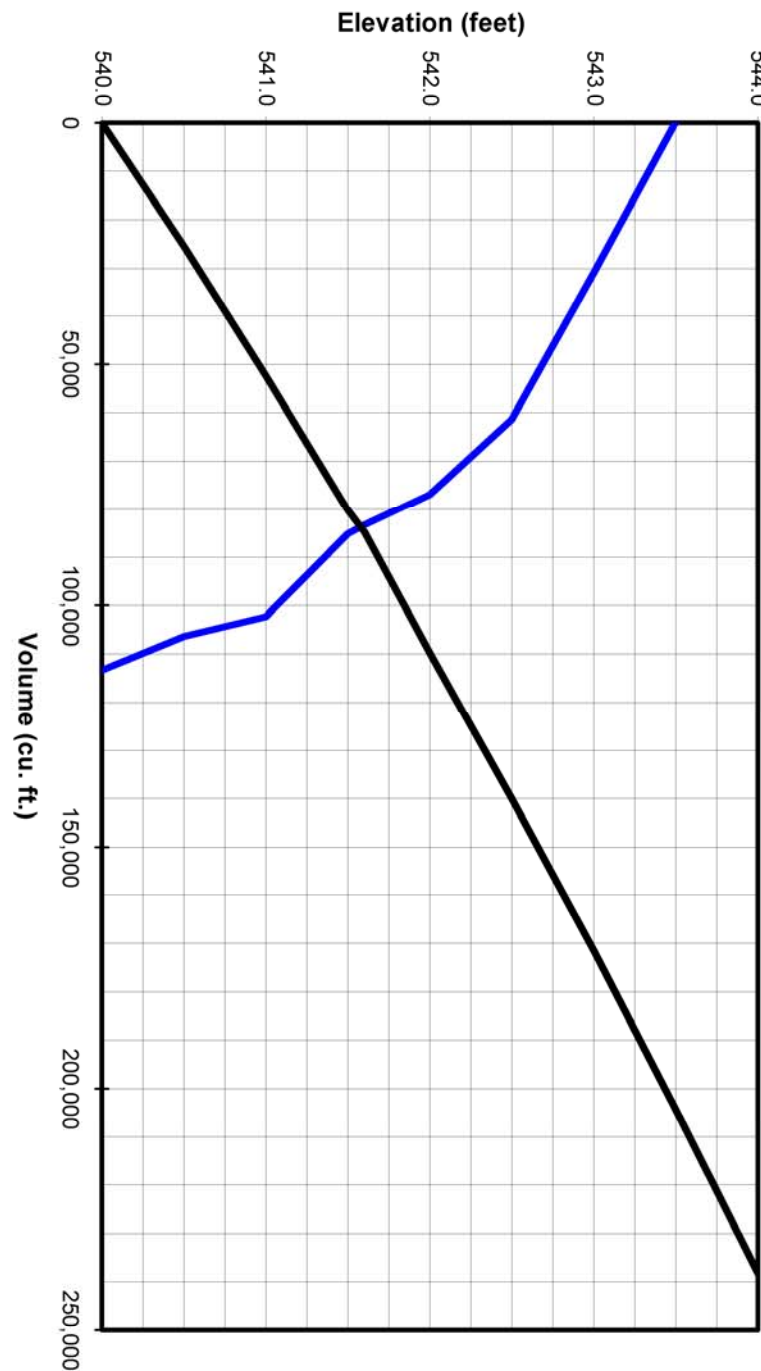


Outfall Structure Discharge Calculations
The Mansions Family - Rockwall, Texas
2 Year Storm Event

Office Data										Site and Stormwater Detention Data			
Description:	Office #1	Office #2	Office #3	Office #4	Drop Inlet	Existing Time of Concentration:	28.37	acres					
Length (ft):	2.39	10.97	100.97	100.97	0.00	Existing Time of Concentration:	2.0	minutes					
Height (ft):	1.50	0.75	0.50	0.00	0.00	Time of Concentration:	10	minutes					
Area (ft ²):	3.38	2.19	10.00	0.00	0.00	Rundt Coefficient:	0.75	minutes					
Invert Elevation (ft.):	540.00	542.20	542.20	0.00	0.00	Storm Duration:	40	minutes					
Coefficient:	0.80	0.60	0.60	0.60	0.60	Rainfall Intensity:	2.65	inches/hr					
Weir Data										Allowable Release Rate:			
Weir Length:	0.00	0.00	0.00	0.00	0.00	Inflow Rate:	47.20	cfs					
Weir Elevation:	0.00	0.00	0.00	0.00	0.00	Inflow Volume:	113.288	cf					
Weir Coefficient:	2.88					10-Year WSEL:	541.60	cf					

Elevation (feet)	Office 1 Discharge (cfs)	Office 2 Discharge (cfs)	Office 3 Discharge (cfs)	Office 4 Discharge (cfs)	Weir Discharge (cfs)	Outflow Rate Volume (cf)	Required Storage (cf)	Provided Storage (cf)	Difference (cf)
540.00	0.000	0.000	0.000	0.000	0.000	0	113.288	0	(113.288)
540.50	4.626	0.000	0.000	0.000	4.626	6.559	106.349	25.563	(80.786)
541.00	7.343	0.000	0.000	0.000	7.343	21.014	102.273	52.332	(49.941)
541.50	18.926	0.000	0.000	0.000	18.926	28.855	83.321	84.756	1.435
542.00	18.926	0.000	0.000	0.000	18.926	28.855	83.321	84.756	1.435
542.50	24.225	0.000	0.000	0.000	24.225	36.337	76.550	109.273	32.623
543.00	28.653	6.003	0.000	0.000	34.656	52.000	61.289	140.011	78.723
543.50	32.501	8.336	14.062	0.000	54.899	62.249	30.838	171.587	146.649
544.00	35.931	11.184	28.466	0.000	75.582	113.402	-115	204.306	204.421
544.50	39.061	13.442	44.392	0.000	96.895	145.343	-32.066	228.174	270.229

Stage Storage Curve
Provided Storage vs. Required Storage - 2 Year Storm Event

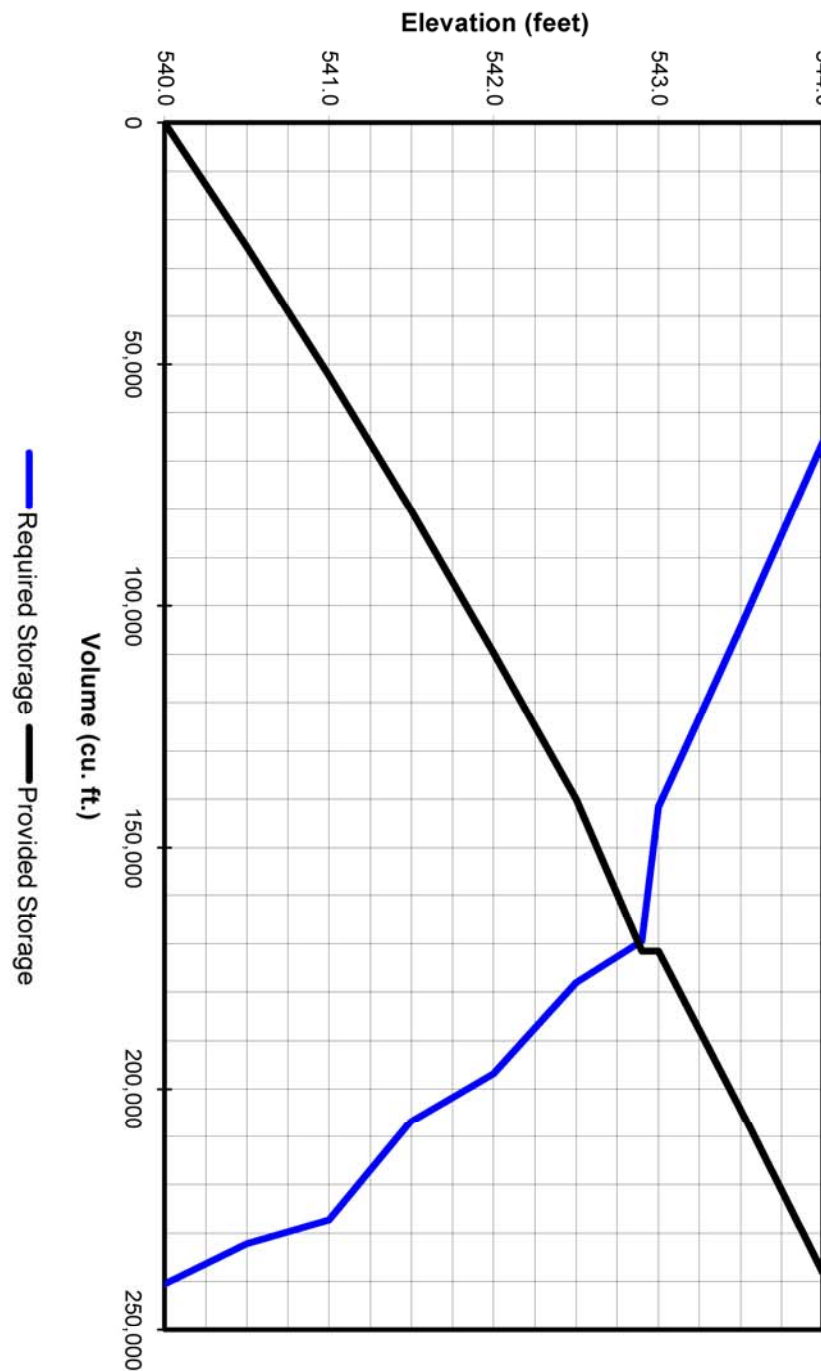


Outfall Structure Discharge Calculations
The Mansions Family - Rockwall, Texas
50 Year Storm Event

Office Data					Site and Stormwater Detention Data				
Description:	Office #1	Office #2	Office #3	Office #4	Drop Inlet	Existing Time of Concentration:	28.37	acres	
Length (ft):	2.39	2.92	20.00	0.00	0.00	Existing Time of Concentration:	0.35	minutes	
Height (ft):	1.50	0.75	0.50	0.00	0.00	Time of Concentration:	10	minutes	
Area (ft ²):	3.38	2.19	10.00	0.00	0.00	Rundt Circulation:	0.75		
Invert Elevation (ft.):	540.00	542.00	542.00	0.00	0.00	Storm Duration:	50	minutes	
Coefficient:	0.80	0.60	0.60	0.60	0.60	Rainfall Intensity:	42.50	inches/hr	
Weir Data						Allowable Release Rate:	30.16	cfs	
Weir Length:	0.00	0.00	0.00	0.00	0.00	Inflow Volume:	240.469	cf	
Weir Elevation:	0.00	0.00	0.00	0.00	0.00	10-Year WSEL:	542.90		
Weir Coefficient:	2.88								

Elevation (feet)	Office 1 Discharge (cfs)	Office 2 Discharge (cfs)	Office 3 Discharge (cfs)	Office 4 Discharge (cfs)	Weir Discharge (cfs)	Outflow Rate Volume (cf)	Required Storage (cf)	Provided Storage (cf)	Difference (cf)
540.00	0.000	0.000	0.000	0.000	0.000	0	240.469	0	(240.469)
540.50	4.626	0.000	0.000	0.000	4.626	8.326	232.142	25.563	(223.576)
541.00	7.343	0.000	0.000	0.000	7.343	13.217	227.252	52.332	(174.920)
541.50	18.926	0.000	0.000	0.000	18.926	33.776	206.693	80.329	(126.364)
542.00	24.225	0.000	0.000	0.000	24.225	42.655	196.954	109.572	(87.382)
542.50	28.653	6.003	0.000	0.000	34.656	52.000	186.954	138.929	(48.025)
543.00	32.501	8.336	0.000	0.000	40.837	62.249	176.855	171.587	(4.732)
543.50	35.931	11.184	14.062	0.000	54.899	62.249	164.819	204.306	39.487
544.00	39.061	13.442	28.466	0.000	75.582	113.402	141.590	228.174	86.584

Stage Storage Curve
Provided Storage vs. Required Storage - 50 Year Storm Event

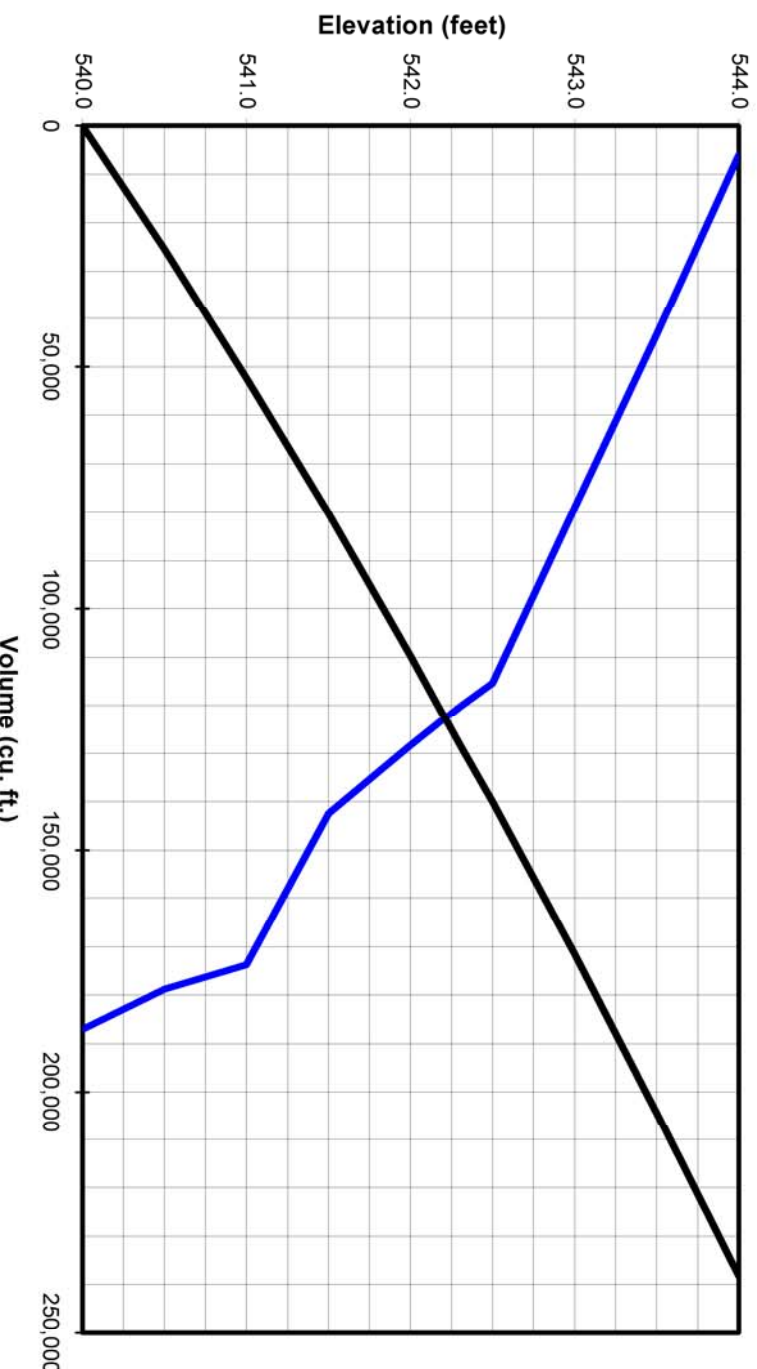


Outfall Structure Discharge Calculations
The Mansions Family - Rockwall, Texas
10 Year Storm Event

Office Data					Site and Stormwater Detention Data				
Description:	Office #1	Office #2	Office #3	Office #4	Drop Inlet	Existing Time of Concentration:	28.37	acres	
Length (ft):	2.39	10.97	100.97	100.97	0.00	Existing Time of Concentration:	2.0 <td>minutes</td> <td></td>	minutes	
Height (ft):	1.50	0.75	0.50	0.00	0.00	Time of Concentration:	10 <td>minutes</td> <td></td>	minutes	
Area (ft ²):	3.38	2.19	10.00	0.00	0.00	Rundt Coefficient:	0.75 <td>minutes</td> <td></td>	minutes	
Invert Elevation (ft.):	540.00	541.00	542.20	0.00	0.00	Storm Duration:	50 <td>minutes</td> <td></td>	minutes	
Coefficient:	0.80	0.60	0.60	0.60	0.60	Rainfall Intensity:	3.50 <td>inches/hr</td> <td></td>	inches/hr	
Weir Data					Allowable Release Rate:				
Weir Length:	0.00	0.00	0.00	0.00	0.00	Inflow Rate:	62.34	cfs	
Weir Elevation:	0.00	0.00	0.00	0.00	0.00	Inflow Volume:	167.031	cf	
Weir Coefficient:	2.88					10-Year WSEL:	542.20	cf	

Elevation (feet)	Office 1 Discharge (cfs)	Office 2 Discharge (cfs)	Office 3 Discharge (cfs)	Office 4 Discharge (cfs)	Weir Discharge (cfs)	Outflow Rate Volume (cf)	Required Storage (cf)	Provided Storage (cf)	Difference (cf)
540.00	0.000	0.000	0.000	0.000	0.000	0	167.031	0	(167.031)
540.50	4.626	0.000	0.000	0.000	4.626	8.326	178.705	25.563	(170.379)
541.00	7.343	0.000	0.000	0.000	7.343	13.217	174.814	52.332	(122.482)
541.50	18.926	0.000	0.000	0.000	18.926	33.776	162.492	80.329	(82.163)
542.00	24.225	0.000	0.000	0.000	24.225	42.655	152.492	109.572	(42.920)
542.50	28.653	6.003	0.000	0.000	34.656	52.000	142.871	138.929	(3.942)
543.00	32.501	8.336	11.184	0.000	38.646	62.249	132.555	168.011	35.456
543.50	35.931	11.184	14.062	0.000	44.637	72.422	122.022	197.587	75.565
544.00	39.061	13.442	28.466	0.000	59.799	82.605	111.590	226.174	114.584

Stage Storage Curve
Provided Storage vs. Required Storage - 10 Year Storm Event

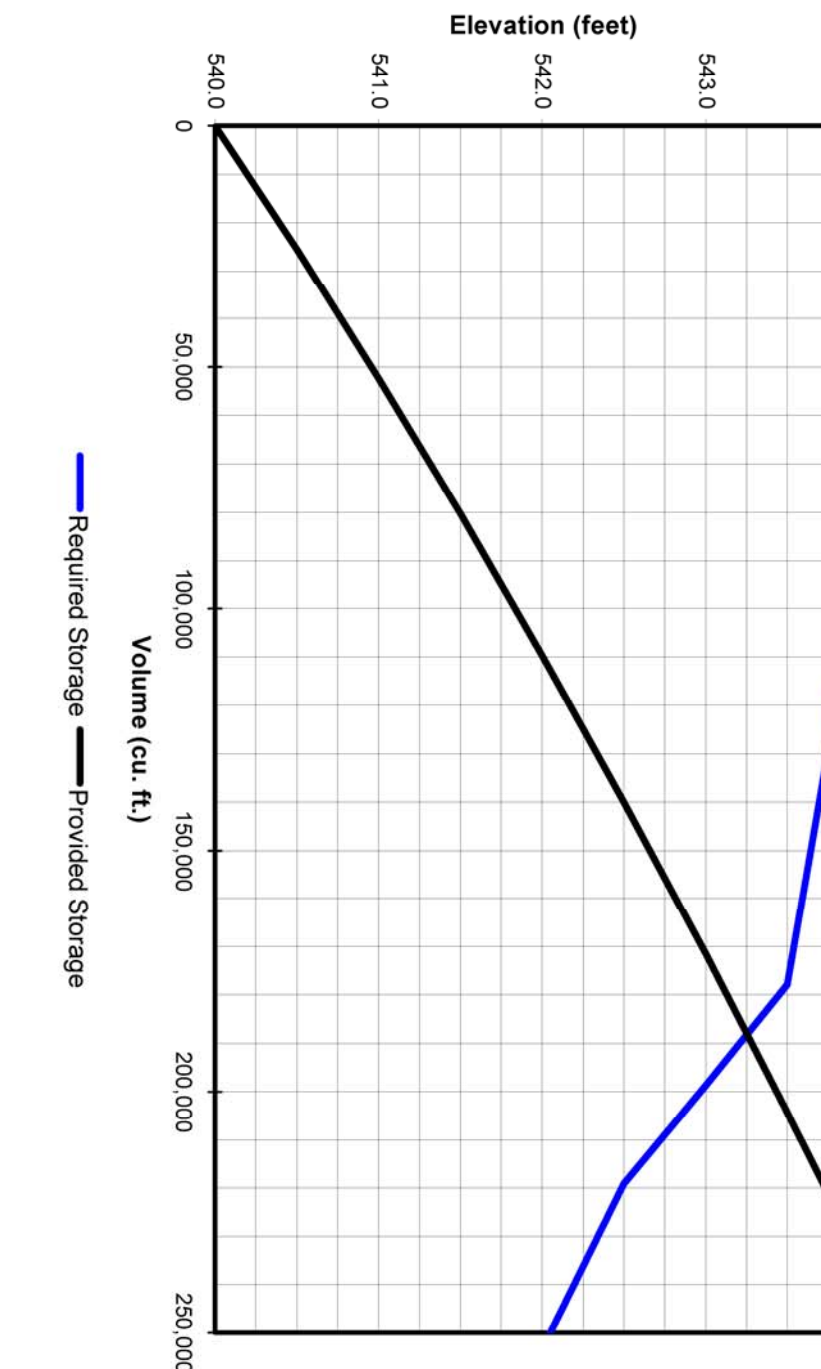


Outfall Structure Discharge Calculations
The Mansions Family - Rockwall, Texas
100 Year Storm Event

Office Data					Site and Stormwater Detention Data			
Description:	Office #1	Office #2	Office #3	Office #4	Area Draining to Pond:	28.37	acres	
Length (ft):	2.39	2.92	20.00	0.00	Existing Time of Concentration:	0.35	minutes	
Height (ft):	1.50	0.75	0.50	0.00	Time of Concentration:	10	minutes	
Area (ft ²):	3.38	2.19	10.00	0.00	Storm Duration:	100	minutes	
Invert Elevation (ft.):	540.00	542.00	542.00	0.00	Rainfall Intensity:	3.40	inches/hr	
Coefficient:	0.80	0.60	0.60	0.60	Allowable Release Rate:	48.46	cfs	
Weir Data					Inflow Volume:			
Weir Length:	0.00	0.00	0.00	0.00	10 Year WSEL:	543.47	cf	
Weir Elevation:	0.00	0.00	0.00	0.00				
Weir Coefficient:	2.88							

Elevation (feet)	Office 1 Discharge (cfs)	Office 2 Discharge (cfs)	Office 3 Discharge (cfs)	Office 4 Discharge (cfs)	Weir Discharge (cfs)	Outflow Rate Volume (cf)	Required Storage (cf)	Provided Storage (cf)	Difference (cf)
540.00	0.000	0.000	0.000	0.000	0.000	0	313.459	0	(313.459)
540.50	4.626	0.000	0.000	0.000	4.626	15.265	328.194	25.563	(302.631)
541.00	7.343	0.000	0.000	0.000	7.343	24.231	309.219	52.332	(256.887)
541.50	18.926	0.000	0.000	0.000	18.926	61.231	271.521	80.329	(191.192)
542.00	24.225	0.000	0.000	0.000	24.225	72.422	252.325	109.572	(142.753)
542.50	28.653	6.003	0.000	0.000	34.656	82.605	233.325	138.929	(94.396)
543.00	32.501	8.336	0.000	0.000	40.837	92.788	214.366	168.011	(46.355)
543.50	35.931	11.184	0.000	0.000	47.115	102.971	194.885	197.587	(2.692)
544.00	39.061	13.442	24.075	0.000	60.778	113.154	175.444	226.174	50.730

Stage Storage Curve
Provided Storage vs. Required Storage - 100 Year Storm Event



Outfall Structure Discharge Calculations
The Mansions Family - Rockwall, Texas
25 Year Storm Event

Office Data					Site and Stormwater Detention Data				
Description:	Office #1	Office #2	Office #3	Office #4	Drop Inlet	Existing Time of Concentration:	28.37	acres	
Length (ft):	2.39	10.97	100.97	100.97	0.00	Existing Time of Concentration:	2.0	minutes	
Height (ft):	1.50	0.75	0.50	0.00	0.00	Time of Concentration:	10	minutes	
Area (ft ²):	3.38	2.19	10.00	0.00	0.00	Rundt Coefficient:	0.75	minutes	
Invert Elevation (ft.):	540.00	542.00	542.50	543.50		Storm Duration:	40	minutes	
Coefficient:	0.80	0.60	0.60	0.60		Rainfall Intensity:	4.70	inches/hr	
Weir Data					Allowable Release Rate:				
Weir Length:	0.00	0.00	0.00	0.00	feet	Inflow Rate:	71.61	cfs	
Weir Elevation:	0.00	0.00	0.00	0.00	feet	Inflow Volume:	200.925	cf	
Weir Coefficient:	2.88					25-Year WSEL:	542.50		

Elevation (feet)	Office 1 Discharge (cfs)	Office 2 Discharge (cfs)	Office 3 Discharge (cfs)	Office 4 Discharge (cfs)	Weir Discharge (cfs)	Outflow Rate Volume (cf)	Required Storage (cf)	Provided Storage (cf)	Difference (cf)
540.00	0.000	0.000	0.000	0.000	0.000	0	200.925	0	(200.925)
540.50	4.626	0.000	0.000	0.000	4.626	6.559	194.364	25.563	(168.794)
541.00	7.343	0.000	0.000	0.000	7.343	11.014	189.911	52.332	(137.579)
541.50	18.926	0.000	0.000	0.000	18.926	28.471	172.718	80.329	(92.389)
542.00	24.225	0.000	0.000	0.000	24.225	34.655	167.505	107.908	(60.397)
542.50	28.833	6.003	0.000	0.000	34.836	52.002	150.011	135.910	(16.101)
543.00	32.871	6.775	0.000	0.000	39.646	54.375	136.559	165.419	(14.232)
543.50	32.951	8.338	0.000	0.000	41.289	61.256	119.659	171.587	31.918
544.00	11.184	13.442	44.992	0.000	75.622	114.402	79.732	204.794	124.562
544.50	39.081	13.442	44.992	0.000	96.565	146.343	57.823	182.592	(124.769)