

Current Upstream Floodway Model

Plan

Profile

Summary

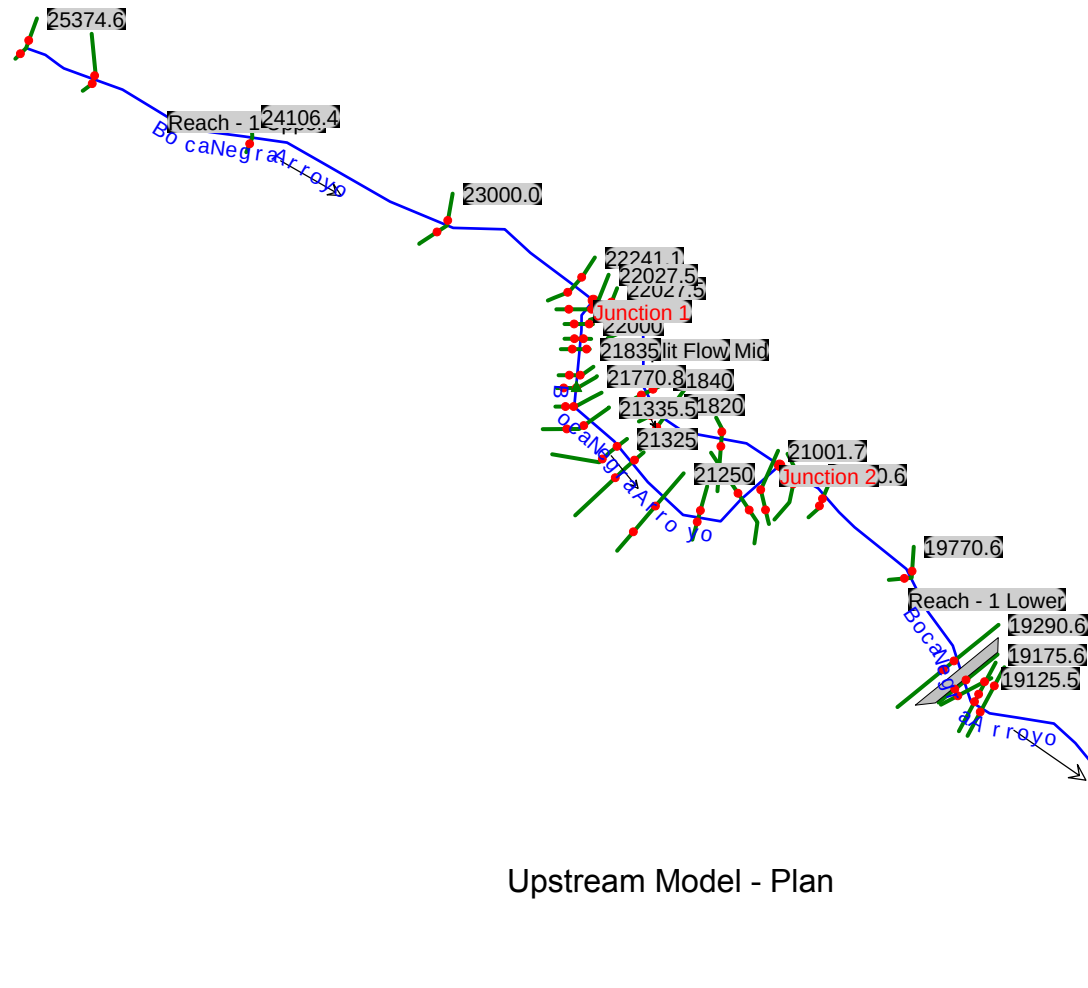
Cross Sections

Input/output Report

Hydraulics Model – HEC-RAS Analysis (CD)

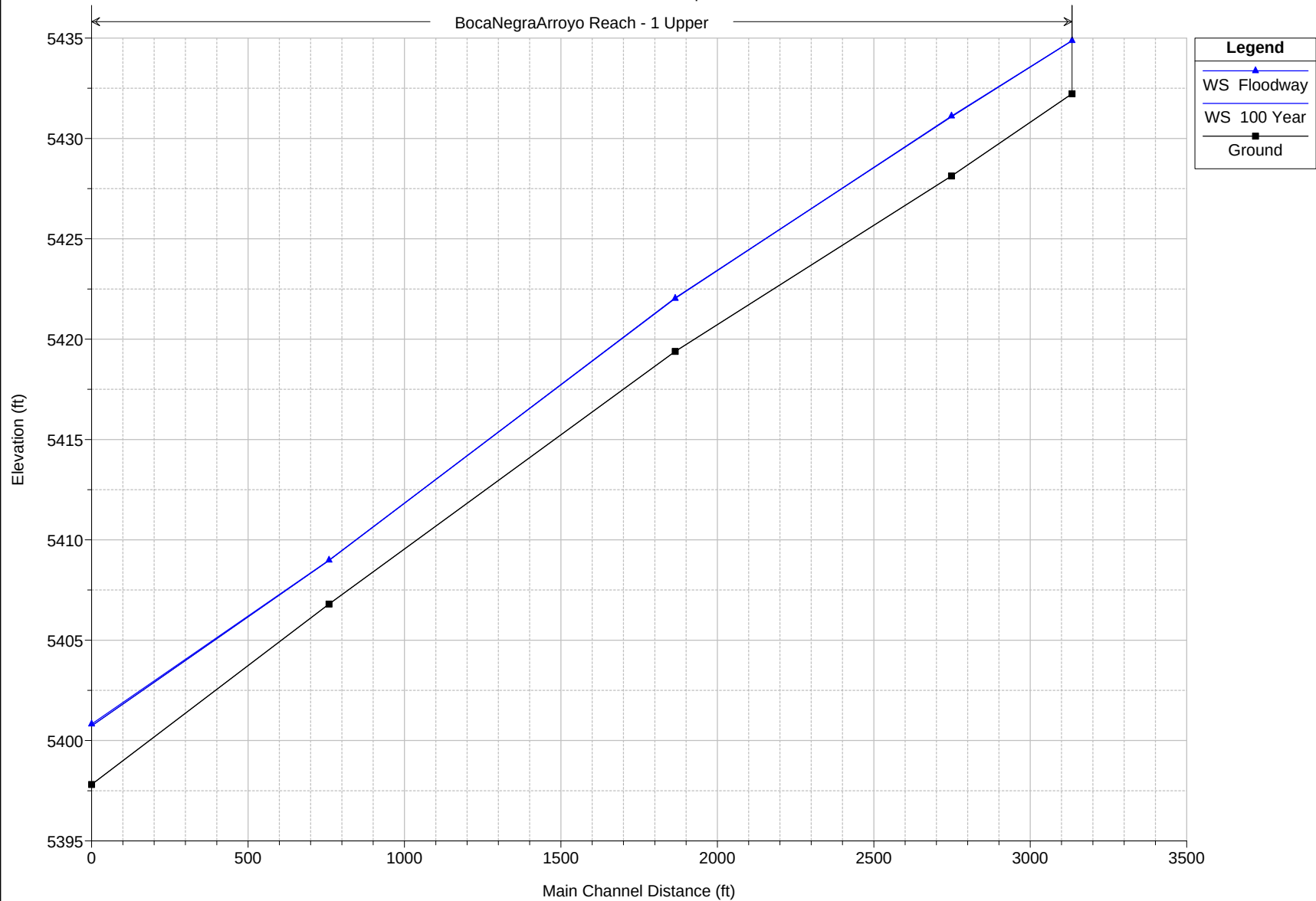
Current Upstream Floodway Files

i.Project:	BNA Current Upstm Floodway CurrentUpstm Floodway.prj	
ii.Plan:	Current Upstream Floodway	CurrentUpstm Floodway.p08
iii.Geometry:	Current Upstream	CurrentUpstm Floodway.g05
iv.Flow:	Updated 2014	CurrentUpstm Floodway.f01



BNA Current Upstm Floodway Plan: Current Upstream Floodway 1/6/2016

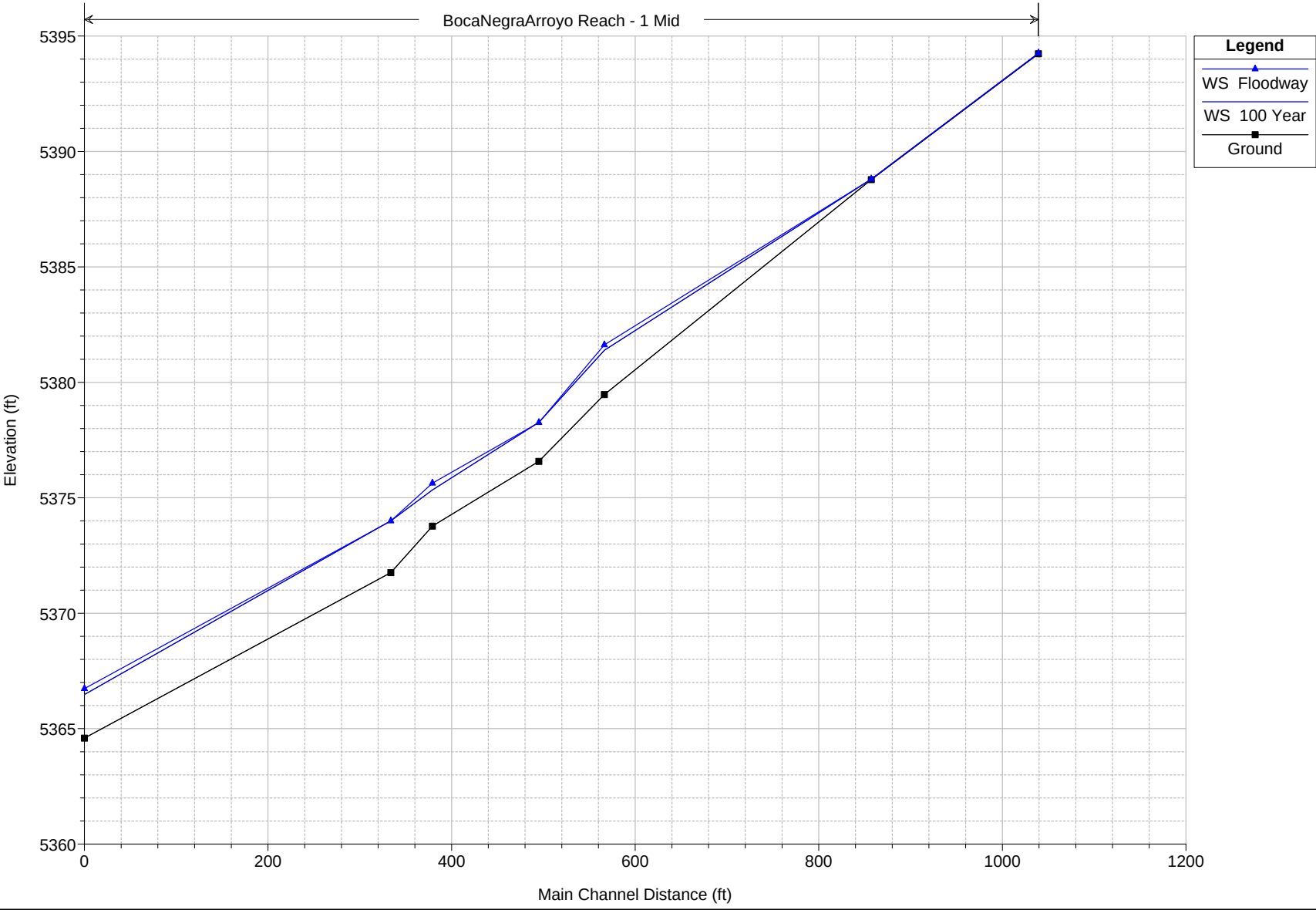
Geom: Current Upstream



BNA Current Upstm Floodway Plan: Current Upstream Floodway 1/6/2016

Geom: Current Upstream

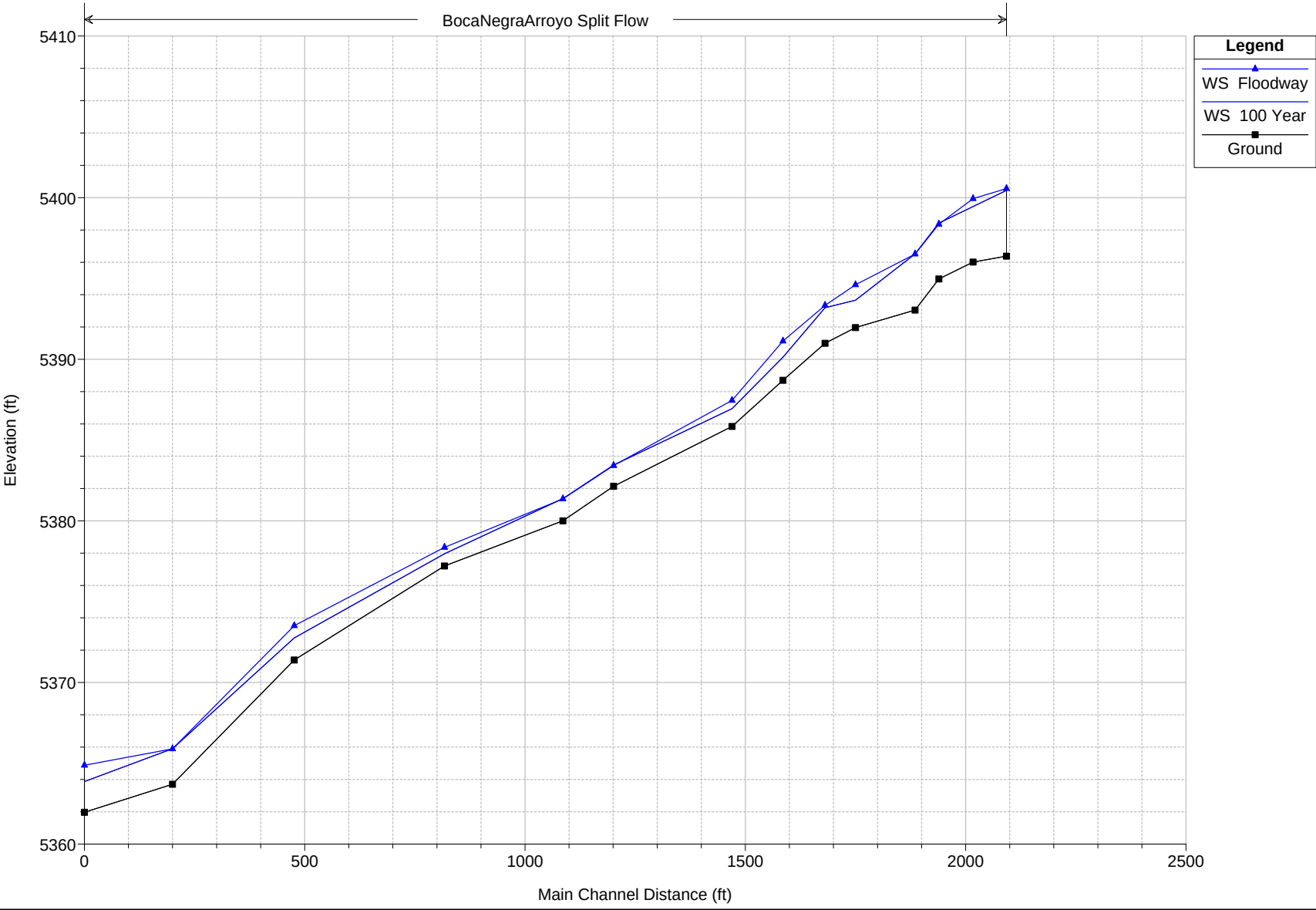
BocaNegraArroyo Reach - 1 Mid



BNA Current Upstm Floodway Plan: Current Upstream Floodway 1/6/2016

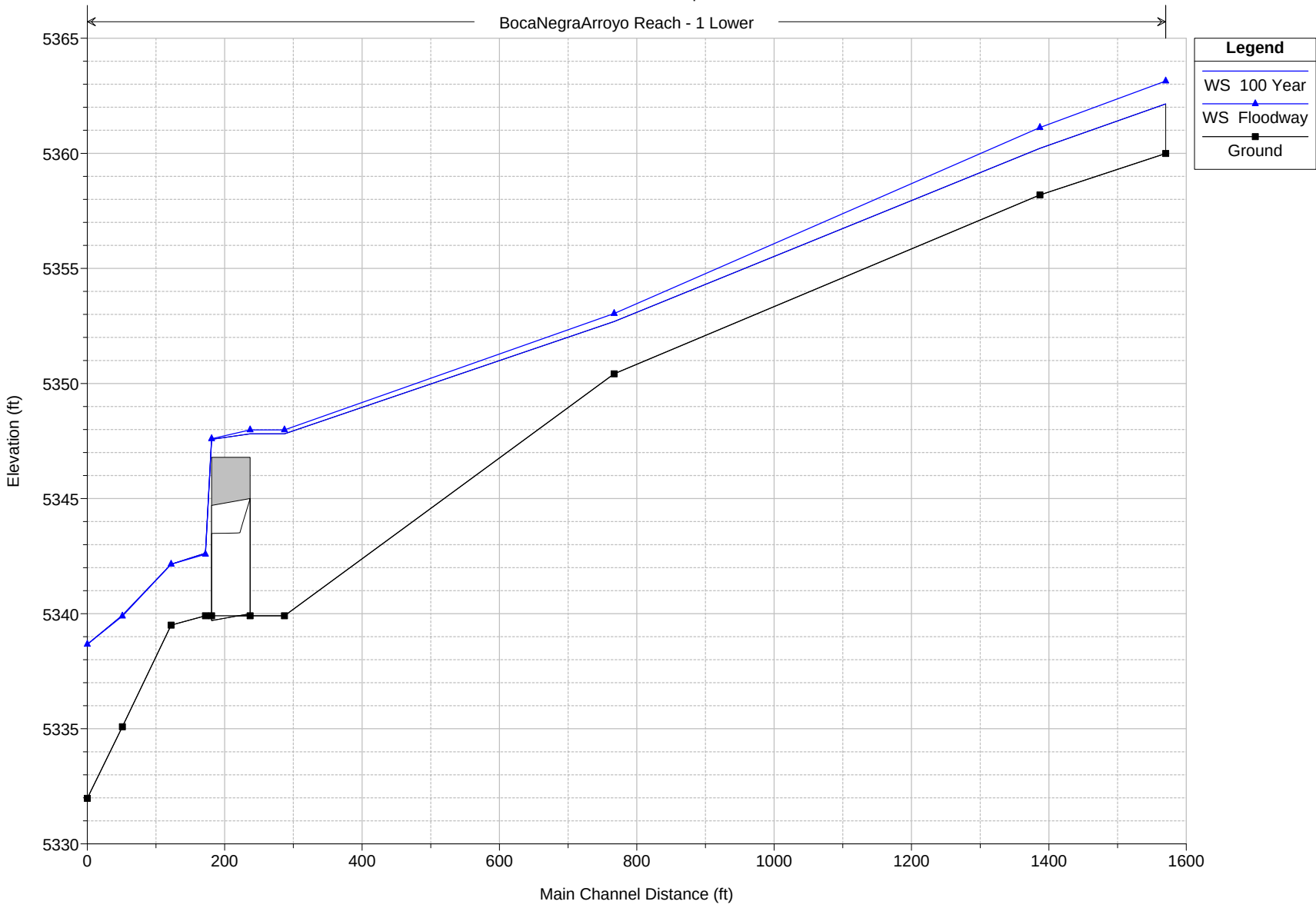
Geom: Current Upstream

BocaNegraArroyo Split Flow



BNA Current Upstm Floodway Plan: Current Upstream Floodway 1/6/2016

Geom: Current Upstream



HEC-RAS Plan: 2

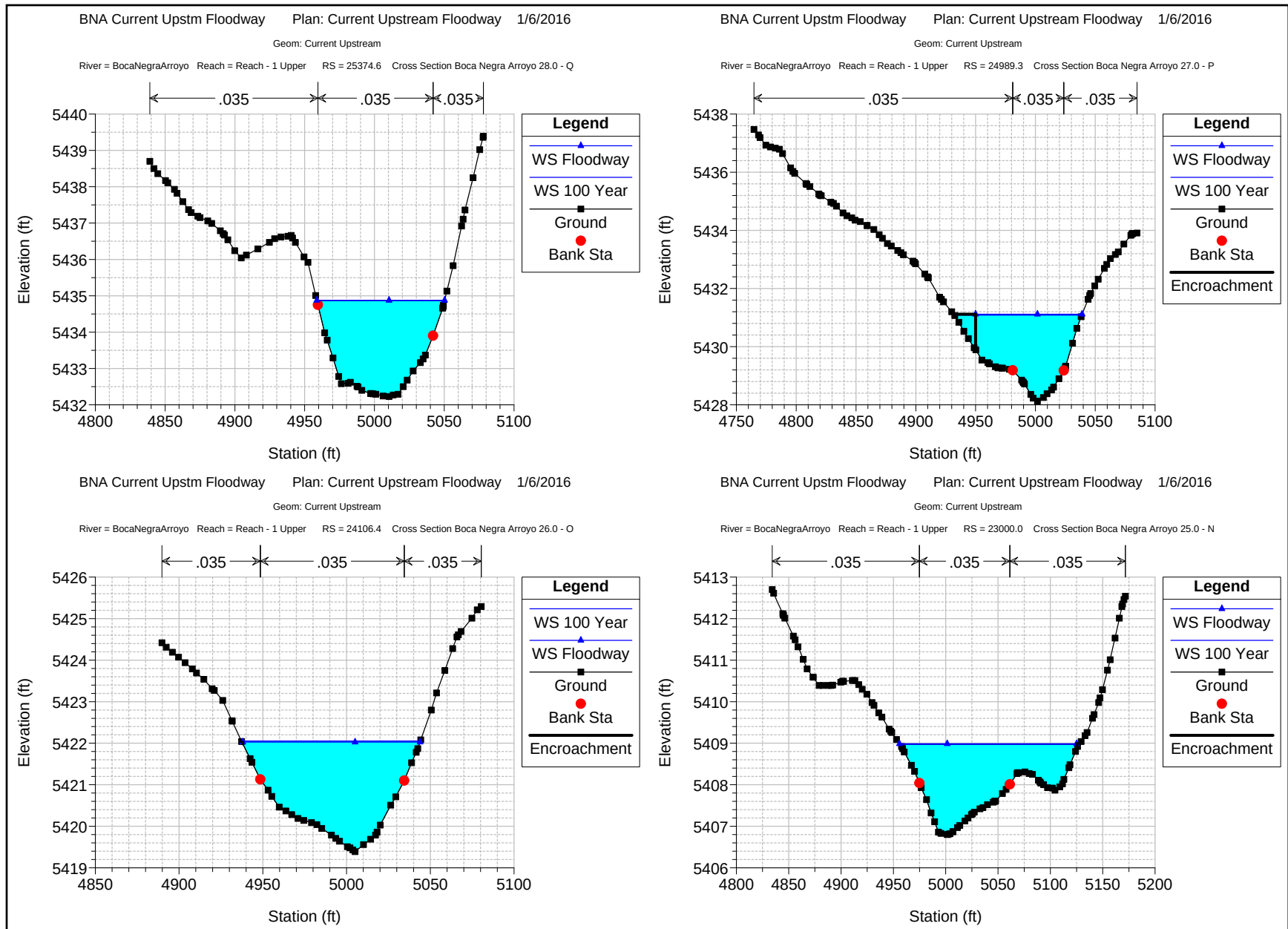
Reach	River Sta	Profile	W.S. Elev (ft)	Prof Delta WS (ft)	E.G. Elev (ft)	Top Width Act (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Enc Sta L (ft)	Ch Sta L (ft)	Ch Sta R (ft)	Enc Sta R (ft)
Reach - 1 Upper	25374.6	100 Year	5434.87		5435.60	91.48	0.03	1163.60	11.37		4959.52	5042.01	
Reach - 1 Upper	25374.6	Floodway	5434.87	0.00	5435.60	91.53	0.03	1163.51	11.46	4950.00	4959.52	5042.01	5051.00
Reach - 1 Upper	24989.3	100 Year	5431.09		5431.81	106.39	312.28	806.07	56.66		4980.99	5023.67	
Reach - 1 Upper	24989.3	Floodway	5431.12	0.03	5431.87	89.00	305.86	811.01	58.13	4950.00	4980.99	5023.67	5125.00
Reach - 1 Upper	24106.4	100 Year	5422.05		5422.78	106.88	13.89	1148.09	13.02		4948.54	5034.40	
Reach - 1 Upper	24106.4	Floodway	5422.03	-0.02	5422.78	105.83	13.58	1149.01	12.41	4938.00	4948.54	5034.40	5044.00
Reach - 1 Upper	23000.0	100 Year	5408.97		5409.58	171.05	22.52	947.97	204.50		4974.92	5061.35	
Reach - 1 Upper	23000.0	Floodway	5408.99	0.02	5409.58	169.12	23.03	941.19	210.78	4955.00	4974.92	5061.35	5125.00
Reach - 1 Upper	22241.1	100 Year	5400.73		5400.98	157.02	36.31	1109.19	29.50		4942.34	5048.02	
Reach - 1 Upper	22241.1	Floodway	5400.82	0.09	5401.04	160.00	40.81	1102.46	31.72	4905.00	4942.34	5048.02	5065.00
Reach - 1 Mid	22027.5	100 Year	5394.25		5394.25	3.99		0.01			4967.55	5062.32	
Reach - 1 Mid	22027.5	Floodway	5394.26	0.00	5394.26	4.31		0.01		4967.55	4967.55	5062.32	5062.32
Reach - 1 Mid	21845.5	100 Year	5388.80		5388.80	3.93		0.01			4975.28	5023.67	
Reach - 1 Mid	21845.5	Floodway	5388.80	0.00	5388.80	3.93		0.01		4975.28	4975.28	5023.67	5023.67
Reach - 1 Mid	21840	100 Year	5381.39		5381.97	93.67	139.80	469.41	2.79		67.81	123.25	
Reach - 1 Mid	21840	Floodway	5381.62	0.23	5382.41	55.44		612.00		67.81	67.81	123.25	123.25
Reach - 1 Mid	21830	100 Year	5378.27		5378.89	83.88	20.45	586.75	4.80		47.75	113.71	
Reach - 1 Mid	21830	Floodway	5378.26	-0.01	5378.96	65.96		612.00		47.75	47.75	113.71	113.71
Reach - 1 Mid	21820	100 Year	5375.34		5375.82	121.51	183.48	423.44	5.07		73.59	132.32	
Reach - 1 Mid	21820	Floodway	5375.63	0.29	5376.39	58.73		612.00		73.59	73.59	132.32	132.32
Reach - 1 Mid	21335.5	100 Year	5374.00		5374.51	107.29		612.00			5041.64	5161.54	
Reach - 1 Mid	21335.5	Floodway	5374.00	0.00	5374.51	107.18		612.00		5041.64	5041.64	5161.54	5161.54
Reach - 1 Mid	21001.7	100 Year	5366.48		5367.17	64.25		612.00			4964.29	5038.83	
Reach - 1 Mid	21001.7	Floodway	5366.74	0.26	5367.23	67.61		612.00		4964.29	4964.29	5038.83	5038.83
Split Flow	22027.5	100 Year	5400.45		5400.63	140.41	2.67	1179.49	2.84		112.42	231.02	
Split Flow	22027.5	Floodway	5400.56	0.12	5400.73	118.60		1185.00		112.42	112.42	231.02	231.02
Split Flow	22000	100 Year	5399.45		5400.31	89.37	2.67	1181.87	0.46		18.89	96.33	
Split Flow	22000	Floodway	5399.94	0.49	5400.51	77.44		1185.00		18.89	18.89	96.33	96.33
Split Flow	21840	100 Year	5398.43		5399.45	82.34	61.88	1084.65	38.47		39.07	85.22	
Split Flow	21840	Floodway	5398.35	-0.07	5399.74	46.15		1185.00		39.07	39.07	85.22	85.22
Split Flow	21835	100 Year	5396.52		5397.53	74.97	0.04	1184.96			15.66	89.49	

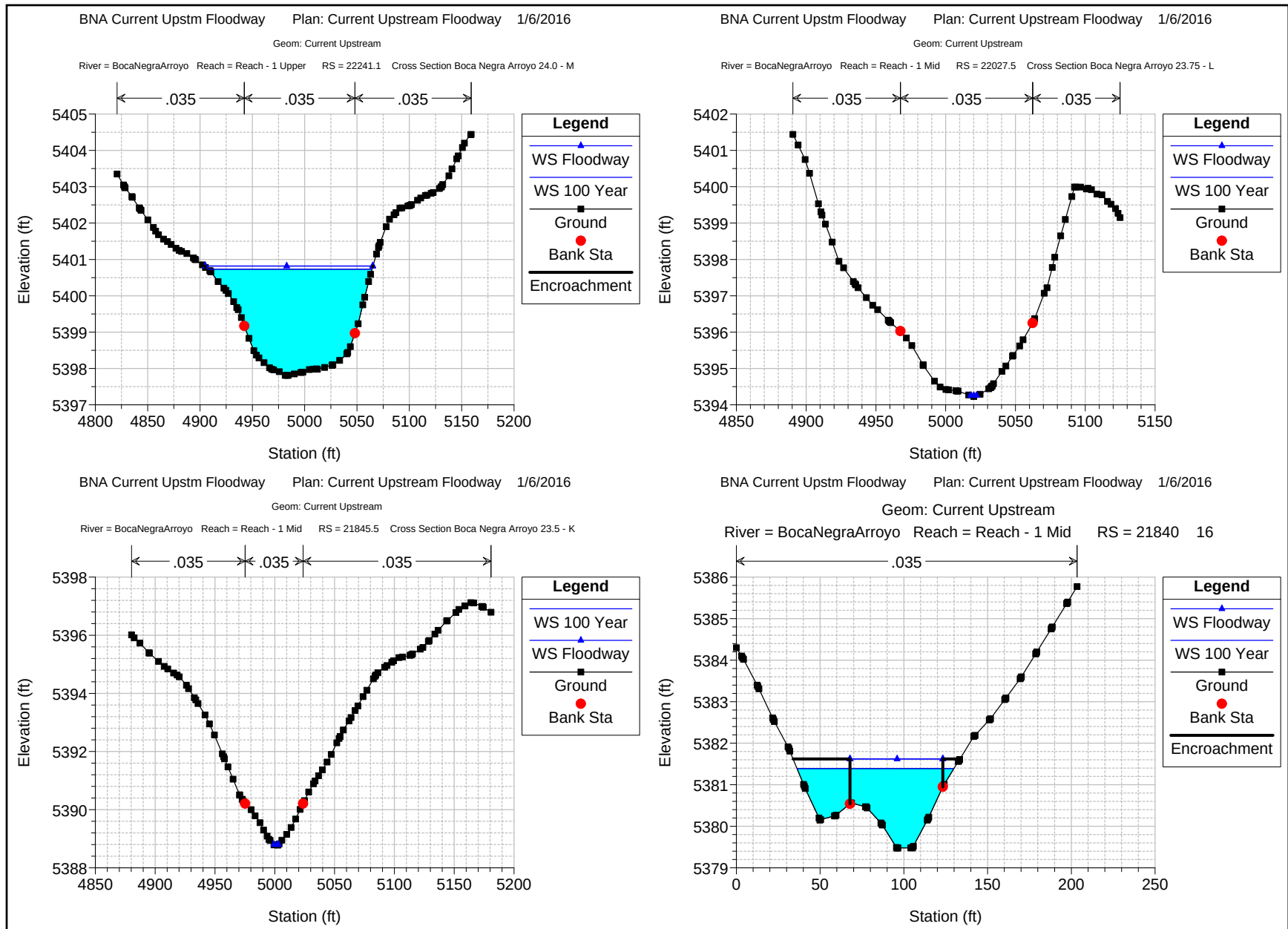
HEC-RAS Plan: 2 (Continued)

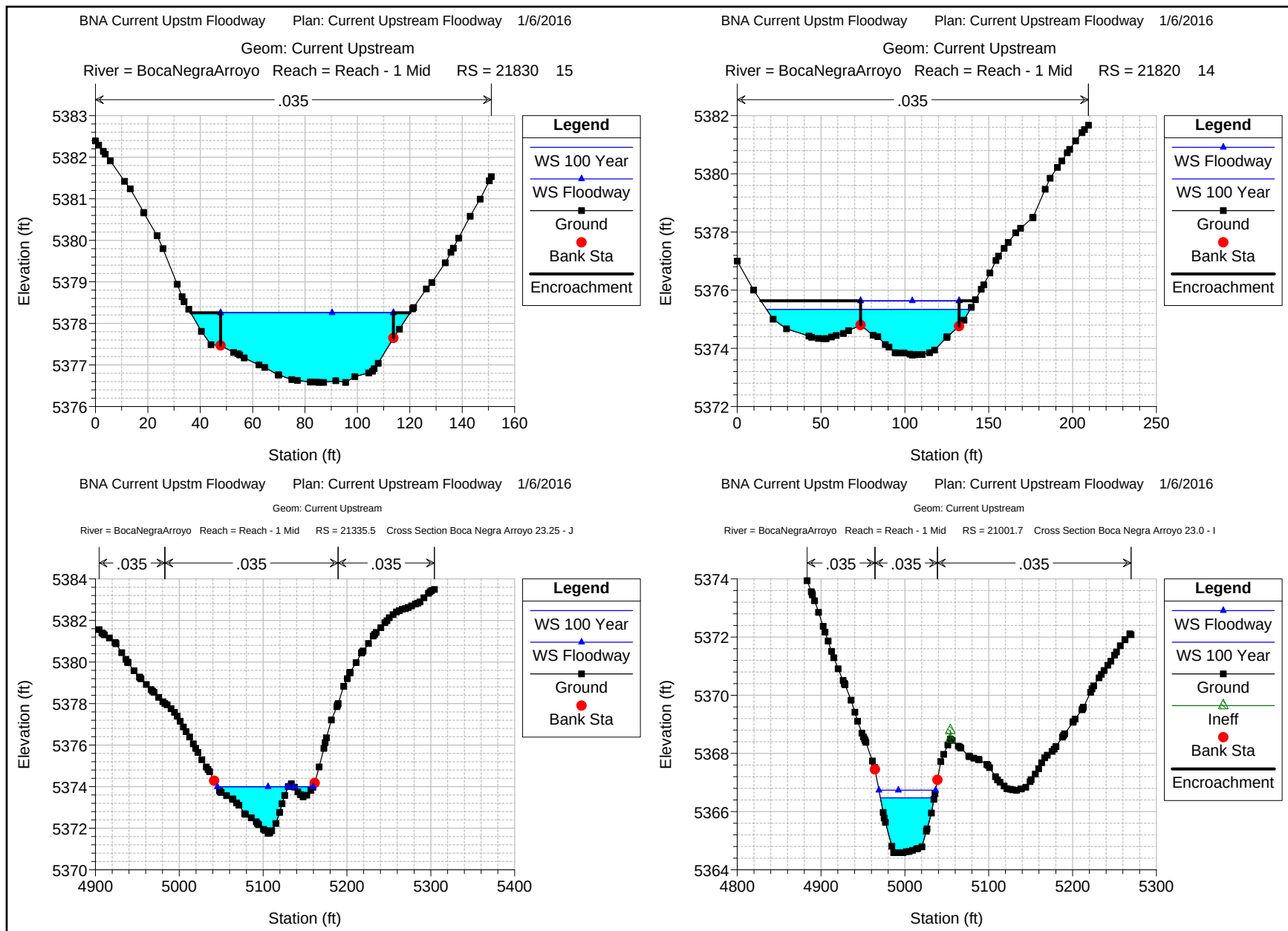
Reach	River Sta	Profile	W.S. Elev (ft)	Prof Delta WS (ft)	E.G. Elev (ft)	Top Width Act (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Enc Sta L (ft)	Ch Sta L (ft)	Ch Sta R (ft)	Enc Sta R (ft)
Split Flow	21835	Floodway	5396.51	-0.01	5397.53	73.74		1185.00		15.66	15.66	89.49	89.49
Split Flow	21800	100 Year	5393.66		5394.18	100.47	389.27	213.73			81.22	136.60	
Split Flow	21800	Floodway	5394.61	0.95	5395.21	82.60	53.41	549.59		54.00	81.22	136.60	136.60
Split Flow	21770.8	100 Year	5393.19		5393.30	189.16	382.35	220.61	0.04		123.06	187.45	
Split Flow	21770.8	Floodway	5393.33	0.14	5394.03	64.39		603.00		123.06	123.06	187.45	187.45
Split Flow	21520.8	100 Year	5390.13		5390.49	172.48	479.61	123.39			160.48	202.23	
Split Flow	21520.8	Floodway	5391.13	1.00	5391.74	76.00	121.37	464.13	17.50	131.00	160.48	202.23	207.00
Split Flow	21335.5	100 Year	5386.94		5387.15	236.96	360.79	239.99	2.22		158.88	251.40	
Split Flow	21335.5	Floodway	5387.46	0.52	5387.88	92.52		603.00		158.88	158.88	251.40	251.40
Split Flow	21325	100 Year	5383.46		5383.85	177.88	41.77	552.81	8.42		63.90	163.82	
Split Flow	21325	Floodway	5383.43	-0.03	5383.96	99.92		603.00		63.90	63.90	163.82	163.82
Split Flow	21315	100 Year	5381.37		5381.73	126.63		603.00			62.02	195.78	
Split Flow	21315	Floodway	5381.36	-0.01	5381.73	126.24		603.00		62.02	62.02	195.78	195.78
Split Flow	21250	100 Year	5377.97		5378.17	293.61	342.29	260.71			222.00	396.05	
Split Flow	21250	Floodway	5378.36	0.40	5378.60	174.05		603.00		222.00	222.00	396.05	396.05
Split Flow	21200	100 Year	5372.76		5373.22	112.52	405.77	197.23			128.95	189.91	
Split Flow	21200	Floodway	5373.51	0.76	5374.24	60.96		603.00		128.95	128.95	189.91	189.91
Split Flow	21194.9	100 Year	5365.90		5366.46	92.13		603.00			49.81	154.17	
Split Flow	21194.9	Floodway	5365.89	-0.01	5366.46	91.80		603.00		49.81	49.81	154.17	154.17
Split Flow	21001.7	100 Year	5363.87		5363.94	219.73	478.34	124.66			219.00	325.79	
Split Flow	21001.7	Floodway	5364.88	1.00	5364.93	231.79	228.71	374.29		94.00	219.00	325.79	325.79
Reach - 1 Lower	20573.7	100 Year	5362.14		5362.57	221.14	54.34	696.54	437.12		4990.78	5049.79	
Reach - 1 Lower	20573.7	Floodway	5363.14	0.99	5363.88	59.01		1188.00		4990.78	4990.78	5049.79	5049.79
Reach - 1 Lower	20390.6	100 Year	5360.22		5360.74	162.22	603.60	491.03	93.37		5020.10	5060.56	
Reach - 1 Lower	20390.6	Floodway	5361.12	0.90	5362.23	55.00	127.41	964.25	96.34	5012.00	5020.10	5060.56	5067.00
Reach - 1 Lower	19770.6	100 Year	5352.69		5353.28	172.94	257.59	817.34	113.07		4961.90	5032.84	
Reach - 1 Lower	19770.6	Floodway	5353.04	0.35	5354.08	70.94		1188.00		4961.90	4961.90	5032.84	5032.84
Reach - 1 Lower	19290.6	100 Year	5347.81		5347.82	433.22	433.80	583.88	170.33		208.45	282.53	
Reach - 1 Lower	19290.6	Floodway	5347.98	0.17	5348.06	74.08		1188.00		208.45	208.45	282.53	282.53
Reach - 1 Lower	19200	Culvert											

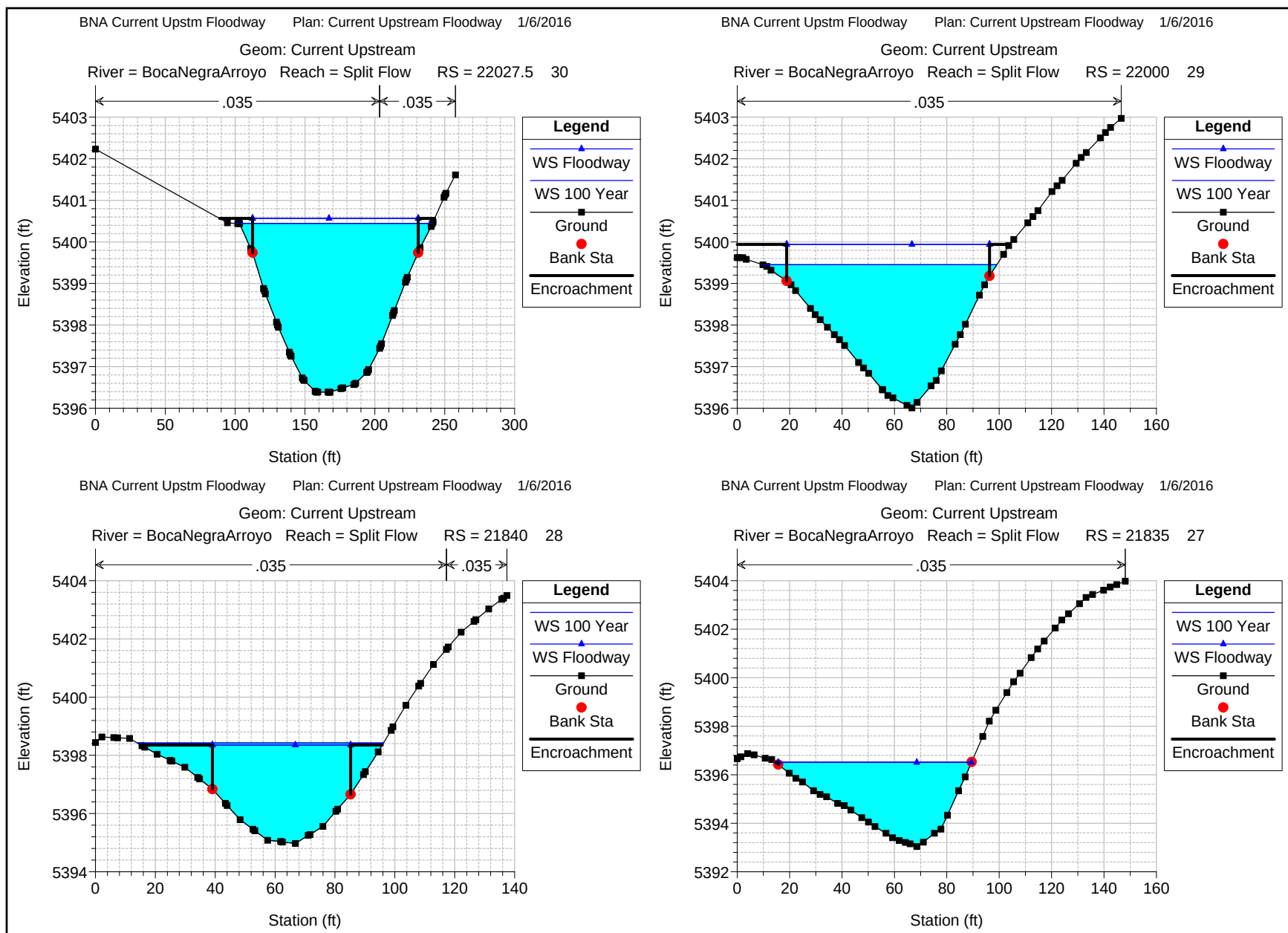
HEC-RAS Plan: 2 (Continued)

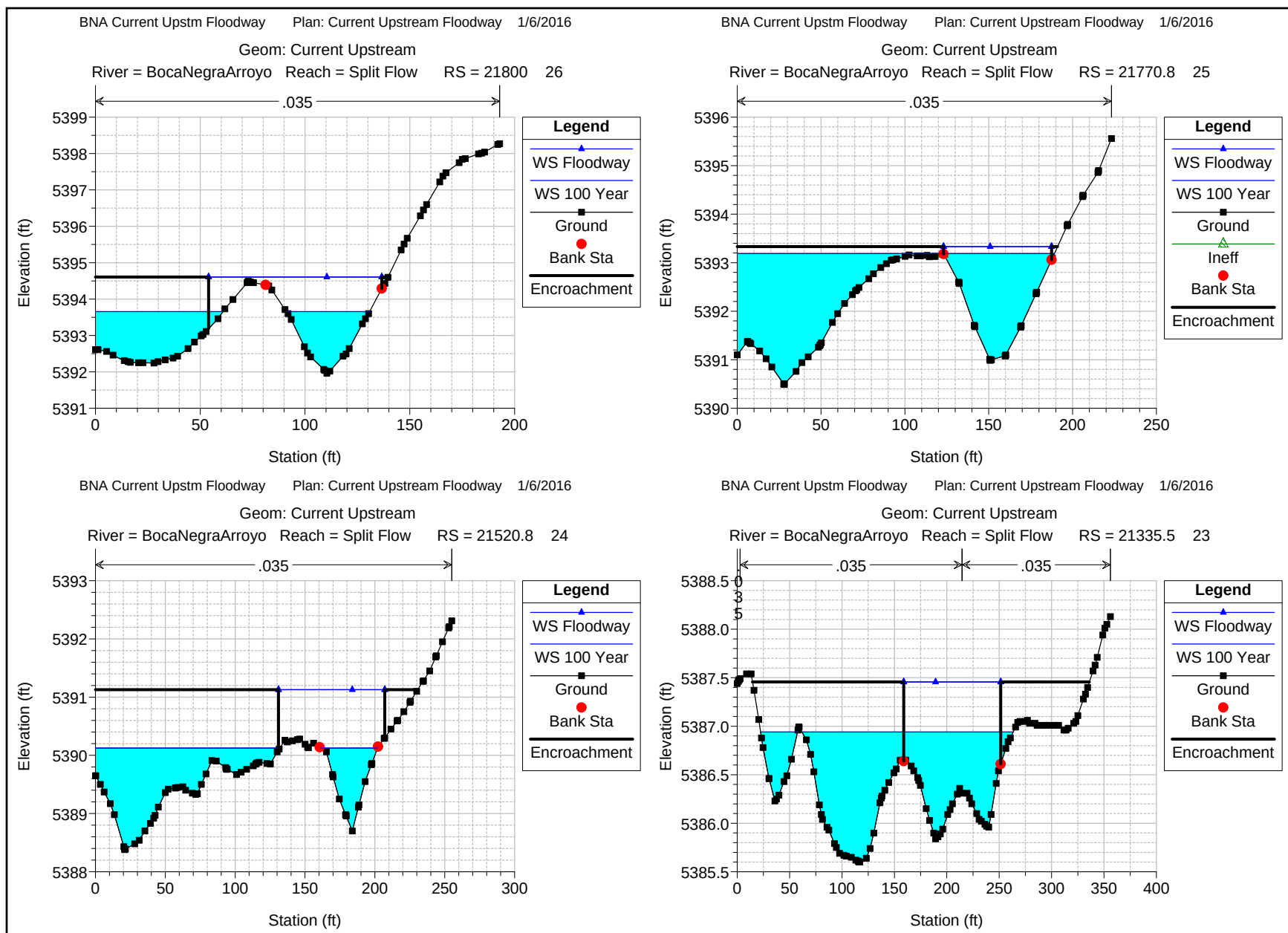
Reach	River Sta	Profile	W.S. Elev	Prof Delta WS	E.G. Elev	Top Width Act	Q Left	Q Channel	Q Right	Enc Sta L	Ch Sta L	Ch Sta R	Enc Sta R
			(ft)	(ft)	(ft)	(ft)	(cfs)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)
Reach - 1 Lower	19175.6	100 Year	5342.63		5343.43	121.26	63.08	1114.21	10.72		208.45	282.53	
Reach - 1 Lower	19175.6	Floodway	5342.58	-0.05	5343.59	74.08		1188.00		208.45	208.45	282.53	282.53
Reach - 1 Lower	19125.5	100 Year	5342.15		5342.91	113.51		1188.00			8.12	123.44	
Reach - 1 Lower	19125.5	Floodway	5342.15	0.00	5342.91	113.37		1188.00		8.12	8.12	123.44	123.44
Reach - 1 Lower	19054.6	100 Year	5339.93		5340.97	81.35	64.44	1078.95	44.62		183.95	228.20	
Reach - 1 Lower	19054.6	Floodway	5339.89	-0.04	5341.28	44.25		1188.00		183.95	183.95	228.20	228.20
Reach - 1 Lower	19003.57	100 Year	5338.67		5338.71	151.76		1188.00	0.00		108.43	260.42	
Reach - 1 Lower	19003.57	Floodway	5338.67	0.00	5338.71	151.69		1188.00		108.43	108.43	260.42	260.42

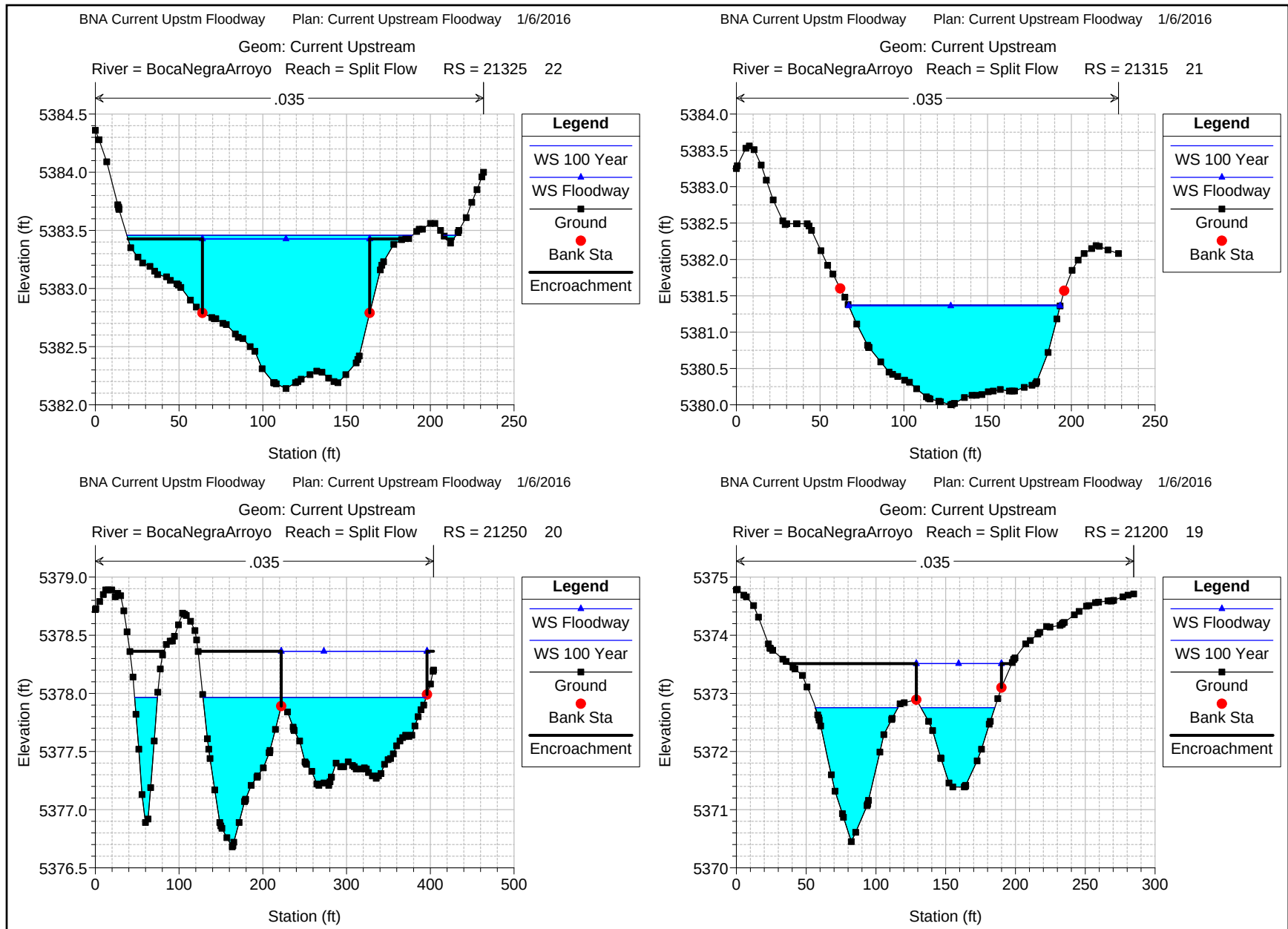


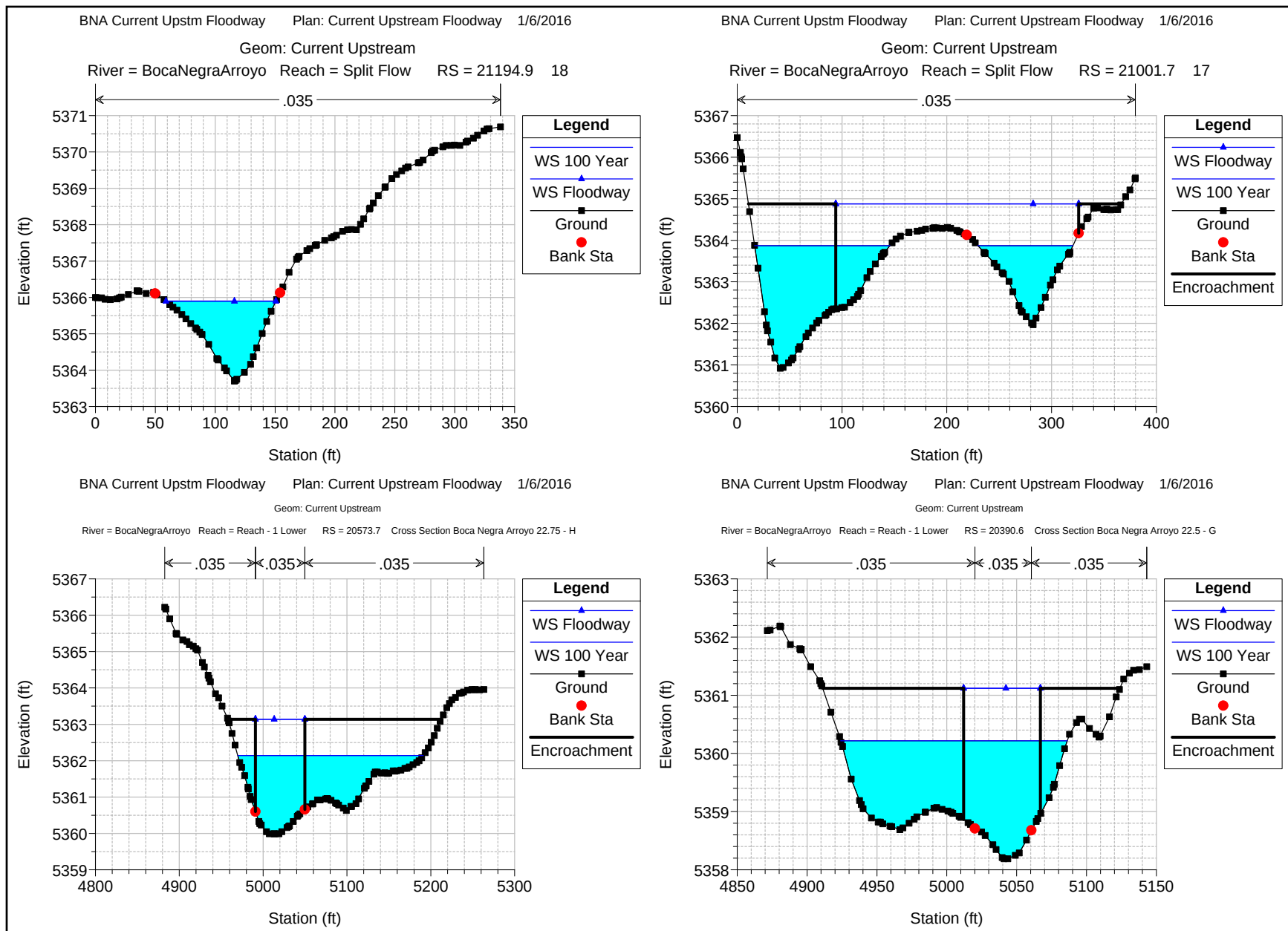


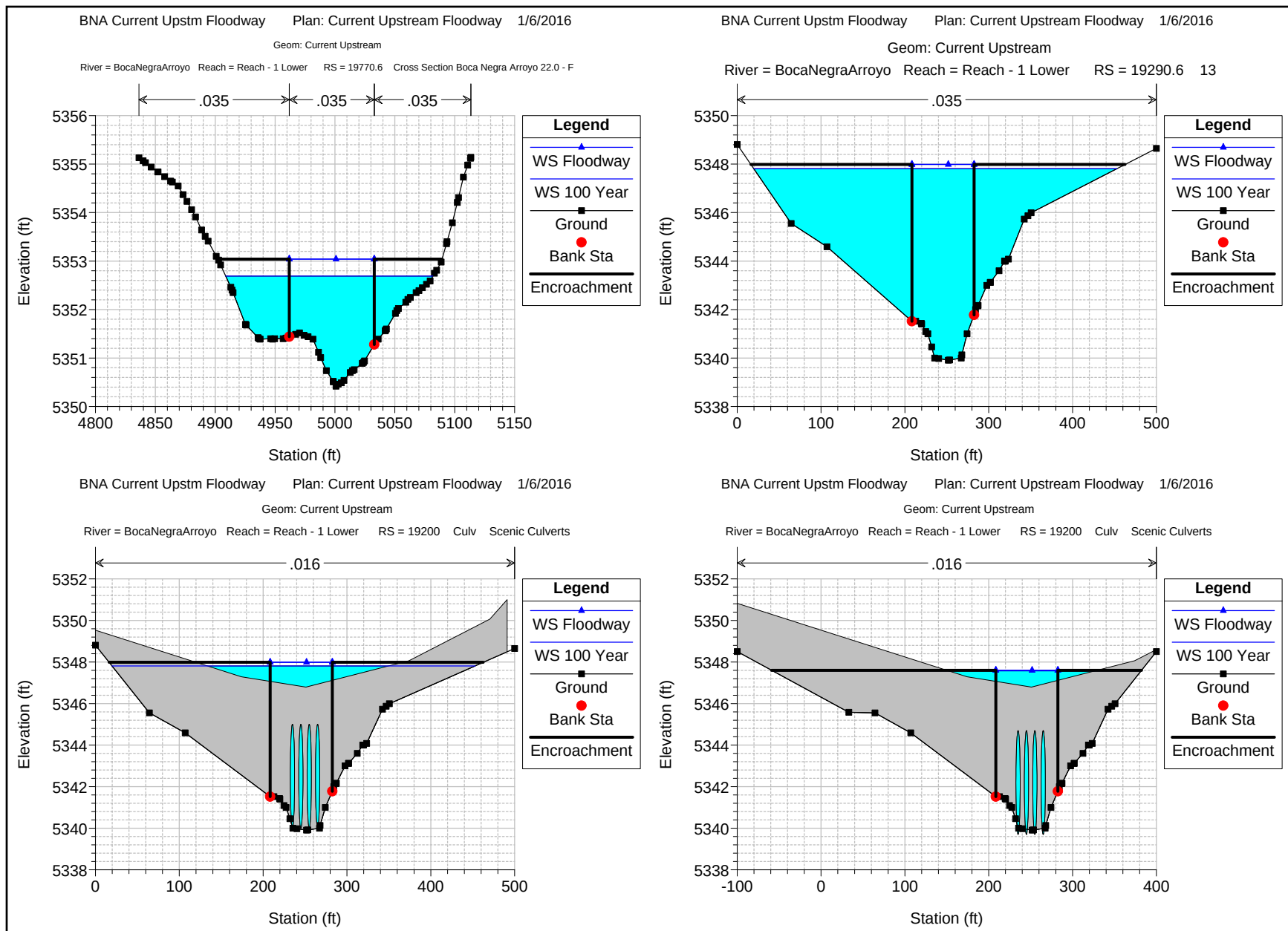


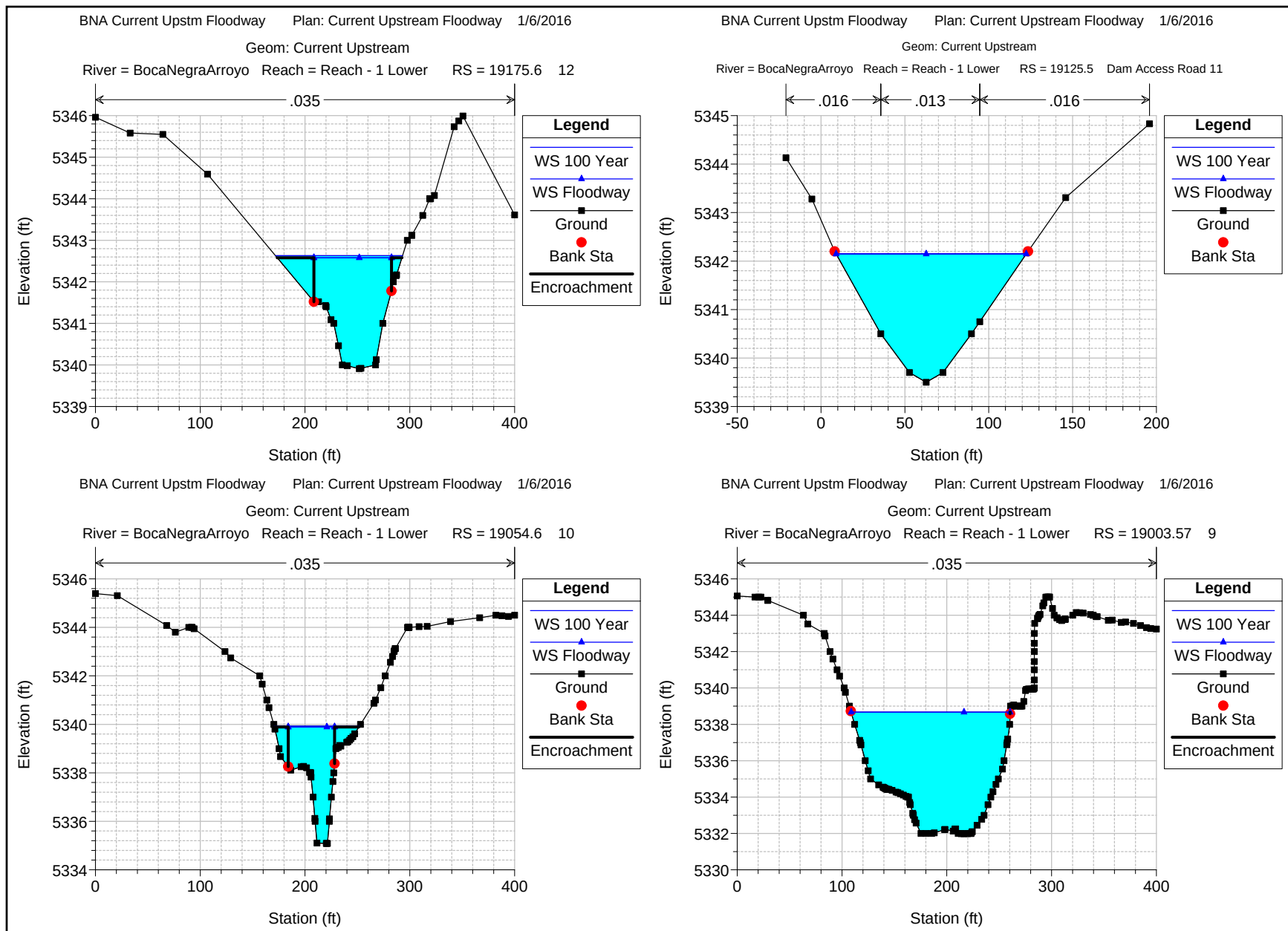












CurrentUpstmFloodway.rep

HEC-RAS Version 4.1.0 Jan 2010
U.S. Army Corps of Engineers
Hydrologic Engineering Center
609 Second Street
Davis, California

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X   X   XXXXX   XXXX   XXXX   XX   XXXX
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XXXXXX XXXX   X   XXX XXXX XXXXXX XXXX
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PROJECT DATA

Project Title: BNA Current Upstm Floodway
Project File : CurrentUpstmFloodway.prj
Run Date and Time: 1/6/2016 10:27:44 AM

Project in English units

PLAN DATA

Plan Title: Current Upstream Floodway
Plan File : t:\Projects\321807802\Eng\2012 Final Plans_Specifications_Estimate_Reports\2014 Final Construction
Acceptance Reports\H&H\LOMR - RAS\BNA RAS FLOODWAY\CurrentUpstmFloodway.p08

Geometry Title: Current Upstream
Geometry File : t:\Projects\321807802\Eng\2012 Final Plans_Specifications_Estimate_Reports\2014 Final
Construction Acceptance Reports\H&H\LOMR - RAS\BNA RAS FLOODWAY\CurrentUpstmFloodway.g05

Flow Title : Updated 2014
Flow File : t:\Projects\321807802\Eng\2012 Final Plans_Specifications_Estimate_Reports\2014 Final
Construction Acceptance Reports\H&H\LOMR - RAS\BNA RAS FLOODWAY\CurrentUpstmFloodway.f01

Plan Summary Information:

Number of:	Cross Sections =	34	Multiple Openings =	0
	Culverts =	1	Inline Structures =	0
	Bridges =	0	Lateral Structures =	0

Computational Information

Water surface calculation tolerance =	0.01
Critical depth calculation tolerance =	0.01
Maximum number of iterations =	20
Maximum difference tolerance =	0.3
Flow tolerance factor =	0.001

Computation Options

Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

Encroachment Data

Equal Conveyance =	False
Left Offset =	0
Right Offset =	0

River = BocaNegraArroyo	Reach =	Reach - 1 Upper
RS Profile	Method	Value1 Value2
25374.6 Floodway	1	4950 5051
24989.3 Floodway	1	4950 5125
24106.4 Floodway	1	4938 5044
23000.0 Floodway	1	4955 5125
22241.1 Floodway	1	4905 5065

River = BocaNegraArroyo	Reach =	Reach - 1 Mid
RS Profile	Method	Value1 Value2
22027.5 Floodway	1	4967.55 5062.32
21845.5 Floodway	1	4975.28 5023.67
21840 Floodway	1	67.81 123.25
21830 Floodway	147.75001	113.71
21820 Floodway	1	73.59 132.32
21335.5 Floodway	1	5041.64 5161.54
21001.7 Floodway	1	4964.29 5038.83

River = BocaNegraArroyo	Reach =	Split Flow
RS Profile	Method	Value1 Value2
22027.5 Floodway	1	112.42 231.02
22000 Floodway	1	18.89 96.33
21840 Floodway	139.07001	85.22
21835 Floodway	1	15.66 89.49
21800 Floodway	1	54 136.6
21770.8 Floodway	1	123.06 187.45

CurrentUpstmFloodway.rep

21520.8	Floodway	1	131	207
21335.5	Floodway	1	158.88	251.4
21325	Floodway	1	63.9	163.82
21315	Floodway	1	62.02	195.78
21250	Floodway	1	222	396.05
21200	Floodway	1	128.95	189.91
21194.9	Floodway	1	49.81	154.17
21001.7	Floodway	1	94	325.79

River	Profile	Reach	Method	Value1	Value2
20573.7	Floodway	1	4990.78	5049.79	
20390.6	Floodway	1	5012	5067	
19770.6	Floodway	1	4961.9	5032.84	
19290.6	Floodway	1	208.45	282.53	
19175.6	Floodway	1	208.45	282.53	
19125.5	Floodway	1	8.12	123.44	
19054.6	Floodway	1	183.95	228.2	
19003.57	Floodway	1	108.43	260.42	

FLOW DATA

Flow Title: Updated 2014

Flow File : t:\Projects\321807802\Eng\2012 Final Plans_Specifications_Estimate_Reports\2014 Final Construction Acceptance Reports\H&H\LOMR - RAS\BNA RAS FLOODWAY\CurrentUpstmFloodway.f01

Flow Data (cfs)

River	Reach	RS	100 Year	Floodway
BocaNegraArroyo	Reach - 1 Upper	25374.6	1175	1175
BocaNegraArroyo	Reach - 1 Mid	22027.5	.01	.01
BocaNegraArroyo	Reach - 1 Mid	21840	612	612
BocaNegraArroyo	Split Flow	22027.5	1185	1185
BocaNegraArroyo	Split Flow	21800	603	603
BocaNegraArroyo	Reach - 1 Lower	20573.7	1188	1188

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
BocaNegraArroyo	Reach - 1 Lower	100 Year		Known WS = 5338.67

GEOMETRY DATA

Geometry Title: Current Upstream

Geometry File : t:\Projects\321807802\Eng\2012 Final Plans_Specifications_Estimate_Reports\2014 Final Construction Acceptance Reports\H&H\LOMR - RAS\BNA RAS FLOODWAY\CurrentUpstmFloodway.g05

Reach Connection Table

River	Reach	Upstream Boundary	Downstream Boundary
BocaNegraArroyo	Reach - 1 Upper		Junction 1
BocaNegraArroyo	Reach - 1 Mid	Junction 1	Junction 2
BocaNegraArroyo	Split Flow	Junction 1	Junction 2
BocaNegraArroyo	Reach - 1 Lower	Junction 2	

JUNCTION INFORMATION

Name: Junction 1

Description:

Energy computation Method

Length across Junction	Tributary	Length	Angle
River	River		
BocaNegraArroyo Reach - 1 Upper	to BocaNegraArroyo Reach - 1 Mid	213.6	
BocaNegraArroyo Reach - 1 Upper	to BocaNegraArroyo Split Flow	173	

Name: Junction 2

Description:

Energy computation Method

Length across Junction	Tributary	Length	Angle
River	River		
BocaNegraArroyo Reach - 1 Mid	to BocaNegraArroyo Reach - 1 Lower	428	
BocaNegraArroyo Split Flow	to BocaNegraArroyo Reach - 1 Lower	321	

CROSS SECTION

RIVER: BocaNegraArroyo

REACH: Reach - 1 Upper RS: 25374.6

INPUT

Description: Cross Section Boca Negra Arroyo 28.0 - Q

Station Elevation Data		num= 71		Sta		Elev		Sta		Elev		Sta		Elev	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4839	5438.7	4841.95	5438.5	4844.7	5438.36	4850.23	5438.17	4851.86	5438.11						
4856.66	5437.93	4858.5	5437.82	4862.65	5437.59	4866.78	5437.37	4868.62	5437.29						
4873.39	5437.19	4875.06	5437.15	4880.58	5437.06	4883.34	5436.99	4889.55	5436.79						
4891.62	5436.71	4892.54	5436.67	4894.92	5436.54	4899.9	5436.24	4904.5	5436.04						
4908.18	5436.12	4916.45	5436.29	4916.46	5436.29	4924.73	5436.47	4928.41	5436.57						
4933.01	5436.62	4937.99	5436.64	4940.37	5436.66	4941.29	5436.59	4943.35	5436.47						
4949.57	5436.07	4952.33	5435.92	4957.85	5435.01	4959.52	5434.75	4964.29	5433.98						
4966.13	5433.78	4970.25	5433.29	4974.4	5432.78	4976.25	5432.58	4981.05	5432.59						
4982.68	5432.62	4987.45	5432.51	4988.21	5432.49	4990.96	5432.4	4997.15	5432.31						
4997.8	5432.31	4999.05	5432.3	5000.96	5432.29	5006.21	5432.24	5010.47	5432.23						
5013.37	5432.27	5016.93	5432.29	5020.53	5432.5	5023.46	5432.68	5027.69	5432.93						
5032.9	5433.16	5034.85	5433.26	5036.44	5433.37	5042.01	5433.9	5048.87	5434.66						
5049.18	5434.7	5049.43	5434.74	5051.87	5435.13	5056.34	5435.83	5062.41	5436.92						
5063.5	5437.11	5064.84	5437.36	5070.66	5438.25	5075.4	5439.02	5077.82	5439.36						
5078.02	5439.39														

Manning's n Values		num= 3		Sta		n Val	
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
4839	.035	4959.52	.035	5042.01	.035		

Bank	Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
	4959.52	5042.01	385.3	385.3	385.3	.1	.3	

CROSS SECTION

RIVER: BocaNegraArroyo

REACH: Reach - 1 Upper RS: 24989.3

INPUT

Description: Cross Section Boca Negra Arroyo 27.0 - P

Station Elevation Data		num= 96		Sta		Elev		Sta		Elev		Sta		Elev	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4764.7	5437.47	4768.41	5437.28	4769.76	5437.19	4774.65	5436.93	4778.51	5436.87						
4782.55	5436.83	4785.93	5436.79	4788.61	5436.64	4795.33	5436.15	4797.22	5436.03						
4798.71	5435.96	4808.12	5435.61	4808.5	5435.59	4808.8	5435.58	4811.38	5435.51						
4818.9	5435.25	4819.79	5435.21	4820.91	5435.19	4829	5434.97	4831.07	5434.93						
4833.69	5434.83	4839.1	5434.6	4842.36	5434.5	4846.48	5434.43	4849.2	5434.35						
4853.64	5434.3	4859.27	5434.17	4859.3	5434.16	4864.93	5434.03	4869.4	5433.85						
4872.06	5433.73	4876.21	5433.55	4879.5	5433.46	4884.84	5433.31	4887.5	5433.23						
4889.6	5433.16	4897.63	5432.94	4898.78	5432.9	4899.7	5432.85	4907.47	5432.5						
4909.8	5432.4	4910.07	5432.38	4910.42	5432.37	4919.9	5431.7	4921.36	5431.63						
4923.2	5431.54	4929.99	5431.2	4932.64	5431.07	4935.99	5430.84	4940.09	5430.53						
4943.93	5430.28	4948.78	5429.96	4950.19	5429.89	4955.21	5429.54	4960.29	5429.45						
4961.56	5429.41	4966.5	5429.31	4968.63	5429.27	4971.93	5429.26	4972.45	5429.26						
4978.17	5429.22	4980.99	5429.19	4988.45	5428.85	4989.52	5428.79	4989.93	5428.76						
4990.83	5428.72	4996.15	5428.36	4998.06	5428.23	5001.69	5428.13	5006.6	5428.25						
5009.73	5428.38	5013.45	5428.51	5015.13	5428.61	5019.59	5428.9	5023.67	5429.18						
5025.04	5429.3	5025.31	5429.33	5031.03	5430.12	5034.57	5430.63	5038.17	5431.03						
5044	5431.63	5045.31	5431.76	5046.12	5431.83	5049.54	5432.09	5052.45	5432.32						
5057.67	5432.69	5059.58	5432.83	5062.69	5433.03	5066.72	5433.17	5069.22	5433.26						
5073.86	5433.53	5079.78	5433.83	5080.76	5433.88	5081	5433.89	5081.37	5433.89						
5084.93	5433.91														

Manning's n Values		num= 3		Sta		n Val	
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
4764.7	.035	4980.99	.035	5023.67	.035		

Bank	Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
	4980.99	5023.67	882.9	882.9	882.9	.1	.3	

CROSS SECTION

RIVER: BocaNegraArroyo

REACH: Reach - 1 Upper RS: 24106.4

INPUT

Description: Cross Section Boca Negra Arroyo 26.0 - 0

Station Elevation Data		num= 56		Sta		Elev		Sta		Elev		Sta		Elev	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4889.8	5424.42	4892.33	5424.31	4896.03	5424.19	4899.68	5424.07	4903.57	5423.94						
4907.9	5423.79	4910.36	5423.69	4914.81	5423.54	4919.76	5423.31	4921.04	5423.27						
4926.06	5423.03	4931.62	5422.54	4931.73	5422.53	4937.3	5422.04	4942.41	5421.63						
4943.49	5421.54	4948.54	5421.13	4953.1	5420.87	4955.35	5420.72	4959.79	5420.46						
4963.78	5420.37	4967.22	5420.28	4971.03	5420.19	4974.47	5420.14	4979.08	5420.09						
4982.27	5420.04	4985.15	5419.95	4990.95	5419.79	4993.52	5419.71	4995.83	5419.64						
5000.47	5419.51	5002.06	5419.48	5003.76	5419.43	5005.11	5419.39	5010.15	5419.56						
5014.35	5419.69	5017.27	5419.79	5018.23	5419.86	5020.14	5420.03	5026.32	5420.51						
5029.43	5420.71	5034.4	5421.1	5038.86	5421.53	5041.58	5421.78	5042.48	5421.87						
5044.27	5422.08	5050.57	5422.8	5053.74	5423.21	5058.65	5423.75	5063.36	5424.28						
5065.9	5424.56	5066.74	5424.61	5068.4	5424.69	5074.82	5425.01	5078.06	5425.21						
5080.45	5425.29														

Manning's n Values		num= 3		Sta		n Val	
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
4889.8	.035	4948.54	.035	5034.4	.035		

CurrentUpstmFloodway.rep

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 4948.54 5034.4 1106.4 1106.4 1106.4 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Reach - 1 Upper RS: 23000.0

INPUT

Description: Cross Section Boca Negra Arroyo 25.0 - N

Station Elevation Data		num= 106		Station Elevation Data		num= 106		Station Elevation Data		num= 106	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4834.3	5412.7	4835.65	5412.61	4844.38	5412.12	4844.78	5412.09	4845.05	5412.08		
4846.28	5412.01	4854.44	5411.58	4856.19	5411.49	4858.88	5411.32	4863.84	5411.02		
4867.59	5410.79	4873.24	5410.59	4873.39	5410.59	4879	5410.39	4882.63	5410.39		
4887.89	5410.39	4890.4	5410.39	4892.03	5410.4	4899.65	5410.47	4901.43	5410.49		
4901.81	5410.49	4902.4	5410.49	4910.82	5410.51	4913.21	5410.51	4916.9	5410.41		
4920.22	5410.3	4924.62	5410.18	4929.62	5409.98	4931.4	5409.91	4936.02	5409.73		
4939.01	5409.63	4945.91	5409.34	4947.43	5409.29	4948.41	5409.26	4953.01	5409.09		
4957.81	5408.92	4958.83	5408.87	4960.41	5408.79	4967.2	5408.47	4970.24	5408.32		
4974.92	5408.04	4976.6	5407.93	4981.64	5407.64	4986	5407.32	4989.42	5407.11		
4993.05	5406.86	4995.39	5406.83	5001.4	5406.8	5002.43	5406.81	5003.99	5406.82		
5006.86	5406.87	5006.89	5406.87	5011.16	5406.97	5013.48	5407.02	5018.33	5407.13		
5021.29	5407.2	5024.54	5407.28	5025.5	5407.3	5027.28	5407.34	5032.67	5407.42		
5035.59	5407.45	5039.84	5407.52	5045.38	5407.58	5046.64	5407.6	5047.01	5407.6		
5047.7	5407.61	5054.18	5407.79	5057.69	5407.89	5061.35	5408.01	5068.12	5408.27		
5068.52	5408.29	5068.74	5408.29	5069.47	5408.29	5075.7	5408.31	5079.79	5408.27		
5082.87	5408.25	5088.54	5408.11	5090.04	5408.07	5090.84	5408.04	5093.55	5408		
5097.21	5407.93	5101.89	5407.92	5104.38	5407.87	5108.97	5407.95	5111.55	5408.02		
5112.95	5408.13	5117.64	5408.41	5118.72	5408.48	5124	5408.8	5125.89	5408.92		
5129.39	5409.04	5133.06	5409.18	5135.05	5409.26	5140.23	5409.6	5141.73	5409.69		
5146.1	5409.98	5147.4	5410.09	5149.81	5410.29	5154.57	5410.76	5157.15	5411.01		
5161.74	5411.53	5165.81	5412.01	5168.2	5412.29	5168.91	5412.35	5170.23	5412.46		
5171.65	5412.54										

Manning's n Values num= 3
 Sta n Val Sta n Val
 4834.3 .035 4974.92 .035 5061.35 .035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 4974.92 5061.35 758.9 758.9 758.9 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Reach - 1 Upper RS: 22241.1

INPUT

Description: Cross Section Boca Negra Arroyo 24.0 - M

Station Elevation Data		num= 106		Station Elevation Data		num= 106		Station Elevation Data		num= 106	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4820.81	5403.35	4826.92	5403.05	4827.77	5403	4828.45	5402.97	4834.88	5402.73		
4835.23	5402.71	4841.93	5402.42	4842.68	5402.39	4843.61	5402.35	4850.14	5402.09		
4855.42	5401.88	4857.6	5401.78	4860.3	5401.68	4865.05	5401.56	4868.9	5401.49		
4872.51	5401.41	4876.98	5401.31	4879.97	5401.25	4882.38	5401.22	4887.43	5401.16		
4893.67	5401.04	4894.88	5401.01	4895.86	5400.99	4902.34	5400.85	4905.09	5400.78		
4909.35	5400.69	4909.8	5400.68	4910.36	5400.66	4917.26	5400.39	4922.83	5400.21		
4924.71	5400.15	4927.05	5400.06	4932.17	5399.84	4935.12	5399.68	4936.44	5399.62		
4939.49	5399.4	4942.34	5399.17	4946.71	5398.83	4951.4	5398.49	4953.94	5398.37		
4956.32	5398.29	4961.17	5398.16	4966.35	5398.02	4968.39	5397.98	4970.3	5397.96		
4975.62	5397.91	4981.31	5397.81	4982.84	5397.81	4984.28	5397.81	4990.07	5397.85		
4996.26	5397.89	4997.29	5397.9	4998.26	5397.9	5004.52	5397.97	5008.04	5397.98		
5011.21	5397.99	5011.74	5397.98	5012.24	5397.98	5018.97	5398.03	5026.17	5398.09		
5026.2	5398.09	5026.22	5398.09	5026.99	5398.1	5033.42	5398.22	5040.2	5398.4		
5040.65	5398.42	5041.12	5398.44	5043.57	5398.6	5048.02	5398.97	5051.13	5399.23		
5055.49	5399.75	5057.32	5399.96	5061.08	5400.39	5062.97	5400.59	5068.64	5401.15		
5070.44	5401.33	5071.04	5401.38	5072.22	5401.47	5077.91	5401.9	5080.99	5402.11		
5085.39	5402.23	5087.12	5402.29	5090.94	5402.41	5092.86	5402.42	5098.63	5402.47		
5100.33	5402.48	5100.9	5402.49	5102.02	5402.51	5107.8	5402.63	5110.85	5402.69		
5115.28	5402.76	5116.92	5402.77	5120.8	5402.82	5122.75	5402.84	5128.61	5402.95		
5130.22	5402.99	5130.76	5403	5131.82	5403.06	5137.7	5403.3	5140.71	5403.49		
5145.17	5403.77	5146.72	5403.85	5150.67	5404.08	5152.64	5404.2	5158.6	5404.43		
5159.07	5404.44										

Manning's n Values num= 3
 Sta n Val Sta n Val
 4820.81 .035 4942.34 .035 5048.02 .035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 4942.34 5048.02 0 0 0 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Reach - 1 Mid RS: 22027.5

INPUT

Description: Cross Section Boca Negra Arroyo 23.75 - L

Station Elevation Data		num= 76		Sta		Elev		Sta		Elev		Sta		Elev	
4890.5	5401.44	4894.23	5401.15	4899.28	5400.75	4902.37	5400.37	4908.78	5399.53						
4910.52	5399.31	4911.36	5399.22	4913.78	5398.97	4918.67	5398.48	4923.45	5397.95						
4926.82	5397.77	4933.78	5397.39	4934.96	5397.33	4935.54	5397.3	4937.18	5397.22						
4943.11	5396.95	4947.62	5396.74	4951.26	5396.62	4958.78	5396.33	4959.41	5396.3						
4959.71	5396.29	4960.59	5396.26	4967.55	5396.03	4971.8	5395.84	4975.7	5395.63						
4983.78	5395.1	4983.85	5395.09	4983.89	5395.09	4983.99	5395.08	4992	5394.65						
4995.97	5394.49	5000.14	5394.42	5002.14	5394.41	5007.39	5394.39	5008.06	5394.38						
5008.29	5394.38	5008.77	5394.38	5016.44	5394.27	5020.15	5394.23	5024.59	5394.29						
5030.8	5394.44	5032.23	5394.47	5032.73	5394.5	5032.96	5394.51	5033.28	5394.52						
5034.26	5394.58	5040.31	5394.92	5043.1	5395.07	5047.87	5395.34	5048.29	5395.36						
5052.93	5395.62	5055.43	5395.79	5062.32	5396.25	5062.75	5396.27	5062.99	5396.3						
5063.77	5396.37	5070.54	5397.07	5072.58	5397.22	5076.34	5397.78	5078.1	5398.06						
5082.4	5398.65	5085.66	5399.1	5090.37	5399.73	5092.22	5399.99	5093.22	5399.99						
5096.55	5399.99	5100.78	5399.94	5102.05	5399.96	5104.4	5399.92	5108.34	5399.8						
5111.87	5399.78	5115.9	5399.6	5118.42	5399.52	5121.69	5399.4	5123.46	5399.27						
5124.92	5399.15														

Manning's n Values		num= 3		Sta		n Val	
4890.5	.035	4967.55	.035	5062.32	.035		

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	4967.55	5062.32		182	182	182		.1	.3

CROSS SECTION

RIVER: BocaNegraArroyo

REACH: Reach - 1 Mid RS: 21845.5

INPUT

Description: Cross Section Boca Negra Arroyo 23.5 - K

Station Elevation Data		num= 99		Sta		Elev		Sta		Elev		Sta		Elev	
4880.3	5396.01	4882.41	5395.91	4887.22	5395.73	4894.99	5395.39	4895	5395.39						
4895.01	5395.39	4902.79	5395.1	4907.6	5394.93	4910.58	5394.84	4915.41	5394.7						
4918.37	5394.63	4920.19	5394.57	4926.16	5394.28	4927.91	5394.16	4932.79	5393.85						
4933.94	5393.78	4935.81	5393.65	4941.73	5393.26	4945.38	5392.95	4949.52	5392.57						
4956.21	5391.92	4957.31	5391.82	4957.98	5391.75	4960.83	5391.47	4965.09	5391.05						
4970.58	5390.51	4970.7	5390.5	4972.78	5390.36	4973.6	5390.3	4975.28	5390.21						
4980.22	5390	4983.61	5389.79	4987.66	5389.55	4990.59	5389.3	4993.63	5389.09						
4995.1	5388.98	4996.09	5388.94	4999.37	5388.79	5002.54	5388.78	5003.64	5388.82						
5005.9	5388.95	5009.98	5389.15	5013.66	5389.39	5017.42	5389.68	5021.21	5390.01						
5023.67	5390.21	5024.86	5390.31	5028.32	5390.61	5032.3	5390.89	5033.68	5390.99						
5036.52	5391.17	5039.74	5391.37	5043.7	5391.64	5047.18	5391.9	5051.83	5392.3						
5053.71	5392.45	5054.62	5392.52	5057.26	5392.74	5062.06	5393.05	5063.72	5393.17						
5067.14	5393.41	5069.5	5393.57	5073.74	5393.89	5076.94	5394.11	5082.45	5394.5						
5083.75	5394.59	5084.38	5394.63	5086.21	5394.71	5091.82	5394.9	5093.77	5394.96						
5097.76	5395.07	5099.26	5395.12	5103.78	5395.23	5106.7	5395.25	5113.07	5395.31						
5113.79	5395.32	5114.14	5395.33	5115.16	5395.36	5121.58	5395.52	5123.81	5395.58						
5128.38	5395.79	5129.02	5395.82	5133.82	5396.04	5136.46	5396.17	5143.69	5396.49						
5143.83	5396.5	5143.9	5396.5	5144.1	5396.5	5151.34	5396.78	5153.85	5396.89						
5158.78	5397.01	5159	5397.01	5163.86	5397.12	5166.22	5397.11	5173.05	5396.99						
5173.66	5396.98	5173.88	5396.98	5174.31	5396.96	5180.71	5396.79								

Manning's n Values		num= 3		Sta		n Val	
4880.3	.035	4975.28	.035	5023.67	.035		

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	4975.28	5023.67		290.81	290.81	290.81		.1	.3

CROSS SECTION

RIVER: BocaNegraArroyo

REACH: Reach - 1 Mid RS: 21840

INPUT

Description: 16

Station Elevation Data		num= 69		Sta		Elev		Sta		Elev		Sta		Elev	
0	5384.3	3.12999	5384.13	6.99997	5384.064	25.9995	5384.02	12.37	5383.4						
12.92	5383.36	13.48	5383.31	21.61	5382.6122	14.999	5382.57	22.69	5382.52						
30.84999	5381.9131	37.999	5381.87	31.91	5381.81	40.09	5381.01	40.61	5380.96						
41.12999	5380.91	49.33	5380.2	49.84	5380.1550	34.999	5380.1658	56.999	5380.25						
59.06999	5380.2559	56.999	5380.27	67.81	5380.54	68.3	5380.5668	78.999	5380.56						
77.05	5380.47	77.53	5380.4778	00.999	5380.4486	28.999	5380.0886	75.999	5380.05						
87.21999	5380.03	95.53	5379.49	95.99	5379.4796	43.999	5379.48	104.12	5379.48						
104.77	5379.48	105.21	5379.48	105.66	5379.52	114.01	5380.15	114.44	5380.18						
114.88	5380.22	123.25	5380.95	123.67	5380.98	124.1	5381.01	132.48	5381.56						
132.9	5381.58	133.32	5381.61	141.72	5382.16	142.13	5382.18	142.54	5382.19						
150.96	5382.56	151.36	5382.57	151.75	5382.59	160.2	5383.05	160.59	5383.07						
160.97	5383.09	169.44	5383.55	169.82	5383.57	170.19	5383.6	178.68	5384.15						
179.05	5384.17	179.41	5384.2	187.92	5384.75	188.28	5384.78	188.63	5384.8						
197.16	5385.36	197.5	5385.38	197.85	5385.4	203.45	5385.77								

Manning's n Values		num= 1	

CurrentUpstmFloodway.rep

Sta n Val
0 .035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
67.81 123.25 71.4 71.4 71.4 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
REACH: Reach - 1 Mid RS: 21830

INPUT

Description: 15

Station	Elevation	Data	num=	54	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5382.391	240005	5382.29	3.01001	5382.143	770004	5382.075	660004	5381.91			
11.10001	5381.4213	29001	5381.24	18.41	5380.6718	43001	5380.6623	56001	5380.11			
25.76001	5379.8	31.23	5378.94	33.09	5378.64	33.84	5378.52	35.59	5378.34			
40.42001	5377.8144	11001	5377.4947	75001	5377.4752	76001	5377.3	54.38	5377.27			
55.08001	5377.24	56.8	5377.1762	40001	5377	64.66	5376.94	69.73	5376.76			
69.94	5376.7674	93001	5376.6577	06001	5376.6382	01001	5376.5982	36001	5376.59			
84.39001	5376.59	85.2	5376.58	87.11	5376.58	91.72	5376.6295	48001	5376.58			
99.05	5376.72	104.29	5376.81	105.75	5376.85	106.38	5376.91	107.93	5377.04			
113.71	5377.65	116.03	5377.86	121.03	5378.35	121.46	5378.38	126.3	5378.83			
128.36	5378.98	133.5	5379.46	135.69	5379.71	136.57	5379.81	138.64	5380.05			
143.02	5380.58	146.85	5380.99	150.35	5381.43	151.1	5381.53					

Manning's n Values num= 1
Sta n Val
0 .035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
47.75001 113.71 115.95 115.95 115.95 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
REACH: Reach - 1 Mid RS: 21820

INPUT

Description: 14

Station	Elevation	Data	num=	62	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5377	9.8	5376	21.4	5375	29.39	5374.67	42.77	5374.42			
44.38	5374.38	48.39	5374.34	51.71	5374.33	53.04	5374.33	56.17	5374.39			
59.04	5374.44	63.32	5374.51	66.37	5374.61	73.34	5374.79	73.59	5374.8			
73.69	5374.79	73.95	5374.78	81.02	5374.45	83.86	5374.4	88.35	5374.13			
90.52	5374.04	94.14	5373.85	95.68	5373.84	99.52	5373.84	103.01	5373.8			
104.41	5373.77	106.14	5373.78	107.7	5373.79	110.34	5373.79	114.68	5373.85			
117.67	5373.94	124.87	5374.38	124.96	5374.39	125	5374.39	125.09	5374.39			
132.32	5374.76	135.23	5374.97	139.65	5375.41	142.05	5375.67	145.51	5376.03			
146.98	5376.18	150.66	5376.59	154.31	5377.02	155.78	5377.17	159.22	5377.44			
161.64	5377.64	166.05	5377.97	168.97	5378.13	176.22	5378.49	176.3	5378.49			
176.33	5378.49	176.4	5378.5	183.63	5379.47	186.6	5379.85	190.95	5380.22			
193.57	5380.44	196.87	5380.72	198.28	5380.84	201.79	5381.13	205.61	5381.41			
207.15	5381.52	209.44	5381.67									

Manning's n Values num= 1
Sta n Val
0 .035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
73.59 132.32 45.3 45.3 45.3 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
REACH: Reach - 1 Mid RS: 21335.5

INPUT

Description: Cross Section Boca Negra Arroyo 23.25 - J

Station	Elevation	Data	num=	115	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4904.44	5381.56	4907.59	5381.4	4909.19	5381.36	4910.62	5381.31	4916.55	5381.16			
4923.18	5380.94	4923.91	5380.92	4924.56	5380.88	4931.27	5380.45	4936.31	5380.13			
4938.5	5379.99	4938.63	5379.98	4938.76	5379.97	4945.98	5379.58	4952.44	5379.28			
4953.34	5379.24	4954.35	5379.19	4960.7	5378.92	4966.38	5378.67	4968.06	5378.6			
4969.93	5378.54	4975.42	5378.3	4980.32	5378.09	4982.78	5378	4985.52	5377.94			
4990.13	5377.76	4994.26	5377.58	4997.49	5377.39	5001.1	5377.15	5004.85	5376.87			
5008.2	5376.65	5012.21	5376.39	5016.69	5376.06	5019.57	5375.84	5022.14	5375.65			
5026.93	5375.3	5032.27	5374.95	5034.28	5374.83	5036.08	5374.72	5041.64	5374.29			
5047.86	5373.81	5049	5373.75	5050.02	5373.72	5056.36	5373.57	5063.45	5373.41			
5063.72	5373.4	5063.96	5373.39	5068.34	5373.22	5071.08	5373.11	5077.9	5372.7			
5078.44	5372.68	5079.03	5372.67	5085.79	5372.5	5091.84	5372.31	5093.15	5372.23			
5094.62	5372.17	5100.51	5371.95	5102.29	5371.89	5105.78	5371.76	5107.87	5371.77			
5110.2	5371.88	5115.23	5372.23	5119.72	5372.76	5122.59	5373.18	5125.79	5373.58			
5129.94	5374.01	5133.66	5374.14	5137.3	5373.98	5141.37	5373.75	5144.66	5373.61			
5147.6	5373.51	5152.02	5373.59	5156.96	5373.82	5159.38	5373.97	5161.54	5374.18			

CurrentUpstmFloodway.rep

5166.74	5374.95	5172.54	5375.84	5174.09	5376.12	5175.48	5376.35	5181.45	5377.21
5188.13	5377.85	5188.81	5377.93	5189.42	5378	5196.17	5378.83	5200.37	5379.2
5203.36	5379.47	5203.53	5379.49	5203.71	5379.5	5210.89	5379.97	5217.3	5380.43
5218.24	5380.48	5219.3	5380.53	5225.6	5380.89	5231.24	5381.25	5232.96	5381.33
5234.89	5381.42	5240.32	5381.65	5245.18	5381.89	5247.68	5381.99	5250.47	5382.13
5255.04	5382.28	5259.12	5382.41	5262.4	5382.47	5266.06	5382.54	5269.75	5382.57
5273.06	5382.62	5277.11	5382.7	5281.64	5382.79	5284.47	5382.83	5287	5382.89
5291.83	5383.09	5297.23	5383.31	5299.19	5383.38	5300.94	5383.44	5304.37	5383.49

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
4904.44	.035	4982.78	.035	5189.42	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

5041.64	5161.54	333.8	333.8	333.8	.1	.3
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CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Reach - 1 Mid RS: 21001.7

INPUT

Description: Cross Section Boca Negra Arroyo 23.0 - I

Station Elevation Data		num= 112		Sta		Elev		Sta		Elev		Sta		Elev	
4883.3	5373.94	4888.36	5373.56	4889.24	5373.49	4889.79	5373.45	4892.23	5373.25						
4897	5372.85	4902.44	5372.37	4904.76	5372.17	4908.46	5371.86	4912.53	5371.51						
4915.08	5371.29	4920.29	5370.91	4926.29	5370.51	4927.72	5370.41	4928.05	5370.39						
4928.57	5370.36	4935.81	5369.83	4940.37	5369.42	4943.57	5369.11	4948.67	5368.7						
4950.46	5368.57	4951.86	5368.5	4952.73	5368.44	4953.46	5368.38	4961.22	5367.74						
4963.76	5367.52	4964	5367.49	4964.29	5367.45	4974.07	5365.97	4975.27	5365.78						
4976.71	5365.63	4984.37	5364.81	4986.53	5364.59	4989.13	5364.59	4994.68	5364.59						
4997.8	5364.59	5001.56	5364.62	5004.99	5364.63	5009.06	5364.67	5013.98	5364.72						
5015.29	5364.73	5020.33	5364.79	5025.6	5365.33	5026.4	5365.41	5031.6	5365.95						
5034.62	5366.42	5035.9	5366.62	5038.83	5367.09	5042.86	5367.72	5046.21	5367.97						
5051.25	5368.29	5054.13	5368.49	5056.51	5368.45	5063.67	5368.25	5065.39	5368.22						
5066.82	5368.18	5076.1	5367.91	5076.66	5367.9	5077.13	5367.89	5082.12	5367.84						
5087.43	5367.8	5087.93	5367.79	5088.52	5367.78	5097.74	5367.62	5099.19	5367.59						
5100.95	5367.51	5108.04	5367.2	5110.46	5367.09	5113.37	5367.01	5118.35	5366.88						
5121.72	5366.79	5125.79	5366.77	5128.65	5366.75	5132.99	5366.73	5138.22	5366.78						
5138.96	5366.78	5144.26	5366.84	5149.26	5367.03	5150.64	5367.1	5155.52	5367.29						
5159.57	5367.47	5163.06	5367.68	5166.79	5367.85	5169.88	5367.94	5175.49	5368.07						
5178.05	5368.15	5180.18	5368.24	5187.91	5368.56	5189.32	5368.62	5190.49	5368.67						
5200.33	5369.07	5200.58	5369.08	5200.79	5369.09	5203.03	5369.18	5211.1	5369.5						
5211.85	5369.53	5212.76	5369.59	5221.4	5370.1	5223.12	5370.22	5225.18	5370.32						
5231.71	5370.6	5234.38	5370.72	5237.6	5370.85	5242.02	5371.03	5245.65	5371.17						
5250.03	5371.38	5252.32	5371.49	5256.91	5371.7	5262.45	5371.91	5262.63	5371.91						
5268.18	5372.11	5269.85	5372.08												

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
4883.3	.035	4964.29	.035	5038.83	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

4964.29	5038.83	0	0	0	.1	.3
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Ineffective Flow num= 1
 Sta L Sta R Elev Permanent
 5054.13 5269.85 5368.79 F

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Split Flow RS: 22027.5

INPUT

Description: 30

Station Elevation Data		num= 55		Sta		Elev		Sta		Elev		Sta		Elev	
0	5402.23	94.42	5400.46	101.84	5400.44	102.51	5400.47	103.18	5400.44						
111.07	5399.84	111.74	5399.8	112.42	5399.74	120.29	5398.88	120.97	5398.82						
121.64	5398.75	129.52	5398.07	130.2	5398	130.87	5397.95	138.75	5397.35						
139.42	5397.29	140.1	5397.25	147.98	5396.73	148.65	5396.69	149.33	5396.67						
157.2	5396.41	157.88	5396.39	158.56	5396.39	159.11	5396.39	166.43	5396.39						
167.11	5396.38	167.79	5396.39	175.66	5396.47	176.34	5396.48	177.03	5396.49						
184.88	5396.57	185.57	5396.58	186.26	5396.6	194.11	5396.86	194.8	5396.88						
195.49	5396.93	203.34	5397.44	204.03	5397.49	204.72	5397.55	212.56	5398.23						
213.26	5398.29	213.95	5398.35	221.79	5399.03	222.49	5399.09	223.18	5399.15						
231.02	5399.74	231.72	5399.8	232.41	5399.86	240.25	5400.37	240.94	5400.43						
241.64	5400.48	249.47	5401.07	250.17	5401.13	250.87	5401.17	257.62	5401.61						

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	203.34	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

112.42	231.02	75.7	75.7	75.7	.1	.3
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CROSS SECTION

CurrentUpstmFloodway.rep

RIVER: BocaNegraArroyo
 REACH: Split Flow RS: 22000

INPUT

Description: 29

Station	Elevation	Data	num=	52	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5399.62	7599945	5399.622	089996	5399.623	470001	5399.589	820007	5399.45			
11.32001	5399.41	12.87	5399.32	18.89	5399.06	20.55	5398.97	22.28	5398.83			
27.96	5398.4	29.78	5398.25	31.68	5398.13	34.42	5397.95	37.07	5397.77			
39.01	5397.65	40.96	5397.51	46.3	5397.148	24001	5396.97	50.19	5396.84			
55.4	5396.45	55.53	5396.44	57.47	5396.31	59.42	5396.25	64.76	5396.07			
66.7	5396.01	68.64	5396.1473	99001	5396.54	75.93	5396.67	77.87	5396.9			
83.21001	5397.54	85.16	5397.7787	10001	5398.02	92.44	5398.72	94.39	5398.97			
96.33	5399.18	101.67	5399.7	103.62	5399.91	105.56	5400.06	110.9	5400.46			
112.85	5400.61	114.79	5400.75	120.13	5401.21	122.07	5401.35	124.02	5401.48			
129.36	5401.89	131.3	5402.03	133.25	5402.15	138.59	5402.5	140.53	5402.63			
142.48	5402.75	146.58	5402.97									

Manning's n Values num= 1

Sta	n Val
0	.035

Bank	Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
	18.89	96.33	77.63	77.63	77.63		.1	.3

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Split Flow RS: 21840

INPUT

Description: 28

Station	Elevation	Data	num=	49	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5398.442	150009	5398.636	110001	5398.617	400009	5398.6	11.38	5398.58			
15.51	5398.33	16.47	5398.28	20.61	5398.04	24.91	5397.83	25.25	5397.81			
25.54	5397.8	29.84	5397.59	34.15	5397.24	34.77	5397.1939	07001	5396.84			
43.38	5396.35	44	5396.28	48.3	5395.79	52.61	5395.46	53.23	5395.41			
57.53001	5395.08	61.84	5395.04	62.29	5395.02	62.45	5395.02	66.76	5394.97			
71.07001	5395.25	71.68	5395.2875	99001	5395.5680	29001	5396.08	80.91	5396.15			
85.22	5396.66	89.52	5397.34	90.14	5397.44	94.45	5398.12	98.75	5398.86			
99.37	5398.98	103.68	5399.72	107.98	5400.38	108.6	5400.47	112.9	5401.12			
117.21	5401.64	117.83	5401.72	122.13	5402.23	126.44	5402.6	127.06	5402.66			
131.36	5403.03	135.67	5403.36	136.29	5403.4	137.41	5403.49					

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	117.21	.035

Bank	Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
	39.07001	85.22	54.1	54.1	54.1		.1	.3

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Split Flow RS: 21835

INPUT

Description: 27

Station	Elevation	Data	num=	51	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5396.661	419998	5396.743	929993	5396.876	429993	5396.8210	64999	5396.68			
13.15999	5396.63	15.66	5396.4219	87999	5396.06	22.38	5395.8524	88999	5395.7			
29.10999	5395.3431	60999	5395.19	34.12	5395.09	38.34	5394.82	40.84	5394.73			
43.35	5394.55	47.56	5394.2350	06999	5394.0552	57999	5393.8656	78999	5393.59			
59.3	5393.4	61.81	5393.2964	17999	5393.21	66.02	5393.15	68.53	5393.04			
71.03999	5393.2275	24999	5393.5977	75999	5393.7680	25999	5394.33	84.48	5395.34			
86.98999	5395.91	89.49	5396.5393	70999	5397.5896	21999	5398.2198	71999	5398.66			
102.94	5399.39	105.45	5399.83	107.95	5400.19	112.17	5400.83	114.67	5401.18			
117.18	5401.51	121.4	5402.05	123.9	5402.38	126.41	5402.64	130.63	5403.05			
133.13	5403.31	135.64	5403.43	139.85	5403.61	142.36	5403.74	144.87	5403.84			
148.12	5403.98											

Manning's n Values num= 1

Sta	n Val
0	.035

Bank	Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
	15.66	89.49	135.23	135.23	135.23		.1	.3

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Split Flow RS: 21800

INPUT

CurrentUpstmFloodway.rep

Description: 26

Station	Elevation	Data	num=	66	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5392.611	259995	5392.615	330002	5392.568	410004	5392.461	374001	5392.31			
15.56	5392.28	16.61	5392.26	20.53	5392.252	27.1001	5392.25	27.89	5392.24			
29.86	5392.28	33.27	5392.3337	009999	5392.38	39.17	5392.43	44.16	5392.64			
47.25	5392.8250	460001	5392.99	51.31	5393.03	52.8	5393.11	58.47	5393.46			
61.74001	5393.73	65.62	5393.99	72.33	5394.45	72.77	5394.48	73.02	5394.49			
73.98	5394.47	75.43	5394.45	81.22	5394.39	82.69	5394.36	84.16	5394.25			
90.45	5393.71	91.92	5393.6	93.39	5393.44	99.68	5392.69	101.15	5392.52			
102.61	5392.41	108.91	5392.07	109.32	5392.04	110.38	5391.96	111.84	5392.02			
118.14	5392.43	119.61	5392.49	121.07	5392.64	127.37	5393.32	128.83	5393.46			
130.3	5393.6	136.6	5394.29	138.06	5394.43	139.53	5394.6	145.83	5395.35			
147.29	5395.51	148.76	5395.67	155.05	5396.29	156.52	5396.45	157.99	5396.6			
164.28	5397.22	165.75	5397.38	167.22	5397.47	173.51	5397.75	174.98	5397.84			
176.45	5397.86	182.74	5397.99	184.21	5398.01	185.68	5398.04	191.97	5398.25			
192.86	5398.27											

Manning's n Values

num= 1

Sta	n Val
0	.035

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	81.22	136.6		68.96	68.96		.1	.3

CROSS SECTION

RIVER: BocaNegraArroyo

REACH: Split Flow RS: 21770.8

INPUT

Description: 25

Station	Elevation	Data	num=	77	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5391.16	020004	5391.376	179993	5391.386	300003	5391.387	349991	5391.35			
8.050003	5391.33	13.39	5391.18	17.25	5391.02	20.61	5390.85	27.69	5390.5			
27.84	5390.49	27.91	5390.49	28.11	5390.535	069999	5390.7638	569999	5390.94			
42.3	5391.0648	399999	5391.26	49.23	5391.29	49.53	5391.3150	149999	5391.35			
56.75	5391.77	59.89	5391.95	63.98	5392.16	68.69	5392.34	70.55	5392.42			
71.209999	5392.4472	599999	5392.49	78.44	5392.6781	209999	5392.77	85.66	5392.9			
88.989999	5392.98	91.87	5393.05	92.89	5393.06	95.05	5393.08	100.12	5393.13			
102.52	5393.16	107.35	5393.14	109.28	5393.14	113.18	5393.15	114.57	5393.12			
117.5	5393.13	118.02	5393.13	122.85	5393.18	123.06	5393.18	123.27	5393.17			
132.08	5392.6	132.29	5392.59	132.5	5392.57	141.31	5391.71	141.52	5391.69			
141.73	5391.68	150.54	5391.01	150.75	5390.99	150.96	5390.99	151.64	5391			
159.76	5391.08	159.98	5391.08	160.19	5391.1	168.99	5391.67	169.21	5391.68			
169.42	5391.7	178.22	5392.36	178.44	5392.38	178.65	5392.39	187.45	5393.06			
187.66	5393.08	187.88	5393.09	196.68	5393.76	196.89	5393.77	197.11	5393.79			
205.91	5394.36	206.12	5394.38	206.34	5394.39	215.14	5394.86	215.35	5394.88			
215.56	5394.9	223.2	5395.56									

Manning's n Values

num= 1

Sta	n Val
0	.035

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	123.06	187.45		95.48	95.48		.1	.3

Ineffective Flow	num=	1
Sta L Sta R Elev	Permanent	F
0 122.85 5393.18		

CROSS SECTION

RIVER: BocaNegraArroyo

REACH: Split Flow RS: 21520.8

INPUT

Description: 24

Station	Elevation	Data	num=	89	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5389.65	230011	5389.653	520004	5389.56	190002	5389.3710	600001	5389.17			
13.49001	5388.9820	34001	5388.4320	79001	5388.39	20.97	5388.3821	43001	5388.39			
28.09001	5388.4831	34001	5388.54	35.38	5388.739	35001	5388.83	41.72	5388.92			
42.68001	5388.97	44.97	5389.1149	98001	5389.3652	09001	5389.4257	26001	5389.44			
57.28	5389.44	58.97	5389.4562	49001	5389.46	64.55	5389.469	29001	5389.35			
71.83	5389.33	72.94	5389.34	75.77	5389.579	10001	5389.68	83.39	5389.91			
86.38	5389.993	20001	5389.7993	65001	5389.7793	85001	5389.7694	35001	5389.76			
100.93	5389.67	104.3	5389.71	108.2	5389.76	112.92	5389.82	114.76	5389.85			
115.47	5389.87	117.12	5389.88	122.75	5389.86	125.21	5389.85	130.02	5390.06			
131.49	5390.11	135.66	5390.26	137.3	5390.23	141.04	5390.25	144.57	5390.27			
146.12	5390.28	150.06	5390.19	151.85	5390.14	152.43	5390.13	156.09	5390.21			
160.48	5390.14	160.92	5390.13	165.31	5390.06	169.71	5389.67	170.15	5389.63			
174.54	5389.25	178.94	5388.98	179.38	5388.97	179.45	5388.96	183.77	5388.7			
188.17	5389.11	188.6	5389.15	193	5389.55	197.4	5389.84	197.83	5389.86			
202.23	5390.15	206.63	5390.29	207.06	5390.3	211.46	5390.45	215.86	5390.59			
216.29	5390.6	220.69	5390.75	225.09	5390.91	225.52	5390.93	229.92	5391.1			
234.32	5391.27	234.75	5391.28	239.15	5391.45	243.54	5391.69	243.98	5391.71			
248.38	5391.95	252.77	5392.19	253.21	5392.21	254.99	5392.31					

CurrentUpstmFloodway.rep

Manning's n Values num= 1
 Sta n Val
 0 .035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 160.48 202.23 115.6 115.6 115.6 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Split Flow RS: 21335.5

INPUT

Description: 23

Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5387.44	9900208	5387.46	1.27002	5387.471	660004	5387.481	890015	5387.48
2.77002	5387.498	800018	5387.5413	24002	5387.5415	95001	5387.3720	55002	5387.07
23.10001	5386.8824	60001	5386.7830	24002	5386.4630	39001	5386.4635	95001	5386.23
37.39001	5386.25	39.84	5386.2944	54001	5386.4347	30002	5386.4951	67999	5386.66
58	5386.96	58.66	5386.9958	83002	5386.99	59.12	5386.9965	98001	5386.86
70.01001	5386.71	73.12	5386.5378	39999	5386.1980	27002	5386.09	81.37	5386.04
85.62	5385.9687	42001	5385.93	92.72	5385.79	94.56	5385.75	97.69	5385.69
101.71	5385.67	104.08	5385.66	108.85	5385.65	113.23	5385.62	115.43	5385.61
116	5385.6	116.97	5385.6	123.15	5385.64	126.79	5385.74	130.29	5385.9
136.25	5386.21	137.44	5386.26	138.14	5386.28	140.84	5386.34	144.59	5386.42
149.49	5386.52	151.73	5386.56	155.54	5386.65	158.88	5386.64	160.85	5386.65
166.03	5386.59	168.46	5386.54	172.2	5386.47	173.17	5386.44	174.82	5386.39
180.32	5386.15	183.56	5386.03	187.47	5385.9	189.3	5385.84	191.57	5385.86
193.86	5385.89	196.14	5385.94	200.82	5386.09	203.09	5386.14	205.35	5386.2
210.07	5386.3	212.32	5386.36	214.56	5386.31	219.32	5386.31	221.55	5386.26
223.77	5386.2	228.57	5386.1	230.78	5386.04	232.98	5386.02	236.3	5385.99
237.82	5385.97	240.01	5385.96	242.19	5386.09	247.07	5386.41	249.24	5386.54
251.4	5386.61	256.32	5386.77	258.47	5386.84	260.61	5386.88	265.57	5386.99
267.7	5387.04	269.82	5387.05	274.82	5387.05	276.92	5387.06	279.02	5387.03
284.06	5387.03	286.15	5387.01	288.23	5387.01	293.31	5387.01	295.38	5387.01
297.44	5387.01	302.56	5387.01	304.61	5387.01	306.65	5387.01	311.81	5386.96
313.84	5386.96	315.86	5386.98	321.06	5387.03	323.07	5387.05	325.07	5387.11
330.31	5387.28	332.3	5387.33	334.28	5387.4	339.56	5387.57	341.53	5387.63
343.49	5387.71	348.81	5387.94	350.76	5388.01	352.7	5388.05	356.1	5388.13

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .035 2.77002 .035 214.56 .035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 158.88 251.4 268.96 268.96 268.96 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Split Flow RS: 21325

INPUT

Description: 22

Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5384.362	229996	5384.286	819992	5384.0913	42999	5383.72	13.86	5383.7
13.95999	5383.69	14.11	5383.68	21.09	5383.35	25.48	5383.27	28.23	5383.22
32.59	5383.19	35.36	5383.15	37.11	5383.12	42.5	5383.144	76999	5383.07
48.73	5383.0449	62999	5383.03	51.06	5383.0156	76999	5382.960	34999	5382.84
63.9	5382.7969	53999	5382.7571	03999	5382.74	71.98	5382.74	76.12	5382.7
78.17	5382.6983	59999	5382.61	85.31	5382.5888	01999	5382.5792	43999	5382.5
95.23	5382.46	99.58	5382.31	106.49	5382.19	106.71	5382.19	106.75	5382.19
106.86	5382.19	108.02	5382.18	113.86	5382.14	119.53	5382.19	121.01	5382.2
122.91	5382.22	128.15	5382.26	132.2	5382.29	135.3	5382.28	139.31	5382.23
142.45	5382.2	144.87	5382.19	149.59	5382.26	155.7	5382.36	156.74	5382.39
157.54	5382.42	163.82	5382.79	163.89	5382.79	170.22	5383.16	171.03	5383.2
172.09	5383.23	178.18	5383.38	182.89	5383.42	185.33	5383.43	187.1	5383.43
191.89	5383.49	193.35	5383.51	195.28	5383.51	200.11	5383.56	202.71	5383.56
206.15	5383.5	208.32	5383.45	212.07	5383.39	216.54	5383.48	217.02	5383.5
221.43	5383.61	224.76	5383.74	227.9	5383.85	230.79	5383.96	231.76	5384

Manning's n Values num= 1
 Sta n Val
 0 .035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 63.9 163.82 114.8 114.8 114.8 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Split Flow RS: 21315

INPUT

Description: 21

Station Elevation Data num= 70

CurrentUpstmFloodway.rep									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5383.25	5599976	5383.295	6399999	5383.537	6999997	5383.56	10.58	5383.51
14.83	5383.3	17.86	5383.09	21.97	5382.8227	73001	5382.5329	10001	5382.48
30.07001	5382.49	35.89	5382.4936	23001	5382.4942	29001	5382.4943	37001	5382.46
44.88	5382.4	50.5	5382.1254	51001	5381.92	57.63	5381.8	62.02	5381.6
64.77	5381.48	66.72	5381.3871	90001	5381.1178	35001	5380.82	78.94	5380.79
79.03	5380.79	79.17	5380.79	86.17	5380.5991	15001	5380.45	93.3	5380.42
96.32001	5380.39	100.43	5380.34	103.37	5380.31	107.57	5380.22	113.46	5380.11
114.7	5380.09	115.58	5380.08	120.82	5380.05	121.3	5380.04	121.83	5380.04
128.04	5380	128.98	5380.01	130.2	5380.02	136.13	5380.1	140.71	5380.13
143.28	5380.13	146.6	5380.14	150.42	5380.18	153.38	5380.19	157.57	5380.21
162.99	5380.19	164.72	5380.19	166.05	5380.19	171.86	5380.24	176.48	5380.27
178.72	5380.29	179.01	5380.3	179.38	5380.32	186.16	5380.72	191.39	5381.18
193.3	5381.36	195.78	5381.57	200.45	5381.85	204.07	5381.99	207.6	5382.08
212.17	5382.15	214.75	5382.19	216.74	5382.18	221.89	5382.13	228.16	5382.08

Manning's n Values num= 1
 Sta n Val
 0 .035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 62.02 195.78 268.94 268.94 268.94 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Split Flow RS: 21250

INPUT										
Description: 20										
Station	Elevation	Data	num=	116	Sta	Elev	Sta	Elev	Sta	Elev
0	5378.72	5499878	5378.735	089996	5378.799	440002	5378.8512	32999	5378.89	
15.35999	5378.8919	57001	5378.8923	60999	5378.83	26.81	5378.86	30.16	5378.84	
34.04999	5378.71	37.78	5378.5341	29001	5378.3644	95999	5378.14	48.53	5377.82	
51.94998	5377.5255	76999	5377.1359	76999	5376.8963	01001	5376.92	66.12	5377.19	
70.25	5377.5974	57001	5378.0177	48999	5378.2180	29001	5378.3384	72998	5378.42	
89.37	5378.45	91.97	5378.45	94.47	5378.4999	20999	5378.59	104.17	5378.69	
106.45	5378.68	108.64	5378.67	113.69	5378.62	118.98	5378.54	120.93	5378.46	
122.81	5378.36	128.17	5377.99	133.78	5377.61	135.41	5377.52	136.98	5377.44	
142.65	5377.17	148.58	5376.89	149.89	5376.86	151.15	5376.84	157.13	5376.76	
163.39	5376.68	164.37	5376.69	165.32	5376.72	171.61	5376.89	178.19	5377.07	
178.85	5377.08	179.49	5377.09	186.09	5377.21	192.99	5377.28	193.33	5377.28	
193.66	5377.29	200.57	5377.36	207.8	5377.49	207.81	5377.49	207.83	5377.49	
208.59	5377.51	215.05	5377.69	222	5377.89	222.29	5377.89	222.6	5377.89	
229.53	5377.84	236.17	5377.71	236.77	5377.69	237.4	5377.68	244.01	5377.59	
250.34	5377.41	251.25	5377.4	252.21	5377.39	258.49	5377.33	264.51	5377.22	
265.73	5377.22	267.01	5377.21	272.97	5377.23	278.68	5377.21	280.21	5377.24	
281.81	5377.28	281.95	5377.28	287.45	5377.4	292.85	5377.37	294.69	5377.37	
296.61	5377.37	301.93	5377.41	307.02	5377.38	309.17	5377.37	311.42	5377.35	
316.41	5377.35	321.19	5377.36	323.65	5377.35	326.22	5377.32	330.89	5377.29	
335.37	5377.27	338.13	5377.29	341.02	5377.31	345.37	5377.39	349.54	5377.43	
352.61	5377.44	355.83	5377.48	359.85	5377.55	363.71	5377.59	367.09	5377.62	
370.63	5377.64	374.33	5377.63	377.88	5377.64	381.57	5377.72	385.43	5377.8	
388.81	5377.86	392.05	5377.9	396.05	5377.99	400.23	5378.08	403.29	5378.19	
403.87	5378.2									

Manning's n Values num= 1
 Sta n Val
 0 .035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 222 396.05 340.84 340.84 340.84 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Split Flow RS: 21200

INPUT												
Description: 19												
Station		Elevation		Data	num=	84	Sta	Elev	Sta	Elev	Sta	Elev
	0	5374.78	6799927		5374.795	279999	5374.697	119995	5374.66	12.34	5374.51	
15.82001	5374.3122	94998		5373.85	24	5373.78	24.53	5373.77	26.06	5373.74		
	33.23	5373.59	35.67	5373.5540	60999	5373.4541	92999	5373.4247	32999	5373.31		
	50.64	5373.11	58.28	5372.6358	98999	5372.58	59.34	5372.54	60.37	5372.44		
68.04999	5371.670	65999		5371.32	75.95	5370.93	76.75	5370.8782	31999	5370.45		
85.45999	5370.61	93.62		5371.07	93.98	5371.0994	15999	5371.194	68999	5371.16		
	102.87	5371.99	105.64	5372.29	111.28	5372.55	111.57	5372.57	117.31	5372.82		
	120.27	5372.84	128.95	5372.89	128.97	5372.89	128.98	5372.89	129	5372.89		
	137.68	5372.52	140.63	5372.36	146.39	5371.89	146.62	5371.88	152.3	5371.46		
	155.09	5371.39	163.32	5371.39	163.8	5371.4	163.96	5371.4	164.17	5371.41		
	164.29	5371.42	172.5	5371.84	175.62	5372.04	181.21	5372.47	181.95	5372.52		
	187.28	5372.91	189.91	5373.1	197.64	5373.53	198.61	5373.58	198.95	5373.59		
	199.62	5373.61	207.32	5373.85	210.61	5373.91	216.02	5374.02	217.29	5374.05		
	222.27	5374.15	224.73	5374.14	231.95	5374.17	233.43	5374.19	233.94	5374.21		
	234.96	5374.22	242.14	5374.35	245.6	5374.41	250.84	5374.5	252.62	5374.51		
	257.26	5374.56	259.54	5374.57	266.27	5374.59	268.25	5374.59	268.92	5374.59		

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270.29 5374.6 276.95 5374.66 280.59 5374.69 284.68 5374.71
 CurrentUpstmFloodway.rep
 Manning's n Values num= 1
 Sta n Val
 0 .035
 Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 128.95 189.91 276.3 276.3 276.3 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Split Flow RS: 21194.9

INPUT
 Description: 18
 Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5366.1440002	5365.995	089996	5365.998	049988	5365.9512	54001	5365.94	
18.09	5365.96	20	5365.9921	54001	5366.0127	44998	5366.0834	73999	5366.18
34.89999	5366.1835	04001	5366.1836	35001	5366.1742	35999	5366.1148	54001	5366.14
49.81	5366.11	51.38	5366.0757	26999	5365.94	62.03	5365.8	64.72	5365.73
68.03	5365.6572	16998	5365.53	75.53	5365.41	79.63	5365.2883	54999	5365.16
84.67999	5365.1287	07999	5365.05	89.03	5364.9894	53999	5364.71	101.33	5364.32
101.99	5364.3	102.52	5364.28	107.62	5364.06	109.44	5363.98	116.02	5363.7
116.9	5363.72	117.98	5363.75	124.35	5363.94	129.52	5364.16	131.81	5364.37
134.63	5364.61	139.26	5365.01	143.01	5365.34	146.71	5365.62	151.28	5365.94
154.17	5366.13	156.51	5366.29	161.62	5366.69	167.93	5367.05	169.08	5367.1
170	5367.13	176.53	5367.29	178.89	5367.34	183.5	5367.43	183.98	5367.43
184.58	5367.45	191.44	5367.57	197	5367.64	198.89	5367.67	201.23	5367.71
206.35	5367.82	210.49	5367.86	213.8	5367.87	217.88	5367.86	221.25	5368.01
223.99	5368.16	228.71	5368.43	229.21	5368.46	232.05	5368.6	236.17	5368.8
241.71	5369.03	242.02	5369.04	247.51	5369.27	251.38	5369.38	255.76	5369.48
258.86	5369.56	261.05	5369.59	269.49	5369.7	270.21	5369.71	270.71	5369.71
273.6	5369.78	280.38	5369.98	281.56	5370.03	283.23	5370.05	290.04	5370.14
292.9	5370.18	296.97	5370.18	299.71	5370.19	304.25	5370.18	309.38	5370.27
310.7	5370.3	315.6	5370.38	319.04	5370.46	324.44	5370.58	326.95	5370.63
328.71	5370.64	338.15	5370.69						

Manning's n Values num= 1
 Sta n Val
 0 .035
 Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 49.81 154.17 200 200 200 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Split Flow RS: 21001.7

INPUT
 Description: 17
 Station Elevation Data num= 114

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5366.47	3.02002	5366.113	820007	5366.01	4.25	5365.965	660004	5365.72
11.82	5364.6916	52002	5363.88	19.81	5363.33	25.97	5362.28	27.81	5361.96
28.79001	5361.8232	02002	5361.5535	80002	5361.17	41.06	5360.9243	80002	5360.94
48.93002	5361.0551	79001	5361.1253	32001	5361.1758	37003	5361.3859	79001	5361.44
65.59003	5361.68	67.78	5361.77	71.88	5361.89	75.78	5362.0177	86002	5362.07
83.77002	5362.19	84.72	5362.21	87.22	5362.27	90.13	5362.3391	77002	5362.35
94.84003	5362.3599	76001	5362.38	102.4	5362.39	107.76	5362.5	111.07	5362.57
114.67	5362.65	115.76	5362.7	117.8	5362.79	123.75	5363.1	126.93	5363.25
131.75	5363.43	137.42	5363.61	139.2	5363.67	139.74	5363.69	140.75	5363.71
147.74	5363.94	151.47	5364.03	155.73	5364.1	163.71	5364.19	163.73	5364.19
163.74	5364.19	163.78	5364.19	171.72	5364.22	176.01	5364.24	179.72	5364.27
186.66	5364.29	187.71	5364.3	188.27	5364.3	190.13	5364.3	195.71	5364.29
200.54	5364.31	203.7	5364.29	209.62	5364.24	211.7	5364.21	212.81	5364.2
216.48	5364.16	219	5364.13	220.41	5364.1	224.72	5364.02	227.11	5363.94
235.47	5363.71	236.08	5363.69	236.26	5363.69	236.58	5363.68	245.05	5363.45
247.8	5363.36	252.75	5363.22	254.02	5363.19	259.34	5363.01	262.99	5362.76
268.91	5362.43	270.88	5362.3	271.97	5362.27	275.77	5362.16	280.94	5362.01
282.42	5361.97	285.08	5362.13	289.91	5362.38	293.96	5362.63	298.88	5362.92
301.25	5363.05	305.5	5363.29	307.85	5363.38	316.07	5363.66	316.82	5363.68
317.04	5363.68	317.42	5363.71	325.79	5364.17	328.58	5364.33	333.59	5364.52
334.76	5364.56	340.12	5364.77	343.73	5364.78	349.76	5364.74	351.66	5364.74
352.71	5364.75	356.38	5364.73	361.68	5364.74	363.19	5364.74	365.93	5364.85
370.65	5365.05	374.73	5365.21	379.62	5365.48	379.95	5365.5		

Manning's n Values num= 1
 Sta n Val
 0 .035
 Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 219 325.79 130 130 130 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Reach - 1 Lower RS: 20573.7

INPUT

Description: Cross Section Boca Negra Arroyo 22.75 - H

Station Elevation Data		num=		112											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4882.6	5366.22	4883.94	5366.17	4888.67	5365.9	4896.32	5365.5	4896.46	5365.49						
4896.54	5365.49	4896.9	5365.48	4904.24	5365.32	4909.14	5365.28	4912.03	5365.19						
4916.71	5365.15	4919.82	5365.08	4921.74	5365.04	4927.6	5364.7	4929.87	5364.58						
4934.33	5364.35	4935.39	5364.27	4937.09	5364.17	4943.17	5363.84	4946.93	5363.73						
4950.96	5363.5	4957.48	5363.17	4958.75	5363.09	4959.53	5363.04	4962.85	5362.75						
4966.53	5362.43	4972.13	5361.95	4974.32	5361.82	4977.87	5361.59	4981.89	5361.27						
4982.32	5361.22	4984.47	5361.02	4985.75	5360.93	4990.78	5360.6	4994.9	5360.33						
4995.95	5360.27	4997.71	5360.23	5004.05	5360.05	5007.42	5359.99	5013.1	5359.99						
5013.2	5359.99	5014.7	5359.99	5018.9	5359.99	5022.35	5360.05	5028.49	5360.16						
5030.38	5360.19	5031.5	5360.21	5035.9	5360.33	5040.65	5360.47	5041.85	5360.5						
5043.88	5360.54	5049.79	5360.66	5053.33	5360.73	5058.94	5360.81	5059.27	5360.82						
5064.8	5360.92	5068.09	5360.92	5074.66	5360.95	5076.28	5360.96	5077.24	5360.95						
5081.02	5360.91	5086.39	5360.84	5087.75	5360.82	5090.05	5360.78	5095.54	5360.7						
5099.23	5360.63	5104.69	5360.74	5105.44	5360.74	5110.71	5360.82	5113.84	5360.95						
5120.83	5361.24	5122.18	5361.3	5122.99	5361.31	5126.15	5361.43	5132.13	5361.63						
5133.66	5361.69	5136.22	5361.69	5141.28	5361.66	5145.13	5361.67	5147.97	5361.65						
5149.91	5361.66	5155.18	5361.72	5157.14	5361.71	5159.23	5361.72	5164.36	5361.74						
5169.16	5361.79	5171.59	5361.79	5174.19	5361.83	5178.81	5361.89	5183.14	5361.95						
5186.04	5362	5189.15	5362.08	5193.27	5362.22	5197.11	5362.35	5200.49	5362.51						
5204.1	5362.69	5207.72	5362.89	5211.09	5363.08	5214.94	5363.26	5219.06	5363.46						
5222.17	5363.57	5225.07	5363.67	5229.39	5363.74	5234.02	5363.85	5236.62	5363.86						
5239.04	5363.89	5243.84	5363.94	5248.98	5363.96	5251.07	5363.95	5253.02	5363.96						
5258.29	5363.95	5263.23	5363.96												

Manning's n Values		num=		3	
Sta	n Val	Sta	n Val	Sta	n Val
4882.6	.035	4990.78	.035	5049.79	.035

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	4990.78	5049.79		183.1	183.1		.1	.3

CROSS SECTION

RIVER: BocaNegraArroyo

REACH: Reach - 1 Lower RS: 20390.6

INPUT

Description: Cross Section Boca Negra Arroyo 22.5 - G

Station Elevation Data		num=		81											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4871.5	5362.11	4873.57	5362.12	4880.55	5362.19	4880.81	5362.18	4881.09	5362.18						
4888.06	5361.87	4894.79	5361.8	4895.3	5361.78	4895.84	5361.79	4902.55	5361.49						
4909.03	5361.25	4909.79	5361.2	4910.59	5361.16	4917.04	5360.71	4923.27	5360.29						
4924.29	5360.19	4925.33	5360.12	4931.53	5359.56	4937.52	5359.19	4938.78	5359.12						
4940.08	5359.05	4946.02	5358.89	4950.87	5358.82	4952.52	5358.82	4954.15	5358.79						
4959.26	5358.75	4960.57	5358.74	4966.36	5358.69	4968.61	5358.72	4972.96	5358.8						
4976.65	5358.87	4978.56	5358.91	4984.59	5358.99	4984.69	5358.99	4990.77	5359.06						
4992.74	5359.07	4996.53	5359.04	5000.78	5359.01	5002.98	5358.99	5004.29	5358.97						
5008.82	5358.92	5009.91	5358.9	5015.19	5358.81	5016.86	5358.78	5020.1	5358.71						
5024.91	5358.65	5027.39	5358.59	5032.95	5358.43	5035.23	5358.35	5039.6	5358.21						
5040.99	5358.19	5043.67	5358.19	5049.03	5358.25	5051.81	5358.29	5057.07	5358.51						
5060.56	5358.68	5064.02	5358.83	5065.12	5358.88	5067.24	5358.97	5073.16	5359.24						
5076.23	5359.42	5076.96	5359.47	5080.72	5359.79	5084.22	5360.08	5087.86	5360.33						
5092.83	5360.53	5095	5360.59	5096.58	5360.59	5102.13	5360.43	5106.79	5360.33						
5108.94	5360.28	5109.27	5360.29	5109.73	5360.3	5116.41	5360.63	5121.29	5360.97						
5123.54	5361.1	5126.62	5361.28	5130.68	5361.38	5133.65	5361.43	5137.82	5361.44						
5143.07	5361.49														

Manning's n Values		num=		3	
Sta	n Val	Sta	n Val	Sta	n Val
4871.5	.035	5020.1	.035	5060.56	.035

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	5020.1	5060.56		620	620		.1	.3

CROSS SECTION

RIVER: BocaNegraArroyo

REACH: Reach - 1 Lower RS: 19770.6

INPUT

Description: Cross Section Boca Negra Arroyo 22.0 - F

Station Elevation Data		num=		86											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4836.3	5355.13	4839.83	5355.07	4841.82	5355.03	4846.53	5354.94	4852.04	5354.84						
4852.26	5354.84	4857.78	5354.74	4862.7	5354.65	4864.24	5354.63	4869.04	5354.55						
4873.14	5354.37	4876.45	5354.23	4880.3	5354.06	4883.59	5353.91	4888.66	5353.64						
4891.55	5353.51	4894.03	5353.41	4900.86	5353.1	4902.81	5353.02	4904.47	5352.92						
4913.07	5352.46	4914.06	5352.4	4914.91	5352.35	4925.28	5351.69	4925.32	5351.69						
4925.36	5351.69	4925.82	5351.68	4935.8	5351.42	4936.58	5351.4	4937.49	5351.39						
4946.24	5351.4	4947.83	5351.39	4949.69	5351.4	4956.68	5351.4	4959.09	5351.41						
4961.9	5351.44	4967.13	5351.49	4970.34	5351.52	4974.11	5351.47	4977.57	5351.44						

CurrentUpstmFloodway.rep

4981.6	5351.39	4986.31	5351.12	4988.01	5351.01	4992.86	5350.74	4998.46	5350.52
4998.52	5350.51	5000.82	5350.42	5002.71	5350.46	5005.28	5350.49	5007.48	5350.54
5012.75	5350.7	5014.55	5350.74	5016.08	5350.76	5022.79	5350.89	5023.82	5350.91
5024.69	5350.94	5032.84	5351.28	5033.08	5351.29	5033.3	5351.3	5036.05	5351.39
5041.9	5351.56	5042.35	5351.58	5042.88	5351.6	5050.51	5351.92	5051.62	5351.98
5052.92	5352.02	5059.12	5352.15	5060.89	5352.21	5062.97	5352.25	5067.72	5352.35
5070.16	5352.39	5073.01	5352.45	5076.33	5352.52	5079.43	5352.59	5083.05	5352.75
5084.94	5352.81	5088.7	5352.98	5093.1	5353.36	5093.54	5353.4	5097.97	5353.79
5102.15	5354.21	5103.14	5354.31	5107.24	5354.73	5110.76	5354.98	5113.18	5355.12
5113.51	5355.14								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
4836.3	.035	4961.9	.035	5032.84	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

4961.9	5032.84	480	480	480	.1	.3
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CROSS SECTION

RIVER: BocaNegraArroyo
REACH: Reach - 1 Lower RS: 19290.6

INPUT

Description: 13

Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5348.81	64.3	5345.55	106.99	5344.59	208.45	5341.52	212.88	5341.52
219.55	5341.43	220.08	5341.4	224.79	5341.09	227.42	5341	231.98	5340.46
235.53	5340	240.35	5339.98	251.78	5339.91	253.38	5339.92	267.29	5340
267.99	5340.13	274.23	5341	282.53	5341.78	284.17	5342	286.98	5342.15
287.4	5342.17	297.64	5343	301.86	5343.12	301.95	5343.12	312.36	5343.6
318.87	5344	319.07	5344	319.86	5344	323.45	5344.08	342.32	5345.73
346.74	5345.87	350.63	5345.99	500	5348.65				

Manning's n Values num= 1

Sta	n Val
0	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

208.45	282.53	115	115	115	.3	.5
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CULVERT

RIVER: BocaNegraArroyo
REACH: Reach - 1 Lower RS: 19200

INPUT

Description: Scenic Culverts

Distance from Upstream XS = 50

Deck/Roadway Width = 56

Weir Coefficient = 2.6

Upstream Deck/Roadway Coordinates

num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
-176	5351.8		174	5347.29		251	5346.79	
374	5348.06		470.4	5350.06		491	5351	

Upstream Bridge Cross Section Data

Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5348.81	64.3	5345.55	106.99	5344.59	208.45	5341.52	212.88	5341.52
219.55	5341.43	220.08	5341.4	224.79	5341.09	227.42	5341	231.98	5340.46
235.53	5340	240.35	5339.98	251.78	5339.91	253.38	5339.92	267.29	5340
267.99	5340.13	274.23	5341	282.53	5341.78	284.17	5342	286.98	5342.15
287.4	5342.17	297.64	5343	301.86	5343.12	301.95	5343.12	312.36	5343.6
318.87	5344	319.07	5344	319.86	5344	323.45	5344.08	342.32	5345.73
346.74	5345.87	350.63	5345.99	500	5348.65				

Manning's n Values num= 1

Sta	n Val
0	.016

Bank Sta: Left Right Coeff Contr. Expan.

208.45	282.53	.3	.5
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Downstream Deck/Roadway Coordinates

num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
-176	5351.8		174	5347.29		251	5346.79	
374	5348.06		470.4	5350.06		491	5351	

Downstream Bridge Cross Section Data

Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-100	5348.5	33.06	5345.58	64.3	5345.55	106.99	5344.59	208.45	5341.52
212.88	5341.52	219.55	5341.43	220.08	5341.4	224.79	5341.09	227.42	5341
231.98	5340.46	235.53	5340	240.35	5339.98	251.78	5339.91	253.38	5339.92
267.29	5340	267.99	5340.13	274.23	5341	282.53	5341.78	284.17	5342

CurrentUpstmFloodway.rep
 286.98 5342.15 287.4 5342.17 297.64 5343 301.86 5343.12 301.95 5343.12
 312.36 5343.6 318.87 5344 319.07 5344 319.86 5344 323.45 5344.08
 342.32 5345.73 346.74 5345.87 350.63 5345.99 400 5348.5

Manning's n Values num= 1
 Sta n Val
 -100 .016

Bank Sta: Left Right Coeff Contr. Expan.
 208.45 282.53 .1 .3

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
 Downstream Embankment side slope = 0 horiz. to 1.0 vertical
 Maximum allowable submergence for weir flow = .98
 Elevation at which weir flow begins =
 Energy head used in spillway design =
 Spillway height used in design =
 Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name Shape Rise Span
 Culvert #1 Circular 5
 FHWA Chart # 1 - Concrete Pipe Culvert
 FHWA Scale # 2 - Groove end entrance with headwall
 Solution Criteria = Highest U.S. EG
 Culvert Upstrm Dist Length Top n Bottom n Depth Blocked Entrance Loss Coef Exit Loss Coef
 50 56 .013 .013 0 .2 1

Number of Barrels = 4
 Upstream Elevation = 5340
 Centerline Stations

Sta. Sta. Sta. Sta.
 235 245 255 265

Downstream Elevation = 5339.7
 Centerline Stations

Sta. Sta. Sta. Sta.
 235 245 255 265

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Reach - 1 Lower RS: 19175.6

INPUT

Description: 12
 Station Elevation Data num= 34
 Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev
 0 5345.96 33.06 5345.5864.29999 5345.55 106.99 5344.59 208.45 5341.52
 212.88 5341.52 219.55 5341.43 220.08 5341.4 224.79 5341.09 227.42 5341
 231.98 5340.46 235.53 5340 240.35 5339.98 251.78 5339.91 253.38 5339.92
 267.29 5340 267.99 5340.13 274.23 5341 282.53 5341.78 284.17 5342
 286.98 5342.15 287.4 5342.17 297.64 5343 301.86 5343.12 301.95 5343.12
 312.36 5343.6 318.87 5344 319.07 5344 319.86 5344 323.45 5344.08
 342.32 5345.73 346.74 5345.87 350.63 5345.99 400 5343.61

Manning's n Values num= 1
 Sta n Val
 0 .035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 208.45 282.53 50.1 50.1 50.1 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Reach - 1 Lower RS: 19125.5

INPUT

Description: Dam Access Road 11
 Station Elevation Data num= 12
 Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev
 -20.92 5344.13 -5.5 5343.28 8.12 5342.2 35.66 5340.5 52.7 5339.7
 62.7 5339.5 72.7 5339.7 89.7 5340.5 94.7 5340.75 123.44 5342.2
 145.9 5343.31 195.9 5344.83

Manning's n Values num= 3
 Sta n Val Sta n Val
 -20.92 .016 35.66 .013 94.7 .016

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 8.12 123.44 70.95 70.95 70.95 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
 REACH: Reach - 1 Lower RS: 19054.6

INPUT

CurrentUpstmFloodway.rep

Description: 10

Station	Elevation	Data	num=	81							
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5345.39	20.88	5345.31	67.91	5344.08	76.16	5343.88	9.01	5344.82	129.09	5342.74
91.64	5340.01	5344.92	35999	5344.94	07999	5343.94	123.61	5343	129.09	5342.74	
156.79	5342	159.07	5341.66	163.51	5341	165.57	5340.69	170.22	5340		
171.22	5339.8	175.26	5339	176.6	5338.67	183.95	5338.26	186.39	5338.11		
196.19	5338.25	198.61	5338.27	201.46	5338.21	204.28	5338.02	205.25	5338.01		
205.36	5338	205.77	5337.82	207.66	5337	209.38	5336.12	209.61	5336		
211.36	5335.1	220.29	5335.09	220.45	5335.09	221.37	5335.09	223.15	5336		
223.35	5336.1	225.12	5337	226.59	5337.64	227.44	5338	228.2	5338.38		
229.46	5339	230.01	5339.03	230.9	5339.05	231.41	5339.05	231.69	5339.05		
233.21	5339.13	234.16	5339.1	239.7	5339.26	240.93	5339.28	242.58	5339.35		
243.83	5339.42	243.84	5339.42	245.64	5339.49	247.38	5339.61	252.9	5340		
265.77	5340.87	267.16	5341	272.35	5341.51	276.53	5342	281.45	5342.56		
283.53	5342.8	284.87	5343	285.07	5343.03	285.93	5343.12	286.23	5343.13		
297.83	5344	298.23	5344	298.39	5344	298.42	5344	298.83	5344		
298.91	5344	299.13	5344	299.31	5344	308.85	5344.03	316.5	5344.04		
338.87	5344.24	366.69	5344.4	382.08	5344.5	387.83	5344.48	394.15	5344.45		
400	5344.5										

Manning's n Values

num= 1

Sta n Val
0 .035

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	183.95	228.2		50.98	50.98	50.98		.1	.3

CROSS SECTION

RIVER: BocaNegraArroyo

REACH: Reach - 1 Lower RS: 19003.57

INPUT

Description: 9

Station	Elevation	Data	num=	158							
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5345.06	16.92	5345.20	54001	5345.22	60999	5345.29	14999	5344.82		
29.17	5344.82	63.16	5344	67.31	5343.52	83.04	5343.85	001	5342.86		
88.59	5342	91.34	5341.59	95.31	5341	97.63	5340.65	102.03	5340		
103.21	5339.76	107.06	5339	108.43	5338.73	112.1	5338	116.81	5337.12		
117.45	5337	118.07	5336.87	122.18	5336	124.93	5335.45	127.27	5335		
134.93	5334.67	139.13	5334.55	139.52	5334.53	140.24	5334.51	141.05	5334.48		
141.71	5334.45	142.33	5334.44	142.98	5334.42	143.89	5334.42	144.81	5334.42		
147.8	5334.37	151.56	5334.27	153.33	5334.24	155.72	5334.18	158.53	5334.11		
161.01	5334.04	162.54	5334.01	163.09	5334	163.39	5334	164.53	5333.7		
165.13	5333.58	167.54	5333.11	167.88	5333.04	168.03	5333	169.25	5332.76		
170.64	5332.57	175.33	5332	179.91	5332	185.56	5332	188.03	5332.03		
197.88	5332.21	198.19	5332.22	206.03	5332.13	207.66	5332.24	208.49	5332.25		
210.85	5332	213.6	5331.99	213.83	5331.99	216.4	5331.98	219.51	5331.99		
220.17	5331.99	222.85	5332	222.87	5332	222.89	5332	223.07	5332.01		
223.97	5332.08	224.28	5332.1	228.83	5332.45	233.31	5332.78	235.6	5333		
239.35	5333.58	242.07	5334	244.04	5334.3	246.93	5334.7	249.17	5335		
253.16	5335.54	254.56	5336	257.2	5336.88	257.54	5337	258.11	5337.19		
259.98	5338	260.42	5338.58	260.74	5339	262.19	5339	262.92	5339		
263.87	5339.07	265.26	5339	269.3	5339	270.14	5339	270.55	5339		
271.7	5339	273.47	5339.26	275.09	5339.86	275.78	5339.92	277.3	5339.94		
277.86	5339.94	278.15	5339.94	278.88	5339.94	280.47	5339.93	280.73	5339.93		
280.92	5339.93	282.27	5339.94	282.89	5339.96	282.94	5339.96	283.49	5340		
283.5	5340.44	283.52	5341	283.53	5341.45	283.55	5342	283.56	5342.46		
283.58	5343	283.91	5343.55	286.6	5343.81	286.7	5343.85	287.49	5343.94		
288.04	5344	289.01	5344.05	291.58	5344.52	292.65	5344.68	294.51	5344.99		
294.59	5345	295.97	5345	296.6	5345	297.86	5345	298.09	5345		
300.92	5344.37	302.52	5344	305.14	5343.86	305.15	5343.86	307.59	5343.76		
309.62	5343.71	312.64	5343.78	312.78	5343.78	312.9	5343.78	313.01	5343.78		
320.13	5344	323.56	5344.15	326.8	5344.14	330.15	5344.12	337.01	5344.04		
339.57	5344	339.74	5344	342.46	5343.92	343.52	5343.92	354.06	5343.72		
357.77	5343.73	366.48	5343.61	370.63	5343.63	378.13	5343.55	384.76	5343.43		
390.49	5343.32	394.58	5343.27	400	5343.24						

Manning's n Values

num= 1

Sta n Val
0 .035

Bank Sta:	Left	Right	Coeff	Contr.	Expan.
	108.43	260.42		.1	.3

SUMMARY OF MANNING'S N VALUES

River: BocaNegraArroyo

Reach	River Sta.	n1	n2	n3
Reach - 1 Upper	25374.6	.035	.035	.035
Reach - 1 Upper	24989.3	.035	.035	.035
Reach - 1 Upper	24106.4	.035	.035	.035
Reach - 1 Upper	23000.0	.035	.035	.035
Reach - 1 Upper	22241.1	.035	.035	.035

			Current	Upstm	Floodway.rep
Reach - 1 Mid	22027.5	.035	.035	.035	
Reach - 1 Mid	21845.5	.035	.035	.035	
Reach - 1 Mid	21840	.035			
Reach - 1 Mid	21830	.035			
Reach - 1 Mid	21820	.035			
Reach - 1 Mid	21335.5	.035	.035	.035	
Reach - 1 Mid	21001.7	.035	.035	.035	
Split Flow	22027.5	.035	.035		
Split Flow	22000	.035			
Split Flow	21840	.035	.035		
Split Flow	21835	.035			
Split Flow	21800	.035			
Split Flow	21770.8	.035			
Split Flow	21520.8	.035			
Split Flow	21335.5	.035	.035	.035	
Split Flow	21325	.035			
Split Flow	21315	.035			
Split Flow	21250	.035			
Split Flow	21200	.035			
Split Flow	21194.9	.035			
Split Flow	21001.7	.035			
Reach - 1 Lower	20573.7	.035	.035	.035	
Reach - 1 Lower	20390.6	.035	.035	.035	
Reach - 1 Lower	19770.6	.035	.035	.035	
Reach - 1 Lower	19290.6	.035			
Reach - 1 Lower	19200	Culvert			
Reach - 1 Lower	19175.6	.035			
Reach - 1 Lower	19125.5	.016	.013	.016	
Reach - 1 Lower	19054.6	.035			
Reach - 1 Lower	19003.57	.035			

SUMMARY OF REACH LENGTHS

River: BocaNegraArroyo

Reach	River Sta.	Left	Channel	Right
Reach - 1 Upper	25374.6	385.3	385.3	385.3
Reach - 1 Upper	24989.3	882.9	882.9	882.9
Reach - 1 Upper	24106.4	1106.4	1106.4	1106.4
Reach - 1 Upper	23000.0	758.9	758.9	758.9
Reach - 1 Upper	22241.1	0	0	0
Reach - 1 Mid	22027.5	182	182	182
Reach - 1 Mid	21845.5	290.81	290.81	290.81
Reach - 1 Mid	21840	71.4	71.4	71.4
Reach - 1 Mid	21830	115.95	115.95	115.95
Reach - 1 Mid	21820	45.3	45.3	45.3
Reach - 1 Mid	21335.5	333.8	333.8	333.8
Reach - 1 Mid	21001.7	0	0	0
Split Flow	22027.5	75.7	75.7	75.7
Split Flow	22000	77.63	77.63	77.63
Split Flow	21840	54.1	54.1	54.1
Split Flow	21835	135.23	135.23	135.23
Split Flow	21800	68.96	68.96	68.96
Split Flow	21770.8	95.48	95.48	95.48
Split Flow	21520.8	115.6	115.6	115.6
Split Flow	21335.5	268.96	268.96	268.96
Split Flow	21325	114.8	114.8	114.8
Split Flow	21315	268.94	268.94	268.94
Split Flow	21250	340.84	340.84	340.84
Split Flow	21200	276.3	276.3	276.3
Split Flow	21194.9	200	200	200
Split Flow	21001.7	130	130	130
Reach - 1 Lower	20573.7	183.1	183.1	183.1
Reach - 1 Lower	20390.6	620	620	620
Reach - 1 Lower	19770.6	480	480	480
Reach - 1 Lower	19290.6	115	115	115
Reach - 1 Lower	19200	Culvert		
Reach - 1 Lower	19175.6	50.1	50.1	50.1
Reach - 1 Lower	19125.5	70.95	70.95	70.95
Reach - 1 Lower	19054.6	50.98	50.98	50.98
Reach - 1 Lower	19003.57			

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS

River: BocaNegraArroyo

Reach	River Sta.	Contr.	Expan.
Reach - 1 Upper	25374.6	.1	.3
Reach - 1 Upper	24989.3	.1	.3
Reach - 1 Upper	24106.4	.1	.3
Reach - 1 Upper	23000.0	.1	.3
Reach - 1 Upper	22241.1	.1	.3
Reach - 1 Mid	22027.5	.1	.3

			CurrentUpstmFloodway.rep
Reach - 1 Mid	21845.5	.1	.3
Reach - 1 Mid	21840	.1	.3
Reach - 1 Mid	21830	.1	.3
Reach - 1 Mid	21820	.1	.3
Reach - 1 Mid	21335.5	.1	.3
Reach - 1 Mid	21001.7	.1	.3
Split Flow	22027.5	.1	.3
Split Flow	22000	.1	.3
Split Flow	21840	.1	.3
Split Flow	21835	.1	.3
Split Flow	21800	.1	.3
Split Flow	21770.8	.1	.3
Split Flow	21520.8	.1	.3
Split Flow	21335.5	.1	.3
Split Flow	21325	.1	.3
Split Flow	21315	.1	.3
Split Flow	21250	.1	.3
Split Flow	21200	.1	.3
Split Flow	21194.9	.1	.3
Split Flow	21001.7	.1	.3
Reach - 1 Lower	20573.7	.1	.3
Reach - 1 Lower	20390.6	.1	.3
Reach - 1 Lower	19770.6	.1	.3
Reach - 1 Lower	19290.6	.3	.5
Reach - 1 Lower	19200	Culvert	
Reach - 1 Lower	19175.6	.1	.3
Reach - 1 Lower	19125.5	.1	.3
Reach - 1 Lower	19054.6	.1	.3
Reach - 1 Lower	19003.57	.1	.3