Yampa River
Whipple Creek
Yampa River
Raspberry Creek
Jack Creek
Middle Creek
Stagecoach Reservoir
Little Morrison Creek
Lawson Creek

ID: 804 434 AC
ID: 803 160 AC
ID: 805 418 AC
ID: 701 207 AC
ID: 205 389 AC
ID: 102 157 AC
ID: 101 406 AC
ID: 100 1130 AC
ID: 204 1176 AC
ID: 203 287 AC
ID: 206 399 AC
ID: 103 51 AC
ID: 202 293 AC
ID: 802 2007 AC
ID: 700 1313 AC
ID: 200 89 AC
ID: 201 49 AC
ID: 801 800 AC
ID: 302 86 AC
ID: 301 31 AC
ID: 300 53 AC
ID: 305 65 AC
ID: 303 72 AC
ID: 400 483 AC
ID: 306 24 AC
ID: 307 25 AC
ID: 304 41 AC
ID: 308 32 AC
ID: 310 85 AC
ID: 401 227 AC
ID: 411 13 AC
ID: 309 157 AC
ID: 403 34 AC
ID: 402 53 AC
ID: 412 64 AC
ID: 311 38 AC
ID: 406 224 AC
ID: 409 306 AC
ID: 410 46 AC
ID: 404 162 AC
ID: 413 30 AC
ID: 417 79 AC
ID: 407 26 AC
ID: 414 53 AC
ID: 405 61 AC
ID: 500 43 AC
ID: 416 117 AC
ID: 408 73 AC
ID: 415 156 AC
ID: 501 131 AC
ID: 600 359 AC
ID: 502 130 AC
ID: 418 63 AC
ID: 422 14 AC
ID: 504 82 AC
ID: 503 140 AC
ID: 800 2802 AC

Legend

- Existing Basins
- Existing Roadways

Existing Land Cover
- Residential (0.75 - 2.5 ac)
- Residential (2.5 - 5.0 ac)
- Residential (< 0.25 ac)
- Asphalt
- Commercial
- Gravel
- Greenbelts
- Parks

N
0 1,000 2,000 4,000 6,000 US Feet

Kimley»Horn

2 North Nevada Avenue, Suite 900
Colorado Springs, CO (719) 453-0180

Engineering, Planning and Environmental Consultants

DESIGNED BY: SNM
DRAWN BY: TOS
CHECKED BY: BAH

DATE: 11/25/2024

STAGECOACH
DRAINAGE BASIN STUDY
EXISTING LAND USE MAP

PROJECT NO. 196778000

DRAWING NAME EX LAND USE

NOAA Atlas 14, Volume 8, Version 2
Location name: Oak Creek, Colorado, USA*
Latitude: 40.2551°, Longitude: -106.8555°
Elevation: 7433 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffery Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.122 (0.097-0.159)	0.183 (0.145-0.238)	0.278 (0.220-0.363)	0.353 (0.278-0.464)	0.453 (0.339-0.616)	0.526 (0.386-0.730)	0.597 (0.421-0.854)	0.665 (0.448-0.986)	0.750 (0.485-1.15)	0.810 (0.513-1.28)
10-min	0.179 (0.143-0.233)	0.267 (0.212-0.348)	0.406 (0.322-0.531)	0.517 (0.407-0.680)	0.664 (0.497-0.901)	0.771 (0.565-1.07)	0.874 (0.617-1.25)	0.973 (0.657-1.44)	1.10 (0.710-1.69)	1.19 (0.751-1.87)
15-min	0.219 (0.174-0.284)	0.326 (0.259-0.425)	0.496 (0.393-0.648)	0.631 (0.497-0.829)	0.809 (0.606-1.10)	0.940 (0.689-1.30)	1.06 (0.752-1.52)	1.19 (0.801-1.76)	1.34 (0.866-2.06)	1.45 (0.916-2.28)
30-min	0.288 (0.229-0.375)	0.406 (0.323-0.529)	0.597 (0.473-0.781)	0.754 (0.593-0.991)	0.967 (0.728-1.32)	1.13 (0.830-1.57)	1.29 (0.914-1.86)	1.45 (0.982-2.16)	1.66 (1.08-2.56)	1.82 (1.15-2.87)
60-min	0.372 (0.296-0.484)	0.490 (0.389-0.638)	0.684 (0.541-0.893)	0.846 (0.666-1.11)	1.07 (0.810-1.47)	1.25 (0.920-1.74)	1.42 (1.01-2.06)	1.61 (1.09-2.40)	1.85 (1.20-2.86)	2.03 (1.29-3.21)
2-hr	0.456 (0.368-0.585)	0.573 (0.461-0.736)	0.770 (0.617-0.992)	0.938 (0.747-1.22)	1.18 (0.903-1.60)	1.37 (1.02-1.89)	1.56 (1.12-2.23)	1.76 (1.21-2.60)	2.04 (1.34-3.12)	2.25 (1.44-3.51)
3-hr	0.530 (0.430-0.674)	0.638 (0.517-0.812)	0.822 (0.663-1.05)	0.982 (0.787-1.26)	1.21 (0.940-1.64)	1.40 (1.06-1.92)	1.59 (1.16-2.26)	1.80 (1.24-2.64)	2.08 (1.38-3.16)	2.30 (1.48-3.55)
6-hr	0.676 (0.555-0.848)	0.785 (0.644-0.986)	0.972 (0.795-1.23)	1.14 (0.922-1.44)	1.37 (1.08-1.82)	1.56 (1.19-2.11)	1.76 (1.29-2.46)	1.97 (1.38-2.84)	2.26 (1.51-3.38)	2.48 (1.61-3.78)
12-hr	0.859 (0.715-1.06)	0.989 (0.822-1.22)	1.21 (1.00-1.51)	1.41 (1.16-1.76)	1.70 (1.35-2.22)	1.93 (1.49-2.57)	2.17 (1.62-2.99)	2.43 (1.72-3.46)	2.79 (1.89-4.12)	3.07 (2.02-4.61)
24-hr	1.07 (0.900-1.30)	1.22 (1.03-1.49)	1.49 (1.25-1.82)	1.73 (1.44-2.13)	2.08 (1.68-2.69)	2.37 (1.86-3.12)	2.68 (2.02-3.64)	3.00 (2.16-4.23)	3.46 (2.38-5.04)	3.83 (2.54-5.66)
2-day	1.30 (1.11-1.56)	1.47 (1.25-1.76)	1.77 (1.50-2.13)	2.04 (1.72-2.48)	2.45 (2.00-3.13)	2.79 (2.21-3.62)	3.15 (2.40-4.22)	3.54 (2.57-4.91)	4.09 (2.84-5.87)	4.54 (3.04-6.60)
3-day	1.45 (1.24-1.72)	1.64 (1.41-1.95)	1.98 (1.69-2.36)	2.28 (1.94-2.74)	2.73 (2.24-3.45)	3.10 (2.48-3.99)	3.49 (2.68-4.63)	3.92 (2.86-5.38)	4.51 (3.15-6.41)	4.98 (3.37-7.19)
4-day	1.57 (1.36-1.86)	1.78 (1.54-2.11)	2.15 (1.85-2.55)	2.47 (2.11-2.95)	2.95 (2.44-3.70)	3.34 (2.68-4.26)	3.75 (2.89-4.94)	4.19 (3.07-5.71)	4.80 (3.36-6.77)	5.29 (3.59-7.58)
7-day	1.89 (1.65-2.21)	2.12 (1.85-2.48)	2.52 (2.20-2.96)	2.87 (2.48-3.40)	3.38 (2.82-4.18)	3.79 (3.07-4.77)	4.22 (3.28-5.48)	4.68 (3.46-6.28)	5.30 (3.75-7.37)	5.80 (3.97-8.20)
10-day	2.15 (1.90-2.50)	2.40 (2.11-2.79)	2.82 (2.47-3.28)	3.18 (2.77-3.73)	3.71 (3.11-4.54)	4.13 (3.37-5.15)	4.57 (3.58-5.88)	5.04 (3.75-6.70)	5.67 (4.04-7.82)	6.18 (4.25-8.67)
20-day	2.88 (2.57-3.28)	3.16 (2.82-3.62)	3.64 (3.24-4.18)	4.06 (3.58-4.68)	4.66 (3.96-5.60)	5.13 (4.24-6.29)	5.63 (4.46-7.11)	6.14 (4.63-8.04)	6.85 (4.93-9.29)	7.41 (5.16-10.2)
30-day	3.50 (3.15-3.96)	3.84 (3.46-4.36)	4.42 (3.96-5.02)	4.90 (4.36-5.61)	5.59 (4.78-6.64)	6.13 (5.10-7.42)	6.68 (5.33-8.35)	7.25 (5.50-9.38)	8.02 (5.80-10.7)	8.61 (6.04-11.8)
45-day	4.33 (3.93-4.86)	4.78 (4.34-5.37)	5.52 (4.98-6.21)	6.12 (5.49-6.93)	6.95 (5.98-8.15)	7.58 (6.34-9.07)	8.22 (6.59-10.1)	8.85 (6.75-11.3)	9.69 (7.05-12.8)	10.3 (7.28-14.0)
60-day	5.08 (4.64-5.66)	5.64 (5.14-6.29)	6.54 (5.94-7.32)	7.27 (6.55-8.18)	8.24 (7.11-9.57)	8.96 (7.53-10.6)	9.67 (7.79-11.8)	10.4 (7.93-13.1)	11.2 (8.21-14.8)	11.9 (8.43-16.0)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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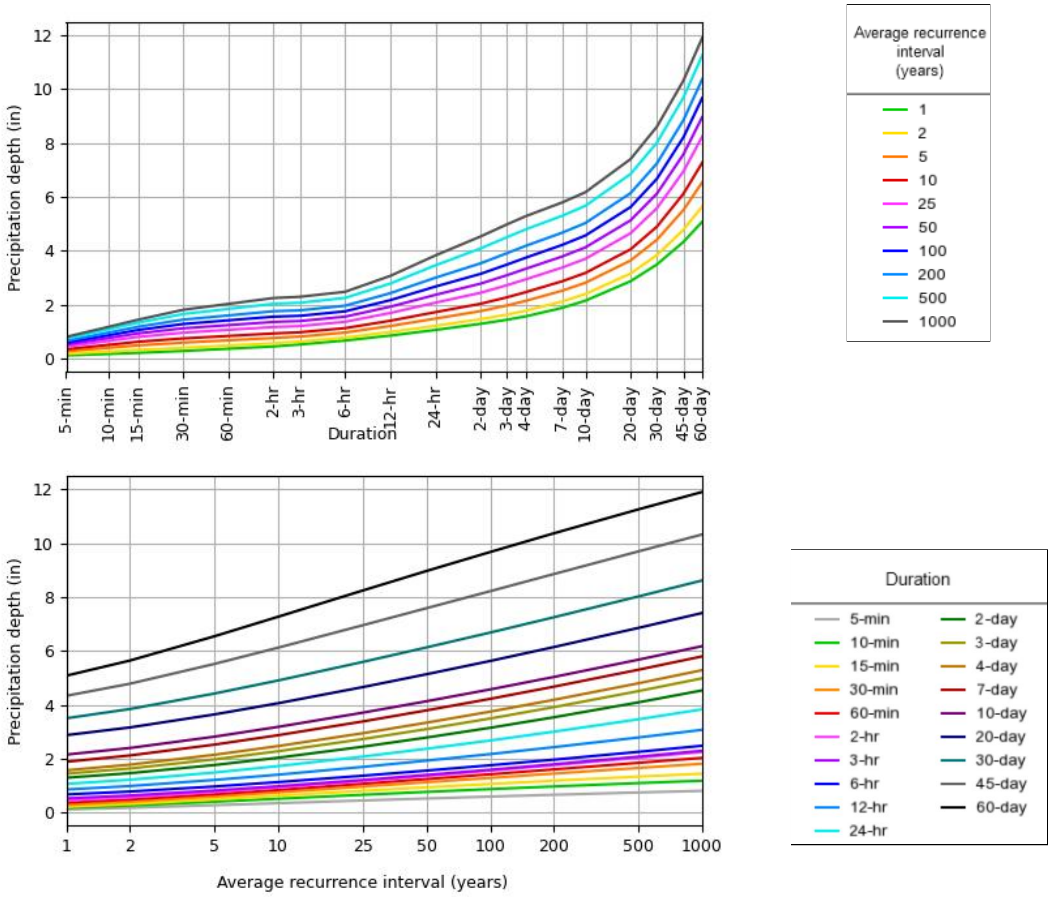
PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 40.2551°, Longitude: -106.8555°



NOAA Atlas 14, Volume 8, Version 2

Created (GMT): Wed Apr 17 21:54:57 2024

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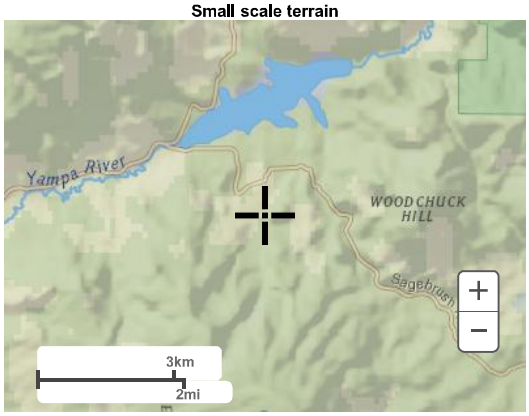
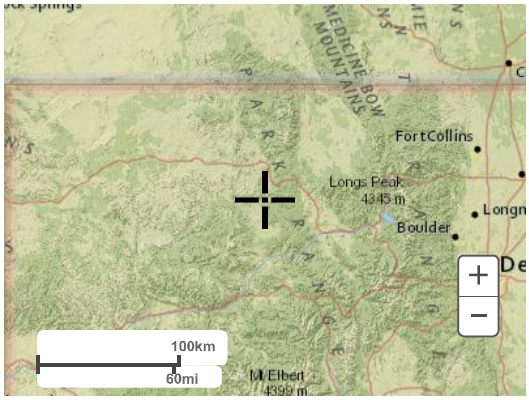
Maps & aerials

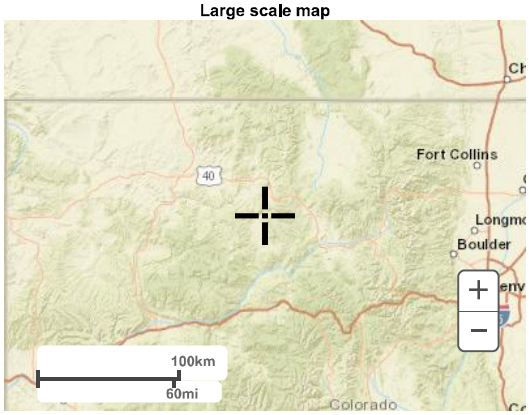
Small scale terrain



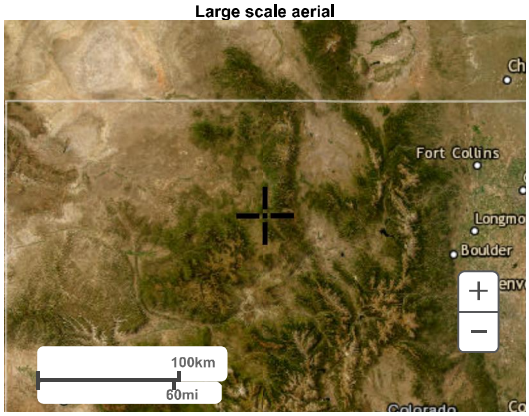
Large scale terrain



Large scale map



Large scale aerial



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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Table 5.6.3. Recommended Imperviousness Values

Land Use or Cover	Percent Impervious
Commercial/Mixed Use	
Downtown and Base Areas*	95
All Other Commercial Areas	75
Residential	
Single Family	
2.5 acres or larger lot size	12
0.75 – 2.5 acres lot size	20
0.25 – 0.75 acres lot size	30
0.25 acres or smaller lot size	45
Multifamily and Resort Residential	75
Industrial	
Light industrial	80
Heavy industrial	90
Parks, cemeteries	10
Playgrounds	25
Schools	55
Railroad yards	50
Undeveloped Areas	
Historic Flow analysis	2
Greenbelts, agriculture	2
Off-site flow analysis	45
(when land use not defined)	
Streets & Surfacing	
Paved (concrete/asphalt)	100
Road base or recycled asphalt	80
Gravel (uniformly graded)	40
Drives and walks	90
Roofs	90
Lawns and golf courses (all soils)	2

Reference: UDFCD (2016)
*Downtown and Base Area Commercial defined as CO, G1, and G2 zoned parcels

5.6.2.3 HEC Models

The USACE HEC has developed models designed to simulate various hydrologic and hydraulic processes. The HEC-1 Flood Hydrograph Package was the first hydrologic model developed. Its successor, HEC-HMS (Hydrologic Modeling System), is designed to simulate the precipitation-runoff processes of branching watershed systems. It is designed to be applicable in a wide range of geographic areas for modeling the widest possible range of hydrologic conditions. This includes large river basin water supply and flood hydrology, and small urban or natural watershed runoff.

Either program is acceptable for use in the City of Steamboat Springs. The designer is referred to the HEC-1 and HEC-HMS User's Manuals for additional guidance. The following subsections offer guidance for determining some of the inputs to the HEC programs.

Kimley»Horn

STANDARD FORM SF-1
RUNOFF COEFFICIENTS - IMPERVIOUS CALCULATION

PROJECT NAME: STAGECOACH **(EXISTING)**
PROJECT NUMBER: 196778000
CALCULATED BY: DCM
CHECKED BY: TOS

LAND USE:	PAVEMENT AREA	GRAVEL AREA	SINGLE FAMILY < 0.25-AC	SINGLE FAMILY 0.25 TO 0.75-AC	SINGLE FAMILY 0.75 TO 2.5-AC	SINGLE FAMILY 2.5 TO 5.0-AC	SINGLE FAMILY > 5.0-AC	PARK AREA	COMMERCIAL AREA	GREEN BELTS AREA		
IMPERVIOUS %	100%	40%	45%	30%	20%	12%	8%	10%	75%	2%		
BASIN	MAJOR BASIN	PAVEMENT AREA (AC)	GRAVEL AREA (AC)	SINGLE FAMILY < 0.25-AC (AC)	SINGLE FAMILY 0.25 TO 0.75-AC (AC)	SINGLE FAMILY 0.75 TO 2.5-AC (AC)	SINGLE FAMILY 2.5 TO 5.0-AC (AC)	SINGLE FAMILY > 5.0-AC (AC)	PARK AREA (AC)	COMMERCIAL AREA (AC)	GREEN BELTS AREA (AC)	TOTAL AREA (AC)	Imp %
100	100	0.28	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1120.8	**1130.1**	2.3%
101		0.48	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	404.4	**405.8**	2.2%
102		2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	154.4	**156.6**	3.4%
103		1.12	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.3	**50.7**	5.2%
200	200	0.00	2.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	86.9	**89.1**	2.9%
201		0.00	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47.8	**49.1**	2.9%
202		0.00	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	287.2	**293.0**	2.8%
203		0.00	3.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	283.5	**287.1**	2.5%
204		0.00	7.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1167.9	**1175.9**	2.3%
205		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	389.3	**389.3**	2.0%
206		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	399.0	**399.0**	2.0%
300	300	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52.8	**53.3**	2.3%
301		0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.8	**30.9**	2.1%
302		0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	86.4	**86.5**	2.0%
303		0.00	1.66	3.56	0.00	4.51	0.00	0.00	0.00	0.00	62.3	**72.1**	6.1%
304		0.15	2.07	0.55	0.00	27.53	4.98	0.00	0.00	0.00	6.0	**41.2**	18.1%
305		0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.8	**65.1**	2.2%
306		0.91	0.58	0.00	0.00	6.45	0.00	0.00	0.00	0.00	15.6	**23.6**	11.6%
307		0.84	0.59	0.17	0.00	16.13	0.00	0.00	0.00	0.00	7.1	**24.8**	18.2%
308		1.60	0.00	0.00	0.00	7.26	18.16	0.00	0.00	0.00	4.6	**31.6**	16.9%
309		6.02	0.00	8.70	0.00	45.94	0.00	0.00	0.43	0.00	96.1	**157.1**	13.4%
310		2.93	0.00	0.00	0.00	13.91	36.09	0.00	6.23	0.00	25.6	**84.8**	13.2%
311		0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.72	0.00	30.1	**37.8**	3.6%
400	400	1.78	4.93	0.53	0.00	27.74	0.00	0.00	0.00	9.55	439.0	**483.5**	5.3%
401		0.00	3.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	223.1	**227.1**	2.7%
402		0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52.0	**52.5**	2.4%
403		0.00	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.1	**34.2**	3.2%
404		0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	161.8	**162.2**	2.1%
405		0.00	1.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	59.8	**61.3**	2.9%
406		0.00	4.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	219.1	**224.1**	2.8%
407		0.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.2	**26.2**	3.3%
408		0.00	2.32	0.00	0.00	10.39	10.32	0.00	0.00	0.00	49.5	**72.5**	7.2%
409		1.68	2.38	0.00	0.00	7.29	16.98	0.00	0.00	7.65	269.6	**305.6**	5.6%
410		1.23	0.00	0.00	0.00	35.00	9.94	0.00	0.00	0.26	0.0	**46.4**	20.7%
411		0.97	0.00	3.57	0.00	6.24	0.00	0.00	0.00	0.00	2.5	**13.3**	29.3%
412		2.89	0.23	0.00	0.00	36.20	24.49	0.00	0.00	0.00	0.0	**63.8**	20.6%
413		1.69	0.26	0.00	0.00	23.90	4.23	0.00	0.00	0.00	0.0	**30.1**	23.6%
414		4.18	0.33	0.00	0.00	45.51	3.19	0.00	0.00	0.00	0.0	**53.2**	25.9%
415		0.48	5.15	0.00	0.00	7.26	60.24	0.00	0.00	0.00	83.3	**156.5**	8.2%
416		1.32	0.69	0.00	0.00	0.00	0.35	0.00	1.43	0.00	113.1	**116.9**	3.5%
417		0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.37	0.00	74.8	**79.2**	2.4%
418		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.8	**62.8**	2.0%
422		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.2	**14.2**	2.0%
500	500	0.00	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41.7	**43.1**	3.2%
501		0.00	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	125.1	**131.2**	3.8%
502		0.00	3.78	0.00	0.00	9.08	0.00	0.00	0.00	0.00	117.3	**130.2**	4.4%
503		0.00	1.87	0.00	0.00	11.69	0.00	0.00	0.00	0.00	126.1	**139.6**	4.0%
504		0.00	5.28	0.00	0.00	72.54	0.00	0.00	0.00	0.00	3.7	**81.6**	20.5%
600	600	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	357.6	**358.6**	2.1%
700	700	0.00	9.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1303.3	**1312.9**	2.3%
701		0.00	2.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	204.7	**206.9**	2.4%
800	800	0.00	27.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2773.9	**2801.8**	2.4%
801		0.00	18.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	780.6	**799.6**	2.9%
802		0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1994.8	**2007.1**	2.2%
803		0.00	2.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	157.1	**159.8**	2.6%
804		0.00	8.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	425.4	**434.3**	2.8%
805		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	418.3	**418.3**	2.0%
SUBTOTAL (MAJOR BASIN)	100	4.11	11.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1727.82	**1743.2**	2.5%
	200	0.00	20.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2661.76	**2682.5**	2.3%
	300	12.45	5.92	12.99	0.00	121.73	59.23	0.00	14.37	0.00	482.16	**708.9**	8.9%
	400	16.24	29.55	4.10	0.00	199.55	129.74	0.00	5.80	17.46	1882.99	**2285.4**	6.0%
	500	0.00	18.37	0.00	0.00	93.31	0.00	0.00	0.00	0.00	413.95	**525.6**	6.5%
	600	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	357.61	**358.6**	2.1%
	700	0.00	11.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1508.00	**1519.8**	2.3%
	800	0.00	70.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6550.22	**6620.9**	2.4%
TOTAL		32.81	169.37	17.08	0.00	414.59	188.97	0.00	20.18	17.46	15584.51	**16445.0**	3.3%

Comment	5-Year Design Storm Event		
1Hr Depth	0.684	NOAA Atlas 14 Point Precipitation Frequency Estimates: CO (Note: Use 60-minute recurrence interval depth)	
Return Period	5	Years	
Time	Depth	CurveValue	
0:05	0.014		0.02
0:10	0.025		0.037
0:15	0.06		0.087
0:20	0.105		0.153
0:25	0.171		0.25
0:30	0.089		0.13
0:35	0.04		0.058
0:40	0.03		0.044
0:45	0.025		0.036
0:50	0.025		0.036
0:55	0.021		0.03
1:00	0.021		0.03
1:05	0.021		0.03
1:10	0.021		0.03
1:15	0.017		0.025
1:20	0.015		0.022
1:25	0.015		0.022
1:30	0.015		0.022
1:35	0.015		0.022
1:40	0.01		0.015
1:45	0.01		0.015
1:50	0.01		0.015
1:55	0.01		0.015
2:00	0.009		0.013
2:05	0		

CUHP SUBCATCHMENTS

Columns with this color heading are for required user-input
Columns with this color heading are for optional override values
Columns with this color heading are for program-calculated values

								Maximum Depression Storage (Watershed inches)		Horton's Infiltration Parameters			DCIA
Subcatchment Name	EPA SWMM Target Node	Raingage	Area (acre)	Length to Centroid (ft)	Length (ft)	Slope (ft/ft)	Percent Imperviousness	Pervious	Impervious	Initial Rate (in/hr)	Decay Coefficient (1/seconds)	Final Rate (in/hr)	Level 0, 1, or 2
100	100	5YR	1130.1	9737.6	17740.8	0.06	2.3	0.35	0.1	3	0.0018	0.5	0
101	101	5YR	405.8	4901.8	8785.7	0.06	2.2	0.35	0.1	3	0.0018	0.5	0
102	102	5YR	156.6	2418.1	5888.5	0.06	3.4	0.35	0.1	3	0.0018	0.5	0
103	103	5YR	50.7	955.6	2559	0.06	5.2	0.35	0.1	3	0.0018	0.5	0
200	200	5YR	89.1	1904.6	3753.3	0.06	2.9	0.35	0.1	3.6	0.0015	0.7	0
201	201	5YR	49.1	1364.4	3213.5	0.06	2.9	0.35	0.1	3.9	0.0013	0.7	0
202	202	5YR	293	2159.8	5938.9	0.06	2.8	0.35	0.1	3.3	0.0016	0.6	0
203	203	5YR	287.1	2158.2	5584.6	0.06	2.5	0.35	0.1	3	0.0018	0.5	0
204	204	5YR	1175.9	8905	11586.7	0.06	2.3	0.35	0.1	3.1	0.0018	0.5	0
205	205	5YR	389.3	2003.2	4987	0.06	2	0.35	0.1	3	0.0018	0.5	0
206	206	5YR	399	4843.7	9646.3	0.06	2	0.35	0.1	3	0.0018	0.5	0
300	300	5YR	53.3	1431.8	3228	0.06	2.3	0.35	0.1	3	0.0018	0.5	0
301	301	5YR	30.9	1194	2220	0.06	2.1	0.35	0.1	3.2	0.0018	0.5	0
302	302	5YR	86.5	2642.3	4657.7	0.06	2	0.35	0.1	3	0.0018	0.5	0
303	303	5YR	72.1	1970.1	3348.3	0.06	6.1	0.35	0.1	3.4	0.0018	0.5	0
304	304	5YR	41.2	801.3	2226.7	0.06	18.1	0.35	0.1	3	0.0018	0.5	0
305	305	5YR	65.1	1760.2	4289.3	0.06	2.2	0.35	0.1	3	0.0018	0.5	0
306	306	5YR	23.6	618	1447.5	0.06	11.6	0.35	0.1	3	0.0018	0.5	0
307	307	5YR	24.8	1242.8	2071.9	0.06	18.2	0.35	0.1	3	0.0018	0.5	0
308	308	5YR	31.6	874.7	2092.6	0.06	16.9	0.35	0.1	3	0.0018	0.5	0
309	309	5YR	157.1	2591.1	5646.3	0.06	13.4	0.35	0.1	3	0.0018	0.5	0
310	310	5YR	84.8	1900.4	3426.3	0.06	13.2	0.35	0.1	3	0.0018	0.5	0
311	311	5YR	37.8	604.8	1681.7	0.06	3.6	0.35	0.1	3	0.0018	0.5	0
400	400	5YR	483.5	5636.6	10631.6	0.06	5.3	0.35	0.1	3	0.0018	0.5	0
401	401	5YR	227.1	2664.2	6071.1	0.06	2.7	0.35	0.1	3.6	0.0017	0.6	0
402	402	5YR	52.5	969.5	2536.1	0.06	2.4	0.35	0.1	3	0.0018	0.5	0
403	403	5YR	34.2	812.1	1793.3	0.06	3.2	0.35	0.1	3.2	0.0017	0.6	0
404	404	5YR	162.2	2214.2	5432.1	0.06	2.1	0.35	0.1	3	0.0018	0.5	0
405	405	5YR	61.3	1345.5	3162.7	0.06	2.9	0.35	0.1	3	0.0018	0.5	0
406	406	5YR	224.1	1992.8	5035.5	0.06	2.8	0.35	0.1	3.2	0.0017	0.6	0
407	407	5YR	26.2	656.3	2135.8	0.06	3.3	0.35	0.1	3	0.0018	0.5	0
408	408	5YR	72.5	1524.8	3669.7	0.06	7.2	0.35	0.1	3	0.0018	0.5	0
409	409	5YR	305.6	2823.9	7375.2	0.06	5.6	0.35	0.1	3	0.0018	0.5	0
410	410	5YR	46.4	758	1653.4	0.06	20.7	0.35	0.1	3	0.0018	0.5	0
411	411	5YR	13.3	562.2	1525.9	0.06	29.3	0.35	0.1	3	0.0018	0.5	0
412	412	5YR	63.8	886.6	2740	0.06	20.6	0.35	0.1	3	0.0018	0.5	0
413	413	5YR	30.1	895.3	2614	0.06	23.6	0.35	0.1	3	0.0018	0.5	0
414	414	5YR	53.2	1153.6	2897.5	0.06	25.9	0.35	0.1	3	0.0018	0.5	0
415	415	5YR	156.5	3472.4	6367.3	0.06	8.2	0.35	0.1	3	0.0018	0.5	0
416	416	5YR	116.9	1428	3827.3	0.06	3.5	0.35	0.1	3	0.0018	0.5	0
417	417	5YR	79.2	740.9	2363.1	0.06	2.4	0.35	0.1	3	0.0018	0.5	0
418	418	5YR	62.8	315.4	2342.4	0.06	2	0.35	0.1	3	0.0018	0.5	0
422	422	5YR	14.2	475	874	0.06	2	0.35	0.1	3	0.0018	0.5	0
500	500	5YR	43.1	1524.8	2481.8	0.06	3.2	0.35	0.1	3	0.0018	0.5	0
501	501	5YR	131.2	1958.6	4161.2	0.06	3.8	0.35	0.1	3	0.0018	0.5	0
502	502	5YR	130.2	2225.3	4340.8	0.06	4.4	0.35	0.1	3	0.0018	0.5	0
503	503	5YR	139.6	2385.5	5230.2	0.06	4	0.35	0.1	3	0.0018	0.5	0
504	504	5YR	81.6	1738	4000.4	0.06	20.5	0.35	0.1	3	0.0018	0.5	0
600	600	5YR	358.6	5321.4	9790.3	0.06	2.1	0.35	0.1	3	0.0018	0.5	0
700	700	5YR	1312.9	7848.6	16074.1	0.06	2.3	0.35	0.1	4	0.0015	0.7	0
701	701	5YR	206.9	3383.5	6450.2	0.06	2.4	0.35	0.1	3	0.0018	0.5	0
800	800	5YR	2801.8	16054.6	35869.9	0.06	2.4	0.35	0.1	4.3	0.0017	0.6	0
801	801	5YR	799.6	13786.4	20705.1	0.06	2.9	0.35	0.1	4.4	0.0014	0.7	0
802	802	5YR	2007.1	8822.7	19152.7	0.06	2.2	0.35	0.1	3.5	0.0018	0.5	0
803	803	5YR	159.8	3476.3	5324.9	0.06	2.6	0.35	0.1	3	0.0018	0.5	0
804	804	5YR	434.3	5289.5	9438.6	0.06	2.8	0.35	0.1	3	0.0018	0.5	0
805	805	5YR	418.3	5794.6	9789.2	0.06	2	0.35	0.1	3	0.0018	0.5	0

Summary of Unit Hydrograph Parameters Used By Program and Calculated Results (Version 2.0.1)

		Unit Hydrograph Parameters and Results									Excess Precip.		Storm Hydrograph			
Catchment Name/ID	User Comment for Catchment	CT	Cp	W50 (min.)	W50 Before Peak	W75 (min.)	W75 Before Peak	Time to Peak (min.)	Peak (cfs)	Volume (c.f)	Excess (inches)	Excess (c.f.)	Time to Peak (min.)	Peak Flow (cfs)	Total Volume (c.f.)	Runoff per Unit Area (cfs/acre)
100		0.157	0.429	81.0	27.00	42.1	19.08	45.0	654	4,102,263	0.01	22,618	74.0	3	22,618	0.00
101		0.158	0.316	56.5	14.03	29.4	9.91	23.4	337	1,473,054	0.01	7,748	55.0	2	7,748	0.00
102		0.154	0.233	44.2	8.21	23.0	5.80	13.7	166	568,458	0.01	4,767	46.0	1	4,767	0.01
103		0.150	0.144	29.9	3.59	15.5	2.54	6.0	80	184,041	0.01	2,469	38.0	1	2,469	0.02
200		0.156	0.193	38.9	6.05	20.2	4.28	10.1	107	323,433	0.00	1,048	40.0	0	1,048	0.00
201		0.156	0.147	40.2	4.85	20.9	3.43	8.1	57	178,233	0.00	336	39.0	0	336	0.00
202		0.157	0.285	34.8	7.93	18.1	5.60	13.2	394	1,063,590	0.00	4,934	42.0	2	4,934	0.01
203		0.157	0.284	34.0	7.71	17.7	5.45	12.9	396	1,042,173	0.01	6,279	43.0	2	6,278	0.01
204		0.157	0.435	62.5	21.15	32.5	14.95	35.3	882	4,268,517	0.01	23,248	64.0	4	23,248	0.00
205		0.158	0.313	28.4	7.13	14.8	5.04	11.9	643	1,413,159	0.00	6,722	41.0	3	6,722	0.01
206		0.158	0.316	59.1	14.62	30.7	10.33	24.4	317	1,448,370	0.00	6,889	56.0	1	6,889	0.00
300		0.157	0.154	39.8	5.00	20.7	3.53	8.3	63	193,479	0.01	1,067	42.0	0	1,067	0.01
301		0.158	0.121	38.9	3.91	20.2	2.76	6.5	37	112,167	0.00	548	41.0	0	548	0.01
302		0.158	0.192	51.2	7.85	26.6	5.55	13.1	79	313,995	0.00	1,494	46.0	0	1,494	0.00
303		0.148	0.166	41.0	5.53	21.3	3.91	9.2	82	261,723	0.02	4,031	42.0	1	4,031	0.01
304		0.119	0.109	26.9	2.54	14.0	1.80	4.2	72	149,556	0.07	10,837	36.0	3	10,838	0.08
305		0.158	0.169	46.0	6.25	23.9	4.42	10.4	66	236,313	0.01	1,243	44.0	0	1,243	0.00
306		0.132	0.091	25.6	2.08	13.3	1.47	3.5	43	85,668	0.04	3,162	36.0	1	3,162	0.05
307		0.119	0.087	40.2	2.97	20.9	2.10	5.0	29	90,024	0.07	6,576	40.0	1	6,576	0.06
308		0.120	0.097	30.9	2.61	16.0	1.84	4.3	48	114,708	0.07	7,514	37.0	2	7,515	0.06
309		0.126	0.195	43.6	6.83	22.7	4.83	11.4	169	570,273	0.05	26,402	44.0	6	26,402	0.04
310		0.126	0.156	37.1	4.75	19.3	3.35	7.9	107	307,824	0.05	13,926	41.0	3	13,925	0.04
311		0.154	0.129	22.4	2.52	11.7	1.78	4.2	79	137,214	0.01	1,225	36.0	1	1,225	0.01
400		0.150	0.317	62.7	15.57	32.6	11.00	25.9	362	1,755,105	0.01	24,058	57.0	4	24,058	0.01
401		0.157	0.264	42.0	8.84	21.9	6.24	14.7	253	824,373	0.00	3,739	45.0	1	3,739	0.00
402		0.157	0.153	29.6	3.76	15.4	2.66	6.3	83	190,575	0.01	1,099	38.0	0	1,099	0.01
403		0.156	0.125	27.9	2.97	14.5	2.10	4.9	58	124,146	0.01	733	36.0	0	732	0.01
404		0.158	0.241	40.3	7.75	21.0	5.48	12.9	188	588,786	0.01	2,948	44.0	1	2,948	0.01
405		0.156	0.162	35.9	4.77	18.6	3.37	7.9	80	222,519	0.01	1,571	41.0	0	1,571	0.01
406		0.157	0.263	33.6	7.08	17.5	5.00	11.8	313	813,483	0.01	4,132	41.0	1	4,132	0.01
407		0.155	0.110	30.8	2.91	16.0	2.05	4.8	40	95,106	0.01	772	38.0	0	772	0.01
408		0.144	0.163	37.7	5.02	19.6	3.55	8.4	90	263,175	0.02	5,128	41.0	1	5,128	0.02
409		0.149	0.275	43.3	9.44	22.5	6.67	15.7	331	1,109,328	0.01	16,184	47.0	4	16,184	0.01
410		0.115	0.113	21.1	2.13	11.0	1.51	3.6	103	168,432	0.09	14,775	33.0	5	14,771	0.11
411		0.104	0.064	28.2	1.69	14.7	1.19	2.8	22	48,279	0.14	6,798	35.0	2	6,797	0.13
412		0.115	0.131	25.1	2.82	13.1	2.00	4.7	119	231,594	0.09	20,181	36.0	6	20,179	0.10
413		0.111	0.092	33.8	2.69	17.6	1.90	4.5	42	109,263	0.10	11,447	37.0	3	11,447	0.09
414		0.108	0.119	30.3	3.06	15.8	2.17	5.1	82	193,116	0.12	22,945	37.0	6	22,943	0.11
415		0.142	0.215	54.2	9.26	28.2	6.54	15.4	135	568,095	0.02	12,900	49.0	3	12,900	0.02
416		0.154	0.215	30.2	5.29	15.7	3.74	8.8	181	424,347	0.01	3,673	40.0	1	3,673	0.01
417		0.157	0.183	20.9	3.24	10.9	2.29	5.4	178	287,496	0.01	1,658	36.0	1	1,658	0.01
418		0.158	0.166	15.3	2.26	8.0	1.59	3.8	192	227,964	0.00	1,084	33.0	1	1,084	0.01
422		0.158	0.085	22.7	1.78	11.8	1.26	3.0	29	51,546	0.00	245	35.0	0	245	0.01
500		0.155	0.138	39.7	4.50	20.7	3.18	7.5	51	156,453	0.01	1,229	41.0	0	1,229	0.01
501		0.153	0.220	35.6	6.31	18.5	4.46	10.5	173	476,256	0.01	4,510	42.0	1	4,509	0.01
502		0.152	0.217	38.7	6.76	20.1	4.78	11.3	158	472,626	0.01	5,260	43.0	1	5,260	0.01
503		0.153	0.223	42.9	7.65	22.3	5.41	12.8	153	506,748	0.01	5,076	45.0	1	5,076	0.01
504		0.115	0.146	37.3	4.49	19.4	3.17	7.5	103	296,208	0.09	25,641	40.0	6	25,641	0.07
600		0.158	0.305	64.3	15.37	33.4	10.86	25.6	262	1,301,718	0.01	6,519	57.0	1	6,519	0.00
700		0.158	0.450	66.6	23.30	34.6	15.58	38.9	924	4,765,827	0.00	9,971	67.0	2	9,971	0.00
701		0.157	0.258	49.9	10.17	26.0	7.19	17.0	194	751,047	0.01	4,332	49.0	1	4,332	0.00
800		0.157	0.564	109.9	38.47	57.2	25.72	79.9	1,195	10,170,534	0.00	35,017	109.0	4	35,017	0.00
801		0.156	0.385	114.3	34.06	59.4	24.07	56.8	328	2,902,548	0.00	5,259	93.0	1	5,258	0.00
802		0.158	0.511	67.4	23.61	35.1	15.78	44.6	1,395	7,285,773	0.00	35,982	73.0	6	35,981	0.00
803		0.157	0.238	49.8	9.39	25.9	6.64	15.7	150	580,074	0.01	3,644	48.0	1	3,644	0.01
804		0.156	0.320	59.4	14.90	30.9	10.53	24.8	343	1,576,509	0.01	10,721	56.0	2	10,721	0.00
805		0.158	0.320	63.9	16.02	33.2	11.32	26.7	307	1,518,429	0.00	7,223	58.0	1	7,223	0.00

Comment	100-Year Design Storm Event		
1Hr Depth	1.42	NOAA Atlas 14 Point Precipitation Frequency Estimates: CO (Note: Use 60-minute recurrence interval depth)	
Return Period	100	Years	
Time	Depth	CurveValue	
0:05	0.014		0.01
0:10	0.043		0.03
0:15	0.065		0.046
0:20	0.114		0.08
0:25	0.199		0.14
0:30	0.355		0.25
0:35	0.199		0.14
0:40	0.114		0.08
0:45	0.088		0.062
0:50	0.071		0.05
0:55	0.057		0.04
1:00	0.057		0.04
1:05	0.057		0.04
1:10	0.028		0.02
1:15	0.028		0.02
1:20	0.017		0.012
1:25	0.017		0.012
1:30	0.017		0.012
1:35	0.017		0.012
1:40	0.017		0.012
1:45	0.017		0.012
1:50	0.017		0.012
1:55	0.017		0.012
2:00	0.017		0.012
2:05	0		

CUHP SUBCATCHMENTS

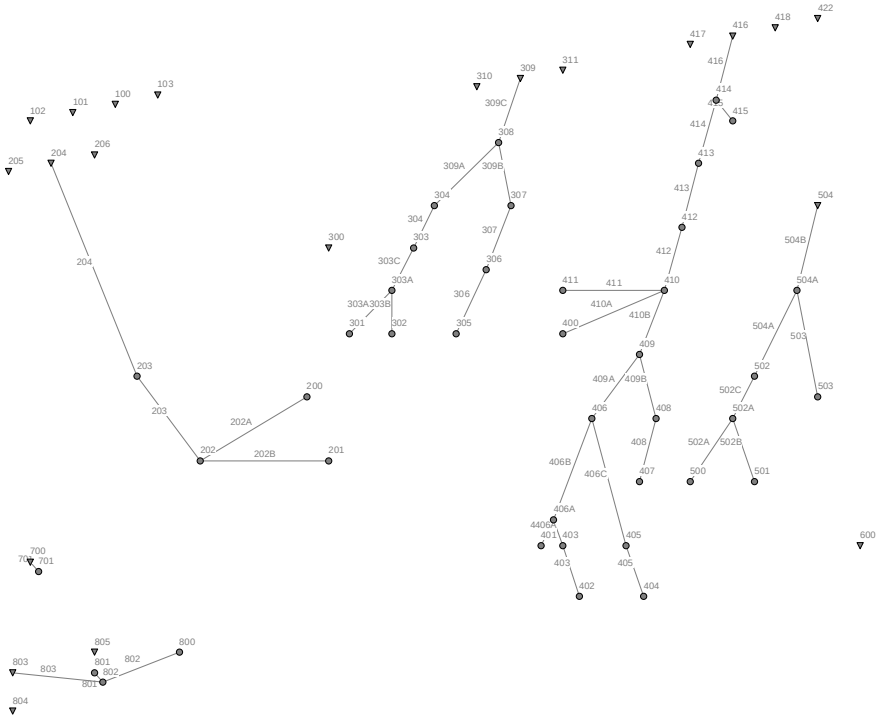
Columns with this color heading are for required user-input
Columns with this color heading are for optional override values
Columns with this color heading are for program-calculated values

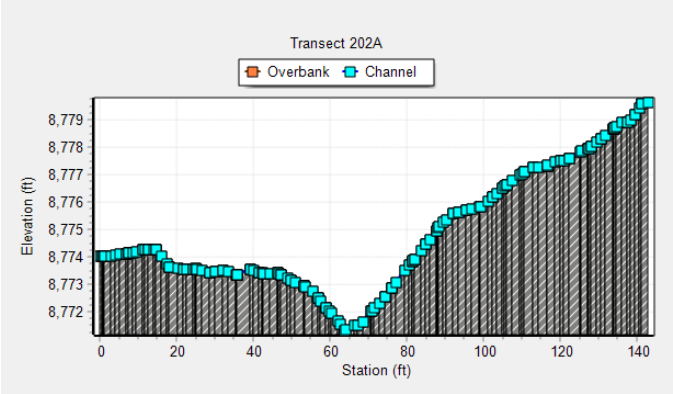
								Maximum Depression Storage (Watershed inches)		Horton's Infiltration Parameters			DCIA
Subcatchment Name	EPA SWMM Target Node	Raingage	Area (acre)	Length to Centroid (ft)	Length (ft)	Slope (ft/ft)	Percent Imperviousness	Pervious	Impervious	Initial Rate (in/hr)	Decay Coefficient (1/seconds)	Final Rate (in/hr)	Level 0, 1, or 2
100	100	100YR	1130.1	9737.6	17740.8	0.06	2.3	0.35	0.1	3	0.0018	0.5	0
101	101	100YR	405.8	4901.8	8785.7	0.06	2.2	0.35	0.1	3	0.0018	0.5	0
102	102	100YR	156.6	2418.1	5888.5	0.06	3.4	0.35	0.1	3	0.0018	0.5	0
103	103	100YR	50.7	955.6	2559	0.06	5.2	0.35	0.1	3	0.0018	0.5	0
200	200	100YR	89.1	1904.6	3753.3	0.06	2.9	0.35	0.1	3.6	0.0015	0.7	0
201	201	100YR	49.1	1364.4	3213.5	0.06	2.9	0.35	0.1	3.9	0.0013	0.7	0
202	202	100YR	293	2159.8	5938.9	0.06	2.8	0.35	0.1	3.3	0.0016	0.6	0
203	203	100YR	287.1	2158.2	5584.6	0.06	2.5	0.35	0.1	3	0.0018	0.5	0
204	204	100YR	1175.9	8905	11586.7	0.06	2.3	0.35	0.1	3.1	0.0018	0.5	0
205	205	100YR	389.3	2003.2	4987	0.06	2	0.35	0.1	3	0.0018	0.5	0
206	206	100YR	399	4843.7	9646.3	0.06	2	0.35	0.1	3	0.0018	0.5	0
300	300	100YR	53.3	1431.8	3228	0.06	2.3	0.35	0.1	3	0.0018	0.5	0
301	301	100YR	30.9	1194	2220	0.06	2.1	0.35	0.1	3.2	0.0018	0.5	0
302	302	100YR	86.5	2642.3	4657.7	0.06	2	0.35	0.1	3	0.0018	0.5	0
303	303	100YR	72.1	1970.1	3348.3	0.06	6.1	0.35	0.1	3.4	0.0018	0.5	0
304	304	100YR	41.2	801.3	2226.7	0.06	18.1	0.35	0.1	3	0.0018	0.5	0
305	305	100YR	65.1	1760.2	4289.3	0.06	2.2	0.35	0.1	3	0.0018	0.5	0
306	306	100YR	23.6	618	1447.5	0.06	11.6	0.35	0.1	3	0.0018	0.5	0
307	307	100YR	24.8	1242.8	2071.9	0.06	18.2	0.35	0.1	3	0.0018	0.5	0
308	308	100YR	31.6	874.7	2092.6	0.06	16.9	0.35	0.1	3	0.0018	0.5	0
309	309	100YR	157.1	2591.1	5646.3	0.06	13.4	0.35	0.1	3	0.0018	0.5	0
310	310	100YR	84.8	1900.4	3426.3	0.06	13.2	0.35	0.1	3	0.0018	0.5	0
311	311	100YR	37.8	604.8	1681.7	0.06	3.6	0.35	0.1	3	0.0018	0.5	0
400	400	100YR	483.5	5636.6	10631.6	0.06	5.3	0.35	0.1	3	0.0018	0.5	0
401	401	100YR	227.1	2664.2	6071.1	0.06	2.7	0.35	0.1	3.6	0.0017	0.6	0
402	402	100YR	52.5	969.5	2536.1	0.06	2.4	0.35	0.1	3	0.0018	0.5	0
403	403	100YR	34.2	812.1	1793.3	0.06	3.2	0.35	0.1	3.2	0.0017	0.6	0
404	404	100YR	162.2	2214.2	5432.1	0.06	2.1	0.35	0.1	3	0.0018	0.5	0
405	405	100YR	61.3	1345.5	3162.7	0.06	2.9	0.35	0.1	3	0.0018	0.5	0
406	406	100YR	224.1	1992.8	5035.5	0.06	2.8	0.35	0.1	3.2	0.0017	0.6	0
407	407	100YR	26.2	656.3	2135.8	0.06	3.3	0.35	0.1	3	0.0018	0.5	0
408	408	100YR	72.5	1524.8	3669.7	0.06	7.2	0.35	0.1	3	0.0018	0.5	0
409	409	100YR	305.6	2823.9	7375.2	0.06	5.6	0.35	0.1	3	0.0018	0.5	0
410	410	100YR	46.4	758	1653.4	0.06	20.7	0.35	0.1	3	0.0018	0.5	0
411	411	100YR	13.3	562.2	1525.9	0.06	29.3	0.35	0.1	3	0.0018	0.5	0
412	412	100YR	63.8	886.6	2740	0.06	20.6	0.35	0.1	3	0.0018	0.5	0
413	413	100YR	30.1	895.3	2614	0.06	23.6	0.35	0.1	3	0.0018	0.5	0
414	414	100YR	53.2	1153.6	2897.5	0.06	25.9	0.35	0.1	3	0.0018	0.5	0
415	415	100YR	156.5	3472.4	6367.3	0.06	8.2	0.35	0.1	3	0.0018	0.5	0
416	416	100YR	116.9	1428	3827.3	0.06	3.5	0.35	0.1	3	0.0018	0.5	0
417	417	100YR	79.2	740.9	2363.1	0.06	2.4	0.35	0.1	3	0.0018	0.5	0
418	418	100YR	62.8	315.4	2342.4	0.06	2	0.35	0.1	3	0.0018	0.5	0
422	422	100YR	14.2	475	874	0.06	2	0.35	0.1	3	0.0018	0.5	0
500	500	100YR	43.1	1524.8	2481.8	0.06	3.2	0.35	0.1	3	0.0018	0.5	0
501	501	100YR	131.2	1958.6	4161.2	0.06	3.8	0.35	0.1	3	0.0018	0.5	0
502	502	100YR	130.2	2225.3	4340.8	0.06	4.4	0.35	0.1	3	0.0018	0.5	0
503	503	100YR	139.6	2385.5	5230.2	0.06	4	0.35	0.1	3	0.0018	0.5	0
504	504	100YR	81.6	1738	4000.4	0.06	20.5	0.35	0.1	3	0.0018	0.5	0
600	600	100YR	358.6	5321.4	9790.3	0.06	2.1	0.35	0.1	3	0.0018	0.5	0
700	700	100YR	1312.9	7848.6	16074.1	0.06	2.3	0.35	0.1	4	0.0015	0.7	0
701	701	100YR	206.9	3383.5	6450.2	0.06	2.4	0.35	0.1	3	0.0018	0.5	0
800	800	100YR	2801.8	16054.6	35869.9	0.06	2.4	0.35	0.1	4.3	0.0017	0.6	0
801	801	100YR	799.6	13786.4	20705.1	0.06	2.9	0.35	0.1	4.4	0.0014	0.7	0
802	802	100YR	2007.1	8822.7	19152.7	0.06	2.2	0.35	0.1	3.5	0.0018	0.5	0
803	803	100YR	159.8	3476.3	5324.9	0.06	2.6	0.35	0.1	3	0.0018	0.5	0
804	804	100YR	434.3	5289.5	9438.6	0.06	2.8	0.35	0.1	3	0.0018	0.5	0
805	805	100YR	418.3	5794.6	9789.2	0.06	2	0.35	0.1	3	0.0018	0.5	0

Summary of Unit Hydrograph Parameters Used By Program and Calculated Results (Version 2.0.1)

		Unit Hydrograph Parameters and Results									Excess Precip.		Storm Hydrograph			
Catchment Name/ID	User Comment for Catchment	CT	Cp	W50 (min.)	W50 Before Peak	W75 (min.)	W75 Before Peak	Time to Peak (min.)	Peak (cfs)	Volume (c.f)	Excess (inches)	Excess (c.f.)	Time to Peak (min.)	Peak Flow (cfs)	Total Volume (c.f.)	Runoff per Unit Area (cfs/acre)
100		0.156	0.426	80.9	26.77	42.1	18.92	44.6	654	4,102,263	0.49	1,991,434	81.0	301	1,991,423	0.27
101		0.156	0.314	56.5	13.92	29.4	9.83	23.2	337	1,473,054	0.48	713,866	63.0	144	713,862	0.35
102		0.153	0.230	44.1	8.11	23.0	5.73	13.5	166	568,458	0.49	281,179	54.0	68	281,176	0.43
103		0.147	0.141	29.8	3.53	15.5	2.49	5.9	80	184,041	0.51	93,831	45.0	29	93,827	0.58
200		0.155	0.191	38.9	5.99	20.2	4.24	10.0	107	323,433	0.28	89,614	49.0	26	89,610	0.30
201		0.155	0.146	40.2	4.81	20.9	3.40	8.0	57	178,233	0.23	40,162	49.0	11	40,162	0.23
202		0.155	0.282	34.8	7.84	18.1	5.54	13.1	394	1,063,590	0.37	398,581	51.0	123	398,578	0.42
203		0.155	0.281	34.0	7.65	17.7	5.40	12.7	396	1,042,173	0.49	507,655	50.0	150	507,616	0.52
204		0.156	0.431	62.5	20.97	32.5	14.82	35.0	883	4,268,517	0.48	2,059,380	72.0	390	2,059,379	0.33
205		0.157	0.311	28.4	7.08	14.8	5.00	11.8	643	1,413,159	0.48	682,494	48.0	232	682,476	0.59
206		0.157	0.313	59.1	14.52	30.7	10.26	24.2	317	1,448,370	0.48	699,499	64.0	136	699,497	0.34
300		0.156	0.153	39.7	4.96	20.7	3.50	8.3	63	193,479	0.49	93,924	50.0	24	93,922	0.45
301		0.157	0.120	38.9	3.88	20.2	2.74	6.5	37	112,167	0.48	53,593	49.0	14	53,591	0.45
302		0.157	0.191	51.2	7.79	26.6	5.51	13.0	79	313,995	0.48	151,646	55.0	32	151,644	0.37
303		0.144	0.162	40.9	5.41	21.3	3.82	9.0	83	261,723	0.51	132,411	51.0	33	132,411	0.46
304		0.116	0.108	26.5	2.49	13.8	1.76	4.2	73	149,556	0.63	93,721	43.0	30	93,723	0.72
305		0.156	0.167	46.0	6.20	23.9	4.38	10.3	66	236,313	0.48	114,521	53.0	26	114,517	0.41
306		0.126	0.088	25.4	2.01	13.2	1.42	3.4	43	85,668	0.57	48,485	42.0	16	48,477	0.69
307		0.116	0.086	39.7	2.91	20.6	2.06	4.8	29	90,024	0.63	56,500	47.0	13	56,497	0.54
308		0.118	0.096	30.5	2.55	15.9	1.80	4.3	49	114,708	0.62	70,576	45.0	20	70,577	0.65
309		0.123	0.192	43.3	6.69	22.5	4.73	11.1	170	570,273	0.58	332,195	52.0	78	332,190	0.49
310		0.123	0.154	36.8	4.64	19.1	3.28	7.7	108	307,824	0.58	178,744	48.0	47	178,743	0.55
311		0.152	0.127	22.4	2.49	11.6	1.76	4.2	79	137,214	0.50	68,101	42.0	26	68,097	0.69
400		0.147	0.312	62.6	15.27	32.5	10.79	25.4	362	1,755,105	0.51	896,314	66.0	165	896,310	0.34
401		0.155	0.262	42.0	8.74	21.8	6.18	14.6	253	824,373	0.38	311,890	53.0	83	311,885	0.36
402		0.156	0.151	29.6	3.73	15.4	2.64	6.2	83	190,575	0.49	92,673	46.0	29	92,667	0.56
403		0.153	0.123	27.9	2.93	14.5	2.07	4.9	58	124,146	0.40	49,243	44.0	17	49,238	0.50
404		0.157	0.239	40.3	7.70	21.0	5.44	12.8	188	588,786	0.48	284,846	52.0	74	284,847	0.45
405		0.154	0.161	35.8	4.72	18.6	3.34	7.9	80	222,519	0.49	109,134	48.0	30	109,130	0.49
406		0.155	0.260	33.5	7.00	17.4	4.95	11.7	313	813,483	0.39	319,699	49.0	101	319,685	0.45
407		0.153	0.109	30.8	2.87	16.0	2.03	4.8	40	95,106	0.49	46,963	46.0	14	46,958	0.55
408		0.141	0.159	37.6	4.90	19.6	3.46	8.2	90	263,175	0.53	138,688	49.0	37	138,686	0.50
409		0.146	0.270	43.2	9.25	22.5	6.54	15.4	332	1,109,328	0.51	569,358	54.0	139	569,356	0.46
410		0.112	0.112	20.8	2.09	10.8	1.48	3.5	105	168,432	0.65	109,756	41.0	41	109,729	0.88
411		0.102	0.067	26.4	1.66	13.7	1.17	2.8	24	48,279	0.74	35,582	41.0	11	35,575	0.81
412		0.112	0.130	24.7	2.76	12.9	1.95	4.6	121	231,594	0.65	150,691	42.0	50	150,680	0.78
413		0.109	0.092	33.1	2.64	17.2	1.86	4.4	43	109,263	0.68	74,290	46.0	20	74,289	0.65
414		0.106	0.118	29.7	3.00	15.5	2.12	5.0	84	193,116	0.70	135,704	44.0	39	135,694	0.73
415		0.137	0.210	54.0	8.99	28.1	6.35	15.0	136	568,095	0.54	304,300	57.0	61	304,297	0.39
416		0.152	0.212	30.2	5.22	15.7	3.69	8.7	181	424,347	0.50	210,253	47.0	66	210,243	0.57
417		0.156	0.182	20.9	3.22	10.9	2.27	5.4	178	287,496	0.49	139,803	42.0	57	139,779	0.72
418		0.157	0.165	15.3	2.24	8.0	1.58	3.7	192	227,964	0.48	110,097	40.0	55	110,070	0.87
422		0.157	0.085	22.7	1.77	11.8	1.25	3.0	29	51,546	0.48	24,894	41.0	9	24,890	0.66
500		0.153	0.136	39.7	4.45	20.6	3.15	7.4	51	156,453	0.49	77,125	49.0	20	77,124	0.46
501		0.151	0.217	35.6	6.23	18.5	4.40	10.4	173	476,256	0.50	237,173	50.0	67	237,167	0.51
502		0.149	0.214	38.7	6.65	20.1	4.70	11.1	158	472,626	0.50	237,757	51.0	63	237,759	0.48
503		0.151	0.220	42.9	7.54	22.3	5.33	12.6	153	506,748	0.50	253,211	53.0	62	253,209	0.44
504		0.113	0.145	36.7	4.39	19.1	3.10	7.3	104	296,208	0.65	192,447	48.0	49	192,447	0.60
600		0.157	0.303	64.3	15.25	33.4	10.78	25.4	262	1,301,718	0.48	629,753	67.0	114	629,746	0.32
700		0.157	0.447	66.6	23.15	34.6	16.36	38.6	925	4,765,827	0.26	1,221,409	73.0	230	1,221,395	0.18
701		0.156	0.255	49.9	10.09	25.9	7.13	16.8	194	751,047	0.49	365,219	57.0	80	365,217	0.39
800		0.156	0.559	109.9	38.46	57.1	25.71	79.2	1,195	10,170,534	0.35	3,574,501	115.0	411	3,574,504	0.15
801		0.155	0.381	114.2	33.77	59.4	23.86	56.3	328	2,902,548	0.23	665,277	93.0	74	665,275	0.09
802		0.156	0.507	67.4	23.60	35.1	15.78	44.3	1,395	7,285,773	0.47	3,421,801	81.0	609	3,421,810	0.30
803		0.155	0.235	49.8	9.31	25.9	6.58	15.5	150	580,074	0.49	283,044	56.0	62	283,036	0.39
804		0.154	0.317	59.4	14.74	30.9	10.42	24.6	343	1,576,509	0.49	771,881	65.0	149	771,863	0.34
805		0.157	0.318	63.9	15.90	33.2	11.24	26.5	307	1,518,429	0.48	733,334	67.0	134	733,336	0.32

Stagecoach - Existing Conditions (Linked to CUHP)




Transect 202A
Overbank
Channel
Elevation (ft)
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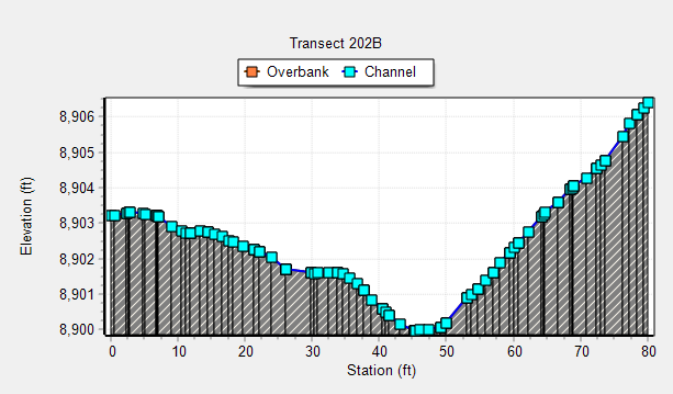
8,778
8,777
8,776
8,775
8,774
8,773
8,772
0
20
40
60
80
100
120
140
Station (ft)


Transect 202B
Overbank
Channel
Elevation (ft)
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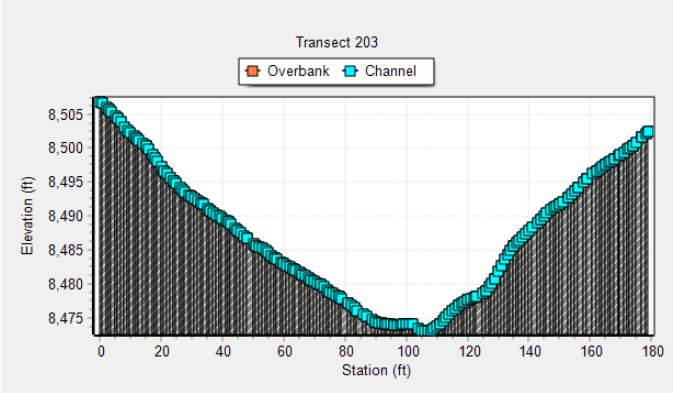
8,905
8,904
8,903
8,902
8,901
8,900
0
10
20
30
40
50
60
70
80
Station (ft)


Transect 203
Overbank
Channel
Elevation (ft)
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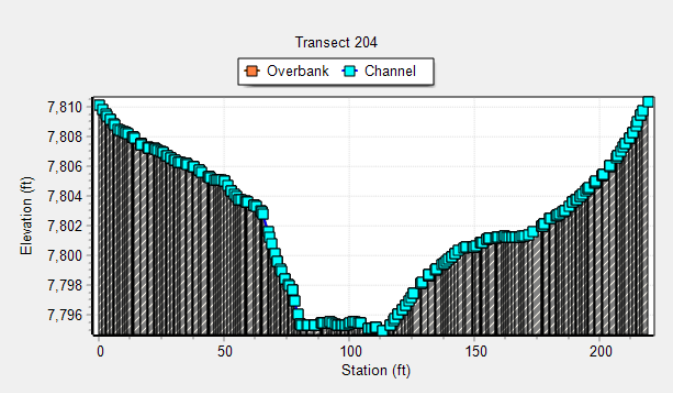
8,500
8,495
8,490
8,485
8,480
8,475
0
20
40
60
80
100
120
140
160
180
Station (ft)


Transect 204
Overbank
Channel
Elevation (ft)
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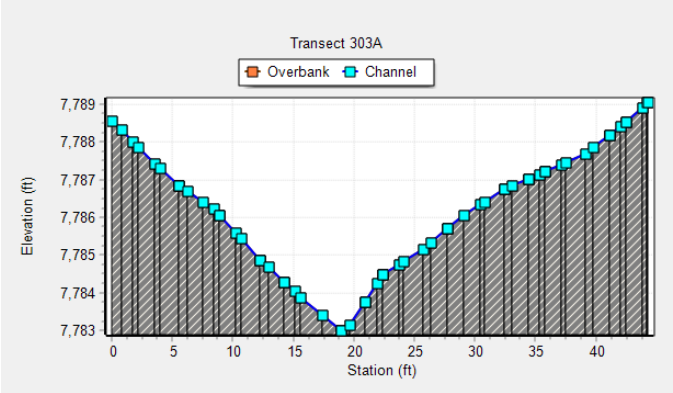
7,806
7,804
7,802
7,800
7,798
7,796
0
50
100
150
200
Station (ft)


Transect 303A
Overbank
Channel
Elevation (ft)
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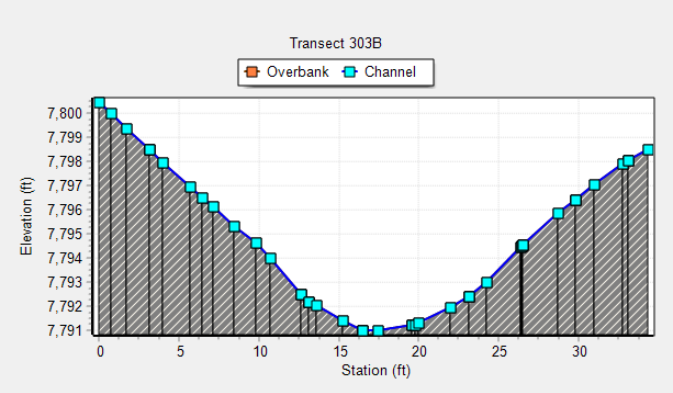
7,788
7,787
7,786
7,785
7,784
7,783
0
5
10
15
20
25
30
35
40
Station (ft)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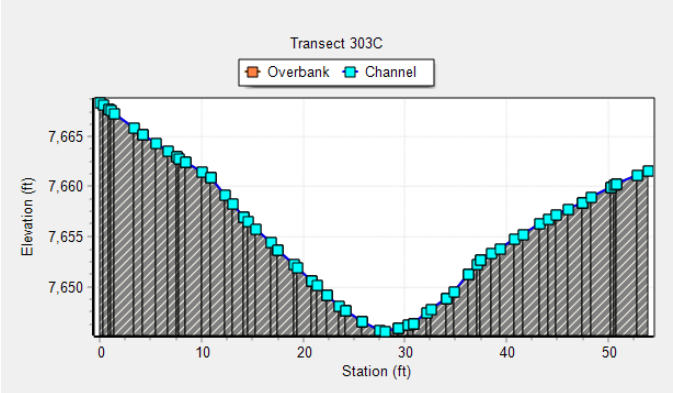
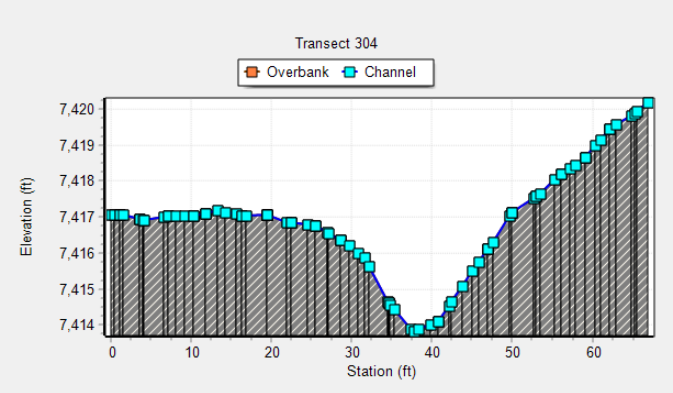
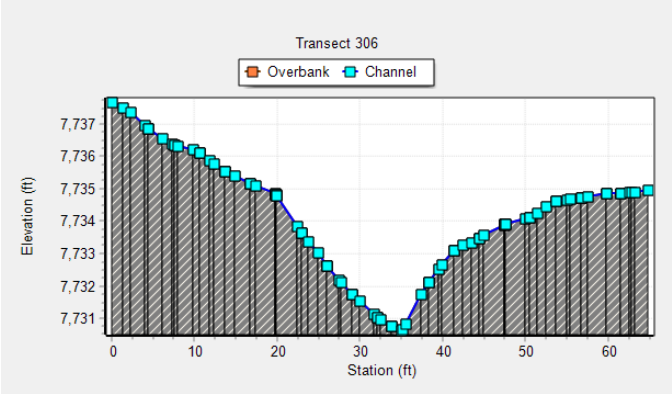
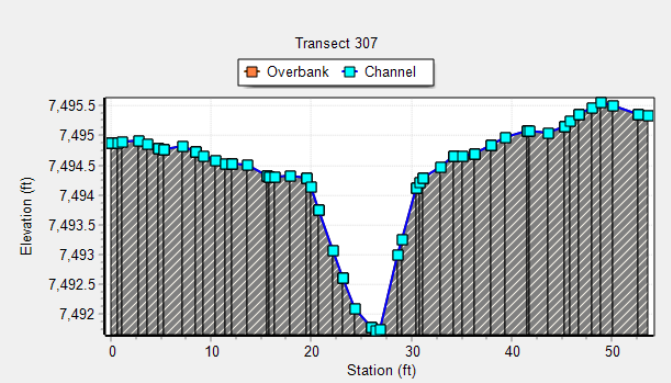
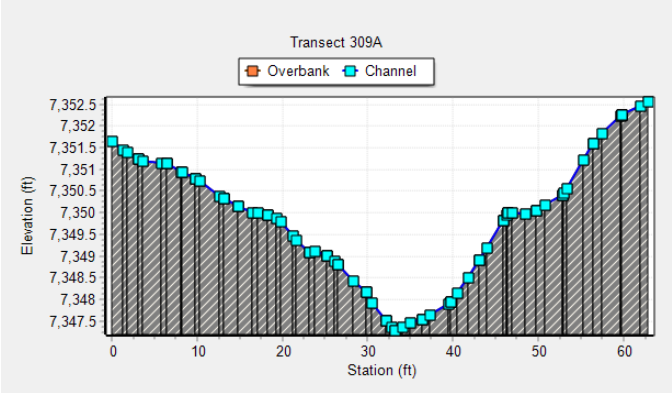
Overbank
Channel
Elevation (ft)
7,800
7,799
7,798
7,797
7,796
7,795
7,794
7,793
7,792
7,791
0
5
10
15
20
25
30
Station (ft)

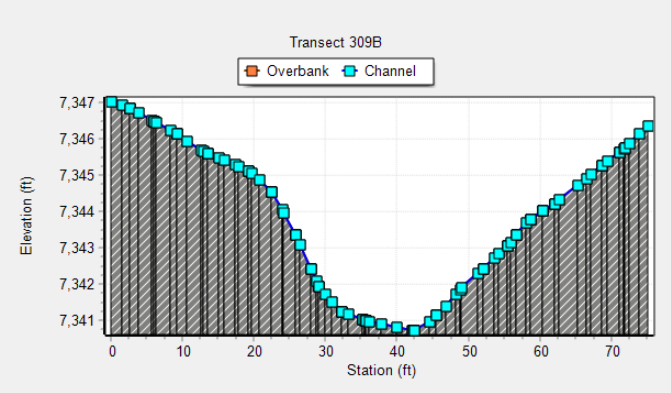

Transect 303C
Overbank
Channel
Elevation (ft)
7,665
7,660
7,655
7,650
0
10
20
30
40
50
Station (ft)

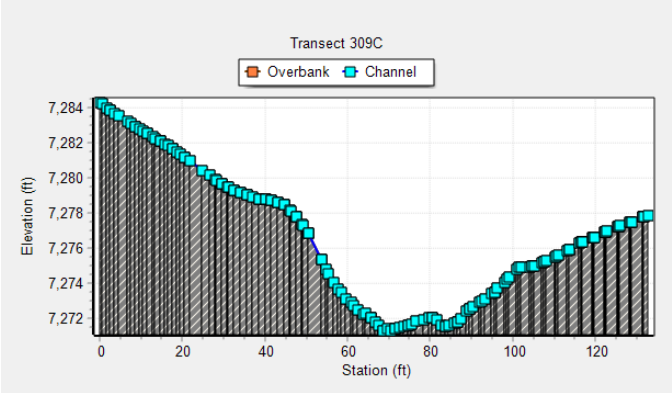

Transect 304
Overbank
Channel
Elevation (ft)
7,420
7,419
7,418
7,417
7,416
7,415
7,414
0
10
20
30
40
50
60
Station (ft)

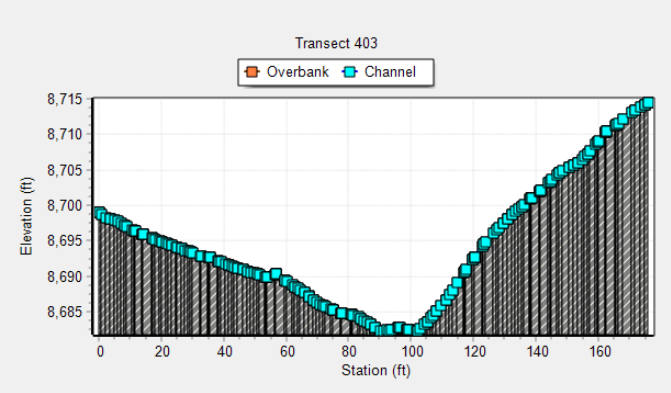




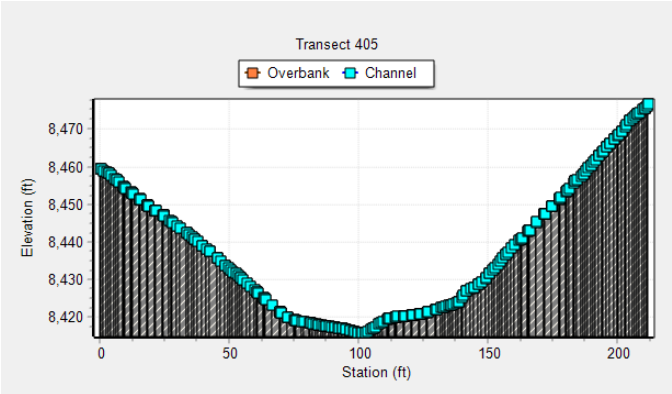


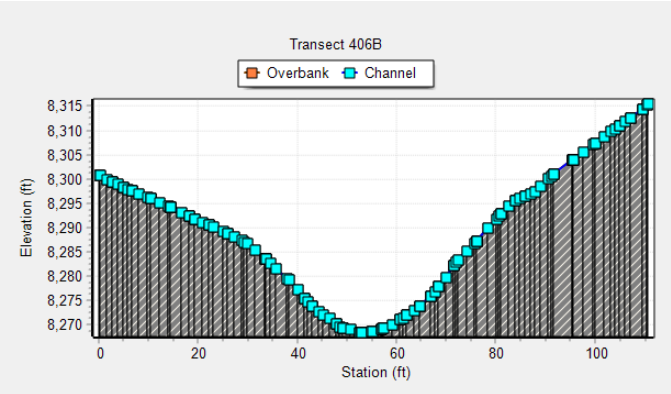


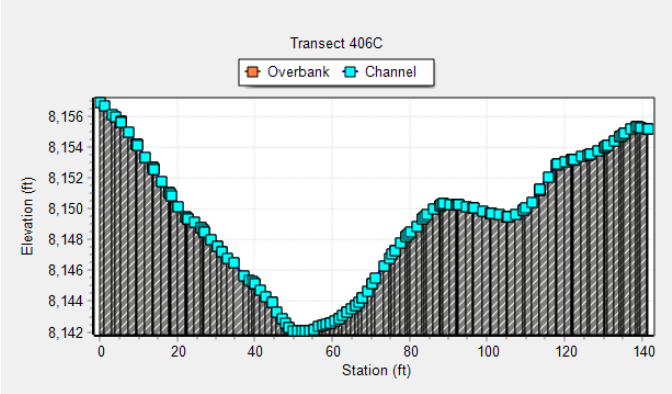


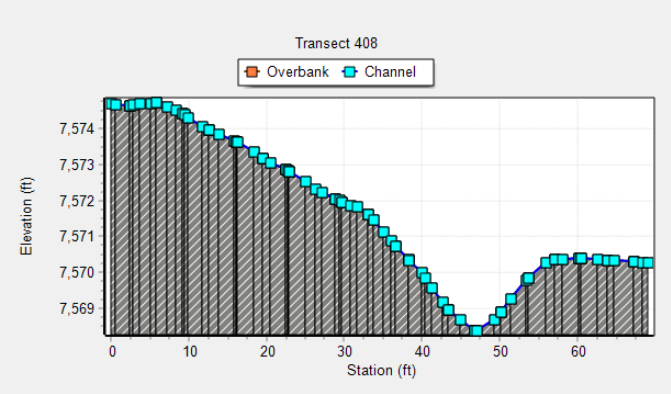


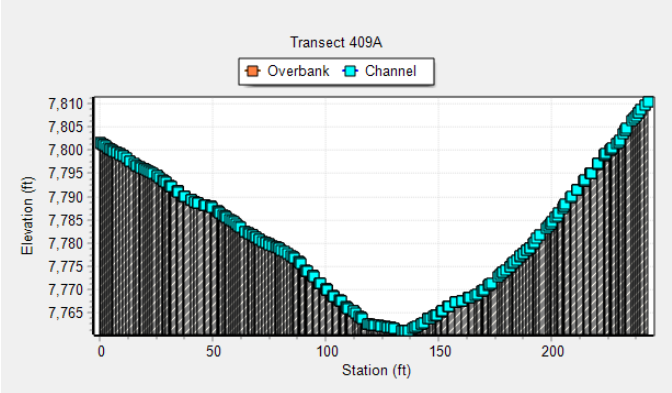
Transect 403 used for Conduit 403 and 406A

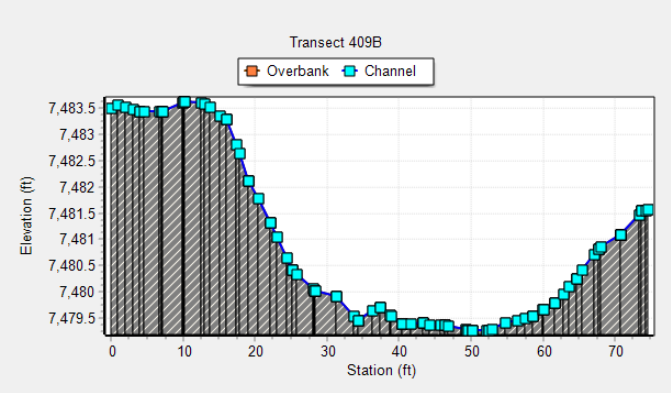


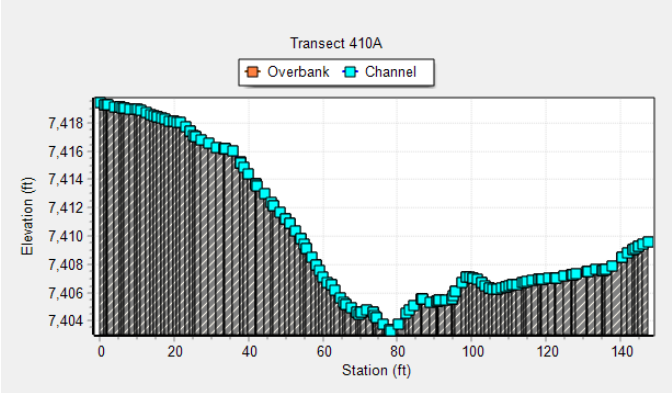


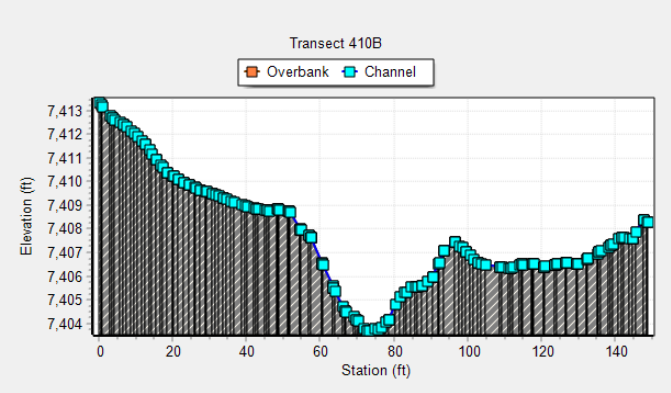

Transect 406C
Overbank
Channel
Elevation (ft)
8,156
8,154
8,152
8,150
8,148
8,146
8,144
8,142
0
20
40
60
80
100
120
140
Station (ft)

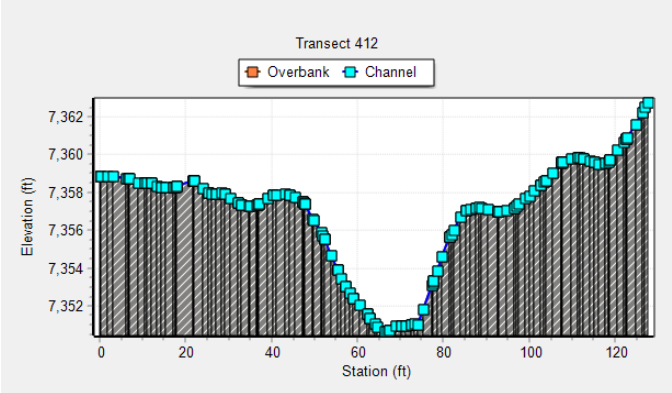

Transect 408
Overbank
Channel
Elevation (ft)
7,574
7,573
7,572
7,571
7,570
7,569
0
10
20
30
40
50
60
Station (ft)

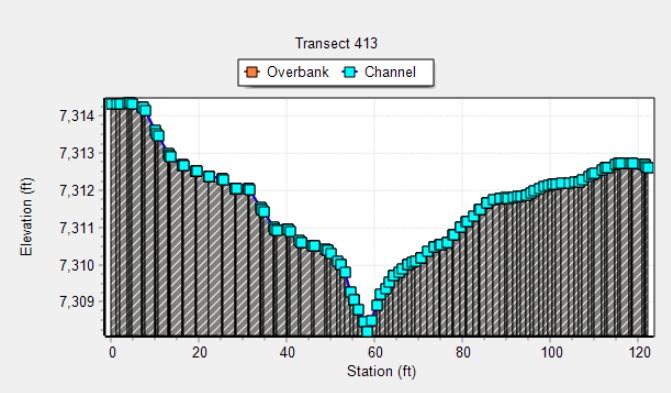

Transect 409A
Overbank
Channel
Elevation (ft)
7,810
7,805
7,800
7,795
7,790
7,785
7,780
7,775
7,770
7,765
0
50
100
150
200
Station (ft)

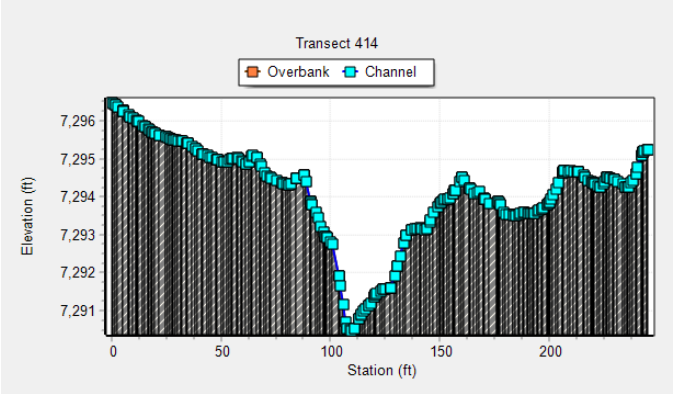

Transect 409B
Overbank
Channel
Elevation (ft)
7,483.5
7,483
7,482.5
7,482
7,481.5
7,481
7,480.5
7,480
7,479.5
0
10
20
30
40
50
60
70
Station (ft)

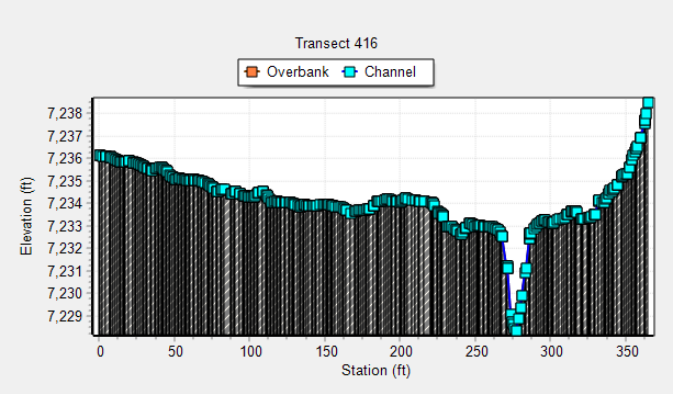

Transect 410A
Overbank
Channel
Elevation (ft)
7,418
7,416
7,414
7,412
7,410
7,408
7,406
7,404
0
20
40
60
80
100
120
140
Station (ft)

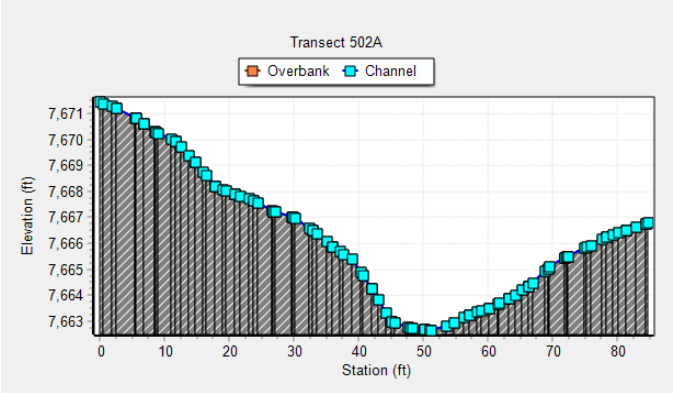

Transect 410B
Overbank
Channel
Elevation (ft)
7,413
7,412
7,411
7,410
7,409
7,408
7,407
7,406
7,405
7,404
0
20
40
60
80
100
120
140
Station (ft)

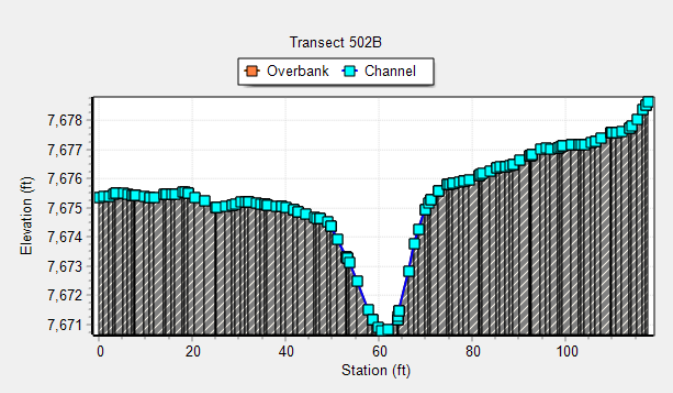

Transect 412
Overbank
Channel
Elevation (ft)
7,362
7,360
7,358
7,356
7,354
7,352
0
20
40
60
80
100
120
Station (ft)

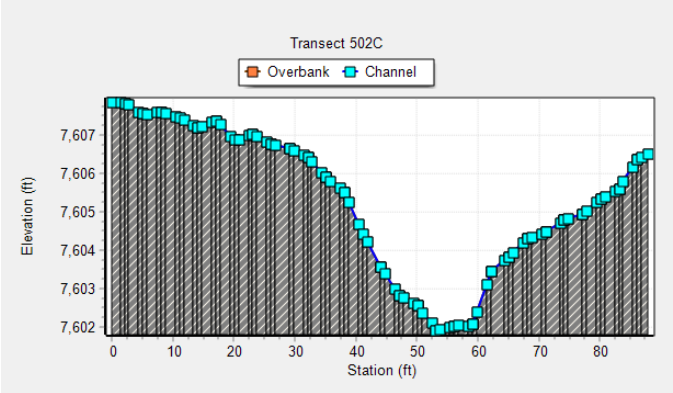

Transect 413
Overbank
Channel
Elevation (ft)
7,314
7,313
7,312
7,311
7,310
7,309
0
20
40
60
80
100
120
Station (ft)

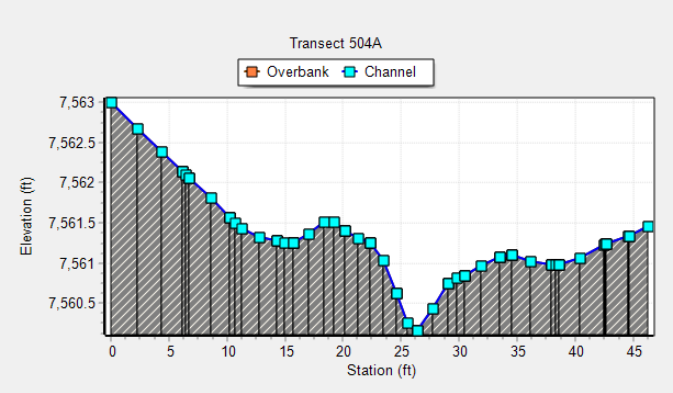

Transect 414
Overbank
Channel
Elevation (ft)
7,296
7,295
7,294
7,293
7,292
7,291
0
50
100
150
200
Station (ft)

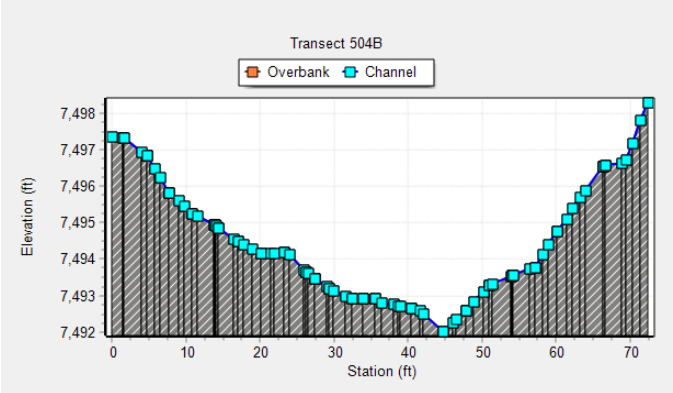

Transect 416
Overbank
Channel
Elevation (ft)
7,238
7,237
7,236
7,235
7,234
7,233
7,232
7,231
7,230
7,229
0
50
100
150
200
250
300
350
Station (ft)

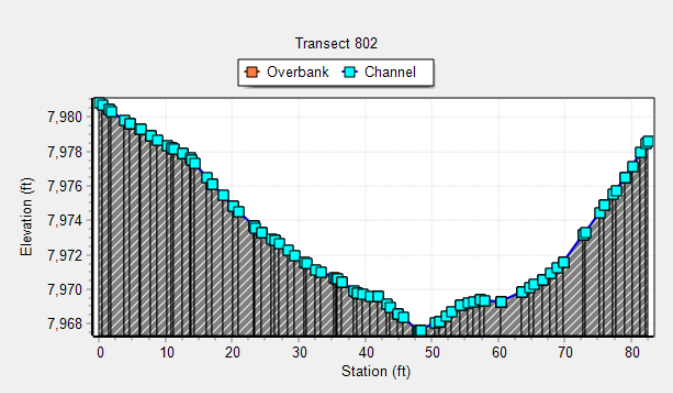

Transect 502A
Overbank
Channel
Elevation (ft)
7,671
7,670
7,669
7,668
7,667
7,666
7,665
7,664
7,663
0
10
20
30
40
50
60
70
80
Station (ft)

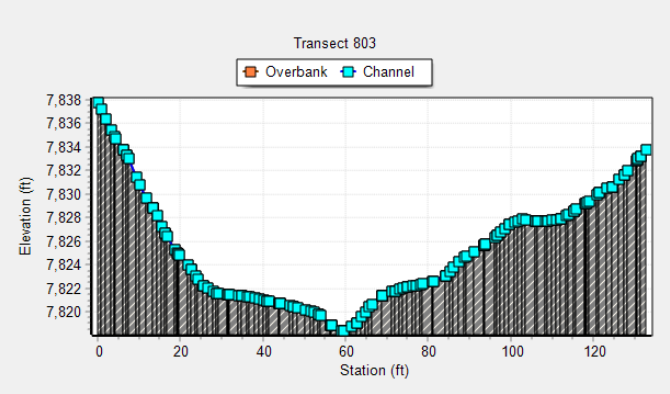

Transect 502B
Overbank
Channel
Elevation (ft)
7,678
7,677
7,676
7,675
7,674
7,673
7,672
7,671
0
20
40
60
80
100
Station (ft)


Transect 502C
Overbank
Channel
Elevation (ft)
7,607
7,606
7,605
7,604
7,603
7,602
0
10
20
30
40
50
60
70
80
Station (ft)


Transect 504A
Overbank
Channel
Elevation (ft)
7,563
7,562.5
7,562
7,561.5
7,561
7,560.5
0
5
10
15
20
25
30
35
40
45
Station (ft)


Transect 504B
Overbank
Channel
Elevation (ft)
7,498
7,497
7,496
7,495
7,494
7,493
7,492
0
10
20
30
40
50
60
70
Station (ft)


Transect 802
Overbank
Channel
Elevation (ft)
7,980
7,978
7,976
7,974
7,972
7,970
7,968
0
10
20
30
40
50
60
70
80
Station (ft)



Note: "Dummy" Conduits utilized for Links 401, 411, 415, 503, 701, 801

Stagecoach - Existing Conditions (Linked to CUHP)

Node Inflow Summary

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
100	OUTFALL	3.43	3.43	0	01:14	0.169	0.169	0.000
101	OUTFALL	1.63	1.63	0	00:55	0.058	0.058	0.000
102	OUTFALL	1.21	1.21	0	00:46	0.0357	0.0357	0.000
103	OUTFALL	0.83	0.83	0	00:38	0.0185	0.0185	0.000
200	JUNCTION	0.29	0.29	0	00:40	0.00784	0.00784	0.000
201	JUNCTION	0.08	0.08	0	00:39	0.00251	0.00251	0.000
202	JUNCTION	1.60	1.62	0	00:43	0.0369	0.0501	0.000
203	JUNCTION	2.04	2.09	0	00:46	0.047	0.099	0.000
204	OUTFALL	4.49	4.76	0	01:06	0.174	0.315	0.000
205	OUTFALL	2.59	2.59	0	00:41	0.0503	0.0503	0.000
206	OUTFALL	1.40	1.40	0	00:56	0.0515	0.0515	0.000
300	OUTFALL	0.30	0.30	0	00:42	0.00798	0.00798	0.000
301	JUNCTION	0.16	0.16	0	00:41	0.0041	0.0041	0.000
302	JUNCTION	0.34	0.34	0	00:46	0.0112	0.0112	0.000
303	JUNCTION	1.02	1.02	0	00:42	0.0301	0.0465	0.000

Stagecoach - Existing Conditions (Linked to CUHP)

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
303A	JUNCTION	0.00	0.46	0	00:57	0	0.0155	0.000
304	JUNCTION	3.24	3.44	0	00:43	0.0811	0.129	0.000
305	JUNCTION	0.31	0.31	0	00:44	0.0093	0.0093	0.000
306	JUNCTION	1.06	1.08	0	00:41	0.0237	0.0332	0.000
307	JUNCTION	1.42	2.19	0	00:53	0.0492	0.084	0.000
308	JUNCTION	2.04	6.91	0	00:54	0.0562	0.271	0.000
309	OUTFALL	5.77	8.59	0	01:25	0.197	0.502	0.000
310	OUTFALL	3.46	3.46	0	00:41	0.104	0.104	0.000
311	OUTFALL	0.53	0.53	0	00:36	0.00916	0.00916	0.000
400	JUNCTION	4.37	4.37	0	00:57	0.18	0.18	0.000
401	JUNCTION	1.02	1.02	0	00:45	0.028	0.028	0.000
402	JUNCTION	0.39	0.39	0	00:38	0.00822	0.00822	0.000
403	JUNCTION	0.28	0.43	0	00:54	0.00548	0.0102	0.000
404	JUNCTION	0.83	0.83	0	00:44	0.0221	0.0221	0.000
405	JUNCTION	0.48	0.87	0	01:02	0.0118	0.0192	0.000
406	JUNCTION	1.39	2.60	0	01:18	0.0309	0.0891	0.000
406A	JUNCTION	0.00	1.41	0	00:47	0	0.0365	0.000

Stagecoach - Existing Conditions (Linked to CUHP)

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
407	JUNCTION	0.26	0.26	0	00:38	0.00578	0.00578	0.000
408	JUNCTION	1.37	1.41	0	00:43	0.0384	0.0456	0.000
409	JUNCTION	4.03	4.57	0	00:52	0.121	0.253	0.000
410	JUNCTION	5.12	11.94	0	01:02	0.11	0.599	0.000
411	JUNCTION	1.74	1.74	0	00:35	0.0508	0.0508	0.000
412	JUNCTION	6.18	15.35	0	01:03	0.151	0.752	0.000
413	JUNCTION	2.70	17.10	0	01:08	0.0856	0.839	0.000
414	JUNCTION	5.80	21.68	0	01:15	0.172	1.11	0.000
415	JUNCTION	2.51	2.51	0	00:49	0.0965	0.0965	0.000
416	OUTFALL	1.28	21.71	0	01:26	0.0275	1.15	0.000
417	OUTFALL	0.79	0.79	0	00:36	0.0124	0.0124	0.000
418	OUTFALL	0.66	0.66	0	00:33	0.00811	0.00811	0.000
422	OUTFALL	0.11	0.11	0	00:35	0.00183	0.00183	0.000
500	JUNCTION	0.34	0.34	0	00:41	0.00919	0.00919	0.000
501	JUNCTION	1.36	1.36	0	00:42	0.0337	0.0337	0.000
502	JUNCTION	1.46	2.07	0	01:11	0.0393	0.0873	0.000
502A	JUNCTION	0.00	1.33	0	01:04	0	0.0467	0.000

Stagecoach - Existing Conditions (Linked to CUHP)

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
503	JUNCTION	1.30	1.30	0	00:45	0.038	0.038	0.000
504	OUTFALL	5.83	6.66	0	00:55	0.192	0.323	0.000
504A	JUNCTION	0.00	2.89	0	01:10	0	0.125	0.000
600	OUTFALL	1.22	1.22	0	00:57	0.0488	0.0488	0.000
700	OUTFALL	1.72	2.54	0	01:02	0.0746	0.107	0.000
701	JUNCTION	1.01	1.01	0	00:49	0.0324	0.0324	0.000
800	JUNCTION	3.92	3.92	0	01:49	0.262	0.262	0.000
801	JUNCTION	0.51	0.51	0	01:33	0.0393	0.0393	0.000
802	JUNCTION	6.48	7.13	0	01:18	0.269	0.576	0.000
803	OUTFALL	0.84	7.02	0	02:25	0.0273	0.617	0.000
804	OUTFALL	2.13	2.13	0	00:56	0.0802	0.0802	0.000
805	OUTFALL	1.36	1.36	0	00:58	0.054	0.054	0.000

Stagecoach - Existing Conditions (Linked to CUHP)

Node Inflow Summary

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
100	OUTFALL	300.97	300.97	0	01:21	14.9	14.9	0.000
101	OUTFALL	143.73	143.73	0	01:03	5.34	5.34	0.000
102	OUTFALL	67.52	67.52	0	00:54	2.1	2.1	0.000
103	OUTFALL	29.24	29.24	0	00:45	0.702	0.702	0.000
200	JUNCTION	26.45	26.45	0	00:49	0.67	0.67	0.000
201	JUNCTION	11.49	11.49	0	00:49	0.3	0.3	0.000
202	JUNCTION	122.68	145.39	0	00:53	2.98	4	0.000
203	JUNCTION	150.25	248.94	0	01:05	3.8	7.99	0.000
204	OUTFALL	389.54	541.52	0	01:19	15.4	24.2	0.000
205	OUTFALL	231.61	231.61	0	00:48	5.1	5.1	0.000
206	OUTFALL	135.96	135.96	0	01:04	5.23	5.23	0.000
300	OUTFALL	24.12	24.12	0	00:50	0.703	0.703	0.000
301	JUNCTION	13.88	13.88	0	00:49	0.401	0.401	0.000
302	JUNCTION	32.31	32.31	0	00:55	1.13	1.13	0.000
303	JUNCTION	32.88	75.22	0	00:59	0.99	2.54	0.000

Stagecoach - Existing Conditions (Linked to CUHP)

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
303A	JUNCTION	0.00	45.63	0	00:55	0	1.54	0.000
304	JUNCTION	29.77	97.67	0	01:01	0.701	3.25	0.000
305	JUNCTION	26.41	26.41	0	00:53	0.857	0.857	0.000
306	JUNCTION	16.25	40.28	0	00:53	0.363	1.22	0.000
307	JUNCTION	13.46	52.18	0	00:58	0.423	1.65	0.000
308	JUNCTION	20.42	165.78	0	01:03	0.528	5.44	0.000
309	OUTFALL	77.59	210.47	0	01:16	2.48	8.07	0.000
310	OUTFALL	46.64	46.64	0	00:48	1.34	1.34	0.000
311	OUTFALL	25.91	25.91	0	00:42	0.509	0.509	0.000
400	JUNCTION	165.03	165.03	0	01:06	6.7	6.7	0.000
401	JUNCTION	82.53	82.53	0	00:53	2.33	2.33	0.000
402	JUNCTION	29.45	29.45	0	00:46	0.693	0.693	0.000
403	JUNCTION	17.20	45.95	0	00:47	0.368	1.06	0.000
404	JUNCTION	73.74	73.74	0	00:52	2.13	2.13	0.000
405	JUNCTION	30.23	101.07	0	00:55	0.816	2.95	0.000
406	JUNCTION	100.73	305.50	0	00:58	2.39	8.79	0.000
406A	JUNCTION	0.00	127.27	0	00:52	0	3.4	0.000

Stagecoach - Existing Conditions (Linked to CUHP)

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
407	JUNCTION	14.30	14.30	0	00:46	0.351	0.351	0.000
408	JUNCTION	36.52	47.61	0	00:53	1.04	1.41	0.000
409	JUNCTION	139.12	458.90	0	01:07	4.26	14.6	0.000
410	JUNCTION	40.63	644.18	0	01:11	0.821	22.4	0.000
411	JUNCTION	10.71	10.71	0	00:41	0.266	0.266	0.000
412	JUNCTION	49.87	672.00	0	01:12	1.13	23.5	-0.000
413	JUNCTION	19.70	684.12	0	01:15	0.556	24.1	0.000
414	JUNCTION	38.60	740.61	0	01:20	1.01	27.4	0.000
415	JUNCTION	61.22	61.22	0	00:57	2.28	2.28	0.000
416	OUTFALL	66.46	698.67	0	01:35	1.57	29	0.000
417	OUTFALL	56.67	56.67	0	00:42	1.05	1.05	0.000
418	OUTFALL	54.55	54.55	0	00:40	0.823	0.823	0.000
422	OUTFALL	9.38	9.38	0	00:41	0.186	0.186	0.000
500	JUNCTION	19.69	19.69	0	00:49	0.577	0.577	0.000
501	JUNCTION	66.62	66.62	0	00:50	1.77	1.77	0.000
502	JUNCTION	62.70	142.25	0	00:57	1.78	4.17	0.000
502A	JUNCTION	0.00	84.27	0	00:55	0	2.38	0.000

Stagecoach - Existing Conditions (Linked to CUHP)

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
503	JUNCTION	61.97	61.97	0	00:53	1.89	1.89	0.000
504	OUTFALL	48.67	237.21	0	01:05	1.44	7.56	0.000
504A	JUNCTION	0.00	201.92	0	00:57	0	6.06	-0.000
600	OUTFALL	114.10	114.10	0	01:07	4.71	4.71	0.000
700	OUTFALL	230.14	300.69	0	01:11	9.14	11.9	0.000
701	JUNCTION	80.29	80.29	0	00:57	2.73	2.73	0.000
800	JUNCTION	411.17	411.17	0	01:55	26.7	26.7	0.000
801	JUNCTION	74.24	74.24	0	01:33	4.98	4.98	0.000
802	JUNCTION	608.56	878.65	0	01:41	25.6	57.4	0.000
803	OUTFALL	62.03	904.85	0	01:48	2.12	59.7	0.000
804	OUTFALL	149.17	149.17	0	01:05	5.77	5.77	0.000
805	OUTFALL	133.88	133.88	0	01:07	5.49	5.49	0.000

Existing Runoff - Overall					
Design Point	Tributary Basin(s)	Direct Runoff (cfs)		Routed Runoff (cfs)	
		Q5	Q100	Q5	Q100
100	100	3.4	301.0	-	-
101	101	1.6	143.7	-	-
102	102	1.2	67.5	-	-
103	103	0.8	29.2	-	-
200	200	0.3	26.5	-	-
201	201	0.1	11.5	-	-
-	202	1.6	122.7	-	-
202	200/201/202	-	-	1.6	145.4
-	203	2.0	150.3	-	-
203	200/201/202/203	-	-	2.1	248.9
-	204	4.5	389.5	-	-
204	200/201/202/203/204	-	-	4.8	541.5
205	205	2.6	231.6	-	-
206	206	1.4	136.0	-	-
300	300	0.3	24.1	-	-
301	301	0.2	13.9	-	-
302	302	0.3	32.3	-	-
-	303	1.0	32.9	-	-
303	301/302/303	-	-	1.0	75.2
-	304	3.2	29.8	-	-
304	301/302/303/304	-	-	3.4	97.7
305	305	0.3	26.4	-	-
-	306	1.1	16.3	-	-
306	305/306	-	-	1.1	40.3
-	307	1.4	13.5	-	-
307	305/306/307	-	-	2.2	52.2
-	308	2.0	20.4	-	-
308	301/302/303/304/305/306/307/308	-	-	6.9	165.8
-	309	5.8	77.6	-	-
309	301/302/303/304/305/306/307/308/309	-	-	8.6	210.5
310	310	3.5	46.6	-	-
311	311	0.5	25.9	-	-
400	400	4.4	165.0	-	-
401	401	1.0	82.5	-	-
402	402	0.4	29.5	-	-
-	403	0.3	17.2	-	-
403	402/403	-	-	0.4	46.0
404	404	0.8	73.7	-	-
-	405	0.5	30.2	-	-
405	404/405	-	-	0.9	101.1
-	406	1.4	100.7	-	-
406	401/402/403/404/405/406	-	-	2.6	305.5
407	407	0.3	14.3	-	-
-	408	1.4	36.5	-	-
408	407/408	-	-	1.4	47.6
-	409	4.0	139.1	-	-
409	401/402/403/404/405/406/407/408/409	-	-	4.6	458.9
-	410	5.1	40.6	-	-
410	400/401/402/403/404/405/406/407/408/409/410/411	-	-	11.9	644.2
411	411	1.7	10.7	-	-
-	412	6.2	49.9	-	-
412	400/401/402/403/404/405/406/407/408/409/410/411/412	-	-	15.4	672.0
-	413	2.7	19.7	-	-
413	400/401/402/403/404/405/406/407/408/409/410/411/412/413	-	-	17.1	684.1
-	414	5.8	38.6	-	-
414	400/401/402/403/404/405/406/407/408/409/410/411/412/413/414	-	-	21.7	740.6
415	415	2.5	61.2	-	-
-	416	1.3	66.5	-	-
416	400/401/402/403/404/405/406/407/408/409/410/411/412/413/414/415/416	-	-	21.7	698.7
417	417	0.8	56.7	-	-
418	418	0.7	54.6	-	-
422	422	0.1	9.4	-	-
500	500	0.3	19.7	-	-
501	501	1.4	66.6	-	-
-	502	1.5	62.7	-	-
502	500/501/502	-	-	2.1	142.3
503	503	1.3	62.0	-	-
-	504	5.8	48.7	-	-
504	500/501/502/503/504	-	-	6.7	237.2
600	600	1.2	114.1	-	-
-	700	1.7	230.1	-	-
700	700/701	-	-	2.5	300.7
701	701	1.0	80.3	-	-
800	800	3.9	411.2	-	-
801	801	0.5	74.2	-	-
-	802	6.5	608.6	-	-
802	800/801/802	-	-	7.1	878.7
-	803	0.8	62.0	-	-
803	800/801/802/803	-	-	7.0	904.9
804	804	2.1	149.2	-	-
805	805	1.4	133.9	-	-

Kimley»Horn

STANDARD FORM SF-1
RUNOFF COEFFICIENTS - IMPERVIOUS CALCULATION

PROJECT NAME: STAGECOACH **(PROPOSED)**
PROJECT NUMBER: 196778000
CALCULATED BY: DCM
CHECKED BY: TOS

		Asphalt	Gravel	Residential (< 0.25 ac)	Residential (0.25 - 0.75 ac)	Residential (0.75 - 2.5 ac)	Residential (2.5 - 5.0 ac)	Residential (> 5 ac)	Parks	Commercial	Greenbelts		
	LAND USE:	AREA	AREA	< 0.25-AC	0.25 TO 0.75-AC	0.75 TO 2.5-AC	2.5 TO 5.0-AC	> 5.0-AC	AREA	AREA	AREA		
	IMPERVIOUS %	100%	40%	45%	30%	20%	12%	8%	10%	75%	2%		
BASIN	MAJOR BASIN	Asphalt AREA (AC)	Gravel AREA (AC)	Residential (< 0.25 ac) < 0.25-AC (AC)	sidential (0.25 - 0.75 0.25 TO 0.75-AC (AC)	sidential (0.75 - 2.5 0.75 TO 2.5-AC (AC)	esidential (2.5 - 5.0 a 2.5 TO 5.0-AC (AC)	Residential (> 5 ac) > 5.0-AC (AC)	Parks AREA (AC)	Commercial AREA (AC)	Greenbelts AREA (AC)	TOTAL AREA (AC)	Imp %
100	100	3.41	7.80	0.00	0.00	0.00	0.00	3.07	0.00	0.00	1115.86	**1130.1**	2.6%
101		3.52	0.87	0.00	0.00	0.00	0.00	11.95	0.00	0.00	389.46	**405.8**	3.1%
102		4.33	0.00	0.00	0.00	0.00	0.00	32.52	0.00	0.00	119.72	**156.6**	6.0%
103		1.12	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.25	**50.7**	5.2%
200	200	6.79	0.00	0.00	11.27	1.67	4.21	28.04	0.00	0.00	37.15	**89.1**	15.7%
201		5.55	0.00	0.00	11.19	0.00	0.00	9.55	0.00	0.00	22.76	**49.1**	20.6%
202		17.11	0.00	0.00	3.24	4.04	5.27	138.85	0.00	0.00	106.52	**275.0**	11.9%
203		0.00	0.00	0.00	0.00	0.00	0.00	20.25	0.00	0.00	208.97	**229.2**	2.5%
204		14.21	0.00	0.00	25.39	11.68	6.90	40.45	0.00	0.00	1077.26	**1175.9**	4.2%
205		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	389.30	**389.3**	2.0%
206		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	399.05	**399.0**	2.0%
207		7.26	0.00	0.00	2.15	3.26	0.76	29.88	0.00	0.00	14.60	**57.9**	19.6%
208		2.97	0.00	0.00	0.00	0.00	0.00	3.15	0.00	0.00	11.87	**18.0**	19.2%
300	300	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52.79	**53.3**	2.3%
301		0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.78	**30.9**	2.1%
302		0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	86.38	**86.5**	2.0%
303		0.00	1.66	3.56	0.00	4.51	0.00	0.00	0.00	0.00	62.31	**72.1**	6.1%
304		0.15	2.07	0.55	0.00	27.53	4.98	0.00	0.00	0.00	5.96	**41.2**	18.1%
305		0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.78	**65.1**	2.2%
306		0.91	0.58	0.00	0.00	6.45	0.00	0.00	0.00	0.00	15.64	**23.6**	11.6%
307		0.84	0.59	0.17	0.00	16.13	0.00	0.00	0.00	0.00	7.12	**24.8**	18.2%
308		1.60	0.00	0.00	0.00	7.25	18.16	0.00	0.00	0.00	4.58	**31.6**	16.8%
309		6.02	0.00	8.70	0.00	45.99	0.00	0.00	0.43	0.00	96.00	**157.2**	13.4%
310		2.93	0.00	0.00	0.00	13.91	36.09	0.00	6.23	0.00	25.67	**84.8**	13.2%
311		0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.72	0.00	30.09	**37.8**	3.6%
400	400	6.89	4.93	0.53	2.05	28.39	0.00	0.00	0.00	8.78	431.92	**483.5**	6.3%
401		12.45	1.52	0.00	7.93	21.29	8.59	0.00	0.00	0.00	175.29	**227.1**	10.7%
402		1.25	0.00	0.00	0.00	8.78	2.22	4.02	0.00	0.00	36.27	**52.5**	8.2%
403		2.06	0.00	0.00	0.00	0.00	0.00	1.79	0.00	0.00	30.33	**34.2**	8.2%
404		2.60	0.00	0.00	2.29	8.07	8.58	4.48	0.00	0.00	136.13	**162.2**	5.6%
405		4.50	0.00	0.00	0.00	1.66	8.47	0.00	0.00	0.00	46.71	**61.3**	11.1%
406		2.57	3.82	0.00	0.00	0.01	5.16	15.85	0.00	0.00	196.66	**224.1**	4.4%
407		3.04	0.00	0.00	2.62	9.01	0.00	0.00	0.00	0.00	11.49	**26.2**	22.4%
408		4.65	0.00	0.00	2.78	6.02	0.00	0.00	0.00	0.00	9.07	**22.5**	30.5%
409		1.13	0.00	0.00	0.67	10.65	0.00	0.00	0.00	0.00	128.81	**141.3**	4.3%
410		2.34	0.00	0.00	0.00	33.96	9.92	0.00	0.00	0.20	0.00	**46.4**	22.6%
411		2.34	0.00	3.57	0.00	5.45	0.00	0.00	0.00	0.00	1.89	**13.3**	38.3%
412		2.89	0.23	0.00	0.00	36.20	24.49	0.00	0.00	0.00	0.00	**63.8**	20.6%
413		1.69	0.26	0.00	0.00	23.90	4.23	0.00	0.00	0.00	0.00	**30.1**	23.6%
414		4.18	0.33	0.00	0.00	45.49	3.19	0.00	0.00	0.00	0.02	**53.2**	25.9%
415		0.48	5.15	0.00	0.00	6.62	60.24	0.00	0.00	0.00	83.98	**156.5**	8.2%
416		1.32	0.00	0.00	0.00	1.35	0.35	0.00	2.29	0.00	111.62	**116.9**	3.5%
417		0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.37	0.00	74.81	**79.2**	2.4%
418		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.76	**62.8**	2.0%
419		2.00	0.00	0.00	2.14	6.62	0.00	0.00	0.00	0.00	29.88	**40.6**	11.2%
420		15.37	0.00	0.00	13.34	22.22	17.00	0.00	0.00	6.31	49.42	**123.7**	25.5%
421		5.37	0.00	0.00	1.99	12.84	10.23	0.00	0.00	0.00	19.56	**50.0**	20.3%
422		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.20	**14.2**	2.0%
500	500	1.06	0.00	0.00	0.00	3.06	0.00	0.00	0.00	0.00	38.95	**43.1**	5.7%
501		10.86	0.00	0.00	0.00	53.18	7.24	2.05	0.00	0.00	57.86	**131.2**	18.1%
502		5.26	0.00	0.00	4.48	18.90	0.00	0.00	0.00	0.00	42.13	**70.8**	15.9%
503		3.55	0.00	0.00	0.00	13.43	10.64	0.00	0.00	0.00	112.00	**139.6**	7.0%
504		0.82	0.00	0.00	0.00	78.29	0.00	0.00	0.00	0.00	2.46	**81.6**	20.3%
505		2.90	0.00	0.00	1.58	10.04	0.00	0.00	0.00	0.00	16.26	**30.8**	18.5%
506		1.91	0.00	0.00	0.00	7.51	0.71	0.00	0.00	0.00	18.51	**28.6**	13.5%
600	600	1.71	0.00	0.00	0.00	4.62	1.20	3.70	0.00	0.00	347.40	**358.6**	2.8%
700	700	9.44	0.00	0.00	0.00	0.00	0.00	74.10	0.00	0.00	184.23	**267.8**	7.1%
701		2.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	204.54	**206.9**	3.1%
702		3.03	0.00	0.00	0.00	0.00	0.00	11.12	0.00	0.00	24.02	**38.2**	11.5%
703		8.24	0.00	0.00	7.37	9.80	11.36	12.94	0.00	0.00	108.99	**158.7**	10.7%
704		1.20	1.10	0.00	0.00	0.00	0.12	20.94	0.00	0.00	526.75	**550.1**	2.5%
705		0.00	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	166.77	**168.3**	2.4%
706		4.79	0.00	0.00	0.00	0.00	0.00	7.02	0.00	0.00	58.72	**70.5**	9.3%
707		1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	57.58	**59.3**	4.8%
800	800	0.00	27.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2773.93	**2801.8**	2.4%
801		20.00	7.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	771.86	**799.6**	4.8%
802		0.09	11.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1693.13	**1704.3**	2.3%
803		0.00	2.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	157.15	**159.8**	2.6%
804		6.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	428.32	**434.3**	3.4%
805		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	418.25	**418.3**	2.0%
806		3.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	238.55	**241.7**	3.3%
807		2.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	58.31	**61.1**	6.5%
SUBTOTAL (MAJOR BASIN)	100	12.38	9.97	0.00	0.00	0.00	0.00	47.53	0.00	0.00	1673.29	**1743.2**	3.1%
	200	53.90	0.00	0.00	53.23	20.65	17.14	270.17	0.00	0.00	2267.46	**2682.5**	5.3%
	300	12.46	5.92	12.99	0.00	121.77	59.23	0.00	14.38	0.00	482.09	**708.9**	8.9%
	400	79.14	16.22	4.10	35.82	288.52	162.67	26.13	6.67	15.30	1650.81	**2285.4**	9.7%
	500	26.35	0.00	0.00	6.06	184.41	18.59	2.05	0.00	0.00	288.17	**525.6**	13.9%
	600	1.71	0.00	0.00	0.00	4.62	1.20	3.70	0.00	0.00	347.40	**358.6**	2.8%
	700	30.75	2.65	0.00	7.37	9.80	11.48	126.12	0.00	0.00	1331.60	**1519.8**	4.9%
	800	32.05	49.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6539.50	**6620.9**	2.8%
TOTAL		248.73	84.10	17.08	102.47	629.77	270.30	475.70	21.05	15.30	14580.33	**16445.0**	5.0%

CUHP SUBCATCHMENTS

Columns with this color heading are for required user-input
Columns with this color heading are for optional override values
Columns with this color heading are for program-calculated values

								Maximum Depression Storage (Watershed inches)		Horton's Infiltration Parameters			DCIA
Subcatchment Name	EPA SWMM Target Node	Raingage	Area (acre)	Length to Centroid (ft)	Length (ft)	Slope (ft/ft)	Percent Imperviousness	Pervious	Impervious	Initial Rate (in/hr)	Decay Coefficient (1/seconds)	Final Rate (in/hr)	Level 0, 1, or 2
100	100	5YR	1130.1	9737.6	17740.8	0.06	2.573985059	0.35	0.1	3	0.0018	0.5	0
101	101	5YR	405.8	4901.8	8785.7	0.06	3.107580979	0.35	0.1	3	0.0018	0.5	0
102	102	5YR	156.6	2418.1	5888.5	0.06	5.952436296	0.35	0.1	3	0.0018	0.5	0
103	103	5YR	50.7	955.6	2559	0.06	5.15458782	0.35	0.1	3	0.0018	0.5	0
200	200	5YR	89.1	1904.6	3753.3	0.06	15.70678617	0.35	0.1	3.6	0.0015	0.6	0
201	201	5YR	49.1	1364.4	3213.5	0.06	20.64454602	0.35	0.1	3.9	0.0013	0.7	0
202	202	5YR	275	2159.8	5938.9	0.06	11.91063921	0.35	0.1	3.3	0.0016	0.6	0
203	203	5YR	229.2	2158.2	5584.6	0.06	2.529965689	0.35	0.1	3	0.0018	0.5	0
204	204	5YR	1175.9	8905	11586.7	0.06	4.232965447	0.35	0.1	3.1	0.0018	0.5	0
205	205	5YR	389.3	2003.2	4987	0.06	1.999976563	0.35	0.1	3	0.0018	0.5	0
206	206	5YR	399	4843.7	9646.3	0.06	2.000000301	0.35	0.1	3	0.0018	0.5	0
207	207	5YR	57.9	1341.1	3387.9	0.06	19.56758023	0.35	0.1	3	0.0018	0.5	0
208	208	5YR	18	574.1	1296.1	0.06	19.24948817	0.35	0.1	3	0.0018	0.5	0
300	300	5YR	53.3	1431.8	3228	0.06	2.329863902	0.35	0.1	3	0.0018	0.5	0
301	301	5YR	30.9	1194	2220	0.06	2.130472258	0.35	0.1	3.2	0.0018	0.5	0
302	302	5YR	86.5	2642.3	4657.7	0.06	2.038296605	0.35	0.1	3	0.0018	0.5	0
303	303	5YR	72.1	1970.1	3348.3	0.06	6.128992071	0.35	0.1	3.4	0.0018	0.5	0
304	304	5YR	41.2	801.3	2226.7	0.06	18.06513221	0.35	0.1	3	0.0018	0.5	0
305	305	5YR	65.1	1760.2	4289.3	0.06	2.203825077	0.35	0.1	3	0.0018	0.5	0
306	306	5YR	23.6	618	1447.5	0.06	11.62544458	0.35	0.1	3	0.0018	0.5	0
307	307	5YR	24.8	1242.8	2071.9	0.06	18.20838265	0.35	0.1	3	0.0018	0.5	0
308	308	5YR	31.6	874.7	2092.6	0.06	16.84719807	0.35	0.1	3	0.0018	0.5	0
309	309	5YR	157.1	2591.1	5646.3	0.06	13.42725745	0.35	0.1	3	0.0018	0.5	0
310	310	5YR	84.8	1900.4	3426.3	0.06	13.18533493	0.35	0.1	3	0.0018	0.5	0
311	311	5YR	37.8	604.8	1681.7	0.06	3.633141345	0.35	0.1	3	0.0018	0.5	0
400	400	5YR	483.5	5636.6	10631.6	0.06	6.33254853	0.35	0.1	3	0.0018	0.5	0
401	401	5YR	227.1	2664.2	6071.1	0.06	10.67230392	0.35	0.1	3.6	0.0017	0.6	0
402	402	5YR	52.5	969.5	2536.1	0.06	8.227668866	0.35	0.1	3	0.0018	0.5	0
403	403	5YR	34.2	812.1	1793.3	0.06	8.221575237	0.35	0.1	3.2	0.0017	0.6	0
404	404	5YR	162.2	2214.2	5432.1	0.06	5.557114025	0.35	0.1	3	0.0018	0.5	0
405	405	5YR	61.3	1345.5	3162.7	0.06	11.05210699	0.35	0.1	3	0.0018	0.5	0
406	406	5YR	224.1	1992.8	5035.5	0.06	4.427516454	0.35	0.1	3.2	0.0017	0.6	0
407	407	5YR	26.2	656.3	2135.8	0.06	22.39568597	0.35	0.1	3	0.0018	0.5	0
408	408	5YR	22.5	610.7	1786.2	0.06	30.49160428	0.35	0.1	3	0.0018	0.5	0
409	409	5YR	141.3	2800.7	5633.9	0.06	4.276298486	0.35	0.1	3	0.0018	0.5	0
410	410	5YR	46.4	758	1653.4	0.06	22.55837758	0.35	0.1	3	0.0018	0.5	0
411	411	5YR	13.3	562.2	1525.9	0.06	38.32873181	0.35	0.1	3	0.0018	0.5	0
412	412	5YR	63.8	886.6	2740	0.06	20.62507825	0.35	0.1	3	0.0018	0.5	0
413	413	5YR	30.1	895.3	2614	0.06	23.55005649	0.35	0.1	3	0.0018	0.5	0
414	414	5YR	53.2	1153.6	2897.5	0.06	25.92018607	0.35	0.1	3	0.0018	0.5	0
415	415	5YR	156.5	3475.3	6367.3	0.06	8.163484611	0.35	0.1	3	0.0018	0.5	0
416	416	5YR	116.9	1428	3827.3	0.06	3.505029243	0.35	0.1	3	0.0018	0.5	0
417	417	5YR	79.2	740.9	2363.1	0.06	2.441626778	0.35	0.1	3	0.0018	0.5	0
418	418	5YR	62.8	315.4	2342.4	0.06	1.998653312	0.35	0.1	3	0.0018	0.5	0
419	419	5YR	40.6	1977.9	4051.8	0.06	11.22882663	0.35	0.1	3	0.0018	0.5	0
420	420	5YR	123.7	1469.6	3086.4	0.06	25.53673534	0.35	0.1	3	0.0018	0.5	0
421	421	5YR	50	1230.8	1883.5	0.06	20.31377375	0.35	0.1	3	0.0018	0.5	0
422	422	5YR	14.2	475	873.9	0.06	2	0.35	0.1	3	0.0018	0.5	0
500	500	5YR	43.1	1524.8	2481.8	0.06	5.685043794	0.35	0.1	3	0.0018	0.5	0
501	501	5YR	131.2	1958.6	4161.2	0.06	18.05651611	0.35	0.1	3	0.0018	0.5	0
502	502	5YR	70.8	1652	2079.9	0.06	15.86788685	0.35	0.1	3	0.0018	0.5	0
503	503	5YR	139.6	2385.5	5230.2	0.06	6.98348822	0.35	0.1	3	0.0018	0.5	0
504	504	5YR	81.6	1738	4000.4	0.06	20.26199255	0.35	0.1	3	0.0018	0.5	0
505	505	5YR	30.8	934.2	2261	0.06	18.53119101	0.35	0.1	3	0.0018	0.5	0
506	506	5YR	28.6	848.5	1963	0.06	13.48983811	0.35	0.1	3	0.0018	0.5	0
600	600	5YR	358.6	5321.4	9790.3	0.06	2.793709804	0.35	0.1	3	0.0018	0.5	0
700	700	5YR	267.8	1762.9	4648.1	0.06	7.114205839	0.35	0.1	3	0.0018	0.5	0
701	701	5YR	206.9	3416	6450.2	0.06	3.107223021	0.35	0.1	3	0.0018	0.5	0
702	702	5YR	39.2	1506.8	3953	0.06	11.53957879	0.35	0.1	3.4	0.0016	0.6	0
703	703	5YR	158.7	3555.7	7732.7	0.06	10.70787933	0.35	0.1	4.3	0.0012	0.8	0
704	704	5YR	550.1	5192.1	10160.3	0.06	2.520270201	0.35	0.1	4.4	0.0015	0.7	0
705	705	5YR	168.3	2637	6401.3	0.06	2.350373055	0.35	0.1	4.4	0.0013	0.8	0
706	706	5YR	70.5	1544.8	2886.9	0.06	9.258487627	0.35	0.1	3	0.0018	0.5	0
707	707	5YR	59.3	1500.5	4265.4	0.06	4.823409328	0.35	0.1	3.1	0.0018	0.5	0
800	800	5YR	2801.8	16054.6	35869.9	0.06	2.378184021	0.35	0.1	4.3	0.0017	0.6	0
801	801	5YR	799.6	13786.4	20705.1	0.06	4.820223097	0.35	0.1	4.4	0.0014	0.7	0
802	802	5YR	1704.3	7818.1	17322.9	0.06	2.251562485	0.35	0.1	3.5	0.0018	0.5	0
803	803	5YR	159.8	3476.3	5324.9	0.06	2.625827786	0.35	0.1	3	0.0018	0.5	0
804	804	5YR	434.3	5289.5	9438.6	0.06	3.359244834	0.35	0.1	3	0.0018	0.5	0
805	805	5YR	418.3	5794.6	9789.2	0.06	1.999988218	0.35	0.1	3	0.0018	0.5	0
806	806	5YR	241.7	3909.9	9171.2	0.06	3.281329899	0.35	0.1	3	0.0018	0.5	0
807	807	5YR	61.1	1237.6	1826.8	0.06	6.450677049	0.35	0.1	3	0.0018	0.5	0

Summary of Unit Hydrograph Parameters Used By Program and Calculated Results (Version 2.0.1)

		Unit Hydrograph Parameters and Results									Excess Precip.		Storm Hydrograph			
Catchment Name/ID	User Comment for Catchment	CT	Cp	W50 (min.)	W50 Before Peak	W75 (min.)	W75 Before Peak	Time to Peak (min.)	Peak (cfs)	Volume (c.f)	Excess (inches)	Excess (c.f.)	Time to Peak (min.)	Peak Flow (cfs)	Total Volume (c.f.)	Runoff per Unit Area (cfs/acre)
100		0.157	0.428	81.0	26.88	42.1	19.00	44.8	654	4,102,263	0.01	25,495	74.0	4	25,495	0.00
101		0.155	0.312	56.5	13.83	29.4	9.77	23.0	337	1,473,054	0.01	11,207	54.0	2	11,207	0.01
102		0.148	0.224	44.0	7.87	22.9	5.56	13.1	167	568,458	0.02	8,891	45.0	2	8,891	0.01
103		0.150	0.144	29.9	3.60	15.5	2.54	6.0	80	184,041	0.01	2,445	38.0	1	2,445	0.02
200		0.123	0.157	37.6	4.83	19.6	3.41	8.1	111	323,433	0.05	15,402	39.0	4	15,402	0.04
201		0.116	0.117	37.7	3.67	19.6	2.60	6.1	61	178,233	0.07	11,741	38.0	2	11,741	0.05
202		0.132	0.240	34.9	6.74	18.2	4.76	11.2	369	998,250	0.03	31,048	41.0	8	31,049	0.03
203		0.157	0.265	36.4	7.71	18.9	5.45	12.9	295	831,996	0.01	5,076	44.0	2	5,076	0.01
204		0.152	0.422	62.4	20.50	32.4	14.48	34.2	884	4,268,517	0.01	44,999	63.0	8	44,998	0.01
205		0.158	0.313	28.4	7.13	14.8	5.04	11.9	643	1,413,159	0.00	6,722	41.0	3	6,722	0.01
206		0.158	0.316	59.1	14.62	30.7	10.33	24.4	317	1,448,370	0.00	6,889	56.0	1	6,889	0.00
207		0.117	0.126	35.7	3.75	18.6	2.65	6.3	76	210,177	0.08	17,049	39.0	4	17,049	0.07
208		0.117	0.074	25.4	1.75	13.2	1.24	2.9	33	65,340	0.08	5,177	35.0	2	5,176	0.09
300		0.157	0.154	39.8	4.99	20.7	3.53	8.3	63	193,479	0.01	1,081	42.0	0	1,081	0.01
301		0.158	0.121	38.9	3.91	20.2	2.76	6.5	37	112,167	0.00	556	41.0	0	556	0.01
302		0.158	0.192	51.2	7.84	26.6	5.54	13.1	79	313,995	0.00	1,524	46.0	0	1,524	0.00
303		0.148	0.166	41.0	5.53	21.3	3.91	9.2	82	261,723	0.02	4,053	42.0	1	4,053	0.01
304		0.119	0.109	26.9	2.54	14.0	1.80	4.2	72	149,556	0.07	10,807	36.0	3	10,807	0.08
305		0.158	0.169	46.0	6.25	23.9	4.42	10.4	66	236,313	0.01	1,245	44.0	0	1,245	0.00
306		0.131	0.091	25.6	2.08	13.3	1.47	3.5	43	85,668	0.04	3,173	36.0	1	3,173	0.05
307		0.119	0.087	40.2	2.97	20.9	2.10	5.0	29	90,024	0.07	6,581	40.0	1	6,580	0.06
308		0.121	0.097	30.9	2.61	16.1	1.84	4.3	48	114,708	0.07	7,480	37.0	2	7,480	0.06
309		0.126	0.195	43.6	6.83	22.7	4.82	11.4	169	570,273	0.05	26,484	44.0	6	26,484	0.04
310		0.126	0.156	37.1	4.75	19.3	3.36	7.9	107	307,824	0.05	13,902	41.0	3	13,902	0.04
311		0.154	0.129	22.4	2.52	11.7	1.78	4.2	79	137,214	0.01	1,237	36.0	1	1,237	0.01
400		0.147	0.312	62.6	15.28	32.5	10.80	25.5	362	1,755,105	0.02	29,469	57.0	5	29,469	0.01
401		0.136	0.232	41.5	7.71	21.6	5.45	12.8	257	824,373	0.03	20,990	43.0	5	20,990	0.02
402		0.142	0.139	29.3	3.42	15.2	2.42	5.7	84	190,575	0.02	4,345	38.0	1	4,345	0.03
403		0.143	0.115	27.7	2.75	14.4	1.94	4.6	58	124,146	0.02	2,262	36.0	1	2,262	0.02
404		0.149	0.228	40.2	7.33	20.9	5.18	12.2	189	588,786	0.01	8,515	44.0	2	8,515	0.01
405		0.133	0.141	35.3	4.12	18.4	2.91	6.9	81	222,519	0.03	7,592	40.0	2	7,591	0.03
406		0.153	0.257	33.5	6.91	17.4	4.88	11.5	313	813,483	0.01	6,969	41.0	2	6,969	0.01
407		0.113	0.087	28.4	2.20	14.8	1.55	3.7	43	95,106	0.10	9,284	36.0	3	9,282	0.10
408		0.103	0.084	23.9	1.84	12.4	1.30	3.1	44	81,675	0.15	12,159	34.0	3	12,157	0.15
409		0.152	0.223	47.8	8.49	24.9	6.00	14.2	138	512,919	0.01	5,531	47.0	1	5,531	0.01
410		0.112	0.112	20.8	2.09	10.8	1.48	3.5	105	168,432	0.10	16,603	33.0	6	16,599	0.12
411		0.096	0.078	21.3	1.57	11.1	1.11	2.6	29	48,279	0.21	9,960	32.0	3	9,958	0.22
412		0.115	0.131	25.1	2.82	13.1	1.99	4.7	119	231,594	0.09	20,215	36.0	6	20,212	0.10
413		0.111	0.092	33.8	2.69	17.6	1.90	4.5	42	109,263	0.10	11,415	37.0	3	11,414	0.09
414		0.108	0.119	30.3	3.06	15.8	2.16	5.1	82	193,116	0.12	22,969	37.0	6	22,967	0.11
415		0.142	0.215	54.2	9.27	28.2	6.55	15.5	135	568,095	0.02	12,832	49.0	2	12,831	0.02
416		0.154	0.215	30.2	5.29	15.7	3.74	8.8	181	424,347	0.01	3,678	40.0	1	3,678	0.01
417		0.157	0.183	20.9	3.24	10.9	2.29	5.4	178	287,496	0.01	1,689	36.0	1	1,689	0.01
418		0.158	0.166	15.3	2.26	8.0	1.59	3.8	192	227,964	0.00	1,084	33.0	1	1,083	0.01
419		0.133	0.117	57.6	5.46	29.9	3.86	9.1	33	147,378	0.04	5,161	45.0	1	5,161	0.02
420		0.109	0.171	24.5	3.51	12.7	2.48	5.9	237	449,031	0.12	52,336	36.0	16	52,331	0.13
421		0.116	0.117	27.5	2.78	14.3	1.96	4.6	85	181,500	0.09	15,517	36.0	4	15,516	0.09
422		0.158	0.085	22.7	1.78	11.8	1.26	3.0	29	51,546	0.00	245	35.0	0	245	0.01
500		0.148	0.132	39.6	4.33	20.6	3.06	7.2	51	156,453	0.01	2,322	41.0	1	2,322	0.01
501		0.119	0.179	33.9	4.95	17.6	3.50	8.3	181	476,256	0.07	34,390	40.0	9	34,390	0.07
502		0.122	0.141	29.2	3.46	15.2	2.44	5.8	114	257,004	0.06	15,333	37.0	4	15,333	0.06
503		0.145	0.212	42.7	7.27	22.2	5.14	12.1	153	506,748	0.02	9,528	44.0	2	9,528	0.02
504		0.116	0.146	37.4	4.50	19.4	3.18	7.5	102	296,208	0.09	25,236	40.0	6	25,236	0.07
505		0.118	0.095	33.1	2.72	17.2	1.92	4.5	44	111,804	0.07	8,384	37.0	2	8,384	0.07
506		0.126	0.095	31.4	2.60	16.3	1.84	4.3	43	103,818	0.05	4,856	37.0	1	4,856	0.05
600		0.156	0.302	64.3	15.20	33.4	10.74	25.3	262	1,301,718	0.01	8,831	57.0	2	8,831	0.00
700		0.145	0.258	28.7	5.98	14.9	4.23	10.0	437	972,114	0.02	18,678	40.0	6	18,677	0.02
701		0.155	0.255	50.1	10.11	26.1	7.14	16.8	193	751,047	0.01	5,713	49.0	1	5,713	0.01
702		0.133	0.114	51.3	4.80	26.7	3.39	8.0	35	138,666	0.03	4,016	42.0	1	4,016	0.02
703		0.136	0.209	59.6	9.85	31.0	6.96	16.4	125	576,081	0.02	8,677	53.0	1	8,677	0.01
704		0.157	0.346	56.9	15.40	29.6	10.88	25.7	453	1,996,863	0.00	3,904	55.0	1	3,904	0.00
705		0.158	0.243	47.0	9.06	24.4	6.40	15.1	168	610,929	0.00	443	47.0	0	443	0.00
706		0.139	0.155	34.1	4.37	17.7	3.09	7.3	97	255,915	0.03	6,719	40.0	2	6,719	0.03
707		0.151	0.155	44.2	5.56	23.0	3.93	9.3	63	215,259	0.01	2,625	43.0	1	2,625	0.01
800		0.158	0.565	109.9	38.47	57.2	25.72	79.9	1,195	10,170,534	0.00	34,657	109.0	4	34,658	0.00
801		0.152	0.374	114.1	33.05	59.3	23.35	55.1	328	2,902,548	0.00	11,227	95.0	1	11,227	0.00
802		0.158	0.486	63.7	22.29	33.1	14.90	40.2	1,254	6,186,609	0.01	31,316	69.0	6	31,316	0.00
803		0.156	0.238	49.8	9.39	25.9	6.64	15.7	150	580,074	0.01	3,683	48.0	1	3,683	0.01
804		0.155	0.317	59.4	14.76	30.9	10.43	24.6	343	1,576,509	0.01	13,049	56.0	3	13,049	0.01
805		0.158	0.320	63.9	16.02	33.2	11.32	26.7	307	1,518,429	0.00	7,223	58.0	1	7,223	0.00
806		0.155	0.266	60.4	12.65	31.4	8.94	21.1	187	877,371	0.01	7,080	54.0	1	7,080	0.01
807		0.146	0.153	26.4	3.40	13.7	2.40	5.7	108	221,793	0.02	3,804	37.0	1	3,804	0.02

CUHP SUBCATCHMENTS

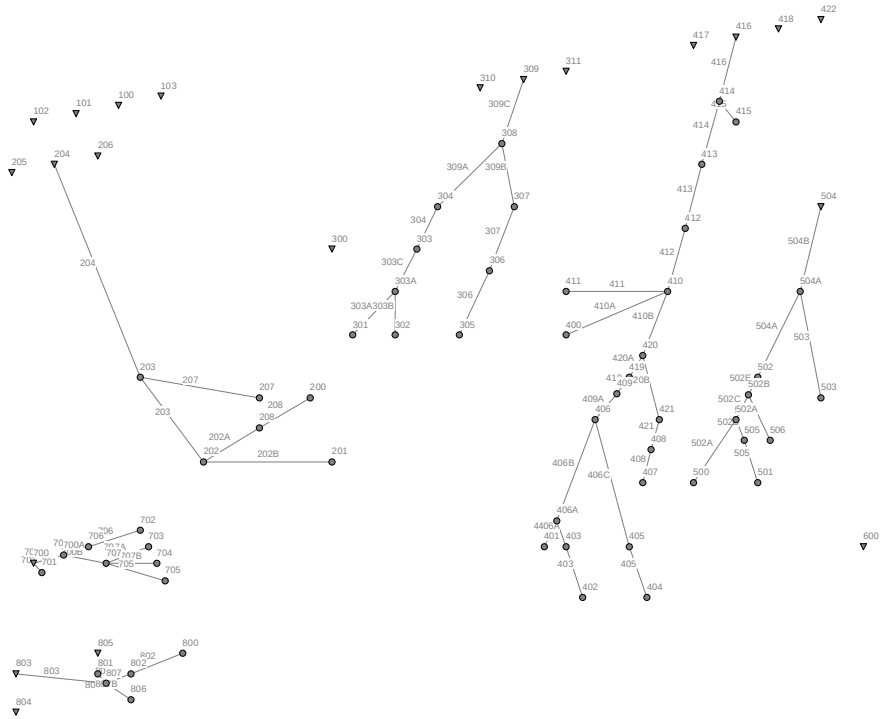
Columns with this color heading are for required user-input
Columns with this color heading are for optional override values
Columns with this color heading are for program-calculated values

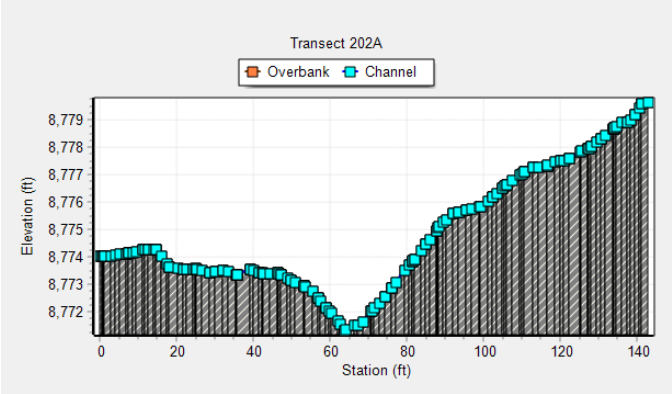
								Maximum Depression Storage (Watershed inches)		Horton's Infiltration Parameters			DCIA
Subcatchment Name	EPA SWMM Target Node	Raingage	Area (acre)	Length to Centroid (ft)	Length (ft)	Slope (ft/ft)	Percent Imperviousness	Pervious	Impervious	Initial Rate (in/hr)	Decay Coefficient (1/seconds)	Final Rate (in/hr)	Level 0, 1, or 2
100	100	100YR	1130.1	9737.6	17740.8	0.06	2.6	0.35	0.1	3	0.0018	0.5	0
101	101	100YR	405.8	4901.8	8785.7	0.06	3.1	0.35	0.1	3	0.0018	0.5	0
102	102	100YR	156.6	2418.1	5888.5	0.06	6.0	0.35	0.1	3	0.0018	0.5	0
103	103	100YR	50.7	955.6	2559	0.06	5.2	0.35	0.1	3	0.0018	0.5	0
200	200	100YR	89.1	1904.6	3753.3	0.06	15.7	0.35	0.1	3.6	0.0015	0.6	0
201	201	100YR	49.1	1364.4	3213.5	0.06	20.6	0.35	0.1	3.9	0.0013	0.7	0
202	202	100YR	275	2159.8	5938.9	0.06	11.9	0.35	0.1	3.3	0.0016	0.6	0
203	203	100YR	229.2	2158.2	5584.6	0.06	2.5	0.35	0.1	3	0.0018	0.5	0
204	204	100YR	1175.9	8905	11586.7	0.06	4.2	0.35	0.1	3.1	0.0018	0.5	0
205	205	100YR	389.3	2003.2	4987	0.06	2.0	0.35	0.1	3	0.0018	0.5	0
206	206	100YR	399	4843.7	9646.3	0.06	2.0	0.35	0.1	3	0.0018	0.5	0
207	207	100YR	57.9	1341.1	3387.9	0.06	19.6	0.35	0.1	3	0.0018	0.5	0
208	208	100YR	18	574.1	1296.1	0.06	19.2	0.35	0.1	3	0.0018	0.5	0
300	300	100YR	53.3	1431.8	3228	0.06	2.3	0.35	0.1	3	0.0018	0.5	0
301	301	100YR	30.9	1194	2220	0.06	2.1	0.35	0.1	3.2	0.0018	0.5	0
302	302	100YR	86.5	2642.3	4657.7	0.06	2.0	0.35	0.1	3	0.0018	0.5	0
303	303	100YR	72.1	1970.1	3348.3	0.06	6.1	0.35	0.1	3.4	0.0018	0.5	0
304	304	100YR	41.2	801.3	2226.7	0.06	18.1	0.35	0.1	3	0.0018	0.5	0
305	305	100YR	65.1	1760.2	4289.3	0.06	2.2	0.35	0.1	3	0.0018	0.5	0
306	306	100YR	23.6	618	1447.5	0.06	11.6	0.35	0.1	3	0.0018	0.5	0
307	307	100YR	24.8	1242.8	2071.9	0.06	18.2	0.35	0.1	3	0.0018	0.5	0
308	308	100YR	31.6	874.7	2092.6	0.06	16.8	0.35	0.1	3	0.0018	0.5	0
309	309	100YR	157.1	2591.1	5646.3	0.06	13.4	0.35	0.1	3	0.0018	0.5	0
310	310	100YR	84.8	1900.4	3426.3	0.06	13.2	0.35	0.1	3	0.0018	0.5	0
311	311	100YR	37.8	604.8	1681.7	0.06	3.6	0.35	0.1	3	0.0018	0.5	0
400	400	100YR	483.5	5636.6	10631.6	0.06	6.3	0.35	0.1	3	0.0018	0.5	0
401	401	100YR	227.1	2664.2	6071.1	0.06	10.7	0.35	0.1	3.6	0.0017	0.6	0
402	402	100YR	52.5	969.5	2536.1	0.06	8.2	0.35	0.1	3	0.0018	0.5	0
403	403	100YR	34.2	812.1	1793.3	0.06	8.2	0.35	0.1	3.2	0.0017	0.6	0
404	404	100YR	162.2	2214.2	5432.1	0.06	5.6	0.35	0.1	3	0.0018	0.5	0
405	405	100YR	61.3	1345.5	3162.7	0.06	11.1	0.35	0.1	3	0.0018	0.5	0
406	406	100YR	224.1	1992.8	5035.5	0.06	4.4	0.35	0.1	3.2	0.0017	0.6	0
407	407	100YR	26.2	656.3	2135.8	0.06	22.4	0.35	0.1	3	0.0018	0.5	0
408	408	100YR	22.5	610.7	1786.2	0.06	30.5	0.35	0.1	3	0.0018	0.5	0
409	409	100YR	141.3	2800.7	5633.9	0.06	4.3	0.35	0.1	3	0.0018	0.5	0
410	410	100YR	46.4	758	1653.4	0.06	22.6	0.35	0.1	3	0.0018	0.5	0
411	411	100YR	13.3	562.2	1525.9	0.06	38.3	0.35	0.1	3	0.0018	0.5	0
412	412	100YR	63.8	886.6	2740	0.06	20.6	0.35	0.1	3	0.0018	0.5	0
413	413	100YR	30.1	895.3	2614	0.06	23.6	0.35	0.1	3	0.0018	0.5	0
414	414	100YR	53.2	1153.6	2897.5	0.06	25.9	0.35	0.1	3	0.0018	0.5	0
415	415	100YR	156.5	3475.3	6367.3	0.06	8.2	0.35	0.1	3	0.0018	0.5	0
416	416	100YR	116.9	1428	3827.3	0.06	3.5	0.35	0.1	3	0.0018	0.5	0
417	417	100YR	79.2	740.9	2363.1	0.06	2.4	0.35	0.1	3	0.0018	0.5	0
418	418	100YR	62.8	315.4	2342.4	0.06	2.0	0.35	0.1	3	0.0018	0.5	0
419	419	100YR	40.6	1977.9	4051.8	0.06	11.2	0.35	0.1	3	0.0018	0.5	0
420	420	100YR	123.7	1469.6	3086.4	0.06	25.5	0.35	0.1	3	0.0018	0.5	0
421	421	100YR	50	1230.8	1883.5	0.06	20.3	0.35	0.1	3	0.0018	0.5	0
422	422	100YR	14.2	475	873.9	0.06	2.0	0.35	0.1	3	0.0018	0.5	0
500	500	100YR	43.1	1524.8	2481.8	0.06	5.7	0.35	0.1	3	0.0018	0.5	0
501	501	100YR	131.2	1958.6	4161.2	0.06	18.1	0.35	0.1	3	0.0018	0.5	0
502	502	100YR	70.8	1652	2079.9	0.06	15.9	0.35	0.1	3	0.0018	0.5	0
503	503	100YR	139.6	2385.5	5230.2	0.06	7.0	0.35	0.1	3	0.0018	0.5	0
504	504	100YR	81.6	1738	4000.4	0.06	20.3	0.35	0.1	3	0.0018	0.5	0
505	505	100YR	30.8	934.2	2261	0.06	18.5	0.35	0.1	3	0.0018	0.5	0
506	506	100YR	28.6	848.5	1963	0.06	13.5	0.35	0.1	3	0.0018	0.5	0
600	600	100YR	358.6	5321.4	9790.3	0.06	2.8	0.35	0.1	3	0.0018	0.5	0
700	700	100YR	267.8	1762.9	4648.1	0.06	7.1	0.35	0.1	3	0.0018	0.5	0
701	701	100YR	206.9	3416	6450.2	0.06	3.1	0.35	0.1	3	0.0018	0.5	0
702	702	100YR	39.2	1506.8	3953	0.06	11.5	0.35	0.1	3.4	0.0016	0.6	0
703	703	100YR	158.7	3555.7	7732.7	0.06	10.7	0.35	0.1	4.3	0.0012	0.8	0
704	704	100YR	550.1	5192.1	10160.3	0.06	2.5	0.35	0.1	4.4	0.0015	0.7	0
705	705	100YR	168.3	2637	6401.3	0.06	2.4	0.35	0.1	4.4	0.0013	0.8	0
706	706	100YR	70.5	1544.8	2886.9	0.06	9.3	0.35	0.1	3	0.0018	0.5	0
707	707	100YR	59.3	1500.5	4265.4	0.06	4.8	0.35	0.1	3.1	0.0018	0.5	0
800	800	100YR	2801.8	16054.6	35869.9	0.06	2.4	0.35	0.1	4.3	0.0017	0.6	0
801	801	100YR	799.6	13786.4	20705.1	0.06	4.8	0.35	0.1	4.4	0.0014	0.7	0
802	802	100YR	1704.3	7818.1	17322.9	0.06	2.3	0.35	0.1	3.5	0.0018	0.5	0
803	803	100YR	159.8	3476.3	5324.9	0.06	2.6	0.35	0.1	3	0.0018	0.5	0
804	804	100YR	434.3	5289.5	9438.6	0.06	3.4	0.35	0.1	3	0.0018	0.5	0
805	805	100YR	418.3	5794.6	9789.2	0.06	2.0	0.35	0.1	3	0.0018	0.5	0
806	806	100YR	241.7	3909.9	9171.2	0.06	3.3	0.35	0.1	3	0.0018	0.5	0
807	807	100YR	61.1	1237.6	1826.8	0.06	6.5	0.35	0.1	3	0.0018	0.5	0

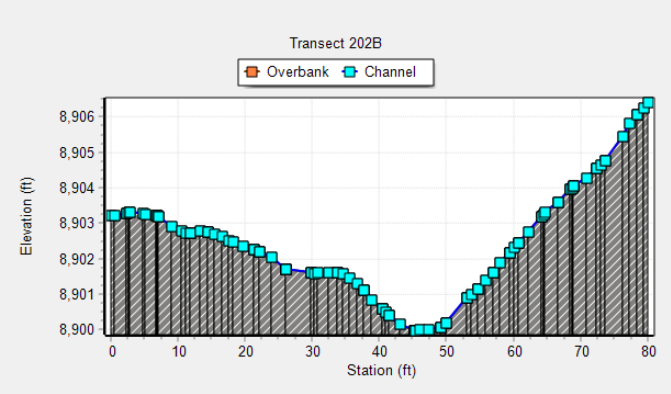
Summary of Unit Hydrograph Parameters Used By Program and Calculated Results (Version 2.0.1)

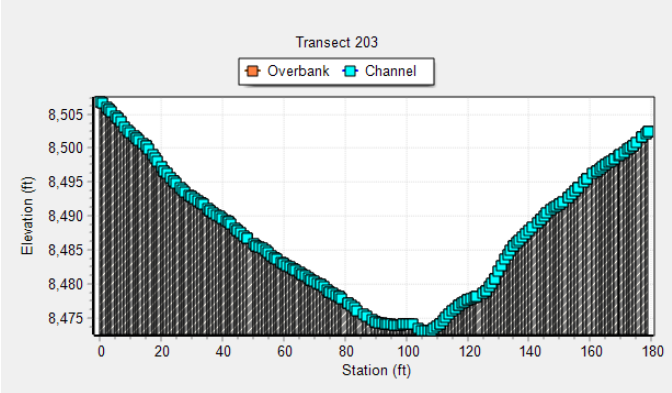
		Unit Hydrograph Parameters and Results									Excess Precip.		Storm Hydrograph			
Catchment Name/ID	User Comment for Catchment	CT	Cp	W50 (min.)	W50 Before Peak	W75 (min.)	W75 Before Peak	Time to Peak (min.)	Peak (cfs)	Volume (c.f)	Excess (inches)	Excess (c.f.)	Time to Peak (min.)	Peak Flow (cfs)	Total Volume (c.f.)	Runoff per Unit Area (cfs/acre)
100		0.155	0.424	80.9	26.63	42.1	18.82	44.4	655	4,102,263	0.49	2,000,791	81.0	302	2,000,792	0.27
101		0.153	0.308	56.5	13.67	29.4	9.66	22.8	337	1,473,054	0.49	725,015	63.0	146	725,013	0.36
102		0.145	0.219	44.0	7.70	22.9	5.44	12.8	167	568,458	0.52	293,470	53.0	70	293,468	0.45
103		0.147	0.141	29.8	3.53	15.5	2.50	5.9	80	184,041	0.51	93,760	45.0	29	93,756	0.58
200		0.120	0.155	37.2	4.72	19.3	3.34	7.9	112	323,433	0.47	153,622	48.0	41	153,617	0.46
201		0.114	0.116	37.2	3.61	19.4	2.55	6.0	62	178,233	0.43	76,234	47.0	20	76,234	0.40
202		0.126	0.231	34.6	6.44	18.0	4.55	10.7	372	998,250	0.46	462,221	49.0	134	462,205	0.49
203		0.155	0.263	36.4	7.64	18.9	5.40	12.7	295	831,996	0.49	405,483	51.0	114	405,482	0.50
204		0.150	0.415	62.3	20.18	32.4	14.26	33.6	885	4,268,517	0.50	2,128,707	70.0	400	2,128,696	0.34
205		0.157	0.311	28.4	7.08	14.8	5.00	11.8	643	1,413,159	0.48	682,493	48.0	232	682,476	0.59
206		0.157	0.313	59.1	14.52	30.7	10.26	24.2	317	1,448,370	0.48	699,499	64.0	136	699,497	0.34
207		0.114	0.125	35.2	3.67	18.3	2.59	6.1	77	210,177	0.64	134,664	47.0	35	134,665	0.61
208		0.114	0.074	25.1	1.72	13.0	1.22	2.9	34	65,340	0.64	41,665	41.0	14	41,656	0.76
300		0.156	0.152	39.7	4.95	20.7	3.50	8.3	63	193,479	0.49	93,972	50.0	24	93,970	0.45
301		0.157	0.120	38.9	3.88	20.2	2.74	6.5	37	112,167	0.48	53,622	49.0	14	53,619	0.45
302		0.157	0.191	51.2	7.79	26.6	5.50	13.0	79	313,995	0.48	151,746	55.0	32	151,743	0.37
303		0.144	0.162	40.9	5.40	21.3	3.82	9.0	83	261,723	0.51	132,476	51.0	33	132,477	0.46
304		0.116	0.108	26.5	2.49	13.8	1.76	4.2	73	149,556	0.63	93,671	43.0	30	93,674	0.72
305		0.156	0.167	46.0	6.20	23.9	4.38	10.3	66	236,313	0.48	114,529	53.0	26	114,525	0.41
306		0.126	0.088	25.4	2.01	13.2	1.42	3.3	43	85,668	0.57	48,505	42.0	16	48,497	0.69
307		0.116	0.086	39.7	2.91	20.6	2.06	4.8	29	90,024	0.63	56,508	47.0	13	56,504	0.54
308		0.118	0.096	30.5	2.55	15.9	1.80	4.3	49	114,708	0.61	70,519	45.0	20	70,520	0.65
309		0.123	0.192	43.2	6.68	22.5	4.72	11.1	170	570,273	0.58	332,339	52.0	78	332,334	0.49
310		0.123	0.154	36.8	4.64	19.1	3.28	7.7	108	307,824	0.58	178,703	48.0	47	178,701	0.55
311		0.152	0.127	22.4	2.49	11.6	1.76	4.2	79	137,214	0.50	68,139	42.0	26	68,135	0.69
400		0.143	0.305	62.4	14.94	32.5	10.55	24.9	363	1,755,105	0.52	911,801	66.0	168	911,793	0.35
401		0.130	0.224	41.2	7.40	21.4	5.23	12.3	258	824,373	0.45	374,687	52.0	96	374,681	0.42
402		0.137	0.135	29.2	3.33	15.2	2.35	5.5	84	190,575	0.54	102,127	45.0	32	102,125	0.61
403		0.138	0.112	27.6	2.67	14.3	1.88	4.4	58	124,146	0.44	55,058	43.0	19	55,056	0.55
404		0.146	0.223	40.1	7.19	20.9	5.08	12.0	189	588,786	0.51	301,977	52.0	77	301,966	0.48
405		0.128	0.136	35.1	3.97	18.2	2.81	6.6	82	222,519	0.56	124,826	47.0	34	124,818	0.55
406		0.150	0.252	33.5	6.78	17.4	4.79	11.3	314	813,483	0.41	331,854	49.0	104	331,837	0.46
407		0.110	0.086	27.9	2.15	14.5	1.52	3.6	44	95,106	0.67	63,541	43.0	19	63,535	0.73
408		0.101	0.087	22.5	1.81	11.7	1.28	3.0	47	81,675	0.75	61,190	41.0	20	61,182	0.91
409		0.150	0.220	47.8	8.36	24.8	5.91	13.9	139	512,919	0.50	257,490	55.0	58	257,481	0.41
410		0.110	0.112	20.4	2.05	10.6	1.45	3.4	107	168,432	0.67	112,799	40.0	42	112,782	0.90
411		0.095	0.080	20.5	1.56	10.6	1.10	2.6	30	48,279	0.83	40,152	40.0	14	40,144	1.03
412		0.112	0.130	24.7	2.76	12.9	1.95	4.6	121	231,594	0.65	150,747	42.0	50	150,736	0.78
413		0.109	0.092	33.2	2.64	17.2	1.86	4.4	43	109,263	0.68	74,236	46.0	20	74,235	0.65
414		0.106	0.118	29.7	3.00	15.5	2.12	5.0	84	193,116	0.70	135,743	44.0	39	135,733	0.73
415		0.137	0.210	54.0	9.00	28.1	6.36	15.0	136	568,095	0.54	304,119	57.0	61	304,116	0.39
416		0.152	0.212	30.2	5.22	15.7	3.69	8.7	181	424,347	0.50	210,271	47.0	66	210,261	0.57
417		0.156	0.182	20.9	3.21	10.9	2.27	5.4	178	287,496	0.49	139,903	42.0	57	139,878	0.72
418		0.157	0.165	15.3	2.24	8.0	1.58	3.7	192	227,964	0.48	110,094	40.0	55	110,067	0.87
419		0.127	0.113	57.2	5.25	29.7	3.71	8.7	33	147,378	0.56	82,912	54.0	15	82,909	0.38
420		0.106	0.170	24.0	3.44	12.5	2.43	5.7	242	449,031	0.70	313,912	42.0	104	313,893	0.84
421		0.113	0.116	27.1	2.72	14.1	1.92	4.5	87	181,500	0.65	117,595	43.0	37	117,591	0.73
422		0.157	0.085	22.7	1.77	11.8	1.25	3.0	29	51,546	0.48	24,894	41.0	9	24,890	0.66
500		0.145	0.130	39.5	4.24	20.6	3.00	7.1	51	156,453	0.51	80,412	49.0	20	80,411	0.47
501		0.116	0.177	33.4	4.85	17.4	3.42	8.1	184	476,256	0.63	298,254	47.0	82	298,241	0.62
502		0.119	0.139	28.9	3.39	15.0	2.39	5.6	115	257,004	0.61	155,624	45.0	47	155,621	0.67
503		0.141	0.208	42.6	7.09	22.1	5.01	11.8	154	506,748	0.53	266,100	52.0	65	266,090	0.46
504		0.113	0.145	36.8	4.40	19.1	3.11	7.3	104	296,208	0.65	191,768	48.0	48	191,767	0.59
505		0.115	0.094	32.6	2.66	17.0	1.88	4.4	44	111,804	0.63	70,524	46.0	19	70,524	0.63
506		0.123	0.094	31.1	2.55	16.2	1.80	4.2	43	103,818	0.58	60,562	45.0	18	60,565	0.61
600		0.154	0.299	64.2	15.04	33.4	10.63	25.1	262	1,301,718	0.49	637,271	66.0	115	637,267	0.32
700		0.141	0.252	28.6	5.83	14.9	4.12	9.7	439	972,114	0.53	511,565	47.0	167	511,568	0.62
701		0.153	0.252	50.1	9.99	26.0	7.06	16.7	194	751,047	0.49	369,652	57.0	81	369,650	0.39
702		0.127	0.110	51.0	4.59	26.5	3.25	7.7	35	138,666	0.46	63,173	51.0	13	63,172	0.35
703		0.133	0.204	59.4	9.62	30.9	6.80	16.0	125	576,081	0.23	132,031	56.0	25	132,029	0.16
704		0.156	0.343	56.8	15.28	29.6	10.80	25.5	454	1,996,863	0.25	490,228	62.0	106	490,223	0.19
705		0.157	0.242	46.9	9.01	24.4	6.37	15.0	168	610,929	0.16	95,837	53.0	25	95,834	0.15
706		0.134	0.151	33.9	4.23	17.6	2.99	7.0	97	255,915	0.54	139,447	47.0	39	139,443	0.56
707		0.148	0.152	44.1	5.47	23.0	3.86	9.1	63	215,259	0.50	108,428	51.0	26	108,428	0.43
800		0.156	0.560	109.9	38.46	57.1	25.71	79.2	1,195	10,170,534	0.35	3,572,407	115.0	411	3,572,408	0.15
801		0.149	0.369	114.0	32.58	59.3	23.02	54.3	329	2,902,548	0.25	723,912	91.0	81	723,912	0.10
802		0.156	0.482	63.7	22.29	33.1	14.90	39.8	1,255	6,186,609	0.47	2,908,262	76.0	543	2,908,198	0.32
803		0.155	0.235	49.8	9.30	25.9	6.57	15.5	150	580,074	0.49	283,169	56.0	62	283,161	0.39
804		0.153	0.313	59.4	14.58	30.9	10.30	24.3	343	1,576,509	0.49	779,257	65.0	150	779,239	0.35
805		0.157	0.318	63.9	15.90	33.2	11.24	26.5	307	1,518,429	0.48	733,334	67.0	134	733,336	0.32
806		0.153	0.263	60.4	12.50	31.4	8.84	20.8	188	877,371	0.49	433,105	63.0	82	433,100	0.34
807		0.143	0.150	26.3	3.33	13.7	2.35	5.5	109	221,793	0.52	115,449	44.0	39	115,443	0.64

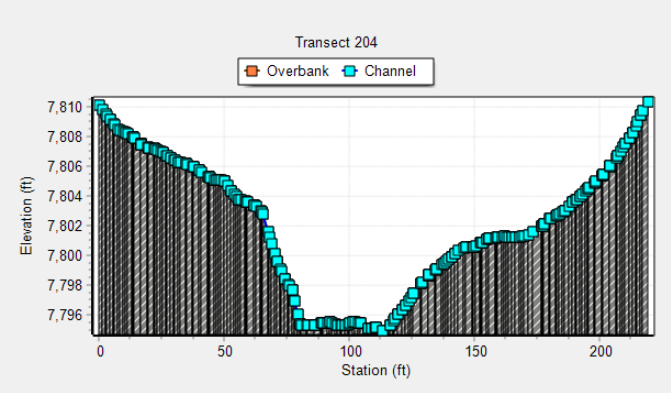
Stagecoach - Proposed Conditions (Linked to CUHP)

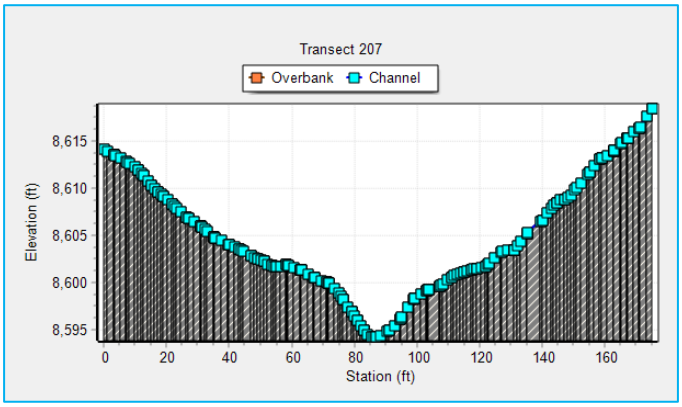


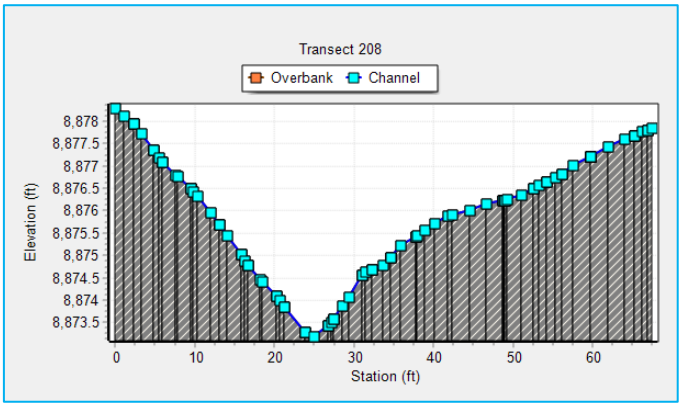

Transect 202A
Overbank
Channel
Elevation (ft)
8,779
8,778
8,777
8,776
8,775
8,774
8,773
8,772
0
20
40
60
80
100
120
140
Station (ft)

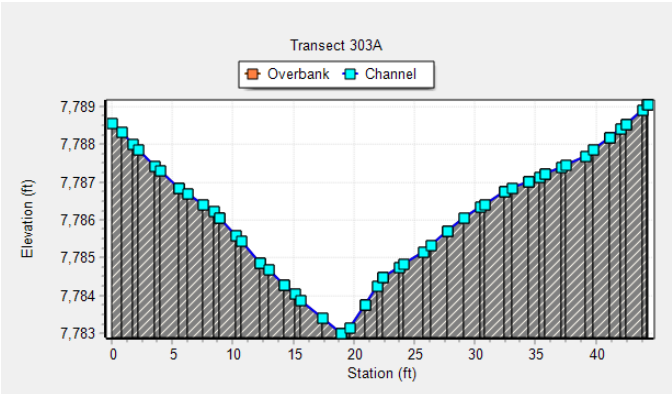

Transect 202B
Overbank
Channel
Elevation (ft)
8,906
8,905
8,904
8,903
8,902
8,901
8,900
0
10
20
30
40
50
60
70
80
Station (ft)

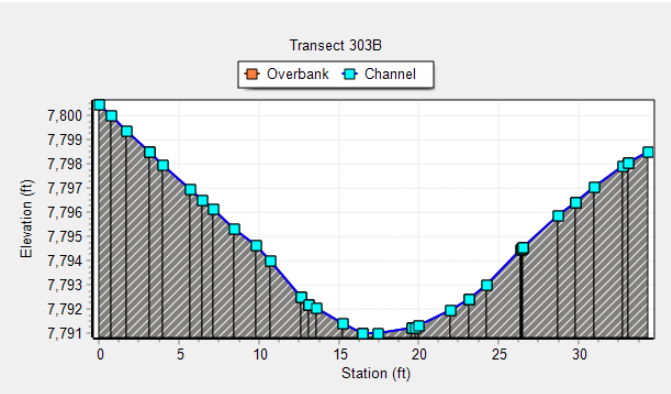

Transect 203
Overbank
Channel
Elevation (ft)
8,505
8,500
8,495
8,490
8,485
8,480
8,475
0
20
40
60
80
100
120
140
160
180
Station (ft)

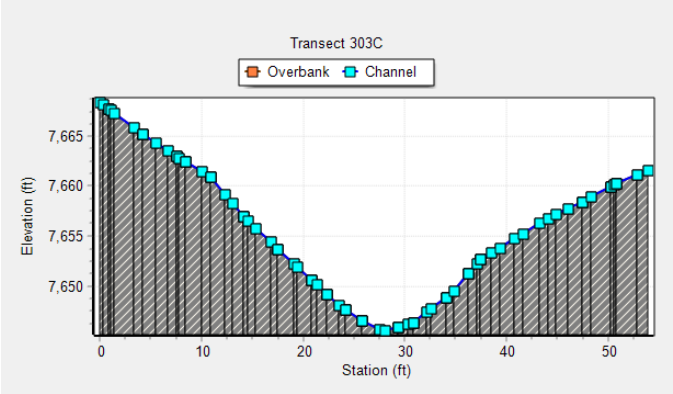

Transect 204
Overbank
Channel
Elevation (ft)
7,810
7,808
7,806
7,804
7,802
7,800
7,798
7,796
0
50
100
150
200
Station (ft)

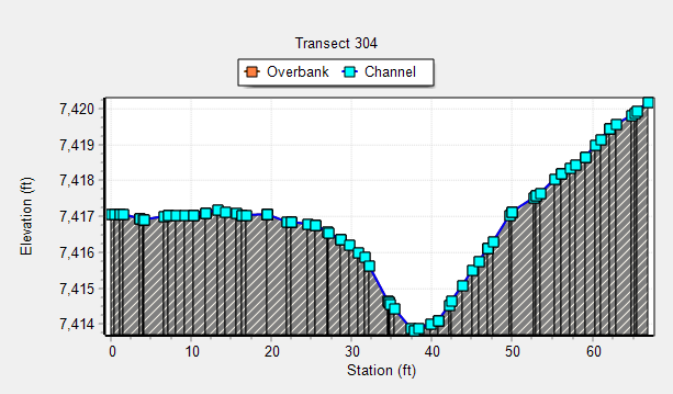

Transect 207
Overbank
Channel
Elevation (ft)
8,615
8,610
8,605
8,600
8,595
0
20
40
60
80
100
120
140
160
Station (ft)

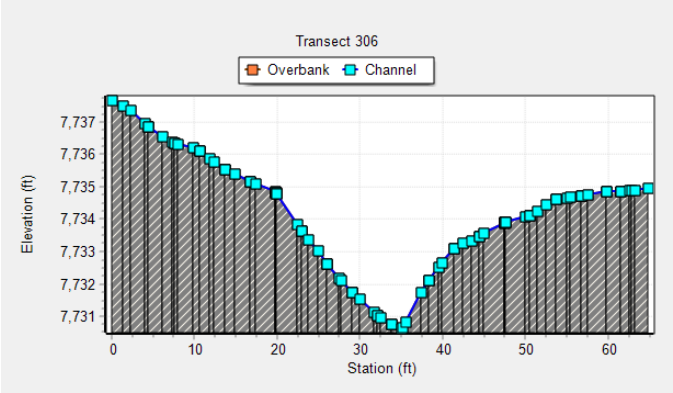

Transect 208
Overbank
Channel
Elevation (ft)
8,878
8,877.5
8,877
8,876.5
8,876
8,875.5
8,875
8,874.5
8,874
8,873.5
0
10
20
30
40
50
60
Station (ft)

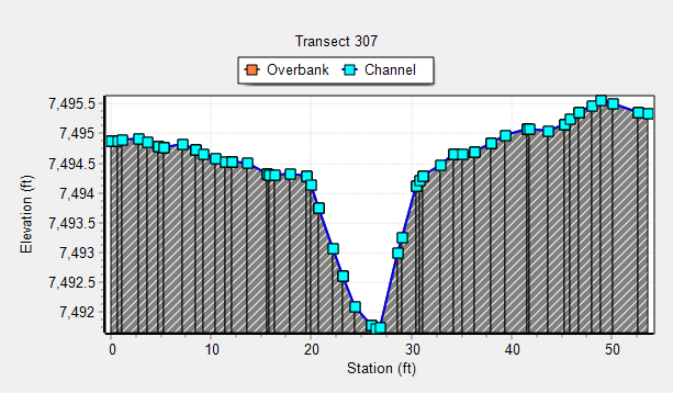

Transect 303A
Overbank
Channel
Elevation (ft)
7,789
7,788
7,787
7,786
7,785
7,784
7,783
0
5
10
15
20
25
30
35
40
Station (ft)

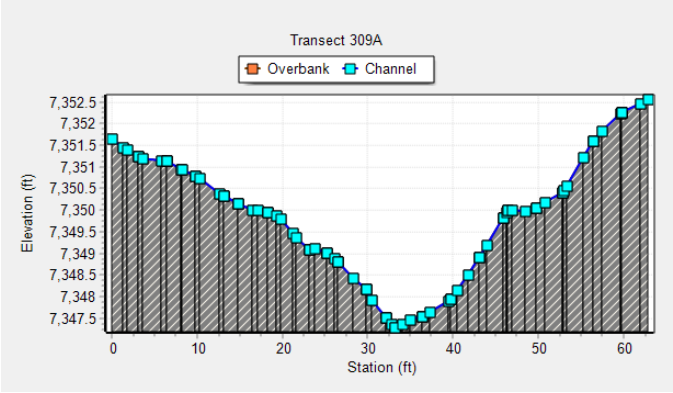

Transect 303B
Overbank
Channel
Elevation (ft)
7,800
7,799
7,798
7,797
7,796
7,795
7,794
7,793
7,792
7,791
0
5
10
15
20
25
30
Station (ft)

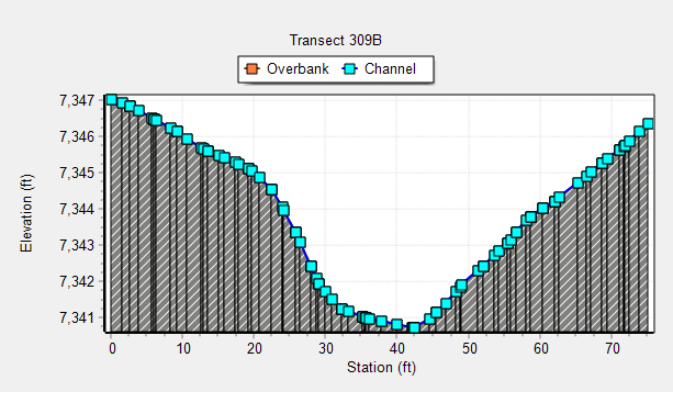


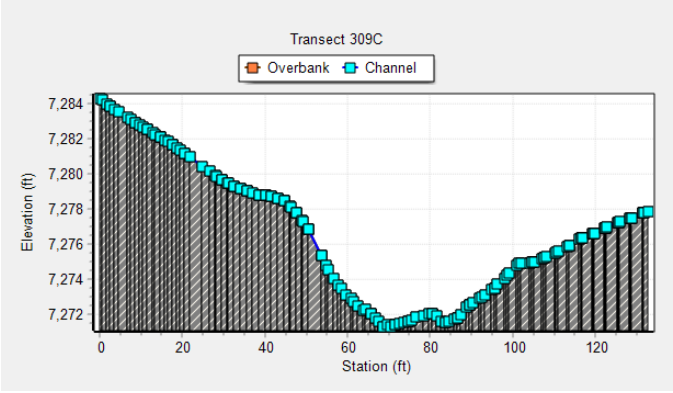


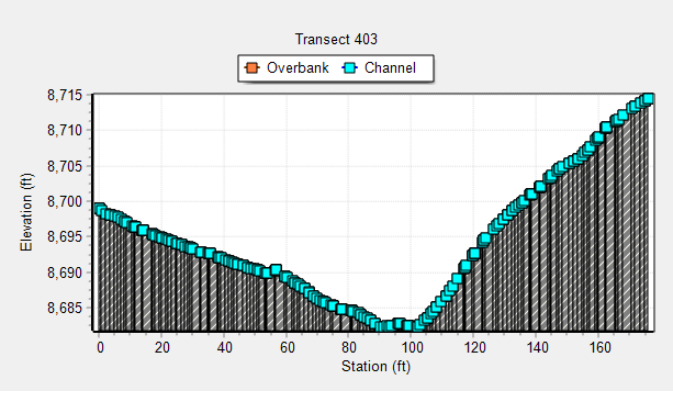




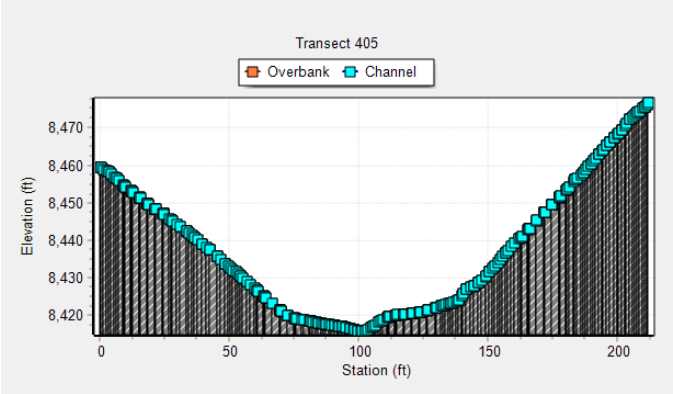


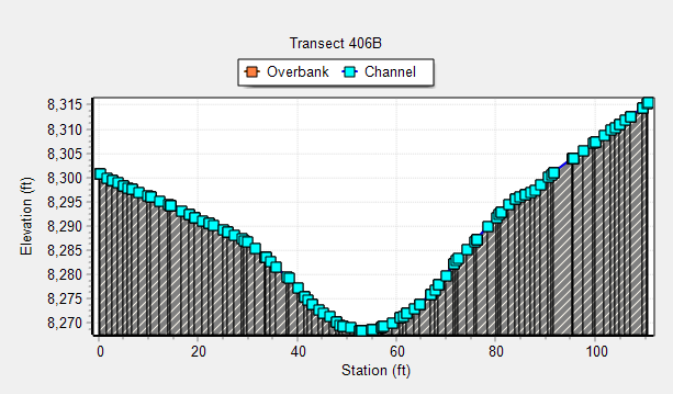


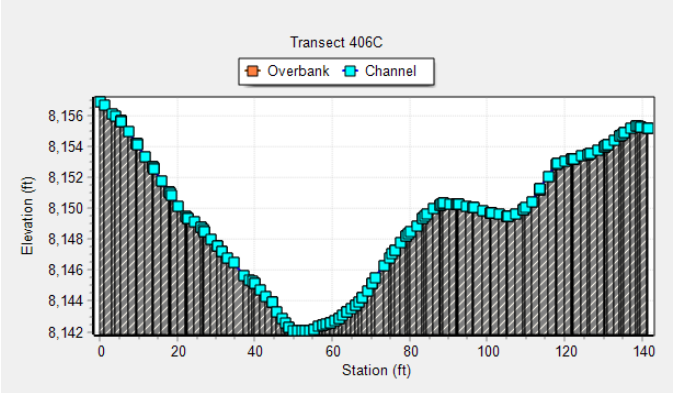


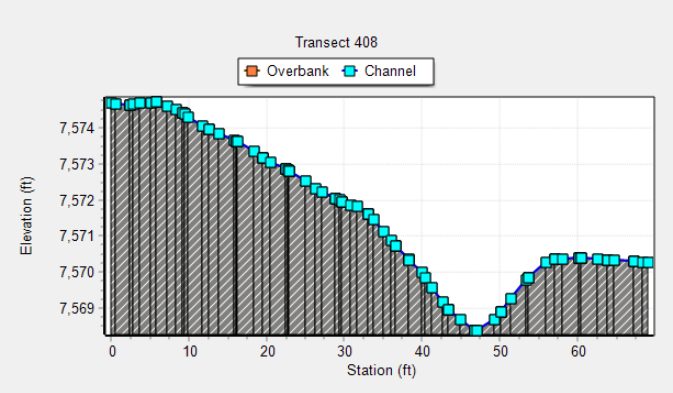


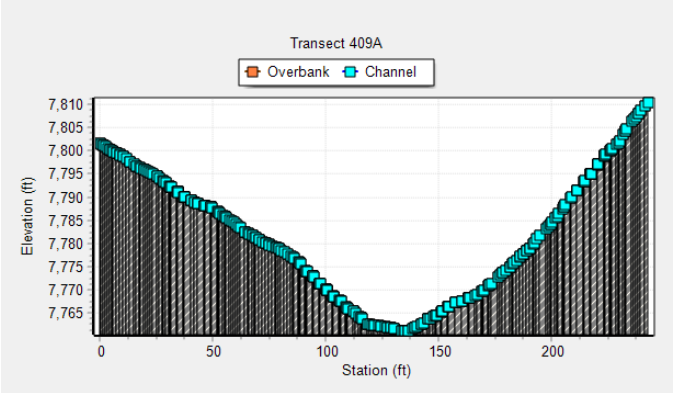
Transect 403 used for Conduit 403 and 406A

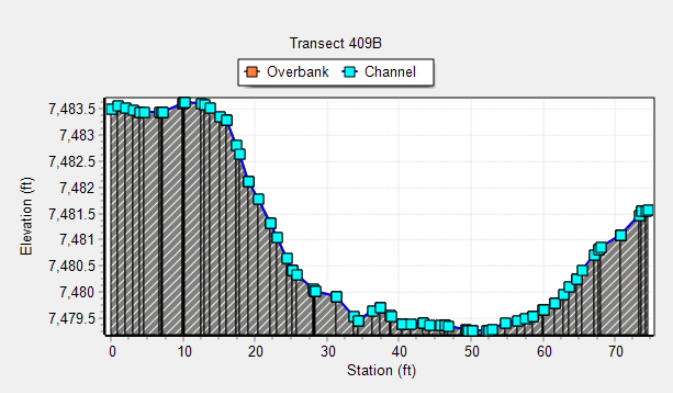

Transect 405
Overbank
Channel
Elevation (ft)
8,470
8,460
8,450
8,440
8,430
8,420
0
50
100
150
200
Station (ft)

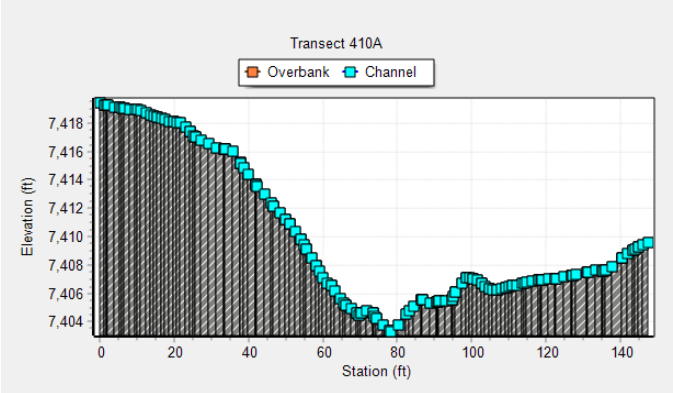

Transect 406B
Overbank
Channel
Elevation (ft)
8,315
8,310
8,305
8,300
8,295
8,290
8,285
8,280
8,275
8,270
0
20
40
60
80
100
Station (ft)

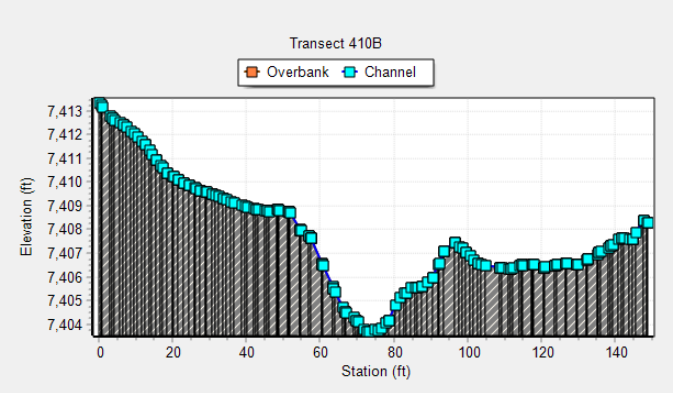

Transect 406C
Overbank
Channel
Elevation (ft)
8,156
8,154
8,152
8,150
8,148
8,146
8,144
8,142
0
20
40
60
80
100
120
140
Station (ft)

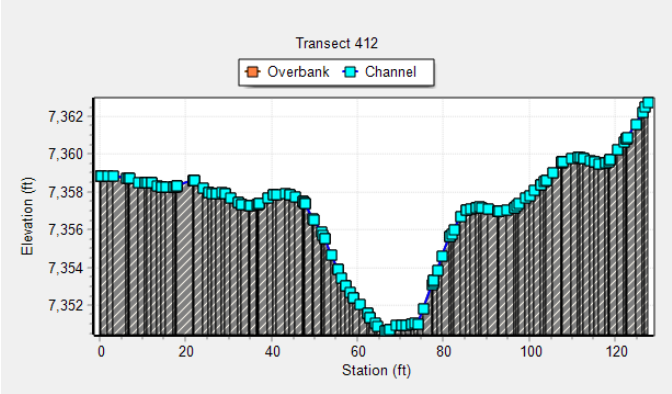

Transect 408
Overbank
Channel
Elevation (ft)
7,574
7,573
7,572
7,571
7,570
7,569
0
10
20
30
40
50
60
Station (ft)

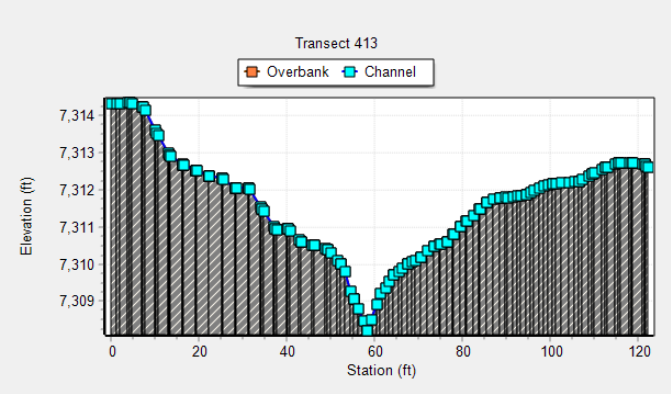

Transect 409A
Overbank
Channel
Elevation (ft)
7,810
7,805
7,800
7,795
7,790
7,785
7,780
7,775
7,770
7,765
0
50
100
150
200
Station (ft)

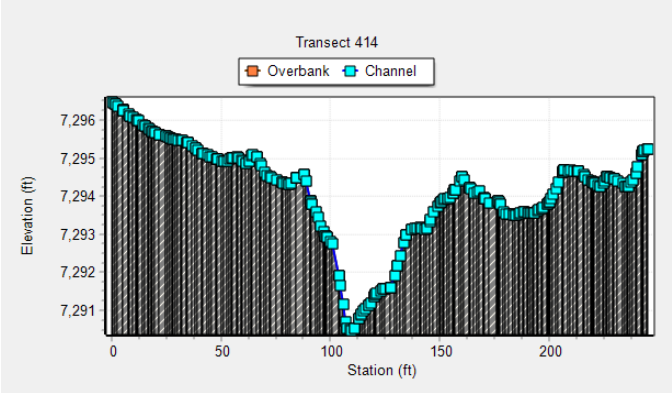

Transect 409B
Overbank
Channel
Elevation (ft)
7,483.5
7,483
7,482.5
7,482
7,481.5
7,481
7,480.5
7,480
7,479.5
0
10
20
30
40
50
60
70
Station (ft)

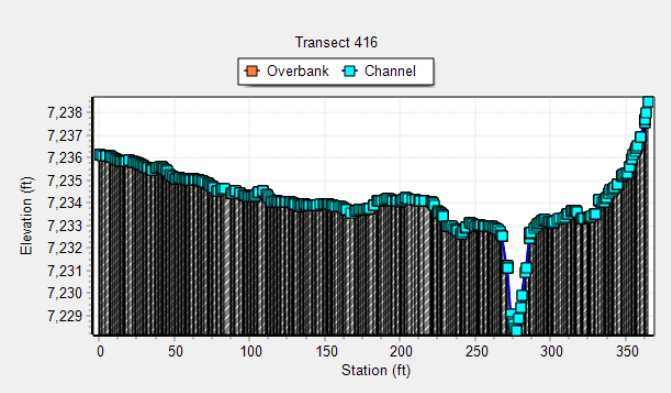

Transect 410A
Overbank
Channel
Elevation (ft)
7,418
7,416
7,414
7,412
7,410
7,408
7,406
7,404
0
20
40
60
80
100
120
140
Station (ft)

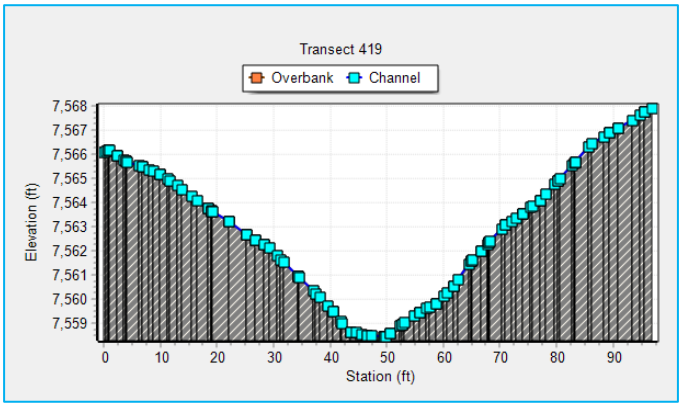

Transect 410B
Overbank
Channel
Elevation (ft)
7,413
7,412
7,411
7,410
7,409
7,408
7,407
7,406
7,405
7,404
0
20
40
60
80
100
120
140
Station (ft)

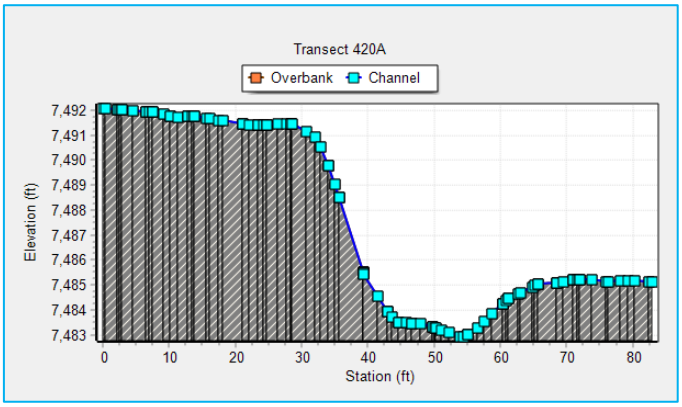

Transect 412
Overbank
Channel
Elevation (ft)
7,362
7,360
7,358
7,356
7,354
7,352
0
20
40
60
80
100
120
Station (ft)

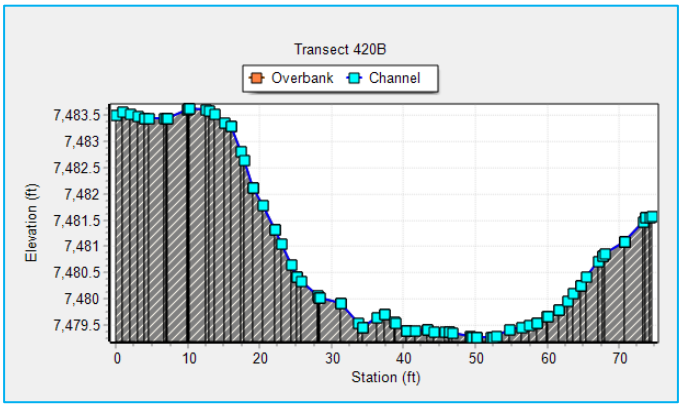

Transect 413
Overbank
Channel
Elevation (ft)
7,314
7,313
7,312
7,311
7,310
7,309
0
20
40
60
80
100
120
Station (ft)

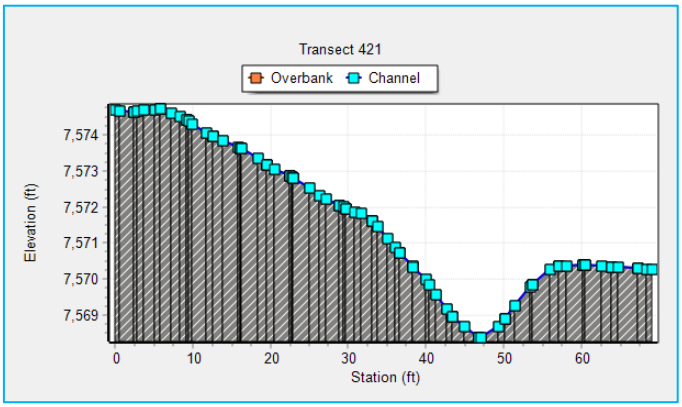

Transect 414
Overbank
Channel
Elevation (ft)
7,296
7,295
7,294
7,293
7,292
7,291
0
50
100
150
200
Station (ft)

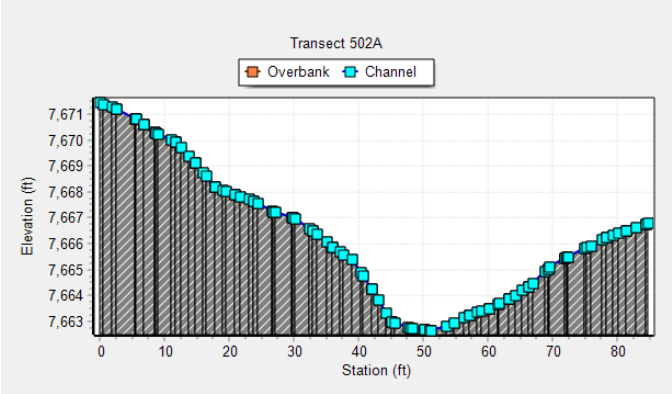

Transect 416
Overbank
Channel
Elevation (ft)
7,238
7,237
7,236
7,235
7,234
7,233
7,232
7,231
7,230
7,229
0
50
100
150
200
250
300
350
Station (ft)

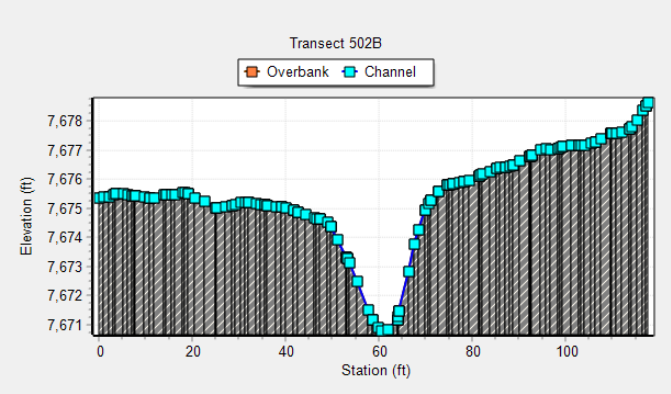

Transect 419
Overbank
Channel
Elevation (ft)
7,568
7,567
7,566
7,565
7,564
7,563
7,562
7,561
7,560
7,559
0
10
20
30
40
50
60
70
80
90
Station (ft)

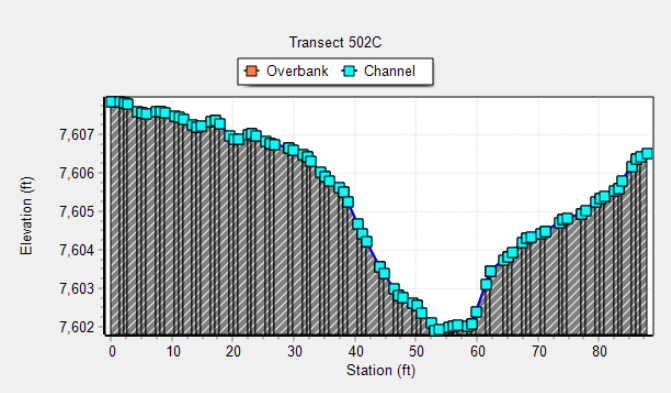

Transect 420A
Overbank
Channel
Elevation (ft)
7,492
7,491
7,490
7,489
7,488
7,487
7,486
7,485
7,484
7,483
0
10
20
30
40
50
60
70
80
Station (ft)

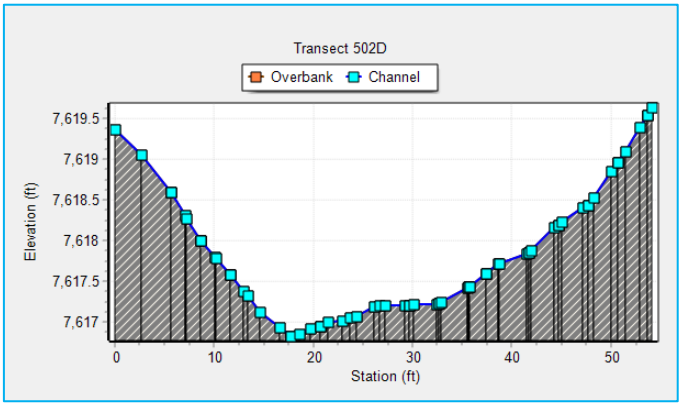

Transect 420B
Overbank
Channel
Elevation (ft)
7,483.5
7,483
7,482.5
7,482
7,481.5
7,481
7,480.5
7,480
7,479.5
0
10
20
30
40
50
60
70
Station (ft)

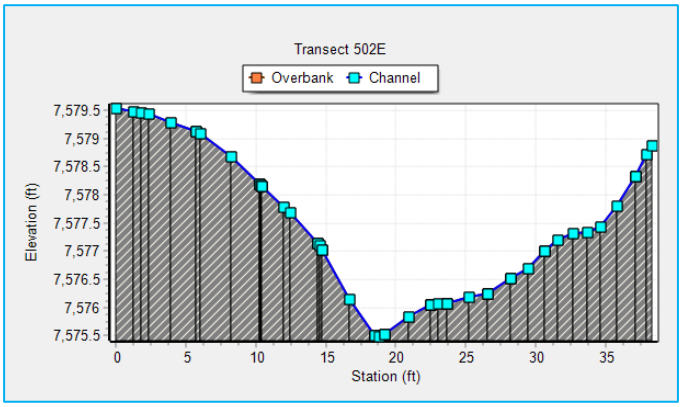

Transect 421
Overbank
Channel
Elevation (ft)
7,574
7,573
7,572
7,571
7,570
7,569
0
10
20
30
40
50
60
Station (ft)


Transect 502A
Overbank
Channel
Elevation (ft)
7,671
7,670
7,669
7,668
7,667
7,666
7,665
7,664
7,663
0
10
20
30
40
50
60
70
80
Station (ft)


Transect 502B
Overbank
Channel
Elevation (ft)
7,678
7,677
7,676
7,675
7,674
7,673
7,672
7,671
0
20
40
60
80
100
Station (ft)


Transect 502C
Overbank
Channel
Elevation (ft)
7,607
7,606
7,605
7,604
7,603
7,602
0
10
20
30
40
50
60
70
80
Station (ft)


Transect 502D
Overbank
Channel
Elevation (ft)
7,619.5
7,619
7,618.5
7,618
7,617.5
7,617
0
10
20
30
40
50
Station (ft)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Overbank
Channel
Elevation (ft)
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7,579
7,578.5
7,578
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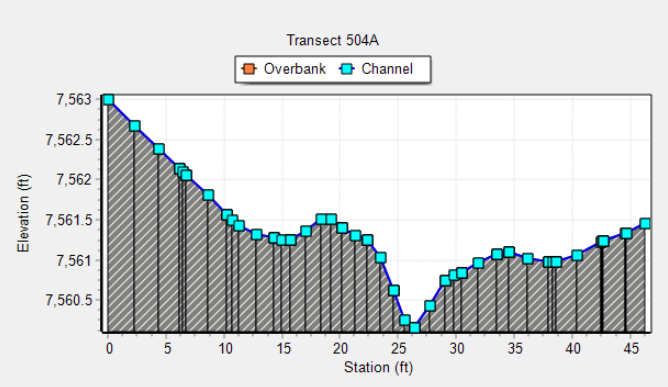
7,576.5
7,576
7,575.5
0
5
10
15
20
25
30
35
Station (ft)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Overbank
Channel
Elevation (ft)
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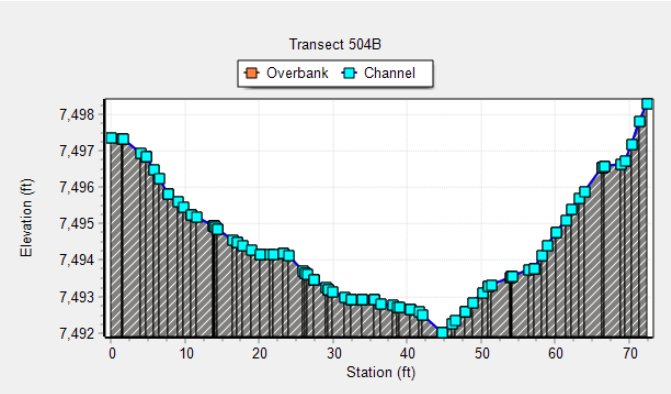
7,561.5
7,561
7,560.5
0
5
10
15
20
25
30
35
40
45
Station (ft)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Overbank
Channel
Elevation (ft)
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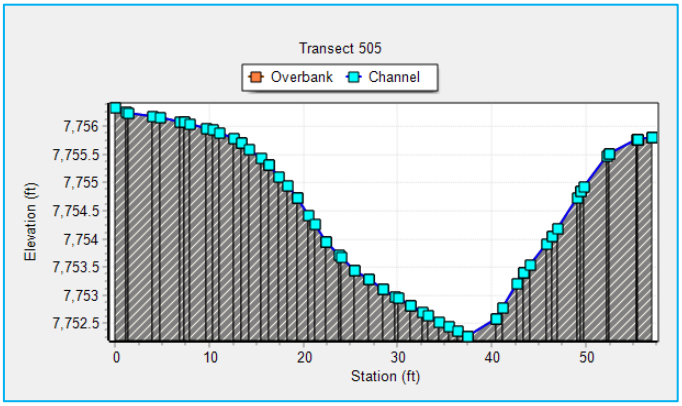
7,497
7,496
7,495
7,494
7,493
7,492
0
10
20
30
40
50
60
70
Station (ft)


Transect 505
Overbank
Channel
Elevation (ft)
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7,755
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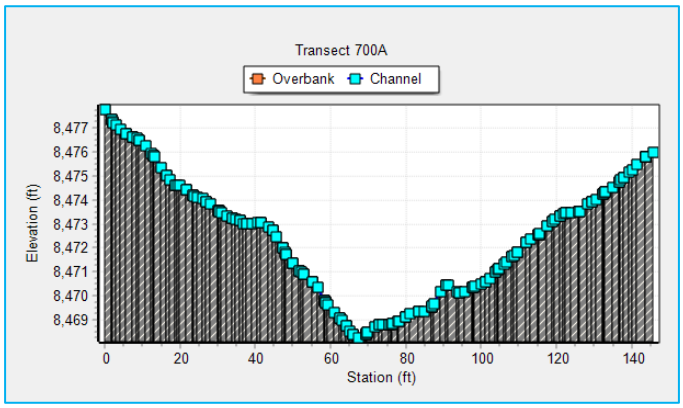
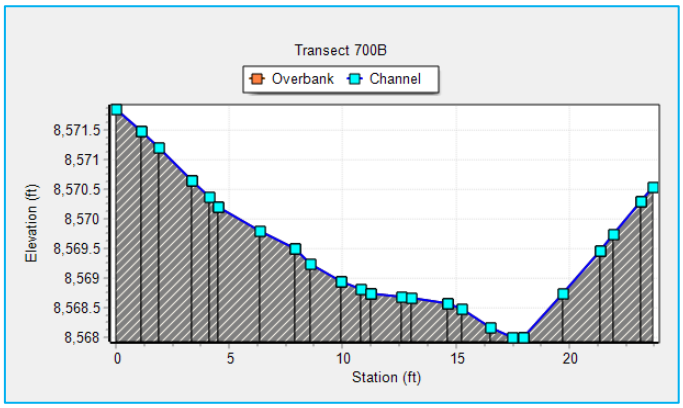
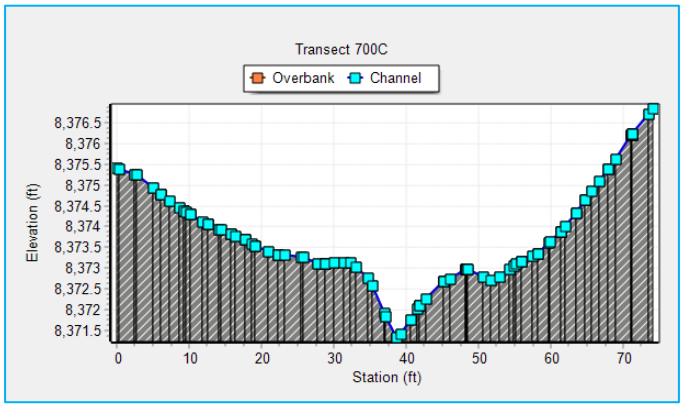
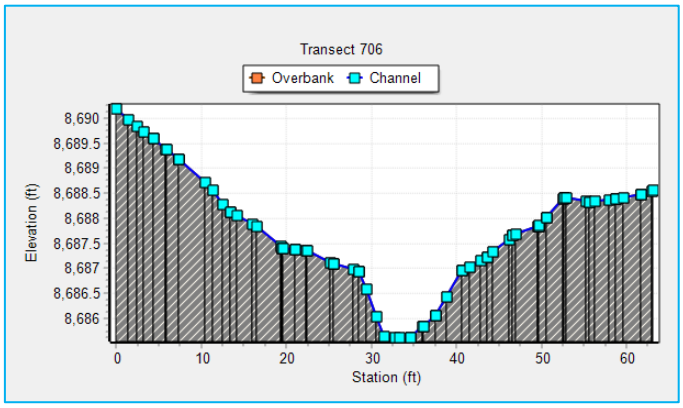
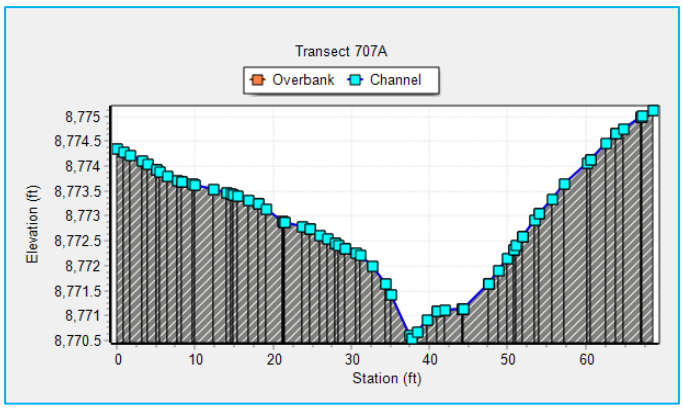
7,754
7,753.5
7,753
7,752.5
0
10
20
30
40
50
Station (ft)

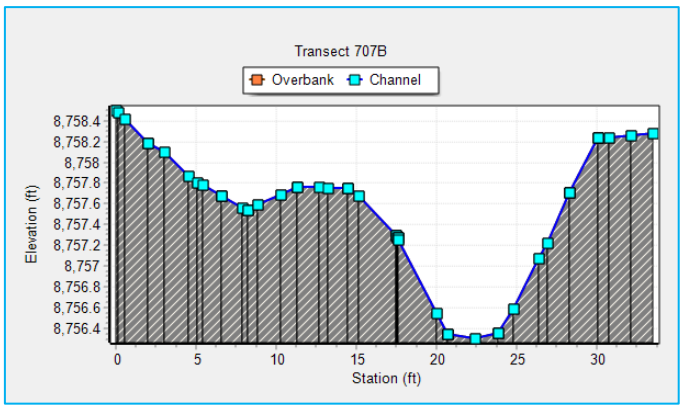


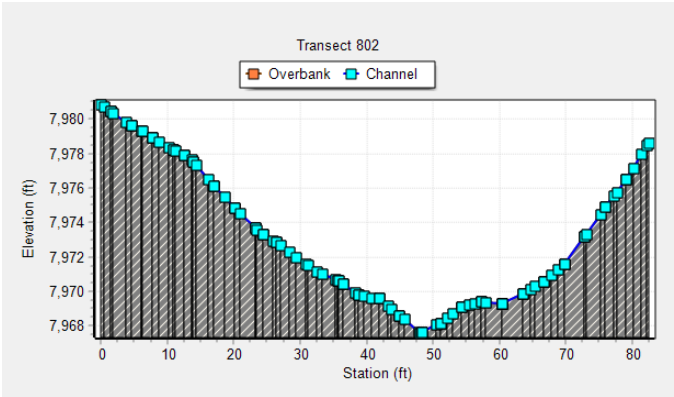


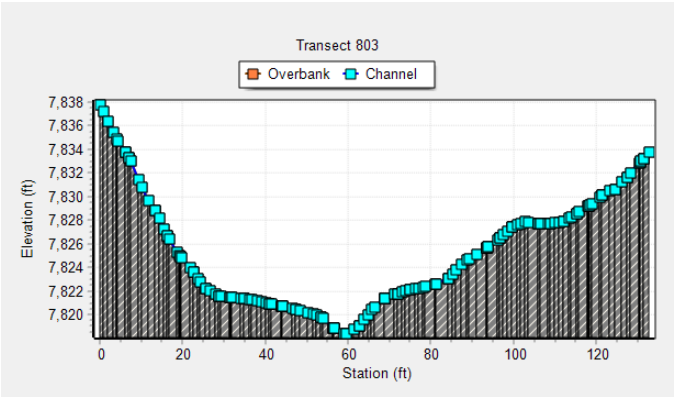




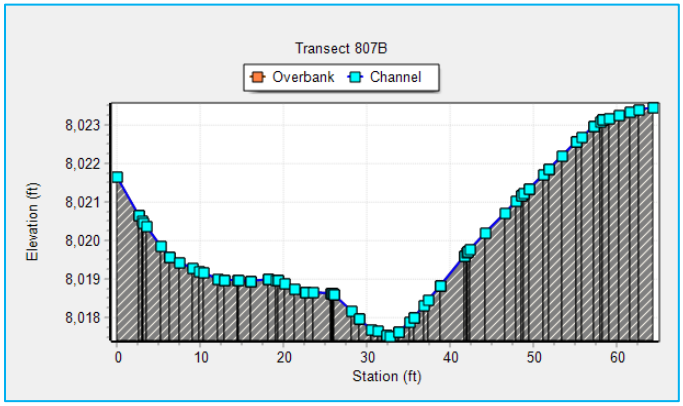








Transect 802 used for Conduit 802 and 807A



Note: "Dummy" Conduits utilized for Links 401, 411, 415, 503, 701, 705, 801

Stagecoach - Proposed Conditions (Linked to CUHP)

Node Inflow Summary

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
100	OUTFALL	3.85	3.85	0	01:14	0.191	0.191	0.000
101	OUTFALL	2.32	2.32	0	00:54	0.0838	0.0838	0.000
102	OUTFALL	2.15	2.15	0	00:45	0.0665	0.0665	0.000
103	OUTFALL	0.82	0.82	0	00:38	0.0183	0.0183	0.000
200	JUNCTION	3.57	3.57	0	00:39	0.115	0.115	0.000
201	JUNCTION	2.43	2.43	0	00:38	0.0878	0.0878	0.000
202	JUNCTION	8.17	11.96	0	00:57	0.232	0.485	0.000
203	JUNCTION	1.55	13.70	0	01:23	0.038	0.673	0.000
204	OUTFALL	8.43	11.73	0	02:43	0.337	1.18	0.000
205	OUTFALL	2.59	2.59	0	00:41	0.0503	0.0503	0.000
206	OUTFALL	1.40	1.40	0	00:56	0.0515	0.0515	0.000
207	JUNCTION	4.02	4.02	0	00:39	0.128	0.128	0.000
208	JUNCTION	1.58	4.73	0	00:46	0.0387	0.155	0.000
300	OUTFALL	0.30	0.30	0	00:42	0.00809	0.00809	0.000
301	JUNCTION	0.16	0.16	0	00:41	0.00416	0.00416	0.000

Stagecoach - Proposed Conditions (Linked to CUHP)

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
302	JUNCTION	0.35	0.35	0	00:46	0.0114	0.0114	0.000
303	JUNCTION	1.03	1.03	0	00:42	0.0303	0.0469	-0.000
303A	JUNCTION	0.00	0.47	0	00:57	0	0.0158	0.000
304	JUNCTION	3.23	3.44	0	00:43	0.0808	0.129	0.000
305	JUNCTION	0.31	0.31	0	00:44	0.00931	0.00931	0.000
306	JUNCTION	1.07	1.08	0	00:41	0.0237	0.0333	0.000
307	JUNCTION	1.42	2.19	0	00:53	0.0492	0.0841	0.000
308	JUNCTION	2.03	6.90	0	00:54	0.0559	0.271	0.000
309	OUTFALL	5.79	8.59	0	01:25	0.198	0.502	0.000
310	OUTFALL	3.45	3.45	0	00:41	0.104	0.104	0.000
311	OUTFALL	0.54	0.54	0	00:36	0.00925	0.00925	0.000
400	JUNCTION	5.28	5.28	0	00:57	0.22	0.22	0.000
401	JUNCTION	4.81	4.81	0	00:43	0.157	0.157	0.000
402	JUNCTION	1.40	1.40	0	00:38	0.0325	0.0325	0.000
403	JUNCTION	0.76	1.71	0	00:49	0.0169	0.0469	0.000
404	JUNCTION	2.25	2.25	0	00:44	0.0637	0.0637	0.000
405	JUNCTION	2.01	3.35	0	00:56	0.0568	0.11	0.000

Stagecoach - Proposed Conditions (Linked to CUHP)

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
406	JUNCTION	2.24	9.45	0	01:07	0.0521	0.373	0.000
406A	JUNCTION	0.00	6.40	0	00:46	0	0.202	0.000
407	JUNCTION	2.53	2.53	0	00:36	0.0694	0.0694	0.000
408	JUNCTION	3.48	5.67	0	00:39	0.0909	0.161	0.000
409	JUNCTION	1.28	10.39	0	01:08	0.0414	0.402	0.000
410	JUNCTION	5.72	26.62	0	01:27	0.124	1.58	0.000
411	JUNCTION	2.90	2.90	0	00:32	0.0745	0.0745	0.000
412	JUNCTION	6.19	29.89	0	01:01	0.151	1.73	0.000
413	JUNCTION	2.70	31.55	0	01:08	0.0854	1.82	0.000
414	JUNCTION	5.81	36.37	0	01:14	0.172	2.1	0.000
415	JUNCTION	2.50	2.50	0	00:49	0.096	0.096	0.000
416	OUTFALL	1.28	35.94	0	01:27	0.0275	2.14	0.000
417	OUTFALL	0.80	0.80	0	00:36	0.0126	0.0126	0.000
418	OUTFALL	0.66	0.66	0	00:33	0.0081	0.0081	0.000
419	JUNCTION	0.90	11.03	0	01:14	0.0386	0.442	0.000
420	JUNCTION	15.72	20.33	0	01:29	0.391	1.15	0.000
421	JUNCTION	4.45	8.62	0	00:50	0.116	0.281	0.000

Stagecoach - Proposed Conditions (Linked to CUHP)

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
422	OUTFALL	0.11	0.11	0	00:35	0.00183	0.00183	0.000
500	JUNCTION	0.61	0.61	0	00:41	0.0174	0.0174	0.000
501	JUNCTION	8.70	8.70	0	00:40	0.257	0.257	0.000
502	JUNCTION	4.44	14.79	0	00:57	0.115	0.495	0.000
502A	JUNCTION	0.00	10.53	0	00:52	0	0.341	0.000
502B	JUNCTION	0.00	11.64	0	00:56	0	0.38	0.000
503	JUNCTION	2.33	2.33	0	00:44	0.0713	0.0713	0.000
504	OUTFALL	5.74	18.20	0	01:16	0.189	0.767	0.000
504A	JUNCTION	0.00	16.65	0	00:59	0	0.566	0.000
505	JUNCTION	2.11	10.28	0	00:47	0.0627	0.322	0.000
506	JUNCTION	1.36	1.36	0	00:37	0.0363	0.0363	0.000
600	OUTFALL	1.63	1.63	0	00:57	0.0661	0.0661	0.000
700	OUTFALL	6.38	7.56	0	00:42	0.14	0.391	0.000
700A	JUNCTION	0.00	3.61	0	01:28	0	0.208	0.000
701	JUNCTION	1.30	1.30	0	00:49	0.0427	0.0427	0.000
702	JUNCTION	0.74	0.74	0	00:42	0.03	0.03	0.000
703	JUNCTION	1.16	1.16	0	00:53	0.0649	0.0649	0.000

Stagecoach - Proposed Conditions (Linked to CUHP)

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
704	JUNCTION	0.75	0.75	0	00:55	0.0292	0.0292	0.000
705	JUNCTION	0.07	0.07	0	00:47	0.00332	0.00332	0.000
706	JUNCTION	1.89	1.96	0	00:43	0.0503	0.0836	0.000
707	JUNCTION	0.64	2.36	0	01:05	0.0196	0.118	0.000
800	JUNCTION	3.88	3.88	0	01:49	0.259	0.259	0.000
801	JUNCTION	1.05	1.05	0	01:35	0.084	0.084	0.000
802	JUNCTION	5.94	6.59	0	01:54	0.234	0.495	0.000
803	OUTFALL	0.85	7.92	0	02:45	0.0275	0.716	0.000
804	OUTFALL	2.57	2.57	0	00:56	0.0976	0.0976	0.000
805	OUTFALL	1.36	1.36	0	00:58	0.054	0.054	0.000
806	JUNCTION	1.37	1.37	0	00:54	0.053	0.053	0.000
807	JUNCTION	1.38	7.92	0	02:12	0.0285	0.682	0.000

Stagecoach - Proposed Conditions (Linked to CUHP)

Node Inflow Summary

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
100	OUTFALL	302.23	302.23	0	01:21	15	15	0.000
101	OUTFALL	145.58	145.58	0	01:03	5.42	5.42	0.000
102	OUTFALL	69.98	69.98	0	00:53	2.2	2.2	0.000
103	OUTFALL	29.22	29.22	0	00:45	0.701	0.701	0.000
200	JUNCTION	40.59	40.59	0	00:48	1.15	1.15	0.000
201	JUNCTION	19.74	19.74	0	00:47	0.57	0.57	0.000
202	JUNCTION	134.12	192.09	0	00:54	3.46	5.52	0.000
203	JUNCTION	113.79	299.77	0	01:06	3.03	9.77	0.000
204	OUTFALL	400.01	581.71	0	01:22	15.9	26.5	0.000
205	OUTFALL	231.61	231.61	0	00:48	5.1	5.1	0.000
206	OUTFALL	135.96	135.96	0	01:04	5.23	5.23	0.000
207	JUNCTION	35.08	35.08	0	00:47	1.01	1.01	0.000
208	JUNCTION	13.60	52.77	0	00:51	0.312	1.46	0.000
300	OUTFALL	24.13	24.13	0	00:50	0.703	0.703	0.000
301	JUNCTION	13.89	13.89	0	00:49	0.401	0.401	0.000

Stagecoach - Proposed Conditions (Linked to CUHP)

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
302	JUNCTION	32.33	32.33	0	00:55	1.14	1.14	0.000
303	JUNCTION	32.90	75.23	0	01:00	0.991	2.54	0.000
303A	JUNCTION	0.00	45.65	0	00:56	0	1.54	0.000
304	JUNCTION	29.75	97.65	0	01:02	0.701	3.25	0.000
305	JUNCTION	26.41	26.41	0	00:53	0.857	0.857	0.000
306	JUNCTION	16.25	40.28	0	00:53	0.363	1.22	0.000
307	JUNCTION	13.47	52.16	0	00:58	0.423	1.65	0.000
308	JUNCTION	20.41	165.70	0	01:03	0.527	5.44	0.000
309	OUTFALL	77.62	210.34	0	01:16	2.49	8.07	0.000
310	OUTFALL	46.63	46.63	0	00:48	1.34	1.34	0.000
311	OUTFALL	25.92	25.92	0	00:42	0.51	0.51	0.000
400	JUNCTION	167.52	167.52	0	01:06	6.82	6.82	0.000
401	JUNCTION	95.90	95.90	0	00:52	2.8	2.8	0.000
402	JUNCTION	31.88	31.88	0	00:45	0.764	0.764	0.000
403	JUNCTION	18.76	49.92	0	00:47	0.412	1.18	0.000
404	JUNCTION	77.28	77.28	0	00:52	2.26	2.26	0.000
405	JUNCTION	33.89	108.05	0	00:55	0.934	3.19	0.000

Stagecoach - Proposed Conditions (Linked to CUHP)

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
406	JUNCTION	103.61	333.67	0	00:57	2.48	9.71	0.000
406A	JUNCTION	0.00	145.02	0	00:50	0	3.98	0.000
407	JUNCTION	19.03	19.03	0	00:43	0.475	0.475	0.000
408	JUNCTION	20.47	38.83	0	00:44	0.458	0.933	0.000
409	JUNCTION	57.87	390.81	0	00:58	1.93	11.6	0.000
410	JUNCTION	41.84	700.32	0	01:13	0.844	24.7	0.000
411	JUNCTION	13.74	13.74	0	00:40	0.3	0.3	0.000
412	JUNCTION	49.89	726.49	0	01:14	1.13	25.9	0.000
413	JUNCTION	19.69	737.88	0	01:16	0.555	26.4	0.000
414	JUNCTION	38.61	792.65	0	01:22	1.02	29.7	0.000
415	JUNCTION	61.17	61.17	0	00:57	2.27	2.27	0.000
416	OUTFALL	66.47	751.27	0	01:37	1.57	31.3	0.000
417	OUTFALL	56.70	56.70	0	00:42	1.05	1.05	0.000
418	OUTFALL	54.55	54.55	0	00:40	0.823	0.823	0.000
419	JUNCTION	15.47	405.30	0	01:00	0.62	12.3	0.000
420	JUNCTION	104.48	515.51	0	01:08	2.35	16.7	0.000
421	JUNCTION	36.54	71.83	0	00:50	0.88	1.82	0.000

Stagecoach - Proposed Conditions (Linked to CUHP)

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
422	OUTFALL	9.38	9.38	0	00:41	0.186	0.186	0.000
500	JUNCTION	20.39	20.39	0	00:49	0.601	0.601	0.000
501	JUNCTION	81.98	81.98	0	00:47	2.23	2.23	0.000
502	JUNCTION	47.37	178.28	0	00:55	1.16	5	0.000
502A	JUNCTION	0.00	119.18	0	00:54	0	3.37	0.000
502B	JUNCTION	0.00	135.93	0	00:55	0	3.83	0.000
503	JUNCTION	64.61	64.61	0	00:52	1.99	1.99	0.000
504	OUTFALL	48.48	276.55	0	01:03	1.43	8.49	0.000
504A	JUNCTION	0.00	241.83	0	00:55	0	6.99	0.000
505	JUNCTION	19.33	100.25	0	00:50	0.528	2.76	0.000
506	JUNCTION	17.53	17.53	0	00:45	0.453	0.453	0.000
600	OUTFALL	115.25	115.25	0	01:06	4.77	4.77	0.000
700	OUTFALL	166.97	399.62	0	01:09	3.83	14.4	0.000
700A	JUNCTION	0.00	215.11	0	01:11	0	7.8	0.000
701	JUNCTION	80.79	80.79	0	00:57	2.76	2.76	0.000
702	JUNCTION	13.32	13.32	0	00:51	0.473	0.473	0.000
703	JUNCTION	25.34	25.34	0	00:56	0.988	0.988	0.000

Stagecoach - Proposed Conditions (Linked to CUHP)

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Day of Maximum Inflow	Hour of Maximum Inflow	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error %
704	JUNCTION	106.18	106.18	0	01:02	3.67	3.67	0.000
705	JUNCTION	24.84	24.84	0	00:53	0.717	0.717	0.000
706	JUNCTION	39.18	47.14	0	00:54	1.04	1.53	0.000
707	JUNCTION	25.50	175.34	0	01:03	0.811	6.19	0.000
800	JUNCTION	410.93	410.93	0	01:55	26.7	26.7	0.000
801	JUNCTION	80.56	80.56	0	01:31	5.41	5.41	0.000
802	JUNCTION	543.06	755.12	0	01:38	21.8	48.5	0.000
803	OUTFALL	62.05	916.05	0	01:51	2.12	60.5	0.000
804	OUTFALL	150.34	150.34	0	01:05	5.83	5.83	0.000
805	OUTFALL	133.88	133.88	0	01:07	5.49	5.49	0.000
806	JUNCTION	81.59	81.59	0	01:03	3.24	3.24	0.000
807	JUNCTION	39.08	891.47	0	01:44	0.864	58.3	0.000

Proposed Runoff - Overall					
Design Point	Tributary Basin(s)	Direct Runoff (cfs)		Routed Runoff (cfs)	
		Q5	Q100	Q5	Q100
100	100	3.9	302.2	-	-
101	101	2.3	145.6	-	-
102	102	2.2	70.0	-	-
103	103	0.8	29.2	-	-
200	200	3.6	40.6	-	-
201	201	2.4	19.7	-	-
-	202	8.2	134.1	-	-
202	200/201/202/208	-	-	12.0	192.1
-	203	1.6	113.8	-	-
203	200/201/202/203/207	-	-	13.7	299.8
-	204	8.4	400.0	-	-
204	200/201/202/203/204	-	-	11.7	581.7
205	205	2.6	231.6	-	-
206	206	1.4	136.0	-	-
207	207	4.0	35.1	-	-
-	208	1.6	13.6	-	-
208	200/208	-	-	4.7	52.8
300	300	0.3	24.1	-	-
301	301	0.2	13.9	-	-
302	302	0.4	32.3	-	-
-	303	1.0	32.9	-	-
303	301/302/303	-	-	1.0	75.2
-	304	3.2	29.8	-	-
304	301/302/303/304	-	-	3.4	97.7
-	305	0.3	26.4	-	-
305	305/306	-	-	0.3	26.4
-	306	1.1	16.3	-	-
306	305/306	-	-	1.1	40.3
-	307	1.4	13.5	-	-
307	305/306/307	-	-	2.2	52.2
-	308	2.0	20.4	-	-
308	301/302/303/304/305/ 306/307/308	-	-	6.9	165.7
-	309	5.8	77.6	-	-
309	301/302/303/304/305/ 306/307/308/309	-	-	8.6	210.3
310	310	3.5	46.6	-	-
311	311	0.5	25.9	-	-
400	400	5.3	167.5	-	-
401	401	4.8	95.9	-	-
402	402	1.4	31.9	-	-
-	403	0.8	18.8	-	-
403	402/403	-	-	1.7	49.9
404	404	2.3	77.3	-	-
-	405	2.0	33.9	-	-
405	404/405	-	-	3.4	108.1
-	406	2.2	103.6	-	-
406	401/402/403/404/405/406	-	-	9.5	333.7
407	407	2.5	19.0	-	-
-	408	3.5	20.5	-	-
408	407/408	-	-	5.7	38.8
-	409	1.3	57.9	-	-
409	401/402/403/404/405/ 406/409	-	-	10.4	390.8
-	410	5.7	41.8	-	-
410	400/401/402/403/404/405/ 406/407/408/409/410/411/ 419/420/421	-	-	26.6	700.3
411	411	2.9	13.7	-	-
-	412	6.2	49.9	-	-
412	400/401/402/403/404/405/ 406/407/408/409/410/411/ 412/419/420/421	-	-	29.9	726.5
-	413	2.7	19.7	-	-
413	400/401/402/403/404/405/ 406/407/408/409/410/411/ 412/413/419/420/421	-	-	31.6	737.9
-	414	5.8	38.6	-	-
414	400/401/402/403/404/405/ 406/407/408/409/410/411/ 412/413/414/419/420/421	-	-	36.4	792.7
415	415	2.5	61.2	-	-
-	416	1.3	66.5	-	-
416	400/401/402/403/404/405/ 406/407/408/409/410/411/ 412/413/414/415/416/419/ 420/421	-	-	35.9	751.3
417	417	0.8	56.7	-	-
418	418	0.7	54.6	-	-
-	419	0.9	15.5	-	-
419	401/402/403/404/405/ 406/409/419	-	-	11.0	405.3
-	420	15.7	104.5	-	-
420	401/402/403/404/405/406/ 407/408/409/419/420/421	-	-	20.3	515.5
-	421	4.5	36.5	-	-
421	407/408/421	-	-	8.6	71.8
422	422	0.1	9.4	-	-
500	500	0.6	20.4	-	-
501	501	8.7	82.0	-	-
-	502	4.4	47.4	-	-
502	500/501/502/505/506	-	-	14.8	178.3
503	503	2.3	64.6	-	-
-	504	5.7	48.5	-	-
504	500/501/502/503/504/ 505/506	-	-	18.2	276.6
-	505	2.1	19.3	-	-
505	501/505	-	-	10.3	100.3
506	506	1.4	17.5	-	-
600	600	1.6	115.3	-	-
-	700	6.4	167.0	-	-
700	700/701/702/703/704/ 705/706/707	-	-	7.6	399.6
701	701	1.3	80.8	-	-
702	702	0.7	13.3	-	-
703	703	1.2	25.3	-	-
704	704	0.8	106.2	-	-
705	705	0.1	24.8	-	-
-	706	1.9	39.2	-	-
706	702/706	-	-	2.0	47.1
-	707	0.6	25.5	-	-
707	703/704/705/707	-	-	2.4	175.3
800	800	3.9	410.9	-	-
801	801	1.1	80.6	-	-
-	802	5.9	543.1	-	-
802	800/802	-	-	6.6	755.1
-	803	0.9	62.1	-	-
803	800/801/802/803/806/807	-	-	7.9	916.1
804	804	2.6	150.3	-	-
805	805	1.4	133.9	-	-
806	806	1.4	81.6	-	-
-	807	1.4	39.1	-	-
807	800/801/802/806	-	-	7.9	891.5

APPENDIX C – HYDRAULIC CALCULATIONS

CULVERT SIZING TABLE				
Culvert ID	SWMM NODE ID	100 yr. Flow (cfs)	Culvert size (in)	Notes
1a	100	302	54" 2-barrel	
1b	100	302	54" 2-barrel	
2a	--	21	30" 1-barrel	50% of SWMM Basin 200
2b	200	41	36" 1-barrel	
3	201	20	30" 1-barrel	
4	--	203	48" 2-barrel	SWMM Node 202 + 10% of SWMM Basin 203
5	207	35	36" 1-barrel	
6	301	14	24" 1-barrel	
7	303	75	42" 1-barrel	
8a	304	98	36" 2-barrel	
9	305	26	30" 1-barrel	
10a	306	40	36" 1-barrel	
10b	--	40	36" 1-barrel	SWMM Node 305 + 80% of Basin 306
11	307	52	36" 1-barrel	
12a	400	168	48" 2-barrel	
12b	400	168	48" 2-barrel	
13	402	32	30" 1-barrel	
14	404	77	42" 1-barrel	
15	405	108	36" 2-barrel	
16	409	391	60" 2-barrel	
17	419	16	24" 1-barrel	
37	--	25	30" 1-barrel	50% of SWMM Basin 412
18	413	738	8'x8' Box Culvert	
19	414	793	8'x10' Box Culvert	
20	419	405	60" 2-barrel	
21a	420	516	6'x7' Box Culvert	
38	408	39	36" 1-barrel	
22a	421	72	42" 1-barrel	
23a	500	20	30" 1-barrel	
23b	500	20	30" 1-barrel	
24	501	82	42" 1-barrel	
25a	--	120	42" 2-barrel	SWMM Node 505 + 40% of SWMM Basin 502
25b	--	35	30" 1-barrel	SWMM Node 500 + 30% of SWMM Basin 502
25c	--	32	30" 1-barrel	SWMM Node 506 + 30% of SWMM Basin 502
25d	502	178	48" 2-barrel	
26	503	65	42" 1-barrel	
27	--	188	48" 2-barrel	SWMM Node 502 + 20% of SWMM Basin 504
28	505	100	36" 2-barrel	
29	506	18	24" 1-barrel	
30	702	13	24" 1-barrel	
31	703	25	30" 1-barrel	
32	704	106	36" 2-barrel	
33	706	47	36" 1-barrel	
34a	801	81	42" 1-barrel	
34b	801	81	42" 1-barrel	
34c	801	81	42" 1-barrel	
35	--	116	42" 2-barrel	80% of SWMM Basin 101

Generic Culvert Sizing Table*		
Max Allowable Flow (cfs)	Culvert Dimensions	Diameter Selection Above Allowable Flow
20	24" 1-barrel	30" 1-barrel
35	30" 1-barrel	36" 1-barrel
55	36" 1-barrel	42" 1-barrel
85	42" 1-barrel	36" 2-barrel
110	36" 2-barrel	42" 2-barrel
160	42" 2-barrel	48" 2-barrel
230	48" 2-barrel	54" 2-barrel
310	54" 2-barrel	60" 2-barrel
470	60" 2-barrel	6'x7' Box Culvert
520	6'x7' Box Culvert	8'x8' Box Culvert
750	8'x8' Box Culvert	8'x10' Box Culvert
1000	8'x10' Box Culvert	N/A
* See Culvert Sizing calculations for Hw/D and culvert slope assumptions for each culvert size. Culvert slope assumed to be 2% and Hw/D to be 1.5.		

HY-8 Culvert Analysis Report

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0.00 cfs

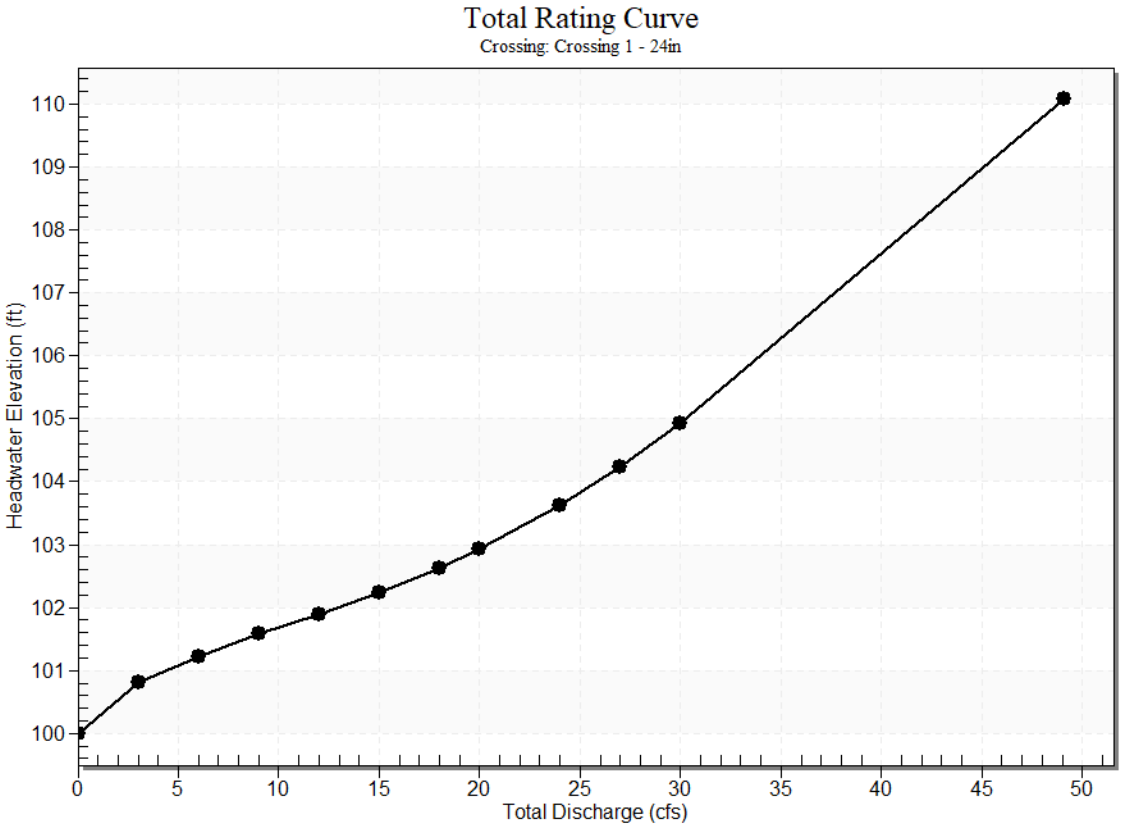
Design Flow: 20.00 cfs

Maximum Flow: 30.00 cfs

Table 1 - Summary of Culvert Flows at Crossing: Crossing 1 - 24in

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
100.00	0.00	0.00	0.00	1
100.82	3.00	3.00	0.00	1
101.23	6.00	6.00	0.00	1
101.58	9.00	9.00	0.00	1
101.90	12.00	12.00	0.00	1
102.24	15.00	15.00	0.00	1
102.63	18.00	18.00	0.00	1
102.92	20.00	20.00	0.00	1
103.62	24.00	24.00	0.00	1
104.24	27.00	27.00	0.00	1
104.93	30.00	30.00	0.00	1
110.00	45.75	45.75	0.00	Overtopping

Rating Curve Plot for Crossing: Crossing 1 - 24in



Culvert Data: Culvert 1

Table 1 - Culvert Summary Table: Culvert 1

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00 cfs	0.00 cfs	100.00	0.00	0.000	0-NF	0.00	0.00	0.00	0.00	0.00	0.00
3.00 cfs	3.00 cfs	100.82	0.82	0.0*	1-S2n	0.40	0.60	0.40	0.34	6.61	2.67
6.00 cfs	6.00 cfs	101.23	1.23	0.0*	1-S2n	0.56	0.87	0.59	0.48	7.83	3.23
9.00 cfs	9.00 cfs	101.58	1.58	0.329	1-S2n	0.69	1.07	0.73	0.58	8.60	3.60
12.00	12.00	101.90	1.90	0.70	1-	0.81	1.24	0.8	0.66	9.17	3.89

cfs	cfs			3	S2n			7			
15.00 cfs	15.00 cfs	102.24	2.24	1.113	5-S2n	0.92	1.40	0.99	0.74	9.63	4.12
18.00 cfs	18.00 cfs	102.63	2.63	1.797	5-S2n	1.02	1.53	1.11	0.80	10.01	4.32
20.00 cfs	20.00 cfs	102.92	2.92	2.078	5-S2n	1.09	1.61	1.19	0.84	10.27	4.44
24.00 cfs	24.00 cfs	103.62	3.62	2.704	5-S2n	1.22	1.73	1.33	0.91	10.79	4.65
27.00 cfs	27.00 cfs	104.24	4.24	3.228	5-S2n	1.33	1.81	1.44	0.96	11.15	4.80
30.00 cfs	30.00 cfs	104.93	4.93	3.800	5-S2n	1.43	1.86	1.55	1.01	11.51	4.93

* Full Flow Headwater elevation is below inlet invert.

Culvert Barrel Data

Culvert Barrel Type Straight Culvert

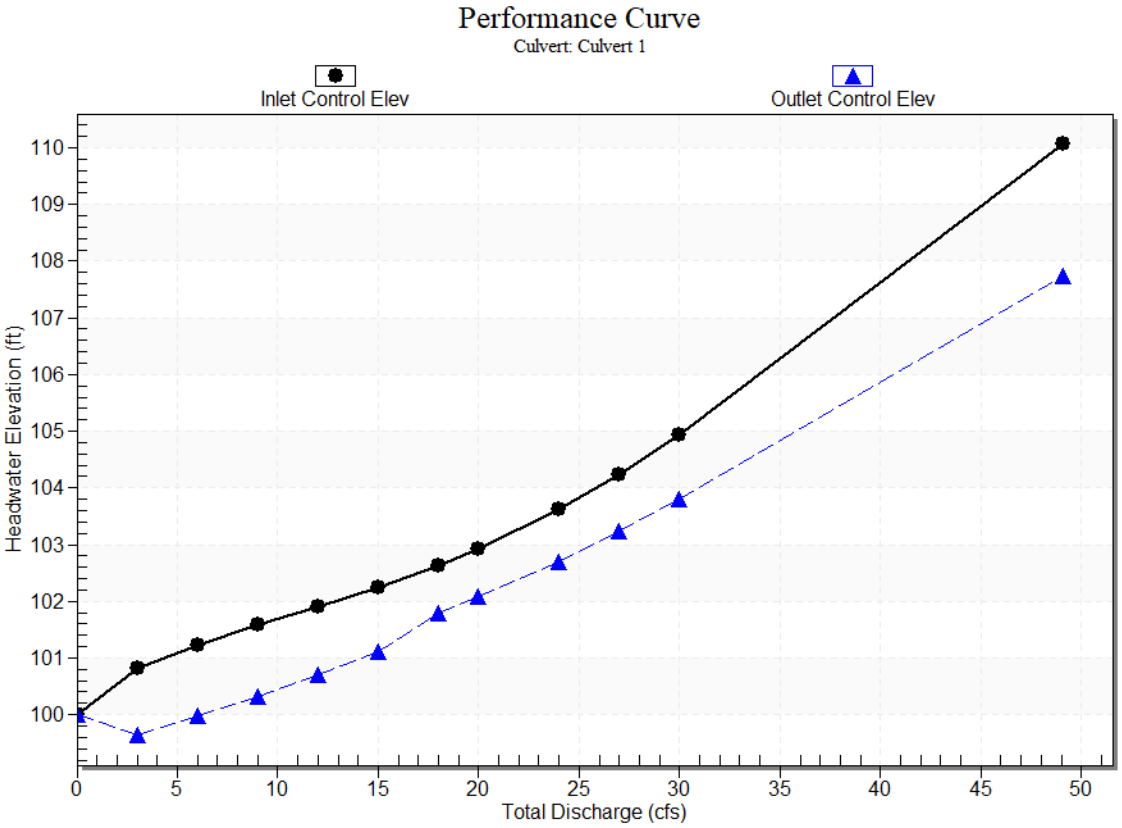
Inlet Elevation (invert): 100.00 ft,

Outlet Elevation (invert): 99.00 ft

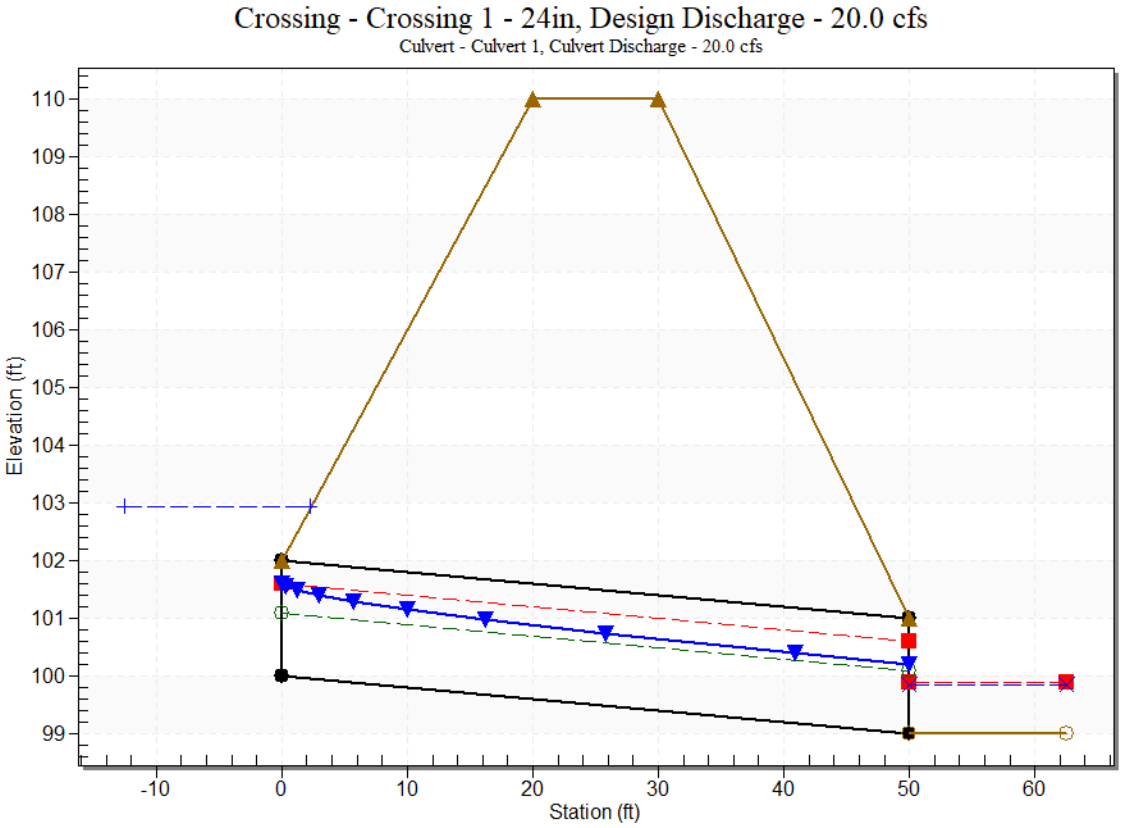
Culvert Length: 50.01 ft,

Culvert Slope: 0.0200

Culvert Performance Curve Plot: Culvert 1



Water Surface Profile Plot for Culvert: Culvert 1



Site Data - Culvert 1

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 100.00 ft

Outlet Station: 50.00 ft

Outlet Elevation: 99.00 ft

Number of Barrels: 1

Culvert Data Summary - Culvert 1

Barrel Shape: Circular

Barrel Diameter: 2.00 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall

Inlet Depression: None

Tailwater Data for Crossing: Crossing 1 - 24in

Table 2 - Downstream Channel Rating Curve (Crossing: Crossing 1 - 24in)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
0.00	99.00	0.00	0.00	0.00	0.00
3.00	99.34	0.34	2.67	0.42	0.96
6.00	99.48	0.48	3.23	0.59	1.01
9.00	99.58	0.58	3.60	0.72	1.03
12.00	99.66	0.66	3.89	0.83	1.05
15.00	99.74	0.74	4.12	0.92	1.07
18.00	99.80	0.80	4.32	1.00	1.08
20.00	99.84	0.84	4.44	1.05	1.09
24.00	99.91	0.91	4.65	1.14	1.10
27.00	99.96	0.96	4.80	1.20	1.11
30.00	100.01	1.01	4.93	1.26	1.12

Tailwater Channel Data - Crossing 1 - 24in

Tailwater Channel Option: Trapezoidal Channel

Bottom Width: 2.00 ft

Side Slope (H:V): 4.00 (_:1)

Channel Slope: 0.0200

Channel Manning's n: 0.0300

Channel Invert Elevation: 99.00 ft

Roadway Data for Crossing: Crossing 1 - 24in

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 110.00 ft

Roadway Surface: Paved

Roadway Top Width: 10.00 ft

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0.00 cfs

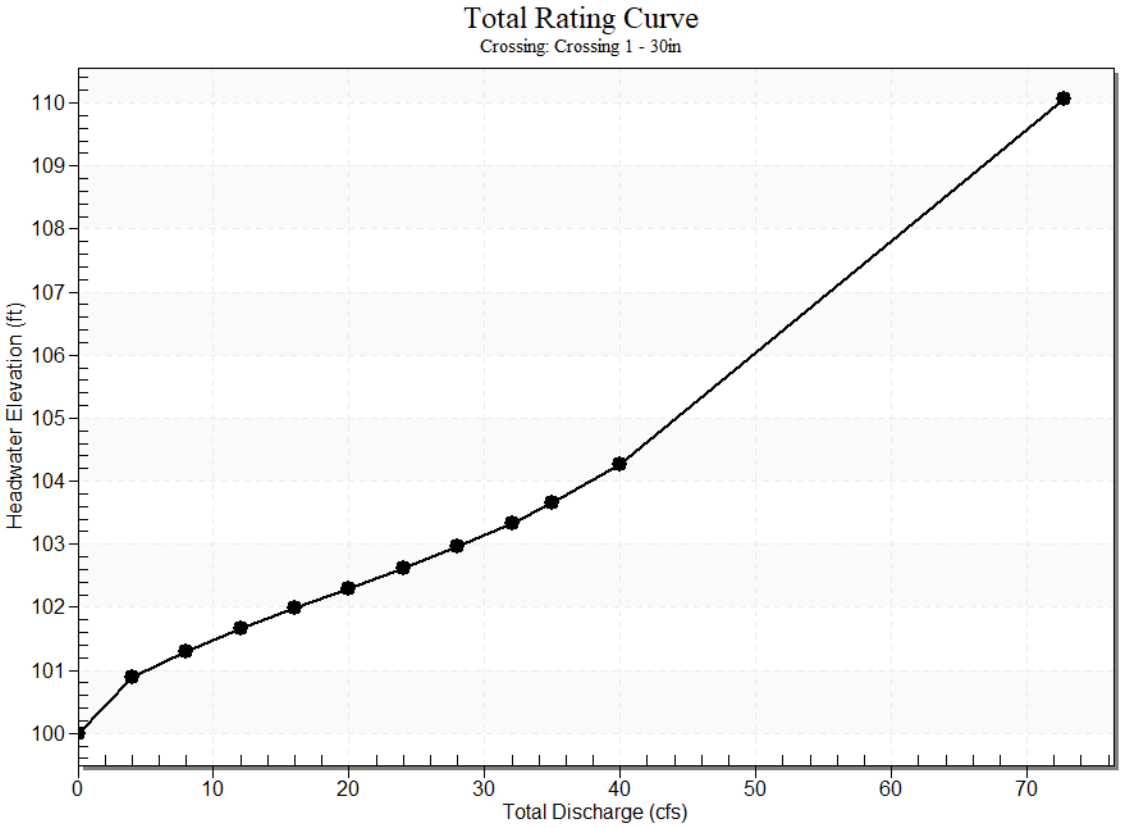
Design Flow: 35.00 cfs

Maximum Flow: 40.00 cfs

Table 3 - Summary of Culvert Flows at Crossing: Crossing 1 - 30in

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
100.00	0.00	0.00	0.00	1
100.89	4.00	4.00	0.00	1
101.29	8.00	8.00	0.00	1
101.67	12.00	12.00	0.00	1
101.99	16.00	16.00	0.00	1
102.30	20.00	20.00	0.00	1
102.61	24.00	24.00	0.00	1
102.96	28.00	28.00	0.00	1
103.34	32.00	32.00	0.00	1
103.66	35.00	35.00	0.00	1
104.27	40.00	40.00	0.00	1
110.00	70.48	70.48	0.00	Overtopping

Rating Curve Plot for Crossing: Crossing 1 - 30in



Culvert Data: Culvert 1

Table 2 - Culvert Summary Table: Culvert 1

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00 cfs	0.00 cfs	100.00	0.00	0.000	0-NF	0.00	0.00	0.00	0.00	0.00	0.00
4.00 cfs	4.00 cfs	100.89	0.89	0.0*	1-S2n	0.43	0.66	0.44	0.36	6.93	2.84
8.00 cfs	8.00 cfs	101.29	1.29	0.018	1-S2n	0.60	0.94	0.63	0.51	8.20	3.45
12.00 cfs	12.00 cfs	101.67	1.67	0.337	1-S2n	0.74	1.16	0.79	0.62	8.96	3.85
16.00	16.00	101.99	1.99	0.66	1-	0.86	1.35	0.9	0.72	9.49	4.16

cfs	cfs			3	S2n			4			
20.00 cfs	20.00 cfs	102.30	2.30	1.005	1-S2n	0.97	1.52	1.07	0.80	10.01	4.41
24.00 cfs	24.00 cfs	102.61	2.61	1.370	5-S2n	1.07	1.67	1.19	0.87	10.39	4.63
28.00 cfs	28.00 cfs	102.96	2.96	1.759	5-S2n	1.17	1.80	1.31	0.93	10.80	4.82
32.00 cfs	32.00 cfs	103.34	3.34	2.461	5-S2n	1.26	1.93	1.42	0.99	11.13	4.99
35.00 cfs	35.00 cfs	103.66	3.66	2.747	5-S2n	1.33	2.01	1.50	1.03	11.39	5.10
40.00 cfs	40.00 cfs	104.27	4.27	3.264	5-S2n	1.45	2.13	1.63	1.10	11.82	5.28

* Full Flow Headwater elevation is below inlet invert.

Culvert Barrel Data

Culvert Barrel Type Straight Culvert

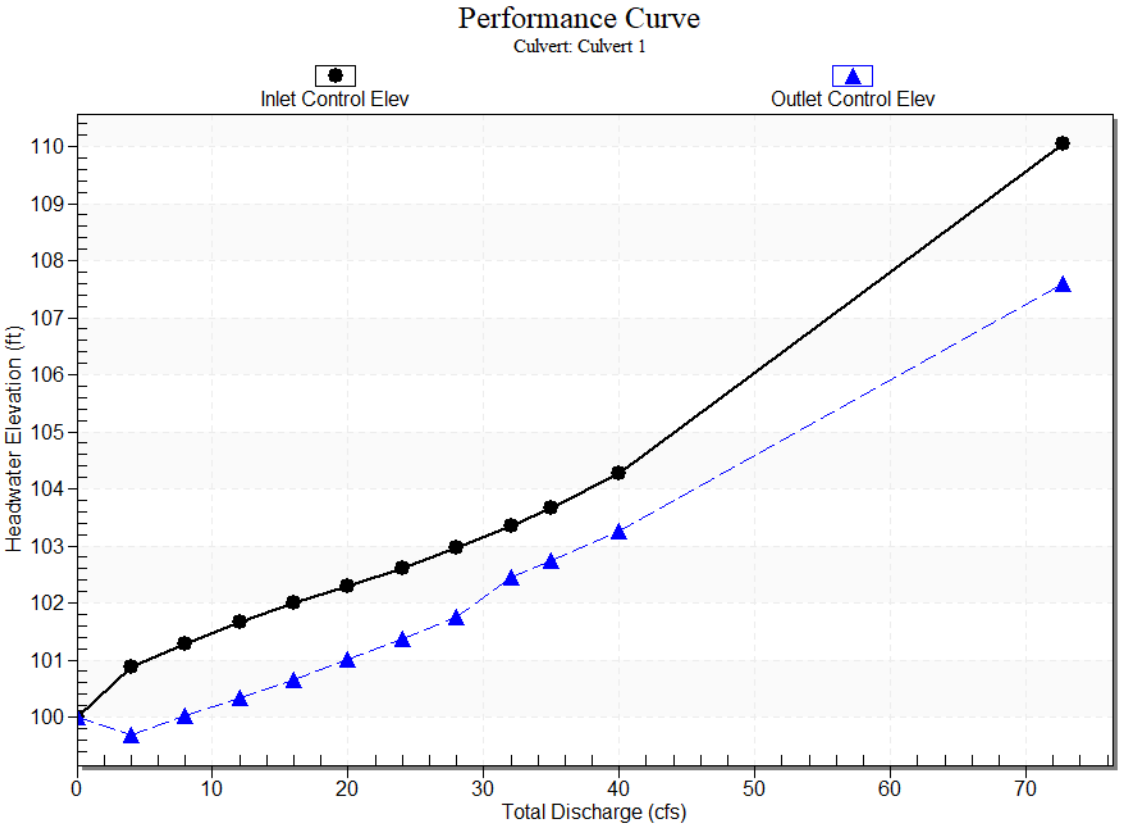
Inlet Elevation (invert): 100.00 ft,

Outlet Elevation (invert): 99.00 ft

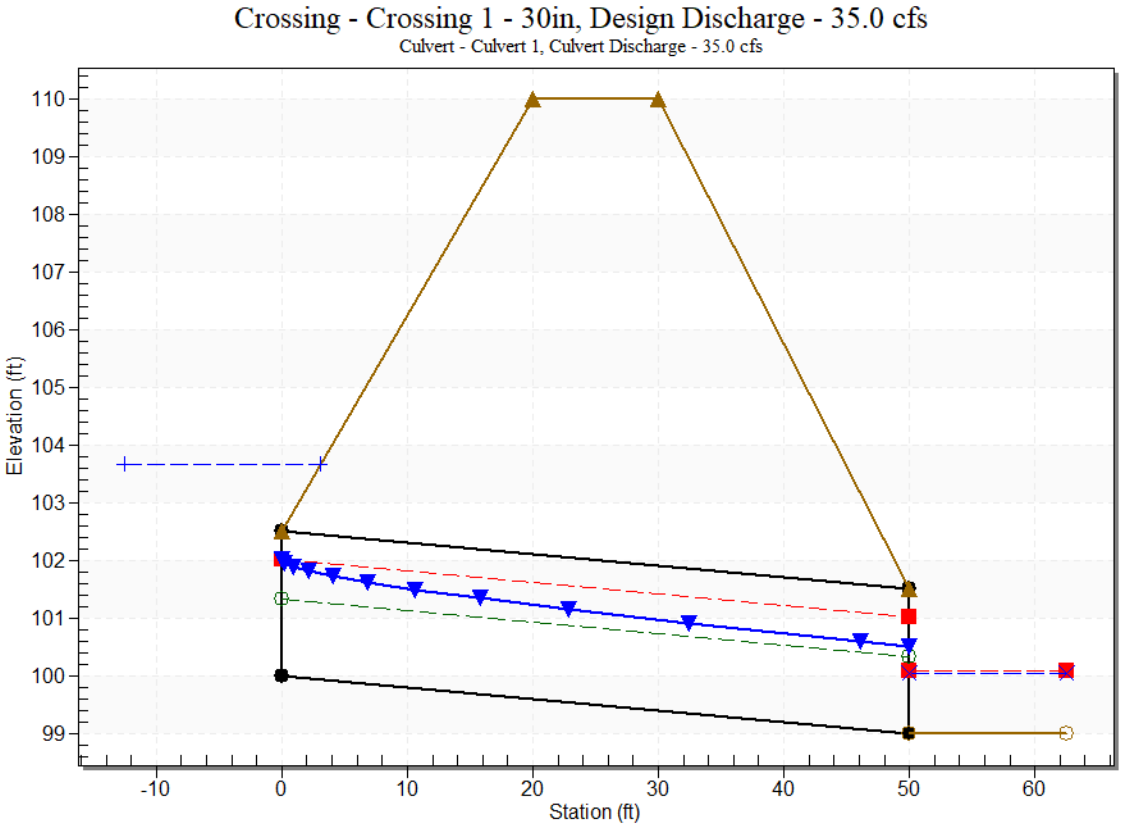
Culvert Length: 50.01 ft,

Culvert Slope: 0.0200

Culvert Performance Curve Plot: Culvert 1



Water Surface Profile Plot for Culvert: Culvert 1



Site Data - Culvert 1

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 100.00 ft

Outlet Station: 50.00 ft

Outlet Elevation: 99.00 ft

Number of Barrels: 1

Culvert Data Summary - Culvert 1

Barrel Shape: Circular

Barrel Diameter: 2.50 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall

Inlet Depression: None

Tailwater Data for Crossing: Crossing 1 - 30in

Table 4 - Downstream Channel Rating Curve (Crossing: Crossing 1 - 30in)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
0.00	99.00	0.00	0.00	0.00	0.00
4.00	99.36	0.36	2.84	0.45	0.98
8.00	99.51	0.51	3.45	0.64	1.02
12.00	99.62	0.62	3.85	0.78	1.05
16.00	99.72	0.72	4.16	0.89	1.07
20.00	99.80	0.80	4.41	0.99	1.09
24.00	99.87	0.87	4.63	1.08	1.10
28.00	99.93	0.93	4.82	1.16	1.11
32.00	99.99	0.99	4.99	1.24	1.12
35.00	100.03	1.03	5.10	1.29	1.13
40.00	100.10	1.10	5.28	1.37	1.14

Tailwater Channel Data - Crossing 1 - 30in

Tailwater Channel Option: Trapezoidal Channel

Bottom Width: 2.50 ft

Side Slope (H:V): 4.00 (_:1)

Channel Slope: 0.0200

Channel Manning's n: 0.0300

Channel Invert Elevation: 99.00 ft

Roadway Data for Crossing: Crossing 1 - 30in

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 110.00 ft

Roadway Surface: Paved

Roadway Top Width: 10.00 ft

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0.00 cfs

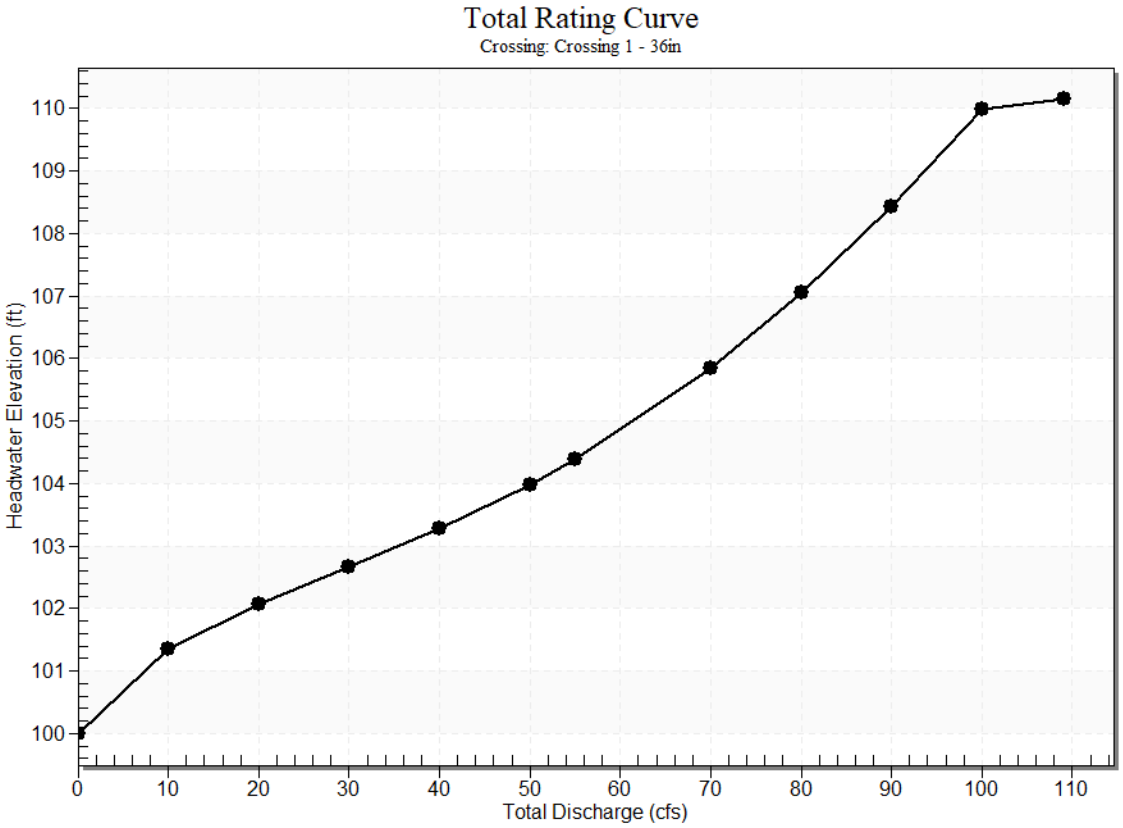
Design Flow: 55.00 cfs

Maximum Flow: 100.00 cfs

Table 5 - Summary of Culvert Flows at Crossing: Crossing 1 - 36in

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
100.00	0.00	0.00	0.00	1
101.36	10.00	10.00	0.00	1
102.07	20.00	20.00	0.00	1
102.67	30.00	30.00	0.00	1
103.27	40.00	40.00	0.00	1
103.97	50.00	50.00	0.00	1
104.38	55.00	55.00	0.00	1
105.85	70.00	70.00	0.00	1
107.05	80.00	80.00	0.00	1
108.42	90.00	90.00	0.00	1
109.99	100.00	100.00	0.00	1
110.00	100.04	100.04	0.00	Overtopping

Rating Curve Plot for Crossing: Crossing 1 - 36in



Culvert Data: Culvert 1

Table 3 - Culvert Summary Table: Culvert 1

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00 cfs	0.00 cfs	100.00	0.00	0.000	0-NF	0.00	0.00	0.00	0.00	0.00	0.00
10.00 cfs	10.00 cfs	101.36	1.36	0.056	1-S2n	0.63	1.00	0.67	0.54	8.46	3.62
20.00 cfs	20.00 cfs	102.07	2.07	0.660	1-S2n	0.90	1.43	0.99	0.76	9.80	4.38
30.00 cfs	30.00 cfs	102.67	2.67	1.279	1-S2n	1.11	1.77	1.26	0.92	10.66	4.88
40.00	40.00	103.27	3.27	1.95	5-	1.30	2.06	1.4	1.05	11.3	5.26

cfs	cfs			7	S2n			9		8	
50.00 cfs	50.00 cfs	103.97	3.97	3.054	5-S2n	1.48	2.30	1.71	1.17	12.01	5.57
55.00 cfs	55.00 cfs	104.38	4.38	3.402	5-S2n	1.57	2.41	1.81	1.22	12.32	5.71
70.00 cfs	70.00 cfs	105.85	5.85	4.580	5-S2n	1.82	2.66	2.10	1.36	13.23	6.08
80.00 cfs	80.00 cfs	107.05	7.05	5.478	5-S2n	2.00	2.77	2.28	1.45	13.86	6.29
90.00 cfs	90.00 cfs	108.42	8.42	6.470	5-S2n	2.18	2.85	2.45	1.52	14.54	6.49
100.00 cfs	100.00 cfs	109.99	9.99	7.439	5-S2n	2.40	2.65	2.56	1.60	15.59	6.66

Culvert Barrel Data

Culvert Barrel Type Straight Culvert

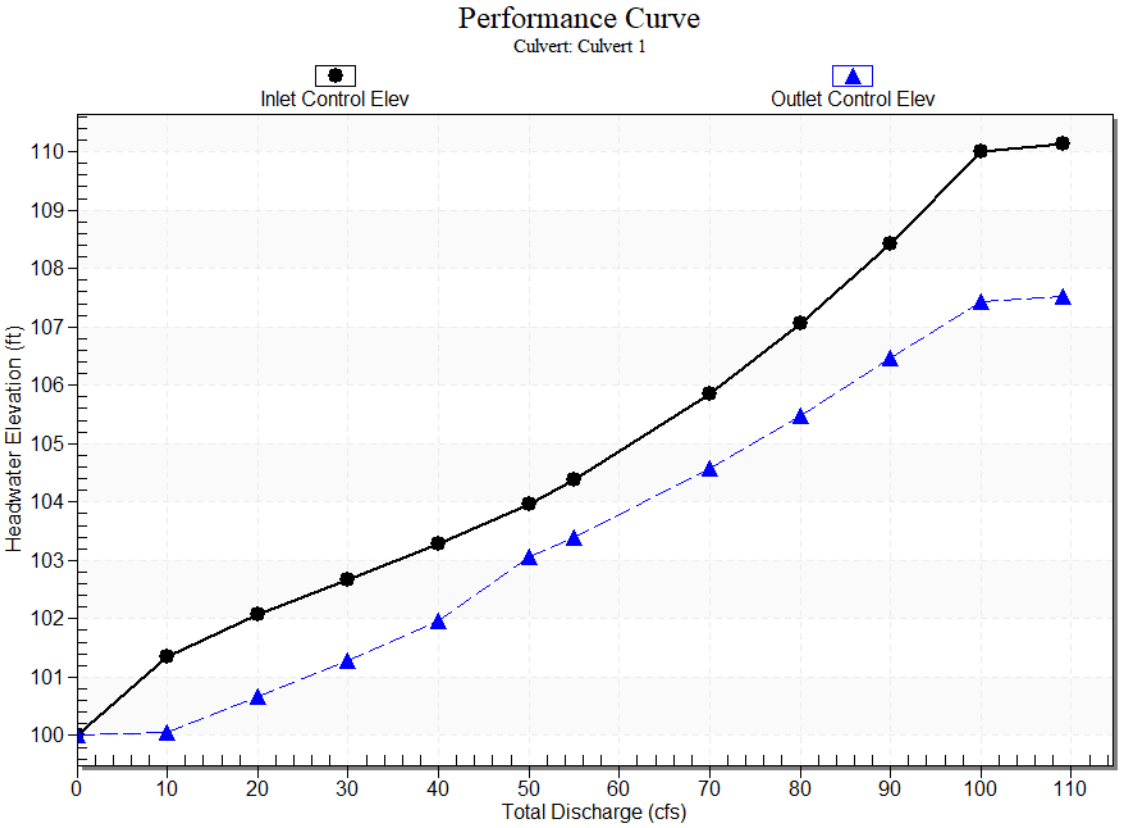
Inlet Elevation (invert): 100.00 ft,

Outlet Elevation (invert): 99.00 ft

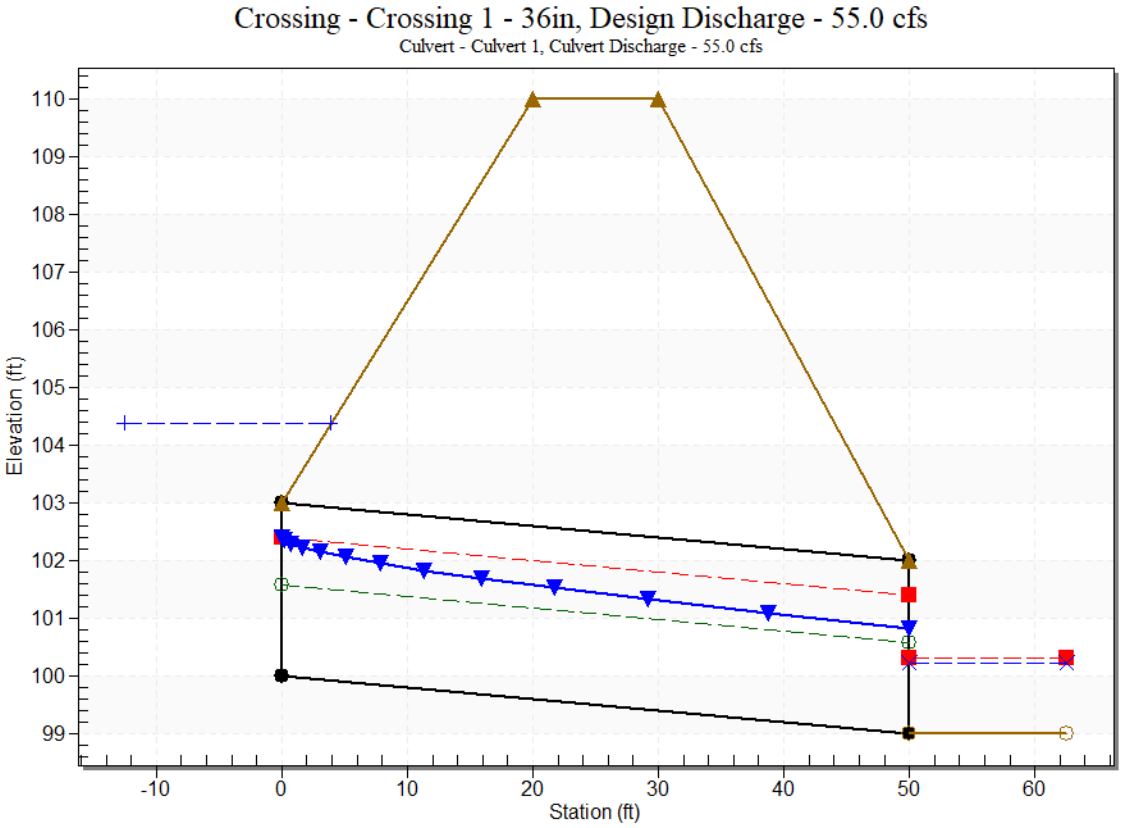
Culvert Length: 50.01 ft,

Culvert Slope: 0.0200

Culvert Performance Curve Plot: Culvert 1



Water Surface Profile Plot for Culvert: Culvert 1



Site Data - Culvert 1

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 100.00 ft

Outlet Station: 50.00 ft

Outlet Elevation: 99.00 ft

Number of Barrels: 1

Culvert Data Summary - Culvert 1

Barrel Shape: Circular

Barrel Diameter: 3.00 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall

Inlet Depression: None

Tailwater Data for Crossing: Crossing 1 - 36in

Table 6 - Downstream Channel Rating Curve (Crossing: Crossing 1 - 36in)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
0.00	99.00	0.00	0.00	0.00	0.00
10.00	99.54	0.54	3.62	0.67	1.04
20.00	99.76	0.76	4.38	0.95	1.09
30.00	99.92	0.92	4.88	1.15	1.12
40.00	100.05	1.05	5.26	1.32	1.14
50.00	100.17	1.17	5.57	1.46	1.15
55.00	100.22	1.22	5.71	1.52	1.16
70.00	100.36	1.36	6.08	1.70	1.18
80.00	100.45	1.45	6.29	1.81	1.19
90.00	100.52	1.52	6.49	1.90	1.20
100.00	100.60	1.60	6.66	1.99	1.20

Tailwater Channel Data - Crossing 1 - 36in

Tailwater Channel Option: Trapezoidal Channel

Bottom Width: 3.00 ft

Side Slope (H:V): 4.00 (_:1)

Channel Slope: 0.0200

Channel Manning's n: 0.0300

Channel Invert Elevation: 99.00 ft

Roadway Data for Crossing: Crossing 1 - 36in

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 110.00 ft

Roadway Surface: Paved

Roadway Top Width: 10.00 ft

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0.00 cfs

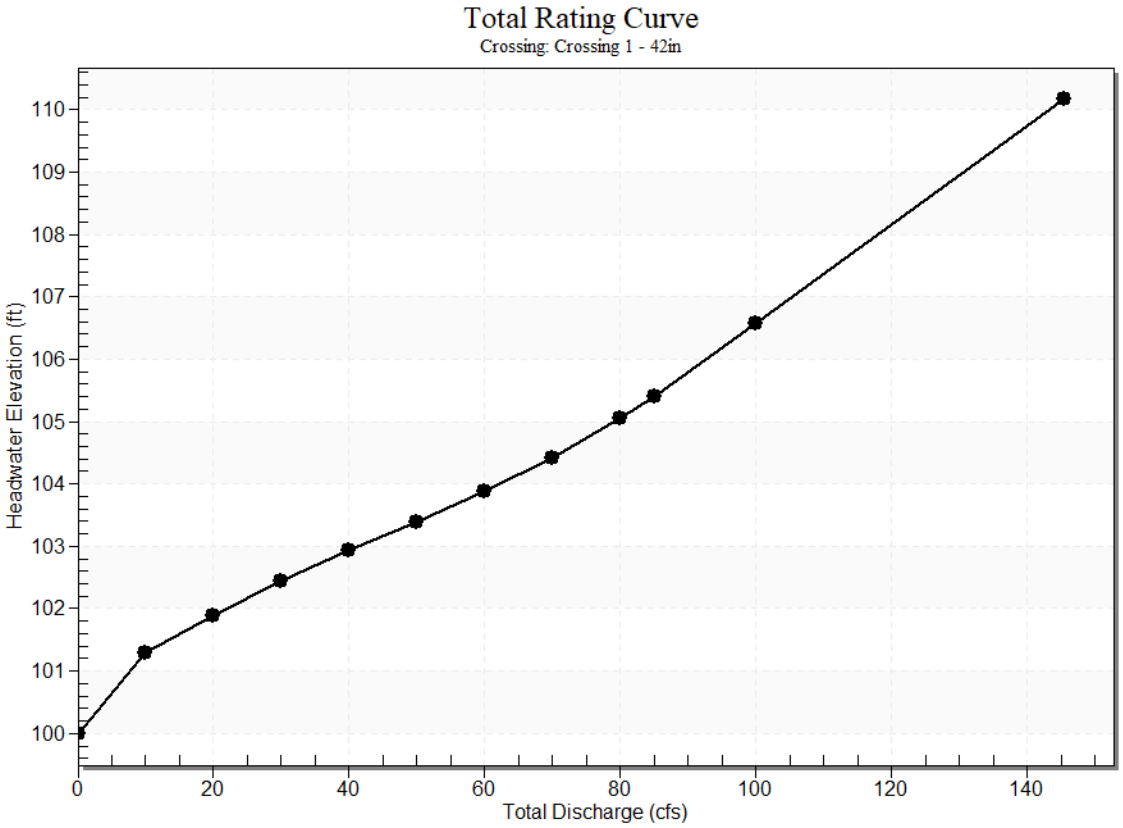
Design Flow: 85.00 cfs

Maximum Flow: 100.00 cfs

Table 7 - Summary of Culvert Flows at Crossing: Crossing 1 - 42in

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
100.00	0.00	0.00	0.00	1
101.29	10.00	10.00	0.00	1
101.90	20.00	20.00	0.00	1
102.45	30.00	30.00	0.00	1
102.93	40.00	40.00	0.00	1
103.39	50.00	50.00	0.00	1
103.88	60.00	60.00	0.00	1
104.42	70.00	70.00	0.00	1
105.05	80.00	80.00	0.00	1
105.39	85.00	85.00	0.00	1
106.57	100.00	100.00	0.00	1
110.00	133.87	133.87	0.00	Overtopping

Rating Curve Plot for Crossing: Crossing 1 - 42in



Culvert Data: Culvert 1

Table 4 - Culvert Summary Table: Culvert 1

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00 cfs	0.00 cfs	100.00	0.00	0.000	0-NF	0.00	0.00	0.00	0.00	0.00	0.00
10.00 cfs	10.00 cfs	101.29	1.29	0.0*	1-S2n	0.60	0.96	0.64	0.51	8.33	3.57
20.00 cfs	20.00 cfs	101.90	1.90	0.486	1-S2n	0.85	1.37	0.94	0.72	9.60	4.34
30.00 cfs	30.00 cfs	102.45	2.45	0.956	1-S2n	1.04	1.69	1.18	0.88	10.47	4.84
40.00	40.00	102.93	2.93	1.43	1-	1.21	1.97	1.4	1.01	11.1	5.23

cfs	cfs			6	S2 n			0		2	
50.00 cfs	50.00 cfs	103.39	3.39	1.943	1-S2 n	1.37	2.21	1.60	1.13	11.68	5.55
60.00 cfs	60.00 cfs	103.88	3.88	2.483	5-S2 n	1.51	2.43	1.78	1.23	12.18	5.82
70.00 cfs	70.00 cfs	104.42	4.42	3.060	5-S2 n	1.65	2.62	1.96	1.32	12.65	6.06
80.00 cfs	80.00 cfs	105.05	5.05	4.025	5-S2 n	1.79	2.79	2.12	1.40	13.10	6.27
85.00 cfs	85.00 cfs	105.39	5.39	4.306	5-S2 n	1.85	2.87	2.20	1.44	13.33	6.37
100.00 cfs	100.00 cfs	106.57	6.57	5.219	5-S2 n	2.05	3.07	2.43	1.55	14.03	6.65

* Full Flow Headwater elevation is below inlet invert.

Culvert Barrel Data

Culvert Barrel Type Straight Culvert

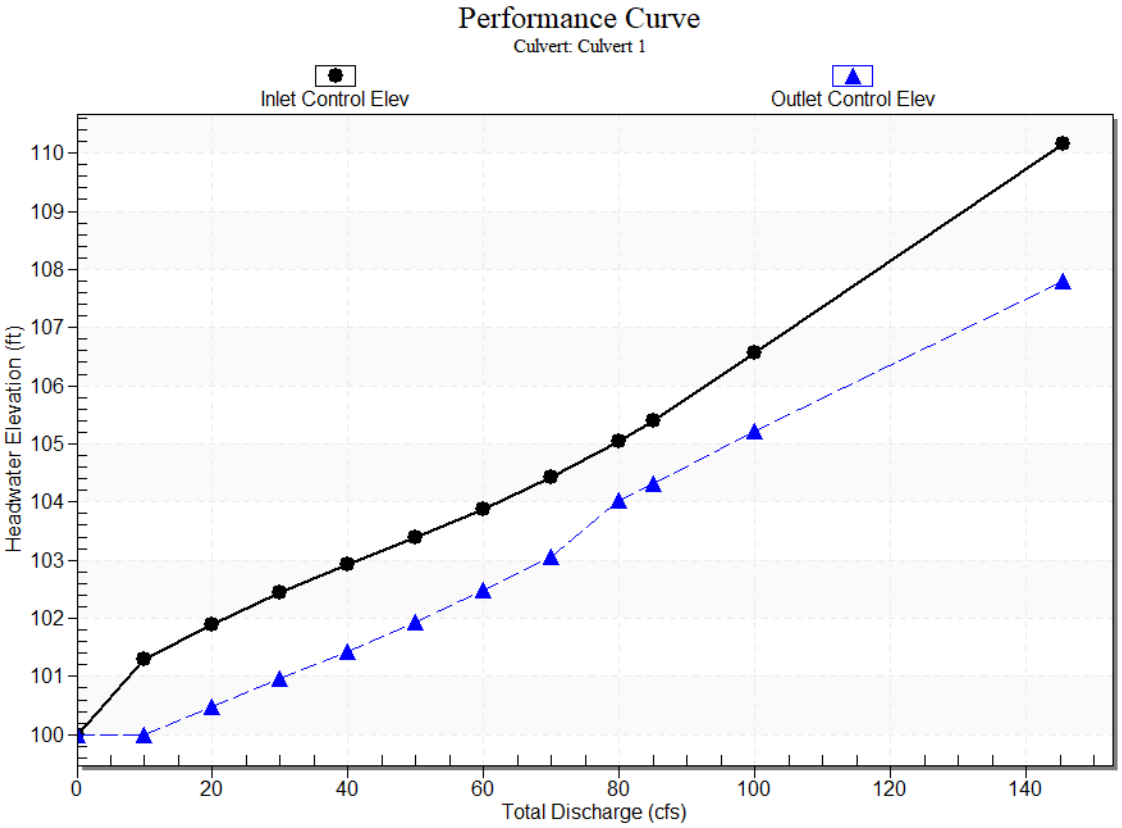
Inlet Elevation (invert): 100.00 ft,

Outlet Elevation (invert): 99.00 ft

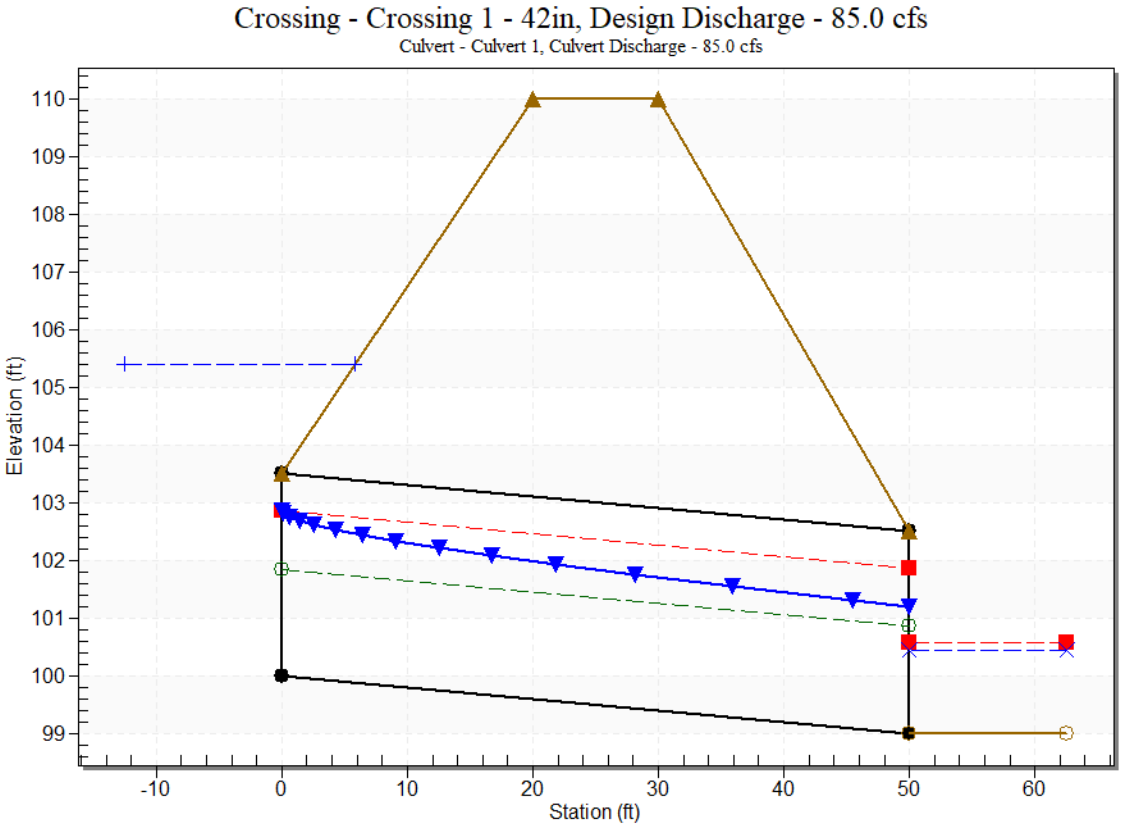
Culvert Length: 50.01 ft,

Culvert Slope: 0.0200

Culvert Performance Curve Plot: Culvert 1



Water Surface Profile Plot for Culvert: Culvert 1



Site Data - Culvert 1

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 100.00 ft

Outlet Station: 50.00 ft

Outlet Elevation: 99.00 ft

Number of Barrels: 1

Culvert Data Summary - Culvert 1

Barrel Shape: Circular

Barrel Diameter: 3.50 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall

Inlet Depression: None

Tailwater Data for Crossing: Crossing 1 - 42in

Table 8 - Downstream Channel Rating Curve (Crossing: Crossing 1 - 42in)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
0.00	99.00	0.00	0.00	0.00	0.00
10.00	99.51	0.51	3.57	0.63	1.03
20.00	99.72	0.72	4.34	0.90	1.08
30.00	99.88	0.88	4.84	1.10	1.11
40.00	100.01	1.01	5.23	1.26	1.14
50.00	100.13	1.13	5.55	1.41	1.15
60.00	100.23	1.23	5.82	1.53	1.17
70.00	100.32	1.32	6.06	1.64	1.18
80.00	100.40	1.40	6.27	1.75	1.19
85.00	100.44	1.44	6.37	1.80	1.19
100.00	100.55	1.55	6.65	1.94	1.20

Tailwater Channel Data - Crossing 1 - 42in

Tailwater Channel Option: Trapezoidal Channel

Bottom Width: 3.50 ft

Side Slope (H:V): 4.00 (_:1)

Channel Slope: 0.0200

Channel Manning's n: 0.0300

Channel Invert Elevation: 99.00 ft

Roadway Data for Crossing: Crossing 1 - 42in

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 110.00 ft

Roadway Surface: Paved

Roadway Top Width: 10.00 ft

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0.00 cfs

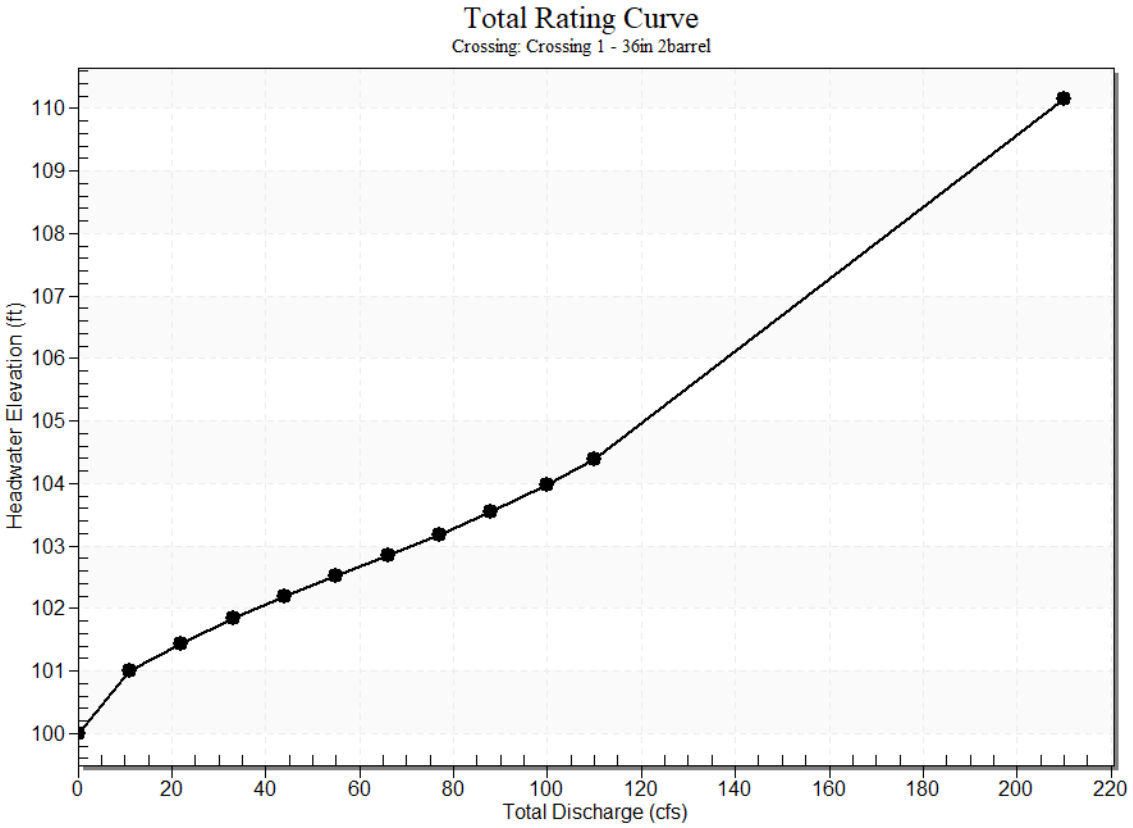
Design Flow: 100.00 cfs

Maximum Flow: 110.00 cfs

Table 9 - Summary of Culvert Flows at Crossing: Crossing 1 - 36in 2barrel

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
100.00	0.00	0.00	0.00	1
100.99	11.00	11.00	0.00	1
101.43	22.00	22.00	0.00	1
101.84	33.00	33.00	0.00	1
102.20	44.00	44.00	0.00	1
102.53	55.00	55.00	0.00	1
102.85	66.00	66.00	0.00	1
103.18	77.00	77.00	0.00	1
103.54	88.00	88.00	0.00	1
103.97	100.00	100.00	0.00	1
104.38	110.00	110.00	0.00	1
110.00	200.08	200.08	0.00	Overtopping

Rating Curve Plot for Crossing: Crossing 1 - 36in 2barrel



Culvert Data: Culvert 1

Table 5 - Culvert Summary Table: Culvert 1

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00 cfs	0.00 cfs	100.00	0.00	0.000	0-NF	0.00	0.00	0.00	0.00	0.00	0.00
11.00 cfs	11.00 cfs	100.99	0.99	0.0*	1-S2n	0.47	0.74	0.49	0.42	7.34	3.42
22.00 cfs	22.00 cfs	101.43	1.43	0.119	1-S2n	0.66	1.05	0.71	0.61	8.63	4.23
33.00 cfs	33.00 cfs	101.84	1.84	0.451	1-S2n	0.81	1.30	0.89	0.76	9.38	4.77
44.00	44.00	102.20	2.20	0.78	1-	0.94	1.51	1.0	0.89	9.98	5.19

cfs	cfs			0	S2n			5			
55.00 cfs	55.00 cfs	102.53	2.53	1.120	1-S2n	1.06	1.70	1.19	1.00	10.49	5.52
66.00 cfs	66.00 cfs	102.85	2.85	1.476	1-S2n	1.17	1.86	1.33	1.09	10.89	5.81
77.00 cfs	77.00 cfs	103.18	3.18	1.851	5-S2n	1.27	2.02	1.46	1.18	11.28	6.07
88.00 cfs	88.00 cfs	103.54	3.54	2.248	5-S2n	1.37	2.16	1.58	1.26	11.63	6.29
100.00 cfs	100.00 cfs	103.97	3.97	3.054	5-S2n	1.48	2.30	1.71	1.35	12.01	6.52
110.00 cfs	110.00 cfs	104.38	4.38	3.402	5-S2n	1.57	2.41	1.81	1.41	12.32	6.69

* Full Flow Headwater elevation is below inlet invert.

Culvert Barrel Data

Culvert Barrel Type Straight Culvert

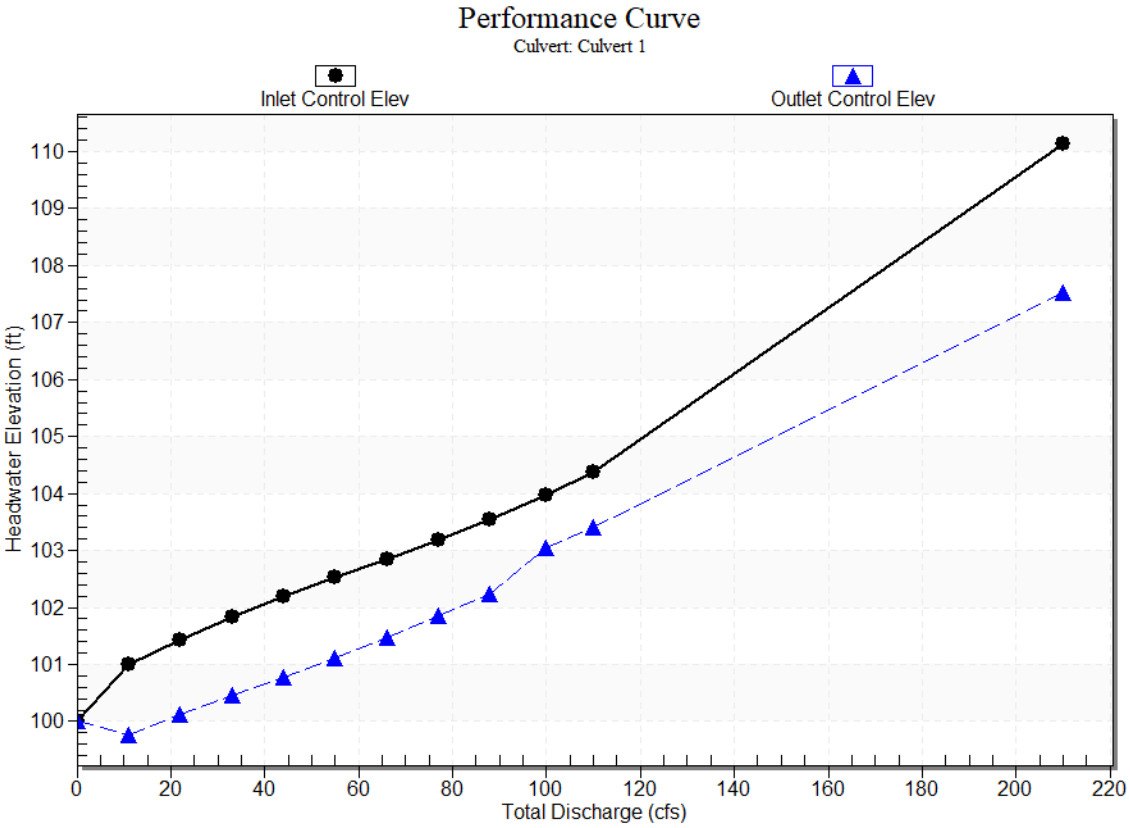
Inlet Elevation (invert): 100.00 ft,

Outlet Elevation (invert): 99.00 ft

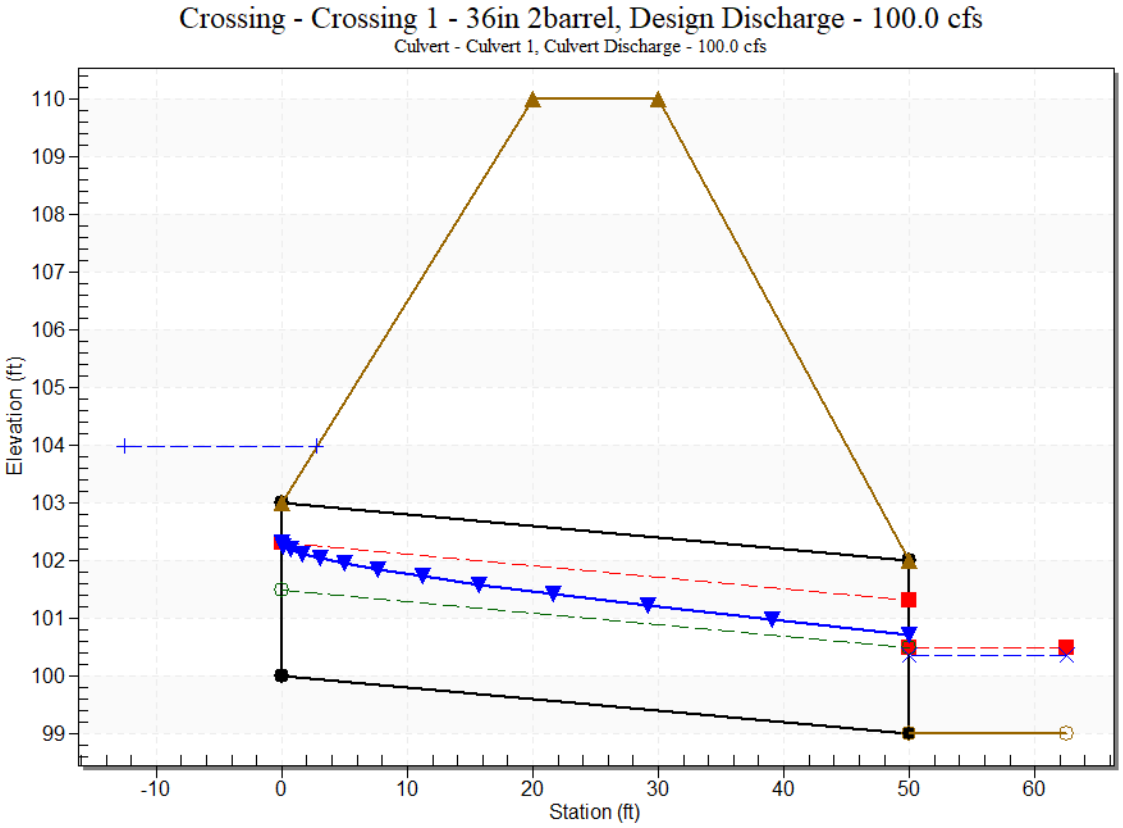
Culvert Length: 50.01 ft,

Culvert Slope: 0.0200

Culvert Performance Curve Plot: Culvert 1



Water Surface Profile Plot for Culvert: Culvert 1



Site Data - Culvert 1

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 100.00 ft

Outlet Station: 50.00 ft

Outlet Elevation: 99.00 ft

Number of Barrels: 2

Culvert Data Summary - Culvert 1

Barrel Shape: Circular

Barrel Diameter: 3.00 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall

Inlet Depression: None

Tailwater Data for Crossing: Crossing 1 - 36in 2barrel

Table 10 - Downstream Channel Rating Curve (Crossing: Crossing 1 - 36in 2barrel)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
0.00	99.00	0.00	0.00	0.00	0.00
11.00	99.42	0.42	3.42	0.52	1.03
22.00	99.61	0.61	4.23	0.77	1.08
33.00	99.76	0.76	4.77	0.95	1.11
44.00	99.89	0.89	5.19	1.11	1.14
55.00	100.00	1.00	5.52	1.24	1.15
66.00	100.09	1.09	5.81	1.37	1.17
77.00	100.18	1.18	6.07	1.48	1.18
88.00	100.26	1.26	6.29	1.58	1.19
100.00	100.35	1.35	6.52	1.68	1.20
110.00	100.41	1.41	6.69	1.76	1.21

Tailwater Channel Data - Crossing 1 - 36in 2barrel

Tailwater Channel Option: Trapezoidal Channel

Bottom Width: 6.00 ft

Side Slope (H:V): 4.00 (_:1)

Channel Slope: 0.0200

Channel Manning's n: 0.0300

Channel Invert Elevation: 99.00 ft

Roadway Data for Crossing: Crossing 1 - 36in 2barrel

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 110.00 ft

Roadway Surface: Paved

Roadway Top Width: 10.00 ft

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0.00 cfs

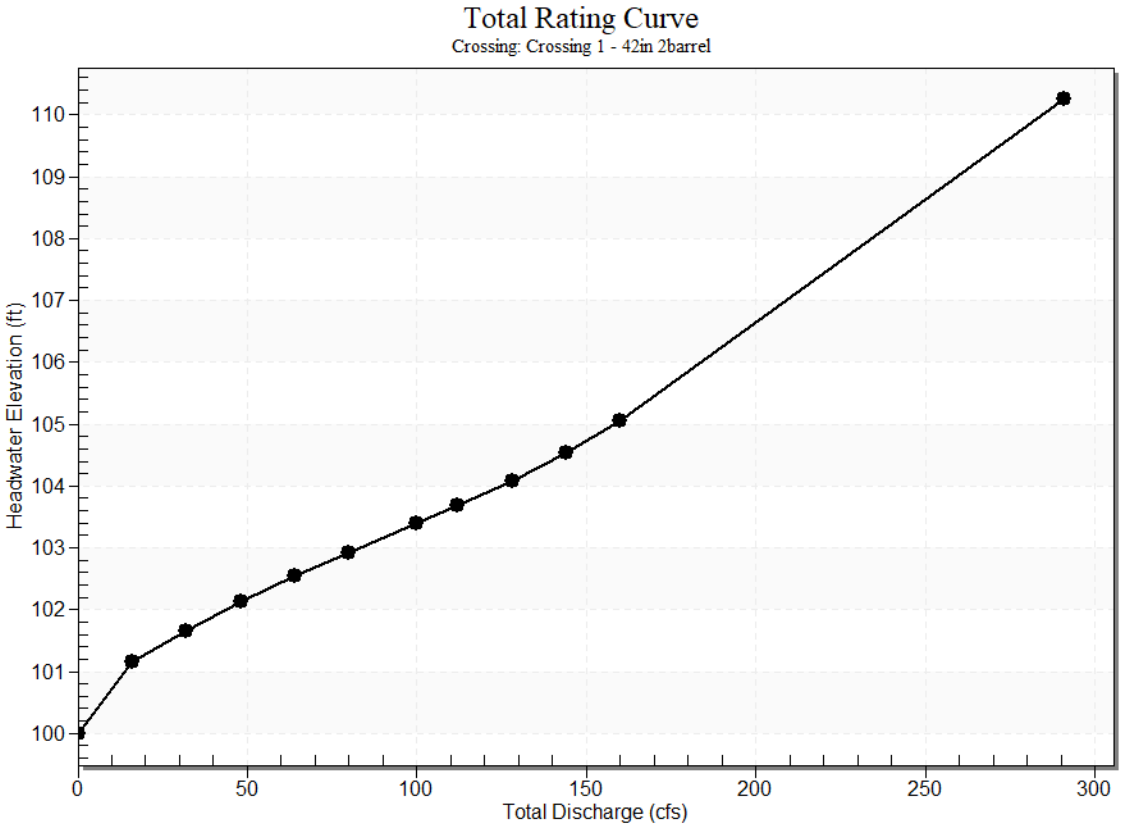
Design Flow: 100.00 cfs

Maximum Flow: 160.00 cfs

Table 11 - Summary of Culvert Flows at Crossing: Crossing 1 - 42in 2barrel

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
100.00	0.00	0.00	0.00	1
101.15	16.00	16.00	0.00	1
101.66	32.00	32.00	0.00	1
102.13	48.00	48.00	0.00	1
102.55	64.00	64.00	0.00	1
102.93	80.00	80.00	0.00	1
103.39	100.00	100.00	0.00	1
103.68	112.00	112.00	0.00	1
104.09	128.00	128.00	0.00	1
104.54	144.00	144.00	0.00	1
105.05	160.00	160.00	0.00	1
110.00	267.73	267.73	0.00	Overtopping

Rating Curve Plot for Crossing: Crossing 1 - 42in 2barrel



Culvert Data: Culvert 1

Table 6 - Culvert Summary Table: Culvert 1

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00 cfs	0.00 cfs	100.00	0.00	0.000	0-NF	0.00	0.00	0.00	0.00	0.00	0.00
16.00 cfs	16.00 cfs	101.15	1.15	0.0*	1-S2n	0.54	0.85	0.57	0.48	7.92	3.74
32.00 cfs	32.00 cfs	101.66	1.66	0.294	1-S2n	0.76	1.22	0.83	0.70	9.21	4.64
48.00 cfs	48.00 cfs	102.13	2.13	0.675	1-S2n	0.93	1.51	1.04	0.87	9.98	5.23
64.00	64.00	102.55	2.55	1.05	1-	1.08	1.75	1.2	1.02	10.6	5.69

cfs	cfs			0	S2 n			3		0	
80.00 cfs	80.00 cfs	102.93	2.93	1.436	1-S2 n	1.21	1.97	1.40	1.14	11.12	6.06
100.00 cfs	100.00 cfs	103.39	3.39	1.943	1-S2 n	1.37	2.21	1.60	1.28	11.68	6.45
112.00 cfs	112.00 cfs	103.68	3.68	2.263	5-S2 n	1.46	2.34	1.71	1.36	11.98	6.65
128.00 cfs	128.00 cfs	104.09	4.09	2.710	5-S2 n	1.57	2.51	1.85	1.45	12.38	6.90
144.00 cfs	144.00 cfs	104.54	4.54	3.600	5-S2 n	1.68	2.66	1.99	1.54	12.74	7.13
160.00 cfs	160.00 cfs	105.05	5.05	4.025	5-S2 n	1.79	2.79	2.12	1.62	13.10	7.34

* Full Flow Headwater elevation is below inlet invert.

Culvert Barrel Data

Culvert Barrel Type Straight Culvert

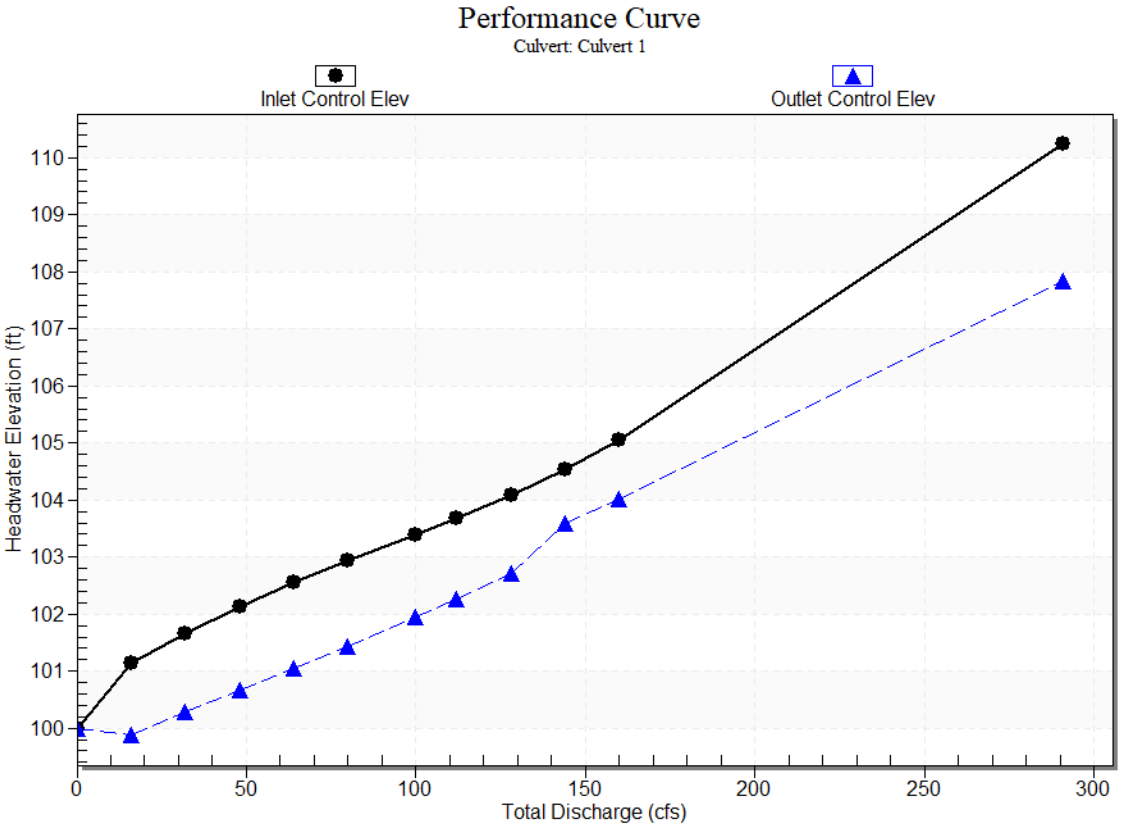
Inlet Elevation (invert): 100.00 ft,

Outlet Elevation (invert): 99.00 ft

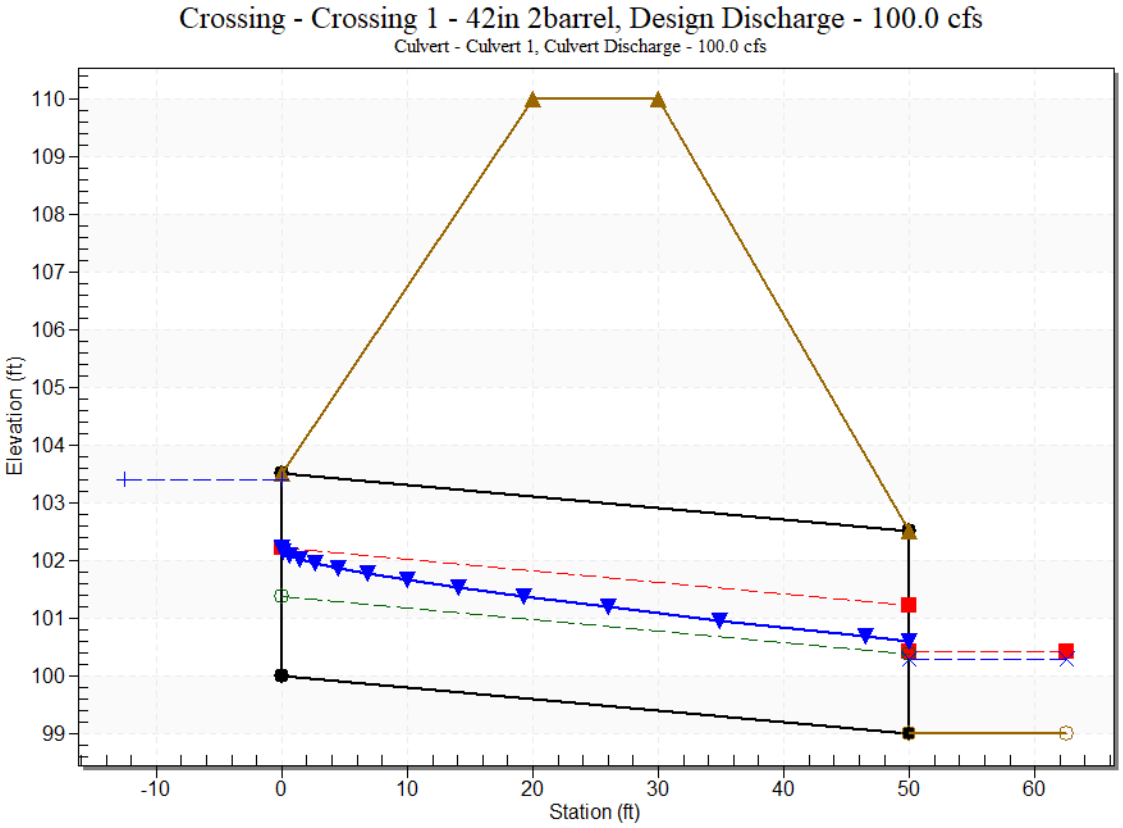
Culvert Length: 50.01 ft,

Culvert Slope: 0.0200

Culvert Performance Curve Plot: Culvert 1



Water Surface Profile Plot for Culvert: Culvert 1



Site Data - Culvert 1

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 100.00 ft

Outlet Station: 50.00 ft

Outlet Elevation: 99.00 ft

Number of Barrels: 2

Culvert Data Summary - Culvert 1

Barrel Shape: Circular

Barrel Diameter: 3.50 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall

Inlet Depression: None

Tailwater Data for Crossing: Crossing 1 - 42in 2barrel

Table 12 - Downstream Channel Rating Curve (Crossing: Crossing 1 - 42in 2barrel)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
0.00	99.00	0.00	0.00	0.00	0.00
16.00	99.48	0.48	3.74	0.60	1.05
32.00	99.70	0.70	4.64	0.88	1.11
48.00	99.87	0.87	5.23	1.09	1.14
64.00	100.02	1.02	5.69	1.27	1.16
80.00	100.14	1.14	6.06	1.42	1.18
100.00	100.28	1.28	6.45	1.60	1.20
112.00	100.36	1.36	6.65	1.69	1.21
128.00	100.45	1.45	6.90	1.81	1.22
144.00	100.54	1.54	7.13	1.92	1.23
160.00	100.62	1.62	7.34	2.02	1.24

Tailwater Channel Data - Crossing 1 - 42in 2barrel

Tailwater Channel Option: Trapezoidal Channel

Bottom Width: 7.00 ft

Side Slope (H:V): 4.00 (_:1)

Channel Slope: 0.0200

Channel Manning's n: 0.0300

Channel Invert Elevation: 99.00 ft

Roadway Data for Crossing: Crossing 1 - 42in 2barrel

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 110.00 ft

Roadway Surface: Paved

Roadway Top Width: 10.00 ft

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0.00 cfs

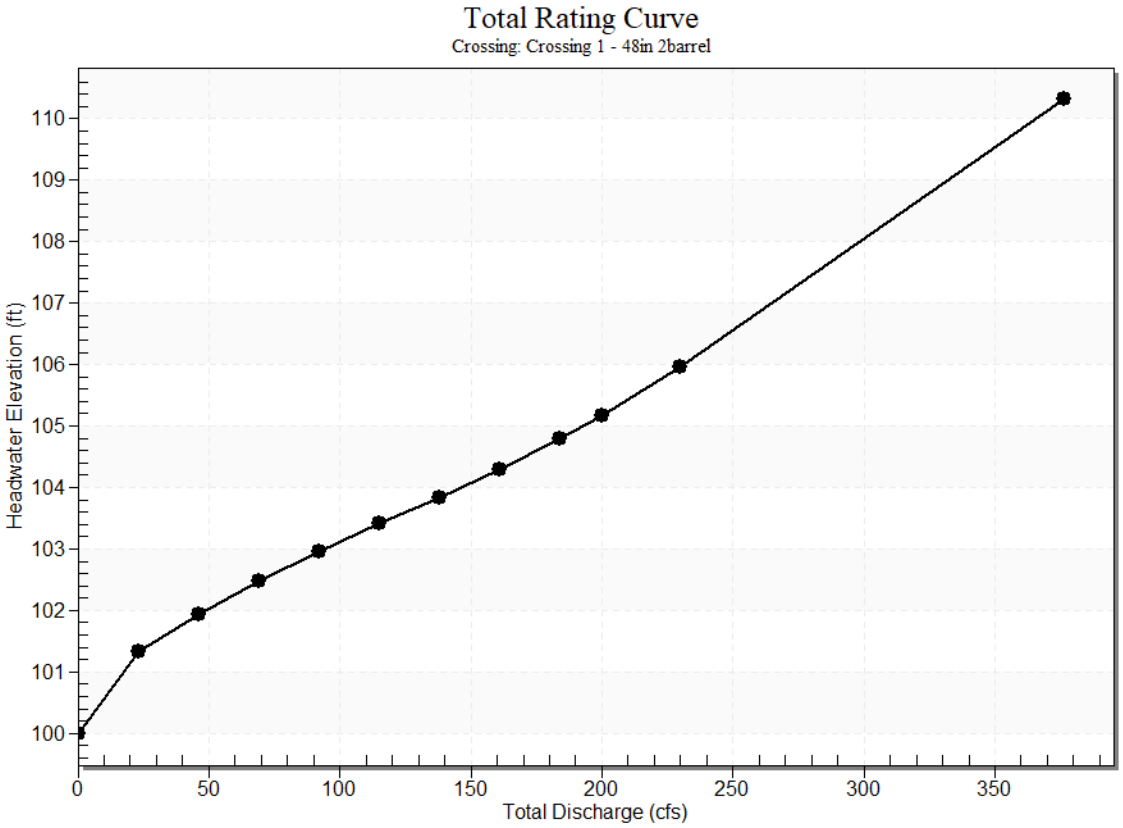
Design Flow: 200.00 cfs

Maximum Flow: 230.00 cfs

Table 13 - Summary of Culvert Flows at Crossing: Crossing 1 - 48in 2barrel

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
100.00	0.00	0.00	0.00	1
101.33	23.00	23.00	0.00	1
101.93	46.00	46.00	0.00	1
102.48	69.00	69.00	0.00	1
102.96	92.00	92.00	0.00	1
103.41	115.00	115.00	0.00	1
103.84	138.00	138.00	0.00	1
104.30	161.00	161.00	0.00	1
104.79	184.00	184.00	0.00	1
105.16	200.00	200.00	0.00	1
105.95	230.00	230.00	0.00	1
110.00	342.47	342.47	0.00	Overtopping

Rating Curve Plot for Crossing: Crossing 1 - 48in 2barrel



Culvert Data: Culvert 1

Table 7 - Culvert Summary Table: Culvert 1

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00 cfs	0.00 cfs	100.00	0.00	0.000	0-NF	0.00	0.00	0.00	0.00	0.00	0.00
23.00 cfs	23.00 cfs	101.33	1.33	0.012	1-S2n	0.62	0.99	0.66	0.74	8.47	4.47
46.00 cfs	46.00 cfs	101.93	1.93	0.503	1-S2n	0.87	1.41	0.97	1.04	9.79	5.40
69.00 cfs	69.00 cfs	102.48	2.48	0.947	1-S2n	1.07	1.75	1.22	1.27	10.60	6.01
92.00	92.00	102.96	2.96	1.38	1-	1.24	2.03	1.4	1.45	11.2	6.48

cfs	cfs			6	S2 n			4		6	
115.00 cfs	115.00 cfs	103.41	3.41	1.838	1-S2 n	1.39	2.28	1.65	1.61	11.80	6.87
138.00 cfs	138.00 cfs	103.84	3.84	2.310	1-S2 n	1.54	2.51	1.83	1.75	12.28	7.20
161.00 cfs	161.00 cfs	104.30	4.30	2.807	5-S2 n	1.67	2.72	2.01	1.87	12.73	7.49
184.00 cfs	184.00 cfs	104.79	4.79	3.330	5-S2 n	1.80	2.91	2.18	1.99	13.15	7.75
200.00 cfs	200.00 cfs	105.16	5.16	4.195	5-S2 n	1.89	3.03	2.29	2.06	13.44	7.92
230.00 cfs	230.00 cfs	105.95	5.95	4.840	5-S2 n	2.05	3.24	2.49	2.19	13.98	8.21

Culvert Barrel Data

Culvert Barrel Type Straight Culvert

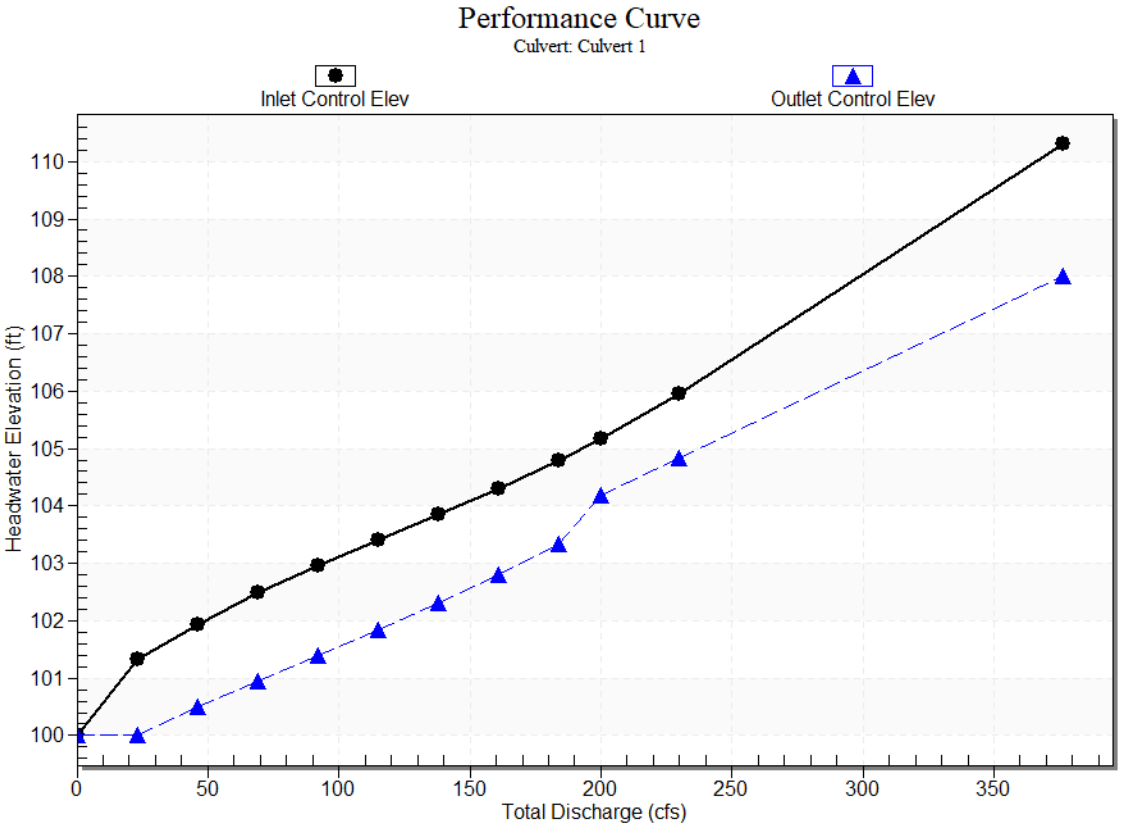
Inlet Elevation (invert): 100.00 ft,

Outlet Elevation (invert): 99.00 ft

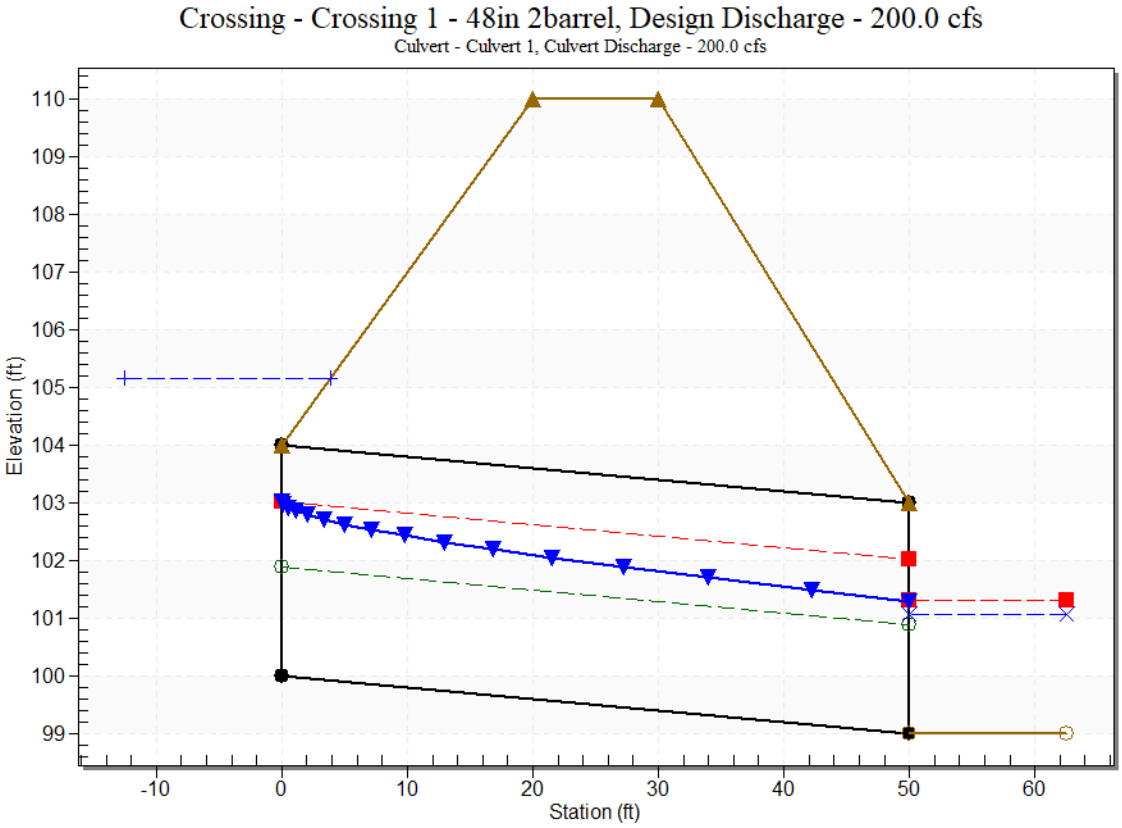
Culvert Length: 50.01 ft,

Culvert Slope: 0.0200

Culvert Performance Curve Plot: Culvert 1



Water Surface Profile Plot for Culvert: Culvert 1



Site Data - Culvert 1

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 100.00 ft

Outlet Station: 50.00 ft

Outlet Elevation: 99.00 ft

Number of Barrels: 2

Culvert Data Summary - Culvert 1

Barrel Shape: Circular

Barrel Diameter: 4.00 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall

Inlet Depression: None

Tailwater Data for Crossing: Crossing 1 - 48in 2barrel

Table 14 - Downstream Channel Rating Curve (Crossing: Crossing 1 - 48in 2barrel)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
0.00	99.00	0.00	0.00	0.00	0.00
23.00	99.74	0.74	4.47	0.92	1.09
46.00	100.04	1.04	5.40	1.30	1.14
69.00	100.27	1.27	6.01	1.58	1.18
92.00	100.45	1.45	6.48	1.81	1.20
115.00	100.61	1.61	6.87	2.00	1.21
138.00	100.75	1.75	7.20	2.18	1.23
161.00	100.87	1.87	7.49	2.34	1.24
184.00	100.99	1.99	7.75	2.48	1.25
200.00	101.06	2.06	7.92	2.57	1.26
230.00	101.19	2.19	8.21	2.74	1.27

Tailwater Channel Data - Crossing 1 - 48in 2barrel

Tailwater Channel Option: Trapezoidal Channel

Bottom Width: 4.00 ft

Side Slope (H:V): 4.00 (_:1)

Channel Slope: 0.0200

Channel Manning's n: 0.0300

Channel Invert Elevation: 99.00 ft

Roadway Data for Crossing: Crossing 1 - 48in 2barrel

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 110.00 ft

Roadway Surface: Paved

Roadway Top Width: 10.00 ft

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0.00 cfs

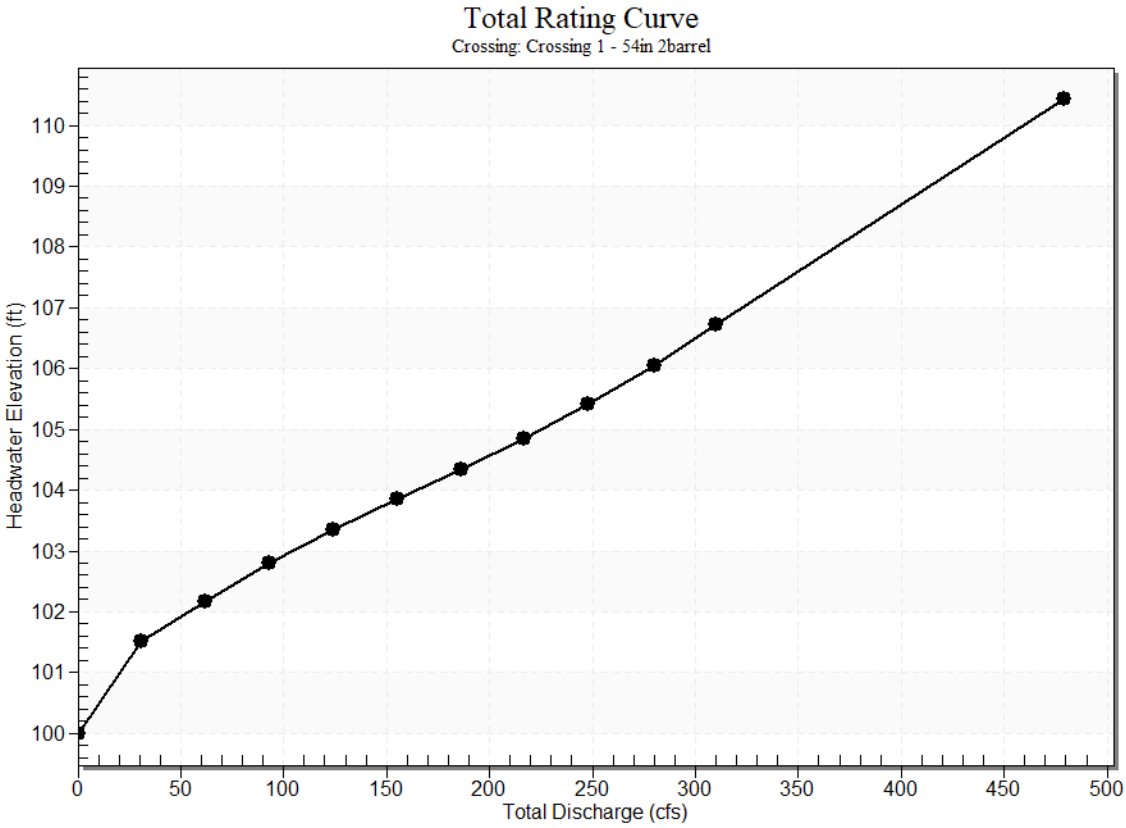
Design Flow: 280.00 cfs

Maximum Flow: 310.00 cfs

Table 15 - Summary of Culvert Flows at Crossing: Crossing 1 - 54in 2barrel

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
100.00	0.00	0.00	0.00	1
101.50	31.00	31.00	0.00	1
102.17	62.00	62.00	0.00	1
102.80	93.00	93.00	0.00	1
103.34	124.00	124.00	0.00	1
103.84	155.00	155.00	0.00	1
104.34	186.00	186.00	0.00	1
104.85	217.00	217.00	0.00	1
105.41	248.00	248.00	0.00	1
106.05	280.00	280.00	0.00	1
106.72	310.00	310.00	0.00	1
110.00	424.12	424.12	0.00	Overtopping

Rating Curve Plot for Crossing: Crossing 1 - 54in 2barrel



Culvert Data: Culvert 1

Table 8 - Culvert Summary Table: Culvert 1

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00 cfs	0.00 cfs	100.00	0.00	0.000	0-NF	0.00	0.00	0.00	0.00	0.00	0.00
31.00 cfs	31.00 cfs	101.50	1.50	0.140	1-S2n	0.69	1.12	0.75	0.86	8.91	4.85
62.00 cfs	62.00 cfs	102.17	2.17	0.694	1-S2n	0.97	1.59	1.10	1.20	10.26	5.84
93.00 cfs	93.00 cfs	102.80	2.80	1.192	1-S2n	1.19	1.97	1.39	1.46	11.12	6.50
124.0	124.0	103.34	3.34	1.68	1-	1.38	2.29	1.6	1.66	11.8	7.00

0 cfs	0 cfs			5	S2 n			4		0	
155.00 cfs	155.00 cfs	103.84	3.84	2.192	1-S2 n	1.55	2.57	1.87	1.84	12.37	7.42
186.00 cfs	186.00 cfs	104.34	4.34	2.721	1-S2 n	1.71	2.83	2.09	2.00	12.88	7.77
217.00 cfs	217.00 cfs	104.85	4.85	3.277	5-S2 n	1.86	3.06	2.29	2.14	13.35	8.09
248.00 cfs	248.00 cfs	105.41	5.41	3.862	5-S2 n	2.01	3.28	2.48	2.27	13.81	8.37
280.00 cfs	280.00 cfs	106.05	6.05	5.009	5-S2 n	2.15	3.48	2.67	2.39	14.26	8.63
310.00 cfs	310.00 cfs	106.72	6.72	5.549	5-S2 n	2.29	3.65	2.83	2.50	14.69	8.86

Culvert Barrel Data

Culvert Barrel Type Straight Culvert

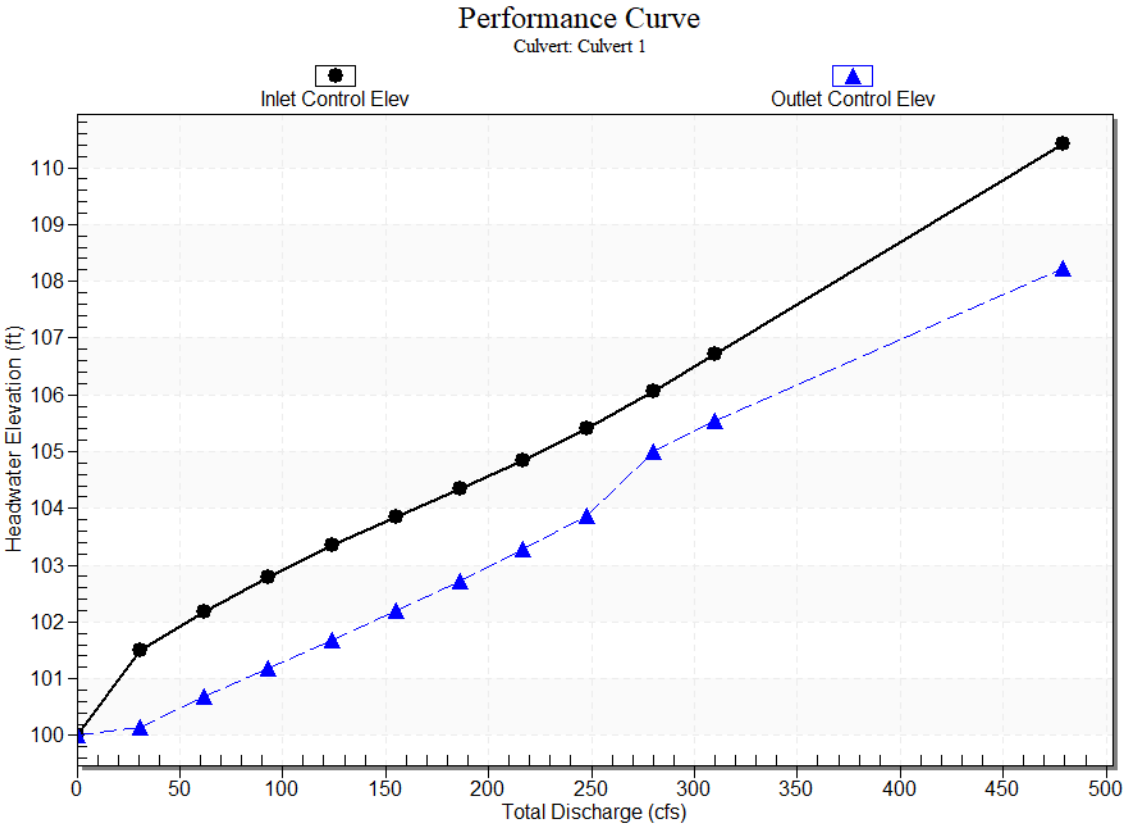
Inlet Elevation (invert): 100.00 ft,

Outlet Elevation (invert): 99.00 ft

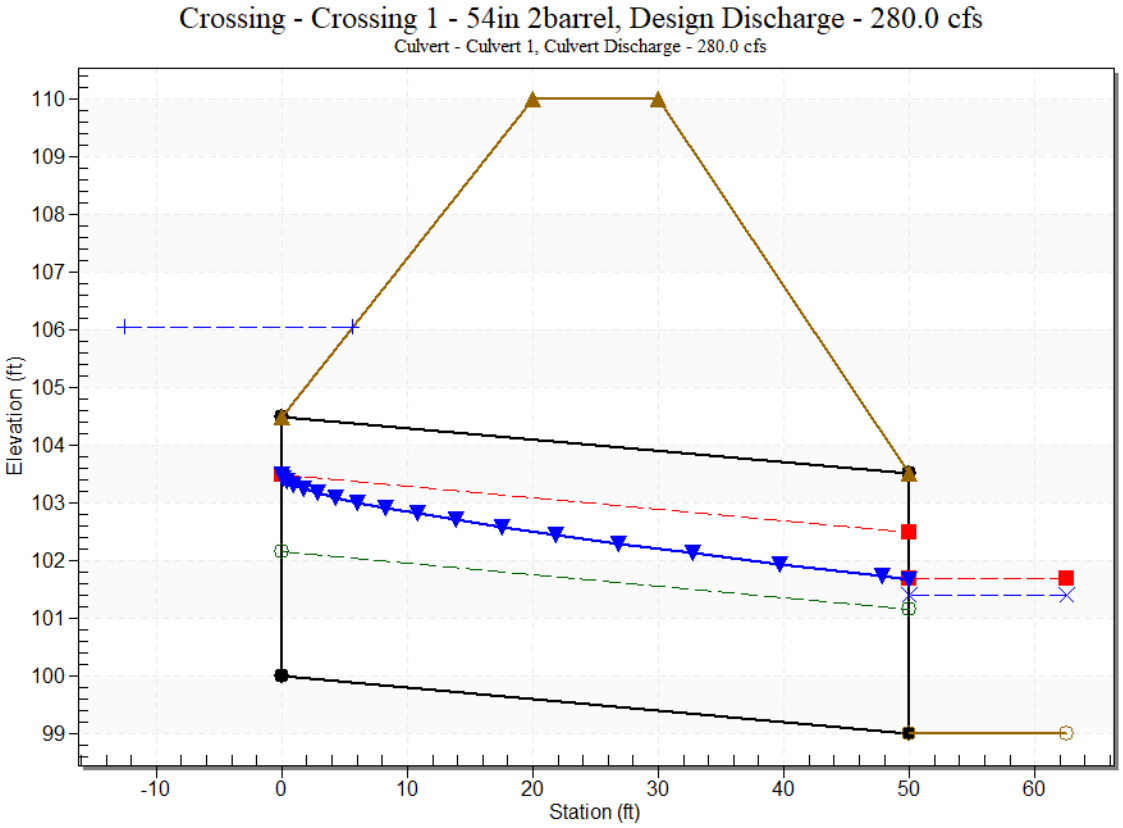
Culvert Length: 50.01 ft,

Culvert Slope: 0.0200

Culvert Performance Curve Plot: Culvert 1



Water Surface Profile Plot for Culvert: Culvert 1



Site Data - Culvert 1

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 100.00 ft

Outlet Station: 50.00 ft

Outlet Elevation: 99.00 ft

Number of Barrels: 2

Culvert Data Summary - Culvert 1

Barrel Shape: Circular

Barrel Diameter: 4.50 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall

Inlet Depression: None

Tailwater Data for Crossing: Crossing 1 - 54in 2barrel

Table 16 - Downstream Channel Rating Curve (Crossing: Crossing 1 - 54in 2barrel)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
0.00	99.00	0.00	0.00	0.00	0.00
31.00	99.86	0.86	4.85	1.07	1.12
62.00	100.20	1.20	5.84	1.50	1.17
93.00	100.46	1.46	6.50	1.82	1.20
124.00	100.66	1.66	7.00	2.07	1.22
155.00	100.84	1.84	7.42	2.30	1.24
186.00	101.00	2.00	7.77	2.49	1.25
217.00	101.14	2.14	8.09	2.67	1.26
248.00	101.27	2.27	8.37	2.83	1.27
280.00	101.39	2.39	8.63	2.98	1.28
310.00	101.50	2.50	8.86	3.12	1.29

Tailwater Channel Data - Crossing 1 - 54in 2barrel

Tailwater Channel Option: Trapezoidal Channel

Bottom Width: 4.00 ft

Side Slope (H:V): 4.00 (_:1)

Channel Slope: 0.0200

Channel Manning's n: 0.0300

Channel Invert Elevation: 99.00 ft

Roadway Data for Crossing: Crossing 1 - 54in 2barrel

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 110.00 ft

Roadway Surface: Paved

Roadway Top Width: 10.00 ft

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0.00 cfs

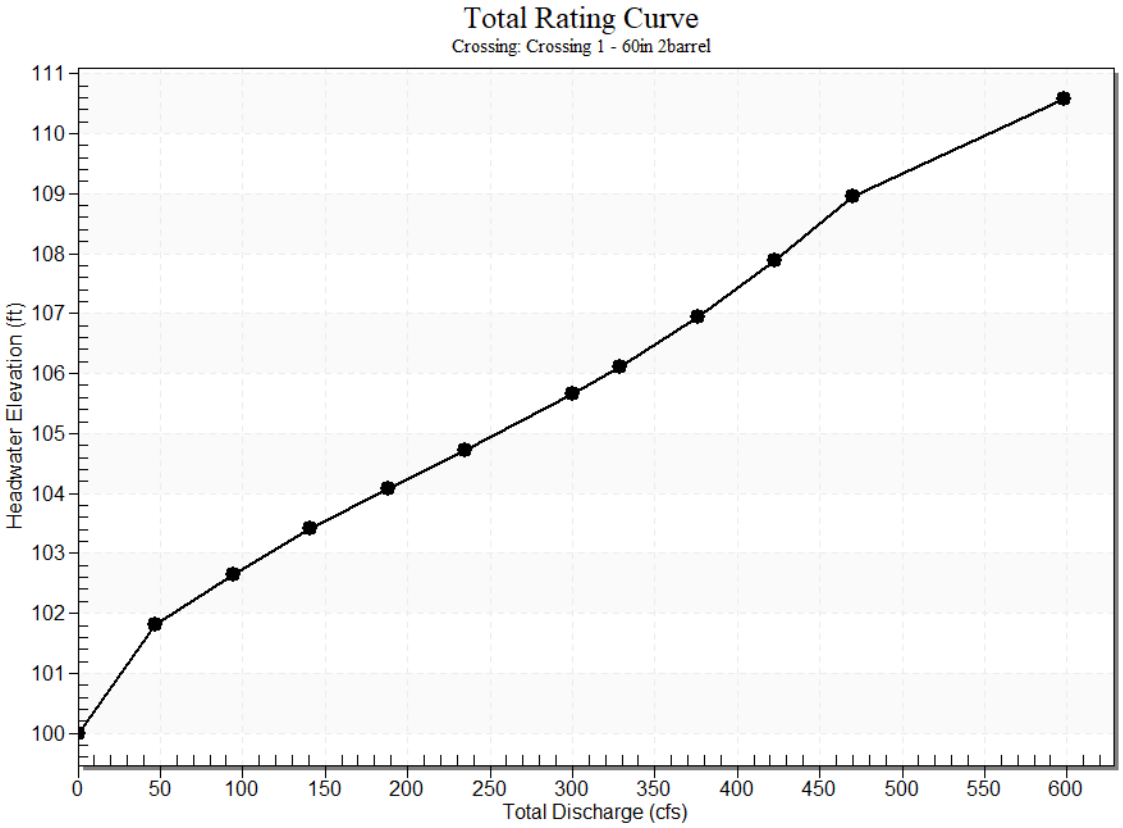
Design Flow: 300.00 cfs

Maximum Flow: 470.00 cfs

Table 17 - Summary of Culvert Flows at Crossing: Crossing 1 - 60in 2barrel

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
100.00	0.00	0.00	0.00	1
101.81	47.00	47.00	0.00	1
102.64	94.00	94.00	0.00	1
103.42	141.00	141.00	0.00	1
104.09	188.00	188.00	0.00	1
104.72	235.00	235.00	0.00	1
105.65	300.00	300.00	0.00	1
106.11	329.00	329.00	0.00	1
106.94	376.00	376.00	0.00	1
107.88	423.00	423.00	0.00	1
108.95	470.00	470.00	0.00	1
110.00	511.66	511.66	0.00	Overtopping

Rating Curve Plot for Crossing: Crossing 1 - 60in 2barrel



Culvert Data: Culvert 1

Table 9 - Culvert Summary Table: Culvert 1

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00 cfs	0.00 cfs	100.00	0.00	0.000	0-NF	0.00	0.00	0.00	0.00	0.00	0.00
47.00 cfs	47.00 cfs	101.81	1.81	0.377	1-S2n	0.82	1.34	0.91	0.74	9.57	4.94
94.00 cfs	94.00 cfs	102.64	2.64	1.066	1-S2n	1.16	1.92	1.35	1.08	11.00	6.11
141.00 cfs	141.00 cfs	103.42	3.42	1.702	1-S2n	1.42	2.37	1.70	1.33	11.94	6.89
188.0	188.0	104.09	4.09	2.34	1-	1.65	2.76	2.0	1.55	12.6	7.48

0 cfs	0 cfs			4	S2n			2		8	
235.00 cfs	235.00 cfs	104.72	4.72	3.016	1-S2n	1.86	3.10	2.30	1.74	13.32	7.96
300.00 cfs	300.00 cfs	105.65	5.65	4.010	5-S2n	2.12	3.51	2.66	1.97	14.13	8.52
329.00 cfs	329.00 cfs	106.11	6.11	4.481	5-S2n	2.23	3.68	2.81	2.06	14.47	8.74
376.00 cfs	376.00 cfs	106.94	6.94	5.817	5-S2n	2.41	3.92	3.04	2.20	15.02	9.06
423.00 cfs	423.00 cfs	107.88	7.88	6.551	5-S2n	2.58	4.14	3.26	2.34	15.58	9.36
470.00 cfs	470.00 cfs	108.95	8.95	7.342	5-S2n	2.76	4.32	3.47	2.46	16.16	9.63

Culvert Barrel Data

Culvert Barrel Type Straight Culvert

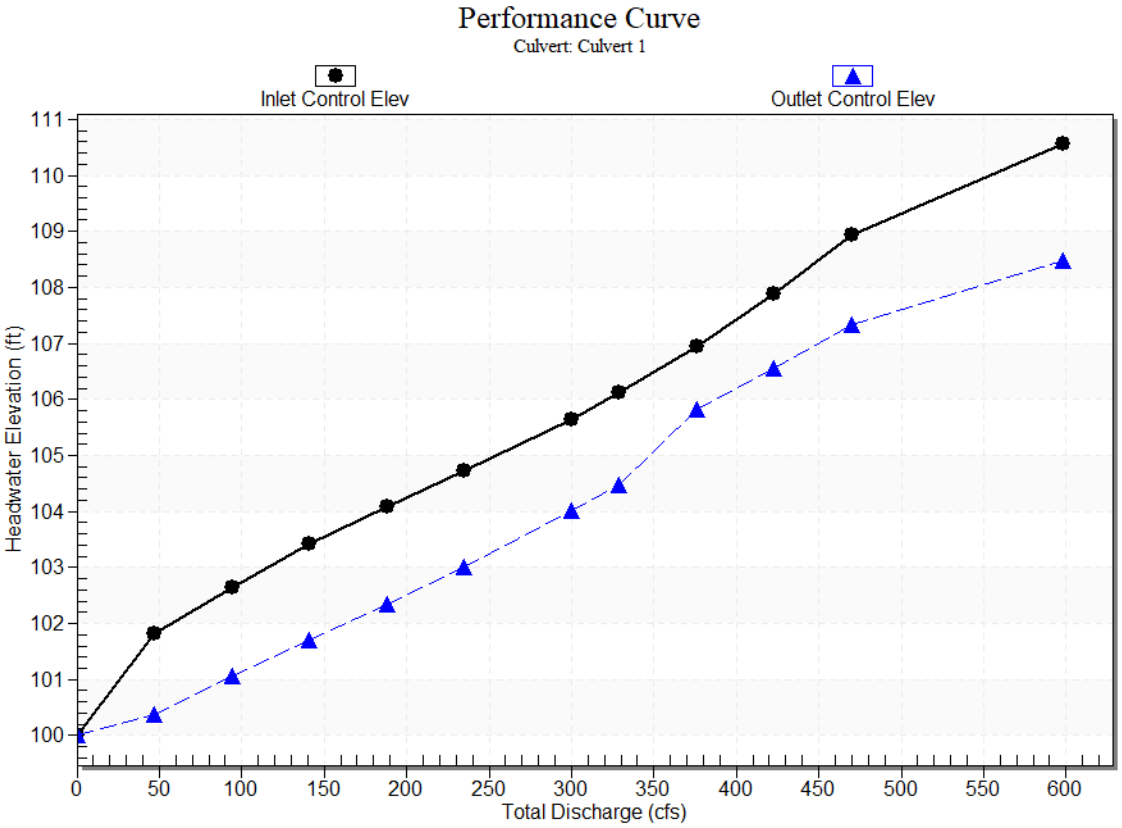
Inlet Elevation (invert): 100.00 ft,

Outlet Elevation (invert): 99.00 ft

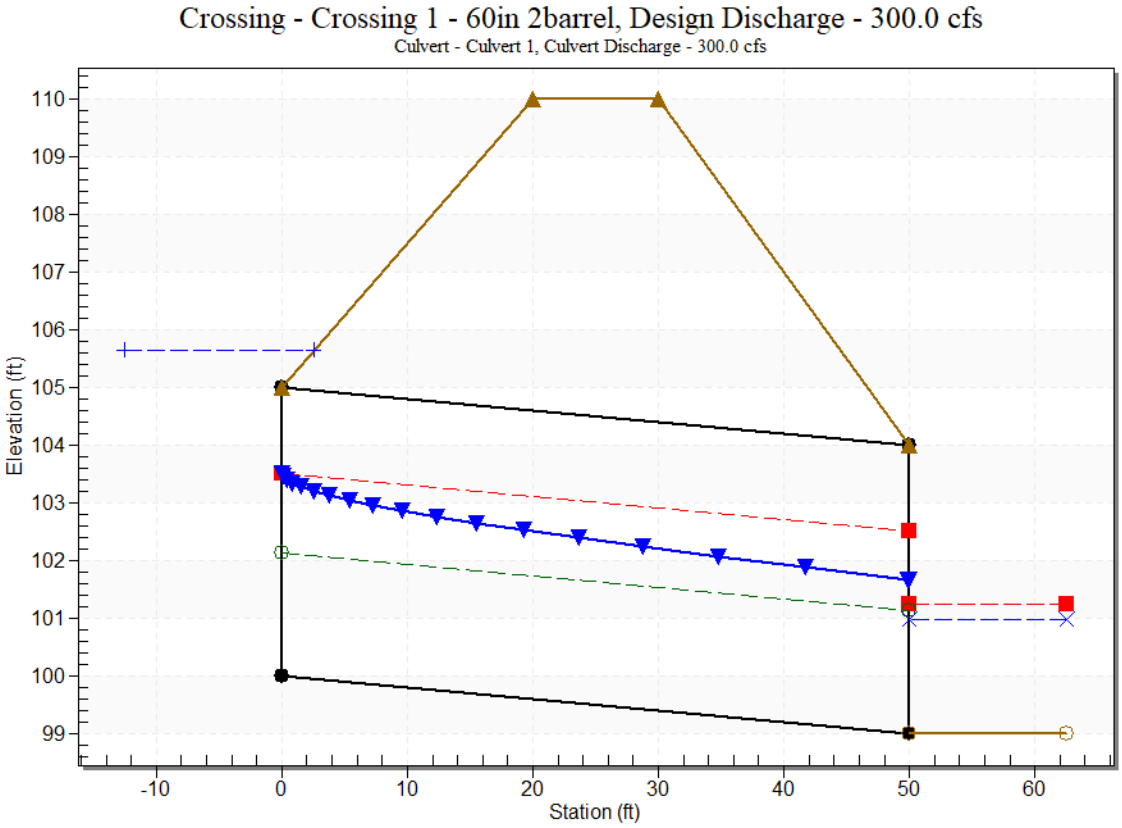
Culvert Length: 50.01 ft,

Culvert Slope: 0.0200

Culvert Performance Curve Plot: Culvert 1



Water Surface Profile Plot for Culvert: Culvert 1



Site Data - Culvert 1

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 100.00 ft

Outlet Station: 50.00 ft

Outlet Elevation: 99.00 ft

Number of Barrels: 2

Culvert Data Summary - Culvert 1

Barrel Shape: Circular

Barrel Diameter: 5.00 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall

Inlet Depression: None

Tailwater Data for Crossing: Crossing 1 - 60in 2barrel

Table 18 - Downstream Channel Rating Curve (Crossing: Crossing 1 - 60in 2barrel)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
0.00	99.00	0.00	0.00	0.00	0.00
47.00	99.74	0.74	4.94	0.92	1.12
94.00	100.08	1.08	6.11	1.34	1.18
141.00	100.33	1.33	6.89	1.67	1.22
188.00	100.55	1.55	7.48	1.94	1.24
235.00	100.74	1.74	7.96	2.17	1.26
300.00	100.97	1.97	8.52	2.46	1.28
329.00	101.06	2.06	8.74	2.57	1.29
376.00	101.20	2.20	9.06	2.75	1.30
423.00	101.34	2.34	9.36	2.92	1.31
470.00	101.46	2.46	9.63	3.07	1.32

Tailwater Channel Data - Crossing 1 - 60in 2barrel

Tailwater Channel Option: Trapezoidal Channel

Bottom Width: 10.00 ft

Side Slope (H:V): 4.00 (_:1)

Channel Slope: 0.0200

Channel Manning's n: 0.0300

Channel Invert Elevation: 99.00 ft

Roadway Data for Crossing: Crossing 1 - 60in 2barrel

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 110.00 ft

Roadway Surface: Paved

Roadway Top Width: 10.00 ft

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0.00 cfs

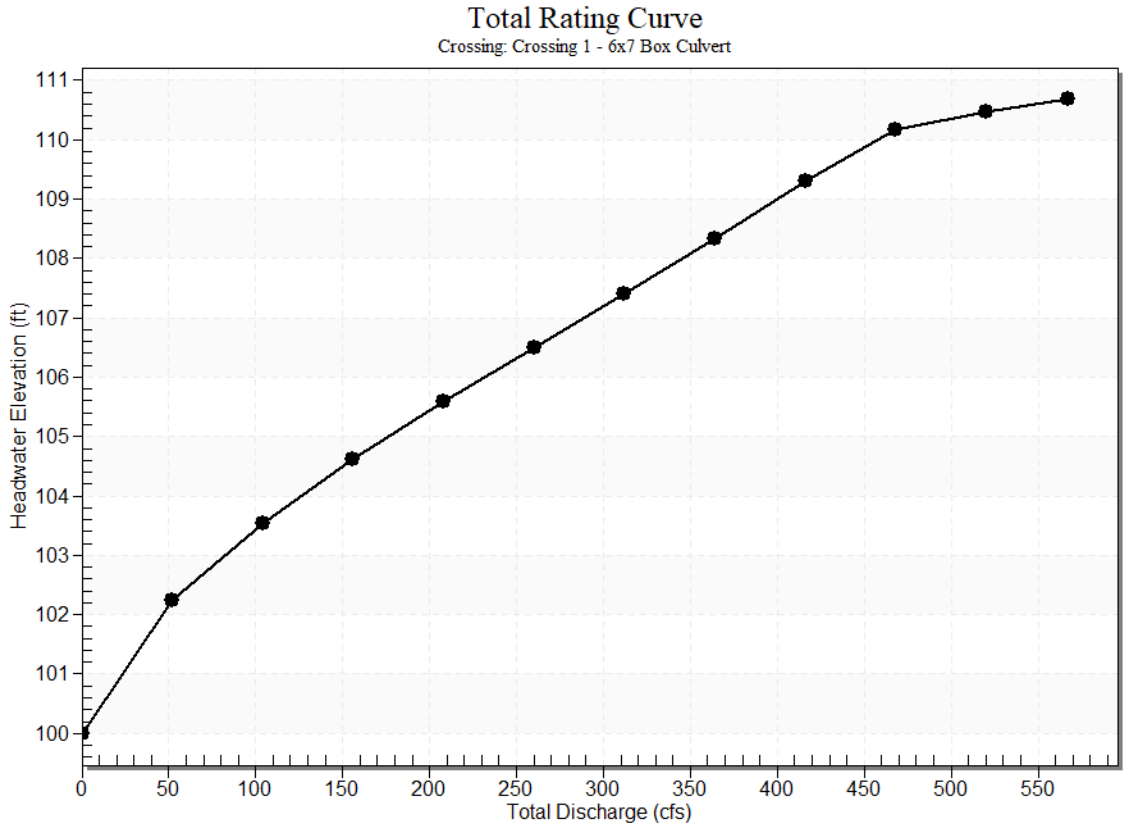
Design Flow: 520.00 cfs

Maximum Flow: 520.00 cfs

Table 19 - Summary of Culvert Flows at Crossing: Crossing 1 - 6x7 Box Culvert

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
100.00	0.00	0.00	0.00	1
102.23	52.00	52.00	0.00	1
103.54	104.00	104.00	0.00	1
104.62	156.00	156.00	0.00	1
105.59	208.00	208.00	0.00	1
106.50	260.00	260.00	0.00	1
107.40	312.00	312.00	0.00	1
108.32	364.00	364.00	0.00	1
109.31	416.00	416.00	0.00	1
110.17	468.00	457.92	10.03	5
110.47	520.00	471.87	48.04	5
110.00	450.01	450.01	0.00	Overtopping

Rating Curve Plot for Crossing: Crossing 1 - 6x7 Box Culvert



Culvert Data: Culvert 1

Table 10 - Culvert Summary Table: Culvert 1

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00 cfs	0.00 cfs	100.00	0.00	0.000	0-NF	0.00	0.00	0.00	0.00	0.00	0.00
52.00 cfs	52.00 cfs	102.23	2.23	0.365	1-S2n	0.71	1.33	0.83	1.11	10.48	5.58
104.00 cfs	104.00 cfs	103.54	3.54	1.259	1-S2n	1.13	2.11	1.41	1.53	12.34	6.69
156.00 cfs	156.00 cfs	104.62	4.62	2.104	1-S2n	1.49	2.76	1.92	1.84	13.54	7.43
208.0	208.0	105.59	5.59	2.95	1-	1.82	3.34	2.4	2.10	14.4	8.00

0 cfs	0 cfs			5	S2 n			0		7	
260.0 **0** cfs	260.0 0 cfs	106.50	6.50	3.83 6	1- S2 n	2.13	3.88	2.8 4	2.32	15.2 4	8.47
312.0 **0** cfs	312.0 0 cfs	107.40	7.40	4.75 9	5- S2 n	2.43	4.38	3.2 7	2.51	15.9 1	8.87
364.0 **0** cfs	364.0 0 cfs	108.32	8.32	5.73 1	5- S2 n	2.73	4.85	3.6 8	2.68	16.5 1	9.23
416.0 **0** cfs	416.0 0 cfs	109.31	9.31	7.60 5	5- S2 n	3.01	5.30	4.0 7	2.84	17.0 4	9.54
468.0 **0** cfs	457.9 2 cfs	110.17	10.1 7	8.30 0	5- S2 n	3.24	5.66	4.3 8	2.99	17.4 4	9.83
520.0 **0** cfs	471.8 7 cfs	110.47	10.4 7	8.54 1	5- S2 n	3.31	5.77	4.4 8	3.12	17.5 7	10.10

Culvert Barrel Data

Culvert Barrel Type Straight Culvert

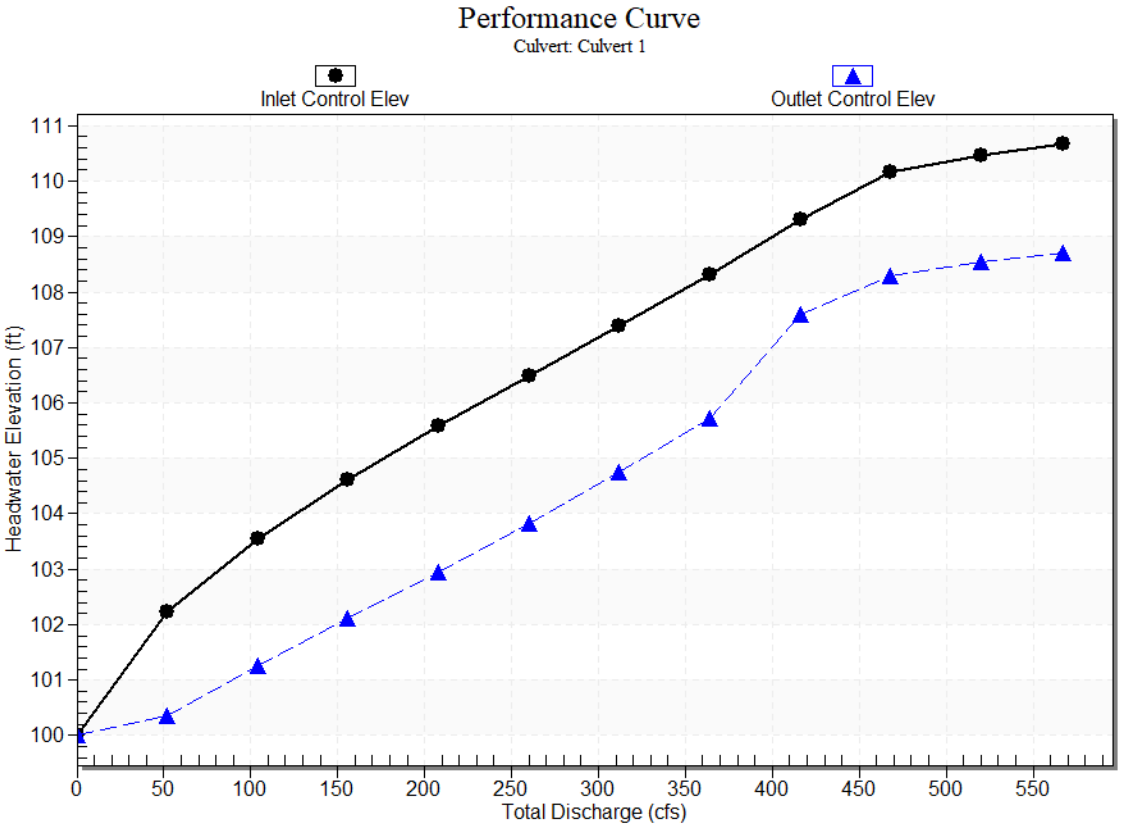
Inlet Elevation (invert): 100.00 ft,

Outlet Elevation (invert): 99.00 ft

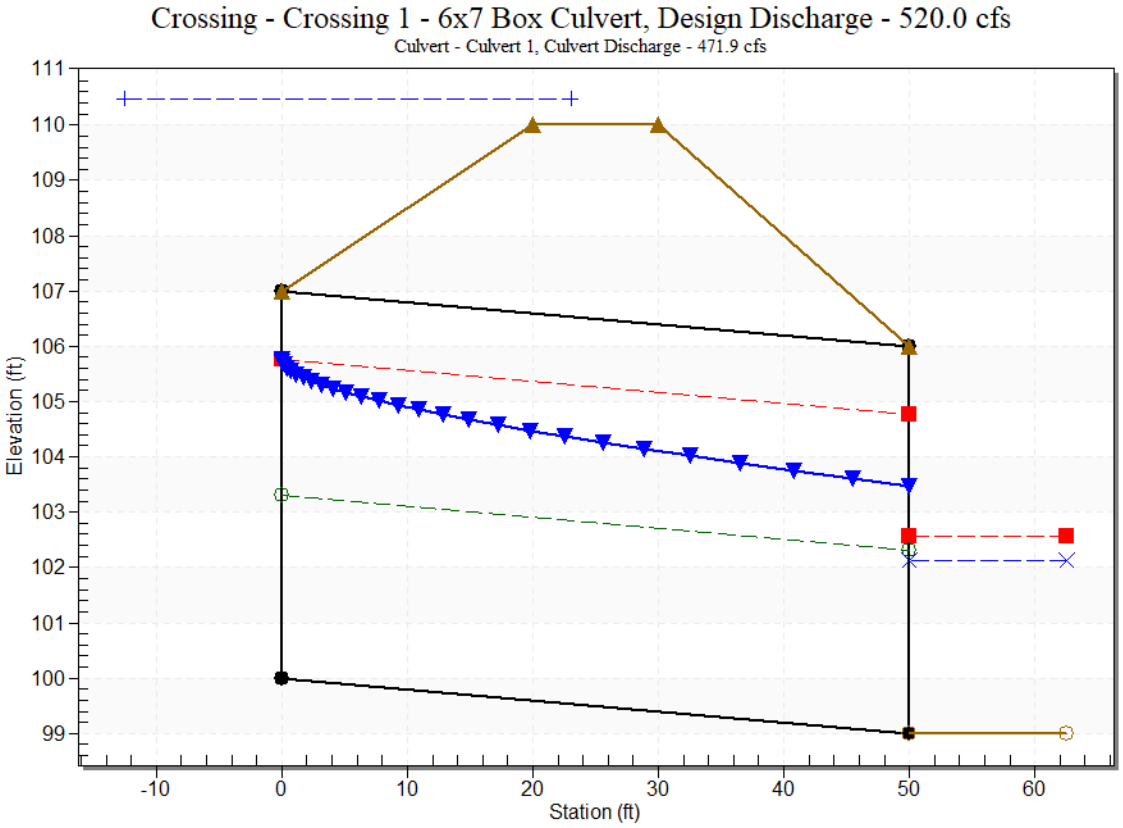
Culvert Length: 50.01 ft,

Culvert Slope: 0.0200

Culvert Performance Curve Plot: Culvert 1



Water Surface Profile Plot for Culvert: Culvert 1



Site Data - Culvert 1

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 100.00 ft

Outlet Station: 50.00 ft

Outlet Elevation: 99.00 ft

Number of Barrels: 1

Culvert Data Summary - Culvert 1

Barrel Shape: Concrete Box

Barrel Span: 6.00 ft

Barrel Rise: 7.00 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge (90º) Headwall

Inlet Depression: None

Tailwater Data for Crossing: Crossing 1 - 6x7 Box Culvert

Table 20 - Downstream Channel Rating Curve (Crossing: Crossing 1 - 6x7 Box Culvert)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
0.00	99.00	0.00	0.00	0.00	0.00
52.00	100.11	1.11	5.58	1.38	1.15
104.00	100.53	1.53	6.69	1.91	1.21
156.00	100.84	1.84	7.43	2.30	1.24
208.00	101.10	2.10	8.00	2.62	1.26
260.00	101.32	2.32	8.47	2.89	1.28
312.00	101.51	2.51	8.87	3.13	1.29
364.00	101.68	2.68	9.23	3.34	1.31
416.00	101.84	2.84	9.54	3.54	1.32
468.00	101.99	2.99	9.83	3.73	1.33
520.00	102.12	3.12	10.10	3.90	1.34

Tailwater Channel Data - Crossing 1 - 6x7 Box Culvert

Tailwater Channel Option: Trapezoidal Channel

Bottom Width: 4.00 ft

Side Slope (H:V): 4.00 (_:1)

Channel Slope: 0.0200

Channel Manning's n: 0.0300

Channel Invert Elevation: 99.00 ft

Roadway Data for Crossing: Crossing 1 - 6x7 Box Culvert

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 110.00 ft

Roadway Surface: Paved

Roadway Top Width: 10.00 ft

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0.00 cfs

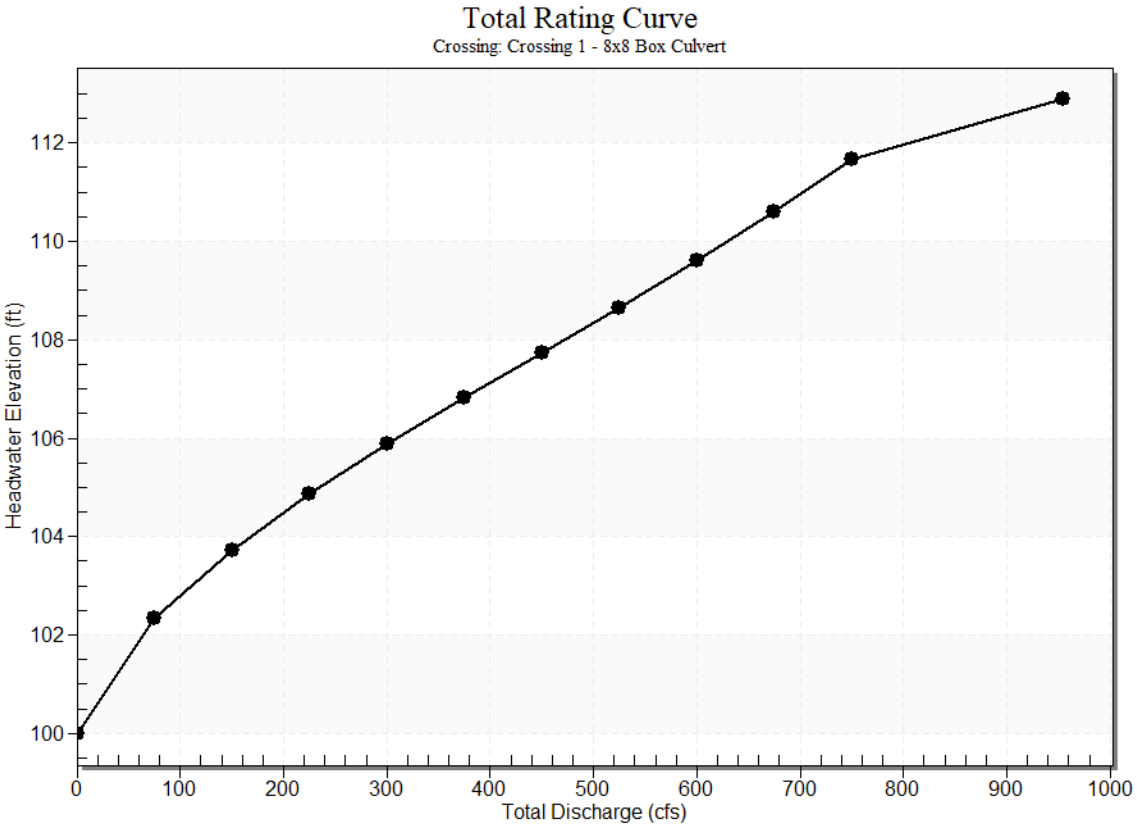
Design Flow: 750.00 cfs

Maximum Flow: 750.00 cfs

Table 21 - Summary of Culvert Flows at Crossing: Crossing 1 - 8x8 Box Culvert

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
100.00	0.00	0.00	0.00	1
102.35	75.00	75.00	0.00	1
103.73	150.00	150.00	0.00	1
104.88	225.00	225.00	0.00	1
105.89	300.00	300.00	0.00	1
106.83	375.00	375.00	0.00	1
107.74	450.00	450.00	0.00	1
108.66	525.00	525.00	0.00	1
109.60	600.00	600.00	0.00	1
110.60	675.00	675.00	0.00	1
111.68	750.00	750.00	0.00	1
112.00	771.23	771.23	0.00	Overtopping

Rating Curve Plot for Crossing: Crossing 1 - 8x8 Box Culvert



Culvert Data: Culvert 1

Table 11 - Culvert Summary Table: Culvert 1

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00 cfs	0.00 cfs	100.00	0.00	0.000	0-NF	0.00	0.00	0.00	0.00	0.00	0.00
75.00 cfs	75.00 cfs	102.35	2.35	0.431	1-S2n	0.73	1.40	0.87	1.32	10.75	6.14
150.00 cfs	150.00 cfs	103.73	3.73	1.353	1-S2n	1.15	2.22	1.48	1.81	12.69	7.36
225.00 cfs	225.00 cfs	104.88	4.88	2.211	1-S2n	1.51	2.91	2.02	2.17	13.94	8.16
300.0	300.0	105.89	5.89	3.06	1-	1.83	3.52	2.5	2.46	14.9	8.78

0 cfs	0 cfs			2	S2 n			1		1	
375.0 **0** cfs	375.0 0 cfs	106.83	6.83	3.93 0	1- S2 n	2.14	4.09	2.9 8	2.71	15.7 2	9.30
450.0 **0** cfs	450.0 0 cfs	107.74	7.74	4.83 0	1- S2 n	2.43	4.61	3.4 3	2.94	16.4 2	9.74
525.0 **0** cfs	525.0 0 cfs	108.66	8.66	5.76 8	5- S2 n	2.71	5.11	3.8 5	3.14	17.0 4	10.12
600.0 **0** cfs	600.0 0 cfs	109.60	9.60	6.75 0	5- S2 n	2.99	5.59	4.2 6	3.32	17.6 0	10.47
675.0 **0** cfs	675.0 0 cfs	110.60	10.6 0	8.75 7	5- S2 n	3.26	6.05	4.6 6	3.49	18.1 1	10.79
750.0 **0** cfs	750.0 0 cfs	111.68	11.6 8	9.61 9	5- S2 n	3.52	6.49	5.0 4	3.64	18.5 9	11.08

Culvert Barrel Data

Culvert Barrel Type Straight Culvert

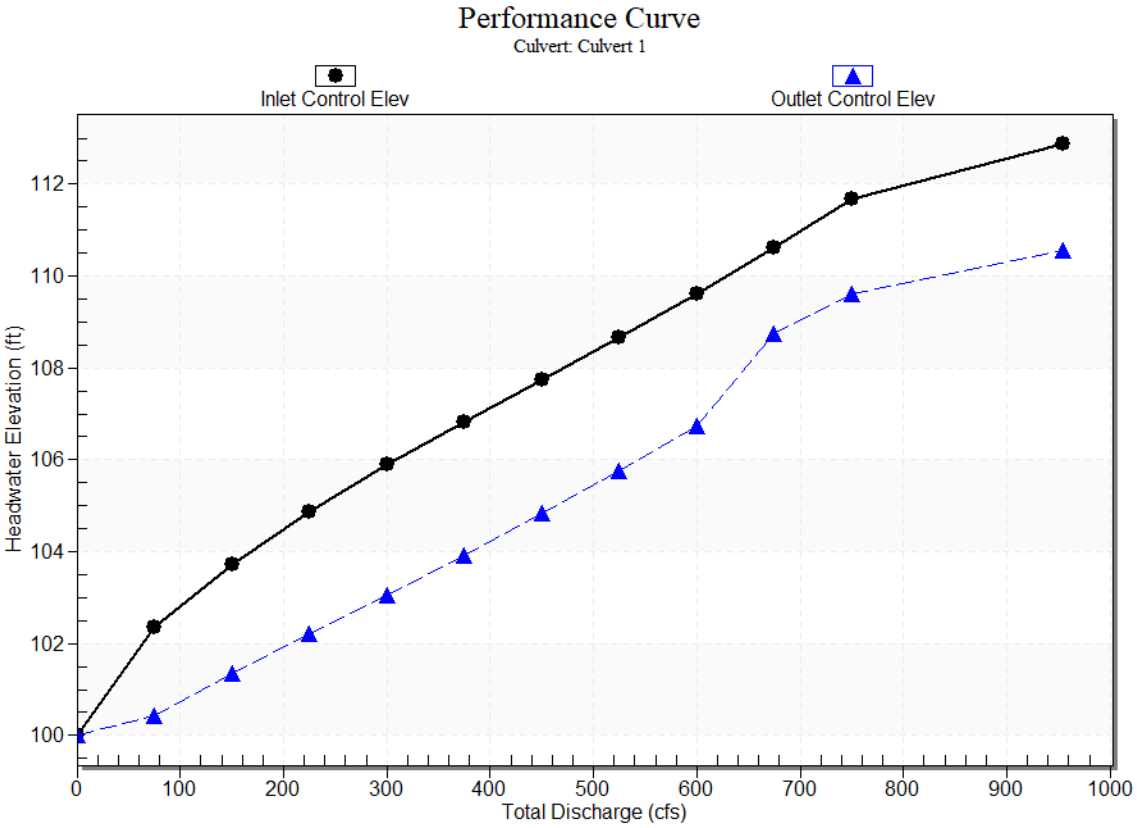
Inlet Elevation (invert): 100.00 ft,

Outlet Elevation (invert): 99.00 ft

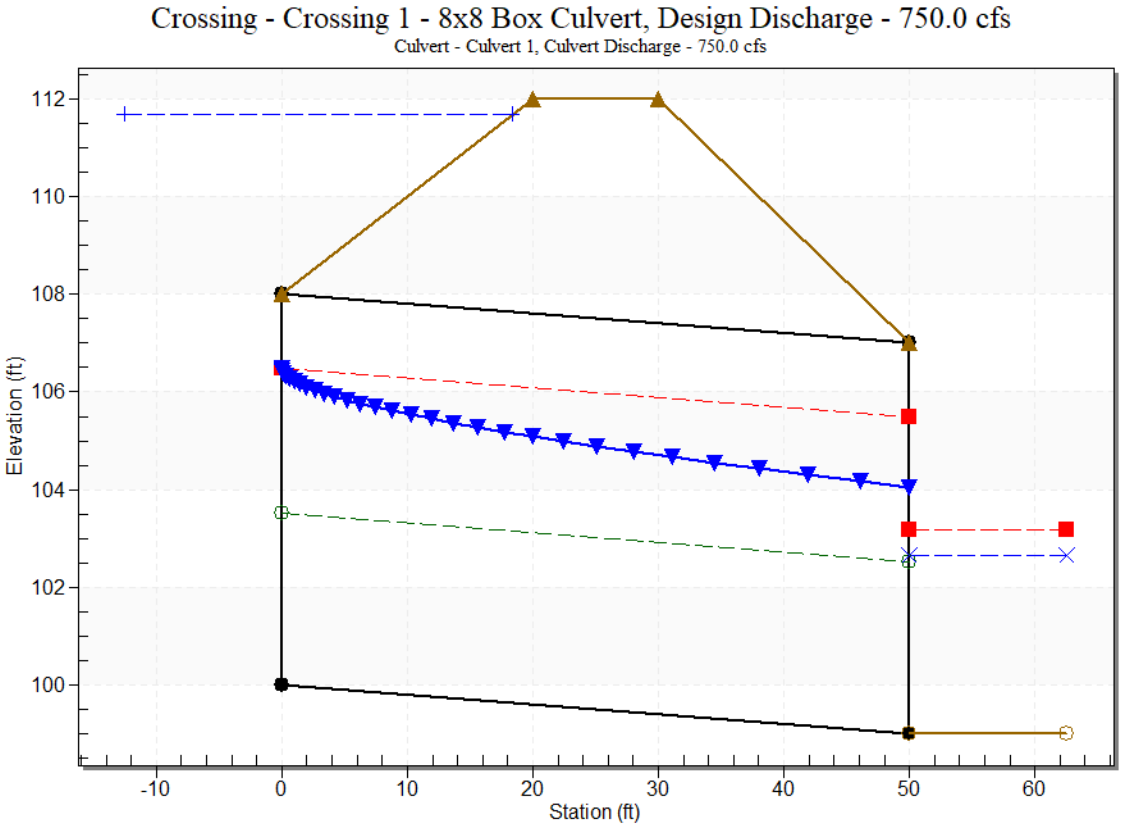
Culvert Length: 50.01 ft,

Culvert Slope: 0.0200

Culvert Performance Curve Plot: Culvert 1



Water Surface Profile Plot for Culvert: Culvert 1



Site Data - Culvert 1

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 100.00 ft

Outlet Station: 50.00 ft

Outlet Elevation: 99.00 ft

Number of Barrels: 1

Culvert Data Summary - Culvert 1

Barrel Shape: Concrete Box

Barrel Span: 8.00 ft

Barrel Rise: 8.00 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge (90º) Headwall

Inlet Depression: None

Tailwater Data for Crossing: Crossing 1 - 8x8 Box Culvert

Table 22 - Downstream Channel Rating Curve (Crossing: Crossing 1 - 8x8 Box Culvert)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
0.00	99.00	0.00	0.00	0.00	0.00
75.00	100.32	1.32	6.14	1.64	1.18
150.00	100.81	1.81	7.36	2.26	1.23
225.00	101.17	2.17	8.16	2.71	1.27
300.00	101.46	2.46	8.78	3.08	1.29
375.00	101.71	2.71	9.30	3.39	1.31
450.00	101.94	2.94	9.74	3.66	1.32
525.00	102.14	3.14	10.12	3.91	1.34
600.00	102.32	3.32	10.47	4.14	1.35
675.00	102.49	3.49	10.79	4.35	1.36
750.00	102.64	3.64	11.08	4.55	1.37

Tailwater Channel Data - Crossing 1 - 8x8 Box Culvert

Tailwater Channel Option: Trapezoidal Channel

Bottom Width: 4.00 ft

Side Slope (H:V): 4.00 (_:1)

Channel Slope: 0.0200

Channel Manning's n: 0.0300

Channel Invert Elevation: 99.00 ft

Roadway Data for Crossing: Crossing 1 - 8x8 Box Culvert

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 112.00 ft

Roadway Surface: Paved

Roadway Top Width: 10.00 ft

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0.00 cfs

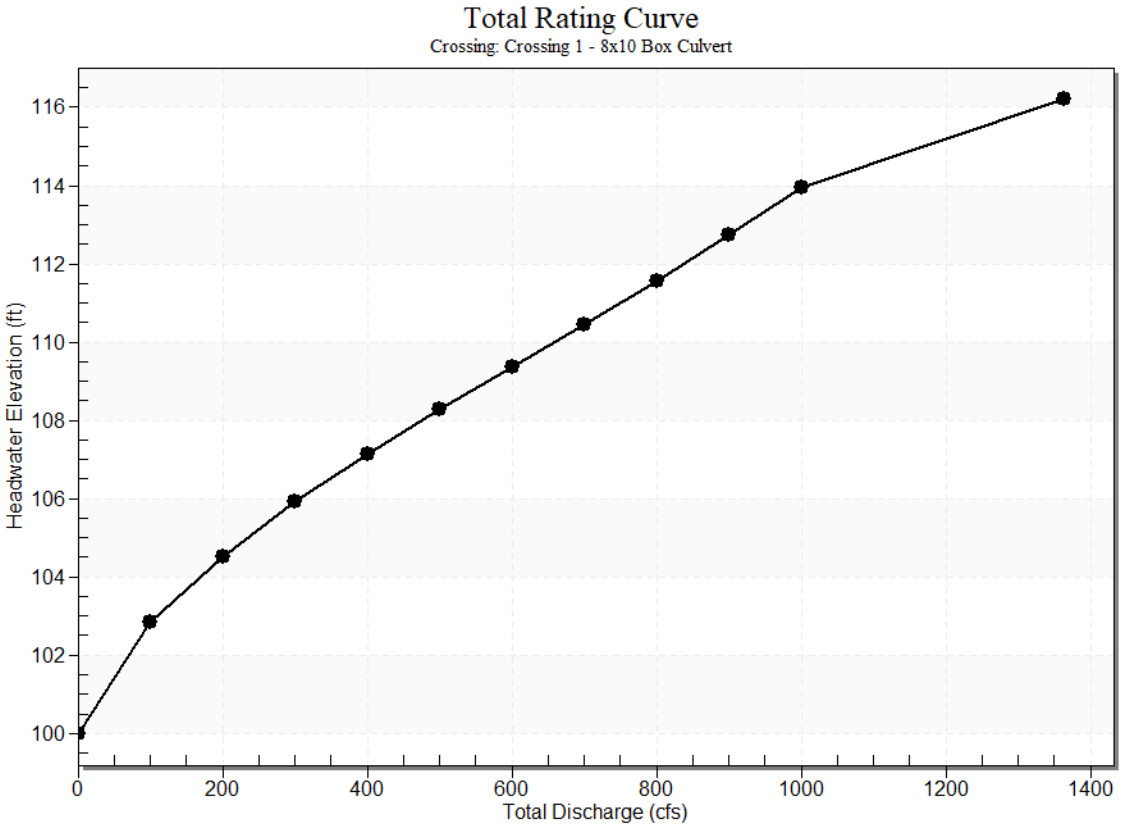
Design Flow: 1000.00 cfs

Maximum Flow: 1000.00 cfs

Table 23 - Summary of Culvert Flows at Crossing: Crossing 1 - 8x10 Box Culvert

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
100.00	0.00	0.00	0.00	1
102.85	100.00	100.00	0.00	1
104.52	200.00	200.00	0.00	1
105.91	300.00	300.00	0.00	1
107.14	400.00	400.00	0.00	1
108.28	500.00	500.00	0.00	1
109.37	600.00	600.00	0.00	1
110.45	700.00	700.00	0.00	1
111.56	800.00	800.00	0.00	1
112.73	900.00	900.00	0.00	1
113.97	1000.00	1000.00	0.00	1
115.00	1077.84	1077.84	0.00	Overtopping

Rating Curve Plot for Crossing: Crossing 1 - 8x10 Box Culvert



Culvert Data: Culvert 1

Table 12 - Culvert Summary Table: Culvert 1

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00 cfs	0.00 cfs	100.00	0.00	0.000	0-NF	0.00	0.00	0.00	0.00	0.00	0.00
100.00 cfs	100.00 cfs	102.85	2.85	0.731	1-S2n	0.88	1.69	1.08	1.51	11.54	6.62
200.00 cfs	200.00 cfs	104.52	4.52	1.840	1-S2n	1.39	2.69	1.84	2.06	13.57	7.92
300.00 cfs	300.00 cfs	105.91	5.91	2.865	1-S2n	1.83	3.52	2.51	2.46	14.91	8.78
400.0	400.0	107.14	7.14	3.87	1-	2.24	4.27	3.1	2.79	15.9	9.45

0 cfs	0 cfs			6	S2n			3		6	
500.00 cfs	500.00 cfs	108.28	8.28	4.904	1-S2n	2.62	4.95	3.71	3.07	16.84	10.00
600.00 cfs	600.00 cfs	109.37	9.37	5.963	1-S2n	2.99	5.59	4.26	3.32	17.60	10.47
700.00 cfs	700.00 cfs	110.45	10.45	7.064	5-S2n	3.34	6.20	4.79	3.54	18.27	10.89
800.00 cfs	800.00 cfs	111.56	11.56	8.213	5-S2n	3.69	6.77	5.29	3.74	18.89	11.26
900.00 cfs	900.00 cfs	112.73	12.73	9.415	5-S2n	4.03	7.33	5.78	3.93	19.45	11.60
1000.00 cfs	1000.00 cfs	113.97	13.97	11.743	5-S2n	4.36	7.86	6.26	4.11	19.97	11.91

Culvert Barrel Data

Culvert Barrel Type Straight Culvert

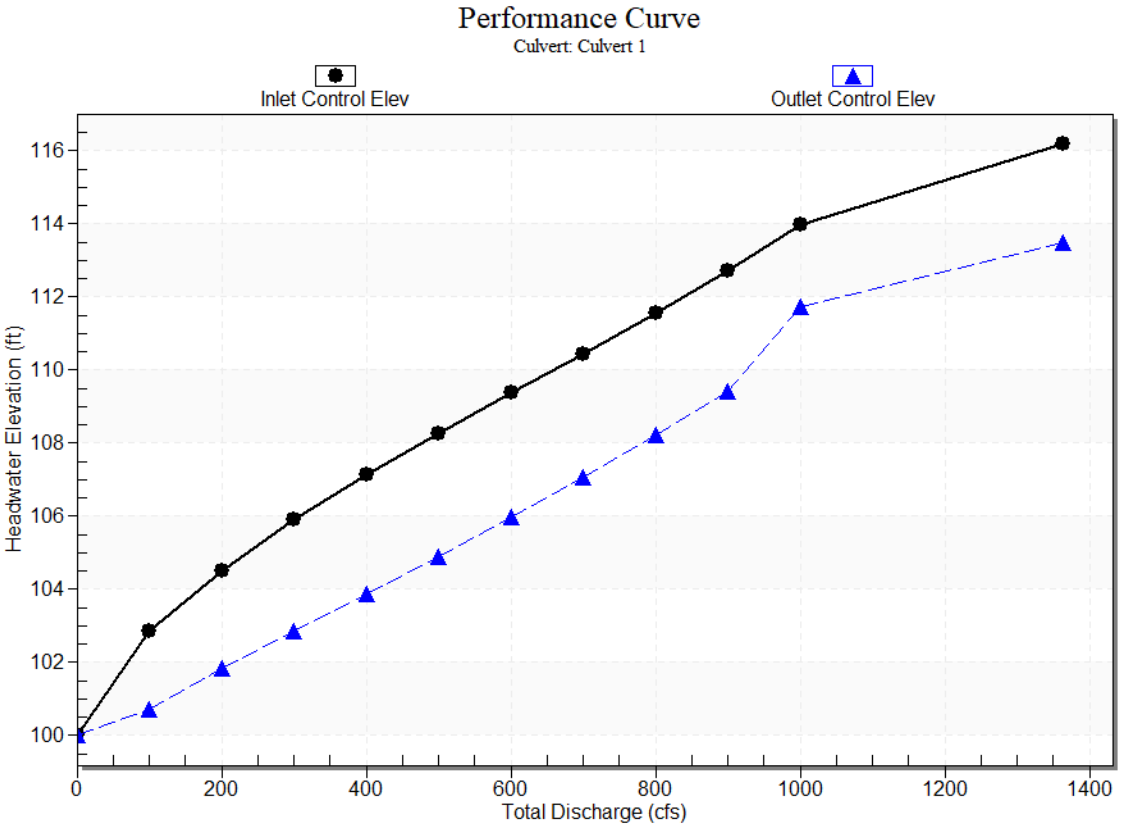
Inlet Elevation (invert): 100.00 ft,

Outlet Elevation (invert): 99.00 ft

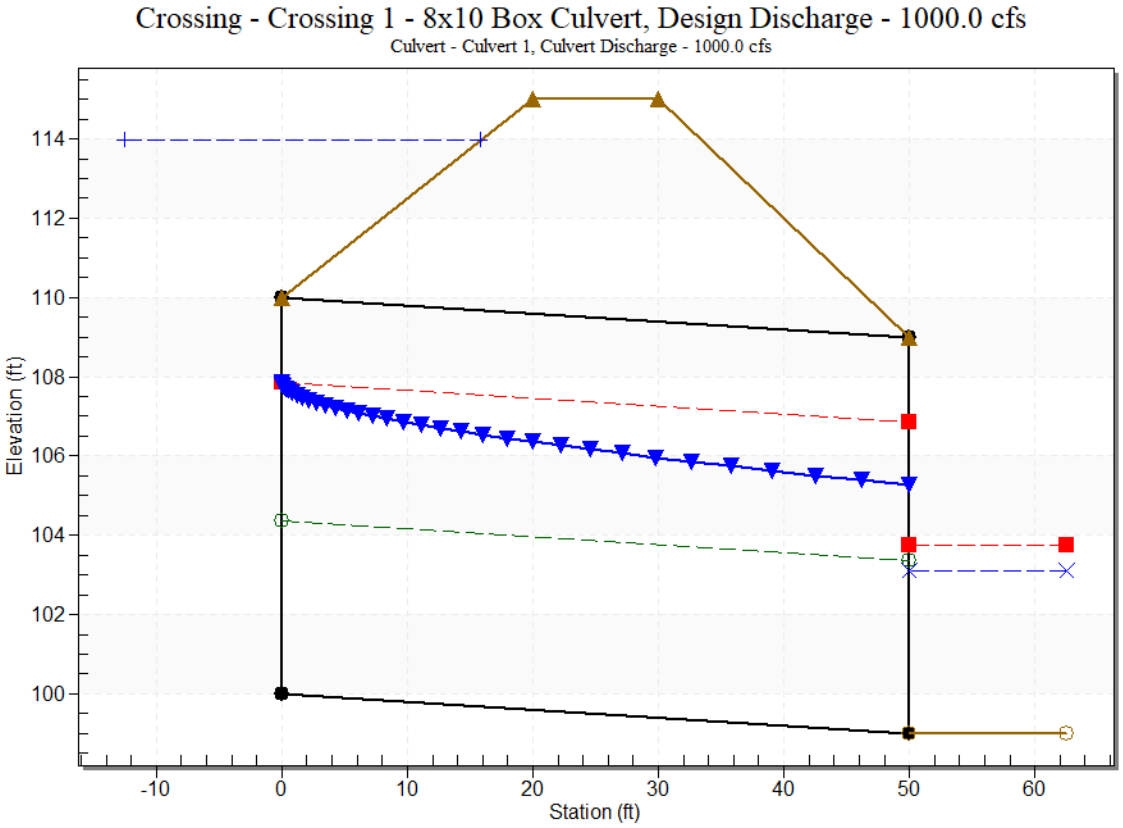
Culvert Length: 50.01 ft,

Culvert Slope: 0.0200

Culvert Performance Curve Plot: Culvert 1



Water Surface Profile Plot for Culvert: Culvert 1



Site Data - Culvert 1

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 100.00 ft

Outlet Station: 50.00 ft

Outlet Elevation: 99.00 ft

Number of Barrels: 1

Culvert Data Summary - Culvert 1

Barrel Shape: Concrete Box

Barrel Span: 8.00 ft

Barrel Rise: 10.00 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge (90º) Headwall

Inlet Depression: None

Tailwater Data for Crossing: Crossing 1 - 8x10 Box Culvert

Table 24 - Downstream Channel Rating Curve (Crossing: Crossing 1 - 8x10 Box Culvert)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
0.00	99.00	0.00	0.00	0.00	0.00
100.00	100.51	1.51	6.62	1.88	1.20
200.00	101.06	2.06	7.92	2.57	1.26
300.00	101.46	2.46	8.78	3.08	1.29
400.00	101.79	2.79	9.45	3.48	1.31
500.00	102.07	3.07	10.00	3.83	1.33
600.00	102.32	3.32	10.47	4.14	1.35
700.00	102.54	3.54	10.89	4.42	1.36
800.00	102.74	3.74	11.26	4.67	1.37
900.00	102.93	3.93	11.60	4.91	1.38
1000.00	103.11	4.11	11.91	5.13	1.39

Tailwater Channel Data - Crossing 1 - 8x10 Box Culvert

Tailwater Channel Option: Trapezoidal Channel

Bottom Width: 4.00 ft

Side Slope (H:V): 4.00 (_:1)

Channel Slope: 0.0200

Channel Manning's n: 0.0300

Channel Invert Elevation: 99.00 ft

Roadway Data for Crossing: Crossing 1 - 8x10 Box Culvert

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 115.00 ft

Roadway Surface: Paved

Roadway Top Width: 10.00 ft

Required Water Quality Capture Volume (WQCV) and Allowable Release Rate

TOTAL

BASIN	Design Event	Area (ac)	Impervious	WQCV (acft)	Allowable Release Rate (cfs)*
EX	5YR	16444.96	0.033	33.5	1644.5
	100YR				8880.3
PR	5YR	16444.96	0.05	49.5	1644.5
	100YR				8880.3
REQ'D	5YR	-	-	16.0	1644.5
	100YR				8880.3

**5YR = 0.10 CFS/AC, 100YR = 0.54 CFS/AC*

BASIN 100

BASIN	Design Event	Area (ac)	Impervious	WQCV (acft)	Allowable Release Rate (cfs)*
EX	5YR	1743.21	0.025	2.7	174.3
	100YR				941.3
PR	5YR	1743.21	0.031	3.4	174.3
	100YR				941.3
REQ'D	5YR	-	-	0.6	174.3
	100YR				941.3

**5YR = 0.10 CFS/AC, 100YR = 0.54 CFS/AC*

BASIN 200

BASIN	Design Event	Area (ac)	Impervious	WQCV (acft)	Allowable Release Rate (cfs)*
EX	5YR	2682.55	0.023	3.9	268.3
	100YR				1448.6
PR	5YR	2682.55	0.053	8.5	268.3
	100YR				1448.6
REQ'D	5YR	-	-	4.7	268.3
	100YR				1448.6

**5YR = 0.10 CFS/AC, 100YR = 0.54 CFS/AC*

BASIN 300

BASIN	Design Event	Area (ac)	Impervious	WQCV (acft)	Allowable Release Rate (cfs)*
EX	5YR	708.85	0.089	3.6	70.9
	100YR				382.8
PR	5YR	708.85	0.089	3.6	70.9
	100YR				382.8
REQ'D	5YR	-	-	0.0	70.9
	100YR				382.8

**5YR = 0.10 CFS/AC, 100YR = 0.54 CFS/AC*

BASIN 400

BASIN	Design Event	Area (ac)	Impervious	WQCV (acft)	Allowable Release Rate (cfs)*
EX	5YR	2285.42	0.060	8.1	228.5
	100YR				1234.1
PR	5YR	2285.42	0.097	12.4	228.5
	100YR				1234.1
REQ'D	5YR	-	-	4.3	228.5
	100YR				1234.1

**5YR = 0.10 CFS/AC, 100YR = 0.54 CFS/AC*

BASIN 500

BASIN	Design Event	Area (ac)	Impervious	WQCV (acft)	Allowable Release Rate (cfs)*
EX	5YR	525.64	0.065	2.0	52.6
	100YR				283.8
PR	5YR	525.64	0.139	3.8	52.6
	100YR				283.8
REQ'D	5YR	-	-	1.8	52.6
	100YR				283.8

**5YR = 0.10 CFS/AC, 100YR = 0.54 CFS/AC*

BASIN 600

BASIN	Design Event	Area (ac)	Impervious	WQCV (acft)	Allowable Release Rate (cfs)*
EX	5YR	358.62	0.021	0.5	35.9
	100YR				193.7
PR	5YR	358.62	0.028	0.6	35.9
	100YR				193.7
REQ'D	5YR	-	-	0.2	35.9
	100YR				193.7

**5YR = 0.10 CFS/AC, 100YR = 0.54 CFS/AC*

BASIN 700

BASIN	Design Event	Area (ac)	Impervious	WQCV (acft)	Allowable Release Rate (cfs)*
EX	5YR	1519.78	0.023	2.2	152.0
	100YR				820.7
PR	5YR	1519.78	0.049	4.5	152.0
	100YR				820.7
REQ'D	5YR	-	-	2.3	152.0
	100YR				820.7

**5YR = 0.10 CFS/AC, 100YR = 0.54 CFS/AC*

BASIN 800

BASIN	Design Event	Area (ac)	Impervious	WQCV (acft)	Allowable Release Rate (cfs)*
EX	5YR	6620.89	0.024	10.0	662.1
	100YR				3575.3
PR	5YR	6620.89	0.028	11.5	662.1
	100YR				3575.3
REQ'D	5YR	-	-	1.6	662.1
	100YR				3575.3

**5YR = 0.10 CFS/AC, 100YR = 0.54 CFS/AC*

Proposed Pond Summary

Required vs. Proposed Volume

Existing				*Proposed*				*Required*			*Provided*			
Design Point	Tributary Basin(s)	Direct Inflow (ac-ft)	Total Inflow (ac-ft)	Design Point	Tributary Basin(s)	Direct Inflow (ac-ft)	Total Inflow (ac-ft)	Detention Volume (ac-ft)	WQCV Volume (ac-ft)	Total Volume (ac-ft)	Pond #	Depth (ft)	Area (ac)	Volume (ac-ft)
100	100	45.7	45.7	100	100	46.0	46.0	0.3	0.6	1.5	100	6	0.25	1.5
101	101	16.4	16.4	101	101	16.6	16.6	0.2		-	*Provided in Pond 100*			
102	102	6.4	6.4	102	102	6.8	6.8	0.3		-	*Provided in Pond 100*			
103	103	2.2	2.2	103	103	2.2	2.2	0.0		-	*Provided in Pond 100*			
200	200	2.1	2.1	200	200	3.5	3.5	1.5	4.7	-	*Provided in Pond 202*			
201	201	0.9	0.9	201	201	1.7	1.7	0.8		-	*Provided in Pond 202*			
202	200/201/202	9.1	12.3	202	200/201/202/208	10.6	16.9	4.7		7.0	202	6	1.16	7.0
203	200/201/202/203	11.7	24.5	203	200/201/202/203/207/208	9.3	30.0	5.5		-	*Provided in Pond 204*			
204	200/201/202/203/204	47.3	74.3	204	200/201/202/203/204/207/208	48.8	81.3	7.1		4.7	204	6	0.79	4.7
205	205	15.7	15.7	205	205	15.7	15.7	-		-	-			
206	206	16.1	16.1	206	206	16.1	16.1	-		-	-			
-	-	-	-	207	207	3.1	3.1	*See DP 204*		-	*Provided in Pond 204*			
-	-	-	-	208	200/208	1.0	4.5	*See DP 202*		-	*Provided in Pond 202*			
300	300	2.2	2.2	300	300	2.2	2.2	-	0.0	-	-	-	-	-
301	301	1.2	1.2	301	301	1.2	1.2	-		-	-	-	-	-
302	302	3.5	3.5	302	302	3.5	3.5	-		-	-	-	-	-
303	301/302/303	3.0	7.8	303	301/302/303	3.0	7.8	-		-	-	-	-	-
304	301/302/303/304	2.2	10.0	304	301/302/303/304	2.2	10.0	-		-	-	-	-	-
305	305	2.6	2.6	305	305	2.6	2.6	-		-	-	-	-	-
306	305/306	1.1	3.7	306	305/306	1.1	3.7	-		-	-	-	-	-
307	305/306/307	1.3	5.1	307	305/306/307	1.3	5.1	-		-	-	-	-	-
308	301/302/303/304/305/ 306/307/308	1.6	16.7	308	301/302/303/304/305/ 306/307/308	1.6	16.7	-		-	-	-	-	-
309	301/302/303/304/305/ 306/307/308/309	7.6	24.8	309	301/302/303/304/305/ 306/307/308/309	7.6	24.8	-		-	-	-	-	-
310	310	4.1	4.1	310	310	4.1	4.1	-		-	-	-	-	-
311	311	1.6	1.6	311	311	1.6	1.6	-		-	-	-	-	-
400	400	20.6	20.6	400	400	20.9	20.9	0.4	4.3	4.3	400	6	0.72	4.3
401	401	7.2	7.2	401	401	8.6	8.6	1.4		-	*Provided in Pond 400*			
402	402	2.1	2.1	402	402	2.3	2.3	0.2		-	*Provided in Pond 400*			
403	402/403	1.1	3.3	403	402/403	1.3	3.6	0.4		-	*Provided in Pond 400*			
404	404	6.5	6.5	404	404	6.9	6.9	0.4		-	*Provided in Pond 400*			
405	404/405	2.5	9.1	405	404/405	2.9	9.8	0.7		-	*Provided in Pond 400*			
406	401/402/403/404/405/406	7.3	27.0	406	401/402/403/404/405/406	7.6	29.8	2.8		-	*Provided in Pond 400*			
407	407	1.1	1.1	407	407	1.5	1.5	0.4		-	*Provided in Pond 408*			
408	407/408	3.2	4.3	421	407/408/421	2.7	5.6	1.3		2.3	408	6	0.39	2.3
409	401/402/403/404/405/ 406/407/408/409	13.1	44.8	420	401/402/403/404/405/406/ 407/408/409/419/420/421	7.2	51.3	6.4		0.9	409	6	0.15	0.9
410	400/401/402/403/404/405/ 406/407/408/409/410/411	2.5	68.7	410	400/401/402/403/404/405/ 406/407/408/409/410/411/ 419/420/421	2.6	75.8	7.1		-	*Provided in Pond 416*			
411	411	0.8	0.8	411	411	0.9	0.9	-		-	*Provided in Pond 416*			
412	400/401/402/403/404/405/ 406/407/408/409/410/411/412	3.5	72.1	412	400/401/402/403/404/405/ 406/407/408/409/410/411/ 412/419/420/421	3.5	79.5	7.4		-	*Provided in Pond 416*			
413	400/401/402/403/404/405/ 406/407/408/409/410/411/ 412/413	1.7	74.0	413	400/401/402/403/404/405/ 406/407/408/409/410/411/ 412/413/419/420/421	1.7	81.0	7.1		-	*Provided in Pond 416*			
414	400/401/402/403/404/405/ 406/407/408/409/410/411/ 412/413/414	3.1	84.1	414	400/401/402/403/404/405/ 406/407/408/409/410/411/ 412/413/414/419/420/421	3.1	91.1	7.1		-	*Provided in Pond 416*			
415	415	7.0	7.0	415	415	7.0	7.0	-		-	-	-	-	-
416	400/401/402/403/404/405/ 406/407/408/409/410/411/ 412/413/414/415/416	4.8	89.0	416	400/401/402/403/404/405/ 406/407/408/409/410/411/ 412/413/414/415/416/419/ 420/421	4.8	96.1	7.1		0.6	416	6	0.10	0.6
417	417	3.2	3.2	417	417	3.2	3.2	0.0		-	*Provided in Pond 416*			
418	418	2.5	2.5	418	418	2.5	2.5	0.0		-	*Provided in Pond 416*			
-	-		-	419	401/402/403/404/405/ 406/409/419	1.9	37.7	*See DP 409/420*		-	-	-	-	-
-	-		-	408	407/408	1.4	2.9	*See DP 408/421*		-	*Provided in Pond 408*			
-	-		-	409	401/402/403/404/405/ 406/409	5.9	35.6	*See DP 409/420*		-	-	-	-	-
422	422	0.6	0.6	422	422	0.6	0.6	0.0						
500	500	1.8	1.8	500	500	1.8	1.8	0.1	1.8	-	*Provided in Pond 502*			
501	501	5.4	5.4	501	501	6.8	6.8	1.4		-	*Provided in Pond 502*			
502	500/501/502	5.5	12.8	502	500/501/502/505/506	3.6	15.3	2.5		4.7	502	6	0.79	4.7
503	503	5.8	5.8	503	503	6.1	6.1	0.3		-	*Provided in Pond 502*			
504	500/501/502/503/504	4.4	23.2	504	500/501/502/503/504/505/506	4.4	26.1	2.9		-	*Provided in Pond 502*			
-	-		-	505	501/505	1.6	8.5	*See DP 502*		-	-	-	-	-
-	-		-	506	506	1.4	1.4			-	-	-	-	-
600	600	14.5	14.5	600	600	14.6	14.6	0.2	0.2	0.4	600A	6	0.04	0.2
											600B	6	0.04	0.2
700	700/701	28.0	36.5	700	700/701/702/703/704/ 705/706/707	11.8	44.2	7.7	2.3	14.0	700A	6	2.34	14.0
701	701	8.4	8.4	701	701	8.5	8.5	*See DP 700*		-	-	-	-	-
-	-	-	-	702	702	1.5	1.5			-	-	-	-	-
-	-	-	-	703	703	3.0	3.0			-	-	-	-	-
-	-	-	-	704	704	11.3	11.3			-	-	-	-	-
-	-	-	-	705	705	2.2	2.2			-	-	-	-	-
-	-	-	-	706	702/706	3.2	4.7			-	-	-	-	-
-	-	-	-	707	703/704/705/707	2.5	19.0			-	-	-	-	-
800	800	81.9	81.9	800	800	81.9	81.9	-	1.6	-	-	-	-	-
801	801	15.3	15.3	801	801	16.6	16.6	-		-	-	-	-	-
802	800/801/802	78.6	176.2	802	800/802	66.9	148.8	-		-	-	-	-	-
803	800/801/802/803	6.5	183.2	803	800/801/802/803/806/807	6.5	185.7	2.5		-	*Provided in Pond 700*			
804	804	17.7	17.7	804	804	17.9	17.9	-		-	-	-	-	-
805	805	16.8	16.8	805	805	16.8	16.8	-		-	-	-	-	-
-	-	-	-	806	806	9.9	9.9	*See DP 803*		-	-	-	-	-
-	-	-	-	807	800/801/802/806	2.7	178.9			-	-	-	-	-