

**Part III
Attachment III-C
Appendix III-C.4**

HYDROCAD MODEL OUTPUTS

**Pescadito Environmental Resource Center
MSW No. 2374
Webb County, Texas**

PESCADITO
ENVIRONMENTAL RESOURCE CENTER

**Initial Submittal March 2015
Supplement April 2015**

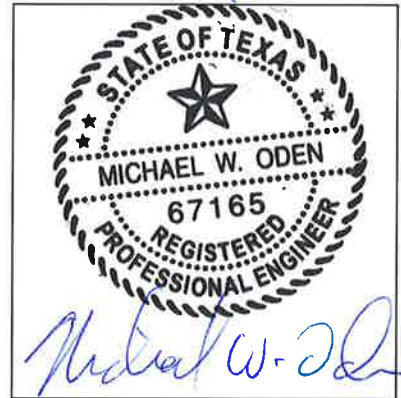
**Prepared for:
Rancho Viejo Waste Management, LLC
1116 Calle del Norte
Laredo, TX 78041**

**Prepared by:
CB&I Environmental and
Infrastructure, Inc.**



**12005 Ford Rd, Suite 600
Dallas, TX 75234**

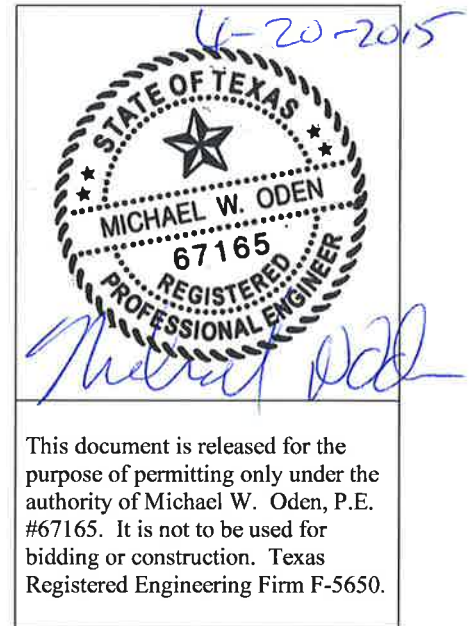
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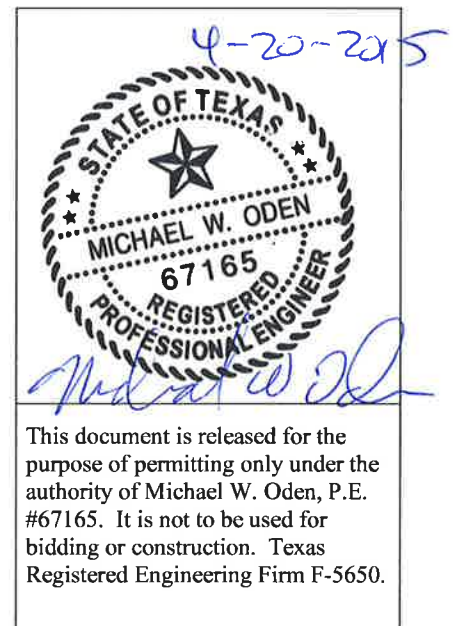


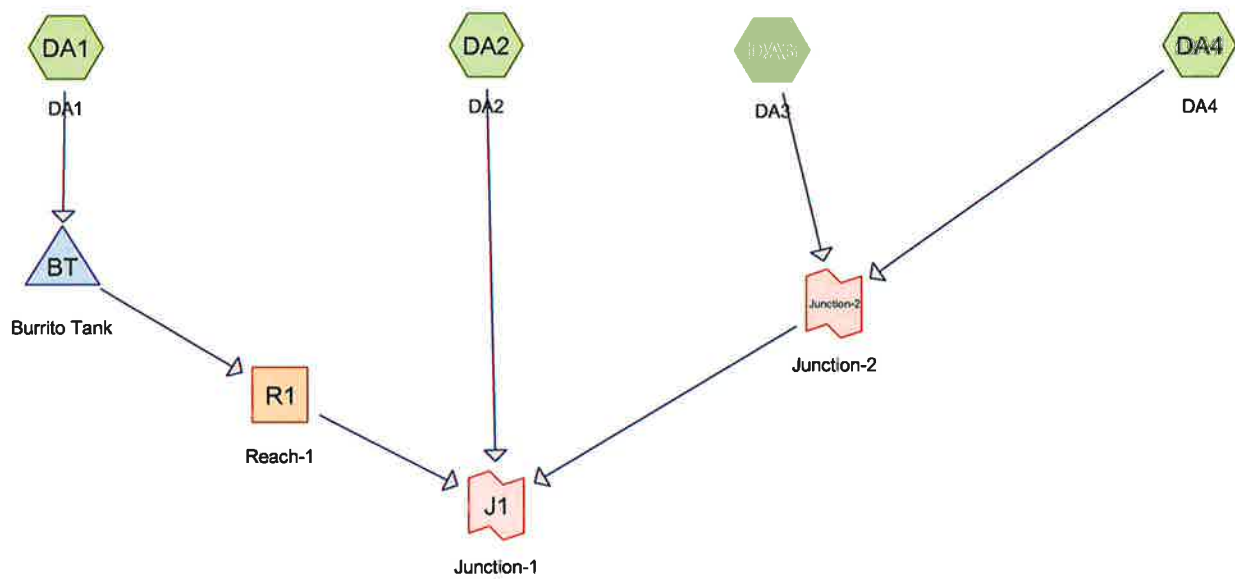
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APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

- 1. REGIONAL EXISTING CONDITIONS (PRE-CLOMR)**
 - A. MODEL DIAGRAM**
 - B. 100-YEAR, 24-HOUR RESULTS**
 - C. 25-YEAR, 24-HOUR RESULTS**





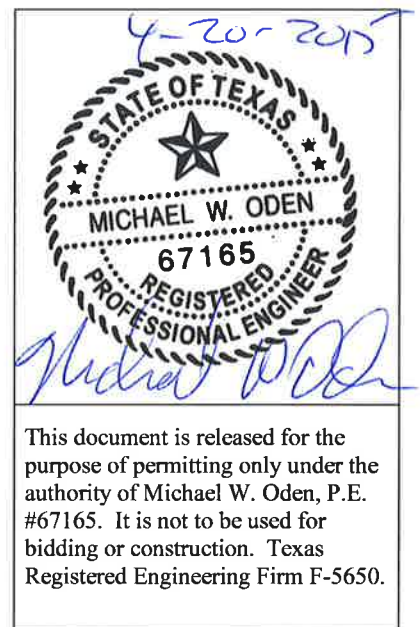
Routing Diagram for CLOMR Existing Direct Entry
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HYDROCAD MODEL OUTPUT FILES

- 1. REGIONAL EXISTING CONDITIONS (PRE-CLOMR)**
 - A. MODEL DIAGRAM
 - B. 100-YEAR, 24-HOUR RESULTS**
 - C. 25-YEAR, 24-HOUR RESULTS



Summary for Subcatchment DA1: DA1

Runoff = 7,899.97 cfs @ 14.82 hrs, Volume= 3,272.867 af, Depth= 5.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 6,950.970	69	
6,950.970		100.00% Pervious Area

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

Summary for Subcatchment DA2: DA2

Runoff = 1,687.61 cfs @ 13.10 hrs, Volume= 363.684 af, Depth= 5.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 772.398	69	
772.398		100.00% Pervious Area

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

Summary for Subcatchment DA3: DA3

Runoff = 3,835.91 cfs @ 13.94 hrs, Volume= 1,262.365 af, Depth= 5.14"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 2,948.123	65	
2,948.123		100.00% Pervious Area

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

CLOMR Existing Direct Entry

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment DA4: DA4

Runoff = 3,819.68 cfs @ 15.24 hrs, Volume= 1,830.935 af, Depth> 5.52"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 3,978.626	68	
3,978.626		100.00% Pervious Area

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

Summary for Reach R1: Reach-1Inflow Area = 6,950.970 ac, 0.00% Impervious, Inflow Depth = 5.65" for 100-Year, 24-Hour event
Inflow = 7,720.42 cfs @ 15.04 hrs, Volume= 3,272.838 af
Outflow = 7,720.42 cfs @ 15.04 hrs, Volume= 3,272.838 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Pond BT: Burrito TankInflow Area = 6,950.970 ac, 0.00% Impervious, Inflow Depth = 5.65" for 100-Year, 24-Hour event
Inflow = 7,899.97 cfs @ 14.82 hrs, Volume= 3,272.867 af
Outflow = 7,720.42 cfs @ 15.04 hrs, Volume= 3,272.838 af, Atten= 2%, Lag= 13.1 min
Primary = 7,720.42 cfs @ 15.04 hrs, Volume= 3,272.838 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Starting Elev= 538.00' Surf.Area= 39.210 ac Storage= 81.585 af

Peak Elev= 542.05' @ 15.04 hrs Surf.Area= 126.711 ac Storage= 387.422 af (305.837 af above start)

Plug-Flow detention time= 62.9 min calculated for 3,191.253 af (98% of inflow)

Center-of-Mass det. time= 39.1 min (1,043.6 - 1,004.5)

Volume	Invert	Avail.Storage	Storage Description
#1	535.00'	728.575 af	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
535.00	17.460	0.000	0.000
536.00	22.430	19.945	19.945
538.00	39.210	61.640	81.585
540.00	68.110	107.320	188.905
542.00	124.320	192.430	381.335
544.00	222.920	347.240	728.575

Device	Routing	Invert	Outlet Devices
#1	Primary	538.00'	Special & User-Defined

Elev. (feet) 538.00 540.00 542.00 542.12
Disch. (cfs) 0.000 1,167.000 7,118.000 8,608.700

Primary OutFlow Max=7,720.34 cfs @ 15.04 hrs HW=542.05' (Free Discharge)
↑1=Special & User-Defined (Custom Controls 7,720.34 cfs)

Summary for Link J1: Junction-1

Inflow Area = 14,650.117 ac, 0.00% Impervious, Inflow Depth = 5.51" for 100-Year, 24-Hour event
Inflow = 14,540.47 cfs @ 14.94 hrs, Volume= 6,729.821 af
Primary = 14,540.47 cfs @ 14.94 hrs, Volume= 6,729.821 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link Junction-2: Junction-2

Inflow Area = 6,926.749 ac, 0.00% Impervious, Inflow Depth > 5.36" for 100-Year, 24-Hour event
Inflow = 6,761.72 cfs @ 14.43 hrs, Volume= 3,093.299 af
Primary = 6,761.72 cfs @ 14.43 hrs, Volume= 3,093.299 af, Atten= 0%, Lag= 0.0 min

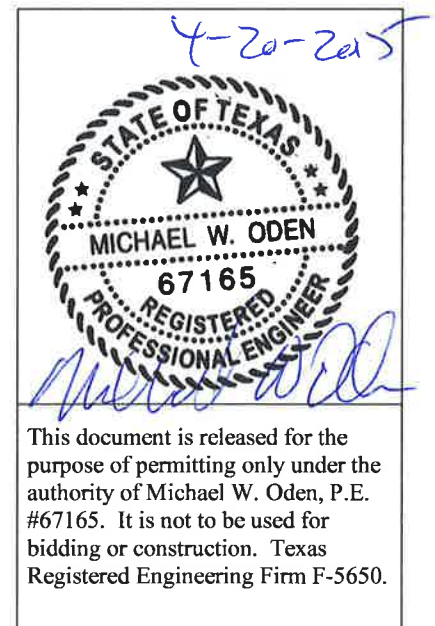
Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

1. **REGIONAL EXISTING CONDITIONS (PRE-CLOMR)**
 - A. MODEL DIAGRAM
 - B. 100-YEAR, 24-HOUR RESULTS
 - C. **25-YEAR, 24-HOUR RESULTS**



CLOMR Existing Direct Entry

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Subcatchment DA1: DA1

Runoff = 5,577.72 cfs @ 14.82 hrs, Volume= 2,323.852 af, Depth= 4.01"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
* 6,950.970	69	
6,950.970		100.00% Pervious Area

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

Summary for Subcatchment DA2: DA2

Runoff = 1,194.90 cfs @ 13.10 hrs, Volume= 258.229 af, Depth= 4.01"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
* 772.398	69	
772.398		100.00% Pervious Area

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

Summary for Subcatchment DA3: DA3

Runoff = 2,631.28 cfs @ 13.94 hrs, Volume= 877.893 af, Depth= 3.57"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
* 2,948.123	65	
2,948.123		100.00% Pervious Area

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

CLOMR Existing Direct Entry

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Subcatchment DA4: DA4

Runoff = 2,669.37 cfs @ 15.24 hrs, Volume= 1,293.536 af, Depth> 3.90"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
* 3,978.626	68	
3,978.626		100.00% Pervious Area

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

Summary for Reach R1: Reach-1

Inflow Area = 6,950.970 ac, 0.00% Impervious, Inflow Depth = 4.01" for 25-Year, 24-Hour event

Inflow = 5,325.73 cfs @ 15.23 hrs, Volume= 2,323.830 af

Outflow = 5,325.73 cfs @ 15.23 hrs, Volume= 2,323.830 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Pond BT: Burrito Tank

Inflow Area = 6,950.970 ac, 0.00% Impervious, Inflow Depth = 4.01" for 25-Year, 24-Hour event

Inflow = 5,577.72 cfs @ 14.82 hrs, Volume= 2,323.852 af

Outflow = 5,325.73 cfs @ 15.23 hrs, Volume= 2,323.830 af, Atten= 5%, Lag= 24.5 min

Primary = 5,325.73 cfs @ 15.23 hrs, Volume= 2,323.830 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Starting Elev= 538.00' Surf.Area= 39.210 ac Storage= 81.585 af

Peak Elev= 541.40' @ 15.23 hrs Surf.Area= 107.391 ac Storage= 311.550 af (229.965 af above start)

Plug-Flow detention time= 74.0 min calculated for 2,242.245 af (96% of inflow)

Center-of-Mass det. time= 42.4 min (1,056.8 - 1,014.4)

Volume	Invert	Avail.Storage	Storage Description
#1	535.00'	728.575 af	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
535.00	17.460	0.000	0.000
536.00	22.430	19.945	19.945
538.00	39.210	61.640	81.585
540.00	68.110	107.320	188.905
542.00	124.320	192.430	381.335
544.00	222.920	347.240	728.575

Device	Routing	Invert	Outlet Devices
#1	Primary	538.00'	Special & User-Defined

CLOMR Existing Direct Entry

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Elev. (feet) 538.00 540.00 542.00 542.12
Disch. (cfs) 0.000 1,167.000 7,118.000 8,608.700

Primary OutFlow Max=5,325.72 cfs @ 15.23 hrs HW=541.40' (Free Discharge)

1=Special & User-Defined (Custom Controls 5,325.72 cfs)

Summary for Link J1: Junction-1

Inflow Area = 14,650.117 ac, 0.00% Impervious, Inflow Depth = 3.89" for 25-Year, 24-Hour event
Inflow = 10,046.73 cfs @ 14.95 hrs, Volume= 4,753.488 af
Primary = 10,046.73 cfs @ 14.95 hrs, Volume= 4,753.488 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link Junction-2: Junction-2

Inflow Area = 6,926.749 ac, 0.00% Impervious, Inflow Depth > 3.76" for 25-Year, 24-Hour event
Inflow = 4,670.81 cfs @ 14.44 hrs, Volume= 2,171.429 af
Primary = 4,670.81 cfs @ 14.44 hrs, Volume= 2,171.429 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

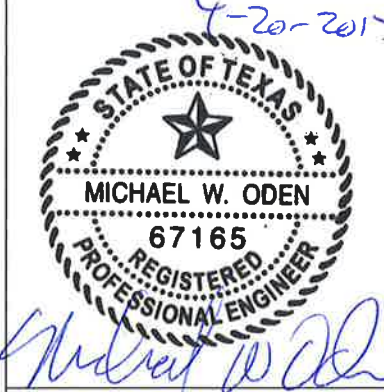
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HYDROCAD MODEL OUTPUT FILES

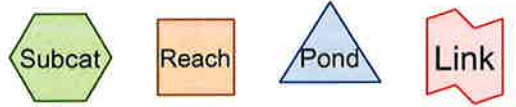
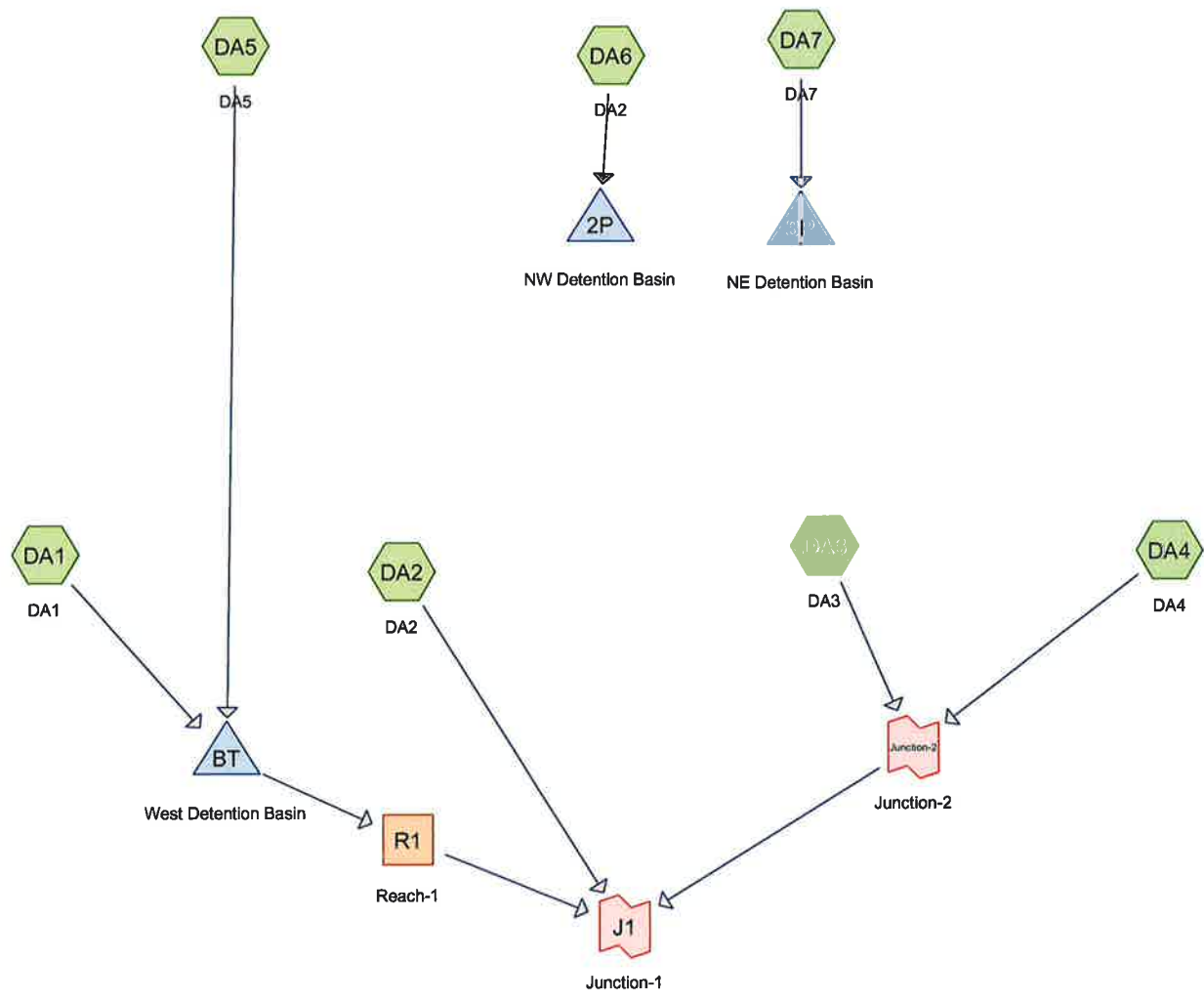
- 2. **REGIONAL INTERMEDIATE CONDITIONS (POST-CLOMR)**
 - A. **MODEL DIAGRAM**
 - B. 100-YEAR, 24-HOUR RESULTS
 - C. 25-YEAR, 24-HOUR RESULTS

4-20-2015



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Routing Diagram for CLOMR Proposed Direct Entry
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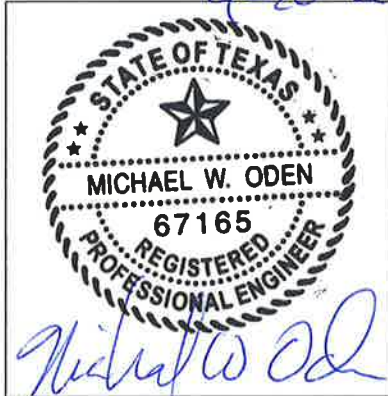
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CLOMR Proposed Direct Entry

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment DA1: DA1

Runoff = 6,885.92 cfs @ 14.39 hrs, Volume= 2,522.438 af, Depth= 5.78"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 5,238.870	70	
5,238.870		100.00% Pervious Area

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

Summary for Subcatchment DA2: DA2

Runoff = 2,084.30 cfs @ 13.53 hrs, Volume= 556.965 af, Depth= 5.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 1,182.892	69	
1,182.892		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
109.8					Direct Entry, 109.8

Summary for Subcatchment DA3: DA3

Runoff = 4,709.99 cfs @ 13.94 hrs, Volume= 1,547.636 af, Depth= 5.27"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 3,526.389	66	
3,526.389		100.00% Pervious Area

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

CLOMR Proposed Direct Entry

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment DA4: DA4

Runoff = 3,819.89 cfs @ 15.23 hrs, Volume= 1,830.927 af, Depth> 5.52"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 3,978.608	68	
3,978.608		100.00% Pervious Area

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

Summary for Subcatchment DA5: DA5

Runoff = 471.92 cfs @ 12.70 hrs, Volume= 78.776 af, Depth= 4.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 198.877	62	
198.877		100.00% Pervious Area

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

Summary for Subcatchment DA6: DA6

Runoff = 380.18 cfs @ 12.51 hrs, Volume= 51.712 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 134.177	61	
134.177		100.00% Pervious Area

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

CLOMR Proposed Direct Entry

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment DA7: DA7

Runoff = 1,024.74 cfs @ 12.68 hrs, Volume= 162.924 af, Depth= 5.01"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 390.234	64	
390.234		100.00% Pervious Area

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

Summary for Reach R1: Reach-1Inflow Area = 5,437.747 ac, 0.00% Impervious, Inflow Depth = 5.74" for 100-Year, 24-Hour event
Inflow = 5,960.38 cfs @ 15.04 hrs, Volume= 2,601.214 af
Outflow = 5,940.25 cfs @ 15.17 hrs, Volume= 2,601.088 af, Atten= 0%, Lag= 7.9 minRouting by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.88 fps, Min. Travel Time= 10.2 min
Avg. Velocity = 2.21 fps, Avg. Travel Time= 22.7 minPeak Storage= 3,652,289 cf @ 15.17 hrs
Average Depth at Peak Storage= 3.99'
Bank-Full Depth= 5.00' Flow Area= 1,780.0 sf, Capacity= 9,903.65 cfs106.00' x 5.00' deep channel, n= 0.030
Side Slope Z-value= 50.0 ' / ' Top Width= 606.00'
Length= 3,000.0' Slope= 0.0030 ' / '
Inlet Invert= 542.00', Outlet Invert= 533.00'**Summary for Pond 2P: NW Detention Basin**Inflow Area = 134.177 ac, 0.00% Impervious, Inflow Depth = 4.62" for 100-Year, 24-Hour event
Inflow = 380.18 cfs @ 12.51 hrs, Volume= 51.712 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

CLOMR Proposed Direct Entry

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Peak Elev= 567.40' @ 25.98 hrs Surf.Area= 10.150 ac Storage= 51.712 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	562.00'	57.880 af	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
562.00	9.020	0.000	0.000
564.00	9.440	18.460	18.460
566.00	9.850	19.290	37.750
568.00	10.280	20.130	57.880

Device	Routing	Invert	Outlet Devices
#1	Primary	562.00'	Special & User-Defined Elev. (feet) 562.00 568.00 Disch. (cfs) 0.000 0.000

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=562.00' (Free Discharge)

↑1=Special & User-Defined (Controls 0.00 cfs)

Summary for Pond 3P: NE Detention Basin

Inflow Area = 390.234 ac, 0.00% Impervious, Inflow Depth = 5.01" for 100-Year, 24-Hour event
 Inflow = 1,024.74 cfs @ 12.68 hrs, Volume= 162.924 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Peak Elev= 561.85' @ 26.67 hrs Surf.Area= 28.725 ac Storage= 162.924 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	556.00'	167.280 af	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
556.00	26.990	0.000	0.000
558.00	27.580	54.570	54.570
560.00	28.180	55.760	110.330
562.00	28.770	56.950	167.280

Device	Routing	Invert	Outlet Devices
#1	Primary	556.00'	556562 Elev. (feet) 556.00 562.00 Disch. (cfs) 0.000 0.000

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=556.00' (Free Discharge)

↳1=556562 (Controls 0.00 cfs)

Summary for Pond BT: West Detention Basin

Inflow Area = 5,437.747 ac, 0.00% Impervious, Inflow Depth = 5.74" for 100-Year, 24-Hour event
 Inflow = 6,977.36 cfs @ 14.39 hrs, Volume= 2,601.214 af
 Outflow = 5,960.38 cfs @ 15.04 hrs, Volume= 2,601.214 af, Atten= 15%, Lag= 39.1 min
 Primary = 5,960.38 cfs @ 15.04 hrs, Volume= 2,601.214 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 547.57' @ 15.04 hrs Surf.Area= 118.164 ac Storage= 348.911 af

Plug-Flow detention time= 34.9 min calculated for 2,600.492 af (100% of inflow)
 Center-of-Mass det. time= 34.9 min (1,004.3 - 969.4)

Volume #1	Invert	Avail.Storage	Storage Description
	542.00'	401.600 af	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
542.00	14.400	0.000	0.000
544.00	37.000	51.400	51.400
546.00	94.200	131.200	182.600
548.00	124.800	219.000	401.600

Device	Routing	Invert	Outlet Devices
#1	Primary	542.00'	Special & User-Defined
			Elev. (feet) 542.00 544.00 546.00 548.00
			Disch. (cfs) 0.000 1,273.000 3,600.000 6,614.000

Primary OutFlow Max=5,960.38 cfs @ 15.04 hrs HW=547.57' (Free Discharge)

↳1=Special & User-Defined (Custom Controls 5,960.38 cfs)

Summary for Link J1: Junction-1

Inflow Area = 14,125.636 ac, 0.00% Impervious, Inflow Depth = 5.55" for 100-Year, 24-Hour event
 Inflow = 14,083.77 cfs @ 14.59 hrs, Volume= 6,536.616 af
 Primary = 14,083.77 cfs @ 14.59 hrs, Volume= 6,536.616 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link Junction-2: Junction-2

Inflow Area = 7,504.997 ac, 0.00% Impervious, Inflow Depth = 5.40" for 100-Year, 24-Hour event
 Inflow = 7,557.51 cfs @ 14.40 hrs, Volume= 3,378.563 af
 Primary = 7,557.51 cfs @ 14.40 hrs, Volume= 3,378.563 af, Atten= 0%, Lag= 0.0 min

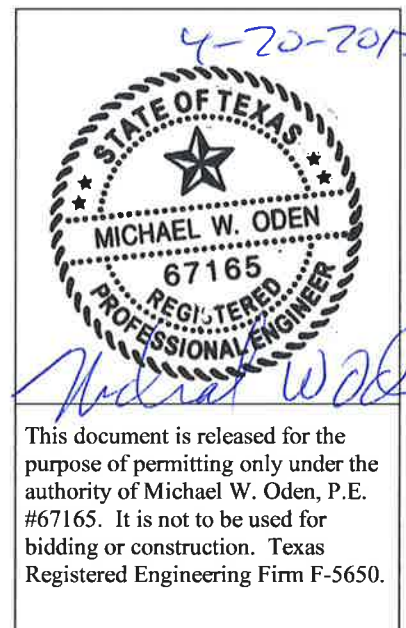
Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

- 2. **REGIONAL INTERMEDIATE CONDITIONS (POST-CLOMR)**
 - A. MODEL DIAGRAM
 - B. 100-YEAR, 24-HOUR RESULTS
 - C. 25-YEAR, 24-HOUR RESULTS



CLOMR Proposed Direct Entry

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Subcatchment DA1: DA1

Runoff = 4,896.53 cfs @ 14.39 hrs, Volume= 1,799.803 af, Depth= 4.12"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
* 5,238.870	70	
5,238.870		100.00% Pervious Area

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

Summary for Subcatchment DA2: DA2

Runoff = 1,475.85 cfs @ 13.53 hrs, Volume= 395.465 af, Depth= 4.01"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
* 1,182.892	69	
1,182.892		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
109.8					Direct Entry, 109.8

Summary for Subcatchment DA3: DA3

Runoff = 3,254.49 cfs @ 13.94 hrs, Volume= 1,082.099 af, Depth= 3.68"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
* 3,526.389	66	
3,526.389		100.00% Pervious Area

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

Summary for Subcatchment DA4: DA4

Runoff = 2,669.42 cfs @ 15.23 hrs, Volume= 1,293.530 af, Depth> 3.90"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
* 3,978.608	68	
3,978.608		100.00% Pervious Area

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

Summary for Subcatchment DA5: DA5

Runoff = 317.73 cfs @ 12.70 hrs, Volume= 53.856 af, Depth= 3.25"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
* 198.877	62	
198.877		100.00% Pervious Area

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

Summary for Subcatchment DA6: DA6

Runoff = 255.01 cfs @ 12.51 hrs, Volume= 35.140 af, Depth= 3.14"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
* 134.177	61	
134.177		100.00% Pervious Area

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

CLOMR Proposed Direct Entry

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Subcatchment DA7: DA7

Runoff = 703.60 cfs @ 12.69 hrs, Volume= 112.678 af, Depth= 3.46"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
* 390.234	64	
390.234		100.00% Pervious Area

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

Summary for Reach R1: Reach-1

Inflow Area = 5,437.747 ac, 0.00% Impervious, Inflow Depth = 4.09" for 25-Year, 24-Hour event
 Inflow = 4,306.67 cfs @ 15.03 hrs, Volume= 1,853.659 af
 Outflow = 4,287.68 cfs @ 15.17 hrs, Volume= 1,853.544 af, Atten= 0%, Lag= 8.6 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.48 fps, Min. Travel Time= 11.2 min
 Avg. Velocity = 2.03 fps, Avg. Travel Time= 24.7 min

Peak Storage= 2,868,645 cf @ 15.17 hrs
 Average Depth at Peak Storage= 3.44'
 Bank-Full Depth= 5.00' Flow Area= 1,780.0 sf, Capacity= 9,903.65 cfs

106.00' x 5.00' deep channel, n= 0.030
 Side Slope Z-value= 50.0 ' Top Width= 606.00'
 Length= 3,000.0' Slope= 0.0030 '
 Inlet Invert= 542.00', Outlet Invert= 533.00'

**Summary for Pond 2P: NW Detention Basin**

Inflow Area = 134.177 ac, 0.00% Impervious, Inflow Depth = 3.14" for 25-Year, 24-Hour event
 Inflow = 255.01 cfs @ 12.51 hrs, Volume= 35.140 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

CLOMR Proposed Direct Entry

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Peak Elev= 565.73' @ 25.98 hrs Surf.Area= 9.796 ac Storage= 35.140 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	562.00'	57.880 af	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
562.00	9.020	0.000	0.000
564.00	9.440	18.460	18.460
566.00	9.850	19.290	37.750
568.00	10.280	20.130	57.880

Device	Routing	Invert	Outlet Devices
#1	Primary	562.00'	Special & User-Defined Elev. (feet) 562.00 568.00 Disch. (cfs) 0.000 0.000

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=562.00' (Free Discharge)

↑1=Special & User-Defined (Controls 0.00 cfs)

Summary for Pond 3P: NE Detention Basin

Inflow Area = 390.234 ac, 0.00% Impervious, Inflow Depth = 3.46" for 25-Year, 24-Hour event
 Inflow = 703.60 cfs @ 12.69 hrs, Volume= 112.678 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Peak Elev= 560.08' @ 26.67 hrs Surf.Area= 28.205 ac Storage= 112.678 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	556.00'	167.280 af	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
556.00	26.990	0.000	0.000
558.00	27.580	54.570	54.570
560.00	28.180	55.760	110.330
562.00	28.770	56.950	167.280

Device	Routing	Invert	Outlet Devices
#1	Primary	556.00'	556562 Elev. (feet) 556.00 562.00 Disch. (cfs) 0.000 0.000

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=556.00' (Free Discharge)

↳1=556562 (Controls 0.00 cfs)

Summary for Pond BT: West Detention Basin

Inflow Area = 5,437.747 ac, 0.00% Impervious, Inflow Depth = 4.09" for 25-Year, 24-Hour event
 Inflow = 4,962.34 cfs @ 14.39 hrs, Volume= 1,853.659 af
 Outflow = 4,306.67 cfs @ 15.03 hrs, Volume= 1,853.659 af, Atten= 13%, Lag= 38.4 min
 Primary = 4,306.67 cfs @ 15.03 hrs, Volume= 1,853.659 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 546.47' @ 15.03 hrs Surf.Area= 101.375 ac Storage= 228.455 af

Plug-Flow detention time= 31.7 min calculated for 1,853.144 af (100% of inflow)
 Center-of-Mass det. time= 31.7 min (1,010.9 - 979.2)

Volume #1	Invert 542.00'	Avail.Storage 401.600 af	Storage Description
Custom Stage Data (Prismatic) Listed below (Recalc)			
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
542.00	14.400	0.000	0.000
544.00	37.000	51.400	51.400
546.00	94.200	131.200	182.600
548.00	124.800	219.000	401.600

Device #1	Routing Primary	Invert 542.00'	Outlet Devices
Special & User-Defined			
Elev. (feet) 542.00 544.00 546.00 548.00			
Disch. (cfs) 0.000 1,273.000 3,600.000 6,614.000			

Primary OutFlow Max=4,306.67 cfs @ 15.03 hrs HW=546.47' (Free Discharge)

↳1=Special & User-Defined (Custom Controls 4,306.67 cfs)

Summary for Link J1: Junction-1

Inflow Area = 14,125.636 ac, 0.00% Impervious, Inflow Depth > 3.93" for 25-Year, 24-Hour event
 Inflow = 9,953.70 cfs @ 14.67 hrs, Volume= 4,624.639 af
 Primary = 9,953.70 cfs @ 14.67 hrs, Volume= 4,624.639 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link Junction-2: Junction-2

Inflow Area = 7,504.997 ac, 0.00% Impervious, Inflow Depth > 3.80" for 25-Year, 24-Hour event
 Inflow = 5,240.76 cfs @ 14.41 hrs, Volume= 2,375.630 af
 Primary = 5,240.76 cfs @ 14.41 hrs, Volume= 2,375.630 af, Atten= 0%, Lag= 0.0 min

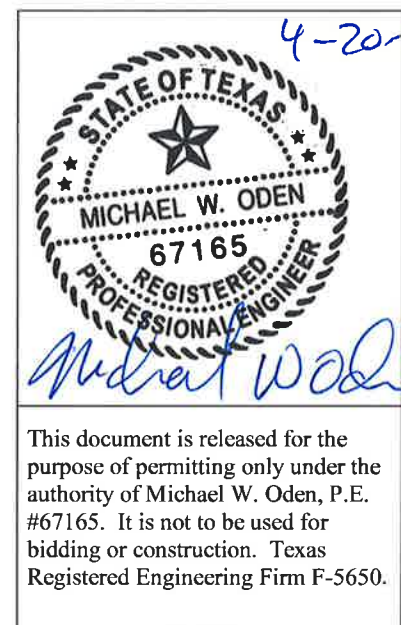
Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

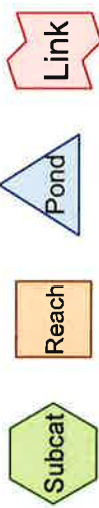
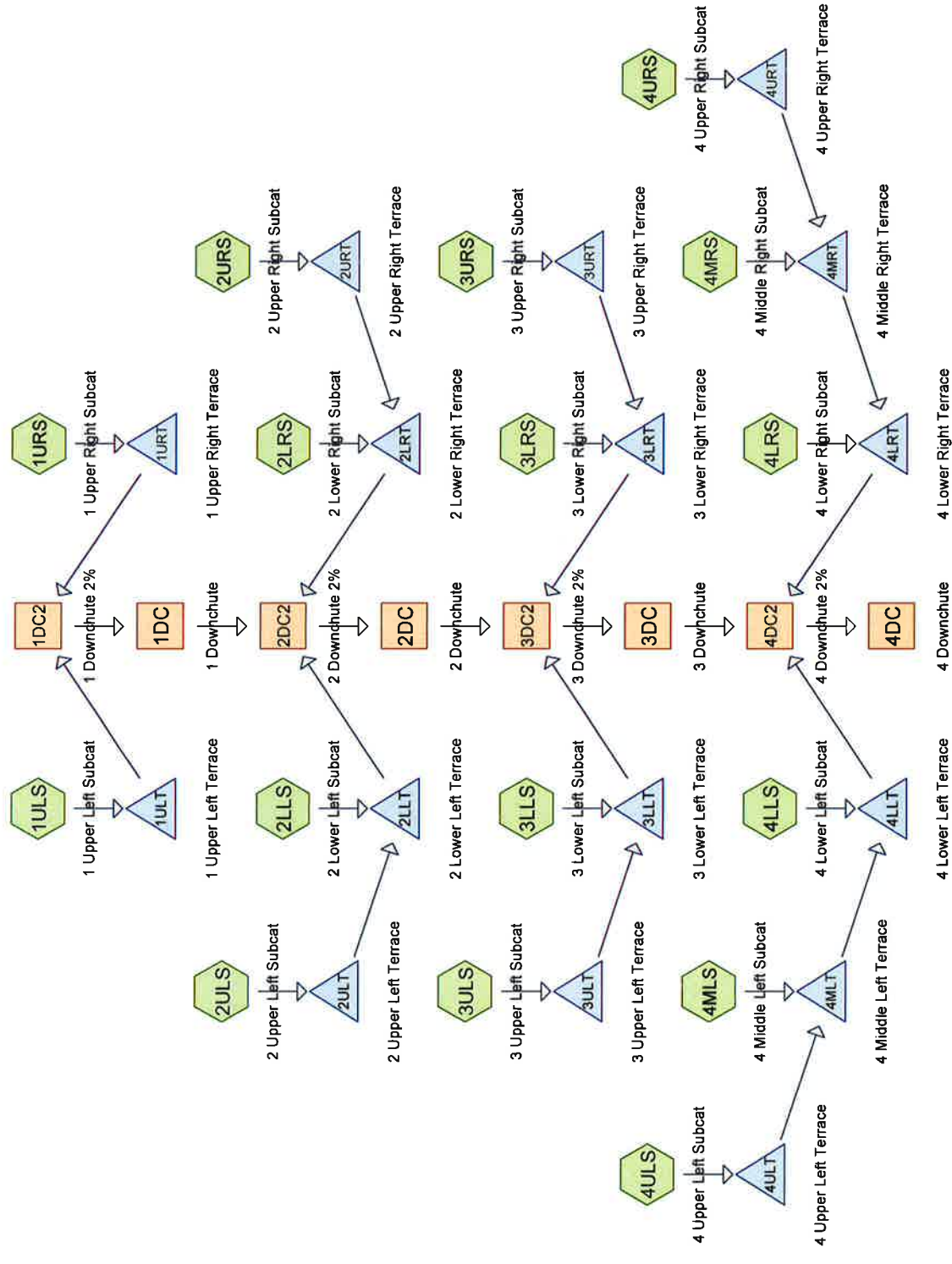
ATTACHMENT III-C

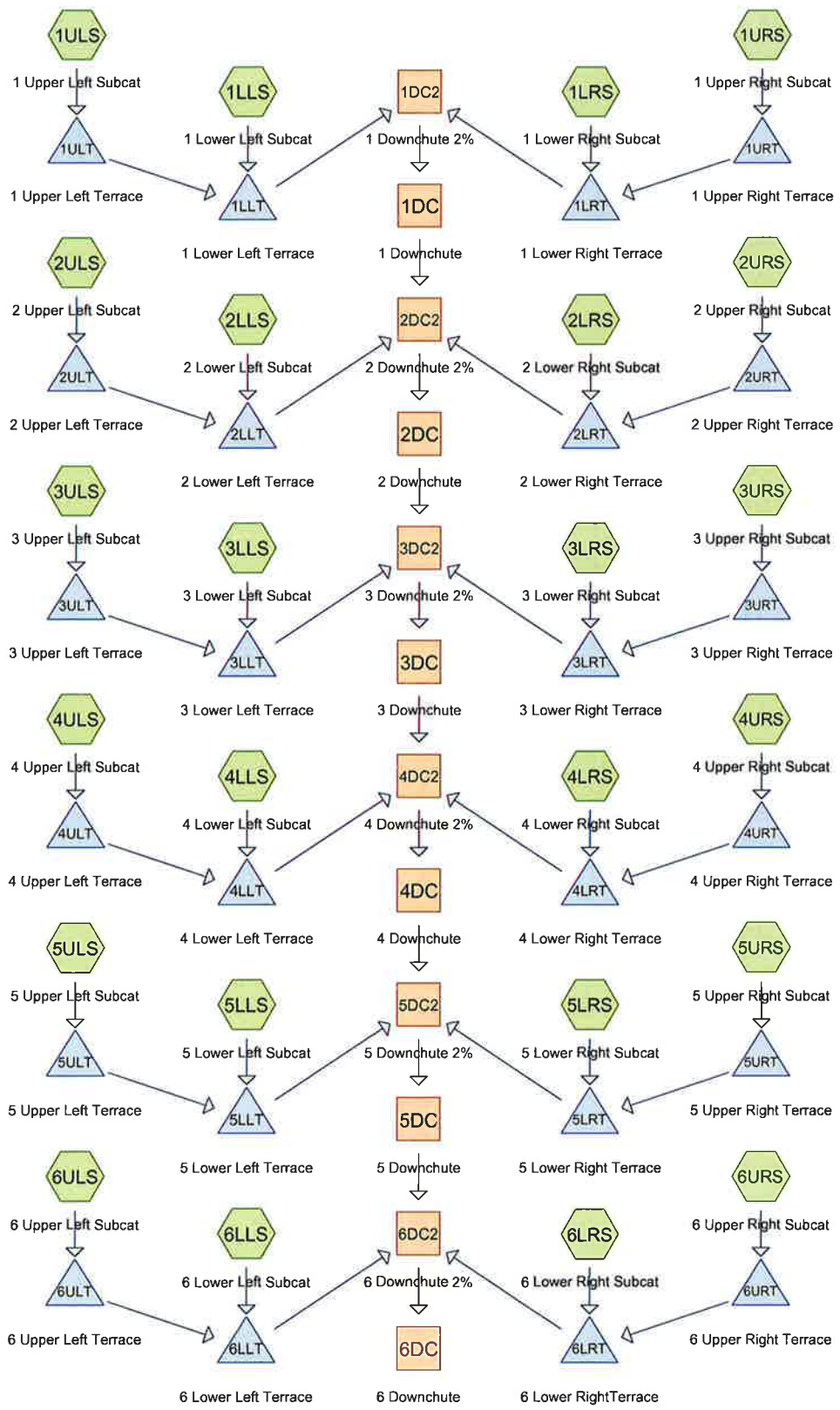
APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

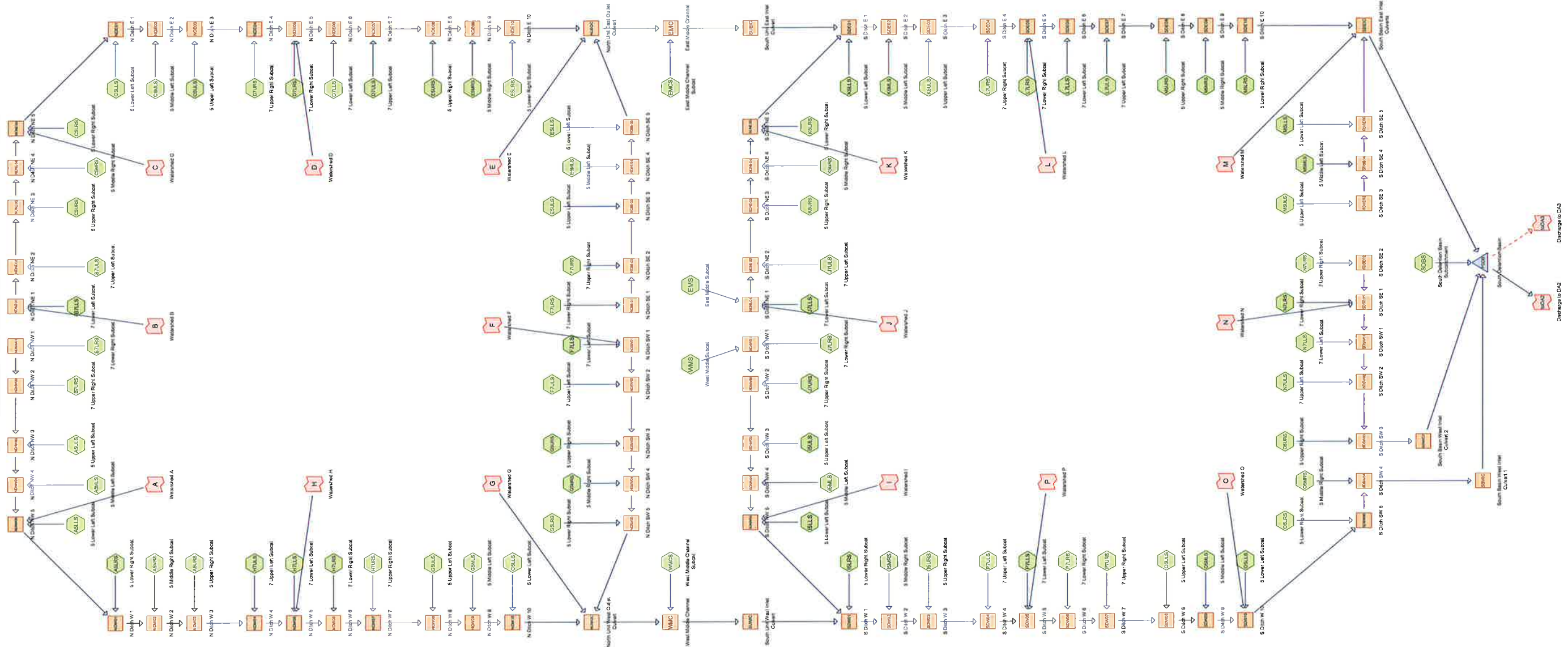
- 3. **PROPOSED CONDITIONS (POST-DEVELOPMENT)**
 - A. **MODEL DIAGRAMS**
 - B. LANDFILL WATERSHED A (TYPICAL OF WATERSHEDS C, E, G, J, K, M, AND O)
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - C. LANDFILL WATERSHED B (TYPICAL OF WATERSHEDS D, F, J, L, N, AND P)
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - D. LANDFILL PERIMETER DITCH, CULVERT, AND BASIN SYSTEM
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - E. REGIONAL STORMWATER CONDITIONS
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)



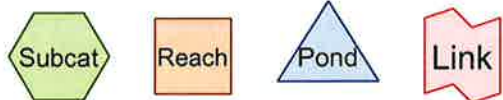
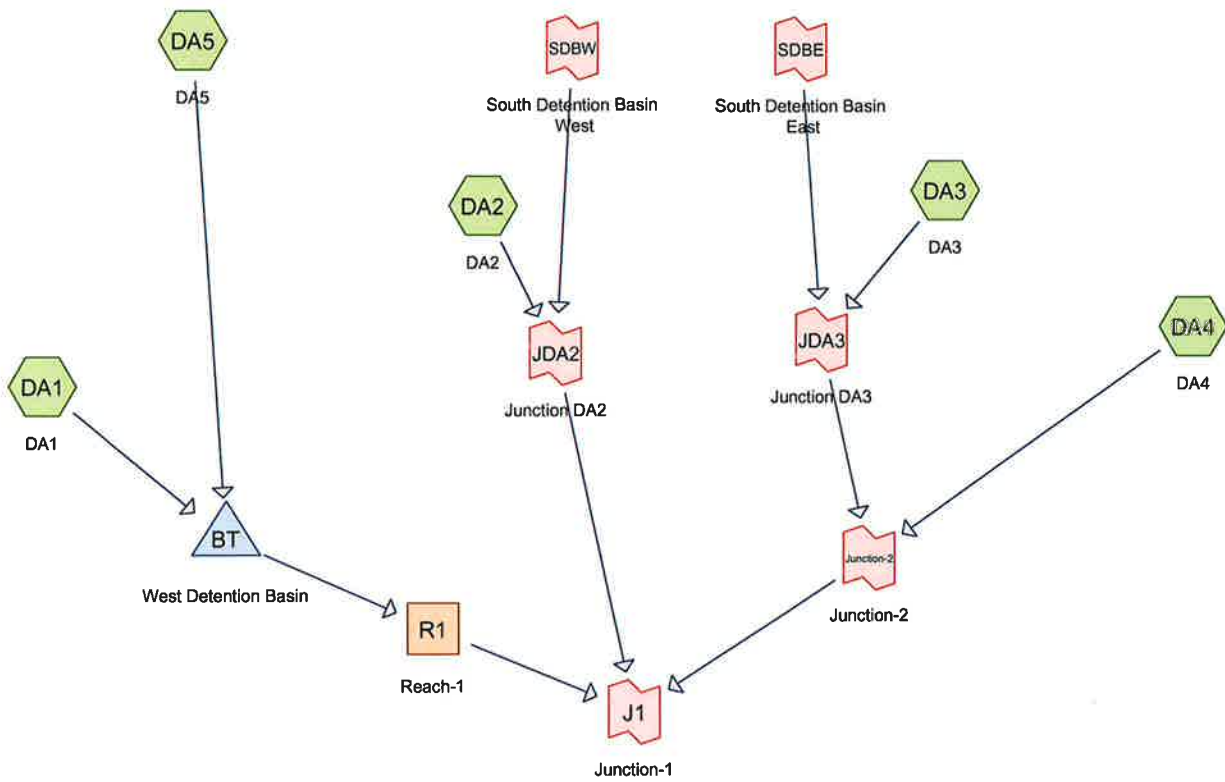
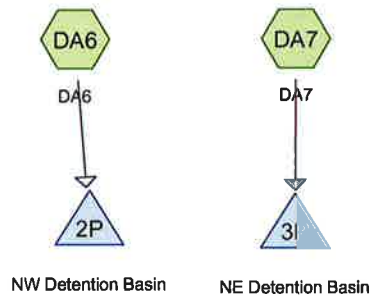




Routing Diagram for Watershed B
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Routing Diagram for Pescadito Perimeter



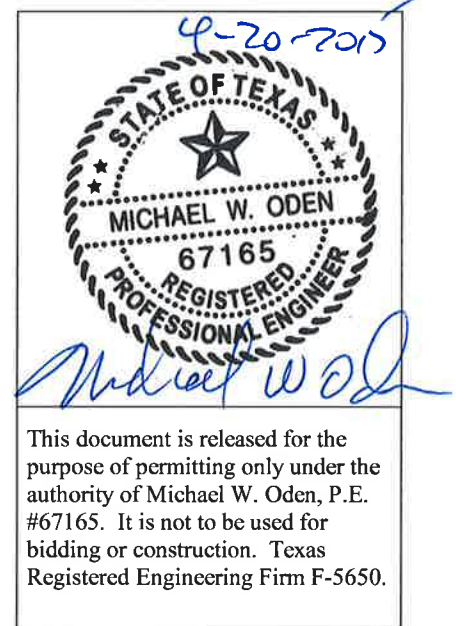
Routing Diagram for CLOMR Proposed with Landfill
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ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

- 3. **PROPOSED CONDITIONS (POST-DEVELOPMENT)**
 - A. MODEL DIAGRAMS
 - B. **LANDFILL WATERSHED A (TYPICAL OF WATERSHEDS C, E, G, J, K, M, & O)**
 - I. **100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)**
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - C. **LANDFILL WATERSHED B (TYPICAL OF WATERSHEDS D, F, J, L, N, & P)**
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - D. **LANDFILL PERIMETER DITCH, CULVERT, & BASIN SYSTEM**
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - E. **REGIONAL STORMWATER CONDITIONS**
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)



Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Page 1

Summary for Subcatchment 1ULS: 1 Upper Left Subcat

Runoff = 12.12 cfs @ 12.07 hrs, Volume= 0.923 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 56,548	92	
56,548		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 1URS: 1 Upper Right Subcat

Runoff = 11.95 cfs @ 12.07 hrs, Volume= 0.910 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 55,761	92	
55,761		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 2LLS: 2 Lower Left Subcat

Runoff = 6.49 cfs @ 12.07 hrs, Volume= 0.494 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 30,267	92	
30,267		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Page 2

Summary for Subcatchment 2LRS: 2 Lower Right Subcat

Runoff = 6.36 cfs @ 12.07 hrs, Volume= 0.484 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 29,657	92	
29,657		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 2ULS: 2 Upper Left Subcat

Runoff = 15.22 cfs @ 12.07 hrs, Volume= 1.159 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 71,032	92	
71,032		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 2URS: 2 Upper Right Subcat

Runoff = 14.92 cfs @ 12.07 hrs, Volume= 1.136 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 69,616	92	
69,616		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment 3LLS: 3 Lower Left Subcat

Runoff = 14.95 cfs @ 12.07 hrs, Volume= 1.139 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 69,770	92	
69,770		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 3LRS: 3 Lower Right Subcat

Runoff = 14.56 cfs @ 12.07 hrs, Volume= 1.109 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 67,944	92	
67,944		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 3ULS: 3 Upper Left Subcat

Runoff = 16.73 cfs @ 12.07 hrs, Volume= 1.274 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 78,072	92	
78,072		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment 3URS: 3 Upper Right Subcat

Runoff = 16.41 cfs @ 12.07 hrs, Volume= 1.250 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 76,595	92	
76,595		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 4LLS: 4 Lower Left Subcat

Runoff = 6.48 cfs @ 12.07 hrs, Volume= 0.494 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 30,248	92	
30,248		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 4LRS: 4 Lower Right Subcat

Runoff = 6.35 cfs @ 12.07 hrs, Volume= 0.484 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 29,641	92	
29,641		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment 4MLS: 4 Middle Left Subcat

Runoff = 18.43 cfs @ 12.07 hrs, Volume= 1.404 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 86,016	92	
86,016		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 4MRS: 4 Middle Right Subcat

Runoff = 17.91 cfs @ 12.07 hrs, Volume= 1.364 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 83,584	92	
83,584		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 4ULS: 4 Upper Left Subcat

Runoff = 16.74 cfs @ 12.07 hrs, Volume= 1.275 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 78,096	92	
78,096		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment 4URS: 4 Upper Right Subcat

Runoff = 16.41 cfs @ 12.07 hrs, Volume= 1.249 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 76,557	92	
76,557		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Reach 1DC: 1 Downchute

Inflow Area = 2.578 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 9.92 cfs @ 12.27 hrs, Volume= 1.833 af
 Outflow = 9.92 cfs @ 12.28 hrs, Volume= 1.833 af, Atten= 0%, Lag= 0.6 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.71 fps, Min. Travel Time= 0.9 min
 Avg. Velocity = 1.98 fps, Avg. Travel Time= 2.1 min

Peak Storage= 515 cf @ 12.28 hrs
 Average Depth at Peak Storage= 0.14'
 Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,139.83 cfs

15.00' x 3.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' Top Width= 33.00'
 Length= 245.0' Slope= 0.1800 '
 Inlet Invert= -2.00', Outlet Invert= -46.10'

**Summary for Reach 1DC2: 1 Downchute 2%**

Inflow Area = 2.578 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 9.92 cfs @ 12.26 hrs, Volume= 1.833 af
 Outflow = 9.92 cfs @ 12.27 hrs, Volume= 1.833 af, Atten= 0%, Lag= 0.3 min

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Max. Velocity= 2.38 fps, Min. Travel Time= 0.5 min

Avg. Velocity = 0.84 fps, Avg. Travel Time= 1.5 min

Peak Storage= 312 cf @ 12.27 hrs

Average Depth at Peak Storage= 0.26'

Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

15.00' x 3.00' deep channel, n= 0.035

Side Slope Z-value= 3.0 '/' Top Width= 33.00'

Length= 75.0' Slope= 0.0200 '/'

Inlet Invert= -2.00', Outlet Invert= -3.50'



Summary for Reach 2DC: 2 Downchute

Inflow Area = 7.183 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event

Inflow = 23.44 cfs @ 12.45 hrs, Volume= 5.106 af

Outflow = 23.43 cfs @ 12.45 hrs, Volume= 5.106 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Max. Velocity= 6.54 fps, Min. Travel Time= 0.6 min

Avg. Velocity = 2.49 fps, Avg. Travel Time= 1.6 min

Peak Storage= 878 cf @ 12.45 hrs

Average Depth at Peak Storage= 0.23'

Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,139.83 cfs

15.00' x 3.00' deep channel, n= 0.035

Side Slope Z-value= 3.0 '/' Top Width= 33.00'

Length= 245.0' Slope= 0.1800 '/'

Inlet Invert= -2.00', Outlet Invert= -46.10'



Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Reach 2DC2: 2 Downchute 2%

Inflow Area = 7.183 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 23.44 cfs @ 12.44 hrs, Volume= 5.106 af
Outflow = 23.44 cfs @ 12.45 hrs, Volume= 5.106 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.28 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 1.21 fps, Avg. Travel Time= 1.0 min

Peak Storage= 537 cf @ 12.45 hrs
Average Depth at Peak Storage= 0.44'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 75.0' Slope= 0.0200 '/'
Inlet Invert= -2.00', Outlet Invert= -3.50'



Summary for Reach 3DC: 3 Downchute

Inflow Area = 13.895 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 55.78 cfs @ 12.12 hrs, Volume= 9.878 af
Outflow = 55.73 cfs @ 12.12 hrs, Volume= 9.878 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 9.02 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 3.11 fps, Avg. Travel Time= 1.3 min

Peak Storage= 1,513 cf @ 12.12 hrs
Average Depth at Peak Storage= 0.38'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,139.83 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 245.0' Slope= 0.1800 '/'
Inlet Invert= -2.00', Outlet Invert= -46.10'



Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Reach 3DC2: 3 Downchute 2%

Inflow Area = 13.895 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 55.80 cfs @ 12.12 hrs, Volume= 9.878 af
Outflow = 55.78 cfs @ 12.12 hrs, Volume= 9.878 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.45 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.54 fps, Avg. Travel Time= 0.8 min

Peak Storage= 939 cf @ 12.12 hrs
Average Depth at Peak Storage= 0.73'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 75.0' Slope= 0.0200 '/'
Inlet Invert= -2.00', Outlet Invert= -3.50'



Summary for Reach 4DC: 4 Downchute

Inflow Area = 22.714 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 109.14 cfs @ 12.13 hrs, Volume= 16.147 af
Outflow = 109.00 cfs @ 12.13 hrs, Volume= 16.147 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 11.49 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 3.69 fps, Avg. Travel Time= 1.4 min

Peak Storage= 2,844 cf @ 12.13 hrs
Average Depth at Peak Storage= 0.57'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,139.83 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 300.0' Slope= 0.1800 '/'
Inlet Invert= -2.00', Outlet Invert= -56.00'



Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Reach 4DC2: 4 Downchute 2%

Inflow Area = 22.714 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 109.15 cfs @ 12.13 hrs, Volume= 16.147 af
 Outflow = 109.14 cfs @ 12.13 hrs, Volume= 16.147 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.58 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 1.84 fps, Avg. Travel Time= 0.7 min

Peak Storage= 1,466 cf @ 12.13 hrs
 Average Depth at Peak Storage= 1.07'
 Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

15.00' x 3.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' Top Width= 33.00'
 Length= 75.0' Slope= 0.0200 '
 Inlet Invert= -2.00', Outlet Invert= -3.50'

**Summary for Pond 1ULT: 1 Upper Left Terrace**

Inflow Area = 1.298 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 12.12 cfs @ 12.07 hrs, Volume= 0.923 af
 Outflow = 4.97 cfs @ 12.26 hrs, Volume= 0.923 af, Atten= 59%, Lag= 11.4 min
 Primary = 4.97 cfs @ 12.26 hrs, Volume= 0.923 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.46' @ 12.26 hrs Surf.Area= 4,101 sf Storage= 5,823 cf

Plug-Flow detention time= 6.8 min calculated for 0.923 af (100% of inflow)
 Center-of-Mass det. time= 6.8 min (770.8 - 764.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' /' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=4.97 cfs @ 12.26 hrs HW=3.46' (Free Discharge)

↑1=Custom Weir/Orifice (Controls 0.00 cfs)

└2=Culvert (Inlet Controls 4.97 cfs @ 6.55 fps)

Summary for Pond 1URT: 1 Upper Right Terrace

Inflow Area = 1.280 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 11.95 cfs @ 12.07 hrs, Volume= 0.910 af
 Outflow = 4.94 cfs @ 12.26 hrs, Volume= 0.910 af, Atten= 59%, Lag= 11.2 min
 Primary = 4.94 cfs @ 12.26 hrs, Volume= 0.910 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.42' @ 12.26 hrs Surf.Area= 4,039 sf Storage= 5,685 cf

Plug-Flow detention time= 6.6 min calculated for 0.910 af (100% of inflow)
 Center-of-Mass det. time= 6.6 min (770.7 - 764.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' /' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=4.94 cfs @ 12.26 hrs HW=3.42' (Free Discharge)

↑1=Custom Weir/Orifice (Controls 0.00 cfs)

└2=Culvert (Inlet Controls 4.94 cfs @ 6.51 fps)

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Pond 2LLT: 2 Lower Left Terrace

Inflow Area = 2.326 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 11.36 cfs @ 12.08 hrs, Volume= 1.653 af
 Outflow = 7.14 cfs @ 12.41 hrs, Volume= 1.653 af, Atten= 37%, Lag= 19.9 min
 Primary = 7.14 cfs @ 12.41 hrs, Volume= 1.653 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.05' @ 12.41 hrs Surf.Area= 5,209 sf Storage= 8,593 cf

Plug-Flow detention time= 10.8 min calculated for 1.653 af (100% of inflow)
 Center-of-Mass det. time= 10.8 min (781.1 - 770.3)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=7.05 cfs @ 12.41 hrs HW=4.05' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 1.60 cfs @ 0.77 fps)

2=Culvert (Inlet Controls 5.45 cfs @ 7.18 fps)

Summary for Pond 2LRT: 2 Lower Right Terrace

Inflow Area = 2.279 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 11.19 cfs @ 12.08 hrs, Volume= 1.620 af
 Outflow = 6.76 cfs @ 12.46 hrs, Volume= 1.620 af, Atten= 40%, Lag= 22.9 min
 Primary = 6.76 cfs @ 12.46 hrs, Volume= 1.620 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.05' @ 12.46 hrs Surf.Area= 5,192 sf Storage= 8,552 cf

Plug-Flow detention time= 10.8 min calculated for 1.620 af (100% of inflow)
 Center-of-Mass det. time= 10.8 min (781.0 - 770.2)

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=6.71 cfs @ 12.46 hrs HW=4.05' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 1.27 cfs @ 0.71 fps)

2=Culvert (Inlet Controls 5.44 cfs @ 7.17 fps)

Summary for Pond 2ULT: 2 Upper Left Terrace

Inflow Area = 1.631 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 15.22 cfs @ 12.07 hrs, Volume= 1.159 af
 Outflow = 6.03 cfs @ 12.28 hrs, Volume= 1.159 af, Atten= 60%, Lag= 12.2 min
 Primary = 6.03 cfs @ 12.28 hrs, Volume= 1.159 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.02' @ 12.28 hrs Surf.Area= 5,142 sf Storage= 8,431 cf

Plug-Flow detention time= 8.9 min calculated for 1.159 af (100% of inflow)
 Center-of-Mass det. time= 8.9 min (772.9 - 764.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.88 cfs @ 12.28 hrs HW=4.02' (Free Discharge)

└1=Custom Weir/Orifice (Weir Controls 0.45 cfs @ 0.50 fps)

└2=Culvert (Inlet Controls 5.43 cfs @ 7.14 fps)

Summary for Pond 2URT: 2 Upper Right Terrace

Inflow Area = 1.598 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 14.92 cfs @ 12.07 hrs, Volume= 1.136 af
 Outflow = 5.40 cfs @ 12.31 hrs, Volume= 1.136 af, Atten= 64%, Lag= 14.2 min
 Primary = 5.40 cfs @ 12.31 hrs, Volume= 1.136 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.99' @ 12.31 hrs Surf.Area= 5,076 sf Storage= 8,270 cf

Plug-Flow detention time= 8.8 min calculated for 1.136 af (100% of inflow)
 Center-of-Mass det. time= 8.8 min (772.9 - 764.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.40 cfs @ 12.31 hrs HW=3.99' (Free Discharge)

└1=Custom Weir/Orifice (Controls 0.00 cfs)

└2=Culvert (Inlet Controls 5.40 cfs @ 7.11 fps)

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Pond 3LLT: 3 Lower Left Terrace

Inflow Area = 3.394 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 19.97 cfs @ 12.08 hrs, Volume= 2.413 af
 Outflow = 18.87 cfs @ 12.11 hrs, Volume= 2.413 af, Atten= 6%, Lag= 2.0 min
 Primary = 18.87 cfs @ 12.11 hrs, Volume= 2.413 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.22' @ 12.11 hrs Surf.Area= 5,568 sf Storage= 9,495 cf

Plug-Flow detention time= 9.6 min calculated for 2.412 af (100% of inflow)
 Center-of-Mass det. time= 9.6 min (778.3 - 768.7)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=18.84 cfs @ 12.11 hrs HW=4.22' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 13.26 cfs @ 1.54 fps)

2=Culvert (Inlet Controls 5.58 cfs @ 7.34 fps)

Summary for Pond 3LRT: 3 Lower Right Terrace

Inflow Area = 3.318 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 19.55 cfs @ 12.08 hrs, Volume= 2.359 af
 Outflow = 18.29 cfs @ 12.11 hrs, Volume= 2.359 af, Atten= 6%, Lag= 2.1 min
 Primary = 18.29 cfs @ 12.11 hrs, Volume= 2.359 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.22' @ 12.11 hrs Surf.Area= 5,554 sf Storage= 9,459 cf

Plug-Flow detention time= 9.7 min calculated for 2.358 af (100% of inflow)
 Center-of-Mass det. time= 9.7 min (778.4 - 768.7)

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=18.19 cfs @ 12.11 hrs HW=4.22' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 12.62 cfs @ 1.51 fps)

2=Culvert (Inlet Controls 5.57 cfs @ 7.34 fps)

Summary for Pond 3ULT: 3 Upper Left Terrace

Inflow Area = 1.792 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 16.73 cfs @ 12.07 hrs, Volume= 1.274 af
 Outflow = 9.14 cfs @ 12.19 hrs, Volume= 1.274 af, Atten= 45%, Lag= 6.8 min
 Primary = 9.14 cfs @ 12.19 hrs, Volume= 1.274 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.09' @ 12.19 hrs Surf.Area= 5,293 sf Storage= 8,800 cf

Plug-Flow detention time= 8.8 min calculated for 1.274 af (100% of inflow)
 Center-of-Mass det. time= 8.8 min (772.8 - 764.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=9.09 cfs @ 12.19 hrs HW=4.09' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 3.61 cfs @ 1.00 fps)

2=Culvert (Inlet Controls 5.48 cfs @ 7.21 fps)

Summary for Pond 3URT: 3 Upper Right Terrace

Inflow Area = 1.758 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 16.41 cfs @ 12.07 hrs, Volume= 1.250 af
 Outflow = 8.45 cfs @ 12.20 hrs, Volume= 1.250 af, Atten= 48%, Lag= 7.5 min
 Primary = 8.45 cfs @ 12.20 hrs, Volume= 1.250 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.08' @ 12.20 hrs Surf.Area= 5,267 sf Storage= 8,734 cf

Plug-Flow detention time= 8.9 min calculated for 1.250 af (100% of inflow)
 Center-of-Mass det. time= 8.9 min (772.9 - 764.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=8.40 cfs @ 12.20 hrs HW=4.08' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 2.93 cfs @ 0.93 fps)

2=Culvert (Inlet Controls 5.47 cfs @ 7.20 fps)

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Pond 4LLT: 4 Lower Left Terrace

Inflow Area = 4.462 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 29.26 cfs @ 12.09 hrs, Volume= 3.172 af
 Outflow = 27.36 cfs @ 12.12 hrs, Volume= 3.172 af, Atten= 7%, Lag= 2.0 min
 Primary = 27.36 cfs @ 12.12 hrs, Volume= 3.172 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.31' @ 12.12 hrs Surf.Area= 5,750 sf Storage= 9,975 cf

Plug-Flow detention time= 10.3 min calculated for 3.171 af (100% of inflow)
 Center-of-Mass det. time= 10.3 min (785.7 - 775.4)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=27.20 cfs @ 12.12 hrs HW=4.31' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 21.56 cfs @ 1.80 fps)

2=Culvert (Inlet Controls 5.64 cfs @ 7.42 fps)

Summary for Pond 4LRT: 4 Lower Right Terrace

Inflow Area = 4.357 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 28.51 cfs @ 12.09 hrs, Volume= 3.097 af
 Outflow = 26.22 cfs @ 12.13 hrs, Volume= 3.097 af, Atten= 8%, Lag= 2.3 min
 Primary = 26.22 cfs @ 12.13 hrs, Volume= 3.097 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.30' @ 12.13 hrs Surf.Area= 5,727 sf Storage= 9,914 cf

Plug-Flow detention time= 10.4 min calculated for 3.097 af (100% of inflow)
 Center-of-Mass det. time= 10.4 min (785.8 - 775.5)

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=26.16 cfs @ 12.13 hrs HW=4.30' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 20.52 cfs @ 1.77 fps)

2=Culvert (Inlet Controls 5.63 cfs @ 7.41 fps)

Summary for Pond 4MLT: 4 Middle Left Terrace

Inflow Area = 3.767 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 23.45 cfs @ 12.08 hrs, Volume= 2.678 af
 Outflow = 22.95 cfs @ 12.10 hrs, Volume= 2.678 af, Atten= 2%, Lag= 1.1 min
 Primary = 22.95 cfs @ 12.10 hrs, Volume= 2.678 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.26' @ 12.10 hrs Surf.Area= 5,659 sf Storage= 9,734 cf

Plug-Flow detention time= 9.3 min calculated for 2.678 af (100% of inflow)
 Center-of-Mass det. time= 9.3 min (777.5 - 768.2)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=22.87 cfs @ 12.10 hrs HW=4.26' (Free Discharge)

└1=Custom Weir/Orifice (Weir Controls 17.27 cfs @ 1.68 fps)

└2=Culvert (Inlet Controls 5.61 cfs @ 7.38 fps)

Summary for Pond 4MRT: 4 Middle Right Terrace

Inflow Area = 3.676 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 22.90 cfs @ 12.08 hrs, Volume= 2.613 af
 Outflow = 22.35 cfs @ 12.10 hrs, Volume= 2.613 af, Atten= 2%, Lag= 1.2 min
 Primary = 22.35 cfs @ 12.10 hrs, Volume= 2.613 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.26' @ 12.10 hrs Surf.Area= 5,646 sf Storage= 9,700 cf

Plug-Flow detention time= 9.3 min calculated for 2.613 af (100% of inflow)
 Center-of-Mass det. time= 9.3 min (777.6 - 768.3)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=22.27 cfs @ 12.10 hrs HW=4.26' (Free Discharge)

└1=Custom Weir/Orifice (Weir Controls 16.66 cfs @ 1.66 fps)

└2=Culvert (Inlet Controls 5.60 cfs @ 7.38 fps)

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Pond 4ULT: 4 Upper Left Terrace

Inflow Area = 1.793 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 16.74 cfs @ 12.07 hrs, Volume= 1.275 af
 Outflow = 9.15 cfs @ 12.19 hrs, Volume= 1.275 af, Atten= 45%, Lag= 6.8 min
 Primary = 9.15 cfs @ 12.19 hrs, Volume= 1.275 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.09' @ 12.19 hrs Surf.Area= 5,294 sf Storage= 8,801 cf

Plug-Flow detention time= 8.8 min calculated for 1.274 af (100% of inflow)
 Center-of-Mass det. time= 8.8 min (772.8 - 764.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=9.10 cfs @ 12.19 hrs HW=4.09' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 3.62 cfs @ 1.00 fps)

2=Culvert (Inlet Controls 5.48 cfs @ 7.21 fps)

Summary for Pond 4URT: 4 Upper Right Terrace

Inflow Area = 1.758 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 16.41 cfs @ 12.07 hrs, Volume= 1.249 af
 Outflow = 8.44 cfs @ 12.20 hrs, Volume= 1.249 af, Atten= 49%, Lag= 7.5 min
 Primary = 8.44 cfs @ 12.20 hrs, Volume= 1.249 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.08' @ 12.20 hrs Surf.Area= 5,266 sf Storage= 8,732 cf

Plug-Flow detention time= 8.9 min calculated for 1.249 af (100% of inflow)
 Center-of-Mass det. time= 8.9 min (772.9 - 764.0)

Watershed A

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=8.38 cfs @ 12.20 hrs HW=4.08' (Free Discharge)

└─1=Custom Weir/Orifice (Weir Controls 2.91 cfs @ 0.93 fps)

└─2=Culvert (Inlet Controls 5.47 cfs @ 7.20 fps)

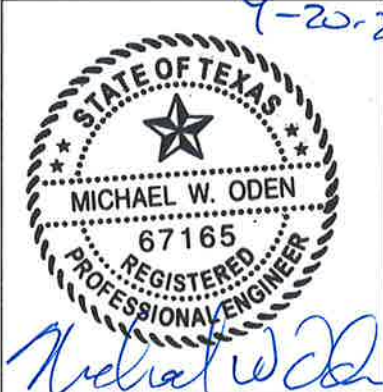
ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

- 3. **PROPOSED CONDITIONS (POST-DEVELOPMENT)**
 - A. MODEL DIAGRAMS
 - B. **LANDFILL WATERSHED A (TYPICAL OF WATERSHEDS C, E, G, J, K, M, & O)**
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. **25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)**
 - C. **LANDFILL WATERSHED B (TYPICAL OF WATERSHEDS D, F, J, L, N, & P)**
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - D. **LANDFILL PERIMETER DITCH, CULVERT, & BASIN SYSTEM**
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - E. **REGIONAL STORMWATER CONDITIONS**
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)

7-20-2015



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Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Page 1

Summary for Subcatchment 1ULS: 1 Upper Left Subcat

Runoff = 9.57 cfs @ 12.07 hrs, Volume= 0.719 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 56,548	92	
56,548		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 1URS: 1 Upper Right Subcat

Runoff = 9.44 cfs @ 12.07 hrs, Volume= 0.709 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 55,761	92	
55,761		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 2LLS: 2 Lower Left Subcat

Runoff = 5.12 cfs @ 12.07 hrs, Volume= 0.385 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 30,267	92	
30,267		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Subcatchment 2LRS: 2 Lower Right Subcat

Runoff = 5.02 cfs @ 12.07 hrs, Volume= 0.377 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 29,657	92	
29,657		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 2ULS: 2 Upper Left Subcat

Runoff = 12.03 cfs @ 12.07 hrs, Volume= 0.903 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 71,032	92	
71,032		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 2URS: 2 Upper Right Subcat

Runoff = 11.79 cfs @ 12.07 hrs, Volume= 0.885 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 69,616	92	
69,616		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Subcatchment 3LLS: 3 Lower Left Subcat

Runoff = 11.81 cfs @ 12.07 hrs, Volume= 0.887 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 69,770	92	
69,770		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 3LRS: 3 Lower Right Subcat

Runoff = 11.50 cfs @ 12.07 hrs, Volume= 0.864 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 67,944	92	
67,944		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 3ULS: 3 Upper Left Subcat

Runoff = 13.22 cfs @ 12.07 hrs, Volume= 0.993 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 78,072	92	
78,072		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Subcatchment 3URS: 3 Upper Right Subcat

Runoff = 12.97 cfs @ 12.07 hrs, Volume= 0.974 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 76,595	92	
76,595		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 4LLS: 4 Lower Left Subcat

Runoff = 5.12 cfs @ 12.07 hrs, Volume= 0.385 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 30,248	92	
30,248		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 4LRS: 4 Lower Right Subcat

Runoff = 5.02 cfs @ 12.07 hrs, Volume= 0.377 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 29,641	92	
29,641		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Subcatchment 4MLS: 4 Middle Left Subcat

Runoff = 14.56 cfs @ 12.07 hrs, Volume= 1.094 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 86,016	92	
86,016		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 4MRS: 4 Middle Right Subcat

Runoff = 14.15 cfs @ 12.07 hrs, Volume= 1.063 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 83,584	92	
83,584		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 4ULS: 4 Upper Left Subcat

Runoff = 13.22 cfs @ 12.07 hrs, Volume= 0.993 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 78,096	92	
78,096		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Subcatchment 4URS: 4 Upper Right Subcat

Runoff = 12.96 cfs @ 12.07 hrs, Volume= 0.974 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 76,557	92	
76,557		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Reach 1DC: 1 Downchute

Inflow Area = 2.578 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 8.97 cfs @ 12.23 hrs, Volume= 1.428 af
 Outflow = 8.96 cfs @ 12.24 hrs, Volume= 1.428 af, Atten= 0%, Lag= 0.6 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.53 fps, Min. Travel Time= 0.9 min
 Avg. Velocity= 1.91 fps, Avg. Travel Time= 2.1 min

Peak Storage= 485 cf @ 12.24 hrs
 Average Depth at Peak Storage= 0.13'
 Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,139.83 cfs

15.00' x 3.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' Top Width= 33.00'
 Length= 245.0' Slope= 0.1800 '
 Inlet Invert= -2.00', Outlet Invert= -46.10'

**Summary for Reach 1DC2: 1 Downchute 2%**

Inflow Area = 2.578 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 8.97 cfs @ 12.22 hrs, Volume= 1.428 af
 Outflow = 8.97 cfs @ 12.23 hrs, Volume= 1.428 af, Atten= 0%, Lag= 0.3 min

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.29 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 0.79 fps, Avg. Travel Time= 1.6 min

Peak Storage= 293 cf @ 12.23 hrs
Average Depth at Peak Storage= 0.25'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 75.0' Slope= 0.0200 '/'
Inlet Invert= -2.00', Outlet Invert= -3.50'



Summary for Reach 2DC: 2 Downchute

Inflow Area = 7.183 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 18.90 cfs @ 12.34 hrs, Volume= 3.979 af
Outflow = 18.90 cfs @ 12.34 hrs, Volume= 3.979 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.03 fps, Min. Travel Time= 0.7 min
Avg. Velocity = 2.33 fps, Avg. Travel Time= 1.8 min

Peak Storage= 769 cf @ 12.34 hrs
Average Depth at Peak Storage= 0.20'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,139.83 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 245.0' Slope= 0.1800 '/'
Inlet Invert= -2.00', Outlet Invert= -46.10'



Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Reach 2DC2: 2 Downchute 2%

Inflow Area = 7.183 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 18.90 cfs @ 12.33 hrs, Volume= 3.979 af
Outflow = 18.90 cfs @ 12.34 hrs, Volume= 3.979 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.03 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 1.11 fps, Avg. Travel Time= 1.1 min

Peak Storage= 468 cf @ 12.34 hrs
Average Depth at Peak Storage= 0.39'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 75.0' Slope= 0.0200 '/'
Inlet Invert= -2.00', Outlet Invert= -3.50'



Summary for Reach 3DC: 3 Downchute

Inflow Area = 13.895 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 43.12 cfs @ 12.17 hrs, Volume= 7.697 af
Outflow = 43.07 cfs @ 12.17 hrs, Volume= 7.697 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 8.20 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 2.86 fps, Avg. Travel Time= 1.4 min

Peak Storage= 1,286 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.33'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,139.83 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 245.0' Slope= 0.1800 '/'
Inlet Invert= -2.00', Outlet Invert= -46.10'



Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Reach 3DC2: 3 Downchute 2%

Inflow Area = 13.895 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 43.16 cfs @ 12.16 hrs, Volume= 7.697 af
Outflow = 43.12 cfs @ 12.17 hrs, Volume= 7.697 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.07 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.41 fps, Avg. Travel Time= 0.9 min

Peak Storage= 794 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.63'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 75.0' Slope= 0.0200 '/'
Inlet Invert= -2.00', Outlet Invert= -3.50'



Summary for Reach 4DC: 4 Downchute

Inflow Area = 22.714 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 74.82 cfs @ 12.19 hrs, Volume= 12.583 af
Outflow = 74.63 cfs @ 12.20 hrs, Volume= 12.583 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 10.04 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 3.40 fps, Avg. Travel Time= 1.5 min

Peak Storage= 2,230 cf @ 12.20 hrs
Average Depth at Peak Storage= 0.45'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,139.83 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 300.0' Slope= 0.1800 '/'
Inlet Invert= -2.00', Outlet Invert= -56.00'



Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Reach 4DC2: 4 Downchute 2%

Inflow Area = 22.714 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 74.80 cfs @ 12.19 hrs, Volume= 12.583 af
 Outflow = 74.82 cfs @ 12.19 hrs, Volume= 12.583 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.92 fps, Min. Travel Time= 0.3 min
 Avg. Velocity = 1.69 fps, Avg. Travel Time= 0.7 min

Peak Storage= 1,140 cf @ 12.19 hrs
 Average Depth at Peak Storage= 0.86'
 Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

15.00' x 3.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 '/ Top Width= 33.00'
 Length= 75.0' Slope= 0.0200 '/
 Inlet Invert= -2.00', Outlet Invert= -3.50'



Summary for Pond 1ULT: 1 Upper Left Terrace

Inflow Area = 1.298 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 9.57 cfs @ 12.07 hrs, Volume= 0.719 af
 Outflow = 4.50 cfs @ 12.22 hrs, Volume= 0.719 af, Atten= 53%, Lag= 8.8 min
 Primary = 4.50 cfs @ 12.22 hrs, Volume= 0.719 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 2.92' @ 12.22 hrs Surf.Area= 3,142 sf Storage= 3,873 cf

Plug-Flow detention time= 5.1 min calculated for 0.719 af (100% of inflow)
 Center-of-Mass det. time= 5.1 min (774.9 - 769.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=4.50 cfs @ 12.22 hrs HW=2.92' (Free Discharge)

↗ 1=Custom Weir/Orifice (Controls 0.00 cfs)
 ↘ 2=Culvert (Inlet Controls 4.50 cfs @ 5.92 fps)

Summary for Pond 1URT: 1 Upper Right Terrace

Inflow Area = 1.280 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 9.44 cfs @ 12.07 hrs, Volume= 0.709 af
 Outflow = 4.47 cfs @ 12.22 hrs, Volume= 0.709 af, Atten= 53%, Lag= 8.7 min
 Primary = 4.47 cfs @ 12.22 hrs, Volume= 0.709 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 2.89' @ 12.22 hrs Surf.Area= 3,098 sf Storage= 3,779 cf

Plug-Flow detention time= 5.0 min calculated for 0.709 af (100% of inflow)
 Center-of-Mass det. time= 5.0 min (774.8 - 769.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=4.47 cfs @ 12.22 hrs HW=2.89' (Free Discharge)

↗ 1=Custom Weir/Orifice (Controls 0.00 cfs)
 ↘ 2=Culvert (Inlet Controls 4.47 cfs @ 5.88 fps)

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Pond 2LLT: 2 Lower Left Terrace

Inflow Area = 2.326 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 9.58 cfs @ 12.08 hrs, Volume= 1.288 af
 Outflow = 5.18 cfs @ 12.58 hrs, Volume= 1.288 af, Atten= 46%, Lag= 29.8 min
 Primary = 5.18 cfs @ 12.58 hrs, Volume= 1.288 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.71' @ 12.58 hrs Surf.Area= 4,569 sf Storage= 6,933 cf

Plug-Flow detention time= 9.0 min calculated for 1.288 af (100% of inflow)
 Center-of-Mass det. time= 9.0 min (783.6 - 774.5)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.18 cfs @ 12.58 hrs HW=3.71' (Free Discharge)

1=Custom Weir/Orifice (Controls 0.00 cfs)
 2=Culvert (Inlet Controls 5.18 cfs @ 6.82 fps)

Summary for Pond 2LRT: 2 Lower Right Terrace

Inflow Area = 2.279 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 9.44 cfs @ 12.08 hrs, Volume= 1.263 af
 Outflow = 5.15 cfs @ 12.57 hrs, Volume= 1.263 af, Atten= 45%, Lag= 29.4 min
 Primary = 5.15 cfs @ 12.57 hrs, Volume= 1.263 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.67' @ 12.57 hrs Surf.Area= 4,492 sf Storage= 6,742 cf

Plug-Flow detention time= 8.8 min calculated for 1.263 af (100% of inflow)
 Center-of-Mass det. time= 8.8 min (783.2 - 774.4)

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.15 cfs @ 12.57 hrs HW=3.67' (Free Discharge)

1=Custom Weir/Orifice (Controls 0.00 cfs)
2=Culvert (Inlet Controls 5.15 cfs @ 6.78 fps)

Summary for Pond 2ULT: 2 Upper Left Terrace

Inflow Area = 1.631 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 12.03 cfs @ 12.07 hrs, Volume= 0.903 af
 Outflow = 4.96 cfs @ 12.26 hrs, Volume= 0.903 af, Atten= 59%, Lag= 11.4 min
 Primary = 4.96 cfs @ 12.26 hrs, Volume= 0.903 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.44' @ 12.26 hrs Surf.Area= 4,062 sf Storage= 5,738 cf

Plug-Flow detention time= 6.8 min calculated for 0.903 af (100% of inflow)
 Center-of-Mass det. time= 6.7 min (776.6 - 769.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=4.96 cfs @ 12.26 hrs HW=3.44' (Free Discharge)

- 1=Custom Weir/Orifice (Controls 0.00 cfs)
- 2=Culvert (Inlet Controls 4.96 cfs @ 6.52 fps)

Summary for Pond 2URT: 2 Upper Right Terrace

Inflow Area = 1.598 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 11.79 cfs @ 12.07 hrs, Volume= 0.885 af
 Outflow = 4.91 cfs @ 12.26 hrs, Volume= 0.885 af, Atten= 58%, Lag= 11.1 min
 Primary = 4.91 cfs @ 12.26 hrs, Volume= 0.885 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.39' @ 12.26 hrs Surf.Area= 3,974 sf Storage= 5,544 cf

Plug-Flow detention time= 6.6 min calculated for 0.885 af (100% of inflow)
 Center-of-Mass det. time= 6.6 min (776.4 - 769.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=4.91 cfs @ 12.26 hrs HW=3.39' (Free Discharge)

- 1=Custom Weir/Orifice (Controls 0.00 cfs)
- 2=Culvert (Inlet Controls 4.91 cfs @ 6.47 fps)

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Pond 3LLT: 3 Lower Left Terrace

Inflow Area = 3.394 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 16.41 cfs @ 12.08 hrs, Volume= 1.880 af
 Outflow = 12.85 cfs @ 12.16 hrs, Volume= 1.880 af, Atten= 22%, Lag= 4.8 min
 Primary = 12.85 cfs @ 12.16 hrs, Volume= 1.880 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.15' @ 12.16 hrs Surf.Area= 5,412 sf Storage= 9,095 cf

Plug-Flow detention time= 10.0 min calculated for 1.880 af (100% of inflow)
 Center-of-Mass det. time= 10.0 min (783.9 - 773.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=12.78 cfs @ 12.16 hrs HW=4.15' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 7.26 cfs @ 1.26 fps)

2=Culvert (Inlet Controls 5.52 cfs @ 7.27 fps)

Summary for Pond 3LRT: 3 Lower Right Terrace

Inflow Area = 3.318 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 16.07 cfs @ 12.08 hrs, Volume= 1.838 af
 Outflow = 12.21 cfs @ 12.17 hrs, Volume= 1.838 af, Atten= 24%, Lag= 5.2 min
 Primary = 12.21 cfs @ 12.17 hrs, Volume= 1.838 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.14' @ 12.17 hrs Surf.Area= 5,394 sf Storage= 9,050 cf

Plug-Flow detention time= 10.0 min calculated for 1.838 af (100% of inflow)
 Center-of-Mass det. time= 10.0 min (783.8 - 773.7)

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=12.16 cfs @ 12.17 hrs HW=4.14' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 6.64 cfs @ 1.23 fps)

2=Culvert (Inlet Controls 5.51 cfs @ 7.26 fps)

Summary for Pond 3ULT: 3 Upper Left Terrace

Inflow Area = 1.792 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 13.22 cfs @ 12.07 hrs, Volume= 0.993 af
 Outflow = 5.15 cfs @ 12.29 hrs, Volume= 0.993 af, Atten= 61%, Lag= 12.6 min
 Primary = 5.15 cfs @ 12.29 hrs, Volume= 0.993 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.67' @ 12.29 hrs Surf.Area= 4,490 sf Storage= 6,738 cf

Plug-Flow detention time= 7.6 min calculated for 0.993 af (100% of inflow)
 Center-of-Mass det. time= 7.6 min (777.4 - 769.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.15 cfs @ 12.29 hrs HW=3.67' (Free Discharge)

1=Custom Weir/Orifice (Controls 0.00 cfs)
2=Culvert (Inlet Controls 5.15 cfs @ 6.78 fps)

Summary for Pond 3URT: 3 Upper Right Terrace

Inflow Area = 1.758 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 12.97 cfs @ 12.07 hrs, Volume= 0.974 af
 Outflow = 5.11 cfs @ 12.28 hrs, Volume= 0.974 af, Atten= 61%, Lag= 12.4 min
 Primary = 5.11 cfs @ 12.28 hrs, Volume= 0.974 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.62' @ 12.28 hrs Surf.Area= 4,402 sf Storage= 6,523 cf

Plug-Flow detention time= 7.4 min calculated for 0.974 af (100% of inflow)
 Center-of-Mass det. time= 7.4 min (777.2 - 769.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.11 cfs @ 12.28 hrs HW=3.62' (Free Discharge)

1=Custom Weir/Orifice (Controls 0.00 cfs)
2=Culvert (Inlet Controls 5.11 cfs @ 6.73 fps)

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Pond 4LLT: 4 Lower Left Terrace

Inflow Area = 4.462 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 21.76 cfs @ 12.12 hrs, Volume= 2.472 af
 Outflow = 16.71 cfs @ 12.19 hrs, Volume= 2.472 af, Atten= 23%, Lag= 4.5 min
 Primary = 16.71 cfs @ 12.19 hrs, Volume= 2.472 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.20' @ 12.19 hrs Surf.Area= 5,515 sf Storage= 9,358 cf

Plug-Flow detention time= 11.0 min calculated for 2.472 af (100% of inflow)
 Center-of-Mass det. time= 11.0 min (792.0 - 781.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=16.64 cfs @ 12.19 hrs HW=4.20' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 11.08 cfs @ 1.45 fps)
 2=Culvert (Inlet Controls 5.56 cfs @ 7.32 fps)

Summary for Pond 4LRT: 4 Lower Right Terrace

Inflow Area = 4.357 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 20.86 cfs @ 12.12 hrs, Volume= 2.414 af
 Outflow = 15.69 cfs @ 12.20 hrs, Volume= 2.414 af, Atten= 25%, Lag= 4.9 min
 Primary = 15.69 cfs @ 12.20 hrs, Volume= 2.414 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.19' @ 12.20 hrs Surf.Area= 5,490 sf Storage= 9,295 cf

Plug-Flow detention time= 11.0 min calculated for 2.414 af (100% of inflow)
 Center-of-Mass det. time= 11.0 min (792.0 - 781.0)

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=15.65 cfs @ 12.20 hrs HW=4.19' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 10.10 cfs @ 1.41 fps)

2=Culvert (Inlet Controls 5.55 cfs @ 7.31 fps)

Summary for Pond 4MLT: 4 Middle Left Terrace

Inflow Area = 3.767 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 19.16 cfs @ 12.08 hrs, Volume= 2.087 af
 Outflow = 17.34 cfs @ 12.12 hrs, Volume= 2.087 af, Atten= 9%, Lag= 2.6 min
 Primary = 17.34 cfs @ 12.12 hrs, Volume= 2.087 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.20' @ 12.12 hrs Surf.Area= 5,530 sf Storage= 9,398 cf

Plug-Flow detention time= 9.6 min calculated for 2.087 af (100% of inflow)
 Center-of-Mass det. time= 9.6 min (783.1 - 773.4)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=17.24 cfs @ 12.12 hrs HW=4.20' (Free Discharge)

- └1=Custom Weir/Orifice (Weir Controls 11.68 cfs @ 1.48 fps)
- └2=Culvert (Inlet Controls 5.56 cfs @ 7.32 fps)

Summary for Pond 4MRT: 4 Middle Right Terrace

Inflow Area = 3.676 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 18.71 cfs @ 12.08 hrs, Volume= 2.037 af
 Outflow = 16.62 cfs @ 12.13 hrs, Volume= 2.037 af, Atten= 11%, Lag= 2.9 min
 Primary = 16.62 cfs @ 12.13 hrs, Volume= 2.037 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.20' @ 12.13 hrs Surf.Area= 5,513 sf Storage= 9,353 cf

Plug-Flow detention time= 9.7 min calculated for 2.036 af (100% of inflow)
 Center-of-Mass det. time= 9.7 min (783.0 - 773.4)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=16.53 cfs @ 12.13 hrs HW=4.20' (Free Discharge)

- └1=Custom Weir/Orifice (Weir Controls 10.97 cfs @ 1.45 fps)
- └2=Culvert (Inlet Controls 5.56 cfs @ 7.32 fps)

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Pond 4ULT: 4 Upper Left Terrace

Inflow Area = 1.793 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 13.22 cfs @ 12.07 hrs, Volume= 0.993 af
 Outflow = 5.15 cfs @ 12.29 hrs, Volume= 0.993 af, Atten= 61%, Lag= 12.6 min
 Primary = 5.15 cfs @ 12.29 hrs, Volume= 0.993 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.67' @ 12.29 hrs Surf.Area= 4,492 sf Storage= 6,741 cf

Plug-Flow detention time= 7.6 min calculated for 0.993 af (100% of inflow)
 Center-of-Mass det. time= 7.6 min (777.4 - 769.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.15 cfs @ 12.29 hrs HW=3.67' (Free Discharge)

1=Custom Weir/Orifice (Controls 0.00 cfs)
 2=Culvert (Inlet Controls 5.15 cfs @ 6.78 fps)

Summary for Pond 4URT: 4 Upper Right Terrace

Inflow Area = 1.758 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 12.96 cfs @ 12.07 hrs, Volume= 0.974 af
 Outflow = 5.11 cfs @ 12.28 hrs, Volume= 0.974 af, Atten= 61%, Lag= 12.4 min
 Primary = 5.11 cfs @ 12.28 hrs, Volume= 0.974 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.62' @ 12.28 hrs Surf.Area= 4,400 sf Storage= 6,518 cf

Plug-Flow detention time= 7.4 min calculated for 0.974 af (100% of inflow)
 Center-of-Mass det. time= 7.4 min (777.2 - 769.8)

Watershed A

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.11 cfs @ 12.28 hrs HW=3.62' (Free Discharge)

- 1=Custom Weir/Orifice (Controls 0.00 cfs)
- 2=Culvert (Inlet Controls 5.11 cfs @ 6.73 fps)

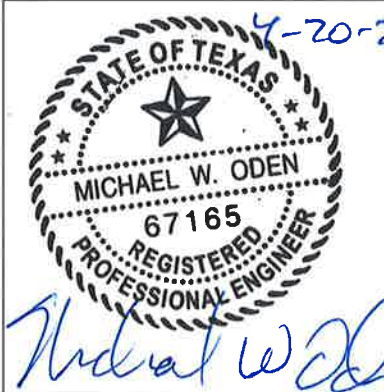
ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

- 3. **PROPOSED CONDITIONS (POST-DEVELOPMENT)**
 - A. MODEL DIAGRAMS
 - B. LANDFILL WATERSHED A (TYPICAL OF WATERSHEDS C, E, G, J, K, M, & O)
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - C. LANDFILL WATERSHED B (TYPICAL OF WATERSHEDS D, F, J, L, N, & P)
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - D. LANDFILL PERIMETER DITCH, CULVERT, & BASIN SYSTEM
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - E. REGIONAL STORMWATER CONDITIONS
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)

4-20-2015



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Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment 1LLS: 1 Lower Left Subcat

Runoff = 23.86 cfs @ 12.22 hrs, Volume= 2.546 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 156,035	92	
156,035		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0	300	0.0600	0.36		Sheet Flow, n= 0.150 P2= 3.75"
2.8	284	0.0600	1.71		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
16.8	584	Total			

Summary for Subcatchment 1LRS: 1 Lower Right Subcat

Runoff = 25.33 cfs @ 12.22 hrs, Volume= 2.704 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 165,671	92	
165,671		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0	300	0.0600	0.36		Sheet Flow, n= 0.150 P2= 3.75"
2.8	284	0.0600	1.71		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
16.8	584	Total			

Summary for Subcatchment 1ULS: 1 Upper Left Subcat

Runoff = 6.58 cfs @ 12.17 hrs, Volume= 0.646 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 39,558	92	
39,558		100.00% Pervious Area

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	284	0.0600	0.35		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 1URS: 1 Upper Right Subcat

Runoff = 7.49 cfs @ 12.18 hrs, Volume= 0.748 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 45,863	92	
45,863		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0	300	0.0600	0.36		Sheet Flow, n= 0.150 P2= 3.75"
0.1	13	0.0600	1.71		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
14.1	313	Total			

Summary for Subcatchment 2LLS: 2 Lower Left Subcat

Runoff = 14.72 cfs @ 12.07 hrs, Volume= 1.121 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 68,705	92	
68,705		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 2LRS: 2 Lower Right Subcat

Runoff = 14.73 cfs @ 12.07 hrs, Volume= 1.122 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 68,723	92	
68,723		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 2ULS: 2 Upper Left Subcat

Runoff = 16.54 cfs @ 12.07 hrs, Volume= 1.259 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 77,174	92	
77,174		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 2URS: 2 Upper Right Subcat

Runoff = 16.15 cfs @ 12.07 hrs, Volume= 1.230 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 75,365	92	
75,365		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 3LLS: 3 Lower Left Subcat

Runoff = 14.74 cfs @ 12.07 hrs, Volume= 1.123 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 68,795	92	
68,795		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 3LRS: 3 Lower Right Subcat

Runoff = 14.75 cfs @ 12.07 hrs, Volume= 1.123 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 68,813	92	
68,813		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 3ULS: 3 Upper Left Subcat

Runoff = 14.75 cfs @ 12.07 hrs, Volume= 1.124 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 68,849	92	
68,849		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 3URS: 3 Upper Right Subcat

Runoff = 14.76 cfs @ 12.07 hrs, Volume= 1.124 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 68,891	92	
68,891		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 4LLS: 4 Lower Left Subcat

Runoff = 14.77 cfs @ 12.07 hrs, Volume= 1.125 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 68,909	92	
68,909		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 4LRS: 4 Lower Right Subcat

Runoff = 14.67 cfs @ 12.07 hrs, Volume= 1.117 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 68,465	92	
68,465		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 4ULS: 4 Upper Left Subcat

Runoff = 14.75 cfs @ 12.07 hrs, Volume= 1.123 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 68,836	92	
68,836		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 4URS: 4 Upper Right Subcat

Runoff = 14.68 cfs @ 12.07 hrs, Volume= 1.118 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 68,481	92	
68,481		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 5LLS: 5 Lower Left Subcat

Runoff = 14.79 cfs @ 12.07 hrs, Volume= 1.127 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 69,030	92	
69,030		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 5LRS: 5 Lower Right Subcat

Runoff = 14.65 cfs @ 12.07 hrs, Volume= 1.115 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 68,343	92	
68,343		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 5ULS: 5 Upper Left Subcat

Runoff = 14.74 cfs @ 12.07 hrs, Volume= 1.123 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 68,798	92	
68,798		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 5URS: 5 Upper Right Subcat

Runoff = 14.67 cfs @ 12.07 hrs, Volume= 1.117 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 68,437	92	
68,437		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 6LLS: 6 Lower Left Subcat

Runoff = 14.82 cfs @ 12.07 hrs, Volume= 1.128 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 69,136	92	
69,136		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 6LRS: 6 Lower Right Subcat

Runoff = 14.54 cfs @ 12.07 hrs, Volume= 1.107 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 67,849	92	
67,849		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 6ULS: 6 Upper Left Subcat

Runoff = 14.74 cfs @ 12.07 hrs, Volume= 1.123 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 68,794	92	
68,794		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 6URS: 6 Upper Right Subcat

Runoff = 14.66 cfs @ 12.07 hrs, Volume= 1.117 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 68,428	92	
68,428		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Reach 1DC: 1 Downchute

Inflow Area = 9.346 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 56.98 cfs @ 12.24 hrs, Volume= 6.644 af
 Outflow = 56.97 cfs @ 12.24 hrs, Volume= 6.644 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 10.10 fps, Min. Travel Time= 0.3 min
 Avg. Velocity = 2.99 fps, Avg. Travel Time= 0.9 min

Peak Storage= 886 cf @ 12.24 hrs
 Average Depth at Peak Storage= 0.35'
 Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,521.82 cfs

15.00' x 3.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' Top Width= 33.00'
 Length= 157.0' Slope= 0.2500 '
 Inlet Invert= -2.00', Outlet Invert= -41.25'

**Summary for Reach 1DC2: 1 Downchute 2%**

Inflow Area = 9.346 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 56.98 cfs @ 12.24 hrs, Volume= 6.644 af
 Outflow = 56.98 cfs @ 12.24 hrs, Volume= 6.644 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.49 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 1.31 fps, Avg. Travel Time= 0.6 min

Peak Storage= 610 cf @ 12.24 hrs
 Average Depth at Peak Storage= 0.74'
 Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 48.0' Slope= 0.0200 '/'
Inlet Invert= -2.00', Outlet Invert= -2.96'



Summary for Reach 2DC: 2 Downchute

Inflow Area =	16.003 ac,	0.00% Impervious,	Inflow Depth = 8.53"	for 100-Year, 24-Hour event
Inflow =	87.54 cfs @	12.22 hrs,	Volume=	11.376 af
Outflow =	87.54 cfs @	12.22 hrs,	Volume=	11.376 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 11.81 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.59 fps, Avg. Travel Time= 0.7 min

Peak Storage= 1,164 cf @ 12.22 hrs
Average Depth at Peak Storage= 0.45'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,521.82 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 157.0' Slope= 0.2500 '/'
Inlet Invert= -2.00', Outlet Invert= -41.25'



Summary for Reach 2DC2: 2 Downchute 2%

Inflow Area =	16.003 ac,	0.00% Impervious,	Inflow Depth = 8.53"	for 100-Year, 24-Hour event
Inflow =	87.54 cfs @	12.22 hrs,	Volume=	11.376 af
Outflow =	87.54 cfs @	12.22 hrs,	Volume=	11.376 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.19 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.60 fps, Avg. Travel Time= 0.5 min

Peak Storage= 809 cf @ 12.22 hrs
Average Depth at Peak Storage= 0.95'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 ' / ' Top Width= 33.00'
Length= 48.0' Slope= 0.0200 ' / '
Inlet Invert= -2.00', Outlet Invert= -2.96'



Summary for Reach 3DC: 3 Downchute

Inflow Area =	22.324 ac,	0.00% Impervious,	Inflow Depth = 8.53"	for 100-Year, 24-Hour event
Inflow =	113.31 cfs @	12.14 hrs,	Volume=	15.870 af
Outflow =	113.31 cfs @	12.14 hrs,	Volume=	15.870 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 12.96 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 4.04 fps, Avg. Travel Time= 0.6 min

Peak Storage= 1,372 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.53'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,521.82 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 ' / ' Top Width= 33.00'
Length= 157.0' Slope= 0.2500 ' / '
Inlet Invert= -2.00', Outlet Invert= -41.25'



Summary for Reach 3DC2: 3 Downchute 2%

Inflow Area =	22.324 ac,	0.00% Impervious,	Inflow Depth = 8.53"	for 100-Year, 24-Hour event
Inflow =	113.29 cfs @	12.14 hrs,	Volume=	15.870 af
Outflow =	113.31 cfs @	12.14 hrs,	Volume=	15.870 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.65 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.80 fps, Avg. Travel Time= 0.4 min

Peak Storage= 962 cf @ 12.14 hrs
Average Depth at Peak Storage= 1.10'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 48.0' Slope= 0.0200 '/'
Inlet Invert= -2.00', Outlet Invert= -2.96'



Summary for Reach 4DC: 4 Downchute

Inflow Area =	28.630 ac,	0.00% Impervious,	Inflow Depth = 8.53"	for 100-Year, 24-Hour event
Inflow =	147.92 cfs @	12.14 hrs,	Volume=	20.353 af
Outflow =	147.91 cfs @	12.14 hrs,	Volume=	20.353 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 14.24 fps, Min. Travel Time= 0.2 min
Avg. Velocity= 4.41 fps, Avg. Travel Time= 0.6 min

Peak Storage= 1,630 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.62'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,521.82 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 157.0' Slope= 0.2500 '/'
Inlet Invert= -2.00', Outlet Invert= -41.25'



Summary for Reach 4DC2: 4 Downchute 2%

Inflow Area =	28.630 ac,	0.00% Impervious,	Inflow Depth = 8.53"	for 100-Year, 24-Hour event
Inflow =	148.02 cfs @	12.13 hrs,	Volume=	20.353 af
Outflow =	147.92 cfs @	12.14 hrs,	Volume=	20.353 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.16 fps, Min. Travel Time= 0.1 min
Avg. Velocity= 1.97 fps, Avg. Travel Time= 0.4 min

Peak Storage= 1,152 cf @ 12.14 hrs
Average Depth at Peak Storage= 1.27'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 48.0' Slope= 0.0200 '/'
Inlet Invert= -2.00', Outlet Invert= -2.96'



Summary for Reach 5DC: 5 Downchute

Inflow Area =	34.934 ac,	0.00% Impervious,	Inflow Depth = 8.53"	for 100-Year, 24-Hour event
Inflow =	183.01 cfs @	12.13 hrs,	Volume=	24.835 af
Outflow =	182.89 cfs @	12.14 hrs,	Volume=	24.835 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 15.33 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 4.73 fps, Avg. Travel Time= 0.6 min

Peak Storage= 1,872 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.70'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,521.82 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 157.0' Slope= 0.2500 '/'
Inlet Invert= -2.00', Outlet Invert= -41.25'



Summary for Reach 5DC2: 5 Downchute 2%

Inflow Area =	34.934 ac,	0.00% Impervious,	Inflow Depth = 8.53"	for 100-Year, 24-Hour event
Inflow =	183.02 cfs @	12.13 hrs,	Volume=	24.835 af
Outflow =	183.01 cfs @	12.13 hrs,	Volume=	24.835 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.60 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.12 fps, Avg. Travel Time= 0.4 min

Peak Storage= 1,332 cf @ 12.13 hrs
Average Depth at Peak Storage= 1.44'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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15.00' x 3.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 '/' Top Width= 33.00'
 Length= 48.0' Slope= 0.0200 '/'
 Inlet Invert= -2.00', Outlet Invert= -2.96'

**Summary for Reach 6DC: 6 Downchute**

Inflow Area = 41.229 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 218.11 cfs @ 12.13 hrs, Volume= 29.310 af
 Outflow = 217.89 cfs @ 12.14 hrs, Volume= 29.310 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 16.29 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 5.02 fps, Avg. Travel Time= 0.7 min

Peak Storage= 2,808 cf @ 12.14 hrs
 Average Depth at Peak Storage= 0.77'
 Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,521.82 cfs

15.00' x 3.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 '/' Top Width= 33.00'
 Length= 210.0' Slope= 0.2500 '/'
 Inlet Invert= -2.00', Outlet Invert= -54.50'

**Summary for Reach 6DC2: 6 Downchute 2%**

Inflow Area = 41.229 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 218.09 cfs @ 12.13 hrs, Volume= 29.310 af
 Outflow = 218.11 cfs @ 12.13 hrs, Volume= 29.310 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 6.97 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 2.24 fps, Avg. Travel Time= 0.4 min

Peak Storage= 1,502 cf @ 12.13 hrs
 Average Depth at Peak Storage= 1.58'
 Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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15.00' x 3.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' / ' Top Width= 33.00'
 Length= 48.0' Slope= 0.0200 ' / '
 Inlet Invert= -2.00', Outlet Invert= -2.96'

**Summary for Pond 1LLT: 1 Lower Left Terrace**

Inflow Area = 4.490 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 27.78 cfs @ 12.23 hrs, Volume= 3.192 af
 Outflow = 27.65 cfs @ 12.24 hrs, Volume= 3.192 af, Atten= 0%, Lag= 0.8 min
 Primary = 27.65 cfs @ 12.24 hrs, Volume= 3.192 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.31' @ 12.24 hrs Surf.Area= 5,756 sf Storage= 9,991 cf

Plug-Flow detention time= 7.8 min calculated for 3.192 af (100% of inflow)
 Center-of-Mass det. time= 7.8 min (782.7 - 774.9)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / ' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=27.59 cfs @ 12.24 hrs HW=4.31' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 21.95 cfs @ 1.81 fps)

2=Culvert (Inlet Controls 5.64 cfs @ 7.43 fps)

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Pond 1LRT: 1 Lower Right Terrace

Inflow Area = 4.856 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 29.47 cfs @ 12.23 hrs, Volume= 3.452 af
 Outflow = 29.33 cfs @ 12.24 hrs, Volume= 3.452 af, Atten= 0%, Lag= 0.8 min
 Primary = 29.33 cfs @ 12.24 hrs, Volume= 3.452 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.33' @ 12.24 hrs Surf.Area= 5,789 sf Storage= 10,081 cf

Plug-Flow detention time= 7.8 min calculated for 3.451 af (100% of inflow)
 Center-of-Mass det. time= 7.8 min (783.0 - 775.2)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=29.32 cfs @ 12.24 hrs HW=4.33' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 23.67 cfs @ 1.86 fps)

2=Culvert (Inlet Controls 5.65 cfs @ 7.44 fps)

Summary for Pond 1ULT: 1 Upper Left Terrace

Inflow Area = 0.908 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 6.58 cfs @ 12.17 hrs, Volume= 0.646 af
 Outflow = 4.12 cfs @ 12.35 hrs, Volume= 0.646 af, Atten= 37%, Lag= 10.7 min
 Primary = 4.12 cfs @ 12.35 hrs, Volume= 0.646 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 2.53' @ 12.35 hrs Surf.Area= 2,573 sf Storage= 2,758 cf

Plug-Flow detention time= 4.1 min calculated for 0.645 af (100% of inflow)
 Center-of-Mass det. time= 4.1 min (775.7 - 771.5)

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=4.12 cfs @ 12.35 hrs HW=2.53' (Free Discharge)

1=Custom Weir/Orifice (Controls 0.00 cfs)
2=Culvert (Inlet Controls 4.12 cfs @ 5.42 fps)

Summary for Pond 1URT: 1 Upper Right Terrace

Inflow Area = 1.053 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 7.49 cfs @ 12.18 hrs, Volume= 0.748 af
 Outflow = 4.42 cfs @ 12.39 hrs, Volume= 0.748 af, Atten= 41%, Lag= 12.4 min
 Primary = 4.42 cfs @ 12.39 hrs, Volume= 0.748 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 2.84' @ 12.39 hrs Surf.Area= 3,023 sf Storage= 3,621 cf

Plug-Flow detention time= 4.9 min calculated for 0.748 af (100% of inflow)
 Center-of-Mass det. time= 4.9 min (777.1 - 772.2)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=4.42 cfs @ 12.39 hrs HW=2.84' (Free Discharge)

└1=Custom Weir/Orifice (Controls 0.00 cfs)

└2=Culvert (Inlet Controls 4.42 cfs @ 5.82 fps)

Summary for Pond 2LLT: 2 Lower Left Terrace

Inflow Area = 3.349 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 19.72 cfs @ 12.08 hrs, Volume= 2.381 af
 Outflow = 18.54 cfs @ 12.11 hrs, Volume= 2.381 af, Atten= 6%, Lag= 2.1 min
 Primary = 18.54 cfs @ 12.11 hrs, Volume= 2.381 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.22' @ 12.11 hrs Surf.Area= 5,560 sf Storage= 9,474 cf

Plug-Flow detention time= 9.7 min calculated for 2.381 af (100% of inflow)
 Center-of-Mass det. time= 9.7 min (778.4 - 768.7)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=18.46 cfs @ 12.11 hrs HW=4.22' (Free Discharge)

└1=Custom Weir/Orifice (Weir Controls 12.89 cfs @ 1.52 fps)

└2=Culvert (Inlet Controls 5.57 cfs @ 7.34 fps)

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Pond 2LRT: 2 Lower Right Terrace

Inflow Area = 3.308 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 19.69 cfs @ 12.08 hrs, Volume= 2.351 af
 Outflow = 18.46 cfs @ 12.11 hrs, Volume= 2.351 af, Atten= 6%, Lag= 2.1 min
 Primary = 18.46 cfs @ 12.11 hrs, Volume= 2.351 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.22' @ 12.11 hrs Surf.Area= 5,558 sf Storage= 9,469 cf

Plug-Flow detention time= 9.7 min calculated for 2.351 af (100% of inflow)
 Center-of-Mass det. time= 9.7 min (778.3 - 768.7)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=18.37 cfs @ 12.11 hrs HW=4.22' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 12.80 cfs @ 1.52 fps)

2=Culvert (Inlet Controls 5.57 cfs @ 7.34 fps)

Summary for Pond 2ULT: 2 Upper Left Terrace

Inflow Area = 1.772 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 16.54 cfs @ 12.07 hrs, Volume= 1.259 af
 Outflow = 8.70 cfs @ 12.19 hrs, Volume= 1.259 af, Atten= 47%, Lag= 7.2 min
 Primary = 8.70 cfs @ 12.19 hrs, Volume= 1.259 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.09' @ 12.19 hrs Surf.Area= 5,277 sf Storage= 8,761 cf

Plug-Flow detention time= 8.8 min calculated for 1.259 af (100% of inflow)
 Center-of-Mass det. time= 8.8 min (772.9 - 764.0)

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=8.66 cfs @ 12.19 hrs HW=4.09' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 3.18 cfs @ 0.96 fps)

2=Culvert (Inlet Controls 5.47 cfs @ 7.21 fps)

Summary for Pond 2URT: 2 Upper Right Terrace

Inflow Area = 1.730 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 16.15 cfs @ 12.07 hrs, Volume= 1.230 af
 Outflow = 7.92 cfs @ 12.21 hrs, Volume= 1.230 af, Atten= 51%, Lag= 8.2 min
 Primary = 7.92 cfs @ 12.21 hrs, Volume= 1.230 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.07' @ 12.21 hrs Surf.Area= 5,243 sf Storage= 8,676 cf

Plug-Flow detention time= 8.9 min calculated for 1.230 af (100% of inflow)
 Center-of-Mass det. time= 8.9 min (772.9 - 764.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=7.82 cfs @ 12.21 hrs HW=4.07' (Free Discharge)

└1=Custom Weir/Orifice (Weir Controls 2.36 cfs @ 0.87 fps)

└2=Culvert (Inlet Controls 5.46 cfs @ 7.19 fps)

Summary for Pond 3LLT: 3 Lower Left Terrace

Inflow Area = 3.160 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 19.54 cfs @ 12.08 hrs, Volume= 2.246 af
 Outflow = 18.11 cfs @ 12.12 hrs, Volume= 2.246 af, Atten= 7%, Lag= 2.2 min
 Primary = 18.11 cfs @ 12.12 hrs, Volume= 2.246 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.21' @ 12.12 hrs Surf.Area= 5,549 sf Storage= 9,447 cf

Plug-Flow detention time= 9.7 min calculated for 2.246 af (100% of inflow)
 Center-of-Mass det. time= 9.7 min (778.1 - 768.4)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=18.01 cfs @ 12.12 hrs HW=4.21' (Free Discharge)

└1=Custom Weir/Orifice (Weir Controls 12.44 cfs @ 1.51 fps)

└2=Culvert (Inlet Controls 5.57 cfs @ 7.33 fps)

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Pond 3LRT: 3 Lower Right Terrace

Inflow Area = 3.161 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 18.43 cfs @ 12.08 hrs, Volume= 2.247 af
 Outflow = 15.90 cfs @ 12.13 hrs, Volume= 2.247 af, Atten= 14%, Lag= 3.2 min
 Primary = 15.90 cfs @ 12.13 hrs, Volume= 2.247 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.19' @ 12.13 hrs Surf.Area= 5,495 sf Storage= 9,308 cf

Plug-Flow detention time= 10.7 min calculated for 2.247 af (100% of inflow)
 Center-of-Mass det. time= 10.7 min (784.6 - 773.9)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' /' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=15.86 cfs @ 12.13 hrs HW=4.19' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 10.31 cfs @ 1.42 fps)

2=Culvert (Inlet Controls 5.55 cfs @ 7.31 fps)

Summary for Pond 3ULT: 3 Upper Left Terrace

Inflow Area = 1.581 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 14.75 cfs @ 12.07 hrs, Volume= 1.124 af
 Outflow = 5.38 cfs @ 12.31 hrs, Volume= 1.124 af, Atten= 64%, Lag= 14.1 min
 Primary = 5.38 cfs @ 12.31 hrs, Volume= 1.124 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.96' @ 12.31 hrs Surf.Area= 5,022 sf Storage= 8,118 cf

Plug-Flow detention time= 8.7 min calculated for 1.123 af (100% of inflow)
 Center-of-Mass det. time= 8.7 min (772.7 - 764.0)

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.38 cfs @ 12.31 hrs HW=3.96' (Free Discharge)

- 1=Custom Weir/Orifice (Controls 0.00 cfs)
- 2=Culvert (Inlet Controls 5.38 cfs @ 7.08 fps)

Summary for Pond 3URT: 3 Upper Right Terrace

Inflow Area = 1.582 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 14.76 cfs @ 12.07 hrs, Volume= 1.124 af
 Outflow = 4.29 cfs @ 12.39 hrs, Volume= 1.124 af, Atten= 71%, Lag= 19.0 min
 Primary = 4.29 cfs @ 12.39 hrs, Volume= 1.124 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 2.70' @ 12.39 hrs Surf.Area= 8,234 sf Storage= 11,110 cf

Plug-Flow detention time= 19.8 min calculated for 1.124 af (100% of inflow)
 Center-of-Mass det. time= 19.8 min (783.8 - 764.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	33,704 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
4.70	14,342	33,704	33,704

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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#2 Primary 0.00' **11.8" Round Culvert**
 L= 30.0' CPP, projecting, no headwall, Ke= 0.900
 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900
 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=4.29 cfs @ 12.39 hrs HW=2.70' (Free Discharge)

└1=Custom Weir/Orifice (Controls 0.00 cfs)

└2=Culvert (Inlet Controls 4.29 cfs @ 5.65 fps)

Summary for Pond 4LLT: 4 Lower Left Terrace

Inflow Area = 3.162 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 19.56 cfs @ 12.08 hrs, Volume= 2.248 af
 Outflow = 18.16 cfs @ 12.11 hrs, Volume= 2.248 af, Atten= 7%, Lag= 2.2 min
 Primary = 18.16 cfs @ 12.11 hrs, Volume= 2.248 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.21' @ 12.11 hrs Surf.Area= 5,550 sf Storage= 9,450 cf

Plug-Flow detention time= 9.7 min calculated for 2.247 af (100% of inflow)
 Center-of-Mass det. time= 9.7 min (778.1 - 768.4)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=18.04 cfs @ 12.11 hrs HW=4.21' (Free Discharge)

└1=Custom Weir/Orifice (Weir Controls 12.48 cfs @ 1.51 fps)

└2=Culvert (Inlet Controls 5.57 cfs @ 7.33 fps)

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Pond 4LRT: 4 Lower Right Terrace

Inflow Area = 3.144 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 19.46 cfs @ 12.08 hrs, Volume= 2.235 af
 Outflow = 17.99 cfs @ 12.12 hrs, Volume= 2.235 af, Atten= 8%, Lag= 2.3 min
 Primary = 17.99 cfs @ 12.12 hrs, Volume= 2.235 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.21' @ 12.12 hrs Surf.Area= 5,546 sf Storage= 9,439 cf

Plug-Flow detention time= 9.7 min calculated for 2.235 af (100% of inflow)
 Center-of-Mass det. time= 9.7 min (778.1 - 768.3)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=17.89 cfs @ 12.12 hrs HW=4.21' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 12.32 cfs @ 1.50 fps)

2=Culvert (Inlet Controls 5.57 cfs @ 7.33 fps)

Summary for Pond 4ULT: 4 Upper Left Terrace

Inflow Area = 1.580 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 14.75 cfs @ 12.07 hrs, Volume= 1.123 af
 Outflow = 5.38 cfs @ 12.31 hrs, Volume= 1.123 af, Atten= 64%, Lag= 14.1 min
 Primary = 5.38 cfs @ 12.31 hrs, Volume= 1.123 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.96' @ 12.31 hrs Surf.Area= 5,021 sf Storage= 8,116 cf

Plug-Flow detention time= 8.7 min calculated for 1.123 af (100% of inflow)
 Center-of-Mass det. time= 8.7 min (772.7 - 764.0)

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.38 cfs @ 12.31 hrs HW=3.96' (Free Discharge)

- └1=Custom Weir/Orifice (Controls 0.00 cfs)
- └2=Culvert (Inlet Controls 5.38 cfs @ 7.08 fps)

Summary for Pond 4URT: 4 Upper Right Terrace

Inflow Area = 1.572 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 14.68 cfs @ 12.07 hrs, Volume= 1.118 af
 Outflow = 5.37 cfs @ 12.31 hrs, Volume= 1.118 af, Atten= 63%, Lag= 14.0 min
 Primary = 5.37 cfs @ 12.31 hrs, Volume= 1.118 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.95' @ 12.31 hrs Surf.Area= 4,995 sf Storage= 8,046 cf

Plug-Flow detention time= 8.7 min calculated for 1.117 af (100% of inflow)
 Center-of-Mass det. time= 8.6 min (772.7 - 764.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.37 cfs @ 12.31 hrs HW=3.95' (Free Discharge)

↖1=Custom Weir/Orifice (Controls 0.00 cfs)
 ↖2=Culvert (Inlet Controls 5.37 cfs @ 7.07 fps)

Summary for Pond 5LLT: 5 Lower Left Terrace

Inflow Area = 3.164 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 19.59 cfs @ 12.08 hrs, Volume= 2.249 af
 Outflow = 18.19 cfs @ 12.11 hrs, Volume= 2.249 af, Atten= 7%, Lag= 2.2 min
 Primary = 18.19 cfs @ 12.11 hrs, Volume= 2.249 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.21' @ 12.11 hrs Surf.Area= 5,551 sf Storage= 9,452 cf

Plug-Flow detention time= 9.7 min calculated for 2.249 af (100% of inflow)
 Center-of-Mass det. time= 9.7 min (778.1 - 768.4)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=18.08 cfs @ 12.11 hrs HW=4.21' (Free Discharge)

↖1=Custom Weir/Orifice (Weir Controls 12.51 cfs @ 1.51 fps)
 ↖2=Culvert (Inlet Controls 5.57 cfs @ 7.33 fps)

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Pond 5LRT: 5 Lower Right Terrace

Inflow Area = 3.140 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 19.43 cfs @ 12.08 hrs, Volume= 2.232 af
 Outflow = 17.95 cfs @ 12.12 hrs, Volume= 2.232 af, Atten= 8%, Lag= 2.3 min
 Primary = 17.95 cfs @ 12.12 hrs, Volume= 2.232 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.21' @ 12.12 hrs Surf.Area= 5,545 sf Storage= 9,437 cf

Plug-Flow detention time= 9.7 min calculated for 2.232 af (100% of inflow)
 Center-of-Mass det. time= 9.7 min (778.1 - 768.3)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=17.85 cfs @ 12.12 hrs HW=4.21' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 12.28 cfs @ 1.50 fps)

2=Culvert (Inlet Controls 5.57 cfs @ 7.33 fps)

Summary for Pond 5ULT: 5 Upper Left Terrace

Inflow Area = 1.579 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 14.74 cfs @ 12.07 hrs, Volume= 1.123 af
 Outflow = 5.38 cfs @ 12.31 hrs, Volume= 1.123 af, Atten= 64%, Lag= 14.1 min
 Primary = 5.38 cfs @ 12.31 hrs, Volume= 1.123 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.96' @ 12.31 hrs Surf.Area= 5,018 sf Storage= 8,108 cf

Plug-Flow detention time= 8.7 min calculated for 1.122 af (100% of inflow)
 Center-of-Mass det. time= 8.7 min (772.7 - 764.0)

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.38 cfs @ 12.31 hrs HW=3.96' (Free Discharge)

1=Custom Weir/Orifice (Controls 0.00 cfs)
2=Culvert (Inlet Controls 5.38 cfs @ 7.08 fps)

Summary for Pond 5URT: 5 Upper Right Terrace

Inflow Area = 1.571 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 14.67 cfs @ 12.07 hrs, Volume= 1.117 af
 Outflow = 5.37 cfs @ 12.31 hrs, Volume= 1.117 af, Atten= 63%, Lag= 14.0 min
 Primary = 5.37 cfs @ 12.31 hrs, Volume= 1.117 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.95' @ 12.31 hrs Surf.Area= 4,992 sf Storage= 8,038 cf

Plug-Flow detention time= 8.6 min calculated for 1.117 af (100% of inflow)
 Center-of-Mass det. time= 8.6 min (772.7 - 764.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.37 cfs @ 12.31 hrs HW=3.95' (Free Discharge)

- 1=Custom Weir/Orifice (Controls 0.00 cfs)
- 2=Culvert (Inlet Controls 5.37 cfs @ 7.06 fps)

Summary for Pond 6LLT: 6 Lower Left Terrace

Inflow Area = 3.166 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 19.61 cfs @ 12.08 hrs, Volume= 2.251 af
 Outflow = 18.22 cfs @ 12.11 hrs, Volume= 2.251 af, Atten= 7%, Lag= 2.2 min
 Primary = 18.22 cfs @ 12.11 hrs, Volume= 2.251 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.21' @ 12.11 hrs Surf.Area= 5,552 sf Storage= 9,454 cf

Plug-Flow detention time= 9.7 min calculated for 2.250 af (100% of inflow)
 Center-of-Mass det. time= 9.7 min (778.1 - 768.4)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=18.11 cfs @ 12.11 hrs HW=4.21' (Free Discharge)

- 1=Custom Weir/Orifice (Weir Controls 12.54 cfs @ 1.51 fps)
- 2=Culvert (Inlet Controls 5.57 cfs @ 7.33 fps)

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Pond 6LRT: 6 Lower Right Terrace

Inflow Area = 3.128 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 19.33 cfs @ 12.08 hrs, Volume= 2.224 af
 Outflow = 17.80 cfs @ 12.12 hrs, Volume= 2.224 af, Atten= 8%, Lag= 2.4 min
 Primary = 17.80 cfs @ 12.12 hrs, Volume= 2.224 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.21' @ 12.12 hrs Surf.Area= 5,542 sf Storage= 9,427 cf

Plug-Flow detention time= 9.7 min calculated for 2.223 af (100% of inflow)
 Center-of-Mass det. time= 9.7 min (778.1 - 768.4)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=17.71 cfs @ 12.12 hrs HW=4.21' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 12.14 cfs @ 1.49 fps)

2=Culvert (Inlet Controls 5.57 cfs @ 7.33 fps)

Summary for Pond 6ULT: 6 Upper Left Terrace

Inflow Area = 1.579 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 14.74 cfs @ 12.07 hrs, Volume= 1.123 af
 Outflow = 5.38 cfs @ 12.31 hrs, Volume= 1.123 af, Atten= 64%, Lag= 14.1 min
 Primary = 5.38 cfs @ 12.31 hrs, Volume= 1.123 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.96' @ 12.31 hrs Surf.Area= 5,018 sf Storage= 8,107 cf

Plug-Flow detention time= 8.7 min calculated for 1.122 af (100% of inflow)
 Center-of-Mass det. time= 8.7 min (772.7 - 764.0)

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.38 cfs @ 12.31 hrs HW=3.96' (Free Discharge)

- 1=Custom Weir/Orifice (Controls 0.00 cfs)
- 2=Culvert (Inlet Controls 5.38 cfs @ 7.08 fps)

Summary for Pond 6URT: 6 Upper Right Terrace

Inflow Area = 1.571 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 14.66 cfs @ 12.07 hrs, Volume= 1.117 af
 Outflow = 5.37 cfs @ 12.31 hrs, Volume= 1.117 af, Atten= 63%, Lag= 14.0 min
 Primary = 5.37 cfs @ 12.31 hrs, Volume= 1.117 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.95' @ 12.31 hrs Surf.Area= 4,991 sf Storage= 8,036 cf

Plug-Flow detention time= 8.6 min calculated for 1.116 af (100% of inflow)
 Center-of-Mass det. time= 8.6 min (772.7 - 764.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed B

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.37 cfs @ 12.31 hrs HW=3.95' (Free Discharge)

1=Custom Weir/Orifice (Controls 0.00 cfs)

2=Culvert (Inlet Controls 5.37 cfs @ 7.06 fps)

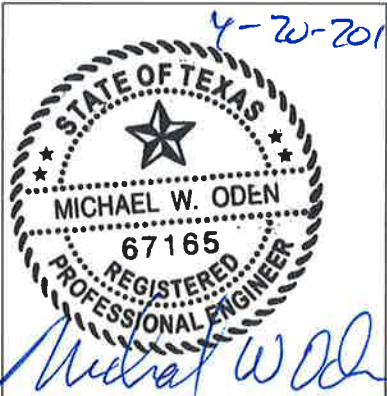
ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

- 3. **PROPOSED CONDITIONS (POST-DEVELOPMENT)**
 - A. MODEL DIAGRAMS
 - B. LANDFILL WATERSHED A (TYPICAL OF WATERSHEDS C, E, G, J, K, M, & O)
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - C. LANDFILL WATERSHED B (TYPICAL OF WATERSHEDS D, F, J, L, N, & P)
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. **25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)**
 - D. LANDFILL PERIMETER DITCH, CULVERT, & BASIN SYSTEM
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - E. REGIONAL STORMWATER CONDITIONS
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)

4-20-2015



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Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Page 1

Summary for Subcatchment 1LLS: 1 Lower Left Subcat

Runoff = 18.84 cfs @ 12.22 hrs, Volume= 1.984 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 156,035	92	
156,035		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0	300	0.0600	0.36		Sheet Flow, n= 0.150 P2= 3.75"
2.8	284	0.0600	1.71		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
16.8	584	Total			

Summary for Subcatchment 1LRS: 1 Lower Right Subcat

Runoff = 20.00 cfs @ 12.22 hrs, Volume= 2.107 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 165,671	92	
165,671		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0	300	0.0600	0.36		Sheet Flow, n= 0.150 P2= 3.75"
2.8	284	0.0600	1.71		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
16.8	584	Total			

Summary for Subcatchment 1ULS: 1 Upper Left Subcat

Runoff = 5.19 cfs @ 12.18 hrs, Volume= 0.503 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 39,558	92	
39,558		100.00% Pervious Area

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	284	0.0600	0.35		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 1URS: 1 Upper Right Subcat

Runoff = 5.91 cfs @ 12.18 hrs, Volume= 0.583 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 45,863	92	
45,863		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0	300	0.0600	0.36		Sheet Flow, n= 0.150 P2= 3.75"
0.1	13	0.0600	1.71		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
14.1	313	Total			

Summary for Subcatchment 2LLS: 2 Lower Left Subcat

Runoff = 11.63 cfs @ 12.07 hrs, Volume= 0.874 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 68,705	92	
68,705		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 2LRS: 2 Lower Right Subcat

Runoff = 11.64 cfs @ 12.07 hrs, Volume= 0.874 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 68,723	92	
68,723		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 2ULS: 2 Upper Left Subcat

Runoff = 13.07 cfs @ 12.07 hrs, Volume= 0.981 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 77,174	92	
77,174		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 2URS: 2 Upper Right Subcat

Runoff = 12.76 cfs @ 12.07 hrs, Volume= 0.958 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 75,365	92	
75,365		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 3LLS: 3 Lower Left Subcat

Runoff = 11.65 cfs @ 12.07 hrs, Volume= 0.875 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 68,795	92	
68,795		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 3LRS: 3 Lower Right Subcat

Runoff = 11.65 cfs @ 12.07 hrs, Volume= 0.875 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 68,813	92	
68,813		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 3ULS: 3 Upper Left Subcat

Runoff = 11.66 cfs @ 12.07 hrs, Volume= 0.876 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 68,849	92	
68,849		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 3URS: 3 Upper Right Subcat

Runoff = 11.66 cfs @ 12.07 hrs, Volume= 0.876 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 68,891	92	
68,891		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 4LLS: 4 Lower Left Subcat

Runoff = 11.67 cfs @ 12.07 hrs, Volume= 0.876 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 68,909	92	
68,909		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 4LRS: 4 Lower Right Subcat

Runoff = 11.59 cfs @ 12.07 hrs, Volume= 0.871 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 68,465	92	
68,465		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 4ULS: 4 Upper Left Subcat

Runoff = 11.65 cfs @ 12.07 hrs, Volume= 0.875 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 68,836	92	
68,836		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 4URS: 4 Upper Right Subcat

Runoff = 11.59 cfs @ 12.07 hrs, Volume= 0.871 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 68,481	92	
68,481		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 5LLS: 5 Lower Left Subcat

Runoff = 11.69 cfs @ 12.07 hrs, Volume= 0.878 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 69,030	92	
69,030		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 5LRS: 5 Lower Right Subcat

Runoff = 11.57 cfs @ 12.07 hrs, Volume= 0.869 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 68,343	92	
68,343		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 5ULS: 5 Upper Left Subcat

Runoff = 11.65 cfs @ 12.07 hrs, Volume= 0.875 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 68,798	92	
68,798		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 5URS: 5 Upper Right Subcat

Runoff = 11.59 cfs @ 12.07 hrs, Volume= 0.870 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 68,437	92	
68,437		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 6LLS: 6 Lower Left Subcat

Runoff = 11.71 cfs @ 12.07 hrs, Volume= 0.879 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 69,136	92	
69,136		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 6LRS: 6 Lower Right Subcat

Runoff = 11.49 cfs @ 12.07 hrs, Volume= 0.863 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 67,849	92	
67,849		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 6ULS: 6 Upper Left Subcat

Runoff = 11.65 cfs @ 12.07 hrs, Volume= 0.875 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 68,794	92	
68,794		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment 6URS: 6 Upper Right Subcat

Runoff = 11.59 cfs @ 12.07 hrs, Volume= 0.870 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 68,428	92	
68,428		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	179	0.2500	0.57		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Reach 1DC: 1 Downchute

Inflow Area = 9.346 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 45.77 cfs @ 12.24 hrs, Volume= 5.178 af
 Outflow = 45.75 cfs @ 12.25 hrs, Volume= 5.178 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 9.31 fps, Min. Travel Time= 0.3 min
 Avg. Velocity = 2.79 fps, Avg. Travel Time= 0.9 min

Peak Storage= 772 cf @ 12.25 hrs
 Average Depth at Peak Storage= 0.31'
 Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,521.82 cfs

15.00' x 3.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' Top Width= 33.00'
 Length= 157.0' Slope= 0.2500 '
 Inlet Invert= -2.00', Outlet Invert= -41.25'

**Summary for Reach 1DC2: 1 Downchute 2%**

Inflow Area = 9.346 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 45.77 cfs @ 12.24 hrs, Volume= 5.178 af
 Outflow = 45.77 cfs @ 12.24 hrs, Volume= 5.178 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.16 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 1.20 fps, Avg. Travel Time= 0.7 min

Peak Storage= 528 cf @ 12.24 hrs
 Average Depth at Peak Storage= 0.65'
 Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 ' ' Top Width= 33.00'
Length= 48.0' Slope= 0.0200 ' '
Inlet Invert= -2.00', Outlet Invert= -2.96'



Summary for Reach 2DC: 2 Downchute

Inflow Area =	16.003 ac,	0.00% Impervious,	Inflow Depth = 6.65"	for 25-Year, 24-Hour event
Inflow =	67.33 cfs @	12.22 hrs,	Volume=	8.865 af
Outflow =	67.32 cfs @	12.23 hrs,	Volume=	8.865 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 10.73 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.32 fps, Avg. Travel Time= 0.8 min

Peak Storage= 985 cf @ 12.23 hrs
Average Depth at Peak Storage= 0.39'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,521.82 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 ' ' Top Width= 33.00'
Length= 157.0' Slope= 0.2500 ' '
Inlet Invert= -2.00', Outlet Invert= -41.25'



Summary for Reach 2DC2: 2 Downchute 2%

Inflow Area =	16.003 ac,	0.00% Impervious,	Inflow Depth = 6.65"	for 25-Year, 24-Hour event
Inflow =	67.33 cfs @	12.22 hrs,	Volume=	8.865 af
Outflow =	67.33 cfs @	12.22 hrs,	Volume=	8.865 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.75 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.47 fps, Avg. Travel Time= 0.5 min

Peak Storage= 680 cf @ 12.22 hrs
Average Depth at Peak Storage= 0.81'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 ' / ' Top Width= 33.00'
Length= 48.0' Slope= 0.0200 ' / '
Inlet Invert= -2.00', Outlet Invert= -2.96'



Summary for Reach 3DC: 3 Downchute

Inflow Area = 22.324 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 87.59 cfs @ 12.22 hrs, Volume= 12.367 af
Outflow = 87.59 cfs @ 12.22 hrs, Volume= 12.367 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 11.81 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.72 fps, Avg. Travel Time= 0.7 min

Peak Storage= 1,164 cf @ 12.22 hrs
Average Depth at Peak Storage= 0.45'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,521.82 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 ' / ' Top Width= 33.00'
Length= 157.0' Slope= 0.2500 ' / '
Inlet Invert= -2.00', Outlet Invert= -41.25'



Summary for Reach 3DC2: 3 Downchute 2%

Inflow Area = 22.324 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 87.59 cfs @ 12.22 hrs, Volume= 12.367 af
Outflow = 87.59 cfs @ 12.22 hrs, Volume= 12.367 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.19 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.65 fps, Avg. Travel Time= 0.5 min

Peak Storage= 810 cf @ 12.22 hrs
Average Depth at Peak Storage= 0.95'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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15.00' x 3.00' deep channel, $n = 0.035$
Side Slope Z-value= 3.0 ' ' Top Width= 33.00'
Length= 48.0' Slope= 0.0200 ' '
Inlet Invert= -2.00', Outlet Invert= -2.96'



Summary for Reach 4DC: 4 Downchute

Inflow Area = 28.630 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 109.65 cfs @ 12.21 hrs, Volume= 15.860 af
Outflow = 109.65 cfs @ 12.21 hrs, Volume= 15.860 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 12.81 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 4.06 fps, Avg. Travel Time= 0.6 min

Peak Storage= 1,344 cf @ 12.21 hrs
Average Depth at Peak Storage= 0.52'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,521.82 cfs

15.00' x 3.00' deep channel, $n = 0.035$
Side Slope Z-value= 3.0 ' ' Top Width= 33.00'
Length= 157.0' Slope= 0.2500 ' '
Inlet Invert= -2.00', Outlet Invert= -41.25'



Summary for Reach 4DC2: 4 Downchute 2%

Inflow Area = 28.630 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 109.65 cfs @ 12.21 hrs, Volume= 15.860 af
Outflow = 109.65 cfs @ 12.21 hrs, Volume= 15.860 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.59 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.81 fps, Avg. Travel Time= 0.4 min

Peak Storage= 941 cf @ 12.21 hrs
Average Depth at Peak Storage= 1.08'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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15.00' x 3.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 '/' Top Width= 33.00'
 Length= 48.0' Slope= 0.0200 '/'
 Inlet Invert= -2.00', Outlet Invert= -2.96'

**Summary for Reach 5DC: 5 Downchute**

Inflow Area = 34.934 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 132.02 cfs @ 12.20 hrs, Volume= 19.353 af
 Outflow = 131.97 cfs @ 12.21 hrs, Volume= 19.353 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 13.68 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 4.35 fps, Avg. Travel Time= 0.6 min

Peak Storage= 1,514 cf @ 12.21 hrs
 Average Depth at Peak Storage= 0.58'
 Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,521.82 cfs

15.00' x 3.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 '/' Top Width= 33.00'
 Length= 157.0' Slope= 0.2500 '/'
 Inlet Invert= -2.00', Outlet Invert= -41.25'

**Summary for Reach 5DC2: 5 Downchute 2%**

Inflow Area = 34.934 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 132.01 cfs @ 12.20 hrs, Volume= 19.353 af
 Outflow = 132.02 cfs @ 12.20 hrs, Volume= 19.353 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.94 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 1.94 fps, Avg. Travel Time= 0.4 min

Peak Storage= 1,066 cf @ 12.20 hrs
 Average Depth at Peak Storage= 1.20'
 Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 48.0' Slope= 0.0200 '/'
Inlet Invert= -2.00', Outlet Invert= -2.96'



Summary for Reach 6DC: 6 Downchute

Inflow Area =	41.229 ac,	0.00% Impervious,	Inflow Depth = 6.65"	for 25-Year, 24-Hour event
Inflow =	154.51 cfs @	12.20 hrs,	Volume=	22.840 af
Outflow =	154.42 cfs @	12.21 hrs,	Volume=	22.840 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 14.46 fps, Min. Travel Time= 0.2 min
Avg. Velocity= 4.61 fps, Avg. Travel Time= 0.8 min

Peak Storage= 2,243 cf @ 12.21 hrs
Average Depth at Peak Storage= 0.63'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 2,521.82 cfs

15.00' x 3.00' deep channel, n= 0.035
Side Slope Z-value= 3.0 '/' Top Width= 33.00'
Length= 210.0' Slope= 0.2500 '/'
Inlet Invert= -2.00', Outlet Invert= -54.50'



Summary for Reach 6DC2: 6 Downchute 2%

Inflow Area =	41.229 ac,	0.00% Impervious,	Inflow Depth = 6.65"	for 25-Year, 24-Hour event
Inflow =	154.48 cfs @	12.20 hrs,	Volume=	22.840 af
Outflow =	154.51 cfs @	12.20 hrs,	Volume=	22.840 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.25 fps, Min. Travel Time= 0.1 min
Avg. Velocity= 2.06 fps, Avg. Travel Time= 0.4 min

Peak Storage= 1,186 cf @ 12.20 hrs
Average Depth at Peak Storage= 1.31'
Bank-Full Depth= 3.00' Flow Area= 72.0 sf, Capacity= 713.28 cfs

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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15.00' x 3.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 '/ Top Width= 33.00'
 Length= 48.0' Slope= 0.0200 '/
 Inlet Invert= -2.00', Outlet Invert= -2.96'



Summary for Pond 1LLT: 1 Lower Left Terrace

Inflow Area = 4.490 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 22.33 cfs @ 12.23 hrs, Volume= 2.487 af
 Outflow = 22.19 cfs @ 12.24 hrs, Volume= 2.487 af, Atten= 1%, Lag= 0.9 min
 Primary = 22.19 cfs @ 12.24 hrs, Volume= 2.487 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.26' @ 12.24 hrs Surf.Area= 5,642 sf Storage= 9,690 cf

Plug-Flow detention time= 8.1 min calculated for 2.487 af (100% of inflow)
 Center-of-Mass det. time= 8.1 min (788.6 - 780.5)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=22.13 cfs @ 12.24 hrs HW=4.26' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 16.53 cfs @ 1.65 fps)

2=Culvert (Inlet Controls 5.60 cfs @ 7.38 fps)

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Pond 1LRT: 1 Lower Right Terrace

Inflow Area = 4.856 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 23.71 cfs @ 12.23 hrs, Volume= 2.690 af
 Outflow = 23.58 cfs @ 12.24 hrs, Volume= 2.690 af, Atten= 1%, Lag= 0.9 min
 Primary = 23.58 cfs @ 12.24 hrs, Volume= 2.690 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.27' @ 12.24 hrs Surf.Area= 5,673 sf Storage= 9,770 cf

Plug-Flow detention time= 8.0 min calculated for 2.689 af (100% of inflow)
 Center-of-Mass det. time= 8.0 min (788.8 - 780.7)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=23.55 cfs @ 12.24 hrs HW=4.27' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 17.94 cfs @ 1.70 fps)

2=Culvert (Inlet Controls 5.61 cfs @ 7.39 fps)

Summary for Pond 1ULT: 1 Upper Left Terrace

Inflow Area = 0.908 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 5.19 cfs @ 12.18 hrs, Volume= 0.503 af
 Outflow = 3.63 cfs @ 12.32 hrs, Volume= 0.503 af, Atten= 30%, Lag= 8.6 min
 Primary = 3.63 cfs @ 12.32 hrs, Volume= 0.503 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 2.07' @ 12.32 hrs Surf.Area= 1,906 sf Storage= 1,733 cf

Plug-Flow detention time= 3.2 min calculated for 0.503 af (100% of inflow)
 Center-of-Mass det. time= 3.1 min (780.5 - 777.3)

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=3.63 cfs @ 12.32 hrs HW=2.07' (Free Discharge)

- 1=Custom Weir/Orifice (Controls 0.00 cfs)
- 2=Culvert (Inlet Controls 3.63 cfs @ 4.78 fps)

Summary for Pond 1URT: 1 Upper Right Terrace

Inflow Area = 1.053 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 5.91 cfs @ 12.18 hrs, Volume= 0.583 af
 Outflow = 3.92 cfs @ 12.35 hrs, Volume= 0.583 af, Atten= 34%, Lag= 10.1 min
 Primary = 3.92 cfs @ 12.35 hrs, Volume= 0.583 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 2.34' @ 12.35 hrs Surf.Area= 2,291 sf Storage= 2,288 cf

Plug-Flow detention time= 3.7 min calculated for 0.583 af (100% of inflow)
 Center-of-Mass det. time= 3.7 min (781.7 - 778.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=3.92 cfs @ 12.35 hrs HW=2.33' (Free Discharge)

- └1=Custom Weir/Orifice (Controls 0.00 cfs)
- └2=Culvert (Inlet Controls 3.92 cfs @ 5.16 fps)

Summary for Pond 2LLT: 2 Lower Left Terrace

Inflow Area = 3.349 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 16.21 cfs @ 12.08 hrs, Volume= 1.855 af
 Outflow = 12.48 cfs @ 12.16 hrs, Volume= 1.855 af, Atten= 23%, Lag= 5.0 min
 Primary = 12.48 cfs @ 12.16 hrs, Volume= 1.855 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.14' @ 12.16 hrs Surf.Area= 5,401 sf Storage= 9,069 cf

Plug-Flow detention time= 10.0 min calculated for 1.855 af (100% of inflow)
 Center-of-Mass det. time= 10.0 min (783.8 - 773.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=12.41 cfs @ 12.16 hrs HW=4.14' (Free Discharge)

- └1=Custom Weir/Orifice (Weir Controls 6.89 cfs @ 1.24 fps)
- └2=Culvert (Inlet Controls 5.52 cfs @ 7.26 fps)

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Pond 2LRT: 2 Lower Right Terrace

Inflow Area = 3.308 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 16.17 cfs @ 12.08 hrs, Volume= 1.832 af
 Outflow = 12.36 cfs @ 12.16 hrs, Volume= 1.832 af, Atten= 24%, Lag= 5.1 min
 Primary = 12.36 cfs @ 12.16 hrs, Volume= 1.832 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.14' @ 12.16 hrs Surf.Area= 5,398 sf Storage= 9,061 cf

Plug-Flow detention time= 10.0 min calculated for 1.832 af (100% of inflow)
 Center-of-Mass det. time= 10.0 min (783.6 - 773.6)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=12.29 cfs @ 12.16 hrs HW=4.14' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 6.77 cfs @ 1.23 fps)

2=Culvert (Inlet Controls 5.52 cfs @ 7.26 fps)

Summary for Pond 2ULT: 2 Upper Left Terrace

Inflow Area = 1.772 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 13.07 cfs @ 12.07 hrs, Volume= 0.981 af
 Outflow = 5.12 cfs @ 12.28 hrs, Volume= 0.981 af, Atten= 61%, Lag= 12.5 min
 Primary = 5.12 cfs @ 12.28 hrs, Volume= 0.981 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.64' @ 12.28 hrs Surf.Area= 4,437 sf Storage= 6,607 cf

Plug-Flow detention time= 7.5 min calculated for 0.981 af (100% of inflow)
 Center-of-Mass det. time= 7.5 min (777.3 - 769.8)

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.12 cfs @ 12.28 hrs HW=3.64' (Free Discharge)

- 1=Custom Weir/Orifice (Controls 0.00 cfs)
- 2=Culvert (Inlet Controls 5.12 cfs @ 6.75 fps)

Summary for Pond 2URT: 2 Upper Right Terrace

Inflow Area = 1.730 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 12.76 cfs @ 12.07 hrs, Volume= 0.958 af
 Outflow = 5.08 cfs @ 12.28 hrs, Volume= 0.958 af, Atten= 60%, Lag= 12.2 min
 Primary = 5.08 cfs @ 12.28 hrs, Volume= 0.958 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.58' @ 12.28 hrs Surf.Area= 4,328 sf Storage= 6,346 cf

Plug-Flow detention time= 7.3 min calculated for 0.958 af (100% of inflow)
 Center-of-Mass det. time= 7.3 min (777.1 - 769.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=5.08 cfs @ 12.28 hrs HW=3.58' (Free Discharge)

1=Custom Weir/Orifice (Controls 0.00 cfs)
2=Culvert (Inlet Controls 5.08 cfs @ 6.68 fps)

Summary for Pond 3LLT: 3 Lower Left Terrace

Inflow Area = 3.160 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 16.02 cfs @ 12.08 hrs, Volume= 1.750 af
 Outflow = 11.86 cfs @ 12.17 hrs, Volume= 1.750 af, Atten= 26%, Lag= 5.6 min
 Primary = 11.86 cfs @ 12.17 hrs, Volume= 1.750 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.14' @ 12.17 hrs Surf.Area= 5,384 sf Storage= 9,025 cf

Plug-Flow detention time= 9.8 min calculated for 1.750 af (100% of inflow)
 Center-of-Mass det. time= 9.8 min (782.9 - 773.1)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=11.84 cfs @ 12.17 hrs HW=4.14' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 6.33 cfs @ 1.21 fps)
 2=Culvert (Inlet Controls 5.51 cfs @ 7.26 fps)

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Pond 3LRT: 3 Lower Right Terrace

Inflow Area = 3.161 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 14.98 cfs @ 12.08 hrs, Volume= 1.751 af
 Outflow = 9.37 cfs @ 12.22 hrs, Volume= 1.751 af, Atten= 37%, Lag= 8.4 min
 Primary = 9.37 cfs @ 12.22 hrs, Volume= 1.751 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.10' @ 12.22 hrs Surf.Area= 5,301 sf Storage= 8,819 cf

Plug-Flow detention time= 10.6 min calculated for 1.751 af (100% of inflow)
 Center-of-Mass det. time= 10.6 min (788.6 - 778.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=9.32 cfs @ 12.22 hrs HW=4.10' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 3.83 cfs @ 1.02 fps)

2=Culvert (Inlet Controls 5.48 cfs @ 7.22 fps)

Summary for Pond 3ULT: 3 Upper Left Terrace

Inflow Area = 1.581 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 11.66 cfs @ 12.07 hrs, Volume= 0.876 af
 Outflow = 4.89 cfs @ 12.26 hrs, Volume= 0.876 af, Atten= 58%, Lag= 11.0 min
 Primary = 4.89 cfs @ 12.26 hrs, Volume= 0.876 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.36' @ 12.26 hrs Surf.Area= 3,926 sf Storage= 5,439 cf

Plug-Flow detention time= 6.5 min calculated for 0.876 af (100% of inflow)
 Center-of-Mass det. time= 6.5 min (776.3 - 769.8)

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' / Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=4.89 cfs @ 12.26 hrs HW=3.36' (Free Discharge)

- 1=Custom Weir/Orifice (Controls 0.00 cfs)
- 2=Culvert (Inlet Controls 4.89 cfs @ 6.44 fps)

Summary for Pond 3URT: 3 Upper Right Terrace

Inflow Area = 1.582 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 11.66 cfs @ 12.07 hrs, Volume= 0.876 af
 Outflow = 3.86 cfs @ 12.35 hrs, Volume= 0.876 af, Atten= 67%, Lag= 16.4 min
 Primary = 3.86 cfs @ 12.35 hrs, Volume= 0.876 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 2.28' @ 12.35 hrs Surf.Area= 6,943 sf Storage= 7,898 cf

Plug-Flow detention time= 16.4 min calculated for 0.876 af (100% of inflow)
 Center-of-Mass det. time= 16.4 min (786.2 - 769.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	33,704 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
4.70	14,342	33,704	33,704

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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#2 Primary 0.00' **11.8" Round Culvert**
 L= 30.0' CPP, projecting, no headwall, Ke= 0.900
 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900
 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=3.86 cfs @ 12.35 hrs HW=2.28' (Free Discharge)

└1=Custom Weir/Orifice (Controls 0.00 cfs)
 └2=Culvert (Inlet Controls 3.86 cfs @ 5.08 fps)

Summary for Pond 4LLT: 4 Lower Left Terrace

Inflow Area = 3.162 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 16.04 cfs @ 12.08 hrs, Volume= 1.752 af
 Outflow = 11.89 cfs @ 12.17 hrs, Volume= 1.752 af, Atten= 26%, Lag= 5.5 min
 Primary = 11.89 cfs @ 12.17 hrs, Volume= 1.752 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.14' @ 12.17 hrs Surf.Area= 5,385 sf Storage= 9,028 cf

Plug-Flow detention time= 9.8 min calculated for 1.752 af (100% of inflow)
 Center-of-Mass det. time= 9.8 min (782.9 - 773.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=11.88 cfs @ 12.17 hrs HW=4.14' (Free Discharge)

└1=Custom Weir/Orifice (Weir Controls 6.37 cfs @ 1.21 fps)
 └2=Culvert (Inlet Controls 5.51 cfs @ 7.26 fps)

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Pond 4LRT: 4 Lower Right Terrace

Inflow Area = 3.144 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 15.96 cfs @ 12.08 hrs, Volume= 1.742 af
 Outflow = 11.74 cfs @ 12.17 hrs, Volume= 1.742 af, Atten= 26%, Lag= 5.7 min
 Primary = 11.74 cfs @ 12.17 hrs, Volume= 1.742 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.13' @ 12.17 hrs Surf.Area= 5,380 sf Storage= 9,016 cf

Plug-Flow detention time= 9.8 min calculated for 1.742 af (100% of inflow)
 Center-of-Mass det. time= 9.8 min (782.8 - 773.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=11.70 cfs @ 12.17 hrs HW=4.13' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 6.19 cfs @ 1.20 fps)

2=Culvert (Inlet Controls 5.51 cfs @ 7.26 fps)

Summary for Pond 4ULT: 4 Upper Left Terrace

Inflow Area = 1.580 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 11.65 cfs @ 12.07 hrs, Volume= 0.875 af
 Outflow = 4.89 cfs @ 12.26 hrs, Volume= 0.875 af, Atten= 58%, Lag= 11.0 min
 Primary = 4.89 cfs @ 12.26 hrs, Volume= 0.875 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.36' @ 12.26 hrs Surf.Area= 3,925 sf Storage= 5,438 cf

Plug-Flow detention time= 6.5 min calculated for 0.875 af (100% of inflow)
 Center-of-Mass det. time= 6.5 min (776.3 - 769.8)

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=4.89 cfs @ 12.26 hrs HW=3.36' (Free Discharge)

1=Custom Weir/Orifice (Controls 0.00 cfs)
2=Culvert (Inlet Controls 4.89 cfs @ 6.44 fps)

Summary for Pond 4URT: 4 Upper Right Terrace

Inflow Area = 1.572 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 11.59 cfs @ 12.07 hrs, Volume= 0.871 af
 Outflow = 4.88 cfs @ 12.26 hrs, Volume= 0.871 af, Atten= 58%, Lag= 10.9 min
 Primary = 4.88 cfs @ 12.26 hrs, Volume= 0.871 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.35' @ 12.26 hrs Surf.Area= 3,902 sf Storage= 5,390 cf

Plug-Flow detention time= 6.4 min calculated for 0.871 af (100% of inflow)
 Center-of-Mass det. time= 6.4 min (776.2 - 769.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=4.88 cfs @ 12.26 hrs HW=3.35' (Free Discharge)

└─1=Custom Weir/Orifice (Controls 0.00 cfs)

└─2=Culvert (Inlet Controls 4.88 cfs @ 6.43 fps)

Summary for Pond 5LLT: 5 Lower Left Terrace

Inflow Area = 3.164 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 16.06 cfs @ 12.08 hrs, Volume= 1.753 af
 Outflow = 11.93 cfs @ 12.17 hrs, Volume= 1.753 af, Atten= 26%, Lag= 5.5 min
 Primary = 11.93 cfs @ 12.17 hrs, Volume= 1.753 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.14' @ 12.17 hrs Surf.Area= 5,386 sf Storage= 9,030 cf

Plug-Flow detention time= 9.8 min calculated for 1.752 af (100% of inflow)
 Center-of-Mass det. time= 9.8 min (782.8 - 773.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 ' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=11.91 cfs @ 12.17 hrs HW=4.14' (Free Discharge)

└─1=Custom Weir/Orifice (Weir Controls 6.40 cfs @ 1.21 fps)

└─2=Culvert (Inlet Controls 5.51 cfs @ 7.26 fps)

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Pond 5LRT: 5 Lower Right Terrace

Inflow Area = 3.140 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 15.94 cfs @ 12.08 hrs, Volume= 1.739 af
 Outflow = 11.70 cfs @ 12.17 hrs, Volume= 1.739 af, Atten= 27%, Lag= 5.7 min
 Primary = 11.70 cfs @ 12.17 hrs, Volume= 1.739 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.13' @ 12.17 hrs Surf.Area= 5,379 sf Storage= 9,013 cf

Plug-Flow detention time= 9.8 min calculated for 1.739 af (100% of inflow)
 Center-of-Mass det. time= 9.8 min (782.8 - 773.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=11.66 cfs @ 12.17 hrs HW=4.13' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 6.15 cfs @ 1.20 fps)

2=Culvert (Inlet Controls 5.51 cfs @ 7.25 fps)

Summary for Pond 5ULT: 5 Upper Left Terrace

Inflow Area = 1.579 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 11.65 cfs @ 12.07 hrs, Volume= 0.875 af
 Outflow = 4.89 cfs @ 12.26 hrs, Volume= 0.875 af, Atten= 58%, Lag= 11.0 min
 Primary = 4.89 cfs @ 12.26 hrs, Volume= 0.875 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.36' @ 12.26 hrs Surf.Area= 3,922 sf Storage= 5,432 cf

Plug-Flow detention time= 6.5 min calculated for 0.875 af (100% of inflow)
 Center-of-Mass det. time= 6.5 min (776.3 - 769.8)

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 1' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=4.89 cfs @ 12.26 hrs HW=3.36' (Free Discharge)

1=Custom Weir/Orifice (Controls 0.00 cfs)

2=Culvert (Inlet Controls 4.89 cfs @ 6.44 fps)

Summary for Pond 5URT: 5 Upper Right Terrace

Inflow Area = 1.571 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 11.59 cfs @ 12.07 hrs, Volume= 0.870 af
 Outflow = 4.88 cfs @ 12.26 hrs, Volume= 0.870 af, Atten= 58%, Lag= 10.9 min
 Primary = 4.88 cfs @ 12.26 hrs, Volume= 0.870 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.35' @ 12.26 hrs Surf.Area= 3,900 sf Storage= 5,384 cf

Plug-Flow detention time= 6.4 min calculated for 0.870 af (100% of inflow)
 Center-of-Mass det. time= 6.4 min (776.2 - 769.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=4.88 cfs @ 12.26 hrs HW=3.35' (Free Discharge)

- 1=Custom Weir/Orifice (Controls 0.00 cfs)
- 2=Culvert (Inlet Controls 4.88 cfs @ 6.43 fps)

Summary for Pond 6LLT: 6 Lower Left Terrace

Inflow Area = 3.166 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 16.08 cfs @ 12.08 hrs, Volume= 1.754 af
 Outflow = 11.96 cfs @ 12.17 hrs, Volume= 1.754 af, Atten= 26%, Lag= 5.5 min
 Primary = 11.96 cfs @ 12.17 hrs, Volume= 1.754 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.14' @ 12.17 hrs Surf.Area= 5,387 sf Storage= 9,033 cf

Plug-Flow detention time= 9.8 min calculated for 1.754 af (100% of inflow)
 Center-of-Mass det. time= 9.8 min (782.8 - 773.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=11.95 cfs @ 12.17 hrs HW=4.14' (Free Discharge)

- 1=Custom Weir/Orifice (Weir Controls 6.44 cfs @ 1.21 fps)
- 2=Culvert (Inlet Controls 5.51 cfs @ 7.26 fps)

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Pond 6LRT: 6 Lower Right Terrace

Inflow Area = 3.128 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 15.85 cfs @ 12.08 hrs, Volume= 1.733 af
 Outflow = 11.56 cfs @ 12.18 hrs, Volume= 1.733 af, Atten= 27%, Lag= 5.8 min
 Primary = 11.56 cfs @ 12.18 hrs, Volume= 1.733 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 4.13' @ 12.18 hrs Surf.Area= 5,374 sf Storage= 9,001 cf

Plug-Flow detention time= 9.8 min calculated for 1.733 af (100% of inflow)
 Center-of-Mass det. time= 9.8 min (782.9 - 773.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=11.52 cfs @ 12.18 hrs HW=4.13' (Free Discharge)

1=Custom Weir/Orifice (Weir Controls 6.01 cfs @ 1.19 fps)

2=Culvert (Inlet Controls 5.51 cfs @ 7.25 fps)

Summary for Pond 6ULT: 6 Upper Left Terrace

Inflow Area = 1.579 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 11.65 cfs @ 12.07 hrs, Volume= 0.875 af
 Outflow = 4.89 cfs @ 12.26 hrs, Volume= 0.875 af, Atten= 58%, Lag= 11.0 min
 Primary = 4.89 cfs @ 12.26 hrs, Volume= 0.875 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.36' @ 12.26 hrs Surf.Area= 3,922 sf Storage= 5,432 cf

Plug-Flow detention time= 6.5 min calculated for 0.875 af (100% of inflow)
 Center-of-Mass det. time= 6.5 min (776.3 - 769.8)

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=4.89 cfs @ 12.26 hrs HW=3.36' (Free Discharge)

1=Custom Weir/Orifice (Controls 0.00 cfs)
2=Culvert (Inlet Controls 4.89 cfs @ 6.44 fps)

Summary for Pond 6URT: 6 Upper Right Terrace

Inflow Area = 1.571 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 11.59 cfs @ 12.07 hrs, Volume= 0.870 af
 Outflow = 4.88 cfs @ 12.26 hrs, Volume= 0.870 af, Atten= 58%, Lag= 10.9 min
 Primary = 4.88 cfs @ 12.26 hrs, Volume= 0.870 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 3.35' @ 12.26 hrs Surf.Area= 3,899 sf Storage= 5,383 cf

Plug-Flow detention time= 6.4 min calculated for 0.870 af (100% of inflow)
 Center-of-Mass det. time= 6.4 min (776.2 - 769.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	12,399 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	0	0	0
0.10	41	2	2
1.00	716	341	343
2.00	1,803	1,260	1,602
3.00	3,261	2,532	4,134
4.00	5,091	4,176	8,310
4.70	6,592	4,089	12,399

Watershed B

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.70 Width (feet) 38.00 42.90
#2	Primary	0.00'	11.8" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.76 sf

Primary OutFlow Max=4.88 cfs @ 12.26 hrs HW=3.35' (Free Discharge)

1=Custom Weir/Orifice (Controls 0.00 cfs)

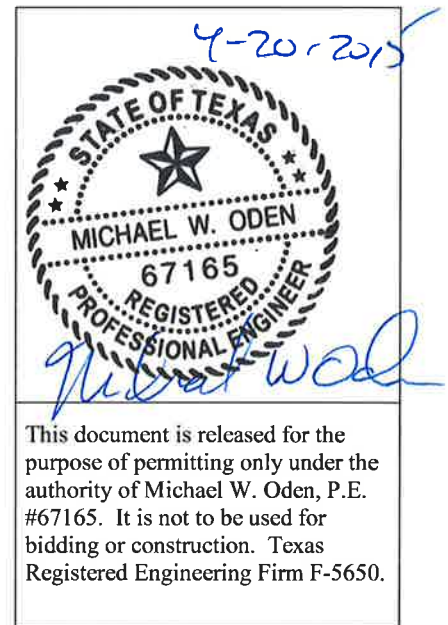
2=Culvert (Inlet Controls 4.88 cfs @ 6.43 fps)

ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

- 3. PROPOSED CONDITIONS (POST-DEVELOPMENT)**
 - A. MODEL DIAGRAMS
 - B. LANDFILL WATERSHED A (TYPICAL OF WATERSHEDS C, E, G, J, K, M, & O)
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - C. LANDFILL WATERSHED B (TYPICAL OF WATERSHEDS D, F, J, L, N, & P)
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - D. LANDFILL PERIMETER DITCH, CULVERT, & BASIN SYSTEM
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - E. REGIONAL STORMWATER CONDITIONS
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)



Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment A5LLS: 5 Lower Left Subcat

Runoff = 22.85 cfs @ 12.09 hrs, Volume= 1.842 af, Depth= 8.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

	Area (sf)	CN	Description
*	80,011	92	
*	16,587	96	
*	14,691	92	
	111,289	93	Weighted Average
	111,289		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	243	0.2500	0.60		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment A5LRS: 5 Lower Right Subcat

Runoff = 22.63 cfs @ 12.10 hrs, Volume= 1.843 af, Depth= 8.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

	Area (sf)	CN	Description
*	80,953	92	
*	14,272	92	
*	16,114	96	
	111,339	93	Weighted Average
	111,339		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	257	0.2500	0.61		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment A5MLS: 5 Middle Left Subcat

Runoff = 29.47 cfs @ 12.10 hrs, Volume= 2.405 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 116,616	92	
* 16,300	96	
* 14,437	92	
147,353	92	Weighted Average
147,353		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	272	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment A5MRS: 5 Middle Right Subcat

Runoff = 29.86 cfs @ 12.11 hrs, Volume= 2.486 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 122,444	92	
* 14,024	92	
* 15,834	96	
152,302	92	Weighted Average
152,302		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment A5ULS: 5 Upper Left Subcat

Runoff = 26.30 cfs @ 12.11 hrs, Volume= 2.189 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 108,278	92	
* 13,696	96	
* 12,130	92	
134,104	92	Weighted Average
134,104		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	297	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment A5URS: 5 Upper Right Subcat

Runoff = 26.75 cfs @ 12.11 hrs, Volume= 2.241 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 118,162	92	
* 8,990	92	
* 10,150	96	
137,302	92	Weighted Average
137,302		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	36	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	336	Total			

Summary for Subcatchment B7LLS: 7 Lower Left Subcat

Runoff = 21.33 cfs @ 12.10 hrs, Volume= 1.741 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 83,779	92	
* 12,131	96	
* 10,745	92	
106,655	92	Weighted Average
106,655		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	268	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment B7LRS: 7 Lower Right Subcat

Runoff = 20.97 cfs @ 12.10 hrs, Volume= 1.699 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 81,647	92	
* 11,925	96	
* 10,562	92	
104,134	92	Weighted Average
104,134		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	262	0.2500	0.61		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment B7ULS: 7 Upper Left Subcat

Runoff = 22.91 cfs @ 12.11 hrs, Volume= 1.907 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 94,137	92	
* 12,037	96	
* 10,661	92	
116,835	92	Weighted Average
116,835		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	298	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment B7URS: 7 Upper Right Subcat

Runoff = 22.70 cfs @ 12.11 hrs, Volume= 1.889 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 93,145	92	
* 11,984	96	
* 10,614	92	
115,743	92	Weighted Average
115,743		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	297	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment C5LLS: 5 Lower Left Subcat

Runoff = 21.07 cfs @ 12.09 hrs, Volume= 1.709 af, Depth= 8.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 74,693	92	
* 15,145	96	
* 13,414	92	
103,252	93	Weighted Average
103,252		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	251	0.2500	0.61		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment C5LRS: 5 Lower Right Subcat

Runoff = 21.24 cfs @ 12.09 hrs, Volume= 1.713 af, Depth= 8.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 74,225	92	
* 15,512	96	
* 13,739	92	
103,476	93	Weighted Average
103,476		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	241	0.2500	0.60		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment C5MLS: 5 Middle Left Subcat

Runoff = 27.82 cfs @ 12.11 hrs, Volume= 2.307 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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	Area (sf)	CN	Description
*	113,067	92	
*	14,998	96	
*	13,284	92	
	141,349	92	Weighted Average
	141,349		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	292	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment C5MRS: 5 Middle Right Subcat

Runoff = 27.64 cfs @ 12.10 hrs, Volume= 2.256 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

	Area (sf)	CN	Description
*	109,253	92	
*	15,365	96	
*	13,609	92	
	138,227	92	Weighted Average
	138,227		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	271	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment C5ULS: 5 Upper Left Subcat

Runoff = 26.59 cfs @ 12.11 hrs, Volume= 2.220 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

	Area (sf)	CN	Description
*	111,570	92	
*	12,982	96	
*	11,498	92	
	136,050	92	Weighted Average
	136,050		100.00% Pervious Area

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	27	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	327	Total			

Summary for Subcatchment C5URS: 5 Upper Right Subcat

Runoff = 25.43 cfs @ 12.11 hrs, Volume= 2.116 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 104,706	92	
* 13,248	96	
* 11,734	92	
129,688	92	Weighted Average
129,688		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	298	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment D7LLS: 7 Lower Left Subcat

Runoff = 20.04 cfs @ 12.11 hrs, Volume= 1.673 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 83,617	92	
* 10,024	96	
* 8,878	92	
102,519	92	Weighted Average
102,519		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	14	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	314	Total			

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment D7LRS: 7 Lower Right Subcat

Runoff = 19.93 cfs @ 12.11 hrs, Volume= 1.658 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 82,704	92	
* 10,031	96	
* 8,885	92	
101,620	92	Weighted Average
101,620		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.0	7	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
7.9	307	Total			

Summary for Subcatchment D7ULS: 7 Upper Left Subcat

Runoff = 21.37 cfs @ 12.11 hrs, Volume= 1.790 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 90,839	92	
* 9,986	96	
* 8,844	92	
109,669	92	Weighted Average
109,669		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	42	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	342	Total			

Summary for Subcatchment D7URS: 7 Upper Right Subcat

Runoff = 21.01 cfs @ 12.11 hrs, Volume= 1.754 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 88,514	92	
* 10,059	96	
* 8,909	92	
107,482	92	Weighted Average
107,482		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	27	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	327	Total			

Summary for Subcatchment E5LLS: 5 Lower Left Subcat

Runoff = 24.56 cfs @ 12.10 hrs, Volume= 2.040 af, Depth= 8.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 91,942	92	
* 16,597	96	
* 14,700	92	
123,239	93	Weighted Average
123,239		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	286	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment E5LRS: 5 Lower Right Subcat

Runoff = 24.56 cfs @ 12.10 hrs, Volume= 2.040 af, Depth= 8.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 91,941	92	
* 16,597	96	
* 14,700	92	
123,238	93	Weighted Average
123,238		100.00% Pervious Area

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	286	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment E5MLS: 5 Middle Left Subcat

Runoff = 29.83 cfs @ 12.11 hrs, Volume= 2.491 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 124,489	92	
* 14,921	96	
* 13,215	92	
152,625	92	Weighted Average
152,625		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	17	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	317	Total			

Summary for Subcatchment E5MRS: 5 Middle Right Subcat

Runoff = 29.83 cfs @ 12.11 hrs, Volume= 2.491 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 124,482	92	
* 14,921	96	
* 13,215	92	
152,618	92	Weighted Average
152,618		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	16	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	316	Total			

Summary for Subcatchment E5ULS: 5 Upper Left Subcat

Runoff = 27.54 cfs @ 12.11 hrs, Volume= 2.307 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 117,133	92	
* 12,856	96	
* 11,386	92	
141,375	92	Weighted Average
141,375		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	43	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	343	Total			

Summary for Subcatchment E5URS: 5 Upper Right Subcat

Runoff = 28.02 cfs @ 12.11 hrs, Volume= 2.347 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 119,156	92	
* 13,076	96	
* 11,582	92	
143,814	92	Weighted Average
143,814		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	42	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	342	Total			

Summary for Subcatchment EMCS: East Middle Channel Subcat

Runoff = 12.80 cfs @ 12.00 hrs, Volume= 0.826 af, Depth= 8.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 18,109	96	
* 31,782	92	
49,891	93	Weighted Average
49,891		100.00% Pervious Area

Summary for Subcatchment EMS: East Middle Subcat

Runoff = 82.45 cfs @ 12.61 hrs, Volume= 13.751 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 842,596	92	
842,596		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.5	300	0.0055	0.14		Sheet Flow, Grass: Short n= 0.150 P2= 3.75"
9.1	282	0.0055	0.52		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
45.6	582	Total			

Summary for Subcatchment F7LLS: 7 Lower Left Subcat

Runoff = 21.90 cfs @ 12.11 hrs, Volume= 1.829 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 91,194	92	
* 11,064	96	
* 9,799	92	
112,057	92	Weighted Average
112,057		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	15	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	315	Total			

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment F7LRS: 7 Lower Right Subcat

Runoff = 21.87 cfs @ 12.11 hrs, Volume= 1.826 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 91,012	92	
* 11,071	96	
* 9,805	92	
111,888	92	Weighted Average
111,888		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	13	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	313	Total			

Summary for Subcatchment F7ULS: 7 Upper Left Subcat

Runoff = 23.94 cfs @ 12.11 hrs, Volume= 2.005 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 101,812	92	
* 11,176	96	
* 9,898	92	
122,886	92	Weighted Average
122,886		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	46	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	346	Total			

Summary for Subcatchment F7URS: 7 Upper Right Subcat

Runoff = 23.58 cfs @ 12.11 hrs, Volume= 1.975 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 100,155	92	
* 11,060	96	
* 9,796	92	
121,011	92	Weighted Average
121,011		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	43	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	343	Total			

Summary for Subcatchment G5LLS: 5 Lower Left Subcat

Runoff = 24.46 cfs @ 12.11 hrs, Volume= 2.052 af, Depth= 8.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 93,236	92	
* 16,296	96	
* 14,434	92	
123,966	93	Weighted Average
123,966		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	297	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment G5LRS: 5 Lower Right Subcat

Runoff = 24.56 cfs @ 12.11 hrs, Volume= 2.054 af, Depth= 8.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 93,186	92	
* 16,380	96	
* 14,508	92	
124,074	93	Weighted Average
124,074		100.00% Pervious Area

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	295	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment G5MLS: 5 Middle Left Subcat

Runoff = 29.37 cfs @ 12.11 hrs, Volume= 2.453 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 123,329	92	
* 14,298	96	
* 12,664	92	
150,291	92	Weighted Average
150,291		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	25	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	325	Total			

Summary for Subcatchment G5MRS: 5 Middle Right Subcat

Runoff = 29.27 cfs @ 12.11 hrs, Volume= 2.444 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 122,673	92	
* 14,371	96	
* 12,729	92	
149,773	92	Weighted Average
149,773		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	22	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	322	Total			

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment G5ULS: 5 Upper Left Subcat

Runoff = 28.23 cfs @ 12.11 hrs, Volume= 2.365 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 120,624	92	
* 12,866	96	
* 11,396	92	
144,886	92	Weighted Average
144,886		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	51	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	351	Total			

Summary for Subcatchment G5URS: 5 Upper Right Subcat

Runoff = 27.71 cfs @ 12.11 hrs, Volume= 2.321 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 118,133	92	
* 12,775	96	
* 11,315	92	
142,223	92	Weighted Average
142,223		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	46	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	346	Total			

Summary for Subcatchment H7LLS: 7 Lower Left Subcat

Runoff = 20.69 cfs @ 12.11 hrs, Volume= 1.728 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 86,611	92	
* 9,046	92	
* 10,213	96	
105,870	92	Weighted Average
105,870		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	16	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	316	Total			

Summary for Subcatchment H7LRS: 7 Lower Right Subcat

Runoff = 20.69 cfs @ 12.11 hrs, Volume= 1.728 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 86,831	92	
* 8,947	92	
* 10,101	96	
105,879	92	Weighted Average
105,879		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	23	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	323	Total			

Summary for Subcatchment H7ULS: 7 Upper Left Subcat

Runoff = 21.63 cfs @ 12.11 hrs, Volume= 1.812 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 91,880	92	
* 8,990	92	
* 10,150	96	
111,020	92	Weighted Average
111,020		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	36	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	336	Total			

Summary for Subcatchment H7URS: 7 Upper Right Subcat

Runoff = 22.24 cfs @ 12.11 hrs, Volume= 1.863 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 94,995	92	
* 8,993	92	
* 10,154	96	
114,142	92	Weighted Average
114,142		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	51	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	351	Total			

Summary for Subcatchment I5LLS: 5 Lower Left Subcat

Runoff = 23.36 cfs @ 12.09 hrs, Volume= 1.883 af, Depth= 8.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 74,969	92	
* 15,614	96	
* 23,197	92	
113,780	93	Weighted Average
113,780		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	242	0.2500	0.60		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment I5LRS: 5 Lower Right Subcat

Runoff = 23.12 cfs @ 12.09 hrs, Volume= 1.876 af, Depth= 8.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 75,490	92	
* 15,211	96	
* 22,599	92	
113,300	93	Weighted Average
113,300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	253	0.2500	0.61		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment I5MLS: 5 Middle Left Subcat

Runoff = 29.98 cfs @ 12.10 hrs, Volume= 2.447 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 111,152	92	
* 15,593	96	
* 23,166	92	
149,911	92	Weighted Average
149,911		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	272	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

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Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment I5MRS: 5 Middle Right Subcat

Runoff = 30.14 cfs @ 12.11 hrs, Volume= 2.500 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

	Area (sf)	CN	Description
*	115,402	92	
*	15,190	96	
*	22,568	92	
	153,160	92	Weighted Average
	153,160		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	294	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment I5ULS: 5 Upper Left Subcat

Runoff = 27.21 cfs @ 12.11 hrs, Volume= 2.265 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

	Area (sf)	CN	Description
*	105,593	92	
*	13,353	96	
*	19,838	92	
	138,784	92	Weighted Average
	138,784		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	298	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment I5URS: 5 Upper Right Subcat

Runoff = 28.49 cfs @ 12.11 hrs, Volume= 2.379 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 113,254	92	
* 13,076	96	
* 19,427	92	
145,757	92	Weighted Average
145,757		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	30	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	330	Total			

Summary for Subcatchment J7LLS: 7 Lower Left Subcat

Runoff = 19.83 cfs @ 12.10 hrs, Volume= 1.612 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 72,907	92	
* 10,416	96	
* 15,475	92	
98,798	92	Weighted Average
98,798		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	266	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment J7LRS: 7 Lower Right Subcat

Runoff = 19.74 cfs @ 12.10 hrs, Volume= 1.611 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 72,963	92	
* 10,353	96	
* 15,382	92	
98,698	92	Weighted Average
98,698		100.00% Pervious Area

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Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	268	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment J7ULS: 7 Upper Left Subcat

Runoff = 20.93 cfs @ 12.11 hrs, Volume= 1.736 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 80,571	92	
* 10,378	96	
* 15,418	92	
106,367	92	Weighted Average
106,367		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	294	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment J7URS: 7 Upper Right Subcat

Runoff = 21.11 cfs @ 12.11 hrs, Volume= 1.757 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 81,800	92	
* 10,399	96	
* 15,449	92	
107,648	92	Weighted Average
107,648		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	298	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment K5LLS: 5 Lower Left Subcat

Runoff = 22.53 cfs @ 12.09 hrs, Volume= 1.817 af, Depth= 8.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 72,472	92	
* 14,998	96	
* 22,282	92	
109,752	93	Weighted Average
109,752		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	243	0.2500	0.60		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment K5LRS: 5 Lower Right Subcat

Runoff = 22.99 cfs @ 12.09 hrs, Volume= 1.842 af, Depth= 8.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 72,691	92	
* 15,512	96	
* 23,046	92	
111,249	93	Weighted Average
111,249		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.5	235	0.2500	0.60		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment K5MLS: 5 Middle Left Subcat

Runoff = 29.87 cfs @ 12.11 hrs, Volume= 2.469 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 113,132	92	
* 15,362	96	
* 22,823	92	
151,317	92	Weighted Average
151,317		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	287	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment K5MRS: 5 Middle Right Subcat

Runoff = 29.53 cfs @ 12.10 hrs, Volume= 2.401 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

	Area (sf)	CN	Description
*	108,397	92	
*	15,575	96	
*	23,140	92	
	147,112	92	Weighted Average
	147,112		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	266	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment K5ULS: 5 Upper Left Subcat

Runoff = 28.70 cfs @ 12.11 hrs, Volume= 2.397 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

	Area (sf)	CN	Description
*	113,507	92	
*	13,416	96	
*	19,932	92	
	146,855	92	Weighted Average
	146,855		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	23	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	323	Total			

Summary for Subcatchment K5URS: 5 Upper Right Subcat

Runoff = 27.82 cfs @ 12.11 hrs, Volume= 2.307 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 107,103	92	
* 13,776	96	
* 20,467	92	
141,346	92	Weighted Average
141,346		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	294	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment L7LLS: 7 Lower Left Subcat

Runoff = 27.69 cfs @ 12.11 hrs, Volume= 2.304 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 107,663	92	
* 13,489	96	
* 20,041	92	
141,193	92	Weighted Average
141,193		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.0	5	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
7.9	305	Total			

Summary for Subcatchment L7LRS: 7 Lower Right Subcat

Runoff = 27.47 cfs @ 12.11 hrs, Volume= 2.286 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 106,367	92	
* 13,570	96	
* 20,160	92	
140,097	92	Weighted Average
140,097		100.00% Pervious Area

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	296	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment L7ULS: 7 Upper Left Subcat

Runoff = 30.25 cfs @ 12.11 hrs, Volume= 2.534 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 121,664	92	
* 13,517	96	
* 20,082	92	
155,263	92	Weighted Average
155,263		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	42	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	342	Total			

Summary for Subcatchment L7URS: 7 Upper Right Subcat

Runoff = 29.26 cfs @ 12.11 hrs, Volume= 2.443 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 116,121	92	
* 13,517	96	
* 20,082	92	
149,720	92	Weighted Average
149,720		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	23	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	323	Total			

Summary for Subcatchment M5LLS: 5 Lower Left Subcat

Runoff = 24.78 cfs @ 12.10 hrs, Volume= 2.058 af, Depth= 8.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 92,764	92	
* 16,741	96	
* 14,818	92	
124,323	93	Weighted Average
124,323		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	286	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment M5LRS: 5 Lower Right Subcat

Runoff = 26.62 cfs @ 12.10 hrs, Volume= 2.193 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 92,764	92	
* 16,741	96	
* 24,872	92	
134,377	92	Weighted Average
134,377		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	286	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment M5MLS: 5 Middle Left Subcat

Runoff = 30.14 cfs @ 12.11 hrs, Volume= 2.516 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 125,780	92	
* 15,068	96	
* 13,346	92	
154,194	92	Weighted Average
154,194		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	16	0.2500	3.50		Shallow Concentrated Flow, Kv= 7.0 fps
8.0	316	Total			

Summary for Subcatchment M5MRS: 5 Middle Right Subcat

Runoff = 31.90 cfs @ 12.11 hrs, Volume= 2.664 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 125,777	92	
* 15,064	96	
* 22,381	92	
163,222	92	Weighted Average
163,222		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	15	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	315	Total			

Summary for Subcatchment M5ULS: 5 Upper Left Subcat

Runoff = 28.93 cfs @ 12.11 hrs, Volume= 2.423 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 123,162	92	
* 13,437	96	
* 11,901	92	
148,500	92	Weighted Average
148,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	46	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	346	Total			

Summary for Subcatchment M5URS: 5 Upper Right Subcat

Runoff = 30.02 cfs @ 12.11 hrs, Volume= 2.515 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 121,111	92	
* 13,265	96	
* 19,708	92	
154,084	92	Weighted Average
154,084		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	42	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	342	Total			

Summary for Subcatchment N7LLS: 7 Lower Left Subcat

Runoff = 20.83 cfs @ 12.11 hrs, Volume= 1.745 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 88,465	92	
* 9,797	96	
* 8,677	92	
106,939	92	Weighted Average
106,939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	38	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	338	Total			

Summary for Subcatchment N7LRS: 7 Lower Right Subcat

Runoff = 20.73 cfs @ 12.11 hrs, Volume= 1.731 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 87,436	92	
* 9,891	96	
* 8,761	92	
106,088	92	Weighted Average
106,088		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	28	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	328	Total			

Summary for Subcatchment N7ULS: 7 Upper Left Subcat

Runoff = 22.38 cfs @ 12.11 hrs, Volume= 1.880 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 96,720	92	
* 9,807	96	
* 8,686	92	
115,213	92	Weighted Average
115,213		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.3	66	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.2	366	Total			

Summary for Subcatchment N7URS: 7 Upper Right Subcat

Runoff = 21.42 cfs @ 12.11 hrs, Volume= 1.794 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 91,459	92	
* 9,804	96	
* 8,683	92	
109,946	92	Weighted Average
109,946		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	46	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	346	Total			

Summary for Subcatchment O5LLS: 5 Lower Left Subcat

Runoff = 27.47 cfs @ 12.11 hrs, Volume= 2.271 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 96,506	92	
* 17,147	96	
* 25,475	92	
139,128	92	Weighted Average
139,128		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	291	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment O5LRS: 5 Lower Right Subcat

Runoff = 27.16 cfs @ 12.11 hrs, Volume= 2.261 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 96,933	92	
* 16,730	96	
* 24,856	92	
138,519	92	Weighted Average
138,519		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment O5MLS: 5 Middle Left Subcat

Runoff = 33.36 cfs @ 12.11 hrs, Volume= 2.785 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 132,089	92	
* 15,519	96	
* 23,057	92	
170,665	92	Weighted Average
170,665		100.00% Pervious Area

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	22	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	322	Total			

Summary for Subcatchment O5MRS: 5 Middle Right Subcat

Runoff = 33.68 cfs @ 12.11 hrs, Volume= 2.821 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 135,387	92	
* 15,085	96	
* 22,412	92	
172,884	92	Weighted Average
172,884		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	42	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	342	Total			

Summary for Subcatchment O5ULS: 5 Upper Left Subcat

Runoff = 30.00 cfs @ 12.11 hrs, Volume= 2.513 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 121,507	92	
* 13,059	96	
* 19,401	92	
153,967	92	Weighted Average
153,967		100.00% Pervious Area

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	48	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	348	Total			

Summary for Subcatchment O5URS: 5 Upper Right Subcat

Runoff = 30.15 cfs @ 12.11 hrs, Volume= 2.533 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 130,312	92	
* 13,202	96	
* 11,693	92	
155,207	92	Weighted Average
155,207		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.3	66	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.2	366	Total			

Summary for Subcatchment P7LLS: 7 Lower Left Subcat

Runoff = 27.29 cfs @ 12.11 hrs, Volume= 2.271 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 106,276	92	
* 13,234	96	
* 19,661	92	
139,171	92	Weighted Average
139,171		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

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Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Subcatchment P7LRS: 7 Lower Right Subcat

Runoff = 27.12 cfs @ 12.11 hrs, Volume= 2.265 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 106,561	92	
* 12,954	96	
* 19,245	92	
138,760	92	Weighted Average
138,760		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	13	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	313	Total			

Summary for Subcatchment P7ULS: 7 Upper Left Subcat

Runoff = 28.84 cfs @ 12.11 hrs, Volume= 2.408 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 115,032	92	
* 13,090	96	
* 19,448	92	
147,570	92	Weighted Average
147,570		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	30	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	330	Total			

Summary for Subcatchment P7URS: 7 Upper Right Subcat

Runoff = 29.76 cfs @ 12.11 hrs, Volume= 2.493 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Area (sf)	CN	Description
* 120,174	92	
* 13,111	96	
* 19,479	92	
152,764	92	Weighted Average
152,764		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	48	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	348	Total			

Summary for Subcatchment SDBS: South Detention Basin Subcatchment

Runoff = 544.86 cfs @ 12.03 hrs, Volume= 39.593 af, Depth= 9.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 2,135,600	98	
99,531	96	
2,235,131	98	Weighted Average
99,531		4.45% Pervious Area
2,135,600		95.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	60	0.2000	0.42		Sheet Flow, Grass: Short n= 0.150 P2= 3.75"

Summary for Subcatchment WMCS: West Middle Channel Subcat

Runoff = 4.58 cfs @ 12.00 hrs, Volume= 0.295 af, Depth= 8.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 6,475	96	
* 11,364	92	
17,839	93	Weighted Average
17,839		100.00% Pervious Area

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Summary for Subcatchment WMS: West Middle Subcat

Runoff = 53.87 cfs @ 12.48 hrs, Volume= 8.178 af, Depth= 8.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (sf)	CN	Description
* 501,116	92	
501,116		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.2	300	0.0065	0.15		Sheet Flow, Grass: Short n= 0.150 P2= 3.75"
3.6	121	0.0065	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
37.8	421	Total			

Summary for Reach EMC: East Middle Channel

Inflow Area = 176.097 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 572.98 cfs @ 12.43 hrs, Volume= 125.303 af
 Outflow = 570.62 cfs @ 12.49 hrs, Volume= 125.303 af, Atten= 0%, Lag= 3.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.63 fps, Min. Travel Time= 1.9 min
 Avg. Velocity = 1.31 fps, Avg. Travel Time= 6.6 min

Peak Storage= 63,707 cf @ 12.46 hrs
 Average Depth at Peak Storage= 2.76'
 Bank-Full Depth= 4.00' Flow Area= 196.0 sf, Capacity= 1,118.97 cfs

35.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' ' Top Width= 63.00'
 Length= 517.4' Slope= 0.0030 ' '
 Inlet Invert= 0.00', Outlet Invert= -1.55'



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Summary for Reach NDE01: N Ditch E 1

Inflow Area = 79.086 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 344.98 cfs @ 12.38 hrs, Volume= 56.270 af
Outflow = 341.46 cfs @ 12.43 hrs, Volume= 56.270 af, Atten= 1%, Lag= 3.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.32 fps, Min. Travel Time= 1.7 min
Avg. Velocity = 1.36 fps, Avg. Travel Time= 5.3 min

Peak Storage= 34,185 cf @ 12.40 hrs
Average Depth at Peak Storage= 2.95'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.98 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 432.7' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.30'



Summary for Reach NDE02: N Ditch E 2

Inflow Area = 82.331 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 350.38 cfs @ 12.43 hrs, Volume= 58.577 af
Outflow = 347.36 cfs @ 12.47 hrs, Volume= 58.577 af, Atten= 1%, Lag= 2.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.35 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 1.36 fps, Avg. Travel Time= 5.2 min

Peak Storage= 34,249 cf @ 12.45 hrs
Average Depth at Peak Storage= 2.97'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 634.62 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 428.5' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.29'



Summary for Reach NDE03: N Ditch E 3

Inflow Area = 85.454 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 354.78 cfs @ 12.47 hrs, Volume= 60.797 af
Outflow = 352.64 cfs @ 12.51 hrs, Volume= 60.797 af, Atten= 1%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.36 fps, Min. Travel Time= 1.4 min
Avg. Velocity = 1.36 fps, Avg. Travel Time= 4.5 min

Peak Storage= 30,038 cf @ 12.49 hrs
Average Depth at Peak Storage= 3.00'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 632.75 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 370.9' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.11'



Summary for Reach NDE04: N Ditch E 4

Inflow Area = 87.922 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 357.67 cfs @ 12.51 hrs, Volume= 62.551 af
Outflow = 356.46 cfs @ 12.55 hrs, Volume= 62.551 af, Atten= 0%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.37 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.36 fps, Avg. Travel Time= 3.5 min

Peak Storage= 23,456 cf @ 12.53 hrs
Average Depth at Peak Storage= 3.02'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 632.71 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 287.4' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.86'



Summary for Reach NDE05: N Ditch E 5

Inflow Area = 123.977 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 460.37 cfs @ 12.53 hrs, Volume= 88.182 af
Outflow = 459.27 cfs @ 12.56 hrs, Volume= 88.182 af, Atten= 0%, Lag= 1.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.69 fps, Min. Travel Time= 1.0 min
Avg. Velocity = 1.51 fps, Avg. Travel Time= 3.2 min

Peak Storage= 28,096 cf @ 12.54 hrs
Average Depth at Peak Storage= 3.42'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.59 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 286.6' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.86'



Summary for Reach NDE06: N Ditch E 6

Inflow Area = 126.330 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 463.23 cfs @ 12.56 hrs, Volume= 89.855 af
Outflow = 462.20 cfs @ 12.59 hrs, Volume= 89.855 af, Atten= 0%, Lag= 1.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.70 fps, Min. Travel Time= 1.0 min
Avg. Velocity = 1.50 fps, Avg. Travel Time= 3.2 min

Peak Storage= 28,199 cf @ 12.57 hrs
Average Depth at Peak Storage= 3.43'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.81 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 286.4' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.86'



Summary for Reach NDE07: N Ditch E 7

Inflow Area = 128.848 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 465.98 cfs @ 12.58 hrs, Volume= 91.645 af
Outflow = 465.02 cfs @ 12.61 hrs, Volume= 91.645 af, Atten= 0%, Lag= 1.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.71 fps, Min. Travel Time= 1.0 min
Avg. Velocity = 1.50 fps, Avg. Travel Time= 3.2 min

Peak Storage= 28,176 cf @ 12.60 hrs
Average Depth at Peak Storage= 3.44'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 635.03 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 285.3' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.86'



Summary for Reach NDE08: N Ditch E 8

Inflow Area = 132.149 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 469.48 cfs @ 12.61 hrs, Volume= 93.992 af
Outflow = 468.14 cfs @ 12.65 hrs, Volume= 93.992 af, Atten= 0%, Lag= 2.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.71 fps, Min. Travel Time= 1.3 min
Avg. Velocity = 1.49 fps, Avg. Travel Time= 4.2 min

Peak Storage= 37,149 cf @ 12.63 hrs
Average Depth at Peak Storage= 3.45'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.29 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 373.6' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.12'



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Summary for Reach NDE09: N Ditch E 9

Inflow Area = 135.653 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 472.37 cfs @ 12.65 hrs, Volume= 96.483 af
Outflow = 470.86 cfs @ 12.69 hrs, Volume= 96.483 af, Atten= 0%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.72 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 1.48 fps, Avg. Travel Time= 4.8 min

Peak Storage= 42,545 cf @ 12.66 hrs
Average Depth at Peak Storage= 3.46'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.79 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 426.3' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.28'



Summary for Reach NDE10: N Ditch E 10

Inflow Area = 138.482 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 473.98 cfs @ 12.69 hrs, Volume= 98.523 af
Outflow = 472.42 cfs @ 12.74 hrs, Volume= 98.523 af, Atten= 0%, Lag= 2.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.72 fps, Min. Travel Time= 1.7 min
Avg. Velocity = 1.47 fps, Avg. Travel Time= 5.4 min

Peak Storage= 47,483 cf @ 12.71 hrs
Average Depth at Peak Storage= 3.47'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 632.94 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 474.2' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.42'



Summary for Reach NDNE01: N Ditch NE 1

Inflow Area = 43.678 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 238.00 cfs @ 12.13 hrs, Volume= 31.050 af
Outflow = 229.64 cfs @ 12.18 hrs, Volume= 31.050 af, Atten= 4%, Lag= 3.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.87 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 1.26 fps, Avg. Travel Time= 4.6 min

Peak Storage= 20,591 cf @ 12.16 hrs
Average Depth at Peak Storage= 2.41'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.58 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 346.6' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.04'



Summary for Reach NDNE02: N Ditch NE 2

Inflow Area = 46.360 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 247.21 cfs @ 12.18 hrs, Volume= 32.957 af
Outflow = 240.91 cfs @ 12.23 hrs, Volume= 32.957 af, Atten= 3%, Lag= 2.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.92 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 1.26 fps, Avg. Travel Time= 4.6 min

Peak Storage= 21,165 cf @ 12.20 hrs
Average Depth at Peak Storage= 2.47'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 632.99 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 343.9' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.03'



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Summary for Reach NDNE03: N Ditch NE 3

Inflow Area = 49.337 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 256.36 cfs @ 12.23 hrs, Volume= 35.073 af
Outflow = 250.68 cfs @ 12.28 hrs, Volume= 35.073 af, Atten= 2%, Lag= 3.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.97 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 1.26 fps, Avg. Travel Time= 5.0 min

Peak Storage= 23,913 cf @ 12.25 hrs
Average Depth at Peak Storage= 2.52'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 634.77 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 378.5' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.14'



Summary for Reach NDNE04: N Ditch NE 4

Inflow Area = 52.510 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 263.82 cfs @ 12.28 hrs, Volume= 37.329 af
Outflow = 258.24 cfs @ 12.33 hrs, Volume= 37.329 af, Atten= 2%, Lag= 3.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.00 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 1.25 fps, Avg. Travel Time= 5.9 min

Peak Storage= 28,335 cf @ 12.30 hrs
Average Depth at Peak Storage= 2.56'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 634.24 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 439.0' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.32'



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Summary for Reach NDNE05: N Ditch NE 5

Inflow Area = 76.716 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 342.06 cfs @ 12.33 hrs, Volume= 54.561 af
Outflow = 337.75 cfs @ 12.38 hrs, Volume= 54.561 af, Atten= 1%, Lag= 3.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.31 fps, Min. Travel Time= 1.7 min
Avg. Velocity = 1.37 fps, Avg. Travel Time= 5.4 min

Peak Storage= 34,751 cf @ 12.35 hrs
Average Depth at Peak Storage= 2.93'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.61 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 443.2' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.33'



Summary for Reach NDNW01: N Ditch NW 1

Inflow Area = 2.391 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 20.97 cfs @ 12.10 hrs, Volume= 1.699 af
Outflow = 19.92 cfs @ 12.17 hrs, Volume= 1.699 af, Atten= 5%, Lag= 4.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.09 fps, Min. Travel Time= 2.7 min
Avg. Velocity = 0.55 fps, Avg. Travel Time= 10.2 min

Peak Storage= 3,257 cf @ 12.13 hrs
Average Depth at Peak Storage= 0.56'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 785.17 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 340.7' Slope= 0.0046 '/'
Inlet Invert= 0.00', Outlet Invert= -1.57'



Summary for Reach NDNW02: N Ditch NW 2

Inflow Area = 5.048 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 40.20 cfs @ 12.14 hrs, Volume= 3.588 af
Outflow = 39.18 cfs @ 12.20 hrs, Volume= 3.588 af, Atten= 3%, Lag= 3.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.62 fps, Min. Travel Time= 2.2 min
Avg. Velocity = 0.70 fps, Avg. Travel Time= 8.2 min

Peak Storage= 5,121 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.82'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 785.70 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 342.4' Slope= 0.0046 '/'
Inlet Invert= 0.00', Outlet Invert= -1.58'



Summary for Reach NDNW03: N Ditch NW 3

Inflow Area = 8.126 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 59.53 cfs @ 12.16 hrs, Volume= 5.777 af
Outflow = 58.53 cfs @ 12.23 hrs, Volume= 5.777 af, Atten= 2%, Lag= 3.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.98 fps, Min. Travel Time= 2.2 min
Avg. Velocity = 0.81 fps, Avg. Travel Time= 8.1 min

Peak Storage= 7,682 cf @ 12.19 hrs
Average Depth at Peak Storage= 1.03'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 784.47 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 391.3' Slope= 0.0046 '/'
Inlet Invert= 0.00', Outlet Invert= -1.80'



Summary for Reach NDNW04: N Ditch NW 4

Inflow Area = 11.509 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 77.05 cfs @ 12.19 hrs, Volume= 8.182 af
Outflow = 76.20 cfs @ 12.26 hrs, Volume= 8.182 af, Atten= 1%, Lag= 4.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.24 fps, Min. Travel Time= 2.4 min
Avg. Velocity = 0.89 fps, Avg. Travel Time= 8.7 min

Peak Storage= 10,953 cf @ 12.22 hrs
Average Depth at Peak Storage= 1.19'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 784.06 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 465.7' Slope= 0.0046 '/'
Inlet Invert= 0.00', Outlet Invert= -2.14'



Summary for Reach NDNW05: N Ditch NW 5

Inflow Area = 36.777 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 189.00 cfs @ 12.14 hrs, Volume= 26.171 af
Outflow = 185.85 cfs @ 12.24 hrs, Volume= 26.171 af, Atten= 2%, Lag= 5.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.24 fps, Min. Travel Time= 1.9 min
Avg. Velocity = 1.30 fps, Avg. Travel Time= 6.1 min

Peak Storage= 20,771 cf @ 12.21 hrs
Average Depth at Peak Storage= 1.93'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 784.48 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 473.9' Slope= 0.0046 '/'
Inlet Invert= 0.00', Outlet Invert= -2.18'



Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Prepared by CB&I Environmental and Infrastructure, Inc.

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Summary for Reach NDSE01: N Ditch SE 1

Inflow Area = 2.569 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 21.87 cfs @ 12.11 hrs, Volume= 1.826 af
Outflow = 20.77 cfs @ 12.19 hrs, Volume= 1.826 af, Atten= 5%, Lag= 4.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.84 fps, Min. Travel Time= 2.9 min
Avg. Velocity= 0.49 fps, Avg. Travel Time= 10.8 min

Peak Storage= 3,578 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.64'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.88 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 316.3' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.95'



Summary for Reach NDSE02: N Ditch SE 2

Inflow Area = 5.347 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 40.99 cfs @ 12.15 hrs, Volume= 3.801 af
Outflow = 40.03 cfs @ 12.21 hrs, Volume= 3.801 af, Atten= 2%, Lag= 3.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.29 fps, Min. Travel Time= 2.3 min
Avg. Velocity= 0.61 fps, Avg. Travel Time= 8.6 min

Peak Storage= 5,538 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.94'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 634.18 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 316.0' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.95'



Summary for Reach NDSE03: N Ditch SE 3

Inflow Area = 8.592 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 60.82 cfs @ 12.17 hrs, Volume= 6.108 af
Outflow = 59.82 cfs @ 12.24 hrs, Volume= 6.108 af, Atten= 2%, Lag= 4.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.59 fps, Min. Travel Time= 2.4 min
Avg. Velocity = 0.70 fps, Avg. Travel Time= 8.7 min

Peak Storage= 8,474 cf @ 12.20 hrs
Average Depth at Peak Storage= 1.17'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 632.97 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 ' / ' Top Width= 47.00'
Length= 367.3' Slope= 0.0030 ' / '
Inlet Invert= 0.00', Outlet Invert= -1.10'



Summary for Reach NDSE04: N Ditch SE 4

Inflow Area = 12.096 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 79.32 cfs @ 12.19 hrs, Volume= 8.599 af
Outflow = 78.30 cfs @ 12.27 hrs, Volume= 8.599 af, Atten= 1%, Lag= 4.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.82 fps, Min. Travel Time= 2.5 min
Avg. Velocity = 0.77 fps, Avg. Travel Time= 9.2 min

Peak Storage= 11,835 cf @ 12.22 hrs
Average Depth at Peak Storage= 1.36'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.79 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 ' / ' Top Width= 47.00'
Length= 426.3' Slope= 0.0030 ' / '
Inlet Invert= 0.00', Outlet Invert= -1.28'



Summary for Reach NDSE05: N Ditch SE 5

Inflow Area = 14.925 ac, 0.00% Impervious, Inflow Depth = 8.55" for 100-Year, 24-Hour event
Inflow = 91.26 cfs @ 12.24 hrs, Volume= 10.639 af
Outflow = 90.35 cfs @ 12.32 hrs, Volume= 10.639 af, Atten= 1%, Lag= 4.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.94 fps, Min. Travel Time= 2.7 min
Avg. Velocity= 0.81 fps, Avg. Travel Time= 9.8 min

Peak Storage= 14,556 cf @ 12.27 hrs
Average Depth at Peak Storage= 1.47'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 632.94 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 474.2' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.42'



Summary for Reach NDSW01: N Ditch SW 1

Inflow Area = 40.872 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 219.65 cfs @ 12.15 hrs, Volume= 29.056 af
Outflow = 214.21 cfs @ 12.19 hrs, Volume= 29.056 af, Atten= 2%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.28 fps, Min. Travel Time= 1.2 min
Avg. Velocity= 1.41 fps, Avg. Travel Time= 3.7 min

Peak Storage= 15,824 cf @ 12.17 hrs
Average Depth at Peak Storage= 2.13'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 750.26 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 316.1' Slope= 0.0042 '/'
Inlet Invert= 0.00', Outlet Invert= -1.33'



Summary for Reach NDSW02: N Ditch SW 2

Inflow Area = 43.693 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 232.76 cfs @ 12.18 hrs, Volume= 31.061 af
Outflow = 228.07 cfs @ 12.23 hrs, Volume= 31.061 af, Atten= 2%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.35 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 1.41 fps, Avg. Travel Time= 3.8 min

Peak Storage= 16,737 cf @ 12.20 hrs
Average Depth at Peak Storage= 2.20'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 749.29 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 319.3' Slope= 0.0042 '/'
Inlet Invert= 0.00', Outlet Invert= -1.34'



Summary for Reach NDSW03: N Ditch SW 3

Inflow Area = 46.958 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 245.78 cfs @ 12.22 hrs, Volume= 33.382 af
Outflow = 240.70 cfs @ 12.27 hrs, Volume= 33.382 af, Atten= 2%, Lag= 2.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.42 fps, Min. Travel Time= 1.4 min
Avg. Velocity = 1.42 fps, Avg. Travel Time= 4.3 min

Peak Storage= 19,900 cf @ 12.24 hrs
Average Depth at Peak Storage= 2.27'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 748.85 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 365.0' Slope= 0.0042 '/'
Inlet Invert= 0.00', Outlet Invert= -1.53'



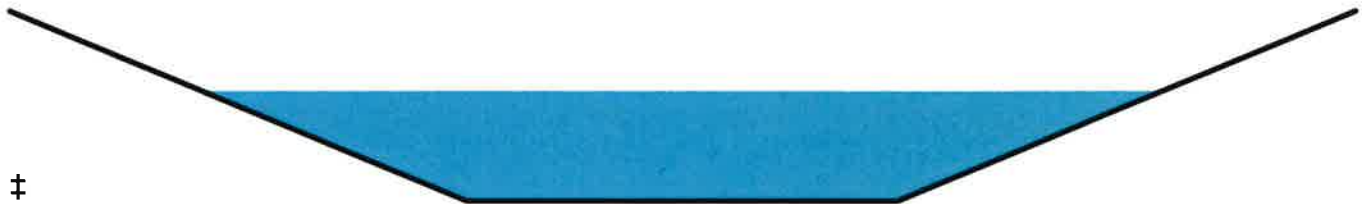
Summary for Reach NDSW04: N Ditch SW 4

Inflow Area = 50.397 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 256.32 cfs @ 12.26 hrs, Volume= 35.827 af
Outflow = 251.37 cfs @ 12.31 hrs, Volume= 35.827 af, Atten= 2%, Lag= 2.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.47 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 1.42 fps, Avg. Travel Time= 4.8 min

Peak Storage= 23,087 cf @ 12.29 hrs
Average Depth at Peak Storage= 2.32'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 748.60 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 ' / ' Top Width= 47.00'
Length= 410.6' Slope= 0.0042 ' / '
Inlet Invert= 0.00', Outlet Invert= -1.72'



Summary for Reach NDSW05: N Ditch SW 5

Inflow Area = 53.245 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 262.36 cfs @ 12.31 hrs, Volume= 37.880 af
Outflow = 257.61 cfs @ 12.36 hrs, Volume= 37.880 af, Atten= 2%, Lag= 3.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.51 fps, Min. Travel Time= 1.7 min
Avg. Velocity = 1.41 fps, Avg. Travel Time= 5.5 min

Peak Storage= 26,721 cf @ 12.34 hrs
Average Depth at Peak Storage= 2.34'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 750.43 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 ' / ' Top Width= 47.00'
Length= 468.0' Slope= 0.0042 ' / '
Inlet Invert= 0.00', Outlet Invert= -1.97'



Summary for Reach NDW01: N Ditch W 1

Inflow Area = 39.333 ac, 0.00% Impervious, Inflow Depth = 8.55" for 100-Year, 24-Hour event
Inflow = 198.41 cfs @ 12.21 hrs, Volume= 28.014 af
Outflow = 196.26 cfs @ 12.29 hrs, Volume= 28.014 af, Atten= 1%, Lag= 4.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.70 fps, Min. Travel Time= 2.1 min
Avg. Velocity = 1.12 fps, Avg. Travel Time= 6.8 min

Peak Storage= 24,436 cf @ 12.26 hrs
Average Depth at Peak Storage= 2.22'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.24 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 460.4' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.38'



Summary for Reach NDW02: N Ditch W 2

Inflow Area = 42.830 ac, 0.00% Impervious, Inflow Depth = 8.55" for 100-Year, 24-Hour event
Inflow = 210.83 cfs @ 12.28 hrs, Volume= 30.499 af
Outflow = 208.82 cfs @ 12.35 hrs, Volume= 30.499 af, Atten= 1%, Lag= 3.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.77 fps, Min. Travel Time= 2.0 min
Avg. Velocity = 1.13 fps, Avg. Travel Time= 6.7 min

Peak Storage= 25,075 cf @ 12.31 hrs
Average Depth at Peak Storage= 2.29'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 634.17 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 452.4' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.36'



Summary for Reach NDW03: N Ditch W 3

Inflow Area = 45.982 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 220.07 cfs @ 12.34 hrs, Volume= 32.740 af
Outflow = 219.30 cfs @ 12.38 hrs, Volume= 32.740 af, Atten= 0%, Lag= 2.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.82 fps, Min. Travel Time= 1.3 min
Avg. Velocity = 1.15 fps, Avg. Travel Time= 4.2 min

Peak Storage= 16,658 cf @ 12.36 hrs
Average Depth at Peak Storage= 2.35'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.52 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 290.0' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.87'



Summary for Reach NDW04: N Ditch W 4

Inflow Area = 48.531 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 227.57 cfs @ 12.37 hrs, Volume= 34.552 af
Outflow = 226.80 cfs @ 12.41 hrs, Volume= 34.552 af, Atten= 0%, Lag= 2.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.85 fps, Min. Travel Time= 1.3 min
Avg. Velocity = 1.16 fps, Avg. Travel Time= 4.2 min

Peak Storage= 17,064 cf @ 12.39 hrs
Average Depth at Peak Storage= 2.39'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.52 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 290.0' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.87'



Summary for Reach NDW05: N Ditch W 5

Inflow Area = 85.047 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 360.27 cfs @ 12.38 hrs, Volume= 60.511 af
Outflow = 359.47 cfs @ 12.41 hrs, Volume= 60.511 af, Atten= 0%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.39 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.38 fps, Avg. Travel Time= 3.5 min

Peak Storage= 23,892 cf @ 12.39 hrs
Average Depth at Peak Storage= 3.02'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 635.18 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 291.8' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.88'



Summary for Reach NDW06: N Ditch W 6

Inflow Area = 87.478 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 366.54 cfs @ 12.41 hrs, Volume= 62.239 af
Outflow = 365.80 cfs @ 12.44 hrs, Volume= 62.239 af, Atten= 0%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.41 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.38 fps, Avg. Travel Time= 3.5 min

Peak Storage= 23,935 cf @ 12.42 hrs
Average Depth at Peak Storage= 3.05'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 635.05 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 288.6' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.87'



Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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Summary for Reach NDW07: N Ditch W 7

Inflow Area = 90.098 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 372.80 cfs @ 12.44 hrs, Volume= 64.102 af
Outflow = 372.10 cfs @ 12.47 hrs, Volume= 64.102 af, Atten= 0%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.42 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.38 fps, Avg. Travel Time= 3.5 min

Peak Storage= 24,405 cf @ 12.45 hrs
Average Depth at Peak Storage= 3.08'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.41 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 290.1' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.87'



Summary for Reach NDW08: N Ditch W 8

Inflow Area = 93.424 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 380.18 cfs @ 12.47 hrs, Volume= 66.466 af
Outflow = 379.21 cfs @ 12.51 hrs, Volume= 66.466 af, Atten= 0%, Lag= 2.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.44 fps, Min. Travel Time= 1.4 min
Avg. Velocity = 1.37 fps, Avg. Travel Time= 4.5 min

Peak Storage= 31,378 cf @ 12.48 hrs
Average Depth at Peak Storage= 3.11'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 632.71 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 367.6' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.10'



Summary for Reach NDW09: N Ditch W 9

Inflow Area = 96.875 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 386.54 cfs @ 12.50 hrs, Volume= 68.919 af
Outflow = 385.56 cfs @ 12.54 hrs, Volume= 68.919 af, Atten= 0%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.47 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 1.37 fps, Avg. Travel Time= 5.0 min

Peak Storage= 35,213 cf @ 12.52 hrs
Average Depth at Peak Storage= 3.13'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 634.68 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 408.5' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.23'



Summary for Reach NDW10: N Ditch W 10

Inflow Area = 99.720 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 390.70 cfs @ 12.54 hrs, Volume= 70.971 af
Outflow = 389.77 cfs @ 12.59 hrs, Volume= 70.971 af, Atten= 0%, Lag= 2.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.48 fps, Min. Travel Time= 1.7 min
Avg. Velocity = 1.35 fps, Avg. Travel Time= 5.7 min

Peak Storage= 40,470 cf @ 12.56 hrs
Average Depth at Peak Storage= 3.15'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 634.24 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 465.6' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.40'



Summary for Reach NUEOC: North Unit East Outlet Culvert

Inflow Area = 174.952 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 571.07 cfs @ 12.43 hrs, Volume= 124.477 af
Outflow = 571.02 cfs @ 12.43 hrs, Volume= 124.477 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 11.71 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.26 fps, Avg. Travel Time= 0.4 min

Peak Storage= 3,414 cf @ 12.43 hrs
Average Depth at Peak Storage= 3.25'
Bank-Full Depth= 4.00' Flow Area= 60.0 sf, Capacity= 551.82 cfs

180.0" W x 48.0" H Box Pipe
n= 0.012
Length= 70.0' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.21'



Summary for Reach NUWOC: North Unit West Outlet Culvert

Inflow Area = 174.093 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 684.93 cfs @ 12.41 hrs, Volume= 123.871 af
Outflow = 684.83 cfs @ 12.41 hrs, Volume= 123.871 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 13.16 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.53 fps, Avg. Travel Time= 0.3 min

Peak Storage= 3,643 cf @ 12.41 hrs
Average Depth at Peak Storage= 3.47'
Bank-Full Depth= 4.00' Flow Area= 60.0 sf, Capacity= 601.98 cfs

180.0" W x 48.0" H Box Pipe
n= 0.011
Length= 70.0' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.21'



Summary for Reach SBEIC: South Basin East Inlet Culverts

Inflow Area = 380.108 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 1,121.91 cfs @ 12.72 hrs, Volume= 270.409 af
Outflow = 1,121.83 cfs @ 12.72 hrs, Volume= 270.409 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 8.22 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.45 fps, Avg. Travel Time= 0.4 min

Peak Storage= 8,600 cf @ 12.72 hrs
Average Depth at Peak Storage= 2.73'
Bank-Full Depth= 3.00' Flow Area= 150.0 sf, Capacity= 928.24 cfs

A factor of 5.00 has been applied to the storage and discharge capacity
120.0" W x 36.0" H Box Pipe
n= 0.012
Length= 63.0' Slope= 0.0021 '/'
Inlet Invert= 0.00', Outlet Invert= -0.13'



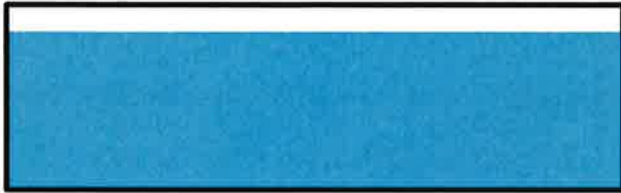
Summary for Reach SBWIC: South Basin West Inlet Culvert 1

Inflow Area = 331.471 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
Inflow = 1,025.34 cfs @ 12.84 hrs, Volume= 235.802 af
Outflow = 1,025.26 cfs @ 12.84 hrs, Volume= 235.802 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 8.00 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.34 fps, Avg. Travel Time= 0.4 min

Peak Storage= 8,078 cf @ 12.84 hrs
Average Depth at Peak Storage= 2.56'
Bank-Full Depth= 3.00' Flow Area= 150.0 sf, Capacity= 928.24 cfs

A factor of 5.00 has been applied to the storage and discharge capacity
120.0" W x 36.0" H Box Pipe
n= 0.012
Length= 63.0' Slope= 0.0021 '/'
Inlet Invert= 0.00', Outlet Invert= -0.13'



Summary for Reach SBWIC2: South Basin West Inlet Culvert 2

Inflow Area = 46.948 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 281.60 cfs @ 12.29 hrs, Volume= 33.375 af
 Outflow = 281.32 cfs @ 12.30 hrs, Volume= 33.375 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 6.96 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 1.90 fps, Avg. Travel Time= 0.6 min

Peak Storage= 2,711 cf @ 12.29 hrs
 Average Depth at Peak Storage= 2.02'
 Bank-Full Depth= 3.00' Flow Area= 60.0 sf, Capacity= 360.04 cfs

A factor of 2.00 has been applied to the storage and discharge capacity
 120.0" W x 36.0" H Box Pipe
 n= 0.012
 Length= 67.0' Slope= 0.0019 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.13'



Summary for Reach SDE01: S Ditch E 1

Inflow Area = 269.395 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 932.17 cfs @ 12.43 hrs, Volume= 191.679 af
 Outflow = 930.37 cfs @ 12.47 hrs, Volume= 191.679 af, Atten= 0%, Lag= 2.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.29 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.47 fps, Avg. Travel Time= 4.8 min

Peak Storage= 75,336 cf @ 12.44 hrs
 Average Depth at Peak Storage= 3.39'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,254.53 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 428.5' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.29'



Summary for Reach SDE02: S Ditch E 2

Inflow Area = 272.868 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 938.74 cfs @ 12.46 hrs, Volume= 194.149 af
 Outflow = 936.92 cfs @ 12.50 hrs, Volume= 194.149 af, Atten= 0%, Lag= 2.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.30 fps, Min. Travel Time= 1.4 min
 Avg. Velocity = 1.48 fps, Avg. Travel Time= 4.9 min

Peak Storage= 77,563 cf @ 12.48 hrs
 Average Depth at Peak Storage= 3.40'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,253.91 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 438.9' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.32'



Summary for Reach SDE03: S Ditch E 3

Inflow Area = 276.240 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 944.14 cfs @ 12.50 hrs, Volume= 196.545 af
 Outflow = 942.88 cfs @ 12.53 hrs, Volume= 196.545 af, Atten= 0%, Lag= 2.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.31 fps, Min. Travel Time= 1.2 min
 Avg. Velocity = 1.49 fps, Avg. Travel Time= 4.3 min

Peak Storage= 68,081 cf @ 12.51 hrs
 Average Depth at Peak Storage= 3.42'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,252.39 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 383.3' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.15'



Summary for Reach SDE04: S Ditch E 4

Inflow Area = 279.677 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 949.34 cfs @ 12.53 hrs, Volume= 198.989 af
 Outflow = 948.08 cfs @ 12.57 hrs, Volume= 198.989 af, Atten= 0%, Lag= 2.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.32 fps, Min. Travel Time= 1.2 min
 Avg. Velocity= 1.50 fps, Avg. Travel Time= 4.3 min

Peak Storage= 68,830 cf @ 12.55 hrs
 Average Depth at Peak Storage= 3.43'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,253.09 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 386.2' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.16'



Summary for Reach SDE05: S Ditch E 5

Inflow Area = 331.101 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 1,060.66 cfs @ 12.53 hrs, Volume= 235.545 af
 Outflow = 1,059.57 cfs @ 12.57 hrs, Volume= 235.545 af, Atten= 0%, Lag= 2.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.50 fps, Min. Travel Time= 1.2 min
 Avg. Velocity= 1.60 fps, Avg. Travel Time= 4.0 min

Peak Storage= 74,683 cf @ 12.55 hrs
 Average Depth at Peak Storage= 3.65'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,250.67 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 387.7' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.16'



Summary for Reach SDE06: S Ditch E 6

Inflow Area = 334.342 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 1,064.82 cfs @ 12.56 hrs, Volume= 237.849 af
 Outflow = 1,063.79 cfs @ 12.60 hrs, Volume= 237.849 af, Atten= 0%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.52 fps, Min. Travel Time= 1.2 min
 Avg. Velocity = 1.61 fps, Avg. Travel Time= 4.0 min

Peak Storage= 74,291 cf @ 12.58 hrs
 Average Depth at Peak Storage= 3.65'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,254.39 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 385.4' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.16'



Summary for Reach SDE07: S Ditch E 7

Inflow Area = 337.906 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 1,068.93 cfs @ 12.59 hrs, Volume= 240.383 af
 Outflow = 1,067.94 cfs @ 12.63 hrs, Volume= 240.383 af, Atten= 0%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.52 fps, Min. Travel Time= 1.2 min
 Avg. Velocity = 1.61 fps, Avg. Travel Time= 4.0 min

Peak Storage= 74,698 cf @ 12.61 hrs
 Average Depth at Peak Storage= 3.66'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,253.09 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 386.2' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.16'



Summary for Reach SDE08: S Ditch E 8

Inflow Area = 341.444 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 1,072.51 cfs @ 12.62 hrs, Volume= 242.897 af
 Outflow = 1,071.58 cfs @ 12.66 hrs, Volume= 242.897 af, Atten= 0%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.53 fps, Min. Travel Time= 1.1 min
 Avg. Velocity = 1.62 fps, Avg. Travel Time= 3.9 min

Peak Storage= 73,442 cf @ 12.64 hrs
 Average Depth at Peak Storage= 3.67'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,253.99 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 379.0' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.14'



Summary for Reach SDE09: S Ditch E 9

Inflow Area = 345.191 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 1,076.03 cfs @ 12.66 hrs, Volume= 245.561 af
 Outflow = 1,074.87 cfs @ 12.69 hrs, Volume= 245.560 af, Atten= 0%, Lag= 2.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.53 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.62 fps, Avg. Travel Time= 4.4 min

Peak Storage= 83,683 cf @ 12.67 hrs
 Average Depth at Peak Storage= 3.68'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,251.76 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 430.4' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.29'



Summary for Reach SDE10: S Ditch E 10

Inflow Area = 348.276 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 1,078.25 cfs @ 12.69 hrs, Volume= 247.753 af
 Outflow = 1,076.83 cfs @ 12.73 hrs, Volume= 247.751 af, Atten= 0%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.53 fps, Min. Travel Time= 1.4 min
 Avg. Velocity = 1.63 fps, Avg. Travel Time= 4.9 min

Peak Storage= 93,196 cf @ 12.71 hrs
 Average Depth at Peak Storage= 3.68'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,250.20 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 478.3' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.43'



Summary for Reach SDNE01: S Ditch NE 1

Inflow Area = 56.688 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 287.51 cfs @ 12.15 hrs, Volume= 40.299 af
 Outflow = 281.72 cfs @ 12.19 hrs, Volume= 40.299 af, Atten= 2%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.56 fps, Min. Travel Time= 1.4 min
 Avg. Velocity = 1.05 fps, Avg. Travel Time= 4.7 min

Peak Storage= 23,572 cf @ 12.17 hrs
 Average Depth at Peak Storage= 1.72'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,250.37 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 297.6' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.89'



Summary for Reach SDNE02: S Ditch NE 2

Inflow Area = 59.130 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 297.13 cfs @ 12.19 hrs, Volume= 42.035 af
 Outflow = 292.51 cfs @ 12.23 hrs, Volume= 42.035 af, Atten= 2%, Lag= 2.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.61 fps, Min. Travel Time= 1.4 min
 Avg. Velocity = 1.05 fps, Avg. Travel Time= 4.7 min

Peak Storage= 24,042 cf @ 12.20 hrs
 Average Depth at Peak Storage= 1.76'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,252.69 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 296.5' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.89'



Summary for Reach SDNE03: S Ditch NE 3

Inflow Area = 62.375 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 309.54 cfs @ 12.22 hrs, Volume= 44.342 af
 Outflow = 303.61 cfs @ 12.27 hrs, Volume= 44.342 af, Atten= 2%, Lag= 3.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.65 fps, Min. Travel Time= 1.8 min
 Avg. Velocity = 1.04 fps, Avg. Travel Time= 6.3 min

Peak Storage= 32,690 cf @ 12.24 hrs
 Average Depth at Peak Storage= 1.79'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,251.91 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 393.6' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.18'



Summary for Reach SDNE04: S Ditch NE 4

Inflow Area = 65.752 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 317.67 cfs @ 12.27 hrs, Volume= 46.743 af
 Outflow = 311.25 cfs @ 12.33 hrs, Volume= 46.743 af, Atten= 2%, Lag= 3.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.68 fps, Min. Travel Time= 2.0 min
 Avg. Velocity = 1.03 fps, Avg. Travel Time= 7.2 min

Peak Storage= 37,622 cf @ 12.30 hrs
 Average Depth at Peak Storage= 1.82'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,249.99 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 445.0' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.33'



Summary for Reach SDNE05: S Ditch NE 5

Inflow Area = 90.778 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 404.91 cfs @ 12.32 hrs, Volume= 64.559 af
 Outflow = 400.75 cfs @ 12.37 hrs, Volume= 64.559 af, Atten= 1%, Lag= 3.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.02 fps, Min. Travel Time= 1.8 min
 Avg. Velocity = 1.13 fps, Avg. Travel Time= 6.5 min

Peak Storage= 44,203 cf @ 12.34 hrs
 Average Depth at Peak Storage= 2.11'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,252.53 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 443.2' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.33'



Summary for Reach SDNW01: S Ditch NW 1

Inflow Area = 13.770 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 59.03 cfs @ 12.47 hrs, Volume= 9.789 af
 Outflow = 58.82 cfs @ 12.52 hrs, Volume= 9.789 af, Atten= 0%, Lag= 3.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.13 fps, Min. Travel Time= 2.3 min
 Avg. Velocity = 0.66 fps, Avg. Travel Time= 7.5 min

Peak Storage= 8,170 cf @ 12.48 hrs
 Average Depth at Peak Storage= 0.65'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,355.75 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 295.8' Slope= 0.0035 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.04'



Summary for Reach SDNW02: S Ditch NW 2

Inflow Area = 16.241 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 63.96 cfs @ 12.49 hrs, Volume= 11.546 af
 Outflow = 63.81 cfs @ 12.55 hrs, Volume= 11.546 af, Atten= 0%, Lag= 3.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.19 fps, Min. Travel Time= 2.3 min
 Avg. Velocity = 0.69 fps, Avg. Travel Time= 7.2 min

Peak Storage= 8,648 cf @ 12.51 hrs
 Average Depth at Peak Storage= 0.69'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,352.78 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 297.1' Slope= 0.0035 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.04'



Summary for Reach SDNW03: S Ditch NW 3

Inflow Area = 19.427 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 77.56 cfs @ 12.18 hrs, Volume= 13.811 af
 Outflow = 76.49 cfs @ 12.26 hrs, Volume= 13.811 af, Atten= 1%, Lag= 4.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.35 fps, Min. Travel Time= 2.7 min
 Avg. Velocity = 0.72 fps, Avg. Travel Time= 8.9 min

Peak Storage= 12,432 cf @ 12.22 hrs
 Average Depth at Peak Storage= 0.76'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,355.08 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 381.5' Slope= 0.0035 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.34'



Summary for Reach SDNW04: S Ditch NW 4

Inflow Area = 22.869 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 92.29 cfs @ 12.23 hrs, Volume= 16.257 af
 Outflow = 91.44 cfs @ 12.31 hrs, Volume= 16.257 af, Atten= 1%, Lag= 4.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.51 fps, Min. Travel Time= 3.0 min
 Avg. Velocity = 0.74 fps, Avg. Travel Time= 10.0 min

Peak Storage= 16,259 cf @ 12.26 hrs
 Average Depth at Peak Storage= 0.85'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,353.01 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 445.5' Slope= 0.0035 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.56'



Summary for Reach SDNW05: S Ditch NW 5

Inflow Area = 47.613 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 249.02 cfs @ 12.16 hrs, Volume= 33.874 af
 Outflow = 241.81 cfs @ 12.22 hrs, Volume= 33.874 af, Atten= 3%, Lag= 3.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.55 fps, Min. Travel Time= 2.1 min
 Avg. Velocity= 0.96 fps, Avg. Travel Time= 7.7 min

Peak Storage= 30,387 cf @ 12.18 hrs
 Average Depth at Peak Storage= 1.50'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,352.10 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 446.1' Slope= 0.0035 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.56'



Summary for Reach SDSE01: S Ditch SE 1

Inflow Area = 38.285 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 248.05 cfs @ 12.16 hrs, Volume= 27.216 af
 Outflow = 244.21 cfs @ 12.19 hrs, Volume= 27.216 af, Atten= 2%, Lag= 2.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.12 fps, Min. Travel Time= 1.1 min
 Avg. Velocity= 1.31 fps, Avg. Travel Time= 3.6 min

Peak Storage= 16,776 cf @ 12.17 hrs
 Average Depth at Peak Storage= 2.41'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 674.14 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 '/' Top Width= 47.00'
 Length= 282.6' Slope= 0.0034 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.96'



Summary for Reach SDSE02: S Ditch SE 2

Inflow Area = 2.524 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 21.42 cfs @ 12.11 hrs, Volume= 1.794 af
 Outflow = 20.61 cfs @ 12.18 hrs, Volume= 1.794 af, Atten= 4%, Lag= 4.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 1.91 fps, Min. Travel Time= 2.4 min
 Avg. Velocity = 0.51 fps, Avg. Travel Time= 9.2 min

Peak Storage= 3,027 cf @ 12.14 hrs
 Average Depth at Peak Storage= 0.62'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 673.60 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 '/' Top Width= 47.00'
 Length= 280.1' Slope= 0.0034 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.95'



Summary for Reach SDSE03: S Ditch SE 3

Inflow Area = 3.409 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 28.93 cfs @ 12.11 hrs, Volume= 2.423 af
 Outflow = 27.22 cfs @ 12.20 hrs, Volume= 2.423 af, Atten= 6%, Lag= 5.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.01 fps, Min. Travel Time= 3.2 min
 Avg. Velocity = 0.53 fps, Avg. Travel Time= 12.1 min

Peak Storage= 5,201 cf @ 12.14 hrs
 Average Depth at Peak Storage= 0.75'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.05 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 '/' Top Width= 47.00'
 Length= 383.9' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.15'



Summary for Reach SDSE04: S Ditch SE 4

Inflow Area = 6.949 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 51.93 cfs @ 12.15 hrs, Volume= 4.940 af
 Outflow = 50.28 cfs @ 12.23 hrs, Volume= 4.940 af, Atten= 3%, Lag= 4.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.46 fps, Min. Travel Time= 2.9 min
 Avg. Velocity= 0.65 fps, Avg. Travel Time= 11.0 min

Peak Storage= 8,817 cf @ 12.18 hrs
 Average Depth at Peak Storage= 1.06'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.15 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 ' / ' Top Width= 47.00'
 Length= 430.5' Slope= 0.0030 ' / '
 Inlet Invert= 0.00', Outlet Invert= -1.29'



Summary for Reach SDSE05: S Ditch SE 5

Inflow Area = 9.803 ac, 0.00% Impervious, Inflow Depth = 8.57" for 100-Year, 24-Hour event
 Inflow = 65.54 cfs @ 12.20 hrs, Volume= 6.998 af
 Outflow = 64.39 cfs @ 12.29 hrs, Volume= 6.998 af, Atten= 2%, Lag= 5.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.65 fps, Min. Travel Time= 3.0 min
 Avg. Velocity= 0.71 fps, Avg. Travel Time= 11.2 min

Peak Storage= 11,615 cf @ 12.24 hrs
 Average Depth at Peak Storage= 1.22'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 632.43 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 ' / ' Top Width= 47.00'
 Length= 478.3' Slope= 0.0030 ' / '
 Inlet Invert= 0.00', Outlet Invert= -1.43'



Summary for Reach SDSW01: S Ditch SW 1

Inflow Area = 40.740 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 259.77 cfs @ 12.19 hrs, Volume= 28.961 af
 Outflow = 256.60 cfs @ 12.22 hrs, Volume= 28.961 af, Atten= 1%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.17 fps, Min. Travel Time= 1.1 min
 Avg. Velocity = 1.32 fps, Avg. Travel Time= 3.5 min

Peak Storage= 17,224 cf @ 12.20 hrs
 Average Depth at Peak Storage= 2.47'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 673.84 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 '/' Top Width= 47.00'
 Length= 279.9' Slope= 0.0034 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.95'



Summary for Reach SDSW02: S Ditch SW 2

Inflow Area = 43.384 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 271.11 cfs @ 12.22 hrs, Volume= 30.842 af
 Outflow = 268.41 cfs @ 12.25 hrs, Volume= 30.842 af, Atten= 1%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.22 fps, Min. Travel Time= 1.1 min
 Avg. Velocity = 1.33 fps, Avg. Travel Time= 3.5 min

Peak Storage= 17,815 cf @ 12.23 hrs
 Average Depth at Peak Storage= 2.53'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 673.48 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 '/' Top Width= 47.00'
 Length= 280.2' Slope= 0.0034 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.95'



Summary for Reach SDSW03: S Ditch SW 3

Inflow Area = 46.948 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
 Inflow = 285.60 cfs @ 12.25 hrs, Volume= 33.375 af
 Outflow = 281.60 cfs @ 12.29 hrs, Volume= 33.375 af, Atten= 1%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.28 fps, Min. Travel Time= 1.5 min
 Avg. Velocity = 1.33 fps, Avg. Travel Time= 4.7 min

Peak Storage= 24,823 cf @ 12.27 hrs
 Average Depth at Peak Storage= 2.59'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 673.78 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 ' / ' Top Width= 47.00'
 Length= 377.2' Slope= 0.0034 ' / '
 Inlet Invert= 0.00', Outlet Invert= -1.28'



Summary for Reach SDSW04: S Ditch SW 4

Inflow Area = 331.471 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 1,026.27 cfs @ 12.80 hrs, Volume= 235.804 af
 Outflow = 1,025.34 cfs @ 12.84 hrs, Volume= 235.802 af, Atten= 0%, Lag= 2.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.04 fps, Min. Travel Time= 1.4 min
 Avg. Velocity = 1.48 fps, Avg. Travel Time= 4.8 min

Peak Storage= 87,706 cf @ 12.81 hrs
 Average Depth at Peak Storage= 3.81'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,117.74 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' / ' Top Width= 68.00'
 Length= 431.0' Slope= 0.0024 ' / '
 Inlet Invert= 0.00', Outlet Invert= -1.03'



Summary for Reach SDSW05: S Ditch SW 5

Inflow Area = 327.503 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 1,023.64 cfs @ 12.76 hrs, Volume= 232.984 af
 Outflow = 1,022.39 cfs @ 12.80 hrs, Volume= 232.982 af, Atten= 0%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.05 fps, Min. Travel Time= 1.6 min
 Avg. Velocity = 1.48 fps, Avg. Travel Time= 5.4 min

Peak Storage= 96,855 cf @ 12.77 hrs
 Average Depth at Peak Storage= 3.80'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,121.49 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 478.0' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.15'



Summary for Reach SDW01: S Ditch W 1

Inflow Area = 224.716 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 865.46 cfs @ 12.41 hrs, Volume= 159.916 af
 Outflow = 861.85 cfs @ 12.46 hrs, Volume= 159.916 af, Atten= 0%, Lag= 2.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.78 fps, Min. Travel Time= 1.5 min
 Avg. Velocity = 1.27 fps, Avg. Travel Time= 5.7 min

Peak Storage= 78,449 cf @ 12.43 hrs
 Average Depth at Peak Storage= 3.46'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,118.49 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 434.6' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.04'



Summary for Reach SDW02: S Ditch W 2

Inflow Area = 228.232 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 870.60 cfs @ 12.46 hrs, Volume= 162.416 af
 Outflow = 867.34 cfs @ 12.50 hrs, Volume= 162.416 af, Atten= 0%, Lag= 2.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.79 fps, Min. Travel Time= 1.5 min
 Avg. Velocity= 1.28 fps, Avg. Travel Time= 5.6 min

Peak Storage= 78,644 cf @ 12.47 hrs
 Average Depth at Peak Storage= 3.47'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,119.27 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 434.0' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.04'



Summary for Reach SDW03: S Ditch W 3

Inflow Area = 231.579 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 874.57 cfs @ 12.50 hrs, Volume= 164.794 af
 Outflow = 872.35 cfs @ 12.54 hrs, Volume= 164.794 af, Atten= 0%, Lag= 2.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.80 fps, Min. Travel Time= 1.3 min
 Avg. Velocity= 1.30 fps, Avg. Travel Time= 4.8 min

Peak Storage= 67,839 cf @ 12.51 hrs
 Average Depth at Peak Storage= 3.48'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,122.22 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 373.6' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.90'



Summary for Reach SDW04: S Ditch W 4

Inflow Area = 234.966 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 878.69 cfs @ 12.53 hrs, Volume= 167.203 af
 Outflow = 876.60 cfs @ 12.57 hrs, Volume= 167.203 af, Atten= 0%, Lag= 2.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.81 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.30 fps, Avg. Travel Time= 4.8 min

Peak Storage= 68,161 cf @ 12.55 hrs
 Average Depth at Peak Storage= 3.49'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,121.62 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 374.0' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.90'



Summary for Reach SDW05: S Ditch W 5

Inflow Area = 284.927 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 982.32 cfs @ 12.55 hrs, Volume= 202.719 af
 Outflow = 980.53 cfs @ 12.58 hrs, Volume= 202.719 af, Atten= 0%, Lag= 2.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.98 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.40 fps, Avg. Travel Time= 4.5 min

Peak Storage= 74,424 cf @ 12.56 hrs
 Average Depth at Peak Storage= 3.71'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,121.70 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 378.1' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.91'



Summary for Reach SDW06: S Ditch W 6

Inflow Area = 288.113 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 985.33 cfs @ 12.58 hrs, Volume= 204.984 af
 Outflow = 983.81 cfs @ 12.62 hrs, Volume= 204.984 af, Atten= 0%, Lag= 2.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.99 fps, Min. Travel Time= 1.2 min
 Avg. Velocity = 1.41 fps, Avg. Travel Time= 4.4 min

Peak Storage= 73,037 cf @ 12.59 hrs
 Average Depth at Peak Storage= 3.72'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,121.23 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 370.1' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.89'



Summary for Reach SDW07: S Ditch W 7

Inflow Area = 291.620 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 988.49 cfs @ 12.61 hrs, Volume= 207.477 af
 Outflow = 987.08 cfs @ 12.65 hrs, Volume= 207.477 af, Atten= 0%, Lag= 2.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.99 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.41 fps, Avg. Travel Time= 4.4 min

Peak Storage= 74,118 cf @ 12.63 hrs
 Average Depth at Peak Storage= 3.73'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,120.72 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 374.6' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.90'



Summary for Reach SDW08: S Ditch W 8

Inflow Area = 295.154 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 991.37 cfs @ 12.65 hrs, Volume= 209.989 af
 Outflow = 990.09 cfs @ 12.68 hrs, Volume= 209.989 af, Atten= 0%, Lag= 2.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.00 fps, Min. Travel Time= 1.2 min
 Avg. Velocity = 1.42 fps, Avg. Travel Time= 4.4 min

Peak Storage= 73,873 cf @ 12.66 hrs
 Average Depth at Peak Storage= 3.73'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,122.97 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 373.1' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.90'



Summary for Reach SDW09: S Ditch W 9

Inflow Area = 299.072 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 994.52 cfs @ 12.68 hrs, Volume= 212.774 af
 Outflow = 992.85 cfs @ 12.72 hrs, Volume= 212.774 af, Atten= 0%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.99 fps, Min. Travel Time= 1.5 min
 Avg. Velocity = 1.42 fps, Avg. Travel Time= 5.2 min

Peak Storage= 88,241 cf @ 12.70 hrs
 Average Depth at Peak Storage= 3.75'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,117.93 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 443.4' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.06'



Summary for Reach SDW10: S Ditch W 10

Inflow Area = 324.323 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 1,021.89 cfs @ 12.72 hrs, Volume= 230.724 af
 Outflow = 1,020.41 cfs @ 12.76 hrs, Volume= 230.723 af, Atten= 0%, Lag= 2.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.05 fps, Min. Travel Time= 1.6 min
 Avg. Velocity= 1.48 fps, Avg. Travel Time= 5.5 min

Peak Storage= 99,093 cf @ 12.73 hrs
 Average Depth at Peak Storage= 3.80'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,122.14 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 489.9' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.18'



Summary for Reach SUEIC: South Unit East Inlet Culvert

Inflow Area = 176.097 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 570.62 cfs @ 12.49 hrs, Volume= 125.303 af
 Outflow = 570.57 cfs @ 12.49 hrs, Volume= 125.303 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 9.30 fps, Min. Travel Time= 0.1 min
 Avg. Velocity= 2.56 fps, Avg. Travel Time= 0.5 min

Peak Storage= 4,293 cf @ 12.49 hrs
 Average Depth at Peak Storage= 2.04'
 Bank-Full Depth= 4.00' Flow Area= 120.0 sf, Capacity= 1,103.63 cfs

A factor of 2.00 has been applied to the storage and discharge capacity
 180.0" W x 48.0" H Box Pipe
 n= 0.012
 Length= 70.0' Slope= 0.0030 '/'

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

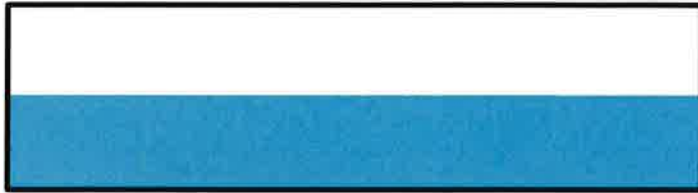
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Inlet Invert= 0.00', Outlet Invert= -0.21'



Summary for Reach SUWIC: South Unit West Inlet Culvert

Inflow Area = 174.503 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 685.13 cfs @ 12.43 hrs, Volume= 124.166 af
 Outflow = 685.01 cfs @ 12.43 hrs, Volume= 124.166 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 9.90 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 2.61 fps, Avg. Travel Time= 0.4 min

Peak Storage= 4,843 cf @ 12.43 hrs
 Average Depth at Peak Storage= 2.31'
 Bank-Full Depth= 4.00' Flow Area= 120.0 sf, Capacity= 1,103.63 cfs

A factor of 2.00 has been applied to the storage and discharge capacity
 180.0" W x 48.0" H Box Pipe
 n= 0.012
 Length= 70.0' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.21'



Summary for Reach WMC: West Middle Channel

Inflow Area = 174.503 ac, 0.00% Impervious, Inflow Depth = 8.54" for 100-Year, 24-Hour event
 Inflow = 685.61 cfs @ 12.41 hrs, Volume= 124.166 af
 Outflow = 685.13 cfs @ 12.43 hrs, Volume= 124.166 af, Atten= 0%, Lag= 1.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.93 fps, Min. Travel Time= 0.6 min
 Avg. Velocity = 1.32 fps, Avg. Travel Time= 2.3 min

Peak Storage= 25,723 cf @ 12.42 hrs
 Average Depth at Peak Storage= 3.05'
 Bank-Full Depth= 4.00' Flow Area= 196.0 sf, Capacity= 1,124.79 cfs

Pescadito Perimeter

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

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35.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' / ' Top Width= 63.00'
 Length= 185.0' Slope= 0.0030 ' / '
 Inlet Invert= 0.00', Outlet Invert= -0.56'



Summary for Pond PSDB: South Detention Basin

Inflow Area = 809.838 ac, 6.05% Impervious, Inflow Depth = 8.58" for 100-Year, 24-Hour event
 Inflow = 2,275.01 cfs @ 12.71 hrs, Volume= 579.178 af
 Outflow = 822.00 cfs @ 14.01 hrs, Volume= 567.540 af, Atten= 64%, Lag= 78.4 min
 Primary = 717.41 cfs @ 14.01 hrs, Volume= 544.112 af
 Secondary = 104.59 cfs @ 14.01 hrs, Volume= 23.428 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 538.47' @ 14.01 hrs Surf.Area= 1,988,335 sf Storage= 10,488,455 cf

Plug-Flow detention time= 223.2 min calculated for 567.540 af (98% of inflow)
 Center-of-Mass det. time= 209.5 min (1,046.1 - 836.6)

Volume	Invert	Avail.Storage	Storage Description
#1	533.00'	13,552,994 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
533.00	1,843,612	0	0
540.00	2,028,672	13,552,994	13,552,994

Device	Routing	Invert	Outlet Devices
#1	Primary	533.00'	48.0" W x 24.0" H Box Culvert X 10.00 L= 80.0' RCP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 533.00' / 532.84' S= 0.0020 ' / ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 8.00 sf
#2	Secondary	536.50'	48.0" W x 24.0" H Box Culvert X 4.00 L= 50.0' RCP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 536.50' / 536.40' S= 0.0020 ' / ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 8.00 sf

Primary OutFlow Max=717.42 cfs @ 14.01 hrs HW=538.47' (Free Discharge)
 ↑1=Culvert (Inlet Controls 717.42 cfs @ 8.97 fps)

Secondary OutFlow Max=104.58 cfs @ 14.01 hrs HW=538.47' (Free Discharge)
 ↑2=Culvert (Barrel Controls 104.58 cfs @ 4.41 fps)

Summary for Link A: Watershed A

Inflow Area = 22.714 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 109.00 cfs @ 12.13 hrs, Volume= 16.147 af
Primary = 109.00 cfs @ 12.13 hrs, Volume= 16.147 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text an

Summary for Link B: Watershed B

Inflow Area = 41.229 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 217.89 cfs @ 12.14 hrs, Volume= 29.310 af
Primary = 217.89 cfs @ 12.14 hrs, Volume= 29.310 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text an

Summary for Link C: Watershed C

Inflow Area = 21.830 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 101.84 cfs @ 12.14 hrs, Volume= 15.519 af
Primary = 101.84 cfs @ 12.14 hrs, Volume= 15.519 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text an

Summary for Link D: Watershed D

Inflow Area = 33.722 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 163.64 cfs @ 12.19 hrs, Volume= 23.973 af
Primary = 163.64 cfs @ 12.19 hrs, Volume= 23.973 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text an

Summary for Link E: Watershed E

Inflow Area = 21.544 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 99.44 cfs @ 12.15 hrs, Volume= 15.316 af
Primary = 99.44 cfs @ 12.15 hrs, Volume= 15.316 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text an

Summary for Link F: Watershed F

Inflow Area = 38.300 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 199.49 cfs @ 12.15 hrs, Volume= 27.227 af
Primary = 199.49 cfs @ 12.15 hrs, Volume= 27.227 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text an

Summary for Link G: Watershed G

Inflow Area = 21.128 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 94.50 cfs @ 12.16 hrs, Volume= 15.020 af
Primary = 94.50 cfs @ 12.16 hrs, Volume= 15.020 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text an

Summary for Link H: Watershed H

Inflow Area = 34.086 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 163.03 cfs @ 12.19 hrs, Volume= 24.232 af
Primary = 163.03 cfs @ 12.19 hrs, Volume= 24.232 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text an

Summary for Link I: Watershed I

Inflow Area = 22.132 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 160.52 cfs @ 12.15 hrs, Volume= 15.733 af
Primary = 160.52 cfs @ 12.15 hrs, Volume= 15.733 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text an

Summary for Link J: Watershed J

Inflow Area = 35.077 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 234.76 cfs @ 12.15 hrs, Volume= 24.936 af
Primary = 234.76 cfs @ 12.15 hrs, Volume= 24.936 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text an

Summary for Link K: Watershed K

Inflow Area = 22.472 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 168.94 cfs @ 12.15 hrs, Volume= 15.975 af
Primary = 168.94 cfs @ 12.15 hrs, Volume= 15.975 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text an

Summary for Link L: Watershed L

Inflow Area = 48.208 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 363.81 cfs @ 12.11 hrs, Volume= 34.270 af
Primary = 363.81 cfs @ 12.11 hrs, Volume= 34.270 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text an

Summary for Link M: Watershed M

Inflow Area = 22.029 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 160.21 cfs @ 12.16 hrs, Volume= 15.660 af
Primary = 160.21 cfs @ 12.16 hrs, Volume= 15.660 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text an

Summary for Link N: Watershed N

Inflow Area = 33.325 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 209.68 cfs @ 12.16 hrs, Volume= 23.690 af
Primary = 209.68 cfs @ 12.16 hrs, Volume= 23.690 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text an

Summary for Link O: Watershed O

Inflow Area = 22.056 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 158.93 cfs @ 12.16 hrs, Volume= 15.680 af
Primary = 158.93 cfs @ 12.16 hrs, Volume= 15.680 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text an

Summary for Link P: Watershed P

Inflow Area = 46.766 ac, 0.00% Impervious, Inflow Depth = 8.53" for 100-Year, 24-Hour event
Inflow = 349.50 cfs @ 12.12 hrs, Volume= 33.246 af
Primary = 349.50 cfs @ 12.12 hrs, Volume= 33.246 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text an

Summary for Link toDA2: Discharge to DA2

Inflow Area = 809.838 ac, 6.05% Impervious, Inflow Depth > 8.06" for 100-Year, 24-Hour event
Inflow = 717.41 cfs @ 14.01 hrs, Volume= 544.112 af
Primary = 717.41 cfs @ 14.01 hrs, Volume= 544.112 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link toDA3: Discharge to DA3

Inflow = 104.59 cfs @ 14.01 hrs, Volume= 23.428 af
Primary = 104.59 cfs @ 14.01 hrs, Volume= 23.428 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

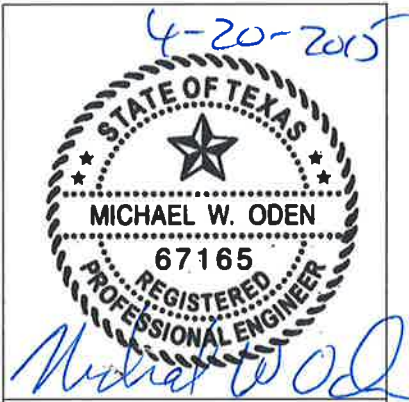
ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

- 3. **PROPOSED CONDITIONS (POST-DEVELOPMENT)**
 - A. MODEL DIAGRAMS
 - B. LANDFILL WATERSHED A (TYPICAL OF WATERSHEDS C, E, G, J, K, M, & O)
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - C. LANDFILL WATERSHED B (TYPICAL OF WATERSHEDS D, F, J, L, N, & P)
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - D. **LANDFILL PERIMETER DITCH, CULVERT, & BASIN SYSTEM**
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. **25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)**
 - E. REGIONAL STORMWATER CONDITIONS
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)

4-20-2015



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Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Subcatchment A5LLS: 5 Lower Left Subcat

Runoff = 18.10 cfs @ 12.09 hrs, Volume= 1.440 af, Depth= 6.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	80,011	92	
*	16,587	96	
*	14,691	92	
	111,289	93	Weighted Average
	111,289		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	243	0.2500	0.60		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment A5LRS: 5 Lower Right Subcat

Runoff = 17.92 cfs @ 12.10 hrs, Volume= 1.441 af, Depth= 6.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	80,953	92	
*	14,272	92	
*	16,114	96	
	111,339	93	Weighted Average
	111,339		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	257	0.2500	0.61		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment A5MLS: 5 Middle Left Subcat

Runoff = 23.28 cfs @ 12.10 hrs, Volume= 1.874 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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	Area (sf)	CN	Description
*	116,616	92	
*	16,300	96	
*	14,437	92	
	147,353	92	Weighted Average
	147,353		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	272	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment A5MRS: 5 Middle Right Subcat

Runoff = 23.59 cfs @ 12.11 hrs, Volume= 1.937 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	122,444	92	
*	14,024	92	
*	15,834	96	
	152,302	92	Weighted Average
	152,302		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment A5ULS: 5 Upper Left Subcat

Runoff = 20.77 cfs @ 12.11 hrs, Volume= 1.705 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	108,278	92	
*	13,696	96	
*	12,130	92	
	134,104	92	Weighted Average
	134,104		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	297	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment A5URS: 5 Upper Right Subcat

Runoff = 21.13 cfs @ 12.11 hrs, Volume= 1.746 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	118,162	92	
*	8,990	92	
*	10,150	96	
	137,302	92	Weighted Average
	137,302		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	36	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	336	Total			

Summary for Subcatchment B7LLS: 7 Lower Left Subcat

Runoff = 16.85 cfs @ 12.10 hrs, Volume= 1.356 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	83,779	92	
*	12,131	96	
*	10,745	92	
	106,655	92	Weighted Average
	106,655		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	268	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment B7LRS: 7 Lower Right Subcat

Runoff = 16.56 cfs @ 12.10 hrs, Volume= 1.324 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 81,647	92	
* 11,925	96	
* 10,562	92	
104,134	92	Weighted Average
104,134		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	262	0.2500	0.61		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment B7ULS: 7 Upper Left Subcat

Runoff = 18.10 cfs @ 12.11 hrs, Volume= 1.486 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 94,137	92	
* 12,037	96	
* 10,661	92	
116,835	92	Weighted Average
116,835		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	298	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment B7URS: 7 Upper Right Subcat

Runoff = 17.93 cfs @ 12.11 hrs, Volume= 1.472 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 93,145	92	
* 11,984	96	
* 10,614	92	
115,743	92	Weighted Average
115,743		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	297	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment C5LLS: 5 Lower Left Subcat

Runoff = 16.69 cfs @ 12.09 hrs, Volume= 1.336 af, Depth= 6.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	74,693	92	
*	15,145	96	
*	13,414	92	
	103,252	93	Weighted Average
	103,252		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	251	0.2500	0.61		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment C5LRS: 5 Lower Right Subcat

Runoff = 16.83 cfs @ 12.09 hrs, Volume= 1.339 af, Depth= 6.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	74,225	92	
*	15,512	96	
*	13,739	92	
	103,476	93	Weighted Average
	103,476		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	241	0.2500	0.60		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment C5MLS: 5 Middle Left Subcat

Runoff = 21.97 cfs @ 12.11 hrs, Volume= 1.798 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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	Area (sf)	CN	Description
*	113,067	92	
*	14,998	96	
*	13,284	92	
	141,349	92	Weighted Average
	141,349		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	292	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment C5MRS: 5 Middle Right Subcat

Runoff = 21.84 cfs @ 12.10 hrs, Volume= 1.758 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	109,253	92	
*	15,365	96	
*	13,609	92	
	138,227	92	Weighted Average
	138,227		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	271	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment C5ULS: 5 Upper Left Subcat

Runoff = 21.00 cfs @ 12.11 hrs, Volume= 1.730 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	111,570	92	
*	12,982	96	
*	11,498	92	
	136,050	92	Weighted Average
	136,050		100.00% Pervious Area

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Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	27	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	327	Total			

Summary for Subcatchment C5URS: 5 Upper Right Subcat

Runoff = 20.09 cfs @ 12.11 hrs, Volume= 1.649 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 104,706	92	
* 13,248	96	
* 11,734	92	
129,688	92	Weighted Average
129,688		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	298	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment D7LLS: 7 Lower Left Subcat

Runoff = 15.83 cfs @ 12.11 hrs, Volume= 1.304 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 83,617	92	
* 10,024	96	
* 8,878	92	
102,519	92	Weighted Average
102,519		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	14	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	314	Total			

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Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Subcatchment D7LRS: 7 Lower Right Subcat

Runoff = 15.74 cfs @ 12.11 hrs, Volume= 1.292 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 82,704	92	
* 10,031	96	
* 8,885	92	
101,620	92	Weighted Average
101,620		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.0	7	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
7.9	307	Total			

Summary for Subcatchment D7ULS: 7 Upper Left Subcat

Runoff = 16.88 cfs @ 12.11 hrs, Volume= 1.395 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 90,839	92	
* 9,986	96	
* 8,844	92	
109,669	92	Weighted Average
109,669		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	42	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	342	Total			

Summary for Subcatchment D7URS: 7 Upper Right Subcat

Runoff = 16.59 cfs @ 12.11 hrs, Volume= 1.367 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 88,514	92	
* 10,059	96	
* 8,909	92	
107,482	92	Weighted Average
107,482		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	27	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	327	Total			

Summary for Subcatchment E5LLS: 5 Lower Left Subcat

Runoff = 19.46 cfs @ 12.10 hrs, Volume= 1.595 af, Depth= 6.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 91,942	92	
* 16,597	96	
* 14,700	92	
123,239	93	Weighted Average
123,239		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	286	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment E5LRS: 5 Lower Right Subcat

Runoff = 19.46 cfs @ 12.10 hrs, Volume= 1.595 af, Depth= 6.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 91,941	92	
* 16,597	96	
* 14,700	92	
123,238	93	Weighted Average
123,238		100.00% Pervious Area

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	286	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment E5MLS: 5 Middle Left Subcat

Runoff = 23.56 cfs @ 12.11 hrs, Volume= 1.941 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 124,489	92	
* 14,921	96	
* 13,215	92	
152,625	92	Weighted Average
152,625		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	17	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	317	Total			

Summary for Subcatchment E5MRS: 5 Middle Right Subcat

Runoff = 23.56 cfs @ 12.11 hrs, Volume= 1.941 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 124,482	92	
* 14,921	96	
* 13,215	92	
152,618	92	Weighted Average
152,618		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	16	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	316	Total			

Summary for Subcatchment E5ULS: 5 Upper Left Subcat

Runoff = 21.76 cfs @ 12.11 hrs, Volume= 1.798 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 117,133	92	
* 12,856	96	
* 11,386	92	
141,375	92	Weighted Average
141,375		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	43	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	343	Total			

Summary for Subcatchment E5URS: 5 Upper Right Subcat

Runoff = 22.13 cfs @ 12.11 hrs, Volume= 1.829 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 119,156	92	
* 13,076	96	
* 11,582	92	
143,814	92	Weighted Average
143,814		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	42	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	342	Total			

Summary for Subcatchment EMCS: East Middle Channel Subcat

Runoff = 10.14 cfs @ 12.00 hrs, Volume= 0.646 af, Depth= 6.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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	Area (sf)	CN	Description
*	18,109	96	
*	31,782	92	
	49,891	93	Weighted Average
	49,891		100.00% Pervious Area

Summary for Subcatchment EMS: East Middle Subcat

Runoff = 65.07 cfs @ 12.61 hrs, Volume= 10.716 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	842,596	92	
	842,596		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.5	300	0.0055	0.14		Sheet Flow, Grass: Short n= 0.150 P2= 3.75"
9.1	282	0.0055	0.52		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
45.6	582	Total			

Summary for Subcatchment F7LLS: 7 Lower Left Subcat

Runoff = 17.30 cfs @ 12.11 hrs, Volume= 1.425 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	91,194	92	
*	11,064	96	
*	9,799	92	
	112,057	92	Weighted Average
	112,057		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	15	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	315	Total			

Summary for Subcatchment F7LRS: 7 Lower Right Subcat

Runoff = 17.27 cfs @ 12.11 hrs, Volume= 1.423 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 91,012	92	
* 11,071	96	
* 9,805	92	
111,888	92	Weighted Average
111,888		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	13	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	313	Total			

Summary for Subcatchment F7ULS: 7 Upper Left Subcat

Runoff = 18.91 cfs @ 12.11 hrs, Volume= 1.563 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 101,812	92	
* 11,176	96	
* 9,898	92	
122,886	92	Weighted Average
122,886		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	46	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	346	Total			

Summary for Subcatchment F7URS: 7 Upper Right Subcat

Runoff = 18.62 cfs @ 12.11 hrs, Volume= 1.539 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 100,155	92	
* 11,060	96	
* 9,796	92	
121,011	92	Weighted Average
121,011		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	43	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	343	Total			

Summary for Subcatchment G5LLS: 5 Lower Left Subcat

Runoff = 19.37 cfs @ 12.11 hrs, Volume= 1.605 af, Depth= 6.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 93,236	92	
* 16,296	96	
* 14,434	92	
123,966	93	Weighted Average
123,966		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	297	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment G5LRS: 5 Lower Right Subcat

Runoff = 19.46 cfs @ 12.11 hrs, Volume= 1.606 af, Depth= 6.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 93,186	92	
* 16,380	96	
* 14,508	92	
124,074	93	Weighted Average
124,074		100.00% Pervious Area

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	295	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment G5MLS: 5 Middle Left Subcat

Runoff = 23.20 cfs @ 12.11 hrs, Volume= 1.911 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 123,329	92	
* 14,298	96	
* 12,664	92	
150,291	92	Weighted Average
150,291		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	25	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	325	Total			

Summary for Subcatchment G5MRS: 5 Middle Right Subcat

Runoff = 23.12 cfs @ 12.11 hrs, Volume= 1.905 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 122,673	92	
* 14,371	96	
* 12,729	92	
149,773	92	Weighted Average
149,773		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	22	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	322	Total			

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Subcatchment G5ULS: 5 Upper Left Subcat

Runoff = 22.30 cfs @ 12.11 hrs, Volume= 1.843 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 120,624	92	
* 12,866	96	
* 11,396	92	
144,886	92	Weighted Average
144,886		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	51	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	351	Total			

Summary for Subcatchment G5URS: 5 Upper Right Subcat

Runoff = 21.89 cfs @ 12.11 hrs, Volume= 1.809 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 118,133	92	
* 12,775	96	
* 11,315	92	
142,223	92	Weighted Average
142,223		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	46	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	346	Total			

Summary for Subcatchment H7LLS: 7 Lower Left Subcat

Runoff = 16.35 cfs @ 12.11 hrs, Volume= 1.346 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 86,611	92	
* 9,046	92	
* 10,213	96	
105,870	92	Weighted Average
105,870		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	16	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	316	Total			

Summary for Subcatchment H7LRS: 7 Lower Right Subcat

Runoff = 16.35 cfs @ 12.11 hrs, Volume= 1.347 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 86,831	92	
* 8,947	92	
* 10,101	96	
105,879	92	Weighted Average
105,879		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	23	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	323	Total			

Summary for Subcatchment H7ULS: 7 Upper Left Subcat

Runoff = 17.09 cfs @ 12.11 hrs, Volume= 1.412 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 91,880	92	
* 8,990	92	
* 10,150	96	
111,020	92	Weighted Average
111,020		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	36	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	336	Total			

Summary for Subcatchment H7URS: 7 Upper Right Subcat

Runoff = 17.57 cfs @ 12.11 hrs, Volume= 1.452 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 94,995	92	
* 8,993	92	
* 10,154	96	
114,142	92	Weighted Average
114,142		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	51	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	351	Total			

Summary for Subcatchment I5LLS: 5 Lower Left Subcat

Runoff = 18.50 cfs @ 12.09 hrs, Volume= 1.473 af, Depth= 6.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 74,969	92	
* 15,614	96	
* 23,197	92	
113,780	93	Weighted Average
113,780		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	242	0.2500	0.60		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment I5LRS: 5 Lower Right Subcat

Runoff = 18.31 cfs @ 12.09 hrs, Volume= 1.467 af, Depth= 6.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 75,490	92	
* 15,211	96	
* 22,599	92	
113,300	93	Weighted Average
113,300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	253	0.2500	0.61		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment I5MLS: 5 Middle Left Subcat

Runoff = 23.68 cfs @ 12.10 hrs, Volume= 1.906 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 111,152	92	
* 15,593	96	
* 23,166	92	
149,911	92	Weighted Average
149,911		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	272	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

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Summary for Subcatchment I5MRS: 5 Middle Right Subcat

Runoff = 23.81 cfs @ 12.11 hrs, Volume= 1.948 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	115,402	92	
*	15,190	96	
*	22,568	92	
	153,160	92	Weighted Average
	153,160		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	294	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment I5ULS: 5 Upper Left Subcat

Runoff = 21.50 cfs @ 12.11 hrs, Volume= 1.765 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	105,593	92	
*	13,353	96	
*	19,838	92	
	138,784	92	Weighted Average
	138,784		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	298	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment I5URS: 5 Upper Right Subcat

Runoff = 22.50 cfs @ 12.11 hrs, Volume= 1.854 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 113,254	92	
* 13,076	96	
* 19,427	92	
145,757	92	Weighted Average
145,757		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	30	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	330	Total			

Summary for Subcatchment J7LLS: 7 Lower Left Subcat

Runoff = 15.67 cfs @ 12.10 hrs, Volume= 1.256 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 72,907	92	
* 10,416	96	
* 15,475	92	
98,798	92	Weighted Average
98,798		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	266	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment J7LRS: 7 Lower Right Subcat

Runoff = 15.59 cfs @ 12.10 hrs, Volume= 1.255 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 72,963	92	
* 10,353	96	
* 15,382	92	
98,698	92	Weighted Average
98,698		100.00% Pervious Area

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	268	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment J7ULS: 7 Upper Left Subcat

Runoff = 16.54 cfs @ 12.11 hrs, Volume= 1.353 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 80,571	92	
* 10,378	96	
* 15,418	92	
106,367	92	Weighted Average
106,367		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	294	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment J7URS: 7 Upper Right Subcat

Runoff = 16.67 cfs @ 12.11 hrs, Volume= 1.369 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 81,800	92	
* 10,399	96	
* 15,449	92	
107,648	92	Weighted Average
107,648		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	298	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment K5LLS: 5 Lower Left Subcat

Runoff = 17.85 cfs @ 12.09 hrs, Volume= 1.421 af, Depth= 6.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 72,472	92	
* 14,998	96	
* 22,282	92	
109,752	93	Weighted Average
109,752		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	243	0.2500	0.60		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment K5LRS: 5 Lower Right Subcat

Runoff = 18.21 cfs @ 12.09 hrs, Volume= 1.440 af, Depth= 6.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 72,691	92	
* 15,512	96	
* 23,046	92	
111,249	93	Weighted Average
111,249		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.5	235	0.2500	0.60		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment K5MLS: 5 Middle Left Subcat

Runoff = 23.60 cfs @ 12.11 hrs, Volume= 1.924 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 113,132	92	
* 15,362	96	
* 22,823	92	
151,317	92	Weighted Average
151,317		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	287	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

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Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Subcatchment K5MRS: 5 Middle Right Subcat

Runoff = 23.33 cfs @ 12.10 hrs, Volume= 1.871 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	108,397	92	
*	15,575	96	
*	23,140	92	
	147,112	92	Weighted Average
	147,112		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	266	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment K5ULS: 5 Upper Left Subcat

Runoff = 22.67 cfs @ 12.11 hrs, Volume= 1.868 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	113,507	92	
*	13,416	96	
*	19,932	92	
	146,855	92	Weighted Average
	146,855		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	23	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	323				Total

Summary for Subcatchment K5URS: 5 Upper Right Subcat

Runoff = 21.97 cfs @ 12.11 hrs, Volume= 1.798 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 107,103	92	
* 13,776	96	
* 20,467	92	
141,346	92	Weighted Average
141,346		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	294	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment L7LLS: 7 Lower Left Subcat

Runoff = 21.87 cfs @ 12.11 hrs, Volume= 1.796 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 107,663	92	
* 13,489	96	
* 20,041	92	
141,193	92	Weighted Average
141,193		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.0	5	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
7.9	305	Total			

Summary for Subcatchment L7LRS: 7 Lower Right Subcat

Runoff = 21.70 cfs @ 12.11 hrs, Volume= 1.782 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 106,367	92	
* 13,570	96	
* 20,160	92	
140,097	92	Weighted Average
140,097		100.00% Pervious Area

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	296	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment L7ULS: 7 Upper Left Subcat

Runoff = 23.90 cfs @ 12.11 hrs, Volume= 1.975 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 121,664	92	
* 13,517	96	
* 20,082	92	
155,263	92	Weighted Average
155,263		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	42	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	342	Total			

Summary for Subcatchment L7URS: 7 Upper Right Subcat

Runoff = 23.11 cfs @ 12.11 hrs, Volume= 1.904 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 116,121	92	
* 13,517	96	
* 20,082	92	
149,720	92	Weighted Average
149,720		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	23	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	323	Total			

Summary for Subcatchment M5LLS: 5 Lower Left Subcat

Runoff = 19.63 cfs @ 12.10 hrs, Volume= 1.609 af, Depth= 6.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 92,764	92	
* 16,741	96	
* 14,818	92	
124,323	93	Weighted Average
124,323		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	286	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment M5LRS: 5 Lower Right Subcat

Runoff = 21.03 cfs @ 12.10 hrs, Volume= 1.709 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 92,764	92	
* 16,741	96	
* 24,872	92	
134,377	92	Weighted Average
134,377		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	286	0.2500	0.62		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment M5MLS: 5 Middle Left Subcat

Runoff = 23.81 cfs @ 12.11 hrs, Volume= 1.961 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 125,780	92	
* 15,068	96	
* 13,346	92	
154,194	92	Weighted Average
154,194		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	16	0.2500	3.50		Shallow Concentrated Flow, Kv= 7.0 fps
8.0	316	Total			

Summary for Subcatchment M5MRS: 5 Middle Right Subcat

Runoff = 25.20 cfs @ 12.11 hrs, Volume= 2.076 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 125,777	92	
* 15,064	96	
* 22,381	92	
163,222	92	Weighted Average
163,222		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	15	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	315	Total			

Summary for Subcatchment M5ULS: 5 Upper Left Subcat

Runoff = 22.85 cfs @ 12.11 hrs, Volume= 1.889 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 123,162	92	
* 13,437	96	
* 11,901	92	
148,500	92	Weighted Average
148,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	46	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	346	Total			

Summary for Subcatchment M5URS: 5 Upper Right Subcat

Runoff = 23.71 cfs @ 12.11 hrs, Volume= 1.960 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 121,111	92	
* 13,265	96	
* 19,708	92	
154,084	92	Weighted Average
154,084		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	42	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	342	Total			

Summary for Subcatchment N7LLS: 7 Lower Left Subcat

Runoff = 16.46 cfs @ 12.11 hrs, Volume= 1.360 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 88,465	92	
* 9,797	96	
* 8,677	92	
106,939	92	Weighted Average
106,939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	38	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	338	Total			

Summary for Subcatchment N7LRS: 7 Lower Right Subcat

Runoff = 16.38 cfs @ 12.11 hrs, Volume= 1.349 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 87,436	92	
* 9,891	96	
* 8,761	92	
106,088	92	Weighted Average
106,088		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	28	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	328	Total			

Summary for Subcatchment N7ULS: 7 Upper Left Subcat

Runoff = 17.68 cfs @ 12.11 hrs, Volume= 1.465 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 96,720	92	
* 9,807	96	
* 8,686	92	
115,213	92	Weighted Average
115,213		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.3	66	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.2	366	Total			

Summary for Subcatchment N7URS: 7 Upper Right Subcat

Runoff = 16.92 cfs @ 12.11 hrs, Volume= 1.398 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 91,459	92	
* 9,804	96	
* 8,683	92	
109,946	92	Weighted Average
109,946		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	46	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	346	Total			

Summary for Subcatchment O5LLS: 5 Lower Left Subcat

Runoff = 21.70 cfs @ 12.11 hrs, Volume= 1.769 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 96,506	92	
* 17,147	96	
* 25,475	92	
139,128	92	Weighted Average
139,128		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	291	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment O5LRS: 5 Lower Right Subcat

Runoff = 21.46 cfs @ 12.11 hrs, Volume= 1.762 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 96,933	92	
* 16,730	96	
* 24,856	92	
138,519	92	Weighted Average
138,519		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment O5MLS: 5 Middle Left Subcat

Runoff = 26.35 cfs @ 12.11 hrs, Volume= 2.170 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 132,089	92	
* 15,519	96	
* 23,057	92	
170,665	92	Weighted Average
170,665		100.00% Pervious Area

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	22	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	322	Total			

Summary for Subcatchment O5MRS: 5 Middle Right Subcat

Runoff = 26.61 cfs @ 12.11 hrs, Volume= 2.199 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	135,387	92	
*	15,085	96	
*	22,412	92	
	172,884	92	Weighted Average
	172,884		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	42	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	342	Total			

Summary for Subcatchment O5ULS: 5 Upper Left Subcat

Runoff = 23.70 cfs @ 12.11 hrs, Volume= 1.958 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

	Area (sf)	CN	Description
*	121,507	92	
*	13,059	96	
*	19,401	92	
	153,967	92	Weighted Average
	153,967		100.00% Pervious Area

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	48	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	348	Total			

Summary for Subcatchment O5URS: 5 Upper Right Subcat

Runoff = 23.82 cfs @ 12.11 hrs, Volume= 1.974 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 130,312	92	
* 13,202	96	
* 11,693	92	
155,207	92	Weighted Average
155,207		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.3	66	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.2	366	Total			

Summary for Subcatchment P7LLS: 7 Lower Left Subcat

Runoff = 21.56 cfs @ 12.11 hrs, Volume= 1.770 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 106,276	92	
* 13,234	96	
* 19,661	92	
139,171	92	Weighted Average
139,171		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"

Summary for Subcatchment P7LRS: 7 Lower Right Subcat

Runoff = 21.42 cfs @ 12.11 hrs, Volume= 1.765 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 106,561	92	
* 12,954	96	
* 19,245	92	
138,760	92	Weighted Average
138,760		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	13	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	313	Total			

Summary for Subcatchment P7ULS: 7 Upper Left Subcat

Runoff = 22.78 cfs @ 12.11 hrs, Volume= 1.877 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 115,032	92	
* 13,090	96	
* 19,448	92	
147,570	92	Weighted Average
147,570		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.1	30	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	330	Total			

Summary for Subcatchment P7URS: 7 Upper Right Subcat

Runoff = 23.51 cfs @ 12.11 hrs, Volume= 1.943 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Area (sf)	CN	Description
* 120,174	92	
* 13,111	96	
* 19,479	92	
152,764	92	Weighted Average
152,764		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	300	0.2500	0.63		Sheet Flow, n= 0.150 P2= 3.75"
0.2	48	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	348	Total			

Summary for Subcatchment SDBS: South Detention Basin Subcatchment

Runoff = 435.48 cfs @ 12.03 hrs, Volume= 31.473 af, Depth= 7.36"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 2,135,600	98	
99,531	96	
2,235,131	98	Weighted Average
99,531		4.45% Pervious Area
2,135,600		95.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	60	0.2000	0.42		Sheet Flow, Grass: Short n= 0.150 P2= 3.75"

Summary for Subcatchment WMCS: West Middle Channel Subcat

Runoff = 3.63 cfs @ 12.00 hrs, Volume= 0.231 af, Depth= 6.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 6,475	96	
* 11,364	92	
17,839	93	Weighted Average
17,839		100.00% Pervious Area

Summary for Subcatchment WMS: West Middle Subcat

Runoff = 42.51 cfs @ 12.48 hrs, Volume= 6.373 af, Depth= 6.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
* 501,116	92	
501,116		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.2	300	0.0065	0.15		Sheet Flow, Grass: Short n= 0.150 P2= 3.75"
3.6	121	0.0065	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
37.8	421	Total			

Summary for Reach EMC: East Middle Channel

Inflow Area = 176.097 ac, 0.00% Impervious, Inflow Depth = 6.66" for 25-Year, 24-Hour event
 Inflow = 432.63 cfs @ 12.54 hrs, Volume= 97.667 af
 Outflow = 431.04 cfs @ 12.59 hrs, Volume= 97.667 af, Atten= 0%, Lag= 3.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.23 fps, Min. Travel Time= 2.0 min
 Avg. Velocity= 1.20 fps, Avg. Travel Time= 7.2 min

Peak Storage= 52,672 cf @ 12.56 hrs
 Average Depth at Peak Storage= 2.35'
 Bank-Full Depth= 4.00' Flow Area= 196.0 sf, Capacity= 1,118.97 cfs

35.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 63.00'
 Length= 517.4' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.55'



Summary for Reach NDE01: N Ditch E 1

Inflow Area = 79.086 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 244.88 cfs @ 12.47 hrs, Volume= 43.858 af
Outflow = 243.07 cfs @ 12.52 hrs, Volume= 43.858 af, Atten= 1%, Lag= 3.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.93 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 1.26 fps, Avg. Travel Time= 5.7 min

Peak Storage= 26,744 cf @ 12.49 hrs
Average Depth at Peak Storage= 2.48'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.98 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 432.7' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.30'



Summary for Reach NDE02: N Ditch E 2

Inflow Area = 82.331 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 248.07 cfs @ 12.52 hrs, Volume= 45.656 af
Outflow = 246.51 cfs @ 12.57 hrs, Volume= 45.656 af, Atten= 1%, Lag= 3.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.95 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 1.26 fps, Avg. Travel Time= 5.7 min

Peak Storage= 26,733 cf @ 12.54 hrs
Average Depth at Peak Storage= 2.50'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 634.62 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 428.5' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.29'



Summary for Reach NDE03: N Ditch E 3

Inflow Area = 85.454 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 250.42 cfs @ 12.57 hrs, Volume= 47.386 af
Outflow = 249.29 cfs @ 12.62 hrs, Volume= 47.386 af, Atten= 0%, Lag= 2.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.96 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 1.26 fps, Avg. Travel Time= 4.9 min

Peak Storage= 23,381 cf @ 12.59 hrs
Average Depth at Peak Storage= 2.52'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 632.75 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 370.9' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.11'



Summary for Reach NDE04: N Ditch E 4

Inflow Area = 87.922 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 251.90 cfs @ 12.61 hrs, Volume= 48.753 af
Outflow = 251.30 cfs @ 12.65 hrs, Volume= 48.753 af, Atten= 0%, Lag= 2.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.96 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 1.26 fps, Avg. Travel Time= 3.8 min

Peak Storage= 18,220 cf @ 12.63 hrs
Average Depth at Peak Storage= 2.53'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 632.71 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 287.4' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.86'



Summary for Reach NDE05: N Ditch E 5

Inflow Area = 123.977 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 324.15 cfs @ 12.64 hrs, Volume= 68.726 af
Outflow = 323.75 cfs @ 12.67 hrs, Volume= 68.726 af, Atten= 0%, Lag= 1.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.26 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.39 fps, Avg. Travel Time= 3.4 min

Peak Storage= 21,791 cf @ 12.65 hrs
Average Depth at Peak Storage= 2.87'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.59 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 286.6' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.86'



Summary for Reach NDE06: N Ditch E 6

Inflow Area = 126.330 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 325.92 cfs @ 12.66 hrs, Volume= 70.030 af
Outflow = 325.56 cfs @ 12.69 hrs, Volume= 70.030 af, Atten= 0%, Lag= 1.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.27 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.39 fps, Avg. Travel Time= 3.4 min

Peak Storage= 21,859 cf @ 12.68 hrs
Average Depth at Peak Storage= 2.88'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.81 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 286.4' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.86'



Summary for Reach NDE07: N Ditch E 7

Inflow Area = 128.848 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 327.79 cfs @ 12.69 hrs, Volume= 71.425 af
Outflow = 327.46 cfs @ 12.72 hrs, Volume= 71.425 af, Atten= 0%, Lag= 1.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.28 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.39 fps, Avg. Travel Time= 3.4 min

Peak Storage= 21,837 cf @ 12.71 hrs
Average Depth at Peak Storage= 2.88'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 635.03 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 ' / ' Top Width= 47.00'
Length= 285.3' Slope= 0.0030 ' / '
Inlet Invert= 0.00', Outlet Invert= -0.86'



Summary for Reach NDE08: N Ditch E 8

Inflow Area = 132.149 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 330.26 cfs @ 12.72 hrs, Volume= 73.254 af
Outflow = 329.78 cfs @ 12.76 hrs, Volume= 73.254 af, Atten= 0%, Lag= 2.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.28 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 1.38 fps, Avg. Travel Time= 4.5 min

Peak Storage= 28,799 cf @ 12.74 hrs
Average Depth at Peak Storage= 2.90'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.29 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 ' / ' Top Width= 47.00'
Length= 373.6' Slope= 0.0030 ' / '
Inlet Invert= 0.00', Outlet Invert= -1.12'



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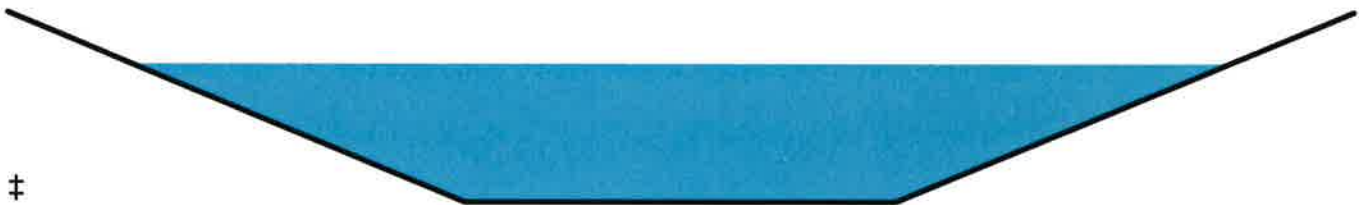
Summary for Reach NDE09: N Ditch E 9

Inflow Area = 135.653 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 333.21 cfs @ 12.56 hrs, Volume= 75.195 af
Outflow = 332.93 cfs @ 12.60 hrs, Volume= 75.195 af, Atten= 0%, Lag= 2.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.29 fps, Min. Travel Time= 1.7 min
Avg. Velocity = 1.37 fps, Avg. Travel Time= 5.2 min

Peak Storage= 33,067 cf @ 12.57 hrs
Average Depth at Peak Storage= 2.91'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.79 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 426.3' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.28'



Summary for Reach NDE10: N Ditch E 10

Inflow Area = 138.482 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 336.03 cfs @ 12.59 hrs, Volume= 76.790 af
Outflow = 335.83 cfs @ 12.64 hrs, Volume= 76.790 af, Atten= 0%, Lag= 2.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.30 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 1.36 fps, Avg. Travel Time= 5.8 min

Peak Storage= 37,050 cf @ 12.61 hrs
Average Depth at Peak Storage= 2.93'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 632.94 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 474.2' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.42'



Summary for Reach NDNE01: N Ditch NE 1

Inflow Area = 43.678 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 165.38 cfs @ 12.20 hrs, Volume= 24.196 af
Outflow = 161.68 cfs @ 12.26 hrs, Volume= 24.196 af, Atten= 2%, Lag= 3.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.50 fps, Min. Travel Time= 1.7 min
Avg. Velocity = 1.16 fps, Avg. Travel Time= 5.0 min

Peak Storage= 16,020 cf @ 12.23 hrs
Average Depth at Peak Storage= 2.01'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.58 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 346.6' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.04'



Summary for Reach NDNE02: N Ditch NE 2

Inflow Area = 46.360 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 171.44 cfs @ 12.26 hrs, Volume= 25.682 af
Outflow = 168.87 cfs @ 12.31 hrs, Volume= 25.682 af, Atten= 1%, Lag= 3.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.54 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 1.16 fps, Avg. Travel Time= 4.9 min

Peak Storage= 16,405 cf @ 12.28 hrs
Average Depth at Peak Storage= 2.05'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 632.99 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 343.9' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.03'



Summary for Reach NDNE03: N Ditch NE 3

Inflow Area = 49.337 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 178.06 cfs @ 12.31 hrs, Volume= 27.331 af
Outflow = 175.60 cfs @ 12.36 hrs, Volume= 27.331 af, Atten= 1%, Lag= 3.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.59 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 1.16 fps, Avg. Travel Time= 5.4 min

Peak Storage= 18,523 cf @ 12.33 hrs
Average Depth at Peak Storage= 2.09'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 634.77 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 378.5' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.14'



Summary for Reach NDNE04: N Ditch NE 4

Inflow Area = 52.510 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 183.75 cfs @ 12.36 hrs, Volume= 29.089 af
Outflow = 180.95 cfs @ 12.42 hrs, Volume= 29.089 af, Atten= 2%, Lag= 3.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.62 fps, Min. Travel Time= 2.0 min
Avg. Velocity = 1.15 fps, Avg. Travel Time= 6.3 min

Peak Storage= 21,965 cf @ 12.39 hrs
Average Depth at Peak Storage= 2.13'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 634.24 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 439.0' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.32'



Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

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Summary for Reach NDNE05: N Ditch NE 5

Inflow Area = 76.716 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 242.83 cfs @ 12.42 hrs, Volume= 42.522 af
Outflow = 240.62 cfs @ 12.47 hrs, Volume= 42.522 af, Atten= 1%, Lag= 3.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.92 fps, Min. Travel Time= 1.9 min
Avg. Velocity = 1.27 fps, Avg. Travel Time= 5.8 min

Peak Storage= 27,208 cf @ 12.44 hrs
Average Depth at Peak Storage= 2.47'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.61 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 443.2' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.33'



Summary for Reach NDNW01: N Ditch NW 1

Inflow Area = 2.391 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 16.56 cfs @ 12.10 hrs, Volume= 1.324 af
Outflow = 15.64 cfs @ 12.18 hrs, Volume= 1.324 af, Atten= 6%, Lag= 4.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.92 fps, Min. Travel Time= 3.0 min
Avg. Velocity = 0.52 fps, Avg. Travel Time= 10.9 min

Peak Storage= 2,781 cf @ 12.13 hrs
Average Depth at Peak Storage= 0.48'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 785.17 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 340.7' Slope= 0.0046 '/'
Inlet Invert= 0.00', Outlet Invert= -1.57'



Summary for Reach NDNW02: N Ditch NW 2

Inflow Area = 5.048 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 31.34 cfs @ 12.14 hrs, Volume= 2.796 af
Outflow = 30.50 cfs @ 12.21 hrs, Volume= 2.796 af, Atten= 3%, Lag= 3.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.41 fps, Min. Travel Time= 2.4 min
Avg. Velocity = 0.65 fps, Avg. Travel Time= 8.8 min

Peak Storage= 4,331 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.71'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 785.70 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 342.4' Slope= 0.0046 '/'
Inlet Invert= 0.00', Outlet Invert= -1.58'



Summary for Reach NDNW03: N Ditch NW 3

Inflow Area = 8.126 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 46.02 cfs @ 12.17 hrs, Volume= 4.502 af
Outflow = 45.27 cfs @ 12.24 hrs, Volume= 4.502 af, Atten= 2%, Lag= 4.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.74 fps, Min. Travel Time= 2.4 min
Avg. Velocity = 0.74 fps, Avg. Travel Time= 8.8 min

Peak Storage= 6,453 cf @ 12.20 hrs
Average Depth at Peak Storage= 0.89'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 784.47 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 391.3' Slope= 0.0046 '/'
Inlet Invert= 0.00', Outlet Invert= -1.80'



Summary for Reach NDNW04: N Ditch NW 4

Inflow Area = 11.509 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 59.30 cfs @ 12.19 hrs, Volume= 6.376 af
Outflow = 58.64 cfs @ 12.27 hrs, Volume= 6.376 af, Atten= 1%, Lag= 4.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.98 fps, Min. Travel Time= 2.6 min
Avg. Velocity = 0.82 fps, Avg. Travel Time= 9.4 min

Peak Storage= 9,157 cf @ 12.22 hrs
Average Depth at Peak Storage= 1.03'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 784.06 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 ' / ' Top Width= 47.00'
Length= 465.7' Slope= 0.0046 ' / '
Inlet Invert= 0.00', Outlet Invert= -2.14'



Summary for Reach NDNW05: N Ditch NW 5

Inflow Area = 36.777 ac, 0.00% Impervious, Inflow Depth = 6.66" for 25-Year, 24-Hour event
Inflow = 140.88 cfs @ 12.21 hrs, Volume= 20.399 af
Outflow = 137.99 cfs @ 12.28 hrs, Volume= 20.399 af, Atten= 2%, Lag= 4.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.88 fps, Min. Travel Time= 2.0 min
Avg. Velocity = 1.20 fps, Avg. Travel Time= 6.6 min

Peak Storage= 16,840 cf @ 12.24 hrs
Average Depth at Peak Storage= 1.65'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 784.48 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 ' / ' Top Width= 47.00'
Length= 473.9' Slope= 0.0046 ' / '
Inlet Invert= 0.00', Outlet Invert= -2.18'



Summary for Reach NDSE01: N Ditch SE 1

Inflow Area = 2.569 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 17.27 cfs @ 12.11 hrs, Volume= 1.423 af
Outflow = 16.30 cfs @ 12.19 hrs, Volume= 1.423 af, Atten= 6%, Lag= 5.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.69 fps, Min. Travel Time= 3.1 min
Avg. Velocity = 0.45 fps, Avg. Travel Time= 11.6 min

Peak Storage= 3,051 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.56'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.88 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 316.3' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.95'



Summary for Reach NDSE02: N Ditch SE 2

Inflow Area = 5.347 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 31.90 cfs @ 12.15 hrs, Volume= 2.962 af
Outflow = 31.11 cfs @ 12.22 hrs, Volume= 2.962 af, Atten= 2%, Lag= 4.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.10 fps, Min. Travel Time= 2.5 min
Avg. Velocity = 0.57 fps, Avg. Travel Time= 9.3 min

Peak Storage= 4,673 cf @ 12.18 hrs
Average Depth at Peak Storage= 0.81'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 634.18 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 316.0' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.95'



Summary for Reach NDSE03: N Ditch SE 3

Inflow Area = 8.592 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 47.00 cfs @ 12.17 hrs, Volume= 4.760 af
Outflow = 46.20 cfs @ 12.25 hrs, Volume= 4.760 af, Atten= 2%, Lag= 4.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.39 fps, Min. Travel Time= 2.6 min
Avg. Velocity = 0.65 fps, Avg. Travel Time= 9.4 min

Peak Storage= 7,103 cf @ 12.20 hrs
Average Depth at Peak Storage= 1.01'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 632.97 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 ' / ' Top Width= 47.00'
Length= 367.3' Slope= 0.0030 ' / '
Inlet Invert= 0.00', Outlet Invert= -1.10'



Summary for Reach NDSE04: N Ditch SE 4

Inflow Area = 12.096 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 61.03 cfs @ 12.20 hrs, Volume= 6.701 af
Outflow = 60.24 cfs @ 12.28 hrs, Volume= 6.701 af, Atten= 1%, Lag= 4.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.60 fps, Min. Travel Time= 2.7 min
Avg. Velocity = 0.71 fps, Avg. Travel Time= 10.0 min

Peak Storage= 9,876 cf @ 12.23 hrs
Average Depth at Peak Storage= 1.18'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.79 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 ' / ' Top Width= 47.00'
Length= 426.3' Slope= 0.0030 ' / '
Inlet Invert= 0.00', Outlet Invert= -1.28'



Summary for Reach NDSE05: N Ditch SE 5

Inflow Area = 14.925 ac, 0.00% Impervious, Inflow Depth = 6.67" for 25-Year, 24-Hour event
Inflow = 70.12 cfs @ 12.25 hrs, Volume= 8.296 af
Outflow = 69.40 cfs @ 12.34 hrs, Volume= 8.296 af, Atten= 1%, Lag= 5.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.72 fps, Min. Travel Time= 2.9 min
Avg. Velocity= 0.75 fps, Avg. Travel Time= 10.6 min

Peak Storage= 12,120 cf @ 12.29 hrs
Average Depth at Peak Storage= 1.27'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 632.94 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 474.2' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.42'



Summary for Reach NDSW01: N Ditch SW 1

Inflow Area = 40.872 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 152.56 cfs @ 12.23 hrs, Volume= 22.642 af
Outflow = 150.43 cfs @ 12.28 hrs, Volume= 22.642 af, Atten= 1%, Lag= 2.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.86 fps, Min. Travel Time= 1.4 min
Avg. Velocity= 1.30 fps, Avg. Travel Time= 4.1 min

Peak Storage= 12,320 cf @ 12.25 hrs
Average Depth at Peak Storage= 1.77'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 750.26 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 316.1' Slope= 0.0042 '/'
Inlet Invert= 0.00', Outlet Invert= -1.33'



Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Prepared by CB&I Environmental and Infrastructure, Inc.

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Summary for Reach NDSW02: N Ditch SW 2

Inflow Area = 43.693 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 160.33 cfs @ 12.27 hrs, Volume= 24.205 af
Outflow = 158.51 cfs @ 12.32 hrs, Volume= 24.205 af, Atten= 1%, Lag= 2.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.92 fps, Min. Travel Time= 1.4 min
Avg. Velocity = 1.30 fps, Avg. Travel Time= 4.1 min

Peak Storage= 12,924 cf @ 12.29 hrs
Average Depth at Peak Storage= 1.82'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 749.29 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 ' ' Top Width= 47.00'
Length= 319.3' Slope= 0.0042 ' '
Inlet Invert= 0.00', Outlet Invert= -1.34'



Summary for Reach NDSW03: N Ditch SW 3

Inflow Area = 46.958 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 168.56 cfs @ 12.31 hrs, Volume= 26.014 af
Outflow = 166.53 cfs @ 12.36 hrs, Volume= 26.014 af, Atten= 1%, Lag= 2.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.97 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 1.31 fps, Avg. Travel Time= 4.7 min

Peak Storage= 15,301 cf @ 12.34 hrs
Average Depth at Peak Storage= 1.87'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 748.85 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 ' ' Top Width= 47.00'
Length= 365.0' Slope= 0.0042 ' '
Inlet Invert= 0.00', Outlet Invert= -1.53'



Summary for Reach NDSW04: N Ditch SW 4

Inflow Area = 50.397 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 175.71 cfs @ 12.36 hrs, Volume= 27.918 af
Outflow = 173.62 cfs @ 12.41 hrs, Volume= 27.918 af, Atten= 1%, Lag= 3.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.02 fps, Min. Travel Time= 1.7 min
Avg. Velocity = 1.31 fps, Avg. Travel Time= 5.2 min

Peak Storage= 17,731 cf @ 12.38 hrs
Average Depth at Peak Storage= 1.91'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 748.60 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 410.6' Slope= 0.0042 '/'
Inlet Invert= 0.00', Outlet Invert= -1.72'



Summary for Reach NDSW05: N Ditch SW 5

Inflow Area = 53.245 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 180.16 cfs @ 12.41 hrs, Volume= 29.524 af
Outflow = 177.92 cfs @ 12.47 hrs, Volume= 29.524 af, Atten= 1%, Lag= 3.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.06 fps, Min. Travel Time= 1.9 min
Avg. Velocity = 1.30 fps, Avg. Travel Time= 6.0 min

Peak Storage= 20,527 cf @ 12.44 hrs
Average Depth at Peak Storage= 1.93'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 750.43 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 468.0' Slope= 0.0042 '/'
Inlet Invert= 0.00', Outlet Invert= -1.97'



Summary for Reach NDW01: N Ditch W 1

Inflow Area = 39.333 ac, 0.00% Impervious, Inflow Depth = 6.66" for 25-Year, 24-Hour event
Inflow = 146.35 cfs @ 12.27 hrs, Volume= 21.840 af
Outflow = 143.99 cfs @ 12.35 hrs, Volume= 21.840 af, Atten= 2%, Lag= 4.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.38 fps, Min. Travel Time= 2.3 min
Avg. Velocity = 1.03 fps, Avg. Travel Time= 7.4 min

Peak Storage= 19,604 cf @ 12.31 hrs
Average Depth at Peak Storage= 1.89'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.24 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 460.4' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.38'



Summary for Reach NDW02: N Ditch W 2

Inflow Area = 42.830 ac, 0.00% Impervious, Inflow Depth = 6.66" for 25-Year, 24-Hour event
Inflow = 153.76 cfs @ 12.34 hrs, Volume= 23.777 af
Outflow = 152.00 cfs @ 12.41 hrs, Volume= 23.777 af, Atten= 1%, Lag= 4.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.44 fps, Min. Travel Time= 2.2 min
Avg. Velocity = 1.05 fps, Avg. Travel Time= 7.2 min

Peak Storage= 19,996 cf @ 12.37 hrs
Average Depth at Peak Storage= 1.94'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 634.17 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 452.4' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.36'



Summary for Reach NDW03: N Ditch W 3

Inflow Area = 45.982 ac, 0.00% Impervious, Inflow Depth = 6.66" for 25-Year, 24-Hour event
Inflow = 159.45 cfs @ 12.40 hrs, Volume= 25.523 af
Outflow = 158.79 cfs @ 12.44 hrs, Volume= 25.523 af, Atten= 0%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.48 fps, Min. Travel Time= 1.4 min
Avg. Velocity = 1.06 fps, Avg. Travel Time= 4.6 min

Peak Storage= 13,231 cf @ 12.42 hrs
Average Depth at Peak Storage= 1.99'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.52 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 290.0' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.87'



Summary for Reach NDW04: N Ditch W 4

Inflow Area = 48.531 ac, 0.00% Impervious, Inflow Depth = 6.66" for 25-Year, 24-Hour event
Inflow = 164.16 cfs @ 12.44 hrs, Volume= 26.935 af
Outflow = 163.53 cfs @ 12.48 hrs, Volume= 26.935 af, Atten= 0%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.51 fps, Min. Travel Time= 1.4 min
Avg. Velocity = 1.07 fps, Avg. Travel Time= 4.5 min

Peak Storage= 13,510 cf @ 12.46 hrs
Average Depth at Peak Storage= 2.02'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.52 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 290.0' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.87'



Summary for Reach NDW05: N Ditch W 5

Inflow Area = 85.047 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 263.88 cfs @ 12.44 hrs, Volume= 47.164 af
Outflow = 263.47 cfs @ 12.47 hrs, Volume= 47.164 af, Atten= 0%, Lag= 2.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.03 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 1.28 fps, Avg. Travel Time= 3.8 min

Peak Storage= 19,085 cf @ 12.45 hrs
Average Depth at Peak Storage= 2.58'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 635.18 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 ' ' Top Width= 47.00'
Length= 291.8' Slope= 0.0030 ' '
Inlet Invert= 0.00', Outlet Invert= -0.88'



Summary for Reach NDW06: N Ditch W 6

Inflow Area = 87.478 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 268.08 cfs @ 12.47 hrs, Volume= 48.511 af
Outflow = 267.75 cfs @ 12.50 hrs, Volume= 48.511 af, Atten= 0%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.05 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 1.28 fps, Avg. Travel Time= 3.8 min

Peak Storage= 19,099 cf @ 12.48 hrs
Average Depth at Peak Storage= 2.60'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 635.05 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 ' ' Top Width= 47.00'
Length= 288.6' Slope= 0.0030 ' '
Inlet Invert= 0.00', Outlet Invert= -0.87'



Summary for Reach NDW07: N Ditch W 7

Inflow Area = 90.098 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 272.26 cfs @ 12.50 hrs, Volume= 49.962 af
Outflow = 272.01 cfs @ 12.53 hrs, Volume= 49.962 af, Atten= 0%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.06 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 1.27 fps, Avg. Travel Time= 3.8 min

Peak Storage= 19,454 cf @ 12.51 hrs
Average Depth at Peak Storage= 2.63'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.41 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 290.1' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.87'



Summary for Reach NDW08: N Ditch W 8

Inflow Area = 93.424 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 278.80 cfs @ 12.41 hrs, Volume= 51.805 af
Outflow = 277.82 cfs @ 12.46 hrs, Volume= 51.805 af, Atten= 0%, Lag= 3.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.08 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 1.27 fps, Avg. Travel Time= 4.8 min

Peak Storage= 25,052 cf @ 12.43 hrs
Average Depth at Peak Storage= 2.66'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 632.71 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 367.6' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.10'



Summary for Reach NDW09: N Ditch W 9

Inflow Area = 96.875 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 284.75 cfs @ 12.45 hrs, Volume= 53.716 af
Outflow = 283.68 cfs @ 12.51 hrs, Volume= 53.716 af, Atten= 0%, Lag= 3.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.11 fps, Min. Travel Time= 1.7 min
Avg. Velocity = 1.27 fps, Avg. Travel Time= 5.4 min

Peak Storage= 28,198 cf @ 12.48 hrs
Average Depth at Peak Storage= 2.68'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 634.68 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 408.5' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.23'



Summary for Reach NDW10: N Ditch W 10

Inflow Area = 99.720 ac, 0.00% Impervious, Inflow Depth = 6.66" for 25-Year, 24-Hour event
Inflow = 288.44 cfs @ 12.50 hrs, Volume= 55.321 af
Outflow = 287.27 cfs @ 12.57 hrs, Volume= 55.321 af, Atten= 0%, Lag= 3.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.12 fps, Min. Travel Time= 1.9 min
Avg. Velocity = 1.25 fps, Avg. Travel Time= 6.2 min

Peak Storage= 32,447 cf @ 12.54 hrs
Average Depth at Peak Storage= 2.70'
Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 634.24 cfs

15.00' x 4.00' deep channel, n= 0.030
Side Slope Z-value= 4.0 '/' Top Width= 47.00'
Length= 465.6' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -1.40'



Summary for Reach NUEOC: North Unit East Outlet Culvert

Inflow Area = 174.952 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 431.68 cfs @ 12.53 hrs, Volume= 97.021 af
Outflow = 431.63 cfs @ 12.54 hrs, Volume= 97.021 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 10.70 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.99 fps, Avg. Travel Time= 0.4 min

Peak Storage= 2,825 cf @ 12.53 hrs
Average Depth at Peak Storage= 2.69'
Bank-Full Depth= 4.00' Flow Area= 60.0 sf, Capacity= 551.82 cfs

180.0" W x 48.0" H Box Pipe
n= 0.012
Length= 70.0' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.21'



Summary for Reach NUWOC: North Unit West Outlet Culvert

Inflow Area = 174.093 ac, 0.00% Impervious, Inflow Depth = 6.66" for 25-Year, 24-Hour event
Inflow = 504.62 cfs @ 12.51 hrs, Volume= 96.549 af
Outflow = 504.54 cfs @ 12.52 hrs, Volume= 96.549 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 11.93 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.24 fps, Avg. Travel Time= 0.4 min

Peak Storage= 2,959 cf @ 12.52 hrs
Average Depth at Peak Storage= 2.82'
Bank-Full Depth= 4.00' Flow Area= 60.0 sf, Capacity= 601.98 cfs

180.0" W x 48.0" H Box Pipe
n= 0.011
Length= 70.0' Slope= 0.0030 '/'
Inlet Invert= 0.00', Outlet Invert= -0.21'



Summary for Reach SBEIC: South Basin East Inlet Culverts

Inflow Area = 380.108 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 781.82 cfs @ 12.82 hrs, Volume= 210.757 af
Outflow = 781.79 cfs @ 12.82 hrs, Volume= 210.757 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 7.35 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.25 fps, Avg. Travel Time= 0.5 min

Peak Storage= 6,704 cf @ 12.82 hrs
Average Depth at Peak Storage= 2.13'
Bank-Full Depth= 3.00' Flow Area= 150.0 sf, Capacity= 928.24 cfs

A factor of 5.00 has been applied to the storage and discharge capacity
120.0" W x 36.0" H Box Pipe
n= 0.012
Length= 63.0' Slope= 0.0021 '/'
Inlet Invert= 0.00', Outlet Invert= -0.13'



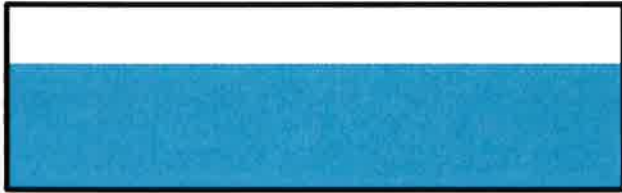
Summary for Reach SBWIC: South Basin West Inlet Culvert 1

Inflow Area = 331.471 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 734.20 cfs @ 12.82 hrs, Volume= 183.783 af
Outflow = 734.15 cfs @ 12.82 hrs, Volume= 183.782 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 7.20 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.15 fps, Avg. Travel Time= 0.5 min

Peak Storage= 6,423 cf @ 12.82 hrs
Average Depth at Peak Storage= 2.04'
Bank-Full Depth= 3.00' Flow Area= 150.0 sf, Capacity= 928.24 cfs

A factor of 5.00 has been applied to the storage and discharge capacity
120.0" W x 36.0" H Box Pipe
n= 0.012
Length= 63.0' Slope= 0.0021 '/'
Inlet Invert= 0.00', Outlet Invert= -0.13'



Summary for Reach SBWIC2: South Basin West Inlet Culvert 2

Inflow Area = 46.948 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 168.42 cfs @ 12.33 hrs, Volume= 26.008 af
 Outflow = 168.26 cfs @ 12.34 hrs, Volume= 26.008 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.86 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 1.76 fps, Avg. Travel Time= 0.6 min

Peak Storage= 1,923 cf @ 12.33 hrs
 Average Depth at Peak Storage= 1.44'
 Bank-Full Depth= 3.00' Flow Area= 60.0 sf, Capacity= 360.04 cfs

A factor of 2.00 has been applied to the storage and discharge capacity
 120.0" W x 36.0" H Box Pipe
 n= 0.012
 Length= 67.0' Slope= 0.0019 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.13'



Summary for Reach SDE01: S Ditch E 1

Inflow Area = 269.395 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 664.57 cfs @ 12.55 hrs, Volume= 149.401 af
 Outflow = 663.74 cfs @ 12.59 hrs, Volume= 149.401 af, Atten= 0%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.75 fps, Min. Travel Time= 1.5 min
 Avg. Velocity = 1.35 fps, Avg. Travel Time= 5.3 min

Peak Storage= 59,862 cf @ 12.57 hrs
 Average Depth at Peak Storage= 2.80'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,254.53 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 428.5' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.29'



Summary for Reach SDE02: S Ditch E 2

Inflow Area = 272.868 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 667.67 cfs @ 12.59 hrs, Volume= 151.325 af
 Outflow = 666.95 cfs @ 12.63 hrs, Volume= 151.325 af, Atten= 0%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.76 fps, Min. Travel Time= 1.5 min
 Avg. Velocity = 1.36 fps, Avg. Travel Time= 5.4 min

Peak Storage= 61,534 cf @ 12.60 hrs
 Average Depth at Peak Storage= 2.81'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,253.91 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 438.9' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.32'



Summary for Reach SDE03: S Ditch E 3

Inflow Area = 276.240 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 670.36 cfs @ 12.63 hrs, Volume= 153.193 af
 Outflow = 669.88 cfs @ 12.66 hrs, Volume= 153.193 af, Atten= 0%, Lag= 2.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.76 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.37 fps, Avg. Travel Time= 4.7 min

Peak Storage= 53,942 cf @ 12.64 hrs
 Average Depth at Peak Storage= 2.82'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,252.39 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 383.3' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.15'



Summary for Reach SDE04: S Ditch E 4

Inflow Area = 279.677 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 673.08 cfs @ 12.66 hrs, Volume= 155.097 af
 Outflow = 672.65 cfs @ 12.70 hrs, Volume= 155.097 af, Atten= 0%, Lag= 2.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.77 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.38 fps, Avg. Travel Time= 4.7 min

Peak Storage= 54,481 cf @ 12.67 hrs
 Average Depth at Peak Storage= 2.83'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,253.09 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 386.2' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.16'



Summary for Reach SDE05: S Ditch E 5

Inflow Area = 331.101 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 738.66 cfs @ 12.59 hrs, Volume= 183.584 af
 Outflow = 738.03 cfs @ 12.63 hrs, Volume= 183.584 af, Atten= 0%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.91 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.47 fps, Avg. Travel Time= 4.4 min

Peak Storage= 58,319 cf @ 12.61 hrs
 Average Depth at Peak Storage= 2.98'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,250.67 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 387.7' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.16'



Summary for Reach SDE06: S Ditch E 6

Inflow Area = 334.342 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 741.27 cfs @ 12.63 hrs, Volume= 185.380 af
 Outflow = 740.72 cfs @ 12.67 hrs, Volume= 185.379 af, Atten= 0%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.92 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.48 fps, Avg. Travel Time= 4.3 min

Peak Storage= 57,999 cf @ 12.65 hrs
 Average Depth at Peak Storage= 2.98'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,254.39 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 385.4' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.16'



Summary for Reach SDE07: S Ditch E 7

Inflow Area = 337.906 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 744.01 cfs @ 12.67 hrs, Volume= 187.354 af
 Outflow = 743.51 cfs @ 12.71 hrs, Volume= 187.354 af, Atten= 0%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.92 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.48 fps, Avg. Travel Time= 4.3 min

Peak Storage= 58,310 cf @ 12.68 hrs
 Average Depth at Peak Storage= 2.99'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,253.09 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 386.2' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.16'



Summary for Reach SDE08: S Ditch E 8

Inflow Area = 341.444 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 746.59 cfs @ 12.70 hrs, Volume= 189.313 af
 Outflow = 746.15 cfs @ 12.74 hrs, Volume= 189.313 af, Atten= 0%, Lag= 2.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.93 fps, Min. Travel Time= 1.3 min
 Avg. Velocity= 1.49 fps, Avg. Travel Time= 4.2 min

Peak Storage= 57,332 cf @ 12.72 hrs
 Average Depth at Peak Storage= 3.00'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,253.99 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 379.0' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.14'



Summary for Reach SDE09: S Ditch E 9

Inflow Area = 345.191 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 749.24 cfs @ 12.74 hrs, Volume= 191.388 af
 Outflow = 748.68 cfs @ 12.79 hrs, Volume= 191.387 af, Atten= 0%, Lag= 2.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.93 fps, Min. Travel Time= 1.5 min
 Avg. Velocity= 1.49 fps, Avg. Travel Time= 4.8 min

Peak Storage= 65,338 cf @ 12.76 hrs
 Average Depth at Peak Storage= 3.01'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,251.76 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 430.4' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.29'



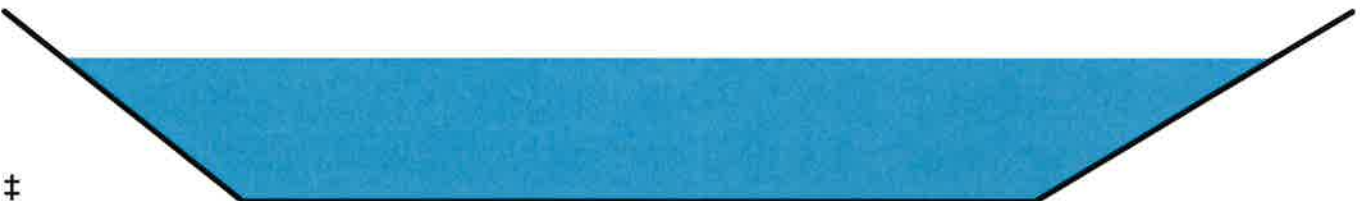
Summary for Reach SDE10: S Ditch E 10

Inflow Area = 348.276 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 751.09 cfs @ 12.79 hrs, Volume= 193.096 af
 Outflow = 750.48 cfs @ 12.83 hrs, Volume= 193.095 af, Atten= 0%, Lag= 2.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.93 fps, Min. Travel Time= 1.6 min
 Avg. Velocity = 1.50 fps, Avg. Travel Time= 5.3 min

Peak Storage= 72,788 cf @ 12.81 hrs
 Average Depth at Peak Storage= 3.01'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,250.20 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 478.3' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.43'



Summary for Reach SDNE01: S Ditch NE 1

Inflow Area = 56.688 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 169.77 cfs @ 12.27 hrs, Volume= 31.404 af
 Outflow = 169.15 cfs @ 12.31 hrs, Volume= 31.404 af, Atten= 0%, Lag= 2.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.98 fps, Min. Travel Time= 1.7 min
 Avg. Velocity = 0.97 fps, Avg. Travel Time= 5.1 min

Peak Storage= 16,910 cf @ 12.28 hrs
 Average Depth at Peak Storage= 1.28'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,250.37 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 297.6' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.89'



Summary for Reach SDNE02: S Ditch NE 2

Inflow Area = 59.130 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 176.66 cfs @ 12.31 hrs, Volume= 32.757 af
 Outflow = 176.23 cfs @ 12.35 hrs, Volume= 32.757 af, Atten= 0%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.02 fps, Min. Travel Time= 1.6 min
 Avg. Velocity= 0.97 fps, Avg. Travel Time= 5.1 min

Peak Storage= 17,277 cf @ 12.32 hrs
 Average Depth at Peak Storage= 1.31'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,252.69 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 296.5' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.89'



Summary for Reach SDNE03: S Ditch NE 3

Inflow Area = 62.375 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 185.48 cfs @ 12.25 hrs, Volume= 34.554 af
 Outflow = 184.90 cfs @ 12.39 hrs, Volume= 34.554 af, Atten= 0%, Lag= 8.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.08 fps, Min. Travel Time= 2.1 min
 Avg. Velocity= 0.96 fps, Avg. Travel Time= 6.8 min

Peak Storage= 23,665 cf @ 12.35 hrs
 Average Depth at Peak Storage= 1.34'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,251.91 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 393.6' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.18'



Summary for Reach SDNE04: S Ditch NE 4

Inflow Area = 65.752 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 193.06 cfs @ 12.37 hrs, Volume= 36.425 af
 Outflow = 192.49 cfs @ 12.44 hrs, Volume= 36.425 af, Atten= 0%, Lag= 4.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.12 fps, Min. Travel Time= 2.4 min
 Avg. Velocity = 0.95 fps, Avg. Travel Time= 7.8 min

Peak Storage= 27,487 cf @ 12.40 hrs
 Average Depth at Peak Storage= 1.38'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,249.99 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 445.0' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.33'



Summary for Reach SDNE05: S Ditch NE 5

Inflow Area = 90.778 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 253.58 cfs @ 12.38 hrs, Volume= 50.314 af
 Outflow = 251.53 cfs @ 12.45 hrs, Volume= 50.314 af, Atten= 1%, Lag= 4.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.43 fps, Min. Travel Time= 2.2 min
 Avg. Velocity = 1.04 fps, Avg. Travel Time= 7.1 min

Peak Storage= 32,535 cf @ 12.41 hrs
 Average Depth at Peak Storage= 1.61'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,252.53 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 443.2' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.33'



Summary for Reach SDNW01: S Ditch NW 1

Inflow Area = 13.770 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 46.59 cfs @ 12.47 hrs, Volume= 7.628 af
 Outflow = 46.40 cfs @ 12.53 hrs, Volume= 7.628 af, Atten= 0%, Lag= 3.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 1.95 fps, Min. Travel Time= 2.5 min
 Avg. Velocity = 0.61 fps, Avg. Travel Time= 8.1 min

Peak Storage= 7,047 cf @ 12.49 hrs
 Average Depth at Peak Storage= 0.57'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,355.75 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 295.8' Slope= 0.0035 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.04'



Summary for Reach SDNW02: S Ditch NW 2

Inflow Area = 16.241 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 50.37 cfs @ 12.49 hrs, Volume= 8.997 af
 Outflow = 50.23 cfs @ 12.56 hrs, Volume= 8.997 af, Atten= 0%, Lag= 4.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.00 fps, Min. Travel Time= 2.5 min
 Avg. Velocity = 0.63 fps, Avg. Travel Time= 7.8 min

Peak Storage= 7,447 cf @ 12.52 hrs
 Average Depth at Peak Storage= 0.60'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,352.78 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 297.1' Slope= 0.0035 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.04'



Summary for Reach SDNW03: S Ditch NW 3

Inflow Area = 19.427 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 59.78 cfs @ 12.19 hrs, Volume= 10.762 af
 Outflow = 58.96 cfs @ 12.28 hrs, Volume= 10.762 af, Atten= 1%, Lag= 5.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.13 fps, Min. Travel Time= 3.0 min
 Avg. Velocity= 0.66 fps, Avg. Travel Time= 9.6 min

Peak Storage= 10,556 cf @ 12.23 hrs
 Average Depth at Peak Storage= 0.65'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,355.08 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 381.5' Slope= 0.0035 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.34'



Summary for Reach SDNW04: S Ditch NW 4

Inflow Area = 22.869 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 70.78 cfs @ 12.25 hrs, Volume= 12.669 af
 Outflow = 70.08 cfs @ 12.34 hrs, Volume= 12.669 af, Atten= 1%, Lag= 5.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.27 fps, Min. Travel Time= 3.3 min
 Avg. Velocity= 0.69 fps, Avg. Travel Time= 10.8 min

Peak Storage= 13,753 cf @ 12.28 hrs
 Average Depth at Peak Storage= 0.73'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,353.01 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 445.5' Slope= 0.0035 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.56'



Summary for Reach SDNW05: S Ditch NW 5

Inflow Area = 47.613 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 155.16 cfs @ 12.16 hrs, Volume= 26.402 af
 Outflow = 149.62 cfs @ 12.24 hrs, Volume= 26.402 af, Atten= 4%, Lag= 4.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.00 fps, Min. Travel Time= 2.5 min
 Avg. Velocity= 0.89 fps, Avg. Travel Time= 8.4 min

Peak Storage= 22,280 cf @ 12.20 hrs
 Average Depth at Peak Storage= 1.14'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,352.10 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 446.1' Slope= 0.0035 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.56'



Summary for Reach SDSE01: S Ditch SE 1

Inflow Area = 38.285 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 144.12 cfs @ 12.16 hrs, Volume= 21.209 af
 Outflow = 141.62 cfs @ 12.21 hrs, Volume= 21.209 af, Atten= 2%, Lag= 3.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.52 fps, Min. Travel Time= 1.3 min
 Avg. Velocity= 1.22 fps, Avg. Travel Time= 3.9 min

Peak Storage= 11,384 cf @ 12.18 hrs
 Average Depth at Peak Storage= 1.81'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 674.14 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 '/' Top Width= 47.00'
 Length= 282.6' Slope= 0.0034 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.96'



Summary for Reach SDSE02: S Ditch SE 2

Inflow Area = 2.524 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 16.92 cfs @ 12.11 hrs, Volume= 1.398 af
 Outflow = 16.18 cfs @ 12.18 hrs, Volume= 1.398 af, Atten= 4%, Lag= 4.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 1.76 fps, Min. Travel Time= 2.7 min
 Avg. Velocity = 0.47 fps, Avg. Travel Time= 9.9 min

Peak Storage= 2,584 cf @ 12.14 hrs
 Average Depth at Peak Storage= 0.54'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 673.60 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 '/' Top Width= 47.00'
 Length= 280.1' Slope= 0.0034 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.95'



Summary for Reach SDSE03: S Ditch SE 3

Inflow Area = 3.409 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 22.85 cfs @ 12.11 hrs, Volume= 1.889 af
 Outflow = 21.35 cfs @ 12.20 hrs, Volume= 1.889 af, Atten= 7%, Lag= 5.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 1.85 fps, Min. Travel Time= 3.5 min
 Avg. Velocity = 0.49 fps, Avg. Travel Time= 13.0 min

Peak Storage= 4,425 cf @ 12.15 hrs
 Average Depth at Peak Storage= 0.65'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.05 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 '/' Top Width= 47.00'
 Length= 383.9' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.15'



Summary for Reach SDSE04: S Ditch SE 4

Inflow Area = 6.949 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 40.31 cfs @ 12.15 hrs, Volume= 3.849 af
 Outflow = 38.97 cfs @ 12.24 hrs, Volume= 3.849 af, Atten= 3%, Lag= 5.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.26 fps, Min. Travel Time= 3.2 min
 Avg. Velocity = 0.60 fps, Avg. Travel Time= 11.9 min

Peak Storage= 7,418 cf @ 12.19 hrs
 Average Depth at Peak Storage= 0.92'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 633.15 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 '/' Top Width= 47.00'
 Length= 430.5' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.29'



Summary for Reach SDSE05: S Ditch SE 5

Inflow Area = 9.803 ac, 0.00% Impervious, Inflow Depth = 6.68" for 25-Year, 24-Hour event
 Inflow = 50.53 cfs @ 12.21 hrs, Volume= 5.459 af
 Outflow = 49.64 cfs @ 12.30 hrs, Volume= 5.459 af, Atten= 2%, Lag= 5.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.44 fps, Min. Travel Time= 3.3 min
 Avg. Velocity = 0.66 fps, Avg. Travel Time= 12.1 min

Peak Storage= 9,719 cf @ 12.25 hrs
 Average Depth at Peak Storage= 1.06'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 632.43 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 '/' Top Width= 47.00'
 Length= 478.3' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.43'



Summary for Reach SDSW01: S Ditch SW 1

Inflow Area = 40.740 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 153.23 cfs @ 12.20 hrs, Volume= 22.569 af
 Outflow = 151.01 cfs @ 12.24 hrs, Volume= 22.569 af, Atten= 1%, Lag= 2.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.58 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.23 fps, Avg. Travel Time= 3.8 min

Peak Storage= 11,798 cf @ 12.22 hrs
 Average Depth at Peak Storage= 1.87'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 673.84 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 '/' Top Width= 47.00'
 Length= 279.9' Slope= 0.0034 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.95'



Summary for Reach SDSW02: S Ditch SW 2

Inflow Area = 43.384 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 161.46 cfs @ 12.24 hrs, Volume= 24.034 af
 Outflow = 159.42 cfs @ 12.28 hrs, Volume= 24.034 af, Atten= 1%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.64 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.23 fps, Avg. Travel Time= 3.8 min

Peak Storage= 12,277 cf @ 12.26 hrs
 Average Depth at Peak Storage= 1.93'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 673.48 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 '/' Top Width= 47.00'
 Length= 280.2' Slope= 0.0034 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.95'



Summary for Reach SDSW03: S Ditch SW 3

Inflow Area = 46.948 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 171.67 cfs @ 12.28 hrs, Volume= 26.008 af
 Outflow = 168.42 cfs @ 12.33 hrs, Volume= 26.008 af, Atten= 2%, Lag= 3.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.70 fps, Min. Travel Time= 1.7 min
 Avg. Velocity= 1.24 fps, Avg. Travel Time= 5.1 min

Peak Storage= 17,179 cf @ 12.30 hrs
 Average Depth at Peak Storage= 1.99'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 673.78 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 '/' Top Width= 47.00'
 Length= 377.2' Slope= 0.0034 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.28'



Summary for Reach SDSW04: S Ditch SW 4

Inflow Area = 331.471 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 735.19 cfs @ 12.77 hrs, Volume= 183.785 af
 Outflow = 734.20 cfs @ 12.82 hrs, Volume= 183.783 af, Atten= 0%, Lag= 2.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.54 fps, Min. Travel Time= 1.6 min
 Avg. Velocity= 1.37 fps, Avg. Travel Time= 5.3 min

Peak Storage= 69,740 cf @ 12.79 hrs
 Average Depth at Peak Storage= 3.17'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,117.74 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 431.0' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.03'



Summary for Reach SDSW05: S Ditch SW 5

Inflow Area = 327.503 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 733.30 cfs @ 12.72 hrs, Volume= 181.587 af
 Outflow = 732.00 cfs @ 12.77 hrs, Volume= 181.586 af, Atten= 0%, Lag= 3.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.54 fps, Min. Travel Time= 1.8 min
 Avg. Velocity = 1.36 fps, Avg. Travel Time= 5.8 min

Peak Storage= 77,009 cf @ 12.74 hrs
 Average Depth at Peak Storage= 3.16'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,121.49 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 478.0' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.15'



Summary for Reach SDW01: S Ditch W 1

Inflow Area = 224.716 ac, 0.00% Impervious, Inflow Depth = 6.66" for 25-Year, 24-Hour event
 Inflow = 624.23 cfs @ 12.52 hrs, Volume= 124.649 af
 Outflow = 622.55 cfs @ 12.56 hrs, Volume= 124.649 af, Atten= 0%, Lag= 2.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.31 fps, Min. Travel Time= 1.7 min
 Avg. Velocity = 1.17 fps, Avg. Travel Time= 6.2 min

Peak Storage= 62,835 cf @ 12.54 hrs
 Average Depth at Peak Storage= 2.89'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,118.49 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 434.6' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.04'



Summary for Reach SDW02: S Ditch W 2

Inflow Area = 228.232 ac, 0.00% Impervious, Inflow Depth = 6.66" for 25-Year, 24-Hour event
 Inflow = 627.07 cfs @ 12.56 hrs, Volume= 126.596 af
 Outflow = 625.53 cfs @ 12.61 hrs, Volume= 126.596 af, Atten= 0%, Lag= 2.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.32 fps, Min. Travel Time= 1.7 min
 Avg. Velocity = 1.18 fps, Avg. Travel Time= 6.1 min

Peak Storage= 62,922 cf @ 12.58 hrs
 Average Depth at Peak Storage= 2.89'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,119.27 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 434.0' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.04'



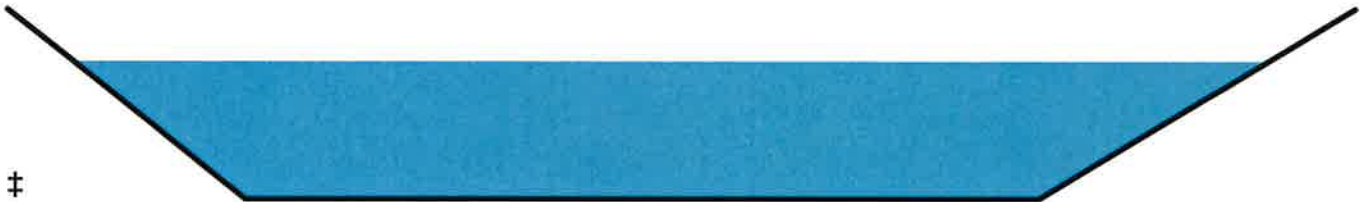
Summary for Reach SDW03: S Ditch W 3

Inflow Area = 231.579 ac, 0.00% Impervious, Inflow Depth = 6.66" for 25-Year, 24-Hour event
 Inflow = 629.16 cfs @ 12.61 hrs, Volume= 128.450 af
 Outflow = 628.05 cfs @ 12.65 hrs, Volume= 128.450 af, Atten= 0%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.33 fps, Min. Travel Time= 1.4 min
 Avg. Velocity = 1.19 fps, Avg. Travel Time= 5.2 min

Peak Storage= 54,217 cf @ 12.62 hrs
 Average Depth at Peak Storage= 2.89'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,122.22 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 373.6' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.90'



Summary for Reach SDW04: S Ditch W 4

Inflow Area = 234.966 ac, 0.00% Impervious, Inflow Depth = 6.66" for 25-Year, 24-Hour event
 Inflow = 631.33 cfs @ 12.64 hrs, Volume= 130.327 af
 Outflow = 630.29 cfs @ 12.68 hrs, Volume= 130.327 af, Atten= 0%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.33 fps, Min. Travel Time= 1.4 min
 Avg. Velocity= 1.20 fps, Avg. Travel Time= 5.2 min

Peak Storage= 54,426 cf @ 12.66 hrs
 Average Depth at Peak Storage= 2.90'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,121.62 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 374.0' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.90'



Summary for Reach SDW05: S Ditch W 5

Inflow Area = 284.927 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 693.31 cfs @ 12.47 hrs, Volume= 158.004 af
 Outflow = 692.11 cfs @ 12.51 hrs, Volume= 158.004 af, Atten= 0%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.46 fps, Min. Travel Time= 1.4 min
 Avg. Velocity= 1.29 fps, Avg. Travel Time= 4.9 min

Peak Storage= 58,628 cf @ 12.49 hrs
 Average Depth at Peak Storage= 3.06'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,121.70 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 378.1' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.91'



Summary for Reach SDW06: S Ditch W 6

Inflow Area = 288.113 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 697.33 cfs @ 12.51 hrs, Volume= 159.768 af
 Outflow = 696.19 cfs @ 12.55 hrs, Volume= 159.768 af, Atten= 0%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.47 fps, Min. Travel Time= 1.4 min
 Avg. Velocity= 1.30 fps, Avg. Travel Time= 4.8 min

Peak Storage= 57,634 cf @ 12.53 hrs
 Average Depth at Peak Storage= 3.07'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,121.23 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 370.1' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.89'



Summary for Reach SDW07: S Ditch W 7

Inflow Area = 291.620 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 701.10 cfs @ 12.55 hrs, Volume= 161.711 af
 Outflow = 699.96 cfs @ 12.59 hrs, Volume= 161.711 af, Atten= 0%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.48 fps, Min. Travel Time= 1.4 min
 Avg. Velocity= 1.30 fps, Avg. Travel Time= 4.8 min

Peak Storage= 58,569 cf @ 12.56 hrs
 Average Depth at Peak Storage= 3.08'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,120.72 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 374.6' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.90'



Summary for Reach SDW08: S Ditch W 8

Inflow Area = 295.154 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 704.13 cfs @ 12.59 hrs, Volume= 163.669 af
 Outflow = 703.07 cfs @ 12.63 hrs, Volume= 163.669 af, Atten= 0%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.49 fps, Min. Travel Time= 1.4 min
 Avg. Velocity = 1.31 fps, Avg. Travel Time= 4.8 min

Peak Storage= 58,431 cf @ 12.60 hrs
 Average Depth at Peak Storage= 3.08'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,122.97 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 373.1' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.90'



Summary for Reach SDW09: S Ditch W 9

Inflow Area = 299.072 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 707.05 cfs @ 12.63 hrs, Volume= 165.839 af
 Outflow = 705.66 cfs @ 12.68 hrs, Volume= 165.839 af, Atten= 0%, Lag= 3.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.48 fps, Min. Travel Time= 1.6 min
 Avg. Velocity = 1.31 fps, Avg. Travel Time= 5.6 min

Peak Storage= 69,826 cf @ 12.65 hrs
 Average Depth at Peak Storage= 3.10'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,117.93 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 443.4' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.06'



Summary for Reach SDW10: S Ditch W 10

Inflow Area = 324.323 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
 Inflow = 732.09 cfs @ 12.67 hrs, Volume= 179.827 af
 Outflow = 730.60 cfs @ 12.72 hrs, Volume= 179.826 af, Atten= 0%, Lag= 3.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.54 fps, Min. Travel Time= 1.8 min
 Avg. Velocity = 1.36 fps, Avg. Travel Time= 6.0 min

Peak Storage= 78,790 cf @ 12.69 hrs
 Average Depth at Peak Storage= 3.15'
 Bank-Full Depth= 4.00' Flow Area= 216.0 sf, Capacity= 1,122.14 cfs

40.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 '/' Top Width= 68.00'
 Length= 489.9' Slope= 0.0024 '/'
 Inlet Invert= 0.00', Outlet Invert= -1.18'



Summary for Reach SUEIC: South Unit East Inlet Culvert

Inflow Area = 176.097 ac, 0.00% Impervious, Inflow Depth = 6.66" for 25-Year, 24-Hour event
 Inflow = 431.04 cfs @ 12.59 hrs, Volume= 97.667 af
 Outflow = 430.98 cfs @ 12.60 hrs, Volume= 97.667 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 8.44 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 2.35 fps, Avg. Travel Time= 0.5 min

Peak Storage= 3,575 cf @ 12.60 hrs
 Average Depth at Peak Storage= 1.70'
 Bank-Full Depth= 4.00' Flow Area= 120.0 sf, Capacity= 1,103.63 cfs

A factor of 2.00 has been applied to the storage and discharge capacity
 180.0" W x 48.0" H Box Pipe
 n= 0.012
 Length= 70.0' Slope= 0.0030 '/'

Inlet Invert= 0.00', Outlet Invert= -0.21'



Summary for Reach SUWIC: South Unit West Inlet Culvert

Inflow Area = 174.503 ac, 0.00% Impervious, Inflow Depth = 6.66" for 25-Year, 24-Hour event
 Inflow = 504.57 cfs @ 12.54 hrs, Volume= 96.780 af
 Outflow = 504.49 cfs @ 12.54 hrs, Volume= 96.780 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 8.92 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 2.39 fps, Avg. Travel Time= 0.5 min

Peak Storage= 3,961 cf @ 12.54 hrs
 Average Depth at Peak Storage= 1.89'
 Bank-Full Depth= 4.00' Flow Area= 120.0 sf, Capacity= 1,103.63 cfs

A factor of 2.00 has been applied to the storage and discharge capacity
 180.0" W x 48.0" H Box Pipe
 n= 0.012
 Length= 70.0' Slope= 0.0030 '/'
 Inlet Invert= 0.00', Outlet Invert= -0.21'



Summary for Reach WMC: West Middle Channel

Inflow Area = 174.503 ac, 0.00% Impervious, Inflow Depth = 6.66" for 25-Year, 24-Hour event
 Inflow = 504.91 cfs @ 12.52 hrs, Volume= 96.780 af
 Outflow = 504.57 cfs @ 12.54 hrs, Volume= 96.780 af, Atten= 0%, Lag= 1.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.47 fps, Min. Travel Time= 0.7 min
 Avg. Velocity = 1.22 fps, Avg. Travel Time= 2.5 min

Peak Storage= 20,877 cf @ 12.53 hrs
 Average Depth at Peak Storage= 2.57'
 Bank-Full Depth= 4.00' Flow Area= 196.0 sf, Capacity= 1,124.79 cfs

Pescadito Perimeter

Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

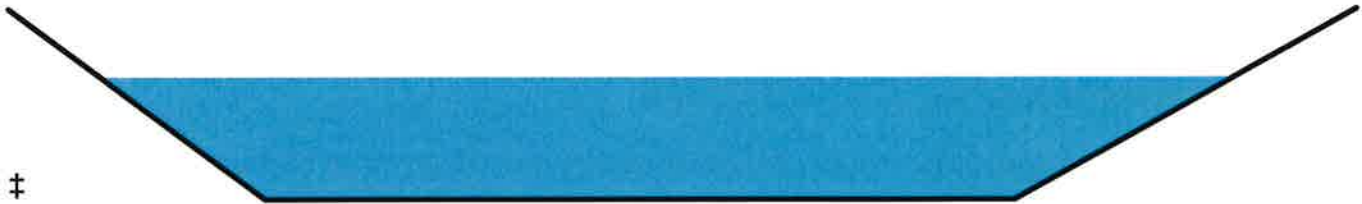
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35.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' / ' Top Width= 63.00'
 Length= 185.0' Slope= 0.0030 ' / '
 Inlet Invert= 0.00', Outlet Invert= -0.56'



Summary for Pond PSDB: South Detention Basin

Inflow Area = 809.838 ac, 6.05% Impervious, Inflow Depth = 6.70" for 25-Year, 24-Hour event
 Inflow = 1,612.96 cfs @ 12.80 hrs, Volume= 452.020 af
 Outflow = 641.55 cfs @ 14.23 hrs, Volume= 441.111 af, Atten= 60%, Lag= 85.7 min
 Primary = 614.13 cfs @ 14.23 hrs, Volume= 437.023 af
 Secondary = 27.42 cfs @ 14.23 hrs, Volume= 4.088 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 537.29' @ 14.23 hrs Surf.Area= 1,957,046 sf Storage= 8,153,736 cf

Plug-Flow detention time= 227.2 min calculated for 440.988 af (98% of inflow)
 Center-of-Mass det. time= 211.2 min (1,059.2 - 847.9)

Volume	Invert	Avail.Storage	Storage Description
#1	533.00'	13,552,994 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
533.00	1,843,612	0	0
540.00	2,028,672	13,552,994	13,552,994

Device	Routing	Invert	Outlet Devices
#1	Primary	533.00'	48.0" W x 24.0" H Box Culvert X 10.00 L= 80.0' RCP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 533.00' / 532.84' S= 0.0020 ' / ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 8.00 sf
#2	Secondary	536.50'	48.0" W x 24.0" H Box Culvert X 4.00 L= 50.0' RCP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 536.50' / 536.40' S= 0.0020 ' / ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 8.00 sf

Primary OutFlow Max=614.14 cfs @ 14.23 hrs HW=537.29' (Free Discharge)
 ←1=Culvert (Inlet Controls 614.14 cfs @ 7.68 fps)

Secondary OutFlow Max=27.41 cfs @ 14.23 hrs HW=537.29' (Free Discharge)
 ←2=Culvert (Barrel Controls 27.41 cfs @ 2.89 fps)

Summary for Link A: Watershed A

Inflow Area = 22.714 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 74.63 cfs @ 12.20 hrs, Volume= 12.583 af
Primary = 74.63 cfs @ 12.20 hrs, Volume= 12.583 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text and

Summary for Link B: Watershed B

Inflow Area = 41.229 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 154.42 cfs @ 12.21 hrs, Volume= 22.840 af
Primary = 154.42 cfs @ 12.21 hrs, Volume= 22.840 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text and

Summary for Link C: Watershed C

Inflow Area = 21.830 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 68.56 cfs @ 12.23 hrs, Volume= 12.093 af
Primary = 68.56 cfs @ 12.23 hrs, Volume= 12.093 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text and

Summary for Link D: Watershed D

Inflow Area = 33.722 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 118.74 cfs @ 12.29 hrs, Volume= 18.681 af
Primary = 118.74 cfs @ 12.29 hrs, Volume= 18.681 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text and

Summary for Link E: Watershed E

Inflow Area = 21.544 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 67.00 cfs @ 12.23 hrs, Volume= 11.935 af
Primary = 67.00 cfs @ 12.23 hrs, Volume= 11.935 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text and

Summary for Link F: Watershed F

Inflow Area = 38.300 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 142.01 cfs @ 12.23 hrs, Volume= 21.217 af
Primary = 142.01 cfs @ 12.23 hrs, Volume= 21.217 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text and

Summary for Link G: Watershed G

Inflow Area = 21.128 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 63.83 cfs @ 12.26 hrs, Volume= 11.704 af
Primary = 63.83 cfs @ 12.26 hrs, Volume= 11.704 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text and

Summary for Link H: Watershed H

Inflow Area = 34.086 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 120.02 cfs @ 12.29 hrs, Volume= 18.883 af
Primary = 120.02 cfs @ 12.29 hrs, Volume= 18.883 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text and

Summary for Link I: Watershed I

Inflow Area = 22.132 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 87.99 cfs @ 12.16 hrs, Volume= 12.261 af
Primary = 87.99 cfs @ 12.16 hrs, Volume= 12.261 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text and

Summary for Link J: Watershed J

Inflow Area = 35.077 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 125.25 cfs @ 12.15 hrs, Volume= 19.432 af
Primary = 125.25 cfs @ 12.15 hrs, Volume= 19.432 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text and

Summary for Link K: Watershed K

Inflow Area = 22.472 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 92.78 cfs @ 12.15 hrs, Volume= 12.449 af
Primary = 92.78 cfs @ 12.15 hrs, Volume= 12.449 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text and

Summary for Link L: Watershed L

Inflow Area = 48.208 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 253.56 cfs @ 12.15 hrs, Volume= 26.706 af
Primary = 253.56 cfs @ 12.15 hrs, Volume= 26.706 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text and

Summary for Link M: Watershed M

Inflow Area = 22.029 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 88.58 cfs @ 12.16 hrs, Volume= 12.204 af
Primary = 88.58 cfs @ 12.16 hrs, Volume= 12.204 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text and

Summary for Link N: Watershed N

Inflow Area = 33.325 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 114.03 cfs @ 12.16 hrs, Volume= 18.461 af
Primary = 114.03 cfs @ 12.16 hrs, Volume= 18.461 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text and

Summary for Link O: Watershed O

Inflow Area = 22.056 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 86.81 cfs @ 12.16 hrs, Volume= 12.219 af
Primary = 86.81 cfs @ 12.16 hrs, Volume= 12.219 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text and

Summary for Link P: Watershed P

Inflow Area = 46.766 ac, 0.00% Impervious, Inflow Depth = 6.65" for 25-Year, 24-Hour event
Inflow = 236.48 cfs @ 12.15 hrs, Volume= 25.907 af
Primary = 236.48 cfs @ 12.15 hrs, Volume= 25.907 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Outflow Imported from T:\Projects\2013\Pescadito Landfill\Design\Stormwater (Plan B)\Text and

Summary for Link toDA2: Discharge to DA2

Inflow Area = 809.838 ac, 6.05% Impervious, Inflow Depth > 6.48" for 25-Year, 24-Hour event
Inflow = 614.13 cfs @ 14.23 hrs, Volume= 437.023 af
Primary = 614.13 cfs @ 14.23 hrs, Volume= 437.023 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link toDA3: Discharge to DA3

Inflow = 27.42 cfs @ 14.23 hrs, Volume= 4.088 af
Primary = 27.42 cfs @ 14.23 hrs, Volume= 4.088 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

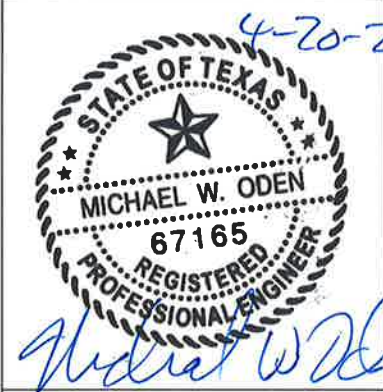
ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

- 3. PROPOSED CONDITIONS (POST-DEVELOPMENT)**
 - A. MODEL DIAGRAMS
 - B. LANDFILL WATERSHED A (TYPICAL OF WATERSHEDS C, E, G, J, K, M, & O)
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - C. LANDFILL WATERSHED B (TYPICAL OF WATERSHEDS D, F, J, L, N, & P)
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - D. LANDFILL PERIMETER DITCH, CULVERT, & BASIN SYSTEM
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)
 - II. 25-YEAR, 24 HOUR (NON-ADJUSTED – 7.6 INCHES)
 - E. REGIONAL STORMWATER CONDITIONS
 - I. 100-YEAR, 24 HOUR (ADJUSTED RAINFALL – 9.5 INCHES)

4-20-2015



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Summary for Subcatchment DA1: DA1

Runoff = 6,885.92 cfs @ 14.39 hrs, Volume= 2,522.438 af, Depth= 5.78"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 5,238.870	70	
5,238.870		100.00% Pervious Area

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

Summary for Subcatchment DA2: DA2

Runoff = 1,321.17 cfs @ 13.53 hrs, Volume= 353.044 af, Depth= 5.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 749.800	69	
749.800		100.00% Pervious Area

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

Summary for Subcatchment DA3: DA3

Runoff = 4,206.83 cfs @ 13.94 hrs, Volume= 1,382.304 af, Depth= 5.27"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 3,149.669	66	
3,149.669		100.00% Pervious Area

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

Summary for Subcatchment DA4: DA4

Runoff = 3,819.89 cfs @ 15.23 hrs, Volume= 1,830.927 af, Depth> 5.52"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 3,978.608	68	
3,978.608		100.00% Pervious Area

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

Summary for Subcatchment DA5: DA5

Runoff = 471.92 cfs @ 12.70 hrs, Volume= 78.776 af, Depth= 4.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 198.877	62	
198.877		100.00% Pervious Area

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

Summary for Subcatchment DA6: DA6

Runoff = 380.18 cfs @ 12.51 hrs, Volume= 51.712 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 134.177	61	
134.177		100.00% Pervious Area

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

Summary for Subcatchment DA7: DA7

Runoff = 1,024.74 cfs @ 12.68 hrs, Volume= 162.924 af, Depth= 5.01"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Area (ac)	CN	Description
* 390.234	64	
390.234		100.00% Pervious Area

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

Summary for Reach R1: Reach-1

Inflow Area = 5,437.747 ac, 0.00% Impervious, Inflow Depth = 5.74" for 100-Year, 24-Hour event
Inflow = 5,960.38 cfs @ 15.04 hrs, Volume= 2,601.214 af
Outflow = 5,940.25 cfs @ 15.17 hrs, Volume= 2,601.088 af, Atten= 0%, Lag= 7.9 min

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.88 fps, Min. Travel Time= 10.2 min
Avg. Velocity = 2.21 fps, Avg. Travel Time= 22.7 min

Peak Storage= 3,652,289 cf @ 15.17 hrs
Average Depth at Peak Storage= 3.99'
Bank-Full Depth= 5.00' Flow Area= 1,780.0 sf, Capacity= 9,903.65 cfs

106.00' x 5.00' deep channel, n= 0.030
Side Slope Z-value= 50.0 ' / ' Top Width= 606.00'
Length= 3,000.0' Slope= 0.0030 ' / '
Inlet Invert= 542.00', Outlet Invert= 533.00'



Summary for Pond 2P: NW Detention Basin

Inflow Area = 134.177 ac, 0.00% Impervious, Inflow Depth = 4.62" for 100-Year, 24-Hour event
Inflow = 380.18 cfs @ 12.51 hrs, Volume= 51.712 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

CLOMR Proposed with Landfill

Type III 24-hr 100-Year, 24-Hour Rainfall=9.50"

Prepared by CB&I Environmental and Infrastructure, Inc.

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Peak Elev= 567.40' @ 25.98 hrs Surf.Area= 10.150 ac Storage= 51.712 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	562.00'	57.880 af	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
562.00	9.020	0.000	0.000
564.00	9.440	18.460	18.460
566.00	9.850	19.290	37.750
568.00	10.280	20.130	57.880

Device	Routing	Invert	Outlet Devices
#1	Primary	562.00'	Special & User-Defined Elev. (feet) 562.00 568.00 Disch. (cfs) 0.000 0.000

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=562.00' (Free Discharge)

↑1=Special & User-Defined (Controls 0.00 cfs)

Summary for Pond 3P: NE Detention Basin

Inflow Area = 390.234 ac, 0.00% Impervious, Inflow Depth = 5.01" for 100-Year, 24-Hour event
 Inflow = 1,024.74 cfs @ 12.68 hrs, Volume= 162.924 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Peak Elev= 561.85' @ 26.67 hrs Surf.Area= 28.725 ac Storage= 162.924 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	556.00'	167.280 af	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
556.00	26.990	0.000	0.000
558.00	27.580	54.570	54.570
560.00	28.180	55.760	110.330
562.00	28.770	56.950	167.280

Device	Routing	Invert	Outlet Devices
#1	Primary	556.00'	556562 Elev. (feet) 556.00 562.00 Disch. (cfs) 0.000 0.000

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=556.00' (Free Discharge)

↑-1=556562 (Controls 0.00 cfs)

Summary for Pond BT: West Detention Basin

Inflow Area = 5,437.747 ac, 0.00% Impervious, Inflow Depth = 5.74" for 100-Year, 24-Hour event
 Inflow = 6,977.36 cfs @ 14.39 hrs, Volume= 2,601.214 af
 Outflow = 5,960.38 cfs @ 15.04 hrs, Volume= 2,601.214 af, Atten= 15%, Lag= 39.1 min
 Primary = 5,960.38 cfs @ 15.04 hrs, Volume= 2,601.214 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 547.57' @ 15.04 hrs Surf.Area= 118.164 ac Storage= 348.911 af

Plug-Flow detention time= 34.9 min calculated for 2,600.492 af (100% of inflow)
 Center-of-Mass det. time= 34.9 min (1,004.3 - 969.4)

Volume	Invert	Avail.Storage	Storage Description
#1	542.00'	401.600 af	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
542.00	14.400	0.000	0.000
544.00	37.000	51.400	51.400
546.00	94.200	131.200	182.600
548.00	124.800	219.000	401.600

Device	Routing	Invert	Outlet Devices
#1	Primary	542.00'	Special & User-Defined
			Elev. (feet) 542.00 544.00 546.00 548.00
			Disch. (cfs) 0.000 1,273.000 3,600.000 6,614.000

Primary OutFlow Max=5,960.38 cfs @ 15.04 hrs HW=547.57' (Free Discharge)

↑-1=Special & User-Defined (Custom Controls 5,960.38 cfs)

Summary for Link J1: Junction-1

Inflow Area = 14,125.662 ac, 0.35% Impervious, Inflow Depth > 5.72" for 100-Year, 24-Hour event
 Inflow = 14,070.88 cfs @ 14.67 hrs, Volume= 6,734.902 af
 Primary = 14,070.88 cfs @ 14.67 hrs, Volume= 6,734.902 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link JDA2: Junction DA2

Inflow Area = 1,559.638 ac, 3.14% Impervious, Inflow Depth > 6.90" for 100-Year, 24-Hour event
 Inflow = 2,028.14 cfs @ 13.53 hrs, Volume= 897.156 af
 Primary = 2,028.14 cfs @ 13.53 hrs, Volume= 897.156 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link JDA3: Junction DA3

Inflow Area = 3,149.669 ac, 0.00% Impervious, Inflow Depth = 5.36" for 100-Year, 24-Hour event
Inflow = 4,311.24 cfs @ 13.94 hrs, Volume= 1,405.732 af
Primary = 4,311.24 cfs @ 13.94 hrs, Volume= 1,405.732 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link Junction-2: Junction-2

Inflow Area = 7,128.277 ac, 0.00% Impervious, Inflow Depth = 5.45" for 100-Year, 24-Hour event
Inflow = 7,194.96 cfs @ 14.40 hrs, Volume= 3,236.659 af
Primary = 7,194.96 cfs @ 14.40 hrs, Volume= 3,236.659 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link SDBE: South Detention Basin East

Inflow = 104.59 cfs @ 14.01 hrs, Volume= 23.428 af
Primary = 104.59 cfs @ 14.01 hrs, Volume= 23.428 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Primary Outflow Imported from Pescadito Perimeter~Link toDA3.hce

Summary for Link SDBW: South Detention Basin West

Inflow Area = 809.838 ac, 6.05% Impervious, Inflow Depth > 8.06" for 100-Year, 24-Hour event
Inflow = 717.41 cfs @ 14.01 hrs, Volume= 544.112 af
Primary = 717.41 cfs @ 14.01 hrs, Volume= 544.112 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

100-Year, 24-Hour Primary Outflow Imported from Pescadito Perimeter~Link toDA2.hce