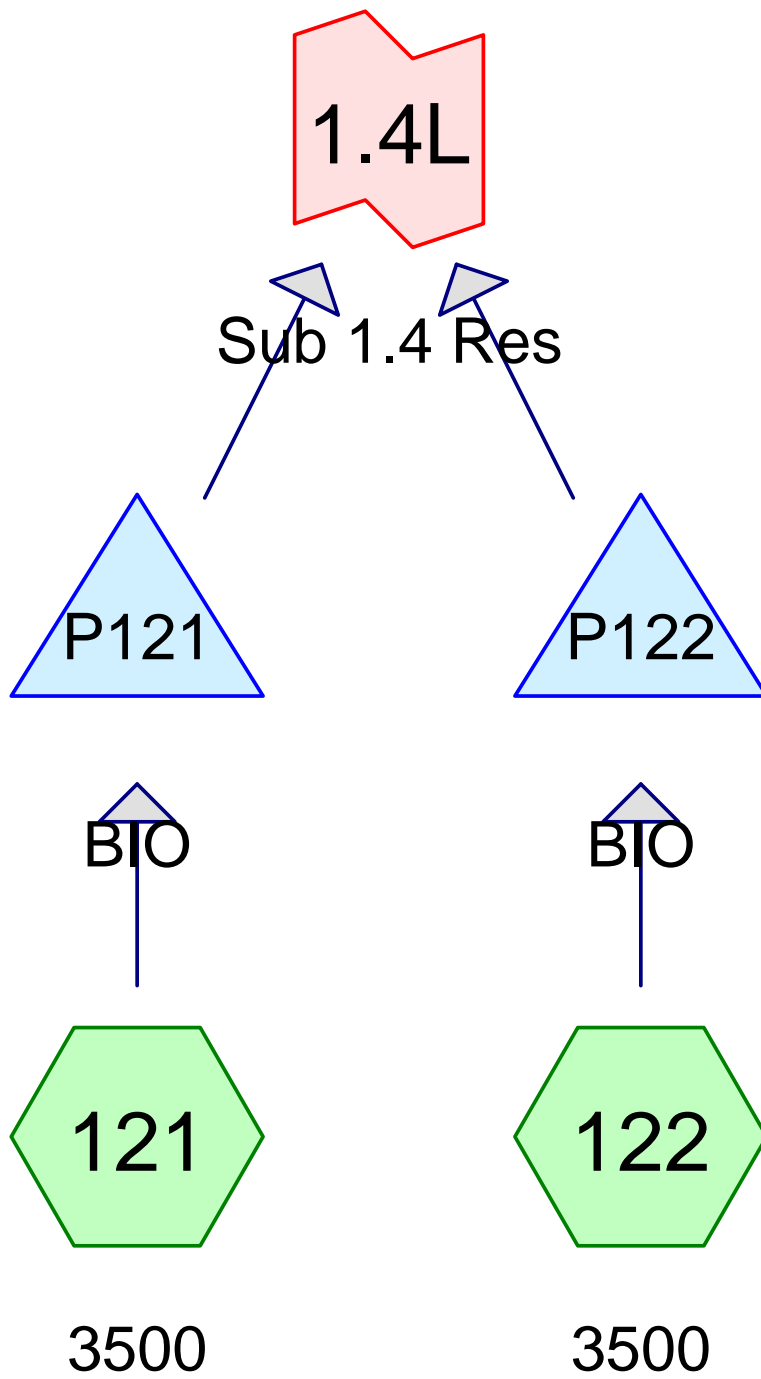
1=Orifice/Grate (Orifice Controls 0.63 cfs @ 3.20 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 1.3L: (new Link)

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af
Primary = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.046	98	Driveway, extra imperv., HSG C (121, 122)
0.115	98	Roofs, HSG C (121, 122)
0.161	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.161	HSG C	121, 122
0.000	HSG D	
0.000	Other	
0.161		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 121: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 122: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Pond P121: BIO

Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P122: BIO

Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Link 1.4L: Sub 1.4 Res

Inflow=0.02 cfs 0.037 af
Primary=0.02 cfs 0.037 af

Total Runoff Area = 0.161 ac Runoff Volume = 0.037 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.161 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 121: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 122: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P121: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

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Type II 24-hr 1-Year Rainfall=3.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P122: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 1.4L: Sub 1.4 Res

Inflow Area = 0.161 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.02 cfs @ 13.65 hrs, Volume= 0.037 af
Primary = 0.02 cfs @ 13.65 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 121: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Subcatchment 122: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Pond P121: BIO

Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Pond P122: BIO

Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Link 1.4L: Sub 1.4 Res

Inflow=0.31 cfs 0.064 af
Primary=0.31 cfs 0.064 af

Total Runoff Area = 0.161 ac Runoff Volume = 0.064 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.161 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 121: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 122: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P121: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

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Type II 24-hr 10-Year Rainfall=5.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P122: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 1.4L: Sub 1.4 Res

Inflow Area = 0.161 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.31 cfs @ 12.12 hrs, Volume= 0.064 af
Primary = 0.31 cfs @ 12.12 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 121: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 122: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Pond P121: BIO

Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P122: BIO

Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Link 1.4L: Sub 1.4 Res

Inflow=0.97 cfs 0.097 af
Primary=0.97 cfs 0.097 af

Total Runoff Area = 0.161 ac Runoff Volume = 0.097 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.161 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 121: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 122: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P121: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

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Type II 24-hr 100-Year Rainfall=7.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P122: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

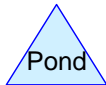
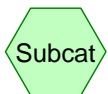
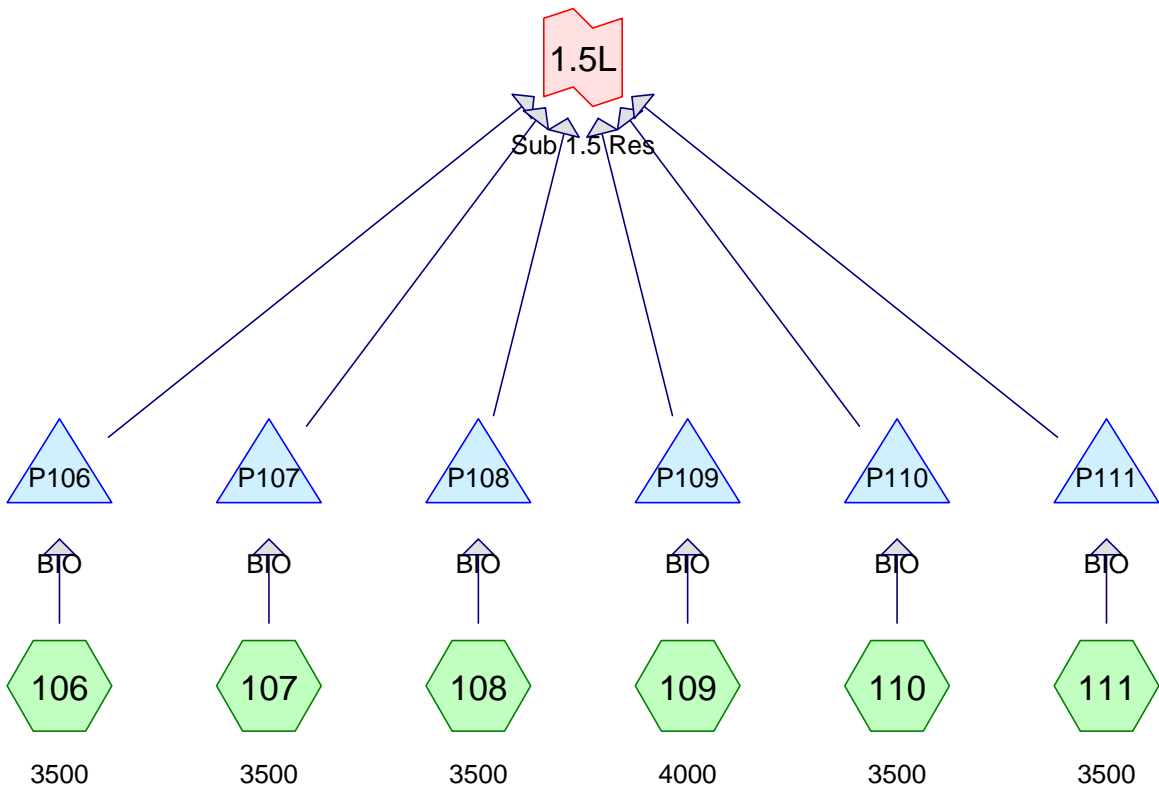
1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 1.4L: Sub 1.4 Res

Inflow Area = 0.161 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.97 cfs @ 12.05 hrs, Volume = 0.097 af
Primary = 0.97 cfs @ 12.05 hrs, Volume = 0.097 af, Atten = 0%, Lag = 0.0 min

Primary outflow = Inflow, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs



Routing Diagram for 08077_Sub 1.5
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.138	98	Driveway, extra imperv., HSG C (106, 107, 108, 109, 110, 111)
0.356	98	Roofs, HSG C (106, 107, 108, 109, 110, 111)
0.494	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.494	HSG C	106, 107, 108, 109, 110, 111
0.000	HSG D	
0.000	Other	
0.494		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 106: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 107: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 108: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 109: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.38 cfs 0.021 af
Subcatchment 110: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 111: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Pond P106: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P107: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P108: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P109: BIO	Peak Elev=1,686.51' Storage=476 cf Inflow=0.38 cfs 0.021 af Outflow=0.01 cfs 0.021 af
Pond P110: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P111: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Link 1.5L: Sub 1.5 Res	Inflow=0.07 cfs 0.114 af Primary=0.07 cfs 0.114 af

Total Runoff Area = 0.494 ac Runoff Volume = 0.114 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.494 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 106: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 107: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 108: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 109: 4000

Runoff = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 110: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 111: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

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Type II 24-hr 1-Year Rainfall=3.00"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P106: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P107: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)

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Type II 24-hr 1-Year Rainfall=3.00"

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Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P108: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P109: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af
 Outflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af, Atten= 97%, Lag= 107.8 min
 Primary = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.51' @ 13.76 hrs Surf.Area= 1,042 sf Storage= 476 cf

Plug-Flow detention time= 360.8 min calculated for 0.021 af (100% of inflow)
 Center-of-Mass det. time= 360.8 min (1,114.7 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.76 hrs HW=1,686.51' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P110: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P111: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 1.5L: Sub 1.5 Res

Inflow Area = 0.494 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.07 cfs @ 13.67 hrs, Volume= 0.114 af
 Primary = 0.07 cfs @ 13.67 hrs, Volume= 0.114 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 106: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 107: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 108: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 109: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.64 cfs 0.036 af
Subcatchment 110: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 111: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Pond P106: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P107: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P108: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P109: BIO	Peak Elev=1,686.71' Storage=692 cf Inflow=0.64 cfs 0.036 af Outflow=0.20 cfs 0.036 af
Pond P110: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P111: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Link 1.5L: Sub 1.5 Res	Inflow=0.97 cfs 0.196 af Primary=0.97 cfs 0.196 af

**Total Runoff Area = 0.494 ac Runoff Volume = 0.196 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.494 ac**

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 106: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 107: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 108: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 109: 4000

Runoff = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 110: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 111: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

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Type II 24-hr 10-Year Rainfall=5.00"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P106: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)
 1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P107: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

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Type II 24-hr 10-Year Rainfall=5.00"

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Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P108: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Pond P109: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af
 Outflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.71' @ 12.11 hrs Surf.Area= 1,126 sf Storage= 692 cf

Plug-Flow detention time= 340.5 min calculated for 0.036 af (100% of inflow)
 Center-of-Mass det. time= 340.7 min (1,084.6 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.19 cfs @ 12.11 hrs HW=1,686.71' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.18 cfs @ 1.07 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P110: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P111: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 1.5L: Sub 1.5 Res

Inflow Area = 0.494 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.97 cfs @ 12.11 hrs, Volume= 0.196 af
 Primary = 0.97 cfs @ 12.11 hrs, Volume= 0.196 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 106: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 107: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 108: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 109: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.96 cfs 0.056 af
Subcatchment 110: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 111: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Pond P106: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P107: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P108: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P109: BIO	Peak Elev=1,686.89' Storage=904 cf Inflow=0.96 cfs 0.056 af Outflow=0.52 cfs 0.056 af
Pond P110: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P111: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Link 1.5L: Sub 1.5 Res	Inflow=2.96 cfs 0.299 af Primary=2.96 cfs 0.299 af

**Total Runoff Area = 0.494 ac Runoff Volume = 0.299 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.494 ac**

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 106: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 107: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 108: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 109: 4000

Runoff = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 110: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 111: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

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Type II 24-hr 100-Year Rainfall=7.50"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P106: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P107: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

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Type II 24-hr 100-Year Rainfall=7.50"

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Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P108: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Pond P109: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af
 Outflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af, Atten= 45%, Lag= 5.8 min
 Primary = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.06 hrs Surf.Area= 1,204 sf Storage= 904 cf

Plug-Flow detention time= 266.2 min calculated for 0.056 af (100% of inflow)
 Center-of-Mass det. time= 267.0 min (1,004.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.06 hrs HW=1,686.89' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.51 cfs @ 2.59 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P110: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P111: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

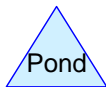
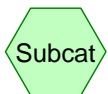
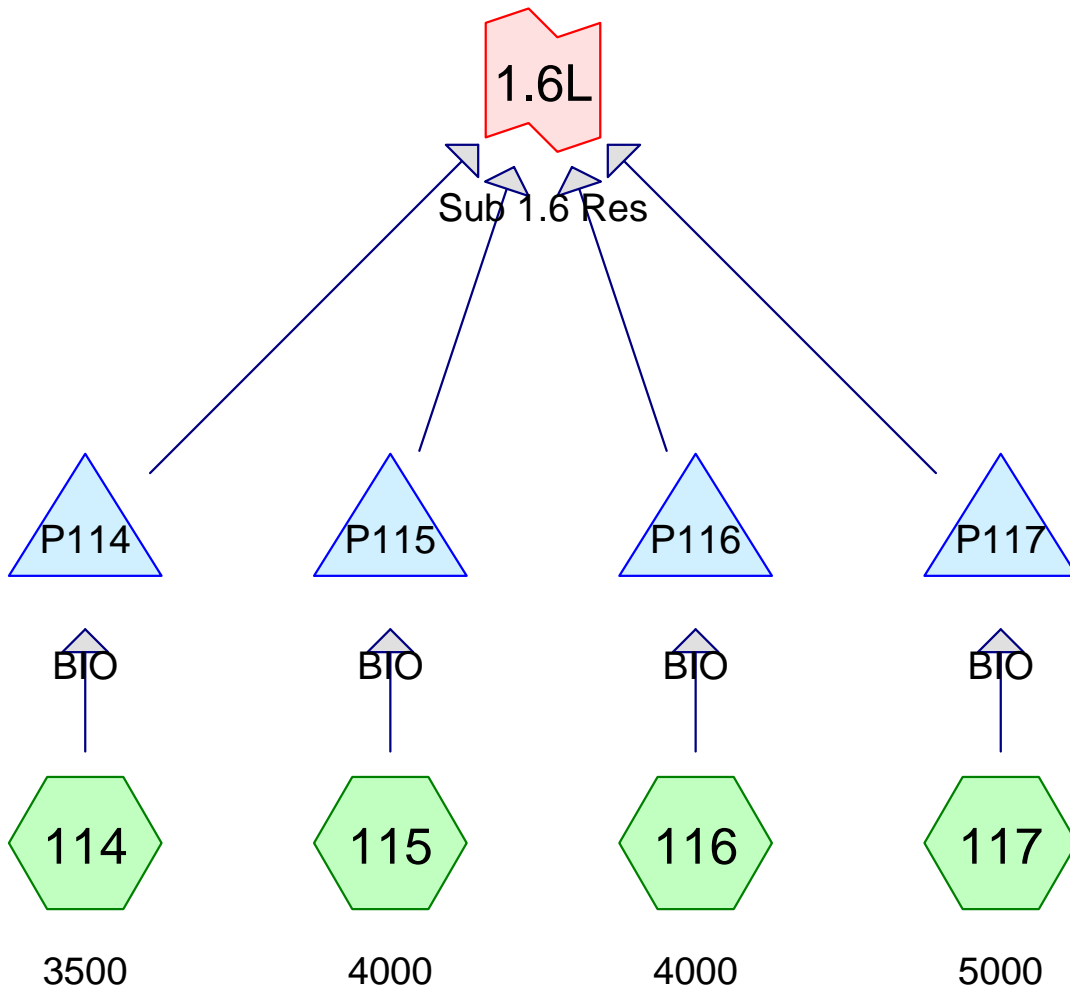
1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 1.5L: Sub 1.5 Res

Inflow Area = 0.494 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 2.96 cfs @ 12.05 hrs, Volume= 0.299 af
 Primary = 2.96 cfs @ 12.05 hrs, Volume= 0.299 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 1.6
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.092	98	Driveway, extra imperv., HSG C (114, 115, 116, 117)
0.287	98	Roofs, HSG C (114, 115, 116, 117)
0.379	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.379	HSG C	114, 115, 116, 117
0.000	HSG D	
0.000	Other	
0.379		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 114: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 115: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.38 cfs 0.021 af
Subcatchment 116: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.38 cfs 0.021 af
Subcatchment 117: 5000	Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.47 cfs 0.026 af
Pond P114: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P115: BIO	Peak Elev=1,686.51' Storage=476 cf Inflow=0.38 cfs 0.021 af Outflow=0.01 cfs 0.021 af
Pond P116: BIO	Peak Elev=1,686.51' Storage=476 cf Inflow=0.38 cfs 0.021 af Outflow=0.01 cfs 0.021 af
Pond P117: BIO	Peak Elev=1,686.53' Storage=606 cf Inflow=0.47 cfs 0.026 af Outflow=0.01 cfs 0.026 af
Link 1.6L: Sub 1.6 Res	Inflow=0.05 cfs 0.087 af Primary=0.05 cfs 0.087 af

Total Runoff Area = 0.379 ac Runoff Volume = 0.087 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.379 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 114: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 115: 4000

Runoff = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 116: 4000

Runoff = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 117: 5000

Runoff = 0.47 cfs @ 11.96 hrs, Volume= 0.026 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P114: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P115: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af
 Outflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af, Atten= 97%, Lag= 107.8 min
 Primary = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.51' @ 13.76 hrs Surf.Area= 1,042 sf Storage= 476 cf

Plug-Flow detention time= 360.8 min calculated for 0.021 af (100% of inflow)
 Center-of-Mass det. time= 360.8 min (1,114.7 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.76 hrs HW=1,686.51' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P116: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af
 Outflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af, Atten= 97%, Lag= 107.8 min
 Primary = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.51' @ 13.76 hrs Surf.Area= 1,042 sf Storage= 476 cf

Plug-Flow detention time= 360.8 min calculated for 0.021 af (100% of inflow)
 Center-of-Mass det. time= 360.8 min (1,114.7 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.76 hrs HW=1,686.51' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P117: BIO

Inflow Area = 0.115 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.47 cfs @ 11.96 hrs, Volume= 0.026 af
 Outflow = 0.01 cfs @ 13.79 hrs, Volume= 0.026 af, Atten= 97%, Lag= 109.9 min
 Primary = 0.01 cfs @ 13.79 hrs, Volume= 0.026 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.53' @ 13.79 hrs Surf.Area= 1,281 sf Storage= 606 cf

Plug-Flow detention time= 378.6 min calculated for 0.026 af (100% of inflow)
 Center-of-Mass det. time= 378.7 min (1,132.6 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.79 hrs HW=1,686.53' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 1.6L: Sub 1.6 Res

Inflow Area = 0.379 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.05 cfs @ 13.74 hrs, Volume= 0.087 af
 Primary = 0.05 cfs @ 13.74 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 114: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 115: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.64 cfs 0.036 af
Subcatchment 116: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.64 cfs 0.036 af
Subcatchment 117: 5000	Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.79 cfs 0.046 af
Pond P114: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P115: BIO	Peak Elev=1,686.71' Storage=692 cf Inflow=0.64 cfs 0.036 af Outflow=0.20 cfs 0.036 af
Pond P116: BIO	Peak Elev=1,686.71' Storage=692 cf Inflow=0.64 cfs 0.036 af Outflow=0.20 cfs 0.036 af
Pond P117: BIO	Peak Elev=1,686.73' Storage=873 cf Inflow=0.79 cfs 0.046 af Outflow=0.25 cfs 0.046 af
Link 1.6L: Sub 1.6 Res	Inflow=0.80 cfs 0.150 af Primary=0.80 cfs 0.150 af

Total Runoff Area = 0.379 ac Runoff Volume = 0.150 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.379 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 114: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 115: 4000

Runoff = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 116: 4000

Runoff = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 117: 5000

Runoff = 0.79 cfs @ 11.96 hrs, Volume= 0.046 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P114: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

- 1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Pond P115: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af
 Outflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.71' @ 12.11 hrs Surf.Area= 1,126 sf Storage= 692 cf

Plug-Flow detention time= 340.5 min calculated for 0.036 af (100% of inflow)
 Center-of-Mass det. time= 340.7 min (1,084.6 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.19 cfs @ 12.11 hrs HW=1,686.71' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.18 cfs @ 1.07 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P116: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af
 Outflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.71' @ 12.11 hrs Surf.Area= 1,126 sf Storage= 692 cf

Plug-Flow detention time= 340.5 min calculated for 0.036 af (100% of inflow)
 Center-of-Mass det. time= 340.7 min (1,084.6 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.19 cfs @ 12.11 hrs HW=1,686.71' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.18 cfs @ 1.07 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P117: BIO

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.79 cfs @ 11.96 hrs, Volume= 0.046 af
 Outflow = 0.25 cfs @ 12.11 hrs, Volume= 0.046 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.25 cfs @ 12.11 hrs, Volume= 0.046 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.73' @ 12.11 hrs Surf.Area= 1,379 sf Storage= 873 cf

Plug-Flow detention time= 340.8 min calculated for 0.046 af (100% of inflow)

Center-of-Mass det. time= 341.2 min (1,085.1 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.24 cfs @ 12.11 hrs HW=1,686.72' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.23 cfs @ 1.15 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 1.6L: Sub 1.6 Res

Inflow Area = 0.379 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.80 cfs @ 12.11 hrs, Volume= 0.150 af
 Primary = 0.80 cfs @ 12.11 hrs, Volume= 0.150 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 114: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 115: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.96 cfs 0.056 af
Subcatchment 116: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.96 cfs 0.056 af
Subcatchment 117: 5000	Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=1.20 cfs 0.069 af
Pond P114: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P115: BIO	Peak Elev=1,686.89' Storage=904 cf Inflow=0.96 cfs 0.056 af Outflow=0.52 cfs 0.056 af
Pond P116: BIO	Peak Elev=1,686.89' Storage=904 cf Inflow=0.96 cfs 0.056 af Outflow=0.52 cfs 0.056 af
Pond P117: BIO	Peak Elev=1,686.94' Storage=1,179 cf Inflow=1.20 cfs 0.069 af Outflow=0.57 cfs 0.069 af
Link 1.6L: Sub 1.6 Res	Inflow=2.10 cfs 0.229 af Primary=2.10 cfs 0.229 af

Total Runoff Area = 0.379 ac Runoff Volume = 0.229 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.379 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 114: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 115: 4000

Runoff = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 116: 4000

Runoff = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 117: 5000

Runoff = 1.20 cfs @ 11.96 hrs, Volume= 0.069 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P114: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

- 1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Pond P115: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af
 Outflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af, Atten= 45%, Lag= 5.8 min
 Primary = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.06 hrs Surf.Area= 1,204 sf Storage= 904 cf

Plug-Flow detention time= 266.2 min calculated for 0.056 af (100% of inflow)
 Center-of-Mass det. time= 267.0 min (1,004.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.06 hrs HW=1,686.89' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.51 cfs @ 2.59 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P116: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af
 Outflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af, Atten= 45%, Lag= 5.8 min
 Primary = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.06 hrs Surf.Area= 1,204 sf Storage= 904 cf

Plug-Flow detention time= 266.2 min calculated for 0.056 af (100% of inflow)
 Center-of-Mass det. time= 267.0 min (1,004.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.06 hrs HW=1,686.89' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.51 cfs @ 2.59 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P117: BIO

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.20 cfs @ 11.96 hrs, Volume= 0.069 af
 Outflow = 0.57 cfs @ 12.07 hrs, Volume= 0.069 af, Atten= 52%, Lag= 6.4 min
 Primary = 0.57 cfs @ 12.07 hrs, Volume= 0.069 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.94' @ 12.07 hrs Surf.Area= 1,483 sf Storage= 1,179 cf

Plug-Flow detention time= 267.8 min calculated for 0.069 af (100% of inflow)
 Center-of-Mass det. time= 267.9 min (1,005.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.56 cfs @ 12.07 hrs HW=1,686.93' (Free Discharge)

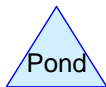
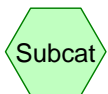
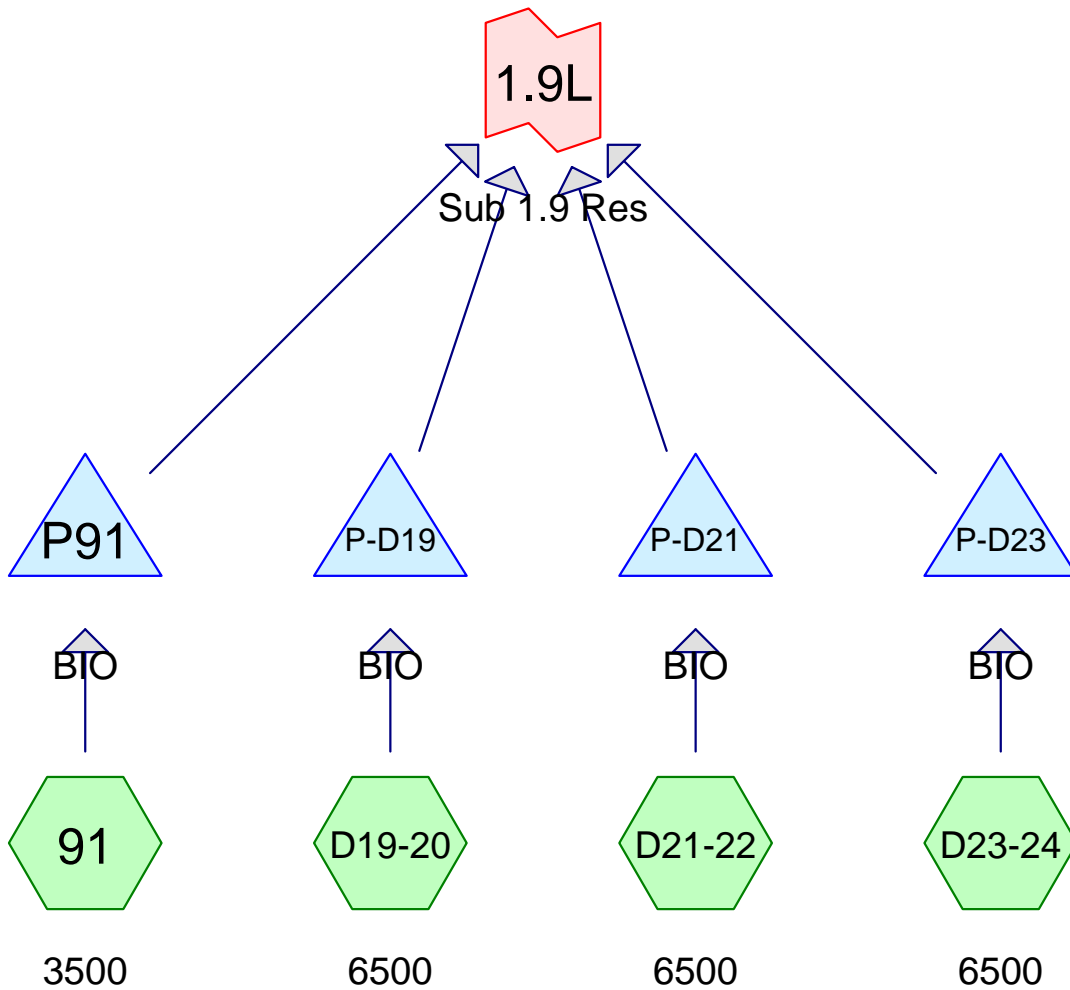
1=Orifice/Grate (Orifice Controls 0.55 cfs @ 2.78 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 1.6L: Sub 1.6 Res

Inflow Area = 0.379 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 2.10 cfs @ 12.06 hrs, Volume= 0.229 af
 Primary = 2.10 cfs @ 12.06 hrs, Volume= 0.229 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 1.9
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.161	98	Driveway, extra imperv., HSG C (91, D19-20, D21-22, D23-24)
0.367	98	Roofs, HSG C (91, D19-20, D21-22, D23-24)
0.528	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.528	HSG C	91, D19-20, D21-22, D23-24
0.000	HSG D	
0.000	Other	
0.528		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 91: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment D19-20: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.61 cfs 0.034 af
Subcatchment D21-22: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.61 cfs 0.034 af
Subcatchment D23-24: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.61 cfs 0.034 af
Pond P-D19: BIO	Peak Elev=1,686.58' Storage=805 cf Inflow=0.61 cfs 0.034 af Outflow=0.02 cfs 0.034 af
Pond P-D21: BIO	Peak Elev=1,686.58' Storage=805 cf Inflow=0.61 cfs 0.034 af Outflow=0.02 cfs 0.034 af
Pond P-D23: BIO	Peak Elev=1,686.58' Storage=805 cf Inflow=0.61 cfs 0.034 af Outflow=0.02 cfs 0.034 af
Pond P91: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Link 1.9L: Sub 1.9 Res	Inflow=0.06 cfs 0.122 af Primary=0.06 cfs 0.122 af

Total Runoff Area = 0.528 ac Runoff Volume = 0.122 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.528 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 91: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment D19-20: 6500

Runoff = 0.61 cfs @ 11.96 hrs, Volume= 0.034 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment D21-22: 6500

Runoff = 0.61 cfs @ 11.96 hrs, Volume= 0.034 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment D23-24: 6500

Runoff = 0.61 cfs @ 11.96 hrs, Volume= 0.034 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P-D19: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.61 cfs @ 11.96 hrs, Volume= 0.034 af
 Outflow = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af, Atten= 97%, Lag= 121.8 min
 Primary = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.58' @ 13.99 hrs Surf.Area= 1,513 sf Storage= 805 cf

Plug-Flow detention time= 423.8 min calculated for 0.034 af (100% of inflow)
 Center-of-Mass det. time= 423.7 min (1,177.6 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.02 cfs @ 13.99 hrs HW=1,686.58' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P-D21: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.61 cfs @ 11.96 hrs, Volume= 0.034 af
 Outflow = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af, Atten= 97%, Lag= 121.8 min
 Primary = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.58' @ 13.99 hrs Surf.Area= 1,513 sf Storage= 805 cf

Plug-Flow detention time= 423.8 min calculated for 0.034 af (100% of inflow)
 Center-of-Mass det. time= 423.7 min (1,177.6 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.02 cfs @ 13.99 hrs HW=1,686.58' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P-D23: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.61 cfs @ 11.96 hrs, Volume= 0.034 af
 Outflow = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af, Atten= 97%, Lag= 121.8 min
 Primary = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.58' @ 13.99 hrs Surf.Area= 1,513 sf Storage= 805 cf

Plug-Flow detention time= 423.8 min calculated for 0.034 af (100% of inflow)
 Center-of-Mass det. time= 423.7 min (1,177.6 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.02 cfs @ 13.99 hrs HW=1,686.58' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P91: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 1.9L: Sub 1.9 Res

Inflow Area = 0.528 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.06 cfs @ 13.91 hrs, Volume= 0.122 af
 Primary = 0.06 cfs @ 13.91 hrs, Volume= 0.122 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 91: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment D19-20: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=1.03 cfs 0.059 af
Subcatchment D21-22: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=1.03 cfs 0.059 af
Subcatchment D23-24: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=1.03 cfs 0.059 af
Pond P-D19: BIO	Peak Elev=1,686.77' Storage=1,105 cf Inflow=1.03 cfs 0.059 af Outflow=0.38 cfs 0.059 af
Pond P-D21: BIO	Peak Elev=1,686.77' Storage=1,105 cf Inflow=1.03 cfs 0.059 af Outflow=0.38 cfs 0.059 af
Pond P-D23: BIO	Peak Elev=1,686.77' Storage=1,105 cf Inflow=1.03 cfs 0.059 af Outflow=0.38 cfs 0.059 af
Pond P91: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Link 1.9L: Sub 1.9 Res	Inflow=1.29 cfs 0.210 af Primary=1.29 cfs 0.210 af

Total Runoff Area = 0.528 ac Runoff Volume = 0.210 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.528 ac

08077_Sub 1.9

Summary for Subcatchment 91: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment D19-20: 6500

Runoff = 1.03 cfs @ 11.96 hrs, Volume= 0.059 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment D21-22: 6500

Runoff = 1.03 cfs @ 11.96 hrs, Volume= 0.059 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment D23-24: 6500

Runoff = 1.03 cfs @ 11.96 hrs, Volume= 0.059 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P-D19: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 1.03 cfs @ 11.96 hrs, Volume= 0.059 af
 Outflow = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af, Atten= 63%, Lag= 7.9 min
 Primary = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.77' @ 12.09 hrs Surf.Area= 1,593 sf Storage= 1,105 cf

Plug-Flow detention time= 331.1 min calculated for 0.059 af (100% of inflow)
 Center-of-Mass det. time= 331.0 min (1,074.9 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.38 cfs @ 12.09 hrs HW=1,686.77' (Free Discharge)

- 1=Orifice/Grate (Weir Controls 0.36 cfs @ 1.34 fps)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Pond P-D21: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 1.03 cfs @ 11.96 hrs, Volume= 0.059 af
 Outflow = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af, Atten= 63%, Lag= 7.9 min
 Primary = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.77' @ 12.09 hrs Surf.Area= 1,593 sf Storage= 1,105 cf

Plug-Flow detention time= 331.1 min calculated for 0.059 af (100% of inflow)
 Center-of-Mass det. time= 331.0 min (1,074.9 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.38 cfs @ 12.09 hrs HW=1,686.77' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.36 cfs @ 1.34 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P-D23: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 1.03 cfs @ 11.96 hrs, Volume= 0.059 af
 Outflow = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af, Atten= 63%, Lag= 7.9 min
 Primary = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.77' @ 12.09 hrs Surf.Area= 1,593 sf Storage= 1,105 cf

Plug-Flow detention time= 331.1 min calculated for 0.059 af (100% of inflow)
 Center-of-Mass det. time= 331.0 min (1,074.9 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.38 cfs @ 12.09 hrs HW=1,686.77' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.36 cfs @ 1.34 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P91: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 1.9L: Sub 1.9 Res

Inflow Area = 0.528 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 1.29 cfs @ 12.10 hrs, Volume= 0.210 af
 Primary = 1.29 cfs @ 12.10 hrs, Volume= 0.210 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 91: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment D19-20: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=1.55 cfs 0.090 af
Subcatchment D21-22: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=1.55 cfs 0.090 af
Subcatchment D23-24: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=1.55 cfs 0.090 af
Pond P-D19: BIO	Peak Elev=1,687.04' Storage=1,557 cf Inflow=1.55 cfs 0.090 af Outflow=0.65 cfs 0.090 af
Pond P-D21: BIO	Peak Elev=1,687.04' Storage=1,557 cf Inflow=1.55 cfs 0.090 af Outflow=0.65 cfs 0.090 af
Pond P-D23: BIO	Peak Elev=1,687.04' Storage=1,557 cf Inflow=1.55 cfs 0.090 af Outflow=0.65 cfs 0.090 af
Pond P91: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Link 1.9L: Sub 1.9 Res	Inflow=2.44 cfs 0.320 af Primary=2.44 cfs 0.320 af

Total Runoff Area = 0.528 ac Runoff Volume = 0.319 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.528 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 91: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment D19-20: 6500

Runoff = 1.55 cfs @ 11.96 hrs, Volume= 0.090 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment D21-22: 6500

Runoff = 1.55 cfs @ 11.96 hrs, Volume= 0.090 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment D23-24: 6500

Runoff = 1.55 cfs @ 11.96 hrs, Volume= 0.090 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P-D19: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.55 cfs @ 11.96 hrs, Volume= 0.090 af
 Outflow = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af, Atten= 58%, Lag= 7.0 min
 Primary = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,687.04' @ 12.08 hrs Surf.Area= 1,706 sf Storage= 1,557 cf

Plug-Flow detention time= 258.2 min calculated for 0.090 af (100% of inflow)
 Center-of-Mass det. time= 258.9 min (996.7 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.65 cfs @ 12.08 hrs HW=1,687.04' (Free Discharge)

- 1=Orifice/Grate (Orifice Controls 0.63 cfs @ 3.20 fps)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Pond P-D21: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.55 cfs @ 11.96 hrs, Volume= 0.090 af
 Outflow = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af, Atten= 58%, Lag= 7.0 min
 Primary = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,687.04' @ 12.08 hrs Surf.Area= 1,706 sf Storage= 1,557 cf

Plug-Flow detention time= 258.2 min calculated for 0.090 af (100% of inflow)
 Center-of-Mass det. time= 258.9 min (996.7 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.65 cfs @ 12.08 hrs HW=1,687.04' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.63 cfs @ 3.20 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P-D23: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.55 cfs @ 11.96 hrs, Volume= 0.090 af
 Outflow = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af, Atten= 58%, Lag= 7.0 min
 Primary = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,687.04' @ 12.08 hrs Surf.Area= 1,706 sf Storage= 1,557 cf

Plug-Flow detention time= 258.2 min calculated for 0.090 af (100% of inflow)
 Center-of-Mass det. time= 258.9 min (996.7 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.65 cfs @ 12.08 hrs HW=1,687.04' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.63 cfs @ 3.20 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P91: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

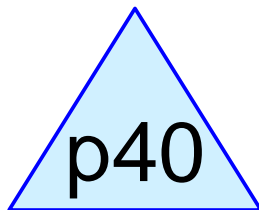
Summary for Link 1.9L: Sub 1.9 Res

Inflow Area = 0.528 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 2.44 cfs @ 12.07 hrs, Volume= 0.320 af
 Primary = 2.44 cfs @ 12.07 hrs, Volume= 0.320 af, Atten= 0%, Lag= 0.0 min

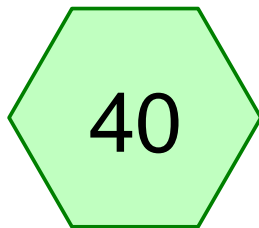
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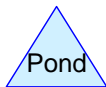
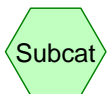
Sub 11.14 Res



BIO



3500



Routing Diagram for 08077_Sub 11.14
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.023	98	Driveway, extra imperv., HSG C (40)
0.057	98	Roofs, HSG C (40)
0.080	98	TOTAL AREA

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.080	HSG C	40
0.000	HSG D	
0.000	Other	
0.080		TOTAL AREA

08077_Sub 11.14

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 40: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"

Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Pond p40: BIO

Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af

Outflow=0.01 cfs 0.019 af

Link 11.14L: Sub 11.14 Res

Inflow=0.01 cfs 0.019 af

Primary=0.01 cfs 0.019 af

Total Runoff Area = 0.080 ac Runoff Volume = 0.019 af Average Runoff Depth = 2.77"

0.00% Pervious = 0.000 ac 100.00% Impervious = 0.080 ac

Summary for Subcatchment 40: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond p40: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 11.14L: Sub 11.14 Res

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af
Primary = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af, Atten = 0%, Lag = 0.0 min

Primary outflow = Inflow, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 40: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"

Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Pond p40: BIO

Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af

Outflow=0.15 cfs 0.032 af

Link 11.14L: Sub 11.14 Res

Inflow=0.15 cfs 0.032 af

Primary=0.15 cfs 0.032 af

Total Runoff Area = 0.080 ac Runoff Volume = 0.032 af Average Runoff Depth = 4.76"

0.00% Pervious = 0.000 ac 100.00% Impervious = 0.080 ac

Summary for Subcatchment 40: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond p40: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 11.14L: Sub 11.14 Res

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af
Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 40: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Pond p40: BIO

Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Link 11.14L: Sub 11.14 Res

Inflow=0.49 cfs 0.049 af
Primary=0.49 cfs 0.049 af

Total Runoff Area = 0.080 ac Runoff Volume = 0.049 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.080 ac

Summary for Subcatchment 40: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond p40: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

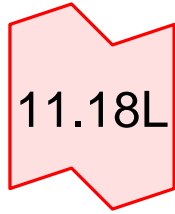
1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

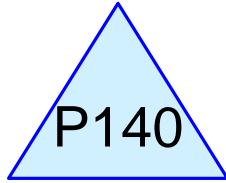
Summary for Link 11.14L: Sub 11.14 Res

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af
Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min

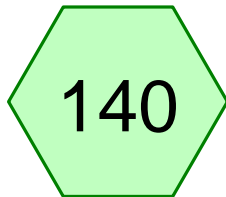
Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



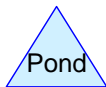
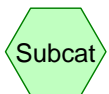
Sub 1118 Res



BIO



4500



Routing Diagram for 08077_Sub 11.18
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.023	98	Driveway, extra imperv., HSG C (140)
0.080	98	Roofs, HSG C (140)
0.103	98	TOTAL AREA

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.103	HSG C	140
0.000	HSG D	
0.000	Other	
0.103		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 140: 4500

Runoff Area=4,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.43 cfs 0.024 af

Pond P140: BIO

Peak Elev=1,686.49' Storage=530 cf Inflow=0.43 cfs 0.024 af
Outflow=0.01 cfs 0.024 af

Link 11.18L: Sub 11.18 Res

Inflow=0.01 cfs 0.024 af
Primary=0.01 cfs 0.024 af

Total Runoff Area = 0.103 ac Runoff Volume = 0.024 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.103 ac

Summary for Subcatchment 140: 4500

Runoff = 0.43 cfs @ 11.96 hrs, Volume= 0.024 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,500	98	Weighted Average
4,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P140: BIO

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.43 cfs @ 11.96 hrs, Volume= 0.024 af
 Outflow = 0.01 cfs @ 13.67 hrs, Volume= 0.024 af, Atten= 97%, Lag= 102.6 min
 Primary = 0.01 cfs @ 13.67 hrs, Volume= 0.024 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.67 hrs Surf.Area= 1,219 sf Storage= 530 cf

Plug-Flow detention time= 343.3 min calculated for 0.024 af (100% of inflow)
 Center-of-Mass det. time= 343.3 min (1,097.3 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,225 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	950	0	0
1,687.00	1,500	1,225	1,225

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.67 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 11.18L: Sub 11.18 Res

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.01 cfs @ 13.67 hrs, Volume= 0.024 af
Primary = 0.01 cfs @ 13.67 hrs, Volume= 0.024 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 140: 4500

Runoff Area=4,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.72 cfs 0.041 af

Pond P140: BIO

Peak Elev=1,686.70' Storage=799 cf Inflow=0.72 cfs 0.041 af
Outflow=0.18 cfs 0.041 af

Link 11.18L: Sub 11.18 Res

Inflow=0.18 cfs 0.041 af
Primary=0.18 cfs 0.041 af

Total Runoff Area = 0.103 ac Runoff Volume = 0.041 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.103 ac

Summary for Subcatchment 140: 4500

Runoff = 0.72 cfs @ 11.96 hrs, Volume= 0.041 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,500	98	Weighted Average
4,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P140: BIO

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.72 cfs @ 11.96 hrs, Volume= 0.041 af
 Outflow = 0.18 cfs @ 12.12 hrs, Volume= 0.041 af, Atten= 75%, Lag= 9.7 min
 Primary = 0.18 cfs @ 12.12 hrs, Volume= 0.041 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.70' @ 12.12 hrs Surf.Area= 1,335 sf Storage= 799 cf

Plug-Flow detention time= 347.8 min calculated for 0.041 af (100% of inflow)
 Center-of-Mass det. time= 347.5 min (1,091.5 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,225 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	950	0	0
1,687.00	1,500	1,225	1,225

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.17 cfs @ 12.12 hrs HW=1,686.70' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.15 cfs @ 1.02 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 11.18L: Sub 11.18 Res

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.18 cfs @ 12.12 hrs, Volume= 0.041 af
Primary = 0.18 cfs @ 12.12 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 140: 4500

Runoff Area=4,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=1.08 cfs 0.063 af

Pond P140: BIO

Peak Elev=1,686.89' Storage=1,063 cf Inflow=1.08 cfs 0.063 af
Outflow=0.53 cfs 0.063 af

Link 11.18L: Sub 11.18 Res

Inflow=0.53 cfs 0.063 af
Primary=0.53 cfs 0.063 af

Total Runoff Area = 0.103 ac Runoff Volume = 0.063 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.103 ac

Summary for Subcatchment 140: 4500

Runoff = 1.08 cfs @ 11.96 hrs, Volume= 0.063 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,500	98	Weighted Average
4,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P140: BIO

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.08 cfs @ 11.96 hrs, Volume= 0.063 af
 Outflow = 0.53 cfs @ 12.07 hrs, Volume= 0.063 af, Atten= 51%, Lag= 6.3 min
 Primary = 0.53 cfs @ 12.07 hrs, Volume= 0.063 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.07 hrs Surf.Area= 1,439 sf Storage= 1,063 cf

Plug-Flow detention time= 272.4 min calculated for 0.062 af (100% of inflow)
 Center-of-Mass det. time= 273.0 min (1,010.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,225 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	950	0	0
1,687.00	1,500	1,225	1,225

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.07 hrs HW=1,686.88' (Free Discharge)

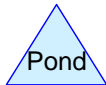
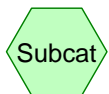
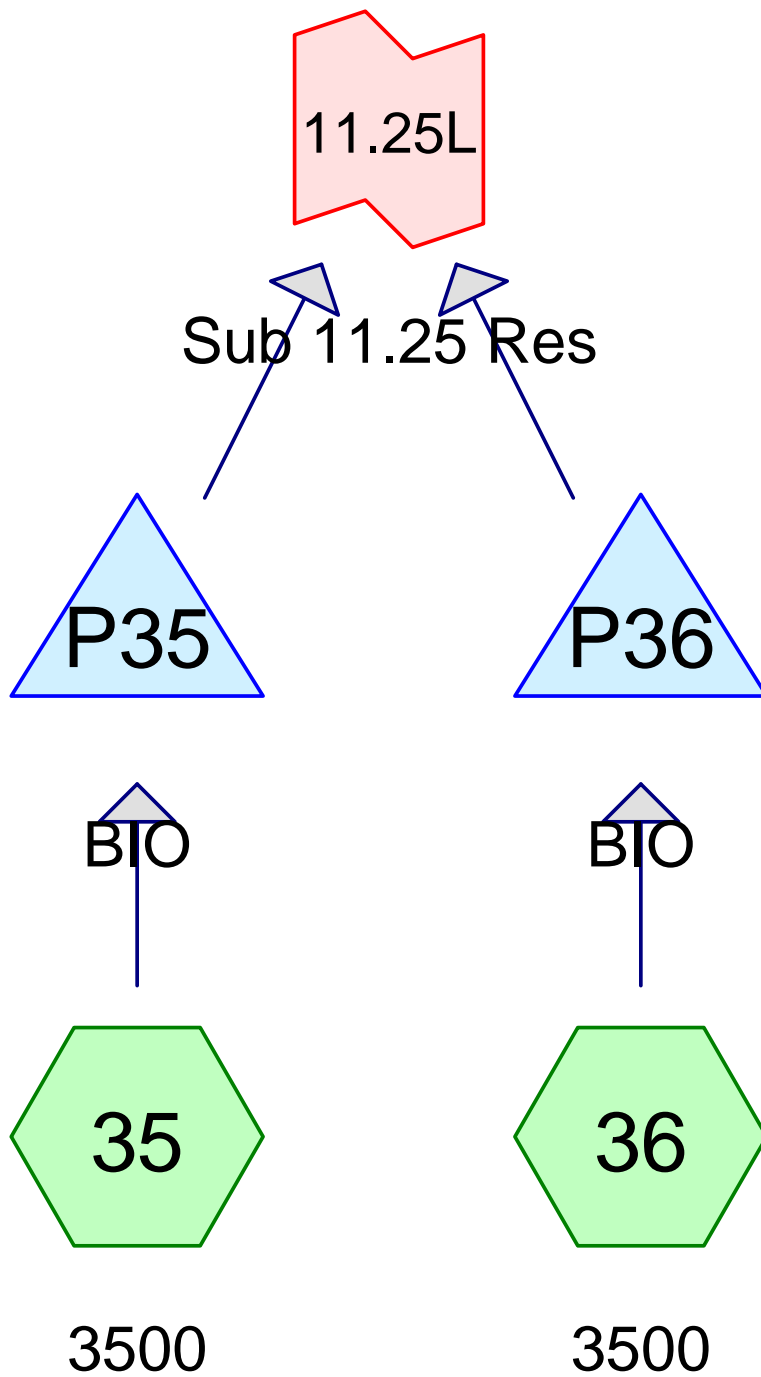
1=Orifice/Grate (Orifice Controls 0.50 cfs @ 2.57 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 11.18L: Sub 11.18 Res

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.53 cfs @ 12.07 hrs, Volume = 0.063 af
Primary = 0.53 cfs @ 12.07 hrs, Volume = 0.063 af, Atten = 0%, Lag = 0.0 min

Primary outflow = Inflow, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs



Routing Diagram for 08077_Sub 11.25
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.046	98	Driveway, extra imperv., HSG C (35, 36)
0.115	98	Roofs, HSG C (35, 36)
0.161	98	TOTAL AREA

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.161	HSG C	35, 36
0.000	HSG D	
0.000	Other	
0.161		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 35: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 36: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Pond P35: BIO

Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P36: BIO

Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Link 11.25L: Sub 11.25 Res

Inflow=0.02 cfs 0.037 af
Primary=0.02 cfs 0.037 af

Total Runoff Area = 0.161 ac Runoff Volume = 0.037 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.161 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 35: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 36: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P35: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

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Type II 24-hr 1-Year Rainfall=3.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P36: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 11.25L: Sub 11.25 Res

Inflow Area = 0.161 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.02 cfs @ 13.65 hrs, Volume = 0.037 af
Primary = 0.02 cfs @ 13.65 hrs, Volume = 0.037 af, Atten = 0%, Lag = 0.0 min

Primary outflow = Inflow, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 35: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Subcatchment 36: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Pond P35: BIO

Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Pond P36: BIO

Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Link 11.25L: Sub 11.25 Res

Inflow=0.31 cfs 0.064 af
Primary=0.31 cfs 0.064 af

Total Runoff Area = 0.161 ac Runoff Volume = 0.064 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.161 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 35: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 36: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P35: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

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Type II 24-hr 10-Year Rainfall=5.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P36: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 11.25L: Sub 11.25 Res

Inflow Area = 0.161 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.31 cfs @ 12.12 hrs, Volume= 0.064 af
Primary = 0.31 cfs @ 12.12 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 35: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 36: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Pond P35: BIO

Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P36: BIO

Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Link 11.25L: Sub 11.25 Res

Inflow=0.97 cfs 0.097 af
Primary=0.97 cfs 0.097 af

Total Runoff Area = 0.161 ac Runoff Volume = 0.097 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.161 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 35: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 36: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P35: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

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Type II 24-hr 100-Year Rainfall=7.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P36: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

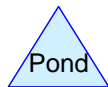
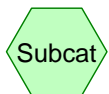
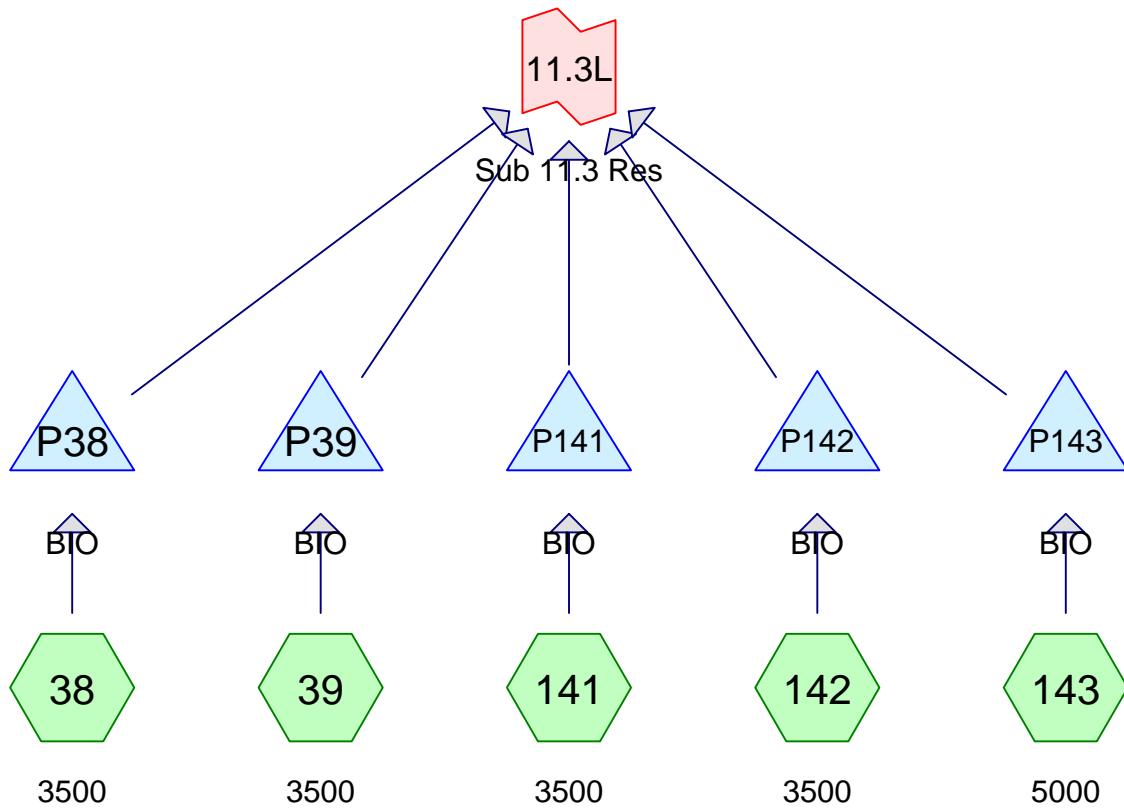
1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 11.25L: Sub 11.25 Res

Inflow Area = 0.161 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.97 cfs @ 12.05 hrs, Volume = 0.097 af
Primary = 0.97 cfs @ 12.05 hrs, Volume = 0.097 af, Atten = 0%, Lag = 0.0 min

Primary outflow = Inflow, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs



Routing Diagram for 08077_Sub 11.3
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.115	98	Driveway, extra imperv., HSG C (38, 39, 141, 142, 143)
0.321	98	Roofs, HSG C (38, 39, 141, 142, 143)
0.436	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.436	HSG C	38, 39, 141, 142, 143
0.000	HSG D	
0.000	Other	
0.436		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 38: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 39: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 141: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 142: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 143: 5000	Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.47 cfs 0.026 af
Pond P141: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P142: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P143: BIO	Peak Elev=1,686.53' Storage=606 cf Inflow=0.47 cfs 0.026 af Outflow=0.01 cfs 0.026 af
Pond P38: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P39: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Link 11.3L: Sub 11.3 Res	Inflow=0.06 cfs 0.101 af Primary=0.06 cfs 0.101 af

Total Runoff Area = 0.436 ac Runoff Volume = 0.101 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.436 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 38: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 39: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 141: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 142: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 143: 5000

Runoff = 0.47 cfs @ 11.96 hrs, Volume= 0.026 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P141: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

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Type II 24-hr 1-Year Rainfall=3.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P142: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P143: BIO

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.47 cfs @ 11.96 hrs, Volume= 0.026 af
 Outflow = 0.01 cfs @ 13.79 hrs, Volume= 0.026 af, Atten= 97%, Lag= 109.9 min
 Primary = 0.01 cfs @ 13.79 hrs, Volume= 0.026 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.53' @ 13.79 hrs Surf.Area= 1,281 sf Storage= 606 cf

Plug-Flow detention time= 378.6 min calculated for 0.026 af (100% of inflow)
 Center-of-Mass det. time= 378.7 min (1,132.6 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.79 hrs HW=1,686.53' (Free Discharge)

1=Orifice/Grate (Controls 0.00 cfs)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P38: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P39: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 11.3L: Sub 11.3 Res

Inflow Area = 0.436 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.06 cfs @ 13.68 hrs, Volume= 0.101 af
 Primary = 0.06 cfs @ 13.68 hrs, Volume= 0.101 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 38: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 39: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 141: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 142: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 143: 5000	Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.79 cfs 0.046 af
Pond P141: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P142: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P143: BIO	Peak Elev=1,686.73' Storage=873 cf Inflow=0.79 cfs 0.046 af Outflow=0.25 cfs 0.046 af
Pond P38: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P39: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Link 11.3L: Sub 11.3 Res	Inflow=0.87 cfs 0.173 af Primary=0.87 cfs 0.173 af

Total Runoff Area = 0.436 ac Runoff Volume = 0.173 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.436 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 38: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 39: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 141: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 142: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 143: 5000

Runoff = 0.79 cfs @ 11.96 hrs, Volume= 0.046 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P141: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

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Type II 24-hr 10-Year Rainfall=5.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P142: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Pond P143: BIO

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.79 cfs @ 11.96 hrs, Volume= 0.046 af
 Outflow = 0.25 cfs @ 12.11 hrs, Volume= 0.046 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.25 cfs @ 12.11 hrs, Volume= 0.046 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.73' @ 12.11 hrs Surf.Area= 1,379 sf Storage= 873 cf

Plug-Flow detention time= 340.8 min calculated for 0.046 af (100% of inflow)
 Center-of-Mass det. time= 341.2 min (1,085.1 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.24 cfs @ 12.11 hrs HW=1,686.72' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.23 cfs @ 1.15 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P38: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P39: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 11.3L: Sub 11.3 Res

Inflow Area = 0.436 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.87 cfs @ 12.11 hrs, Volume= 0.173 af
 Primary = 0.87 cfs @ 12.11 hrs, Volume= 0.173 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 38: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 39: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 141: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 142: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 143: 5000	Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=1.20 cfs 0.069 af
Pond P141: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P142: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P143: BIO	Peak Elev=1,686.94' Storage=1,179 cf Inflow=1.20 cfs 0.069 af Outflow=0.57 cfs 0.069 af
Pond P38: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P39: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Link 11.3L: Sub 11.3 Res	Inflow=2.51 cfs 0.264 af Primary=2.51 cfs 0.264 af

Total Runoff Area = 0.436 ac Runoff Volume = 0.264 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.436 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 38: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 39: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 141: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 142: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 143: 5000

Runoff = 1.20 cfs @ 11.96 hrs, Volume= 0.069 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P141: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

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Type II 24-hr 100-Year Rainfall=7.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

- 1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P142: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

- 1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Pond P143: BIO

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.20 cfs @ 11.96 hrs, Volume= 0.069 af
 Outflow = 0.57 cfs @ 12.07 hrs, Volume= 0.069 af, Atten= 52%, Lag= 6.4 min
 Primary = 0.57 cfs @ 12.07 hrs, Volume= 0.069 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.94' @ 12.07 hrs Surf.Area= 1,483 sf Storage= 1,179 cf

Plug-Flow detention time= 267.8 min calculated for 0.069 af (100% of inflow)
 Center-of-Mass det. time= 267.9 min (1,005.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.56 cfs @ 12.07 hrs HW=1,686.93' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.55 cfs @ 2.78 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P38: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P39: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

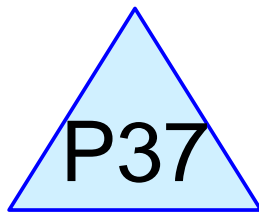
Summary for Link 11.3L: Sub 11.3 Res

Inflow Area = 0.436 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 2.51 cfs @ 12.06 hrs, Volume= 0.264 af
 Primary = 2.51 cfs @ 12.06 hrs, Volume= 0.264 af, Atten= 0%, Lag= 0.0 min

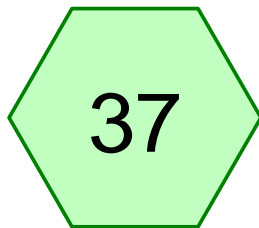
Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



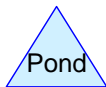
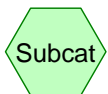
Sub 11.33 Res



BIO



3500



Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.023	98	Driveway, extra imperv., HSG C (37)
0.057	98	Roofs, HSG C (37)
0.080	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.080	HSG C	37
0.000	HSG D	
0.000	Other	
0.080		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 37: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Pond P37: BIO

Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Link 11.33L: Sub 11.33 Res

Inflow=0.01 cfs 0.019 af
Primary=0.01 cfs 0.019 af

Total Runoff Area = 0.080 ac Runoff Volume = 0.019 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.080 ac

Summary for Subcatchment 37: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P37: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 11.33L: Sub 11.33 Res

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af
Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 37: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"

Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Pond P37: BIO

Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af

Outflow=0.15 cfs 0.032 af

Link 11.33L: Sub 11.33 Res

Inflow=0.15 cfs 0.032 af

Primary=0.15 cfs 0.032 af

Total Runoff Area = 0.080 ac Runoff Volume = 0.032 af Average Runoff Depth = 4.76"

0.00% Pervious = 0.000 ac 100.00% Impervious = 0.080 ac

Summary for Subcatchment 37: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P37: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 11.33L: Sub 11.33 Res

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af
Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

08077_Sub 11.33

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 37: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"

Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Pond P37: BIO

Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af

Outflow=0.49 cfs 0.049 af

Link 11.33L: Sub 11.33 Res

Inflow=0.49 cfs 0.049 af

Primary=0.49 cfs 0.049 af

Total Runoff Area = 0.080 ac Runoff Volume = 0.049 af Average Runoff Depth = 7.26"

0.00% Pervious = 0.000 ac 100.00% Impervious = 0.080 ac

Summary for Subcatchment 37: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P37: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

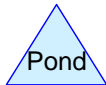
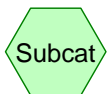
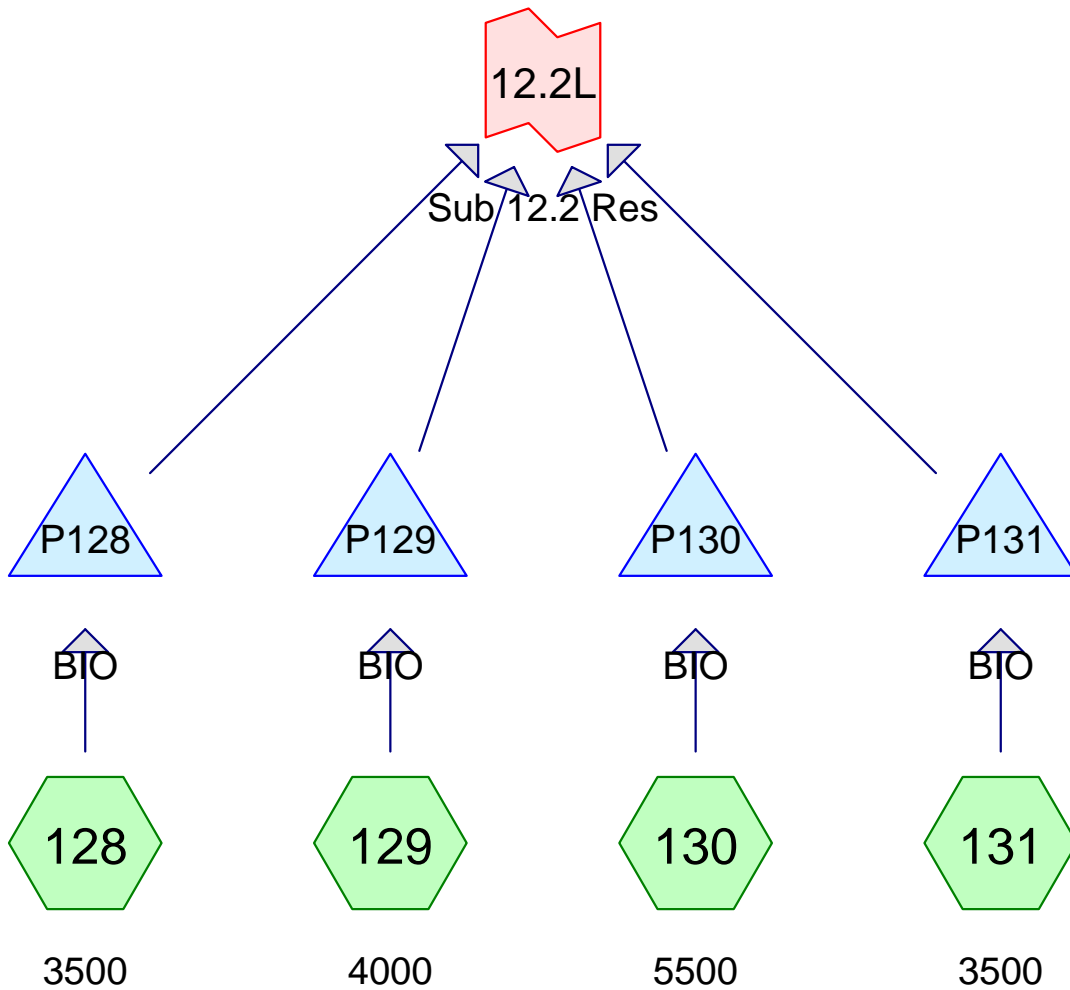
1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 11.33L: Sub 11.33 Res

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af
Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 12.2
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.092	98	Driveway, extra imperv., HSG C (128, 129, 130, 131)
0.287	98	Roofs, HSG C (128, 129, 130, 131)
0.379	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.379	HSG C	128, 129, 130, 131
0.000	HSG D	
0.000	Other	
0.379		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 128: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 129: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.38 cfs 0.021 af
Subcatchment 130: 5500	Runoff Area=5,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.52 cfs 0.029 af
Subcatchment 131: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Pond P128: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P129: BIO	Peak Elev=1,686.51' Storage=476 cf Inflow=0.38 cfs 0.021 af Outflow=0.01 cfs 0.021 af
Pond P130: BIO	Peak Elev=1,686.55' Storage=674 cf Inflow=0.52 cfs 0.029 af Outflow=0.02 cfs 0.029 af
Pond P131: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Link 12.2L: Sub 12.2 Res	Inflow=0.05 cfs 0.087 af Primary=0.05 cfs 0.087 af

Total Runoff Area = 0.379 ac Runoff Volume = 0.087 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.379 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 128: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 129: 4000

Runoff = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 130: 5500

Runoff = 0.52 cfs @ 11.96 hrs, Volume= 0.029 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,500	98	Weighted Average
5,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 131: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P128: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P129: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af
 Outflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af, Atten= 97%, Lag= 107.8 min
 Primary = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.51' @ 13.76 hrs Surf.Area= 1,042 sf Storage= 476 cf

Plug-Flow detention time= 360.8 min calculated for 0.021 af (100% of inflow)
 Center-of-Mass det. time= 360.8 min (1,114.7 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.76 hrs HW=1,686.51' (Free Discharge)

1=Orifice/Grate (Controls 0.00 cfs)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P130: BIO

Inflow Area = 0.126 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.52 cfs @ 11.96 hrs, Volume= 0.029 af
 Outflow = 0.02 cfs @ 13.89 hrs, Volume= 0.029 af, Atten= 97%, Lag= 115.6 min
 Primary = 0.02 cfs @ 13.89 hrs, Volume= 0.029 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.55' @ 13.89 hrs Surf.Area= 1,348 sf Storage= 674 cf

Plug-Flow detention time= 399.6 min calculated for 0.029 af (100% of inflow)
 Center-of-Mass det. time= 399.7 min (1,153.6 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,100 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,100	0	0
1,688.00	2,000	3,100	3,100

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.02 cfs @ 13.89 hrs HW=1,686.55' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P131: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 12.2L: Sub 12.2 Res

Inflow Area = 0.379 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.05 cfs @ 13.74 hrs, Volume= 0.087 af
 Primary = 0.05 cfs @ 13.74 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 128: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 129: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.64 cfs 0.036 af
Subcatchment 130: 5500	Runoff Area=5,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.87 cfs 0.050 af
Subcatchment 131: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Pond P128: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P129: BIO	Peak Elev=1,686.71' Storage=692 cf Inflow=0.64 cfs 0.036 af Outflow=0.20 cfs 0.036 af
Pond P130: BIO	Peak Elev=1,686.75' Storage=945 cf Inflow=0.87 cfs 0.050 af Outflow=0.30 cfs 0.050 af
Pond P131: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Link 12.2L: Sub 12.2 Res	Inflow=0.81 cfs 0.150 af Primary=0.81 cfs 0.150 af

Total Runoff Area = 0.379 ac Runoff Volume = 0.150 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.379 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 128: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 129: 4000

Runoff = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 130: 5500

Runoff = 0.87 cfs @ 11.96 hrs, Volume= 0.050 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,500	98	Weighted Average
5,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 131: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P128: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

- 1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Pond P129: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af
 Outflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.71' @ 12.11 hrs Surf.Area= 1,126 sf Storage= 692 cf

Plug-Flow detention time= 340.5 min calculated for 0.036 af (100% of inflow)
 Center-of-Mass det. time= 340.7 min (1,084.6 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.19 cfs @ 12.11 hrs HW=1,686.71' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.18 cfs @ 1.07 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P130: BIO

Inflow Area = 0.126 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.87 cfs @ 11.96 hrs, Volume= 0.050 af
 Outflow = 0.30 cfs @ 12.10 hrs, Volume= 0.050 af, Atten= 65%, Lag= 8.3 min
 Primary = 0.30 cfs @ 12.10 hrs, Volume= 0.050 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.75' @ 12.10 hrs Surf.Area= 1,435 sf Storage= 945 cf

Plug-Flow detention time= 335.2 min calculated for 0.050 af (100% of inflow)
 Center-of-Mass det. time= 335.5 min (1,079.4 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,100 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,100	0	0
1,688.00	2,000	3,100	3,100

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.30 cfs @ 12.10 hrs HW=1,686.75' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.28 cfs @ 1.25 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P131: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 12.2L: Sub 12.2 Res

Inflow Area = 0.379 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.81 cfs @ 12.11 hrs, Volume= 0.150 af
 Primary = 0.81 cfs @ 12.11 hrs, Volume= 0.150 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 128: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 129: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.96 cfs 0.056 af
Subcatchment 130: 5500	Runoff Area=5,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=1.31 cfs 0.076 af
Subcatchment 131: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Pond P128: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P129: BIO	Peak Elev=1,686.89' Storage=904 cf Inflow=0.96 cfs 0.056 af Outflow=0.52 cfs 0.056 af
Pond P130: BIO	Peak Elev=1,686.98' Storage=1,299 cf Inflow=1.31 cfs 0.076 af Outflow=0.60 cfs 0.076 af
Pond P131: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Link 12.2L: Sub 12.2 Res	Inflow=2.10 cfs 0.229 af Primary=2.10 cfs 0.229 af

Total Runoff Area = 0.379 ac Runoff Volume = 0.229 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.379 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 128: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 129: 4000

Runoff = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 130: 5500

Runoff = 1.31 cfs @ 11.96 hrs, Volume= 0.076 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,500	98	Weighted Average
5,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 131: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P128: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

- 1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Pond P129: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af
 Outflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af, Atten= 45%, Lag= 5.8 min
 Primary = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.06 hrs Surf.Area= 1,204 sf Storage= 904 cf

Plug-Flow detention time= 266.2 min calculated for 0.056 af (100% of inflow)
 Center-of-Mass det. time= 267.0 min (1,004.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.06 hrs HW=1,686.89' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.51 cfs @ 2.59 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P130: BIO

Inflow Area = 0.126 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.31 cfs @ 11.96 hrs, Volume= 0.076 af
 Outflow = 0.60 cfs @ 12.07 hrs, Volume= 0.076 af, Atten= 54%, Lag= 6.6 min
 Primary = 0.60 cfs @ 12.07 hrs, Volume= 0.076 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.98' @ 12.07 hrs Surf.Area= 1,542 sf Storage= 1,299 cf

Plug-Flow detention time= 262.8 min calculated for 0.076 af (100% of inflow)
 Center-of-Mass det. time= 263.0 min (1,000.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,100 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,100	0	0
1,688.00	2,000	3,100	3,100

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.60 cfs @ 12.07 hrs HW=1,686.98' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.58 cfs @ 2.96 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P131: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

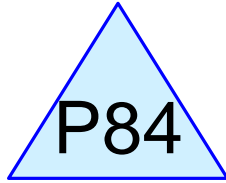
Summary for Link 12.2L: Sub 12.2 Res

Inflow Area = 0.379 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 2.10 cfs @ 12.06 hrs, Volume= 0.229 af
 Primary = 2.10 cfs @ 12.06 hrs, Volume= 0.229 af, Atten= 0%, Lag= 0.0 min

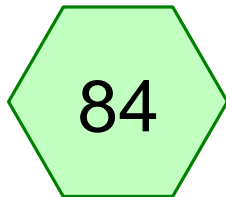
Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



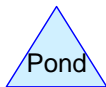
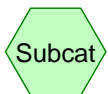
Sub 2.1 Res



BIO



5000



Routing Diagram for 08077_Sub 2.1
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.023	98	Driveway, extra imperv., HSG C (84)
0.092	98	Roofs, HSG C (84)
0.115	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.115	HSG C	84
0.000	HSG D	
0.000	Other	
0.115		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 84: 5000

Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.47 cfs 0.026 af

Pond P84: BIO

Peak Elev=1,686.53' Storage=606 cf Inflow=0.47 cfs 0.026 af
Outflow=0.01 cfs 0.026 af

Link 2.1L: Sub 2.1 Res

Inflow=0.01 cfs 0.026 af
Primary=0.01 cfs 0.026 af

Total Runoff Area = 0.115 ac Runoff Volume = 0.026 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.115 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 84: 5000

Runoff = 0.47 cfs @ 11.96 hrs, Volume= 0.026 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P84: BIO

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.47 cfs @ 11.96 hrs, Volume= 0.026 af
 Outflow = 0.01 cfs @ 13.79 hrs, Volume= 0.026 af, Atten= 97%, Lag= 109.9 min
 Primary = 0.01 cfs @ 13.79 hrs, Volume= 0.026 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.53' @ 13.79 hrs Surf.Area= 1,281 sf Storage= 606 cf

Plug-Flow detention time= 378.6 min calculated for 0.026 af (100% of inflow)
 Center-of-Mass det. time= 378.7 min (1,132.6 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.79 hrs HW=1,686.53' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 2.1L: Sub 2.1 Res

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.01 cfs @ 13.79 hrs, Volume= 0.026 af
Primary = 0.01 cfs @ 13.79 hrs, Volume= 0.026 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 84: 5000

Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.79 cfs 0.046 af

Pond P84: BIO

Peak Elev=1,686.73' Storage=873 cf Inflow=0.79 cfs 0.046 af
Outflow=0.25 cfs 0.046 af

Link 2.1L: Sub 2.1 Res

Inflow=0.25 cfs 0.046 af
Primary=0.25 cfs 0.046 af

Total Runoff Area = 0.115 ac Runoff Volume = 0.046 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.115 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 84: 5000

Runoff = 0.79 cfs @ 11.96 hrs, Volume= 0.046 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P84: BIO

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.79 cfs @ 11.96 hrs, Volume= 0.046 af
 Outflow = 0.25 cfs @ 12.11 hrs, Volume= 0.046 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.25 cfs @ 12.11 hrs, Volume= 0.046 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.73' @ 12.11 hrs Surf.Area= 1,379 sf Storage= 873 cf

Plug-Flow detention time= 340.8 min calculated for 0.046 af (100% of inflow)
 Center-of-Mass det. time= 341.2 min (1,085.1 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.24 cfs @ 12.11 hrs HW=1,686.72' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.23 cfs @ 1.15 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 2.1L: Sub 2.1 Res

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.25 cfs @ 12.11 hrs, Volume= 0.046 af
Primary = 0.25 cfs @ 12.11 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 84: 5000

Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=1.20 cfs 0.069 af

Pond P84: BIO

Peak Elev=1,686.94' Storage=1,179 cf Inflow=1.20 cfs 0.069 af
Outflow=0.57 cfs 0.069 af

Link 2.1L: Sub 2.1 Res

Inflow=0.57 cfs 0.069 af
Primary=0.57 cfs 0.069 af

Total Runoff Area = 0.115 ac Runoff Volume = 0.069 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.115 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 84: 5000

Runoff = 1.20 cfs @ 11.96 hrs, Volume= 0.069 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P84: BIO

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.20 cfs @ 11.96 hrs, Volume= 0.069 af
 Outflow = 0.57 cfs @ 12.07 hrs, Volume= 0.069 af, Atten= 52%, Lag= 6.4 min
 Primary = 0.57 cfs @ 12.07 hrs, Volume= 0.069 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.94' @ 12.07 hrs Surf.Area= 1,483 sf Storage= 1,179 cf

Plug-Flow detention time= 267.8 min calculated for 0.069 af (100% of inflow)
 Center-of-Mass det. time= 267.9 min (1,005.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.56 cfs @ 12.07 hrs HW=1,686.93' (Free Discharge)

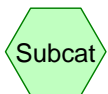
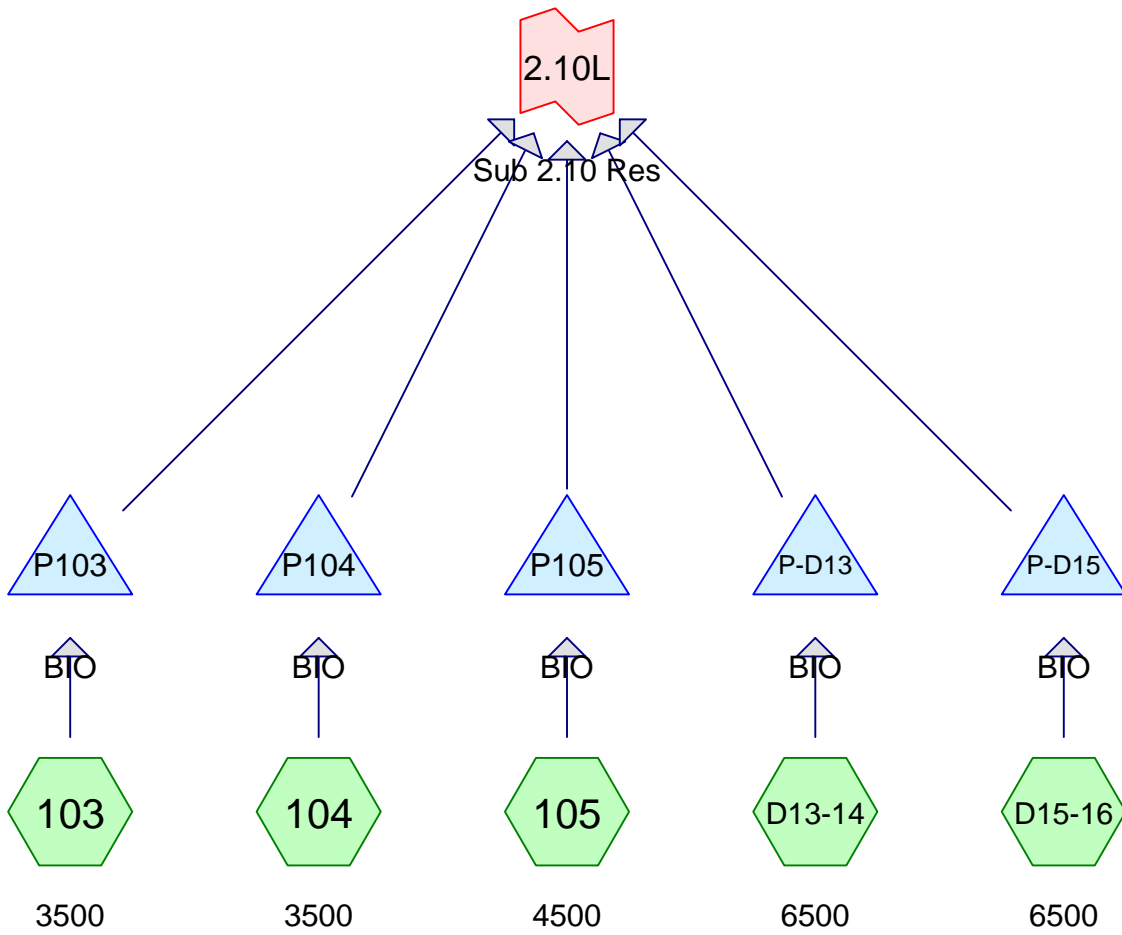
1=Orifice/Grate (Orifice Controls 0.55 cfs @ 2.78 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 2.1L: Sub 2.1 Res

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.57 cfs @ 12.07 hrs, Volume= 0.069 af
Primary = 0.57 cfs @ 12.07 hrs, Volume= 0.069 af, Atten= 0%, Lag= 0.0 min

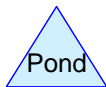
Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Subcat



Reach



Pond



Link

Routing Diagram for 08077_Sub 2.10
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.161	98	Driveway, extra imperv., HSG C (103, 104, 105, D13-14, D15-16)
0.402	98	Roofs, HSG C (103, 104, 105, D13-14, D15-16)
0.562	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.562	HSG C	103, 104, 105, D13-14, D15-16
0.000	HSG D	
0.000	Other	
0.562		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 103: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 104: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 105: 4500	Runoff Area=4,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.43 cfs 0.024 af
Subcatchment D13-14: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.61 cfs 0.034 af
Subcatchment D15-16: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.61 cfs 0.034 af
Pond P-D13: BIO	Peak Elev=1,686.58' Storage=805 cf Inflow=0.61 cfs 0.034 af Outflow=0.02 cfs 0.034 af
Pond P-D15: BIO	Peak Elev=1,686.58' Storage=805 cf Inflow=0.61 cfs 0.034 af Outflow=0.02 cfs 0.034 af
Pond P103: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P104: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P105: BIO	Peak Elev=1,686.49' Storage=530 cf Inflow=0.43 cfs 0.024 af Outflow=0.01 cfs 0.024 af
Link 2.10L: Sub 2.10 Res	Inflow=0.07 cfs 0.130 af Primary=0.07 cfs 0.130 af

Total Runoff Area = 0.562 ac Runoff Volume = 0.130 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.562 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 103: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 104: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 105: 4500

Runoff = 0.43 cfs @ 11.96 hrs, Volume= 0.024 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,500	98	Weighted Average
4,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment D13-14: 6500

Runoff = 0.61 cfs @ 11.96 hrs, Volume= 0.034 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment D15-16: 6500

Runoff = 0.61 cfs @ 11.96 hrs, Volume= 0.034 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P-D13: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.61 cfs @ 11.96 hrs, Volume= 0.034 af
 Outflow = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af, Atten= 97%, Lag= 121.8 min
 Primary = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.58' @ 13.99 hrs Surf.Area= 1,513 sf Storage= 805 cf

Plug-Flow detention time= 423.8 min calculated for 0.034 af (100% of inflow)
 Center-of-Mass det. time= 423.7 min (1,177.6 - 753.9)

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Type II 24-hr 1-Year Rainfall=3.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.02 cfs @ 13.99 hrs HW=1,686.58' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P-D15: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.61 cfs @ 11.96 hrs, Volume= 0.034 af
 Outflow = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af, Atten= 97%, Lag= 121.8 min
 Primary = 0.02 cfs @ 13.99 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.58' @ 13.99 hrs Surf.Area= 1,513 sf Storage= 805 cf

Plug-Flow detention time= 423.8 min calculated for 0.034 af (100% of inflow)
 Center-of-Mass det. time= 423.7 min (1,177.6 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.02 cfs @ 13.99 hrs HW=1,686.58' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P103: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

1=Orifice/Grate (Controls 0.00 cfs)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P104: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

1=Orifice/Grate (Controls 0.00 cfs)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P105: BIO

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.43 cfs @ 11.96 hrs, Volume= 0.024 af
 Outflow = 0.01 cfs @ 13.67 hrs, Volume= 0.024 af, Atten= 97%, Lag= 102.6 min
 Primary = 0.01 cfs @ 13.67 hrs, Volume= 0.024 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.49' @ 13.67 hrs Surf.Area= 1,219 sf Storage= 530 cf

Plug-Flow detention time= 343.3 min calculated for 0.024 af (100% of inflow)

Center-of-Mass det. time= 343.3 min (1,097.3 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,225 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	950	0	0
1,687.00	1,500	1,225	1,225

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.67 hrs HW=1,686.49' (Free Discharge)

1=Orifice/Grate (Controls 0.00 cfs)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 2.10L: Sub 2.10 Res

Inflow Area = 0.562 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.07 cfs @ 13.79 hrs, Volume= 0.130 af
 Primary = 0.07 cfs @ 13.79 hrs, Volume= 0.130 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 103: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 104: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 105: 4500	Runoff Area=4,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.72 cfs 0.041 af
Subcatchment D13-14: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=1.03 cfs 0.059 af
Subcatchment D15-16: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=1.03 cfs 0.059 af
Pond P-D13: BIO	Peak Elev=1,686.77' Storage=1,105 cf Inflow=1.03 cfs 0.059 af Outflow=0.38 cfs 0.059 af
Pond P-D15: BIO	Peak Elev=1,686.77' Storage=1,105 cf Inflow=1.03 cfs 0.059 af Outflow=0.38 cfs 0.059 af
Pond P103: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P104: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P105: BIO	Peak Elev=1,686.70' Storage=799 cf Inflow=0.72 cfs 0.041 af Outflow=0.18 cfs 0.041 af
Link 2.10L: Sub 2.10 Res	Inflow=1.24 cfs 0.223 af Primary=1.24 cfs 0.223 af

Total Runoff Area = 0.562 ac Runoff Volume = 0.223 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.562 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 103: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 104: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 105: 4500

Runoff = 0.72 cfs @ 11.96 hrs, Volume= 0.041 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,500	98	Weighted Average
4,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment D13-14: 6500

Runoff = 1.03 cfs @ 11.96 hrs, Volume= 0.059 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment D15-16: 6500

Runoff = 1.03 cfs @ 11.96 hrs, Volume= 0.059 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P-D13: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 1.03 cfs @ 11.96 hrs, Volume= 0.059 af
 Outflow = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af, Atten= 63%, Lag= 7.9 min
 Primary = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 1,686.77' @ 12.09 hrs Surf.Area= 1,593 sf Storage= 1,105 cf

Plug-Flow detention time= 331.1 min calculated for 0.059 af (100% of inflow)
Center-of-Mass det. time= 331.0 min (1,074.9 - 743.9)

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Type II 24-hr 10-Year Rainfall=5.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.38 cfs @ 12.09 hrs HW=1,686.77' (Free Discharge)

- 1=Orifice/Grate (Weir Controls 0.36 cfs @ 1.34 fps)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P-D15: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 1.03 cfs @ 11.96 hrs, Volume= 0.059 af
 Outflow = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af, Atten= 63%, Lag= 7.9 min
 Primary = 0.38 cfs @ 12.09 hrs, Volume= 0.059 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.77' @ 12.09 hrs Surf.Area= 1,593 sf Storage= 1,105 cf

Plug-Flow detention time= 331.1 min calculated for 0.059 af (100% of inflow)
 Center-of-Mass det. time= 331.0 min (1,074.9 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.38 cfs @ 12.09 hrs HW=1,686.77' (Free Discharge)

- 1=Orifice/Grate (Weir Controls 0.36 cfs @ 1.34 fps)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Pond P103: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P104: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P105: BIO

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.72 cfs @ 11.96 hrs, Volume= 0.041 af
 Outflow = 0.18 cfs @ 12.12 hrs, Volume= 0.041 af, Atten= 75%, Lag= 9.7 min
 Primary = 0.18 cfs @ 12.12 hrs, Volume= 0.041 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.70' @ 12.12 hrs Surf.Area= 1,335 sf Storage= 799 cf

Plug-Flow detention time= 347.8 min calculated for 0.041 af (100% of inflow)

Center-of-Mass det. time= 347.5 min (1,091.5 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,225 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	950	0	0
1,687.00	1,500	1,225	1,225

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.17 cfs @ 12.12 hrs HW=1,686.70' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.15 cfs @ 1.02 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 2.10L: Sub 2.10 Res

Inflow Area = 0.562 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 1.24 cfs @ 12.11 hrs, Volume= 0.223 af
 Primary = 1.24 cfs @ 12.11 hrs, Volume= 0.223 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 103: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 104: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 105: 4500	Runoff Area=4,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=1.08 cfs 0.063 af
Subcatchment D13-14: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=1.55 cfs 0.090 af
Subcatchment D15-16: 6500	Runoff Area=6,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=1.55 cfs 0.090 af
Pond P-D13: BIO	Peak Elev=1,687.04' Storage=1,557 cf Inflow=1.55 cfs 0.090 af Outflow=0.65 cfs 0.090 af
Pond P-D15: BIO	Peak Elev=1,687.04' Storage=1,557 cf Inflow=1.55 cfs 0.090 af Outflow=0.65 cfs 0.090 af
Pond P103: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P104: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P105: BIO	Peak Elev=1,686.89' Storage=1,063 cf Inflow=1.08 cfs 0.063 af Outflow=0.53 cfs 0.063 af
Link 2.10L: Sub 2.10 Res	Inflow=2.80 cfs 0.340 af Primary=2.80 cfs 0.340 af

Total Runoff Area = 0.562 ac Runoff Volume = 0.340 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.562 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 103: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 104: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 105: 4500

Runoff = 1.08 cfs @ 11.96 hrs, Volume= 0.063 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,500	98	Weighted Average
4,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment D13-14: 6500

Runoff = 1.55 cfs @ 11.96 hrs, Volume= 0.090 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment D15-16: 6500

Runoff = 1.55 cfs @ 11.96 hrs, Volume= 0.090 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
4,500	98	Roofs, HSG C
* 2,000	98	Driveway, extra imperv., HSG C
6,500	98	Weighted Average
6,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P-D13: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.55 cfs @ 11.96 hrs, Volume= 0.090 af
 Outflow = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af, Atten= 58%, Lag= 7.0 min
 Primary = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 1,687.04' @ 12.08 hrs Surf.Area= 1,706 sf Storage= 1,557 cf

Plug-Flow detention time= 258.2 min calculated for 0.090 af (100% of inflow)
Center-of-Mass det. time= 258.9 min (996.7 - 737.8)

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Type II 24-hr 100-Year Rainfall=7.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.65 cfs @ 12.08 hrs HW=1,687.04' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.63 cfs @ 3.20 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond P-D15: BIO

Inflow Area = 0.149 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.55 cfs @ 11.96 hrs, Volume= 0.090 af
 Outflow = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af, Atten= 58%, Lag= 7.0 min
 Primary = 0.65 cfs @ 12.08 hrs, Volume= 0.090 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,687.04' @ 12.08 hrs Surf.Area= 1,706 sf Storage= 1,557 cf

Plug-Flow detention time= 258.2 min calculated for 0.090 af (100% of inflow)
 Center-of-Mass det. time= 258.9 min (996.7 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,375 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,275	0	0
1,688.00	2,100	3,375	3,375

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.65 cfs @ 12.08 hrs HW=1,687.04' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.63 cfs @ 3.20 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Pond P103: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P104: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P105: BIO

Inflow Area = 0.103 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.08 cfs @ 11.96 hrs, Volume= 0.063 af
 Outflow = 0.53 cfs @ 12.07 hrs, Volume= 0.063 af, Atten= 51%, Lag= 6.3 min
 Primary = 0.53 cfs @ 12.07 hrs, Volume= 0.063 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.07 hrs Surf.Area= 1,439 sf Storage= 1,063 cf

Plug-Flow detention time= 272.4 min calculated for 0.062 af (100% of inflow)
 Center-of-Mass det. time= 273.0 min (1,010.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,225 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	950	0	0
1,687.00	1,500	1,225	1,225

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.07 hrs HW=1,686.88' (Free Discharge)

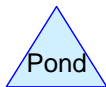
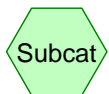
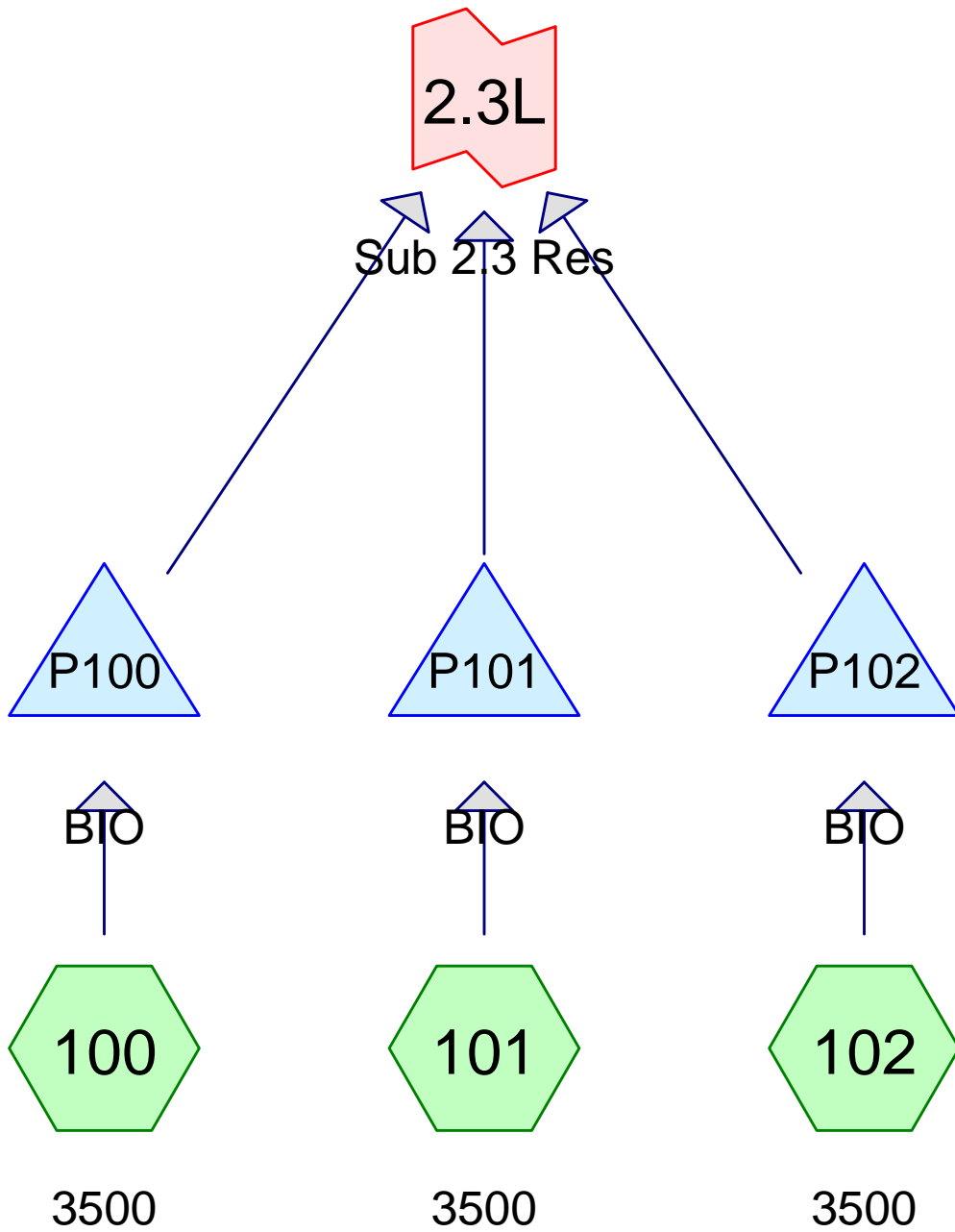
1=Orifice/Grate (Orifice Controls 0.50 cfs @ 2.57 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 2.10L: Sub 2.10 Res

Inflow Area = 0.562 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 2.80 cfs @ 12.06 hrs, Volume= 0.340 af
 Primary = 2.80 cfs @ 12.06 hrs, Volume= 0.340 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 2.3
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.069	98	Driveway, extra imperv., HSG C (100, 101, 102)
0.172	98	Roofs, HSG C (100, 101, 102)
0.241	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.241	HSG C	100, 101, 102
0.000	HSG D	
0.000	Other	
0.241		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 100: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 101: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 102: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Pond P100: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P101: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P102: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Link 2.3L: Sub 2.3 Res Inflow=0.03 cfs 0.056 af
Primary=0.03 cfs 0.056 af

Total Runoff Area = 0.241 ac Runoff Volume = 0.056 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.241 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 100: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 101: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 102: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P100: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)
 1=Orifice/Grate (Controls 0.00 cfs)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P101: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 1-Year Rainfall=3.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P102: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 2.3L: Sub 2.3 Res

Inflow Area = 0.241 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.03 cfs @ 13.65 hrs, Volume= 0.056 af
 Primary = 0.03 cfs @ 13.65 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 100: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Subcatchment 101: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Subcatchment 102: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Pond P100: BIO Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Pond P101: BIO Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Pond P102: BIO Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Link 2.3L: Sub 2.3 Res Inflow=0.46 cfs 0.096 af
Primary=0.46 cfs 0.096 af

Total Runoff Area = 0.241 ac Runoff Volume = 0.096 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.241 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 100: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 101: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 102: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P100: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)
 1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P101: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 10-Year Rainfall=5.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P102: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 2.3L: Sub 2.3 Res

Inflow Area = 0.241 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.46 cfs @ 12.12 hrs, Volume= 0.096 af
 Primary = 0.46 cfs @ 12.12 hrs, Volume= 0.096 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

08077_Sub 2.3

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 100: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 101: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 102: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Pond P100: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P101: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P102: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Link 2.3L: Sub 2.3 Res Inflow=1.46 cfs 0.146 af
Primary=1.46 cfs 0.146 af

Total Runoff Area = 0.241 ac Runoff Volume = 0.146 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.241 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 100: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 101: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 102: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P100: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)
 1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P101: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 100-Year Rainfall=7.50"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P102: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

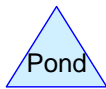
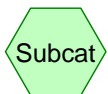
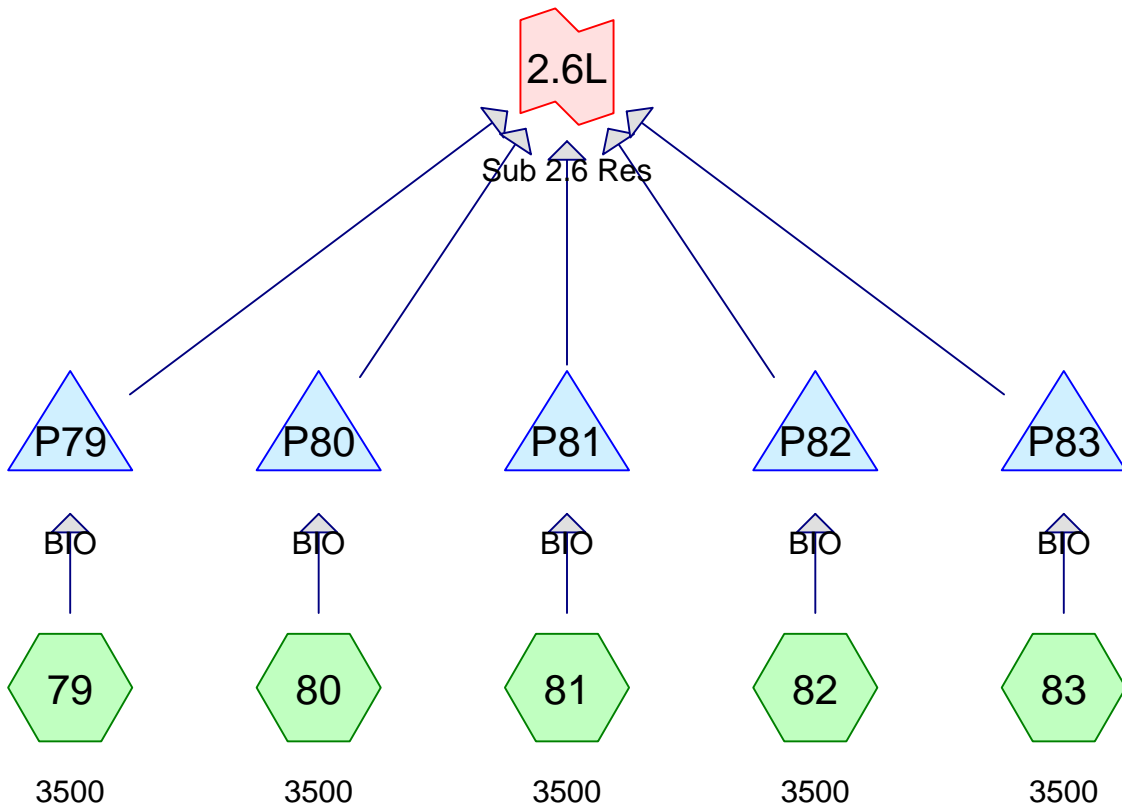
1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 2.3L: Sub 2.3 Res

Inflow Area = 0.241 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.46 cfs @ 12.05 hrs, Volume= 0.146 af
 Primary = 1.46 cfs @ 12.05 hrs, Volume= 0.146 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 2.6
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.115	98	Driveway, extra imperv., HSG C (79, 80, 81, 82, 83)
0.287	98	Roofs, HSG C (79, 80, 81, 82, 83)
0.402	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.402	HSG C	79, 80, 81, 82, 83
0.000	HSG D	
0.000	Other	
0.402		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 79: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 80: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 81: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 82: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 83: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Pond P79: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P80: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P81: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P82: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P83: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Link 2.6L: Sub 2.6 Res	Inflow=0.06 cfs 0.093 af Primary=0.06 cfs 0.093 af

Total Runoff Area = 0.402 ac Runoff Volume = 0.093 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.402 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 79: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 80: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 81: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 82: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 83: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P79: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

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Type II 24-hr 1-Year Rainfall=3.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P80: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P81: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P82: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P83: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 2.6L: Sub 2.6 Res

Inflow Area = 0.402 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.06 cfs @ 13.65 hrs, Volume= 0.093 af
 Primary = 0.06 cfs @ 13.65 hrs, Volume= 0.093 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 79: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 80: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 81: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 82: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 83: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Pond P79: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P80: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P81: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P82: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P83: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Link 2.6L: Sub 2.6 Res	Inflow=0.77 cfs 0.159 af Primary=0.77 cfs 0.159 af

Total Runoff Area = 0.402 ac Runoff Volume = 0.159 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.402 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 79: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 80: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 81: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 82: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 83: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P79: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

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Type II 24-hr 10-Year Rainfall=5.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

- 1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P80: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

- 1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Pond P81: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P82: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P83: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 2.6L: Sub 2.6 Res

Inflow Area = 0.402 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.77 cfs @ 12.12 hrs, Volume= 0.159 af
 Primary = 0.77 cfs @ 12.12 hrs, Volume= 0.159 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 79: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 80: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 81: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 82: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 83: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Pond P79: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P80: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P81: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P82: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P83: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Link 2.6L: Sub 2.6 Res	Inflow=2.43 cfs 0.243 af Primary=2.43 cfs 0.243 af

Total Runoff Area = 0.402 ac Runoff Volume = 0.243 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.402 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 79: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 80: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 81: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 82: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 83: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P79: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

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Type II 24-hr 100-Year Rainfall=7.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

- 1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P80: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

- 1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Pond P81: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P82: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

↑1=**Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.41 fps)

↑2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P83: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

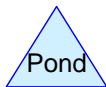
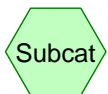
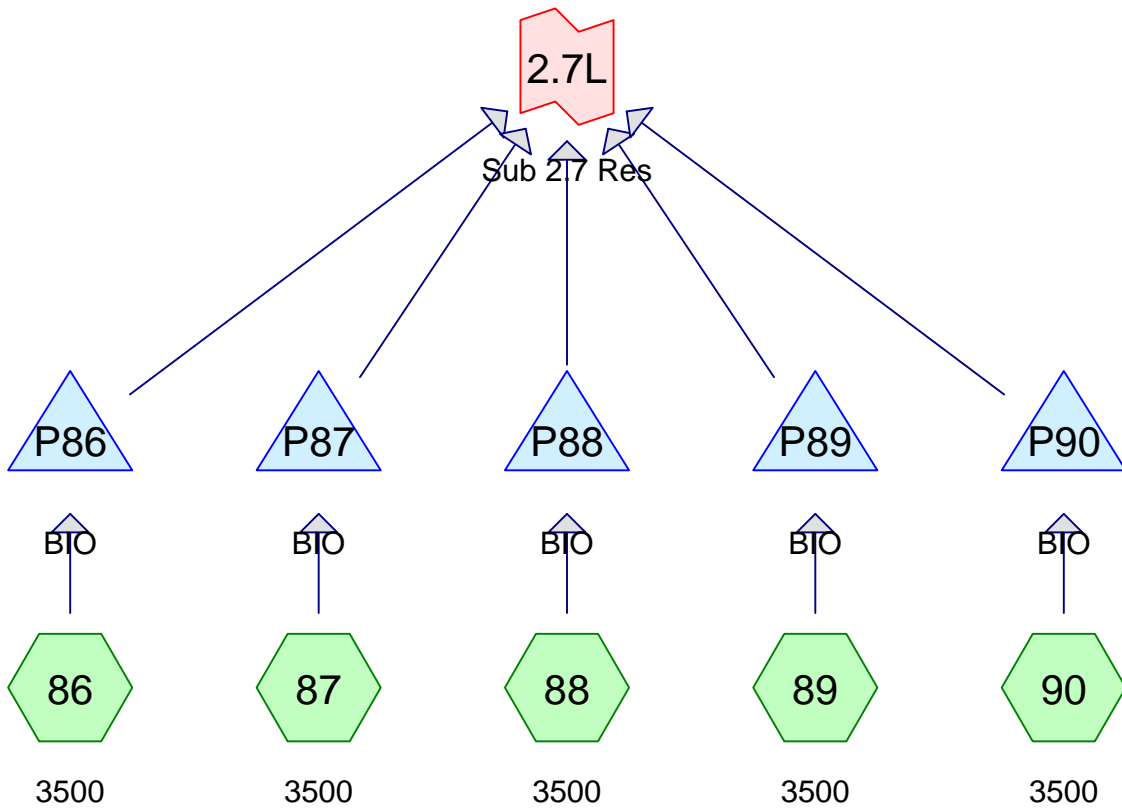
↑1=**Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.41 fps)

↑2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Link 2.6L: Sub 2.6 Res

Inflow Area = 0.402 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 2.43 cfs @ 12.05 hrs, Volume= 0.243 af
 Primary = 2.43 cfs @ 12.05 hrs, Volume= 0.243 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 2.7
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.115	98	Driveway, extra imperv., HSG C (86, 87, 88, 89, 90)
0.287	98	Roofs, HSG C (86, 87, 88, 89, 90)
0.402	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.402	HSG C	86, 87, 88, 89, 90
0.000	HSG D	
0.000	Other	
0.402		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 86: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 87: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 88: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 89: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 90: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Pond P86: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P87: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P88: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P89: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P90: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Link 2.7L: Sub 2.7 Res	Inflow=0.06 cfs 0.093 af Primary=0.06 cfs 0.093 af

Total Runoff Area = 0.402 ac Runoff Volume = 0.093 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.402 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 86: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 87: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 88: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 89: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 90: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P86: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

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Type II 24-hr 1-Year Rainfall=3.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P87: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P88: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P89: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

1=Orifice/Grate (Controls 0.00 cfs)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P90: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)

Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

1=Orifice/Grate (Controls 0.00 cfs)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 2.7L: Sub 2.7 Res

Inflow Area = 0.402 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.06 cfs @ 13.65 hrs, Volume= 0.093 af
 Primary = 0.06 cfs @ 13.65 hrs, Volume= 0.093 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 86: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 87: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 88: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 89: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 90: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Pond P86: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P87: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P88: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P89: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P90: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Link 2.7L: Sub 2.7 Res	Inflow=0.77 cfs 0.159 af Primary=0.77 cfs 0.159 af

Total Runoff Area = 0.402 ac Runoff Volume = 0.159 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.402 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 86: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 87: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 88: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 89: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 90: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P86: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

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Type II 24-hr 10-Year Rainfall=5.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P87: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Pond P88: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P89: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P90: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 2.7L: Sub 2.7 Res

Inflow Area = 0.402 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.77 cfs @ 12.12 hrs, Volume= 0.159 af
 Primary = 0.77 cfs @ 12.12 hrs, Volume= 0.159 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 86: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 87: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 88: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 89: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 90: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Pond P86: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P87: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P88: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P89: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P90: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Link 2.7L: Sub 2.7 Res	Inflow=2.43 cfs 0.243 af Primary=2.43 cfs 0.243 af

Total Runoff Area = 0.402 ac Runoff Volume = 0.243 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.402 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 86: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 87: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 88: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 89: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 90: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P86: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

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Type II 24-hr 100-Year Rainfall=7.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

- 1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P87: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

- 1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Pond P88: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P89: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P90: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

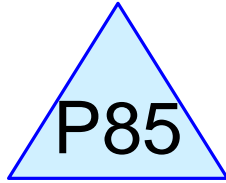
Summary for Link 2.7L: Sub 2.7 Res

Inflow Area = 0.402 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 2.43 cfs @ 12.05 hrs, Volume= 0.243 af
 Primary = 2.43 cfs @ 12.05 hrs, Volume= 0.243 af, Atten= 0%, Lag= 0.0 min

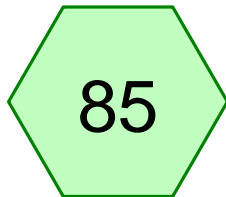
Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



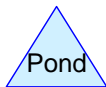
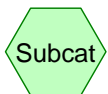
Sub 2.8 Res



BIO



4000



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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.023	98	Driveway, extra imperv., HSG C (85)
0.069	98	Roofs, HSG C (85)
0.092	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.092	HSG C	85
0.000	HSG D	
0.000	Other	
0.092		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 85: 4000

Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.38 cfs 0.021 af

Pond P85: BIO

Peak Elev=1,686.51' Storage=476 cf Inflow=0.38 cfs 0.021 af
Outflow=0.01 cfs 0.021 af

Link 2.8L: Sub 2.8 Res

Inflow=0.01 cfs 0.021 af
Primary=0.01 cfs 0.021 af

Total Runoff Area = 0.092 ac Runoff Volume = 0.021 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.092 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 85: 4000

Runoff = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P85: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af
 Outflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af, Atten= 97%, Lag= 107.8 min
 Primary = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.51' @ 13.76 hrs Surf.Area= 1,042 sf Storage= 476 cf

Plug-Flow detention time= 360.8 min calculated for 0.021 af (100% of inflow)
 Center-of-Mass det. time= 360.8 min (1,114.7 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.76 hrs HW=1,686.51' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 2.8L: Sub 2.8 Res

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af
Primary = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 85: 4000

Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.64 cfs 0.036 af

Pond P85: BIO

Peak Elev=1,686.71' Storage=692 cf Inflow=0.64 cfs 0.036 af
Outflow=0.20 cfs 0.036 af

Link 2.8L: Sub 2.8 Res

Inflow=0.20 cfs 0.036 af
Primary=0.20 cfs 0.036 af

Total Runoff Area = 0.092 ac Runoff Volume = 0.036 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.092 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 85: 4000

Runoff = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P85: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af
 Outflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.71' @ 12.11 hrs Surf.Area= 1,126 sf Storage= 692 cf

Plug-Flow detention time= 340.5 min calculated for 0.036 af (100% of inflow)
 Center-of-Mass det. time= 340.7 min (1,084.6 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.19 cfs @ 12.11 hrs HW=1,686.71' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.18 cfs @ 1.07 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 2.8L: Sub 2.8 Res

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af
Primary = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 85: 4000

Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.96 cfs 0.056 af

Pond P85: BIO

Peak Elev=1,686.89' Storage=904 cf Inflow=0.96 cfs 0.056 af
Outflow=0.52 cfs 0.056 af

Link 2.8L: Sub 2.8 Res

Inflow=0.52 cfs 0.056 af
Primary=0.52 cfs 0.056 af

Total Runoff Area = 0.092 ac Runoff Volume = 0.056 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.092 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 85: 4000

Runoff = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P85: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af
 Outflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af, Atten= 45%, Lag= 5.8 min
 Primary = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.06 hrs Surf.Area= 1,204 sf Storage= 904 cf

Plug-Flow detention time= 266.2 min calculated for 0.056 af (100% of inflow)
 Center-of-Mass det. time= 267.0 min (1,004.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.06 hrs HW=1,686.89' (Free Discharge)

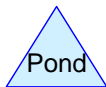
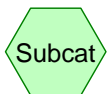
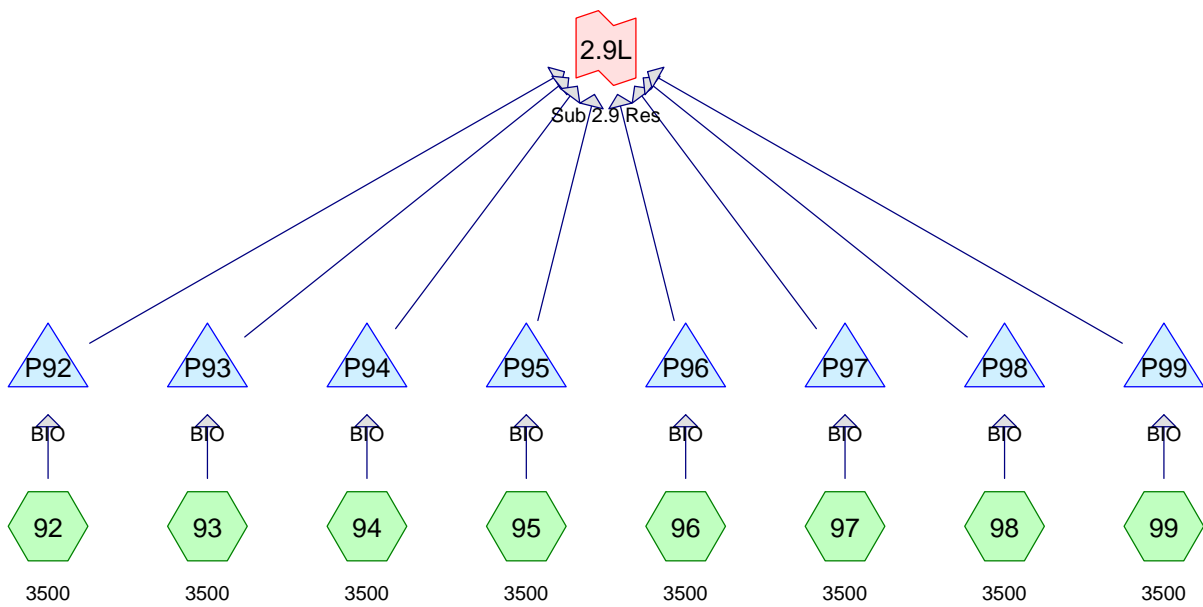
1=Orifice/Grate (Orifice Controls 0.51 cfs @ 2.59 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 2.8L: Sub 2.8 Res

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af
Primary = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 2.9
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.184	98	Driveway, extra imperv., HSG C (92, 93, 94, 95, 96, 97, 98, 99)
0.459	98	Roofs, HSG C (92, 93, 94, 95, 96, 97, 98, 99)
0.643	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.643	HSG C	92, 93, 94, 95, 96, 97, 98, 99
0.000	HSG D	
0.000	Other	
0.643		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 92: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 93: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 94: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 95: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 96: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 97: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 98: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 99: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Pond P92: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P93: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P94: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P95: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P96: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P97: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P98: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P99: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af

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Type II 24-hr 1-Year Rainfall=3.00"

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Link 2.9L: Sub 2.9 Res

Inflow=0.09 cfs 0.148 af

Primary=0.09 cfs 0.148 af

Total Runoff Area = 0.643 ac Runoff Volume = 0.148 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.643 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 92: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 93: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 94: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 95: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 96: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 97: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

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Type II 24-hr 1-Year Rainfall=3.00"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 98: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 99: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P92: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P93: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P94: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P95: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

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Type II 24-hr 1-Year Rainfall=3.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- ↑1=Orifice/Grate (Controls 0.00 cfs)
- ↳2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P96: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- ↑1=Orifice/Grate (Controls 0.00 cfs)
- ↳2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P97: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P98: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P99: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 2.9L: Sub 2.9 Res

Inflow Area = 0.643 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.09 cfs @ 13.65 hrs, Volume= 0.148 af
 Primary = 0.09 cfs @ 13.65 hrs, Volume= 0.148 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 92: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 93: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 94: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 95: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 96: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 97: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 98: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 99: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Pond P92: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P93: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P94: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P95: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P96: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P97: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P98: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P99: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af

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Type II 24-hr 10-Year Rainfall=5.00"

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Link 2.9L: Sub 2.9 Res

Inflow=1.24 cfs 0.255 af

Primary=1.24 cfs 0.255 af

Total Runoff Area = 0.643 ac Runoff Volume = 0.255 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.643 ac

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Summary for Subcatchment 92: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 93: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 94: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 95: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 96: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 97: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

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Type II 24-hr 10-Year Rainfall=5.00"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 98: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 99: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Pond P92: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P93: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

↑1=**Orifice/Grate** (Weir Controls 0.14 cfs @ 0.98 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P94: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

↑1=**Orifice/Grate** (Weir Controls 0.14 cfs @ 0.98 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P95: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

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Type II 24-hr 10-Year Rainfall=5.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P96: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Pond P97: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P98: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P99: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 2.9L: Sub 2.9 Res

Inflow Area = 0.643 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 1.24 cfs @ 12.12 hrs, Volume= 0.255 af
 Primary = 1.24 cfs @ 12.12 hrs, Volume= 0.255 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 92: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 93: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 94: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 95: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 96: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 97: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 98: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 99: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Pond P92: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P93: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P94: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P95: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P96: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P97: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P98: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P99: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af

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Type II 24-hr 100-Year Rainfall=7.50"

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Link 2.9L: Sub 2.9 Res

Inflow=3.89 cfs 0.389 af

Primary=3.89 cfs 0.389 af

Total Runoff Area = 0.643 ac Runoff Volume = 0.389 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.643 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 92: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 93: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 94: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 95: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 96: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 97: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

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Type II 24-hr 100-Year Rainfall=7.50"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 98: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 99: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Pond P92: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P93: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P94: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P95: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

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Type II 24-hr 100-Year Rainfall=7.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P96: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Pond P97: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P98: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P99: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

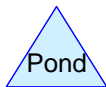
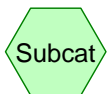
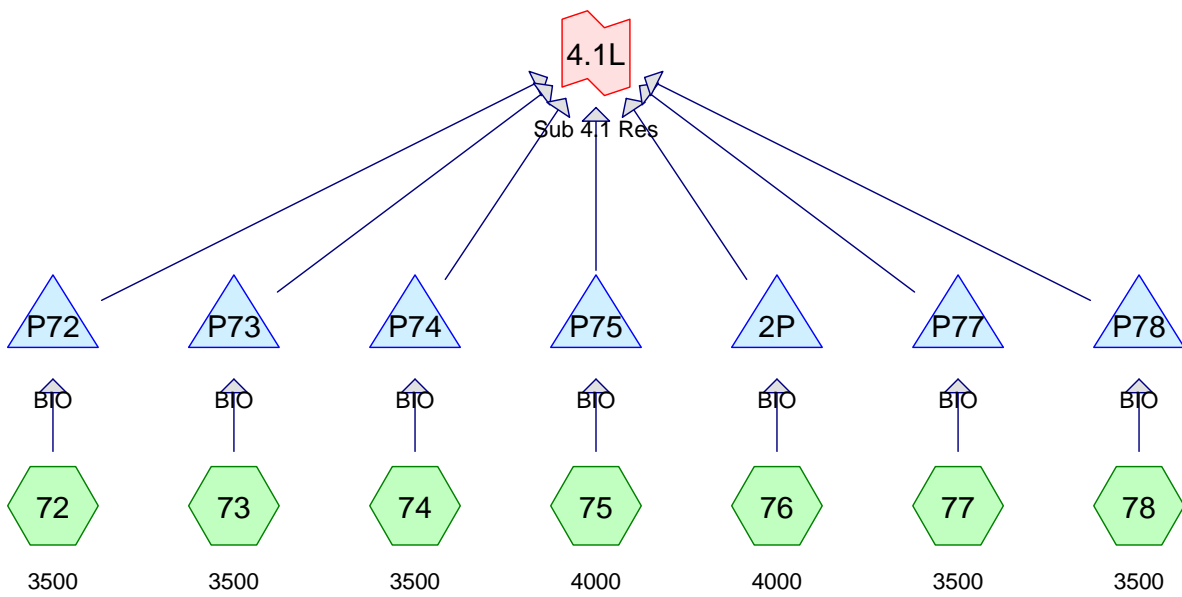
1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 2.9L: Sub 2.9 Res

Inflow Area = 0.643 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 3.89 cfs @ 12.05 hrs, Volume= 0.389 af
 Primary = 3.89 cfs @ 12.05 hrs, Volume= 0.389 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 4.1
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.161	98	Driveway, extra imperv., HSG C (72, 73, 74, 75, 76, 77, 78)
0.425	98	Roofs, HSG C (72, 73, 74, 75, 76, 77, 78)
0.585	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.585	HSG C	72, 73, 74, 75, 76, 77, 78
0.000	HSG D	
0.000	Other	
0.585		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 72: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 73: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 74: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 75: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.38 cfs 0.021 af
Subcatchment 76: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.38 cfs 0.021 af
Subcatchment 77: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 78: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Pond 2P: BIO	Peak Elev=1,686.51' Storage=476 cf Inflow=0.38 cfs 0.021 af Outflow=0.01 cfs 0.021 af
Pond P72: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P73: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P74: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P75: BIO	Peak Elev=1,686.51' Storage=476 cf Inflow=0.38 cfs 0.021 af Outflow=0.01 cfs 0.021 af
Pond P77: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P78: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Link 4.1L: Sub 4.1 Res	Inflow=0.08 cfs 0.135 af Primary=0.08 cfs 0.135 af

Total Runoff Area = 0.585 ac Runoff Volume = 0.135 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.585 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 72: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 73: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 74: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 75: 4000

Runoff = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 76: 4000

Runoff = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 77: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

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Type II 24-hr 1-Year Rainfall=3.00"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 78: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond 2P: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af
 Outflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af, Atten= 97%, Lag= 107.8 min
 Primary = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.51' @ 13.76 hrs Surf.Area= 1,042 sf Storage= 476 cf

Plug-Flow detention time= 360.8 min calculated for 0.021 af (100% of inflow)
 Center-of-Mass det. time= 360.8 min (1,114.7 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.76 hrs HW=1,686.51' (Free Discharge)

1=Orifice/Grate (Controls 0.00 cfs)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P72: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)

Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

1=Orifice/Grate (Controls 0.00 cfs)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P73: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)

Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

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Type II 24-hr 1-Year Rainfall=3.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- ↑1=Orifice/Grate (Controls 0.00 cfs)
- ↓2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P74: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- ↑1=Orifice/Grate (Controls 0.00 cfs)
- ↓2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P75: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af
 Outflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af, Atten= 97%, Lag= 107.8 min
 Primary = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.51' @ 13.76 hrs Surf.Area= 1,042 sf Storage= 476 cf

Plug-Flow detention time= 360.8 min calculated for 0.021 af (100% of inflow)
 Center-of-Mass det. time= 360.8 min (1,114.7 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.76 hrs HW=1,686.51' (Free Discharge)

1=Orifice/Grate (Controls 0.00 cfs)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P77: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P78: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 4.1L: Sub 4.1 Res

Inflow Area = 0.585 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.08 cfs @ 13.68 hrs, Volume= 0.135 af
 Primary = 0.08 cfs @ 13.68 hrs, Volume= 0.135 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 72: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 73: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 74: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 75: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.64 cfs 0.036 af
Subcatchment 76: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.64 cfs 0.036 af
Subcatchment 77: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 78: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Pond 2P: BIO	Peak Elev=1,686.71' Storage=692 cf Inflow=0.64 cfs 0.036 af Outflow=0.20 cfs 0.036 af
Pond P72: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P73: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P74: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P75: BIO	Peak Elev=1,686.71' Storage=692 cf Inflow=0.64 cfs 0.036 af Outflow=0.20 cfs 0.036 af
Pond P77: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P78: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Link 4.1L: Sub 4.1 Res	Inflow=1.17 cfs 0.232 af Primary=1.17 cfs 0.232 af

**Total Runoff Area = 0.585 ac Runoff Volume = 0.232 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.585 ac**

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 72: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 73: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 74: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 75: 4000

Runoff = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 76: 4000

Runoff = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 77: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

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Type II 24-hr 10-Year Rainfall=5.00"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 78: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond 2P: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af
 Outflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.71' @ 12.11 hrs Surf.Area= 1,126 sf Storage= 692 cf

Plug-Flow detention time= 340.5 min calculated for 0.036 af (100% of inflow)
 Center-of-Mass det. time= 340.7 min (1,084.6 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.19 cfs @ 12.11 hrs HW=1,686.71' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.18 cfs @ 1.07 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P72: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P73: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

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Type II 24-hr 10-Year Rainfall=5.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P74: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Pond P75: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af
 Outflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.71' @ 12.11 hrs Surf.Area= 1,126 sf Storage= 692 cf

Plug-Flow detention time= 340.5 min calculated for 0.036 af (100% of inflow)
 Center-of-Mass det. time= 340.7 min (1,084.6 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.19 cfs @ 12.11 hrs HW=1,686.71' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.18 cfs @ 1.07 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P77: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P78: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 4.1L: Sub 4.1 Res

Inflow Area = 0.585 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 1.17 cfs @ 12.11 hrs, Volume= 0.232 af
 Primary = 1.17 cfs @ 12.11 hrs, Volume= 0.232 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 72: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 73: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 74: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 75: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.96 cfs 0.056 af
Subcatchment 76: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.96 cfs 0.056 af
Subcatchment 77: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 78: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Pond 2P: BIO	Peak Elev=1,686.89' Storage=904 cf Inflow=0.96 cfs 0.056 af Outflow=0.52 cfs 0.056 af
Pond P72: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P73: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P74: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P75: BIO	Peak Elev=1,686.89' Storage=904 cf Inflow=0.96 cfs 0.056 af Outflow=0.52 cfs 0.056 af
Pond P77: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P78: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Link 4.1L: Sub 4.1 Res	Inflow=3.48 cfs 0.354 af Primary=3.48 cfs 0.354 af

Total Runoff Area = 0.585 ac Runoff Volume = 0.354 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.585 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 72: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 73: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 74: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 75: 4000

Runoff = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 76: 4000

Runoff = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 77: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

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Type II 24-hr 100-Year Rainfall=7.50"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 78: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond 2P: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af
 Outflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af, Atten= 45%, Lag= 5.8 min
 Primary = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.06 hrs Surf.Area= 1,204 sf Storage= 904 cf

Plug-Flow detention time= 266.2 min calculated for 0.056 af (100% of inflow)
 Center-of-Mass det. time= 267.0 min (1,004.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.06 hrs HW=1,686.89' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.51 cfs @ 2.59 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P72: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P73: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

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Type II 24-hr 100-Year Rainfall=7.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P74: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Pond P75: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af
 Outflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af, Atten= 45%, Lag= 5.8 min
 Primary = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.06 hrs Surf.Area= 1,204 sf Storage= 904 cf

Plug-Flow detention time= 266.2 min calculated for 0.056 af (100% of inflow)
 Center-of-Mass det. time= 267.0 min (1,004.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.06 hrs HW=1,686.89' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.51 cfs @ 2.59 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P77: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P78: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

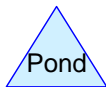
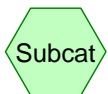
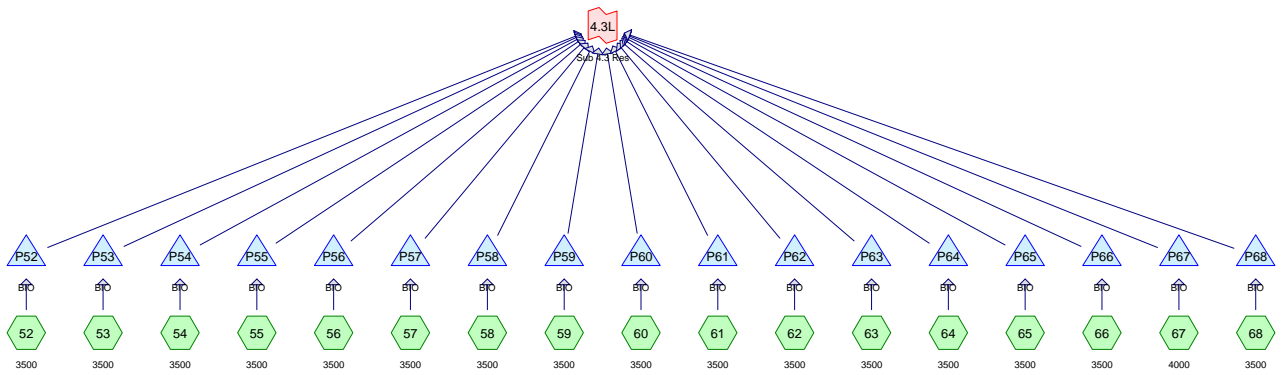
1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 4.1L: Sub 4.1 Res

Inflow Area = 0.585 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 3.48 cfs @ 12.05 hrs, Volume= 0.354 af
 Primary = 3.48 cfs @ 12.05 hrs, Volume= 0.354 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 4.3
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.390	98	Driveway, extra imperv., HSG C (52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68)
0.987	98	Roofs, HSG C (52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68)
1.377	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
1.377	HSG C	52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68
0.000	HSG D	
0.000	Other	
1.377		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 52: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 53: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 54: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 55: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 56: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 57: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 58: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 59: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 60: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 61: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 62: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 63: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 64: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 65: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 66: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 67: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.38 cfs 0.021 af

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Type II 24-hr 1-Year Rainfall=3.00"

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Subcatchment 68: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Pond P52: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P53: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P54: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P55: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P56: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P57: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P58: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P59: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P60: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P61: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P62: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P63: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P64: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P65: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P66: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P67: BIO	Peak Elev=1,686.51' Storage=476 cf Inflow=0.38 cfs 0.021 af Outflow=0.01 cfs 0.021 af

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Pond P68: BIO

Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af

Outflow=0.01 cfs 0.019 af

Link 4.3L: Sub 4.3 Res

Inflow=0.19 cfs 0.318 af

Primary=0.19 cfs 0.318 af

Total Runoff Area = 1.377 ac Runoff Volume = 0.318 af Average Runoff Depth = 2.77"

0.00% Pervious = 0.000 ac 100.00% Impervious = 1.377 ac

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Summary for Subcatchment 52: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 53: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 54: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 55: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 56: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 57: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

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Type II 24-hr 1-Year Rainfall=3.00"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 58: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 59: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 60: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 61: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 62: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 63: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 64: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 65: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

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Type II 24-hr 1-Year Rainfall=3.00"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 66: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 67: 4000

Runoff = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 68: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P52: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P53: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P54: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P55: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P56: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- ↑1=Orifice/Grate (Controls 0.00 cfs)
- ↳2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P57: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- ↑1=Orifice/Grate (Controls 0.00 cfs)
- ↳2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Summary for Pond P58: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1 = **Orifice/Grate** (Controls 0.00 cfs)
- 2 = **Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P59: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P60: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P61: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- ↑1=Orifice/Grate (Controls 0.00 cfs)
- ↳2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P62: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- ↑1=Orifice/Grate (Controls 0.00 cfs)
- ↳2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P63: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P64: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P65: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P66: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P67: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af
 Outflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af, Atten= 97%, Lag= 107.8 min
 Primary = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.51' @ 13.76 hrs Surf.Area= 1,042 sf Storage= 476 cf

Plug-Flow detention time= 360.8 min calculated for 0.021 af (100% of inflow)
 Center-of-Mass det. time= 360.8 min (1,114.7 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.76 hrs HW=1,686.51' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P68: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 4.3L: Sub 4.3 Res

Inflow Area = 1.377 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.19 cfs @ 13.66 hrs, Volume= 0.318 af
 Primary = 0.19 cfs @ 13.66 hrs, Volume= 0.318 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 52: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 53: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 54: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 55: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 56: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 57: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 58: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 59: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 60: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 61: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 62: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 63: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 64: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 65: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 66: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 67: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.64 cfs 0.036 af

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Subcatchment 68: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Pond P52: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P53: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P54: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P55: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P56: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P57: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P58: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P59: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P60: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P61: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P62: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P63: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P64: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P65: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P66: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P67: BIO	Peak Elev=1,686.71' Storage=692 cf Inflow=0.64 cfs 0.036 af Outflow=0.20 cfs 0.036 af

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Pond P68: BIO

Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af

Outflow=0.15 cfs 0.032 af

Link 4.3L: Sub 4.3 Res

Inflow=2.68 cfs 0.546 af

Primary=2.68 cfs 0.546 af

Total Runoff Area = 1.377 ac Runoff Volume = 0.547 af Average Runoff Depth = 4.76"

0.00% Pervious = 0.000 ac 100.00% Impervious = 1.377 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 52: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 53: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 54: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 55: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 56: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 57: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 58: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 59: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 60: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 61: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 62: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 63: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 64: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 65: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 66: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 67: 4000

Runoff = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 68: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P52: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Pond P53: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P54: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

↑1=**Orifice/Grate** (Weir Controls 0.14 cfs @ 0.98 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P55: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

↑1=**Orifice/Grate** (Weir Controls 0.14 cfs @ 0.98 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P56: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P57: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Summary for Pond P58: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P59: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

↑1=**Orifice/Grate** (Weir Controls 0.14 cfs @ 0.98 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P60: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

↑1=**Orifice/Grate** (Weir Controls 0.14 cfs @ 0.98 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P61: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

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Type II 24-hr 10-Year Rainfall=5.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P62: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Summary for Pond P63: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P64: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

↑1=**Orifice/Grate** (Weir Controls 0.14 cfs @ 0.98 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P65: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

↑1=**Orifice/Grate** (Weir Controls 0.14 cfs @ 0.98 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P66: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

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Type II 24-hr 10-Year Rainfall=5.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P67: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af
 Outflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.71' @ 12.11 hrs Surf.Area= 1,126 sf Storage= 692 cf

Plug-Flow detention time= 340.5 min calculated for 0.036 af (100% of inflow)
 Center-of-Mass det. time= 340.7 min (1,084.6 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.19 cfs @ 12.11 hrs HW=1,686.71' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.18 cfs @ 1.07 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Summary for Pond P68: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 4.3L: Sub 4.3 Res

Inflow Area = 1.377 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 2.68 cfs @ 12.12 hrs, Volume= 0.546 af
 Primary = 2.68 cfs @ 12.12 hrs, Volume= 0.546 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 52: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 53: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 54: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 55: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 56: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 57: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 58: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 59: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 60: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 61: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 62: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 63: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 64: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 65: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 66: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 67: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.96 cfs 0.056 af

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Subcatchment 68: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Pond P52: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P53: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P54: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P55: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P56: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P57: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P58: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P59: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P60: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P61: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P62: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P63: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P64: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P65: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P66: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P67: BIO	Peak Elev=1,686.89' Storage=904 cf Inflow=0.96 cfs 0.056 af Outflow=0.52 cfs 0.056 af

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Type II 24-hr 100-Year Rainfall=7.50"

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Pond P68: BIO

Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af

Outflow=0.49 cfs 0.049 af

Link 4.3L: Sub 4.3 Res

Inflow=8.31 cfs 0.834 af

Primary=8.31 cfs 0.834 af

Total Runoff Area = 1.377 ac Runoff Volume = 0.833 af Average Runoff Depth = 7.26"

0.00% Pervious = 0.000 ac 100.00% Impervious = 1.377 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 52: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 53: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 54: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 55: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 56: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 57: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

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Type II 24-hr 100-Year Rainfall=7.50"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 58: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 59: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 60: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 61: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 62: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 63: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 64: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 65: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 66: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 67: 4000

Runoff = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 68: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P52: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Pond P53: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P54: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

↑1=**Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.41 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P55: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

↑1=**Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.41 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P56: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

└1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

└2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P57: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

└1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

└2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Summary for Pond P58: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P59: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P60: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P61: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P62: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Pond P63: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P64: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P65: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P66: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

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Type II 24-hr 100-Year Rainfall=7.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P67: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af
 Outflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af, Atten= 45%, Lag= 5.8 min
 Primary = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.06 hrs Surf.Area= 1,204 sf Storage= 904 cf

Plug-Flow detention time= 266.2 min calculated for 0.056 af (100% of inflow)
 Center-of-Mass det. time= 267.0 min (1,004.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.06 hrs HW=1,686.89' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.51 cfs @ 2.59 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Pond P68: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

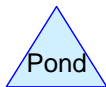
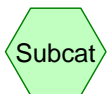
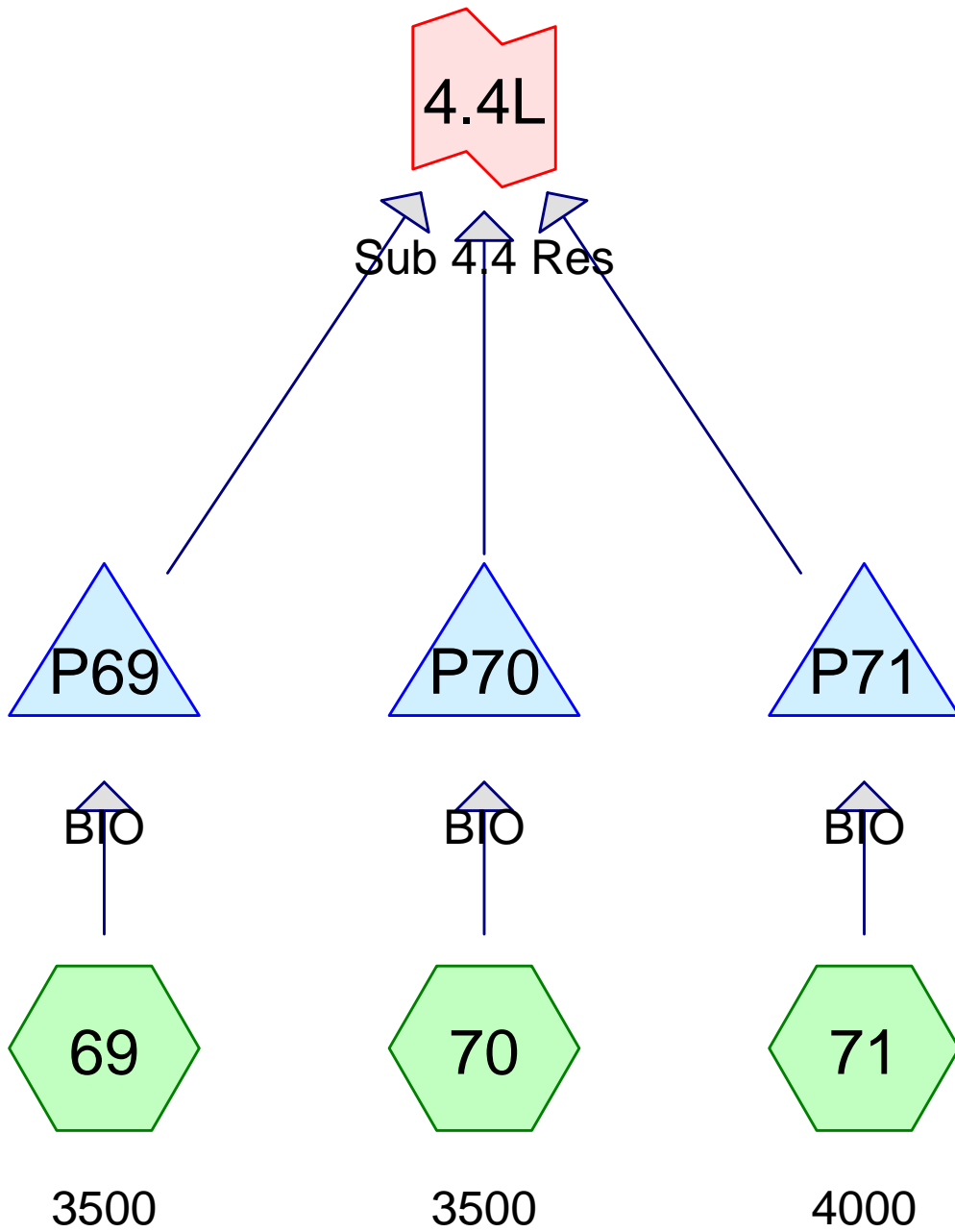
1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 4.3L: Sub 4.3 Res

Inflow Area = 1.377 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 8.31 cfs @ 12.05 hrs, Volume= 0.834 af
 Primary = 8.31 cfs @ 12.05 hrs, Volume= 0.834 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 4.4
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.069	98	Driveway, extra imperv., HSG C (69, 70, 71)
0.184	98	Roofs, HSG C (69, 70, 71)
0.253	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.253	HSG C	69, 70, 71
0.000	HSG D	
0.000	Other	
0.253		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 69: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 70: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 71: 4000 Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.38 cfs 0.021 af

Pond P69: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P70: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P71: BIO Peak Elev=1,686.51' Storage=476 cf Inflow=0.38 cfs 0.021 af
Outflow=0.01 cfs 0.021 af

Link 4.4L: Sub 4.4 Res Inflow=0.03 cfs 0.058 af
Primary=0.03 cfs 0.058 af

Total Runoff Area = 0.253 ac Runoff Volume = 0.058 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.253 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 69: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 70: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 71: 4000

Runoff = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P69: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume = 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af, Atten = 97%, Lag = 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.49' @ 13.65 hrs Surf.Area = 958 sf Storage = 413 cf

Plug-Flow detention time = 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time = 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C = 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max = 0.01 cfs @ 13.65 hrs HW = 1,686.49' (Free Discharge)
 1 = **Orifice/Grate** (Controls 0.00 cfs)
 2 = **Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P70: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume = 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af, Atten = 97%, Lag = 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.49' @ 13.65 hrs Surf.Area = 958 sf Storage = 413 cf

Plug-Flow detention time = 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time = 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 1-Year Rainfall=3.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P71: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af
 Outflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af, Atten= 97%, Lag= 107.8 min
 Primary = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.51' @ 13.76 hrs Surf.Area= 1,042 sf Storage= 476 cf

Plug-Flow detention time= 360.8 min calculated for 0.021 af (100% of inflow)
 Center-of-Mass det. time= 360.8 min (1,114.7 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.76 hrs HW=1,686.51' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 4.4L: Sub 4.4 Res

Inflow Area = 0.253 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.03 cfs @ 13.68 hrs, Volume= 0.058 af
 Primary = 0.03 cfs @ 13.68 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 69: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 70: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 71: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.64 cfs 0.036 af
Pond P69: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P70: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P71: BIO	Peak Elev=1,686.71' Storage=692 cf Inflow=0.64 cfs 0.036 af Outflow=0.20 cfs 0.036 af
Link 4.4L: Sub 4.4 Res	Inflow=0.51 cfs 0.100 af Primary=0.51 cfs 0.100 af

Total Runoff Area = 0.253 ac Runoff Volume = 0.100 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.253 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 69: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 70: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 71: 4000

Runoff = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P69: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume = 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume = 0.032 af, Atten = 72%, Lag = 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume = 0.032 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.69' @ 12.12 hrs Surf.Area = 1,054 sf Storage = 615 cf

Plug-Flow detention time = 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time = 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C = 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max = 0.15 cfs @ 12.12 hrs HW = 1,686.69' (Free Discharge)
 1 = **Orifice/Grate** (Weir Controls 0.14 cfs @ 0.98 fps)
 2 = **Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P70: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume = 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume = 0.032 af, Atten = 72%, Lag = 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume = 0.032 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.69' @ 12.12 hrs Surf.Area = 1,054 sf Storage = 615 cf

Plug-Flow detention time = 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time = 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 10-Year Rainfall=5.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P71: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af
 Outflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.71' @ 12.11 hrs Surf.Area= 1,126 sf Storage= 692 cf

Plug-Flow detention time= 340.5 min calculated for 0.036 af (100% of inflow)
 Center-of-Mass det. time= 340.7 min (1,084.6 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.19 cfs @ 12.11 hrs HW=1,686.71' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.18 cfs @ 1.07 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 4.4L: Sub 4.4 Res

Inflow Area = 0.253 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.51 cfs @ 12.11 hrs, Volume= 0.100 af
 Primary = 0.51 cfs @ 12.11 hrs, Volume= 0.100 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 69: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 70: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 71: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.96 cfs 0.056 af
Pond P69: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P70: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P71: BIO	Peak Elev=1,686.89' Storage=904 cf Inflow=0.96 cfs 0.056 af Outflow=0.52 cfs 0.056 af
Link 4.4L: Sub 4.4 Res	Inflow=1.50 cfs 0.153 af Primary=1.50 cfs 0.153 af

Total Runoff Area = 0.253 ac Runoff Volume = 0.153 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.253 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 69: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 70: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 71: 4000

Runoff = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P69: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)
 1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P70: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 100-Year Rainfall=7.50"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P71: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af
 Outflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af, Atten= 45%, Lag= 5.8 min
 Primary = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.06 hrs Surf.Area= 1,204 sf Storage= 904 cf

Plug-Flow detention time= 266.2 min calculated for 0.056 af (100% of inflow)
 Center-of-Mass det. time= 267.0 min (1,004.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.06 hrs HW=1,686.89' (Free Discharge)

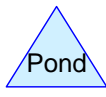
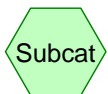
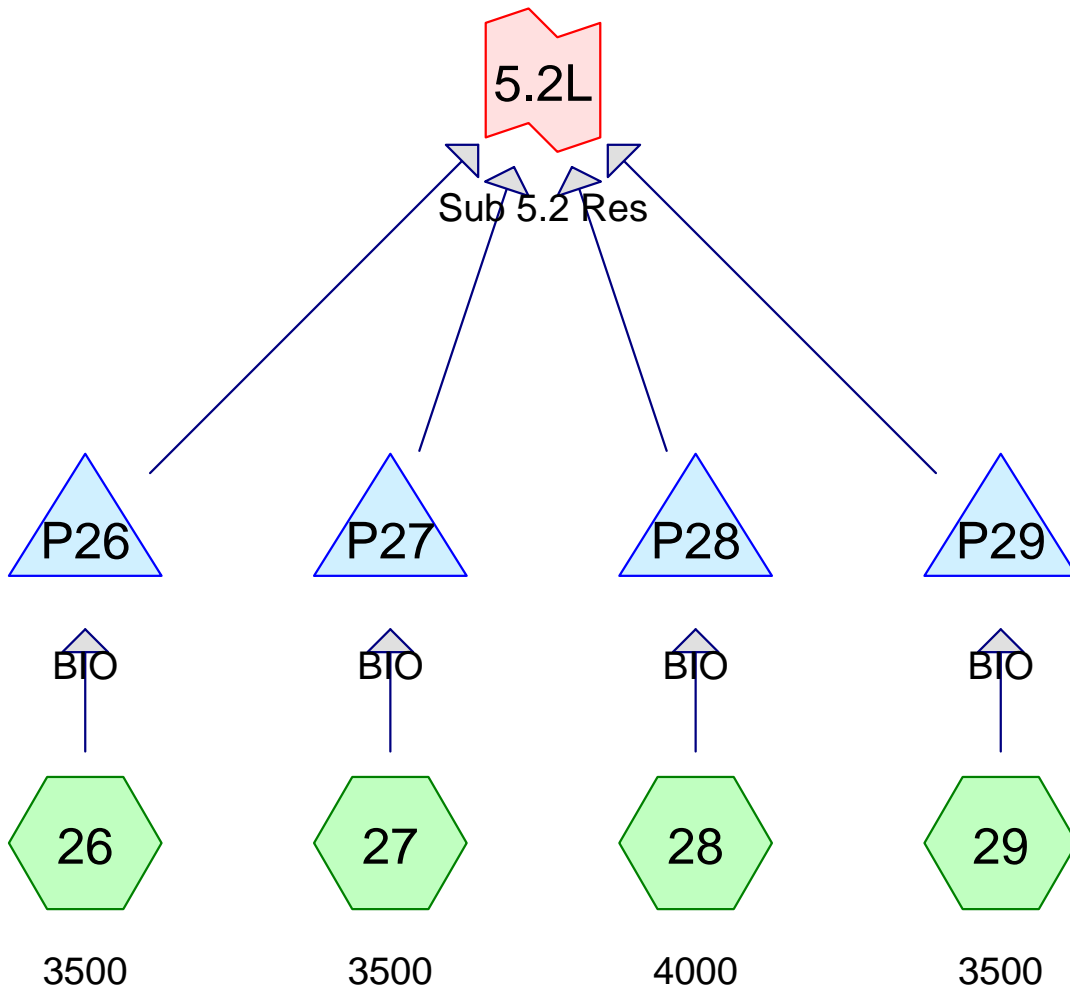
1=Orifice/Grate (Orifice Controls 0.51 cfs @ 2.59 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 4.4L: Sub 4.4 Res

Inflow Area = 0.253 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.50 cfs @ 12.05 hrs, Volume= 0.153 af
 Primary = 1.50 cfs @ 12.05 hrs, Volume= 0.153 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 5.2
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.092	98	Driveway, extra imperv., HSG C (26, 27, 28, 29)
0.241	98	Roofs, HSG C (26, 27, 28, 29)
0.333	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.333	HSG C	26, 27, 28, 29
0.000	HSG D	
0.000	Other	
0.333		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 26: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 27: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 28: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.38 cfs 0.021 af
Subcatchment 29: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Pond P26: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P27: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P28: BIO	Peak Elev=1,686.51' Storage=476 cf Inflow=0.38 cfs 0.021 af Outflow=0.01 cfs 0.021 af
Pond P29: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Link 5.2L: Sub 5.2 Res	Inflow=0.05 cfs 0.077 af Primary=0.05 cfs 0.077 af

Total Runoff Area = 0.333 ac Runoff Volume = 0.077 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.333 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 26: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 27: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 28: 4000

Runoff = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 29: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P26: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P27: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P28: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af
 Outflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af, Atten= 97%, Lag= 107.8 min
 Primary = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.51' @ 13.76 hrs Surf.Area= 1,042 sf Storage= 476 cf

Plug-Flow detention time= 360.8 min calculated for 0.021 af (100% of inflow)
 Center-of-Mass det. time= 360.8 min (1,114.7 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.76 hrs HW=1,686.51' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P29: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 5.2L: Sub 5.2 Res

Inflow Area = 0.333 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.05 cfs @ 13.67 hrs, Volume= 0.077 af
 Primary = 0.05 cfs @ 13.67 hrs, Volume= 0.077 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 26: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 27: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 28: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.64 cfs 0.036 af
Subcatchment 29: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Pond P26: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P27: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P28: BIO	Peak Elev=1,686.71' Storage=692 cf Inflow=0.64 cfs 0.036 af Outflow=0.20 cfs 0.036 af
Pond P29: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Link 5.2L: Sub 5.2 Res	Inflow=0.66 cfs 0.132 af Primary=0.66 cfs 0.132 af

Total Runoff Area = 0.333 ac Runoff Volume = 0.132 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.333 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 26: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 27: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 28: 4000

Runoff = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 29: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P26: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

- 1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P27: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P28: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af
 Outflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.71' @ 12.11 hrs Surf.Area= 1,126 sf Storage= 692 cf

Plug-Flow detention time= 340.5 min calculated for 0.036 af (100% of inflow)
 Center-of-Mass det. time= 340.7 min (1,084.6 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.19 cfs @ 12.11 hrs HW=1,686.71' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.18 cfs @ 1.07 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P29: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 5.2L: Sub 5.2 Res

Inflow Area = 0.333 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.66 cfs @ 12.11 hrs, Volume= 0.132 af
 Primary = 0.66 cfs @ 12.11 hrs, Volume= 0.132 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 26: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 27: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 28: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.96 cfs 0.056 af
Subcatchment 29: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Pond P26: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P27: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P28: BIO	Peak Elev=1,686.89' Storage=904 cf Inflow=0.96 cfs 0.056 af Outflow=0.52 cfs 0.056 af
Pond P29: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Link 5.2L: Sub 5.2 Res	Inflow=1.98 cfs 0.201 af Primary=1.98 cfs 0.201 af

Total Runoff Area = 0.333 ac Runoff Volume = 0.201 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.333 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 26: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 27: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 28: 4000

Runoff = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 29: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P26: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

- 1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Pond P27: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P28: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af
 Outflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af, Atten= 45%, Lag= 5.8 min
 Primary = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.06 hrs Surf.Area= 1,204 sf Storage= 904 cf

Plug-Flow detention time= 266.2 min calculated for 0.056 af (100% of inflow)
 Center-of-Mass det. time= 267.0 min (1,004.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

08077_Sub 5.2

Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.06 hrs HW=1,686.89' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.51 cfs @ 2.59 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P29: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

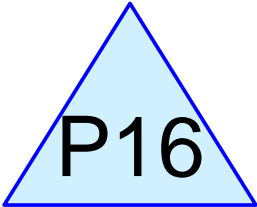
Summary for Link 5.2L: Sub 5.2 Res

Inflow Area = 0.333 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.98 cfs @ 12.05 hrs, Volume= 0.201 af
 Primary = 1.98 cfs @ 12.05 hrs, Volume= 0.201 af, Atten= 0%, Lag= 0.0 min

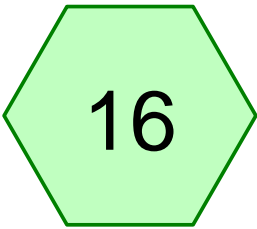
Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



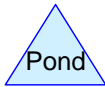
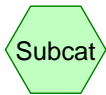
Sub 8.1 Res



BIO



3500



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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.023	98	Driveway, extra imperv., HSG C (16)
0.057	98	Roofs, HSG C (16)
0.080	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.080	HSG C	16
0.000	HSG D	
0.000	Other	
0.080		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 16: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Pond P16: BIO

Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Link 8.1L: Sub 8.1 Res

Inflow=0.01 cfs 0.019 af
Primary=0.01 cfs 0.019 af

Total Runoff Area = 0.080 ac Runoff Volume = 0.019 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.080 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 16: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P16: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 8.1L: Sub 8.1 Res

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af
Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 16: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Pond P16: BIO

Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Link 8.1L: Sub 8.1 Res

Inflow=0.15 cfs 0.032 af
Primary=0.15 cfs 0.032 af

Total Runoff Area = 0.080 ac Runoff Volume = 0.032 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.080 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 16: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P16: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 8.1L: Sub 8.1 Res

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af
Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 16: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Pond P16: BIO

Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Link 8.1L: Sub 8.1 Res

Inflow=0.49 cfs 0.049 af
Primary=0.49 cfs 0.049 af

Total Runoff Area = 0.080 ac Runoff Volume = 0.049 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.080 ac

08077_Sub 8.1

Summary for Subcatchment 16: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P16: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

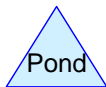
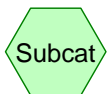
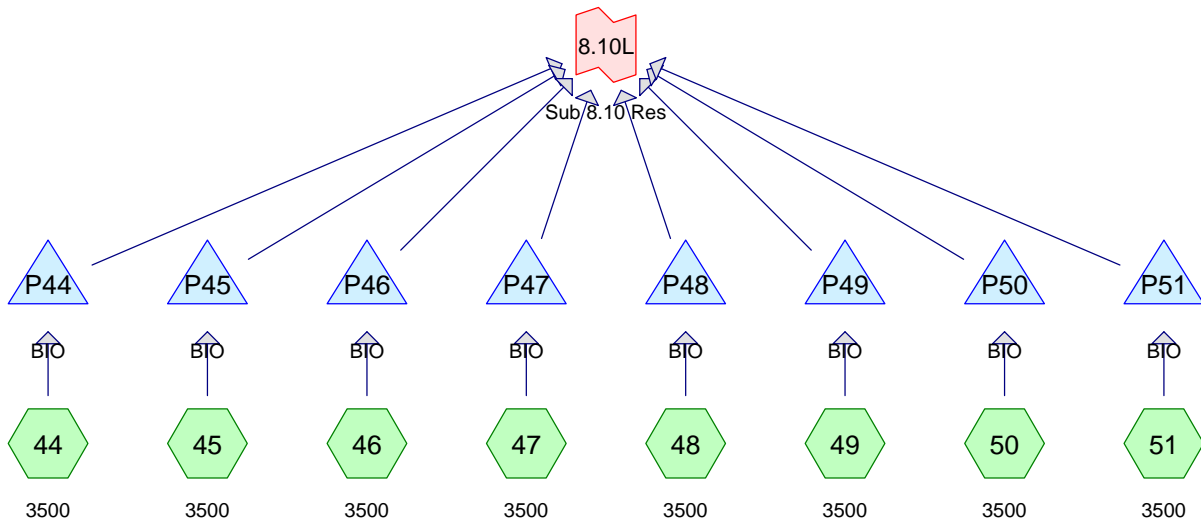
Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

- 1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 8.1L: Sub 8.1 Res

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af
Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 8.10
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.184	98	Driveway, extra imperv., HSG C (44, 45, 46, 47, 48, 49, 50, 51)
0.459	98	Roofs, HSG C (44, 45, 46, 47, 48, 49, 50, 51)
0.643	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.643	HSG C	44, 45, 46, 47, 48, 49, 50, 51
0.000	HSG D	
0.000	Other	
0.643		TOTAL AREA

Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 44: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 45: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 46: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 47: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 48: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 49: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 50: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 51: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Pond P44: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P45: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P46: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P47: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P48: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P49: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P50: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P51: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af

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Type II 24-hr 1-Year Rainfall=3.00"

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Link 8.10L: Sub 8.10 Res

Inflow=0.09 cfs 0.148 af

Primary=0.09 cfs 0.148 af

Total Runoff Area = 0.643 ac Runoff Volume = 0.148 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.643 ac

Summary for Subcatchment 44: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 45: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 46: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 47: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 48: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 49: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

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Type II 24-hr 1-Year Rainfall=3.00"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 50: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 51: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P44: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P45: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

1=Orifice/Grate (Controls 0.00 cfs)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P46: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)

Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

1=Orifice/Grate (Controls 0.00 cfs)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P47: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)

Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

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Type II 24-hr 1-Year Rainfall=3.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- ↑1=Orifice/Grate (Controls 0.00 cfs)
- ↓2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P48: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- ↑1=Orifice/Grate (Controls 0.00 cfs)
- ↓2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P49: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P50: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P51: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)

Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 8.10L: Sub 8.10 Res

Inflow Area = 0.643 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.09 cfs @ 13.65 hrs, Volume= 0.148 af
 Primary = 0.09 cfs @ 13.65 hrs, Volume= 0.148 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 44: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 45: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 46: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 47: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 48: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 49: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 50: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 51: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Pond P44: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P45: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P46: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P47: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P48: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P49: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P50: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P51: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af

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Type II 24-hr 10-Year Rainfall=5.00"

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Link 8.10L: Sub 8.10 Res

Inflow=1.24 cfs 0.255 af

Primary=1.24 cfs 0.255 af

Total Runoff Area = 0.643 ac Runoff Volume = 0.255 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.643 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 44: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 45: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 46: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 47: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 48: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 49: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 50: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 51: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P44: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P45: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

↑1=**Orifice/Grate** (Weir Controls 0.14 cfs @ 0.98 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P46: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

↑1=**Orifice/Grate** (Weir Controls 0.14 cfs @ 0.98 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P47: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

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Type II 24-hr 10-Year Rainfall=5.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P48: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Pond P49: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P50: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P51: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 8.10L: Sub 8.10 Res

Inflow Area = 0.643 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 1.24 cfs @ 12.12 hrs, Volume= 0.255 af
 Primary = 1.24 cfs @ 12.12 hrs, Volume= 0.255 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 44: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 45: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 46: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 47: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 48: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 49: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 50: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 51: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Pond P44: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P45: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P46: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P47: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P48: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P49: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P50: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P51: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af

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Type II 24-hr 100-Year Rainfall=7.50"

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Link 8.10L: Sub 8.10 Res

Inflow=3.89 cfs 0.389 af

Primary=3.89 cfs 0.389 af

Total Runoff Area = 0.643 ac Runoff Volume = 0.389 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.643 ac

Summary for Subcatchment 44: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 45: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 46: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 47: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 48: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 49: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

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Type II 24-hr 100-Year Rainfall=7.50"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 50: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 51: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P44: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P45: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

08077_Sub 8.10

Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

↑1=**Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.41 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P46: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

↑1=**Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.41 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P47: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

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Type II 24-hr 100-Year Rainfall=7.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P48: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P49: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P50: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P51: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 8.10L: Sub 8.10 Res

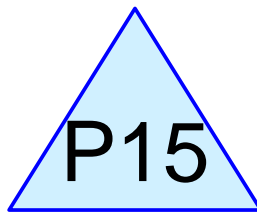
Inflow Area = 0.643 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 3.89 cfs @ 12.05 hrs, Volume= 0.389 af
 Primary = 3.89 cfs @ 12.05 hrs, Volume= 0.389 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



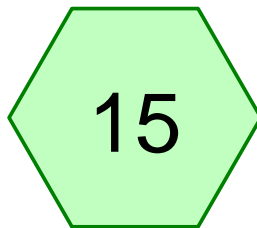
8.11L

Sub 8.11 Res



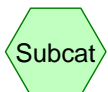
P15

BIO



15

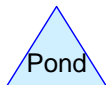
3500



Subcat



Reach



Pond



Link

Routing Diagram for 08077_Sub 8.11

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.023	98	Driveway, extra imperv., HSG C (15)
0.057	98	Roofs, HSG C (15)
0.080	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.080	HSG C	15
0.000	HSG D	
0.000	Other	
0.080		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 15: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Pond P15: BIO

Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Link 8.11L: Sub 8.11 Res

Inflow=0.01 cfs 0.019 af
Primary=0.01 cfs 0.019 af

Total Runoff Area = 0.080 ac Runoff Volume = 0.019 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.080 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 15: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P15: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 8.11L: Sub 8.11 Res

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af
Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 15: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Pond P15: BIO

Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Link 8.11L: Sub 8.11 Res

Inflow=0.15 cfs 0.032 af
Primary=0.15 cfs 0.032 af

Total Runoff Area = 0.080 ac Runoff Volume = 0.032 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.080 ac

Summary for Subcatchment 15: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P15: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 8.11L: Sub 8.11 Res

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af
Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 15: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Pond P15: BIO

Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Link 8.11L: Sub 8.11 Res

Inflow=0.49 cfs 0.049 af
Primary=0.49 cfs 0.049 af

Total Runoff Area = 0.080 ac Runoff Volume = 0.049 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.080 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 15: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P15: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

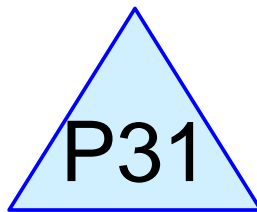
Summary for Link 8.11L: Sub 8.11 Res

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af
Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min

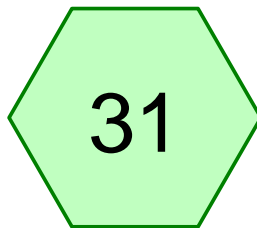
Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



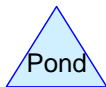
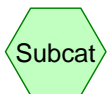
Sub 8.15 Res



BIO



3500



08077_Sub 8.15

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.023	98	Driveway, extra imperv., HSG C (31)
0.057	98	Roofs, HSG C (31)
0.080	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.080	HSG C	31
0.000	HSG D	
0.000	Other	
0.080		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 31: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Pond P31: BIO

Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Link 8.15L: Sub 8.15 Res

Inflow=0.01 cfs 0.019 af
Primary=0.01 cfs 0.019 af

Total Runoff Area = 0.080 ac Runoff Volume = 0.019 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.080 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 31: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P31: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 8.15L: Sub 8.15 Res

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af
Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 31: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Pond P31: BIO

Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Link 8.15L: Sub 8.15 Res

Inflow=0.15 cfs 0.032 af
Primary=0.15 cfs 0.032 af

Total Runoff Area = 0.080 ac Runoff Volume = 0.032 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.080 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 31: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P31: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 8.15L: Sub 8.15 Res

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af
Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 31: 3500

Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Pond P31: BIO

Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Link 8.15L: Sub 8.15 Res

Inflow=0.49 cfs 0.049 af
Primary=0.49 cfs 0.049 af

Total Runoff Area = 0.080 ac Runoff Volume = 0.049 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.080 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 31: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P31: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

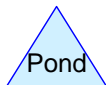
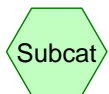
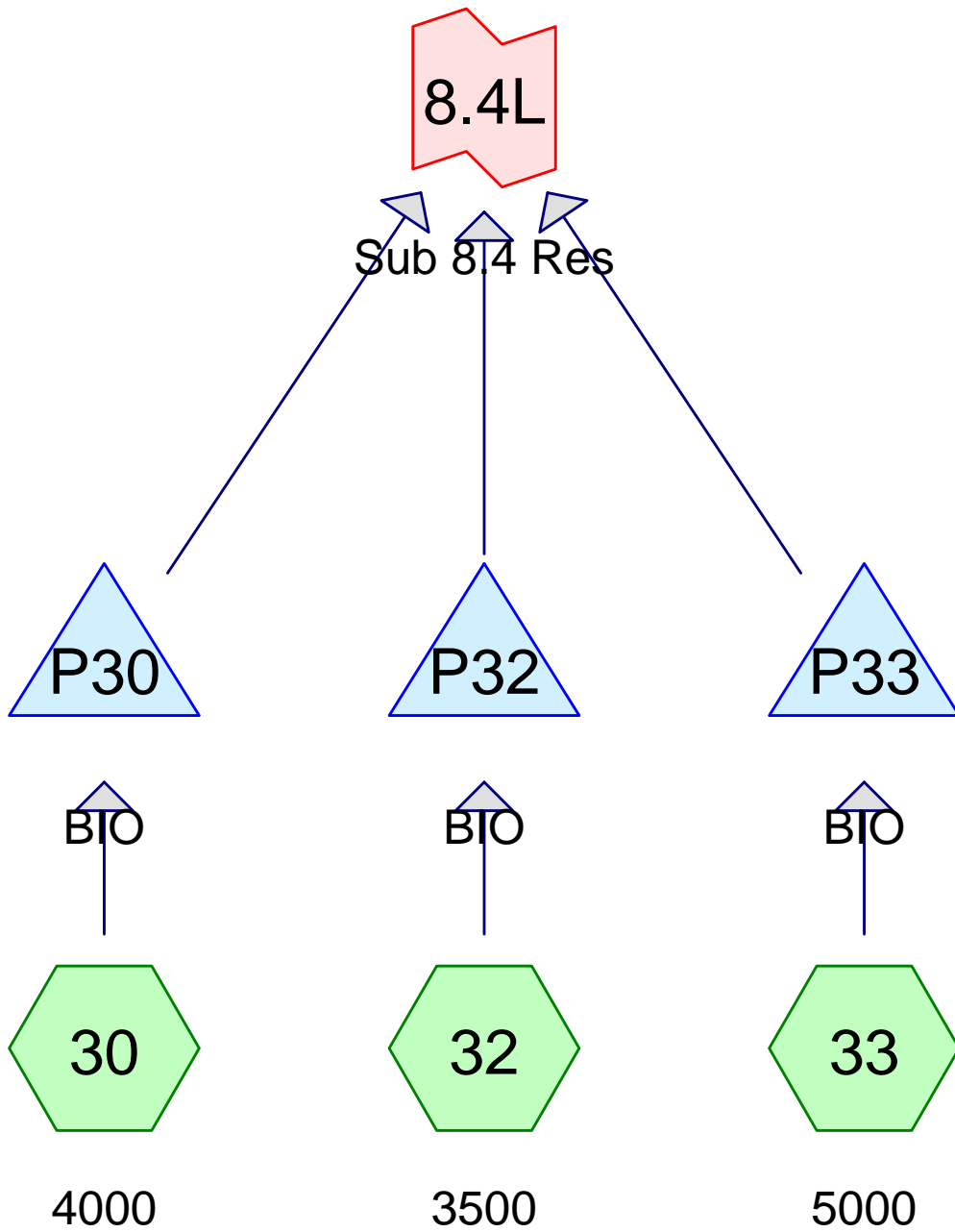
1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 8.15L: Sub 8.15 Res

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af
Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 8.4
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.069	98	Driveway, extra imperv., HSG C (30, 32, 33)
0.218	98	Roofs, HSG C (30, 32, 33)
0.287	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.287	HSG C	30, 32, 33
0.000	HSG D	
0.000	Other	
0.287		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 30: 4000 Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.38 cfs 0.021 af

Subcatchment 32: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 33: 5000 Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.47 cfs 0.026 af

Pond P30: BIO Peak Elev=1,686.51' Storage=476 cf Inflow=0.38 cfs 0.021 af
Outflow=0.01 cfs 0.021 af

Pond P32: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P33: BIO Peak Elev=1,686.53' Storage=606 cf Inflow=0.47 cfs 0.026 af
Outflow=0.01 cfs 0.026 af

Link 8.4L: Sub 8.4 Res Inflow=0.04 cfs 0.066 af
Primary=0.04 cfs 0.066 af

Total Runoff Area = 0.287 ac Runoff Volume = 0.066 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.287 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 30: 4000

Runoff = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 32: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 33: 5000

Runoff = 0.47 cfs @ 11.96 hrs, Volume= 0.026 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P30: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af
 Outflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af, Atten= 97%, Lag= 107.8 min
 Primary = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.51' @ 13.76 hrs Surf.Area= 1,042 sf Storage= 476 cf

Plug-Flow detention time= 360.8 min calculated for 0.021 af (100% of inflow)
 Center-of-Mass det. time= 360.8 min (1,114.7 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.76 hrs HW=1,686.51' (Free Discharge)
 1=Orifice/Grate (Controls 0.00 cfs)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P32: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 1-Year Rainfall=3.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P33: BIO

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.47 cfs @ 11.96 hrs, Volume= 0.026 af
 Outflow = 0.01 cfs @ 13.79 hrs, Volume= 0.026 af, Atten= 97%, Lag= 109.9 min
 Primary = 0.01 cfs @ 13.79 hrs, Volume= 0.026 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.53' @ 13.79 hrs Surf.Area= 1,281 sf Storage= 606 cf

Plug-Flow detention time= 378.6 min calculated for 0.026 af (100% of inflow)
 Center-of-Mass det. time= 378.7 min (1,132.6 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.79 hrs HW=1,686.53' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 8.4L: Sub 8.4 Res

Inflow Area = 0.287 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.04 cfs @ 13.74 hrs, Volume= 0.066 af
 Primary = 0.04 cfs @ 13.74 hrs, Volume= 0.066 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 30: 4000	Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.64 cfs 0.036 af
Subcatchment 32: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 33: 5000	Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.79 cfs 0.046 af
Pond P30: BIO	Peak Elev=1,686.71' Storage=692 cf Inflow=0.64 cfs 0.036 af Outflow=0.20 cfs 0.036 af
Pond P32: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P33: BIO	Peak Elev=1,686.73' Storage=873 cf Inflow=0.79 cfs 0.046 af Outflow=0.25 cfs 0.046 af
Link 8.4L: Sub 8.4 Res	Inflow=0.60 cfs 0.114 af Primary=0.60 cfs 0.114 af

Total Runoff Area = 0.287 ac Runoff Volume = 0.114 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.287 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 30: 4000

Runoff = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 32: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 33: 5000

Runoff = 0.79 cfs @ 11.96 hrs, Volume= 0.046 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P30: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af
 Outflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.71' @ 12.11 hrs Surf.Area= 1,126 sf Storage= 692 cf

Plug-Flow detention time= 340.5 min calculated for 0.036 af (100% of inflow)
 Center-of-Mass det. time= 340.7 min (1,084.6 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.19 cfs @ 12.11 hrs HW=1,686.71' (Free Discharge)
 1=Orifice/Grate (Weir Controls 0.18 cfs @ 1.07 fps)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P32: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 10-Year Rainfall=5.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P33: BIO

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.79 cfs @ 11.96 hrs, Volume= 0.046 af
 Outflow = 0.25 cfs @ 12.11 hrs, Volume= 0.046 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.25 cfs @ 12.11 hrs, Volume= 0.046 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.73' @ 12.11 hrs Surf.Area= 1,379 sf Storage= 873 cf

Plug-Flow detention time= 340.8 min calculated for 0.046 af (100% of inflow)
 Center-of-Mass det. time= 341.2 min (1,085.1 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.24 cfs @ 12.11 hrs HW=1,686.72' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.23 cfs @ 1.15 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 8.4L: Sub 8.4 Res

Inflow Area = 0.287 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.60 cfs @ 12.11 hrs, Volume= 0.114 af
 Primary = 0.60 cfs @ 12.11 hrs, Volume= 0.114 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 30: 4000 Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.96 cfs 0.056 af

Subcatchment 32: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 33: 5000 Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=1.20 cfs 0.069 af

Pond P30: BIO Peak Elev=1,686.89' Storage=904 cf Inflow=0.96 cfs 0.056 af
Outflow=0.52 cfs 0.056 af

Pond P32: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P33: BIO Peak Elev=1,686.94' Storage=1,179 cf Inflow=1.20 cfs 0.069 af
Outflow=0.57 cfs 0.069 af

Link 8.4L: Sub 8.4 Res Inflow=1.58 cfs 0.174 af
Primary=1.58 cfs 0.174 af

Total Runoff Area = 0.287 ac Runoff Volume = 0.174 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.287 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 30: 4000

Runoff = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 32: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 33: 5000

Runoff = 1.20 cfs @ 11.96 hrs, Volume= 0.069 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
4,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
5,000	98	Weighted Average
5,000		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P30: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af
 Outflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af, Atten= 45%, Lag= 5.8 min
 Primary = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.06 hrs Surf.Area= 1,204 sf Storage= 904 cf

Plug-Flow detention time= 266.2 min calculated for 0.056 af (100% of inflow)
 Center-of-Mass det. time= 267.0 min (1,004.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.06 hrs HW=1,686.89' (Free Discharge)
 1=Orifice/Grate (Orifice Controls 0.51 cfs @ 2.59 fps)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P32: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 100-Year Rainfall=7.50"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P33: BIO

Inflow Area = 0.115 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.20 cfs @ 11.96 hrs, Volume= 0.069 af
 Outflow = 0.57 cfs @ 12.07 hrs, Volume= 0.069 af, Atten= 52%, Lag= 6.4 min
 Primary = 0.57 cfs @ 12.07 hrs, Volume= 0.069 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.94' @ 12.07 hrs Surf.Area= 1,483 sf Storage= 1,179 cf

Plug-Flow detention time= 267.8 min calculated for 0.069 af (100% of inflow)
 Center-of-Mass det. time= 267.9 min (1,005.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,025 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,025	0	0
1,688.00	2,000	3,025	3,025

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.56 cfs @ 12.07 hrs HW=1,686.93' (Free Discharge)

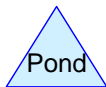
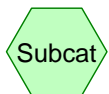
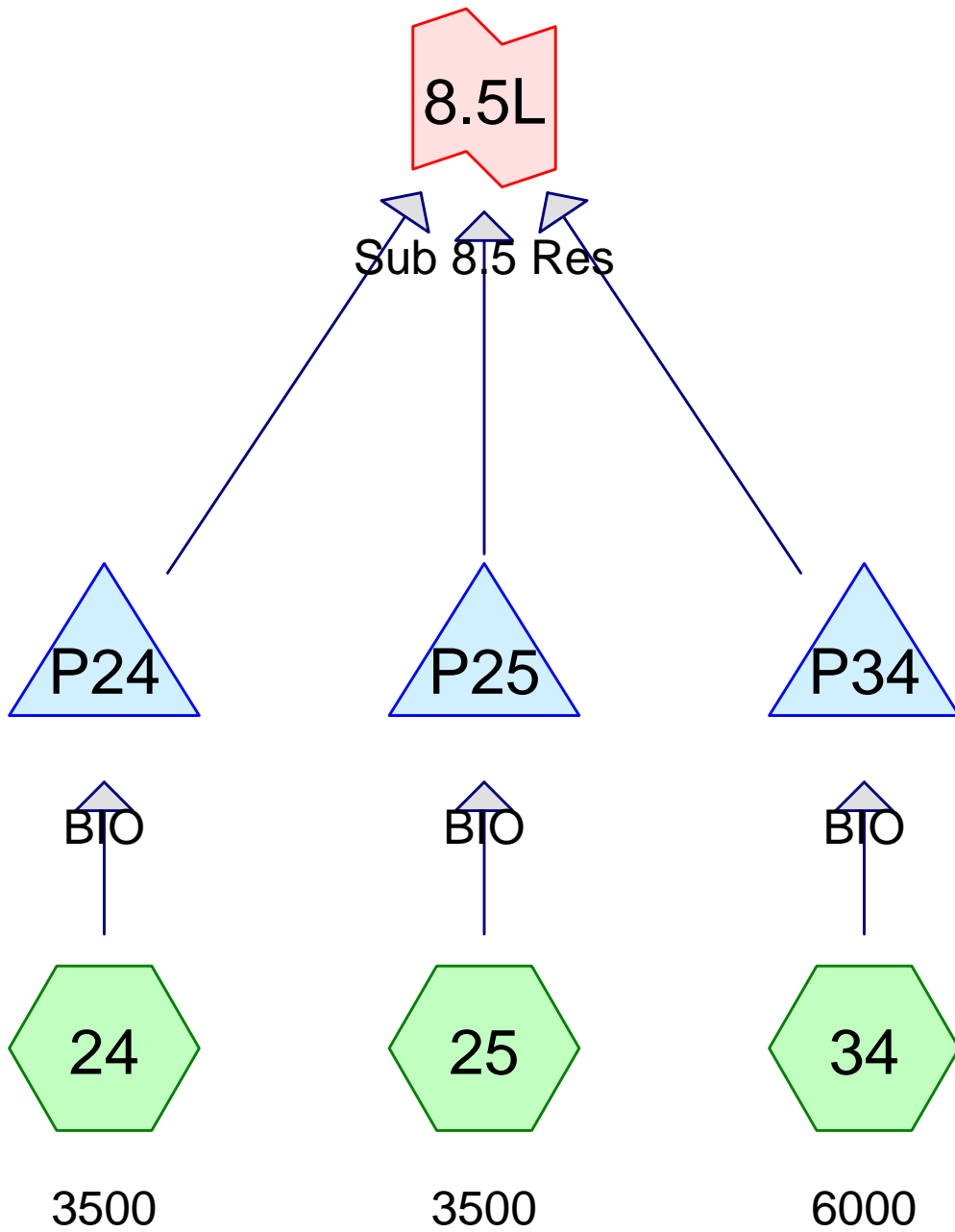
1=Orifice/Grate (Orifice Controls 0.55 cfs @ 2.78 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 8.4L: Sub 8.4 Res

Inflow Area = 0.287 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.58 cfs @ 12.06 hrs, Volume= 0.174 af
 Primary = 1.58 cfs @ 12.06 hrs, Volume= 0.174 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 8.5
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.069	98	Driveway, extra imperv., HSG C (24, 25, 34)
0.230	98	Roofs, HSG C (24, 25, 34)
0.298	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.298	HSG C	24, 25, 34
0.000	HSG D	
0.000	Other	
0.298		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 24: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 25: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 34: 6000	Runoff Area=6,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.57 cfs 0.032 af
Pond P24: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P25: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P34: BIO	Peak Elev=1,686.56' Storage=739 cf Inflow=0.57 cfs 0.032 af Outflow=0.02 cfs 0.032 af
Link 8.5L: Sub 8.5 Res	Inflow=0.04 cfs 0.069 af Primary=0.04 cfs 0.069 af

Total Runoff Area = 0.298 ac Runoff Volume = 0.069 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.298 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 24: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 25: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 34: 6000

Runoff = 0.57 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
5,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
6,000	98	Weighted Average
6,000		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P24: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume = 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af, Atten = 97%, Lag = 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.49' @ 13.65 hrs Surf.Area = 958 sf Storage = 413 cf

Plug-Flow detention time = 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time = 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C = 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max = 0.01 cfs @ 13.65 hrs HW = 1,686.49' (Free Discharge)
 1 = **Orifice/Grate** (Controls 0.00 cfs)
 2 = **Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P25: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume = 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af, Atten = 97%, Lag = 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.49' @ 13.65 hrs Surf.Area = 958 sf Storage = 413 cf

Plug-Flow detention time = 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time = 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 1-Year Rainfall=3.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P34: BIO

Inflow Area = 0.138 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.57 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.02 cfs @ 13.95 hrs, Volume= 0.032 af, Atten= 97%, Lag= 119.4 min
 Primary = 0.02 cfs @ 13.95 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.56' @ 13.95 hrs Surf.Area= 1,425 sf Storage= 739 cf

Plug-Flow detention time= 412.6 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 412.4 min (1,166.3 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,200 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,200	0	0
1,688.00	2,000	3,200	3,200

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.02 cfs @ 13.95 hrs HW=1,686.56' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 8.5L: Sub 8.5 Res

Inflow Area = 0.298 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.04 cfs @ 13.75 hrs, Volume= 0.069 af
 Primary = 0.04 cfs @ 13.75 hrs, Volume= 0.069 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 24: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 25: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 34: 6000	Runoff Area=6,000 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.95 cfs 0.055 af
Pond P24: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P25: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P34: BIO	Peak Elev=1,686.76' Storage=1,024 cf Inflow=0.95 cfs 0.055 af Outflow=0.34 cfs 0.055 af
Link 8.5L: Sub 8.5 Res	Inflow=0.65 cfs 0.118 af Primary=0.65 cfs 0.118 af

Total Runoff Area = 0.298 ac Runoff Volume = 0.118 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.298 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 24: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 25: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 34: 6000

Runoff = 0.95 cfs @ 11.96 hrs, Volume= 0.055 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
5,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
6,000	98	Weighted Average
6,000		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P24: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume = 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume = 0.032 af, Atten = 72%, Lag = 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume = 0.032 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.69' @ 12.12 hrs Surf.Area = 1,054 sf Storage = 615 cf

Plug-Flow detention time = 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time = 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C = 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max = 0.15 cfs @ 12.12 hrs HW = 1,686.69' (Free Discharge)
 1 = **Orifice/Grate** (Weir Controls 0.14 cfs @ 0.98 fps)
 2 = **Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P25: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume = 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume = 0.032 af, Atten = 72%, Lag = 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume = 0.032 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.69' @ 12.12 hrs Surf.Area = 1,054 sf Storage = 615 cf

Plug-Flow detention time = 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time = 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 10-Year Rainfall=5.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P34: BIO

Inflow Area = 0.138 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.95 cfs @ 11.96 hrs, Volume= 0.055 af
 Outflow = 0.34 cfs @ 12.10 hrs, Volume= 0.055 af, Atten= 64%, Lag= 8.1 min
 Primary = 0.34 cfs @ 12.10 hrs, Volume= 0.055 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.76' @ 12.10 hrs Surf.Area= 1,503 sf Storage= 1,024 cf

Plug-Flow detention time= 334.6 min calculated for 0.055 af (100% of inflow)
 Center-of-Mass det. time= 334.5 min (1,078.4 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,200 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,200	0	0
1,688.00	2,000	3,200	3,200

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.34 cfs @ 12.10 hrs HW=1,686.76' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.32 cfs @ 1.30 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 8.5L: Sub 8.5 Res

Inflow Area = 0.298 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.65 cfs @ 12.11 hrs, Volume= 0.118 af
 Primary = 0.65 cfs @ 12.11 hrs, Volume= 0.118 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 24: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 25: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 34: 6000	Runoff Area=6,000 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=1.43 cfs 0.083 af
Pond P24: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P25: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P34: BIO	Peak Elev=1,687.02' Storage=1,428 cf Inflow=1.43 cfs 0.083 af Outflow=0.63 cfs 0.083 af
Link 8.5L: Sub 8.5 Res	Inflow=1.60 cfs 0.181 af Primary=1.60 cfs 0.181 af

Total Runoff Area = 0.298 ac Runoff Volume = 0.181 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.298 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 24: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 25: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 34: 6000

Runoff = 1.43 cfs @ 11.96 hrs, Volume= 0.083 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
5,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
6,000	98	Weighted Average
6,000		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P24: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)
 1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P25: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 100-Year Rainfall=7.50"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P34: BIO

Inflow Area = 0.138 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.43 cfs @ 11.96 hrs, Volume= 0.083 af
 Outflow = 0.63 cfs @ 12.07 hrs, Volume= 0.083 af, Atten= 56%, Lag= 6.7 min
 Primary = 0.63 cfs @ 12.07 hrs, Volume= 0.083 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,687.02' @ 12.07 hrs Surf.Area= 1,607 sf Storage= 1,428 cf

Plug-Flow detention time= 261.2 min calculated for 0.083 af (100% of inflow)
 Center-of-Mass det. time= 261.6 min (999.4 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	3,200 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	1,200	0	0
1,688.00	2,000	3,200	3,200

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.62 cfs @ 12.07 hrs HW=1,687.01' (Free Discharge)

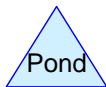
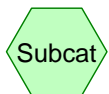
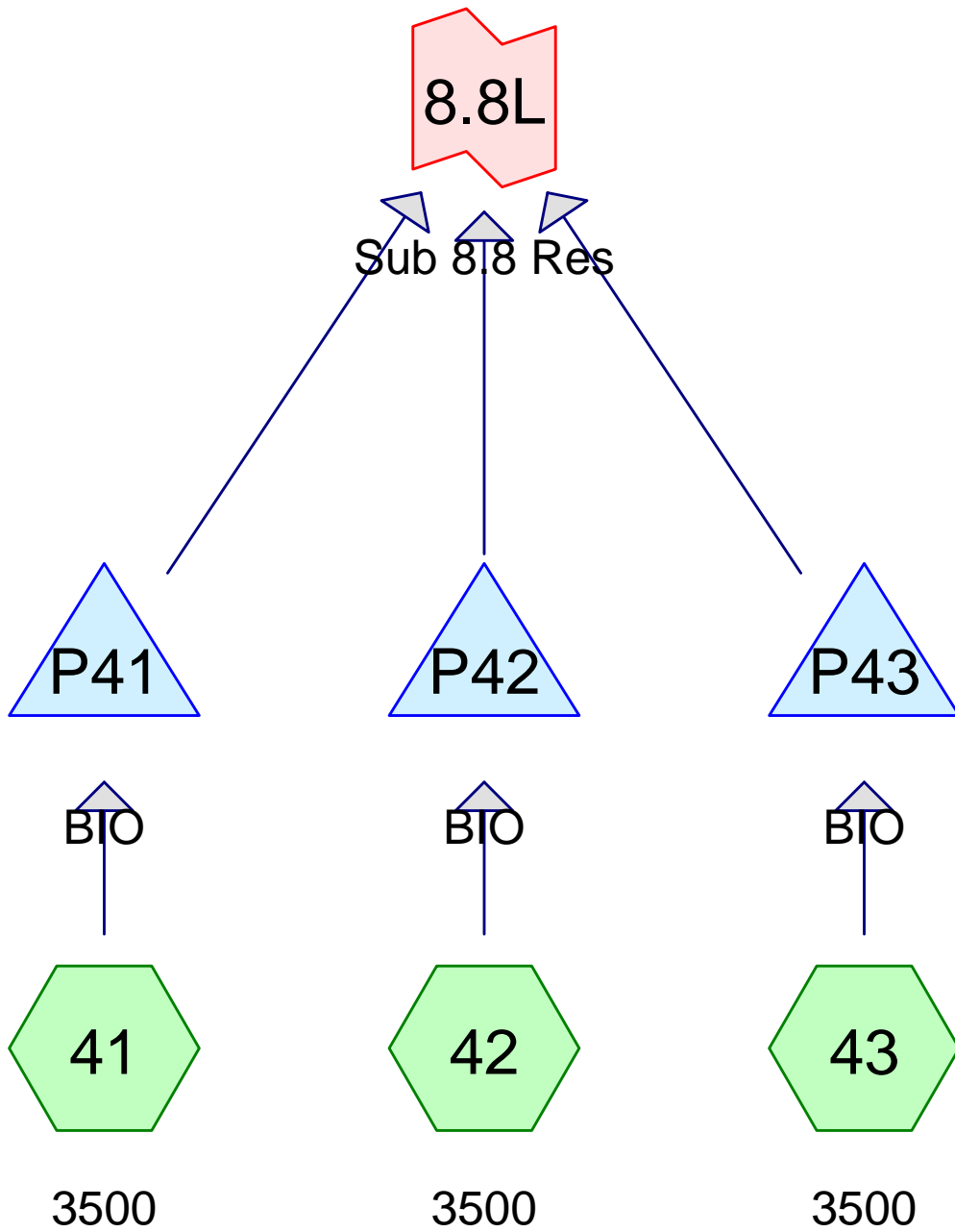
1=Orifice/Grate (Orifice Controls 0.61 cfs @ 3.09 fps)

2=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Link 8.5L: Sub 8.5 Res

Inflow Area = 0.298 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.60 cfs @ 12.06 hrs, Volume= 0.181 af
 Primary = 1.60 cfs @ 12.06 hrs, Volume= 0.181 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 8.8
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.069	98	Driveway, extra imperv., HSG C (41, 42, 43)
0.172	98	Roofs, HSG C (41, 42, 43)
0.241	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.241	HSG C	41, 42, 43
0.000	HSG D	
0.000	Other	
0.241		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 41: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 42: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 43: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Pond P41: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P42: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P43: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Link 8.8L: Sub 8.8 Res Inflow=0.03 cfs 0.056 af
Primary=0.03 cfs 0.056 af

Total Runoff Area = 0.241 ac Runoff Volume = 0.056 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.241 ac

08077_Sub 8.8

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 41: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 42: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 43: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P41: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume = 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af, Atten = 97%, Lag = 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.49' @ 13.65 hrs Surf.Area = 958 sf Storage = 413 cf

Plug-Flow detention time = 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time = 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C = 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max = 0.01 cfs @ 13.65 hrs HW = 1,686.49' (Free Discharge)
 1 = **Orifice/Grate** (Controls 0.00 cfs)
 2 = **Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P42: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume = 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af, Atten = 97%, Lag = 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume = 0.019 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.49' @ 13.65 hrs Surf.Area = 958 sf Storage = 413 cf

Plug-Flow detention time = 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time = 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 1-Year Rainfall=3.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P43: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 8.8L: Sub 8.8 Res

Inflow Area = 0.241 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.03 cfs @ 13.65 hrs, Volume= 0.056 af
 Primary = 0.03 cfs @ 13.65 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 41: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Subcatchment 42: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Subcatchment 43: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Pond P41: BIO Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Pond P42: BIO Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Pond P43: BIO Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Link 8.8L: Sub 8.8 Res Inflow=0.46 cfs 0.096 af
Primary=0.46 cfs 0.096 af

Total Runoff Area = 0.241 ac Runoff Volume = 0.096 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.241 ac

08077_Sub 8.8

Summary for Subcatchment 41: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 42: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 43: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P41: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)
 1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P42: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 10-Year Rainfall=5.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P43: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 8.8L: Sub 8.8 Res

Inflow Area = 0.241 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.46 cfs @ 12.12 hrs, Volume= 0.096 af
 Primary = 0.46 cfs @ 12.12 hrs, Volume= 0.096 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 41: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 42: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 43: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Pond P41: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P42: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P43: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Link 8.8L: Sub 8.8 Res Inflow=1.46 cfs 0.146 af
Primary=1.46 cfs 0.146 af

Total Runoff Area = 0.241 ac Runoff Volume = 0.146 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.241 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 41: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 42: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 43: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P41: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume = 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume = 0.049 af, Atten = 42%, Lag = 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume = 0.049 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.85' @ 12.05 hrs Surf.Area = 1,129 sf Storage = 789 cf

Plug-Flow detention time = 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time = 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C = 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max = 0.49 cfs @ 12.05 hrs HW = 1,686.85' (Free Discharge)
 1 = **Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.41 fps)
 2 = **Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P42: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume = 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume = 0.049 af, Atten = 42%, Lag = 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume = 0.049 af

Routing by Stor-Ind method, Time Span = 0.00-144.00 hrs, dt = 0.05 hrs / 2
 Peak Elev = 1,686.85' @ 12.05 hrs Surf.Area = 1,129 sf Storage = 789 cf

Plug-Flow detention time = 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time = 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 100-Year Rainfall=7.50"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P43: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

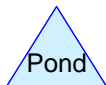
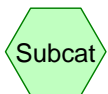
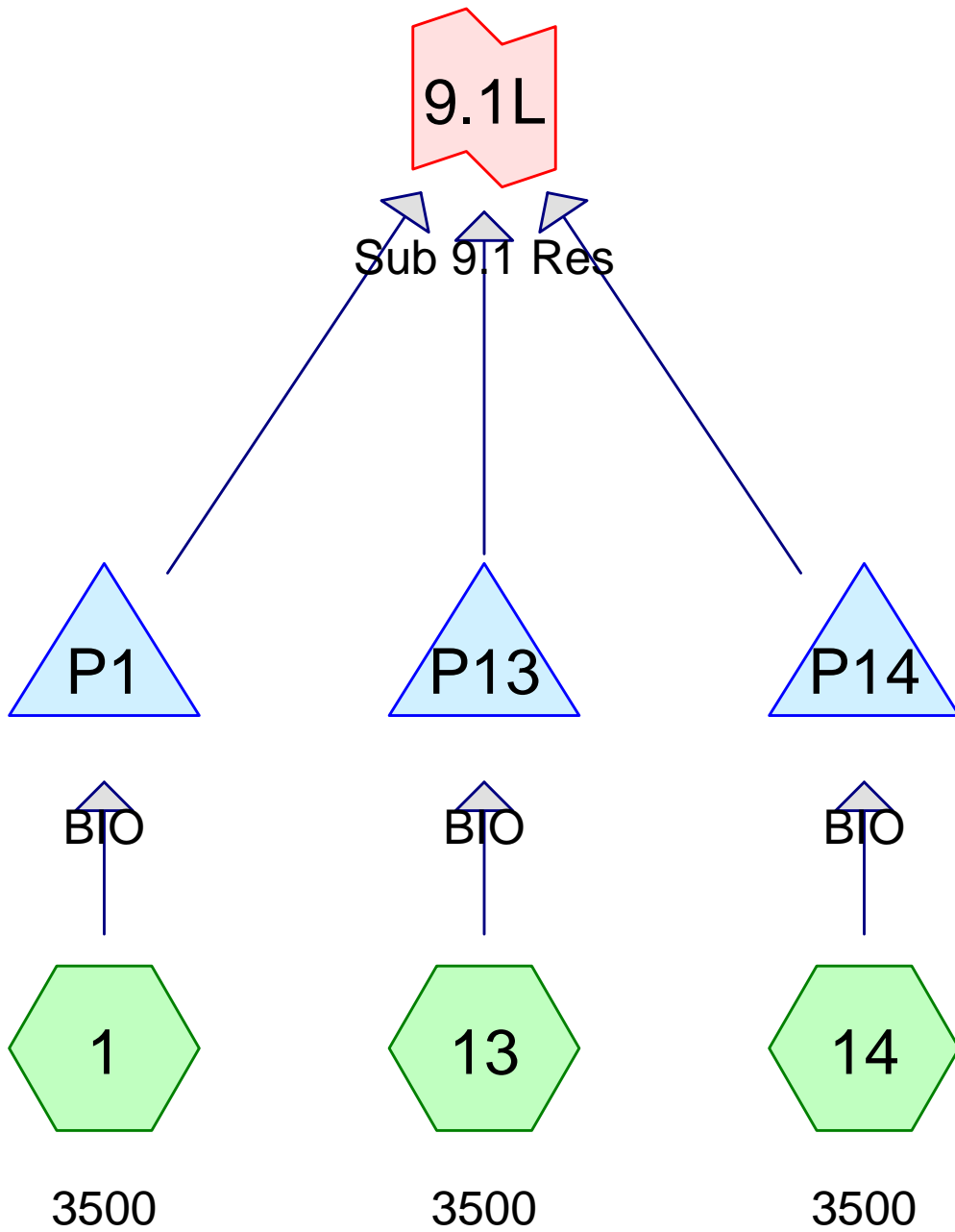
1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 8.8L: Sub 8.8 Res

Inflow Area = 0.241 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.46 cfs @ 12.05 hrs, Volume= 0.146 af
 Primary = 1.46 cfs @ 12.05 hrs, Volume= 0.146 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 9.1
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.069	98	Driveway, extra imperv., HSG C (1, 13, 14)
0.172	98	Roofs, HSG C (1, 13, 14)
0.241	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.241	HSG C	1, 13, 14
0.000	HSG D	
0.000	Other	
0.241		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 13: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 14: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Pond P1: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P13: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P14: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Link 9.1L: Sub 9.1 Res Inflow=0.03 cfs 0.056 af
Primary=0.03 cfs 0.056 af

Total Runoff Area = 0.241 ac Runoff Volume = 0.056 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.241 ac

Summary for Subcatchment 1: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 13: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 14: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P1: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)
 1=Orifice/Grate (Controls 0.00 cfs)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P13: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 1-Year Rainfall=3.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P14: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 9.1L: Sub 9.1 Res

Inflow Area = 0.241 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.03 cfs @ 13.65 hrs, Volume= 0.056 af
 Primary = 0.03 cfs @ 13.65 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Subcatchment 13: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Subcatchment 14: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Pond P1: BIO Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Pond P13: BIO Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Pond P14: BIO Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Link 9.1L: Sub 9.1 Res Inflow=0.46 cfs 0.096 af
Primary=0.46 cfs 0.096 af

Total Runoff Area = 0.241 ac Runoff Volume = 0.096 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.241 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 1: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 13: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 14: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P1: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)
 1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P13: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 10-Year Rainfall=5.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P14: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 9.1L: Sub 9.1 Res

Inflow Area = 0.241 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.46 cfs @ 12.12 hrs, Volume= 0.096 af
 Primary = 0.46 cfs @ 12.12 hrs, Volume= 0.096 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 13: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 14: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Pond P1: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P13: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P14: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Link 9.1L: Sub 9.1 Res Inflow=1.46 cfs 0.146 af
Primary=1.46 cfs 0.146 af

Total Runoff Area = 0.241 ac Runoff Volume = 0.146 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.241 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 1: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 13: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 14: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P1: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)
 1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)
 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P13: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

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Type II 24-hr 100-Year Rainfall=7.50"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P14: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

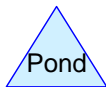
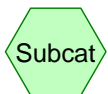
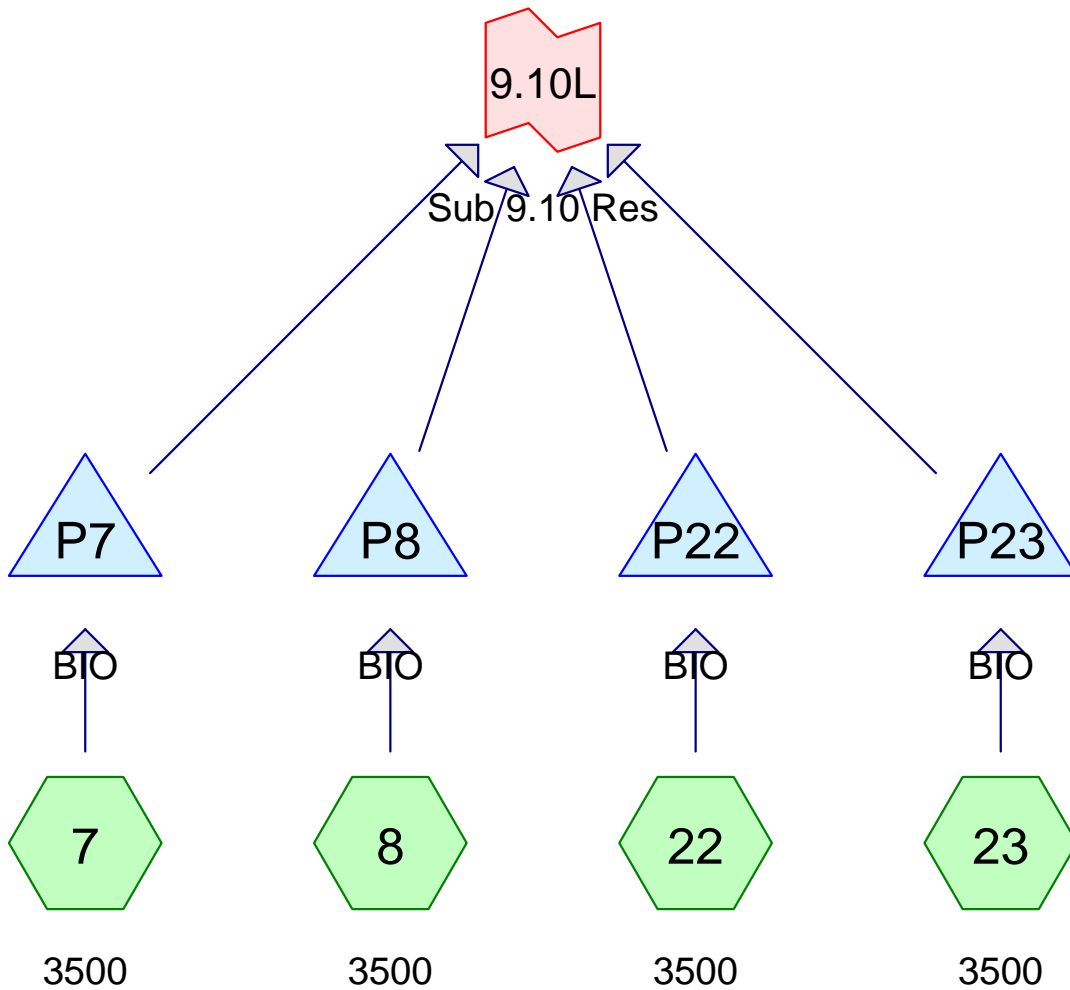
1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 9.1L: Sub 9.1 Res

Inflow Area = 0.241 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.46 cfs @ 12.05 hrs, Volume= 0.146 af
 Primary = 1.46 cfs @ 12.05 hrs, Volume= 0.146 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 9.10
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.092	98	Driveway, extra imperv., HSG C (7, 8, 22, 23)
0.230	98	Roofs, HSG C (7, 8, 22, 23)
0.321	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.321	HSG C	7, 8, 22, 23
0.000	HSG D	
0.000	Other	
0.321		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 7: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 8: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 22: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 23: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Pond P22: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P23: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P7: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P8: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Link 9.10L: Sub 9.10 Res	Inflow=0.04 cfs 0.074 af Primary=0.04 cfs 0.074 af

Total Runoff Area = 0.321 ac Runoff Volume = 0.074 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.321 ac

Summary for Subcatchment 7: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 8: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 22: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 23: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P22: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P23: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P7: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P8: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 9.10L: Sub 9.10 Res

Inflow Area = 0.321 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.04 cfs @ 13.65 hrs, Volume= 0.074 af
 Primary = 0.04 cfs @ 13.65 hrs, Volume= 0.074 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 7: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 8: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 22: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 23: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Pond P22: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P23: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P7: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P8: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Link 9.10L: Sub 9.10 Res	Inflow=0.62 cfs 0.128 af Primary=0.62 cfs 0.128 af

Total Runoff Area = 0.321 ac Runoff Volume = 0.128 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.321 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 7: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 8: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 22: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 23: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P22: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

- 1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P23: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P7: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P8: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 9.10L: Sub 9.10 Res

Inflow Area = 0.321 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.62 cfs @ 12.12 hrs, Volume= 0.128 af
 Primary = 0.62 cfs @ 12.12 hrs, Volume= 0.128 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 7: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 8: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 22: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 23: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Pond P22: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P23: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P7: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P8: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Link 9.10L: Sub 9.10 Res	Inflow=1.95 cfs 0.195 af Primary=1.95 cfs 0.195 af

Total Runoff Area = 0.321 ac Runoff Volume = 0.194 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.321 ac

Summary for Subcatchment 7: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 8: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 22: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 23: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P22: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

- 1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P23: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P7: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

↑1=**Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.41 fps)

↑2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P8: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

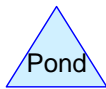
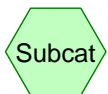
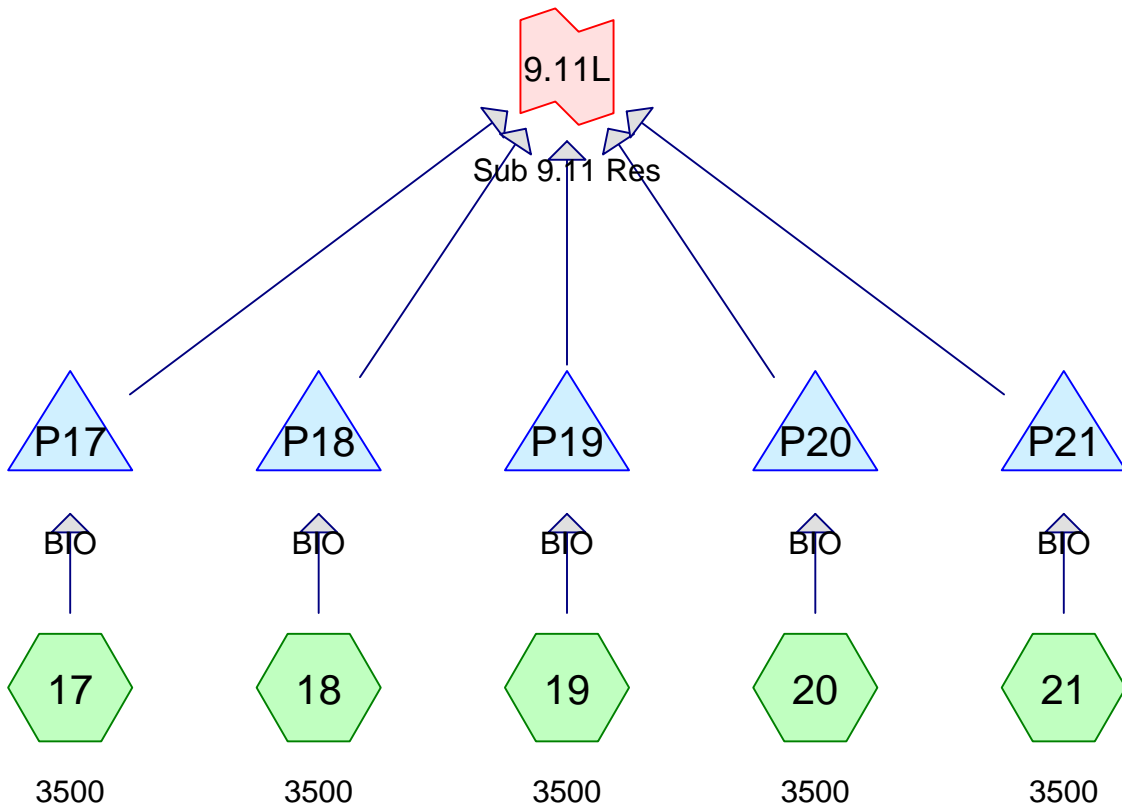
↑1=**Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.41 fps)

↑2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Link 9.10L: Sub 9.10 Res

Inflow Area = 0.321 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 1.95 cfs @ 12.05 hrs, Volume= 0.195 af
 Primary = 1.95 cfs @ 12.05 hrs, Volume= 0.195 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 9.11
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.115	98	Driveway, extra imperv., HSG C (17, 18, 19, 20, 21)
0.287	98	Roofs, HSG C (17, 18, 19, 20, 21)
0.402	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.402	HSG C	17, 18, 19, 20, 21
0.000	HSG D	
0.000	Other	
0.402		TOTAL AREA

Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 17: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 18: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 19: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 20: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Subcatchment 21: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af

Pond P17: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P18: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P19: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P20: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Pond P21: BIO Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af
Outflow=0.01 cfs 0.019 af

Link 9.11L: Sub 9.11 Res Inflow=0.06 cfs 0.093 af
Primary=0.06 cfs 0.093 af

Total Runoff Area = 0.402 ac Runoff Volume = 0.093 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.402 ac

Summary for Subcatchment 17: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 18: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 19: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 20: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 21: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P17: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

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Type II 24-hr 1-Year Rainfall=3.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- ↑1=Orifice/Grate (Controls 0.00 cfs)
- ↓2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P18: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- ↑1=Orifice/Grate (Controls 0.00 cfs)
- ↓2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P19: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P20: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P21: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)

Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 9.11L: Sub 9.11 Res

Inflow Area = 0.402 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.06 cfs @ 13.65 hrs, Volume= 0.093 af
 Primary = 0.06 cfs @ 13.65 hrs, Volume= 0.093 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 17: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Subcatchment 18: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Subcatchment 19: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Subcatchment 20: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Subcatchment 21: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af

Pond P17: BIO Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Pond P18: BIO Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Pond P19: BIO Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Pond P20: BIO Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Pond P21: BIO Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af
Outflow=0.15 cfs 0.032 af

Link 9.11L: Sub 9.11 Res Inflow=0.77 cfs 0.159 af
Primary=0.77 cfs 0.159 af

Total Runoff Area = 0.402 ac Runoff Volume = 0.159 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.402 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 17: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 18: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 19: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 20: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 21: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P17: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

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Type II 24-hr 10-Year Rainfall=5.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P18: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P19: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P20: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P21: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 9.11L: Sub 9.11 Res

Inflow Area = 0.402 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.77 cfs @ 12.12 hrs, Volume= 0.159 af
 Primary = 0.77 cfs @ 12.12 hrs, Volume= 0.159 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 17: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 18: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 19: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 20: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Subcatchment 21: 3500 Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af

Pond P17: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P18: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P19: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P20: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Pond P21: BIO Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af
Outflow=0.49 cfs 0.049 af

Link 9.11L: Sub 9.11 Res Inflow=2.43 cfs 0.243 af
Primary=2.43 cfs 0.243 af

Total Runoff Area = 0.402 ac Runoff Volume = 0.243 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.402 ac

Summary for Subcatchment 17: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 18: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 19: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 20: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 21: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P17: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

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Type II 24-hr 100-Year Rainfall=7.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P18: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P19: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P20: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P21: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

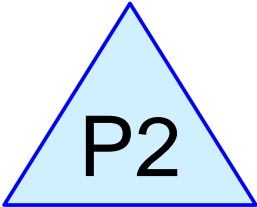
Summary for Link 9.11L: Sub 9.11 Res

Inflow Area = 0.402 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 2.43 cfs @ 12.05 hrs, Volume= 0.243 af
 Primary = 2.43 cfs @ 12.05 hrs, Volume= 0.243 af, Atten= 0%, Lag= 0.0 min

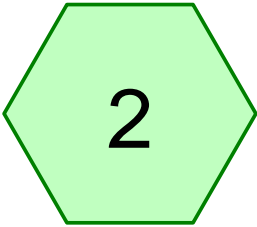
Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



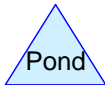
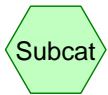
Sub 9.5 Res



BIO



4000



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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.023	98	Driveway, extra imperv., HSG C (2)
0.069	98	Roofs, HSG C (2)
0.092	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.092	HSG C	2
0.000	HSG D	
0.000	Other	
0.092		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 2: 4000

Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=2.77"

Tc=6.0 min CN=98 Runoff=0.38 cfs 0.021 af

Pond P2: BIO

Peak Elev=1,686.51' Storage=476 cf Inflow=0.38 cfs 0.021 af

Outflow=0.01 cfs 0.021 af

Link 9.5L: Sub 9.5 Res

Inflow=0.01 cfs 0.021 af

Primary=0.01 cfs 0.021 af

Total Runoff Area = 0.092 ac Runoff Volume = 0.021 af Average Runoff Depth = 2.77"

0.00% Pervious = 0.000 ac 100.00% Impervious = 0.092 ac

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Subcatchment 2: 4000

Runoff = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P2: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.38 cfs @ 11.96 hrs, Volume= 0.021 af
 Outflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af, Atten= 97%, Lag= 107.8 min
 Primary = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.51' @ 13.76 hrs Surf.Area= 1,042 sf Storage= 476 cf

Plug-Flow detention time= 360.8 min calculated for 0.021 af (100% of inflow)
 Center-of-Mass det. time= 360.8 min (1,114.7 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.76 hrs HW=1,686.51' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 9.5L: Sub 9.5 Res

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
Inflow = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af
Primary = 0.01 cfs @ 13.76 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 2: 4000

Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=98 Runoff=0.64 cfs 0.036 af

Pond P2: BIO

Peak Elev=1,686.71' Storage=692 cf Inflow=0.64 cfs 0.036 af
Outflow=0.20 cfs 0.036 af

Link 9.5L: Sub 9.5 Res

Inflow=0.20 cfs 0.036 af
Primary=0.20 cfs 0.036 af

Total Runoff Area = 0.092 ac Runoff Volume = 0.036 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.092 ac

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 2: 4000

Runoff = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P2: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.64 cfs @ 11.96 hrs, Volume= 0.036 af
 Outflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af, Atten= 69%, Lag= 8.8 min
 Primary = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.71' @ 12.11 hrs Surf.Area= 1,126 sf Storage= 692 cf

Plug-Flow detention time= 340.5 min calculated for 0.036 af (100% of inflow)
 Center-of-Mass det. time= 340.7 min (1,084.6 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.19 cfs @ 12.11 hrs HW=1,686.71' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.18 cfs @ 1.07 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 9.5L: Sub 9.5 Res

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af
Primary = 0.20 cfs @ 12.11 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 2: 4000

Runoff Area=4,000 sf 100.00% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=98 Runoff=0.96 cfs 0.056 af

Pond P2: BIO

Peak Elev=1,686.89' Storage=904 cf Inflow=0.96 cfs 0.056 af
Outflow=0.52 cfs 0.056 af

Link 9.5L: Sub 9.5 Res

Inflow=0.52 cfs 0.056 af
Primary=0.52 cfs 0.056 af

Total Runoff Area = 0.092 ac Runoff Volume = 0.056 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.092 ac

Summary for Subcatchment 2: 4000

Runoff = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
3,000	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
4,000	98	Weighted Average
4,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P2: BIO

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.96 cfs @ 11.96 hrs, Volume= 0.056 af
 Outflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af, Atten= 45%, Lag= 5.8 min
 Primary = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.89' @ 12.06 hrs Surf.Area= 1,204 sf Storage= 904 cf

Plug-Flow detention time= 266.2 min calculated for 0.056 af (100% of inflow)
 Center-of-Mass det. time= 267.0 min (1,004.8 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	1,038 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	825	0	0
1,687.00	1,250	1,038	1,038

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.52 cfs @ 12.06 hrs HW=1,686.89' (Free Discharge)

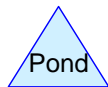
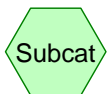
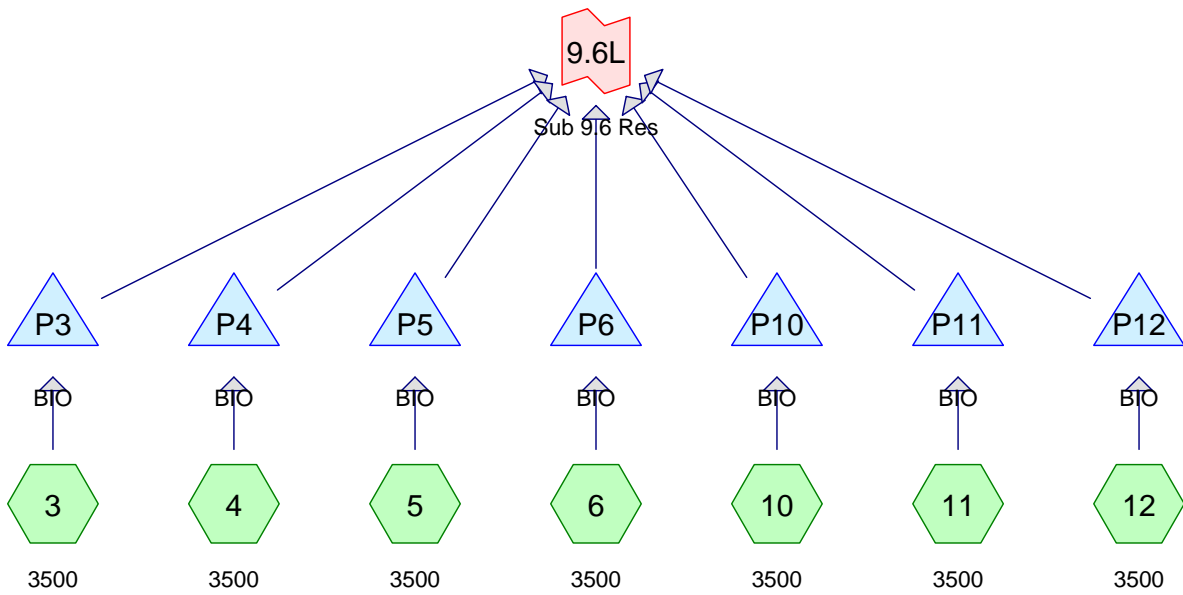
1=Orifice/Grate (Orifice Controls 0.51 cfs @ 2.59 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 9.5L: Sub 9.5 Res

Inflow Area = 0.092 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
Inflow = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af
Primary = 0.52 cfs @ 12.06 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs



Routing Diagram for 08077_Sub 9.6
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.161	98	Driveway, extra imperv., HSG C (3, 4, 5, 6, 10, 11, 12)
0.402	98	Roofs, HSG C (3, 4, 5, 6, 10, 11, 12)
0.562	98	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.562	HSG C	3, 4, 5, 6, 10, 11, 12
0.000	HSG D	
0.000	Other	
0.562		TOTAL AREA

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Type II 24-hr 1-Year Rainfall=3.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 3: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 4: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 5: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 6: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 10: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 11: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Subcatchment 12: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.33 cfs 0.019 af
Pond P10: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P11: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P12: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P3: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P4: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P5: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Pond P6: BIO	Peak Elev=1,686.49' Storage=413 cf Inflow=0.33 cfs 0.019 af Outflow=0.01 cfs 0.019 af
Link 9.6L: Sub 9.6 Res	Inflow=0.08 cfs 0.130 af Primary=0.08 cfs 0.130 af

Total Runoff Area = 0.562 ac Runoff Volume = 0.130 af Average Runoff Depth = 2.77"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.562 ac

Summary for Subcatchment 3: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 4: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 5: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 1-Year Rainfall=3.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 6: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 10: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 11: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

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Type II 24-hr 1-Year Rainfall=3.00"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 12: 3500

Runoff = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=3.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P10: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume #1	Invert	Avail.Storage	Storage Description
	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P11: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P12: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

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Type II 24-hr 1-Year Rainfall=3.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- ↑1=Orifice/Grate (Controls 0.00 cfs)
- ↳2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P3: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- ↑1=Orifice/Grate (Controls 0.00 cfs)
- ↳2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 1-Year Rainfall=3.00"

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Summary for Pond P4: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P5: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 1-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P6: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.33 cfs @ 11.96 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af, Atten= 97%, Lag= 101.3 min
 Primary = 0.01 cfs @ 13.65 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.49' @ 13.65 hrs Surf.Area= 958 sf Storage= 413 cf

Plug-Flow detention time= 342.0 min calculated for 0.019 af (100% of inflow)

Center-of-Mass det. time= 342.0 min (1,095.9 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.01 cfs @ 13.65 hrs HW=1,686.49' (Free Discharge)

- 1=Orifice/Grate (Controls 0.00 cfs)
- 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 9.6L: Sub 9.6 Res

Inflow Area = 0.562 ac,100.00% Impervious, Inflow Depth = 2.77" for 1-Year event
 Inflow = 0.08 cfs @ 13.65 hrs, Volume= 0.130 af
 Primary = 0.08 cfs @ 13.65 hrs, Volume= 0.130 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 10-Year Rainfall=5.00"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 3: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 4: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 5: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 6: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 10: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 11: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Subcatchment 12: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=4.76" Tc=6.0 min CN=98 Runoff=0.56 cfs 0.032 af
Pond P10: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P11: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P12: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P3: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P4: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P5: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Pond P6: BIO	Peak Elev=1,686.69' Storage=615 cf Inflow=0.56 cfs 0.032 af Outflow=0.15 cfs 0.032 af
Link 9.6L: Sub 9.6 Res	Inflow=1.08 cfs 0.223 af Primary=1.08 cfs 0.223 af

**Total Runoff Area = 0.562 ac Runoff Volume = 0.223 af Average Runoff Depth = 4.76"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.562 ac**

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Subcatchment 3: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 4: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 5: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 10-Year Rainfall=5.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 6: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 10: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 11: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

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Type II 24-hr 10-Year Rainfall=5.00"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 12: 3500

Runoff = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=5.00"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P10: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume #1	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

↑1=**Orifice/Grate** (Weir Controls 0.14 cfs @ 0.98 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P11: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

↑1=**Orifice/Grate** (Weir Controls 0.14 cfs @ 0.98 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P12: BIO

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

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Type II 24-hr 10-Year Rainfall=5.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P3: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Type II 24-hr 10-Year Rainfall=5.00"

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Summary for Pond P4: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P5: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 10-Year Rainfall=5.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P6: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 0.56 cfs @ 11.96 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 72%, Lag= 9.3 min
 Primary = 0.15 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.69' @ 12.12 hrs Surf.Area= 1,054 sf Storage= 615 cf

Plug-Flow detention time= 344.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 344.0 min (1,088.0 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=1,686.69' (Free Discharge)

1=Orifice/Grate (Weir Controls 0.14 cfs @ 0.98 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 9.6L: Sub 9.6 Res

Inflow Area = 0.562 ac, 100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
 Inflow = 1.08 cfs @ 12.12 hrs, Volume= 0.223 af
 Primary = 1.08 cfs @ 12.12 hrs, Volume= 0.223 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs

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Type II 24-hr 100-Year Rainfall=7.50"

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Time span=0.00-144.00 hrs, dt=0.05 hrs, 2881 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 3: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 4: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 5: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 6: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 10: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 11: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Subcatchment 12: 3500	Runoff Area=3,500 sf 100.00% Impervious Runoff Depth=7.26" Tc=6.0 min CN=98 Runoff=0.84 cfs 0.049 af
Pond P10: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P11: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P12: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P3: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P4: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P5: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Pond P6: BIO	Peak Elev=1,686.85' Storage=789 cf Inflow=0.84 cfs 0.049 af Outflow=0.49 cfs 0.049 af
Link 9.6L: Sub 9.6 Res	Inflow=3.41 cfs 0.340 af Primary=3.41 cfs 0.340 af

Total Runoff Area = 0.562 ac Runoff Volume = 0.340 af Average Runoff Depth = 7.26"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.562 ac

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Type II 24-hr 100-Year Rainfall=7.50"

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Summary for Subcatchment 3: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 4: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 5: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

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Type II 24-hr 100-Year Rainfall=7.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 6: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 10: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 11: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

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Type II 24-hr 100-Year Rainfall=7.50"

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Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Subcatchment 12: 3500

Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.50"

Area (sf)	CN	Description
2,500	98	Roofs, HSG C
* 1,000	98	Driveway, extra imperv., HSG C
3,500	98	Weighted Average
3,500		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, roof runoff

Summary for Pond P10: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

↑1=**Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.41 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P11: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

↑1=**Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.41 fps)

↓2=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Summary for Pond P12: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

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Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P3: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

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Summary for Pond P4: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P5: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

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Type II 24-hr 100-Year Rainfall=7.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond P6: BIO

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.049 af
 Outflow = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af, Atten= 42%, Lag= 5.5 min
 Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 1,686.85' @ 12.05 hrs Surf.Area= 1,129 sf Storage= 789 cf

Plug-Flow detention time= 270.0 min calculated for 0.049 af (100% of inflow)

Center-of-Mass det. time= 270.4 min (1,008.2 - 737.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,686.00'	963 cf	surface storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,686.00	725	0	0
1,687.00	1,200	963	963

Device	Routing	Invert	Outlet Devices
#1	Primary	1,686.60'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	1,686.00'	0.500 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.49 cfs @ 12.05 hrs HW=1,686.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.47 cfs @ 2.41 fps)

2=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 9.6L: Sub 9.6 Res

Inflow Area = 0.562 ac, 100.00% Impervious, Inflow Depth = 7.26" for 100-Year event
 Inflow = 3.41 cfs @ 12.05 hrs, Volume= 0.340 af
 Primary = 3.41 cfs @ 12.05 hrs, Volume= 0.340 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-144.00 hrs, dt= 0.05 hrs