

**Summary for Pond 1: Stream Crossing**

Inflow Area = 307.662 ac, 4.81% Impervious, Inflow Depth > 2.06" for 100 Year event  
 Inflow = 269.64 cfs @ 13.00 hrs, Volume= 52.908 af  
 Outflow = 264.01 cfs @ 13.11 hrs, Volume= 52.906 af, Atten= 2%, Lag= 7.0 min  
 Primary = 264.01 cfs @ 13.11 hrs, Volume= 52.906 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 154.53' @ 13.11 hrs Surf.Area= 18,389 sf Storage= 35,691 cf  
 Flood Elev= 154.63' Surf.Area= 18,937 sf Storage= 37,553 cf

Plug-Flow detention time= 0.8 min calculated for 52.730 af (100% of inflow)  
 Center-of-Mass det. time= 0.8 min ( 852.6 - 851.8 )

Volume	Invert	Avail.Storage	Storage Description
#1	149.00'	44,936 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
149.00	317	0	0
150.00	1,120	719	719
151.00	2,351	1,736	2,454
152.00	5,950	4,151	6,605
153.00	9,395	7,673	14,277
154.00	15,477	12,436	26,713
155.00	20,969	18,223	44,936

Device	Routing	Invert	Outlet Devices
#1	Primary	148.50'	<b>144.0" W x 49.0" H, R=78.0" Arch Culvert</b> L= 62.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 148.50' / 147.50' S= 0.0161 1/1' Cc= 0.900 n= 0.035, Flow Area= 35.69 sf

**Primary OutFlow** Max=263.78 cfs @ 13.11 hrs HW=154.53' (Free Discharge)

↑**1=Culvert** (Barrel Controls 263.78 cfs @ 7.39 fps)