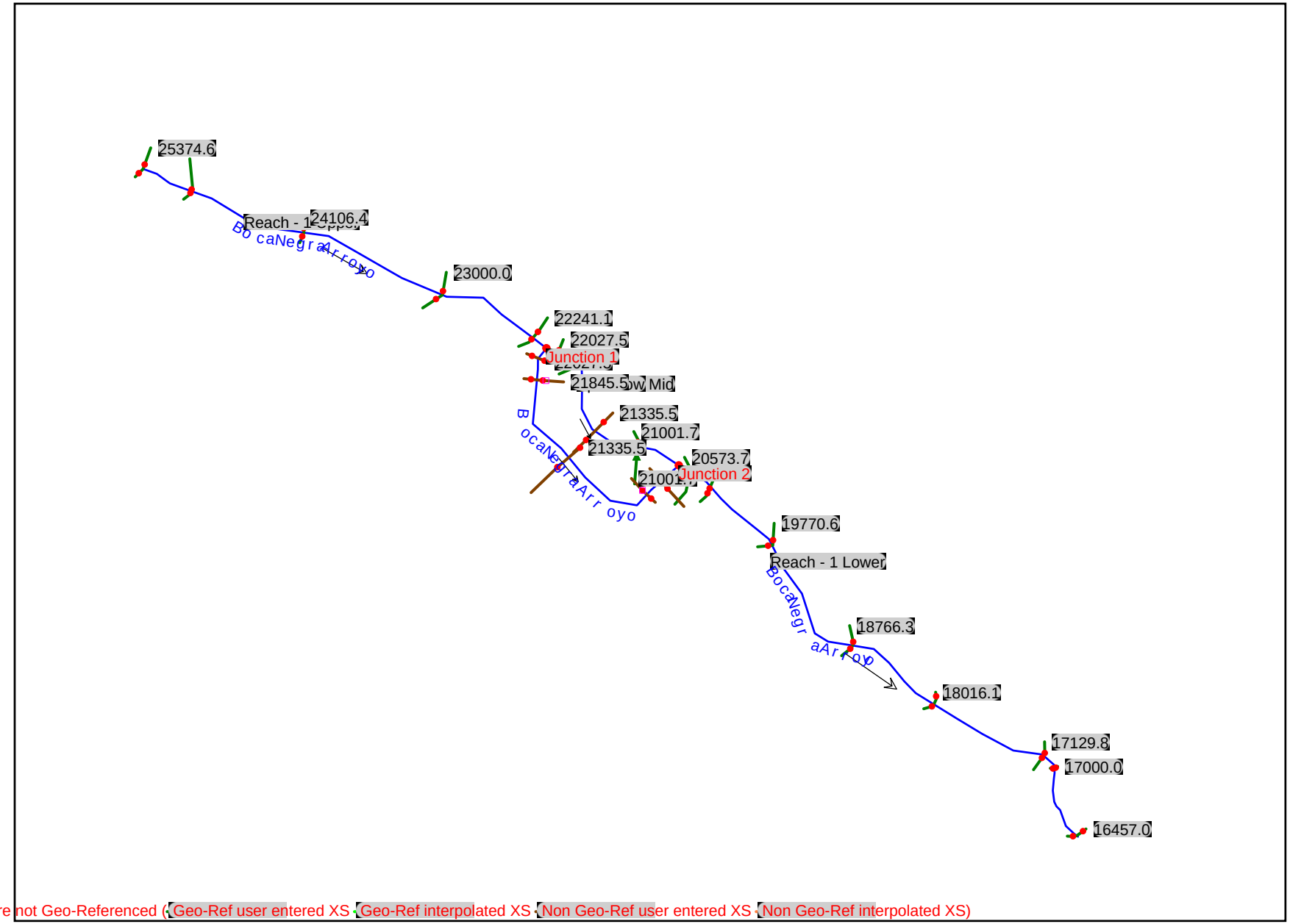
Effective Floodway Model

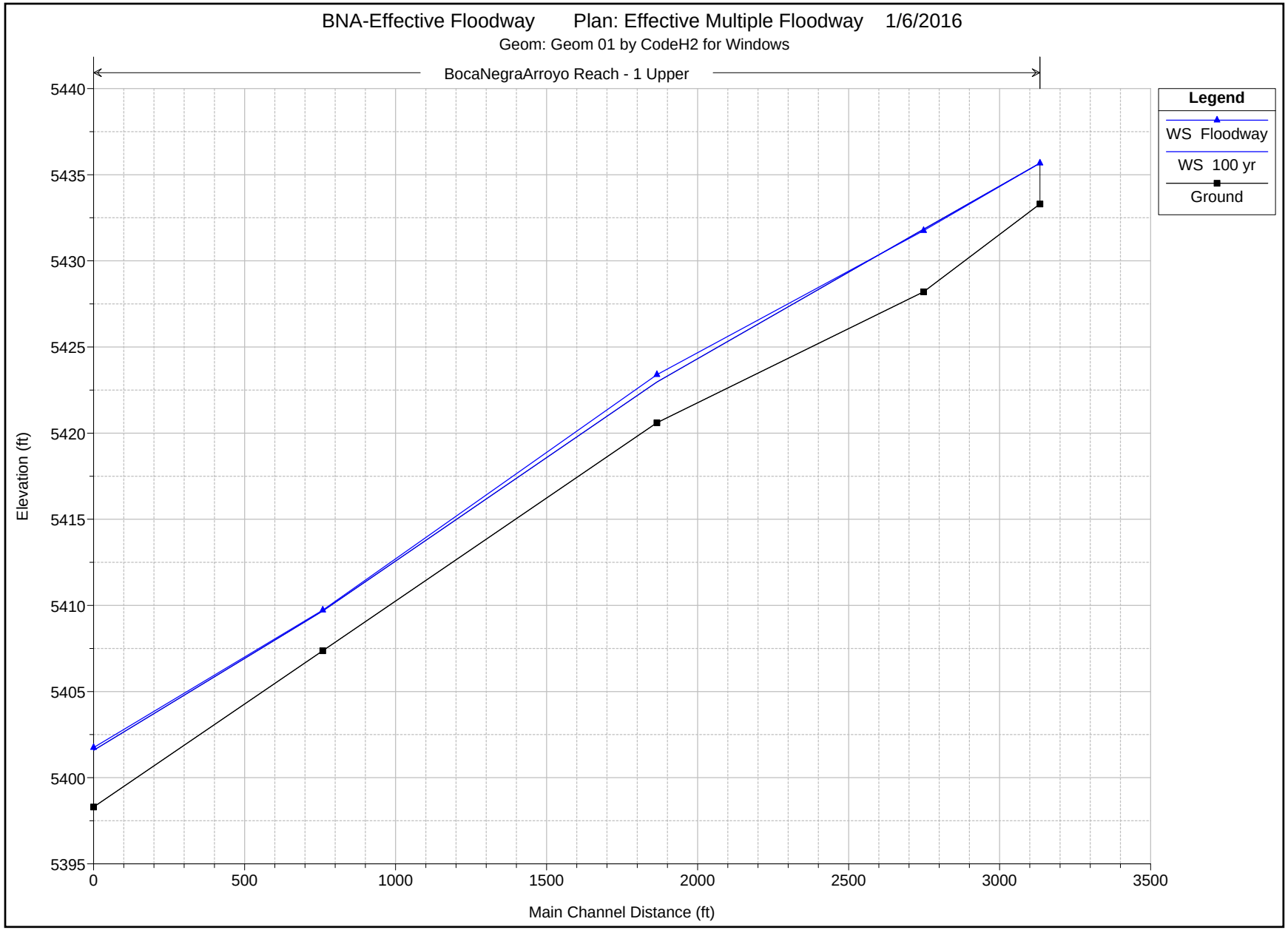
Plan
Profile
Summary
Cross Sections
Input/output Report

Hydraulics Model – HEC-RAS Analysis (CD)
FEMA Duplicate Effective Floodway Files

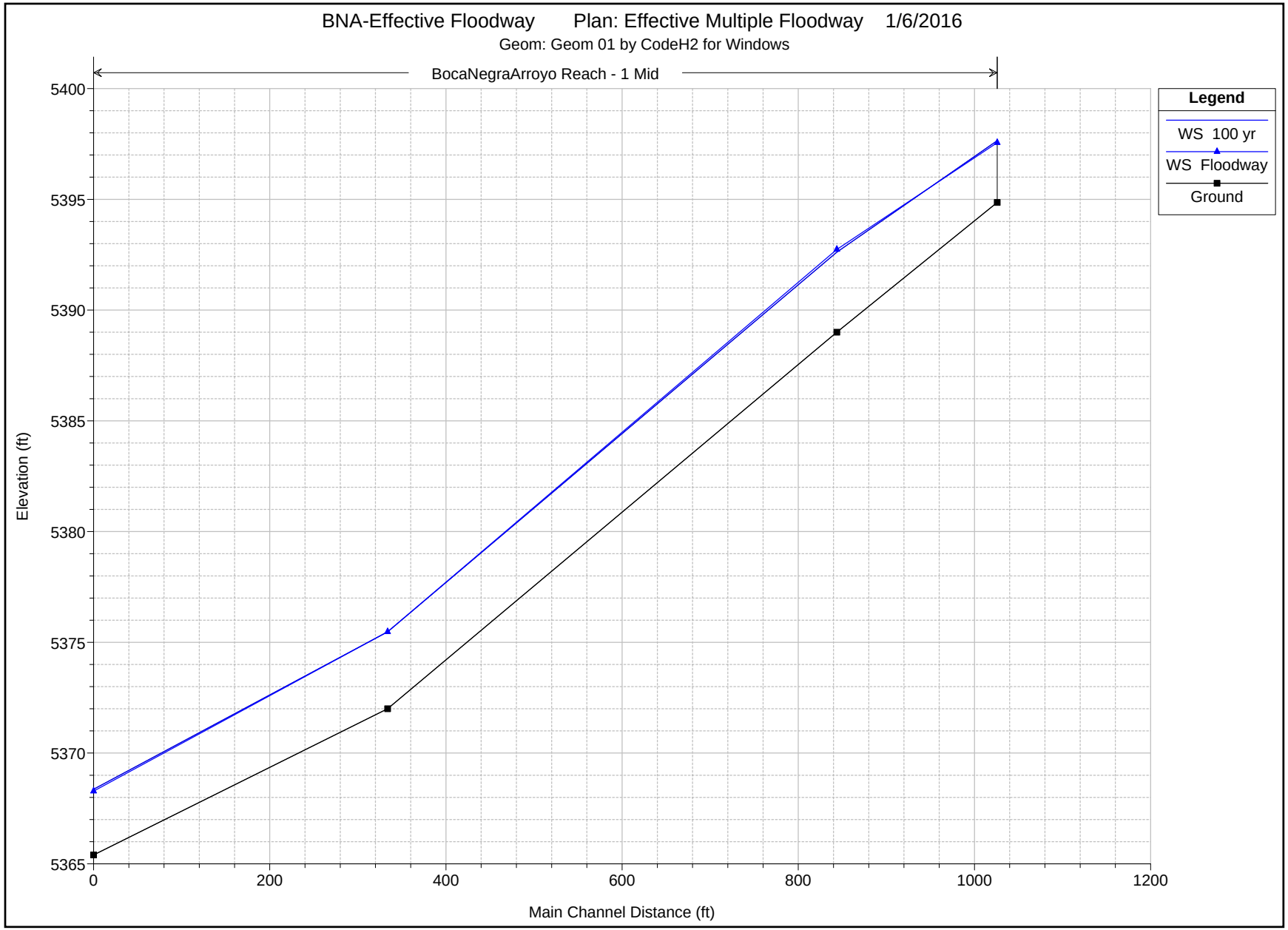
i.Project:	BNA- Eff Floodway	BNA-EffFloodway.prj
ii.Plan:	Effective Multiple Floodway	BNA-EffFloodway.p09
iii.Geometry:	Geom 01 by CodeH2 for windows	BNA-EffFloodway.g01
iv.Flow:	Updated 2014 - Effective	BNA-EffFloodway.f06

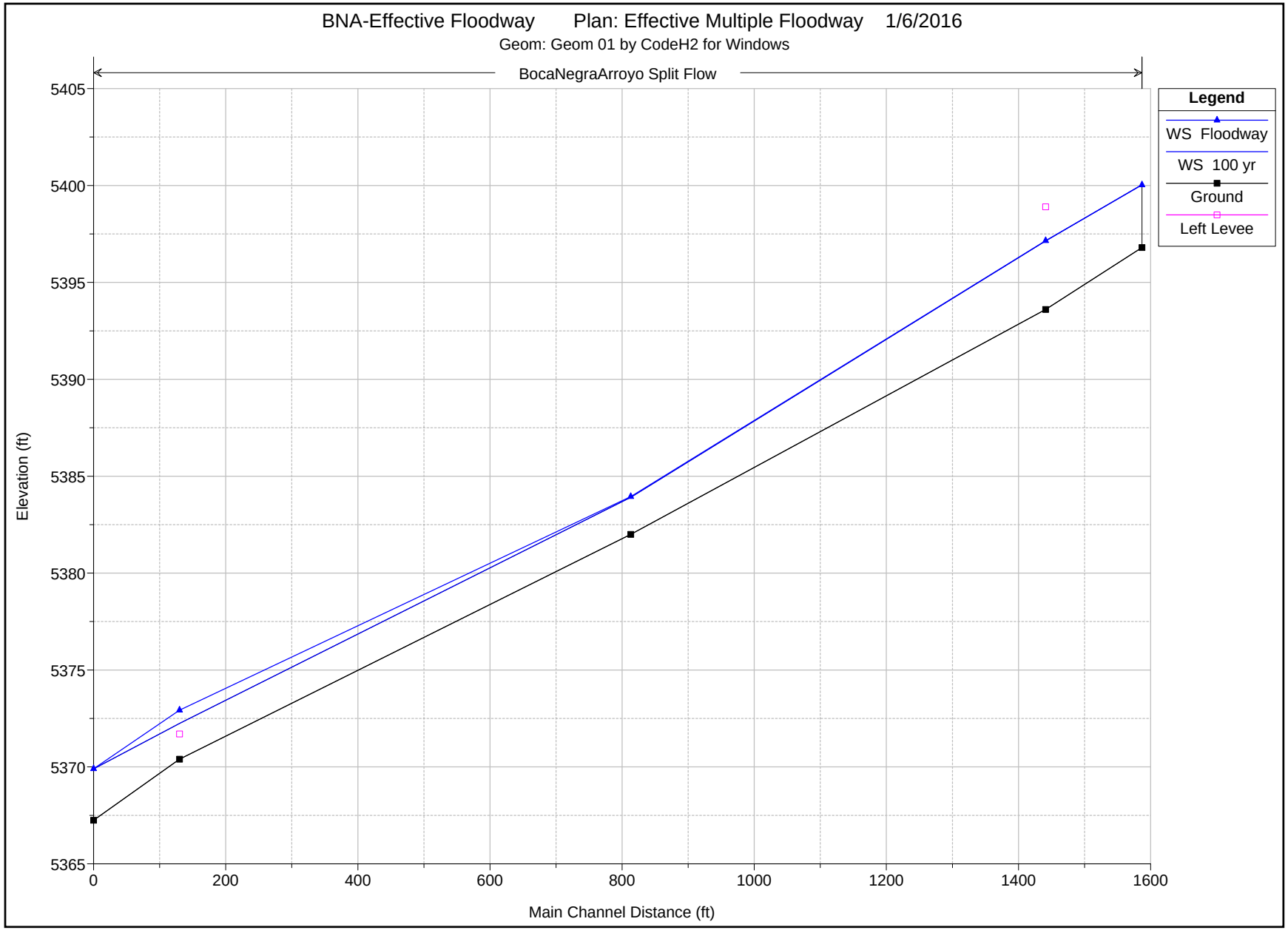


BNA Effective Floodway Model

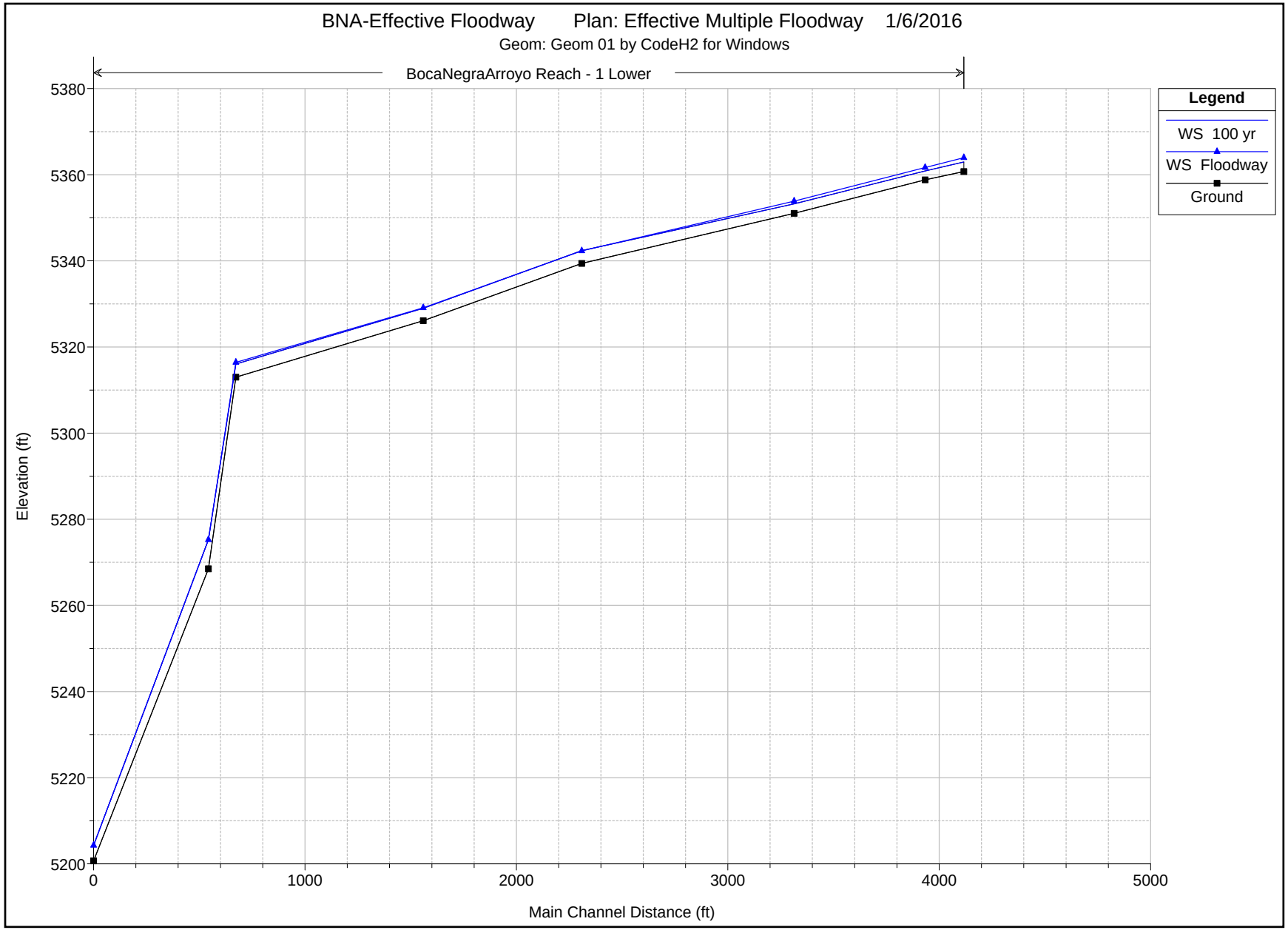


BNA Effective Floodway Model


BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
BocaNegraArroyo Reach - 1 Mid
Legend
WS 100 yr
WS Floodway
Ground
Elevation (ft)
5400
5395
5390
5385
5380
5375
5370
5365
0
200
400
600
800
1000
1200
Main Channel Distance (ft)



BNA Effective Floodway Model

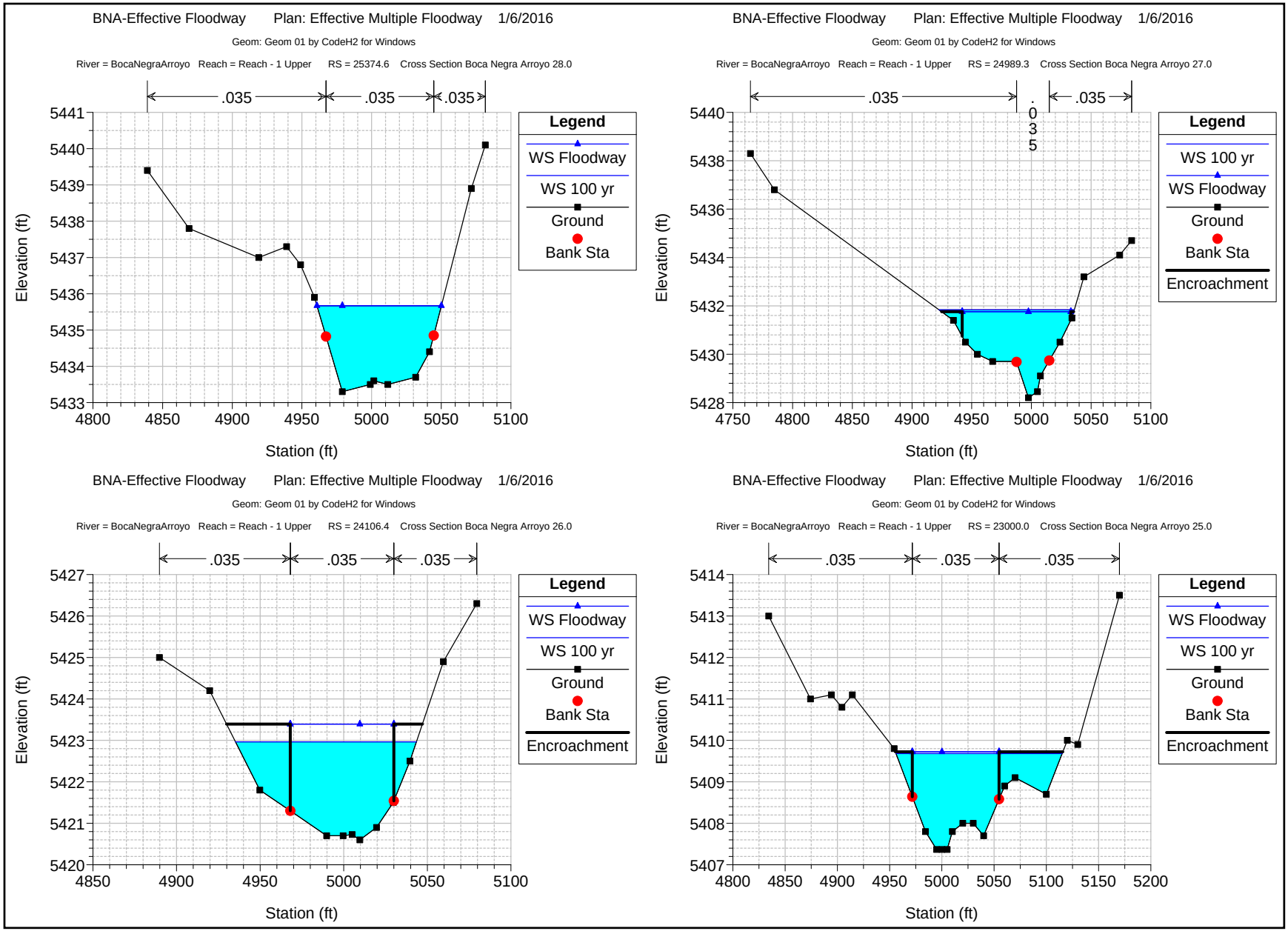

BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
BocaNegraArroyo Reach - 1 Lower
Legend
WS 100 yr
WS Floodway
Ground
Elevation (ft)
5380
5360
5340
5320
5300
5280
5260
5240
5220
5200
0
1000
2000
3000
4000
5000
Main Channel Distance (ft)

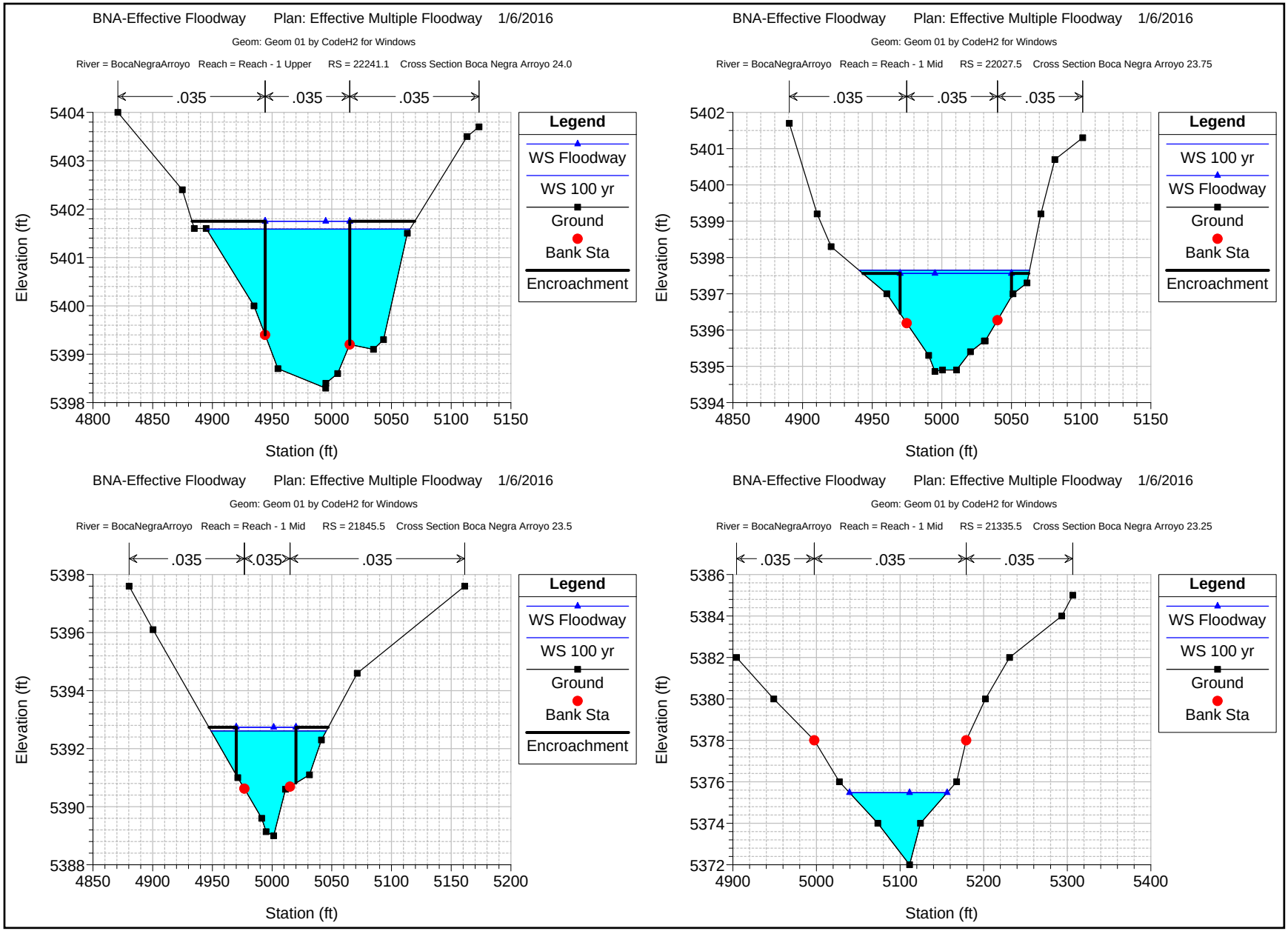
HEC-RAS Plan: Eff Fldwy

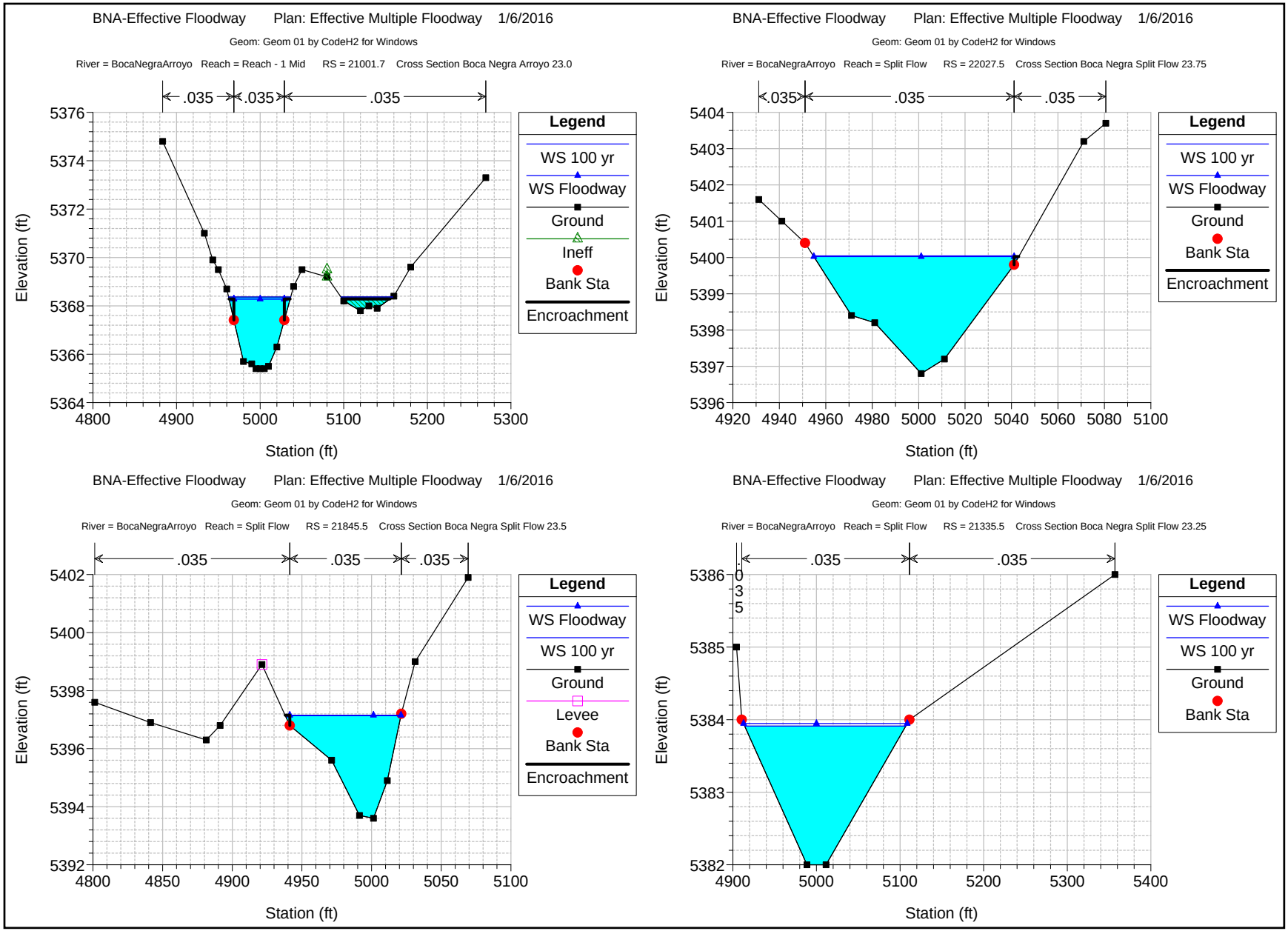
Reach	River Sta	Profile	W.S. Elev	Prof Delta WS	E.G. Elev	Top Wdth Act	Q Left	Q Channel	Q Right	Enc Sta L	Ch Sta L	Ch Sta R	Enc Sta R
			(ft)	(ft)	(ft)	(ft)	(cfs)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)
Reach - 1 Upper	25374.6	100 yr	5435.67		5436.60	89.28	7.74	1179.18	6.08		4967.30	5044.60	
Reach - 1 Upper	25374.6	Floodway	5435.67	0.00	5436.60	89.33	7.79	1179.09	6.12	4958.00	4967.30	5044.60	5052.00
Reach - 1 Upper	24989.3	100 yr	5431.84		5432.49	113.39	468.77	624.97	99.26		4987.60	5015.00	
Reach - 1 Upper	24989.3	Floodway	5431.76	-0.08	5432.48	91.00	483.01	614.57	95.42	4942.00	4987.60	5015.00	5033.00
Reach - 1 Upper	24106.4	100 yr	5422.96		5423.79	108.20	168.09	986.34	38.57		4968.10	5030.00	
Reach - 1 Upper	24106.4	Floodway	5423.39	0.43	5424.32	62.00	0.19	1192.81		4968.00	4968.10	5030.00	5030.00
Reach - 1 Upper	23000.0	100 yr	5409.68		5410.31	158.97	23.92	1015.19	153.89		4971.70	5054.70	
Reach - 1 Upper	23000.0	Floodway	5409.72	0.04	5410.66	83.00		1193.00		4971.70	4971.70	5054.70	5054.70
Reach - 1 Upper	22241.1	100 yr	5401.59		5401.79	170.34	95.16	830.38	267.47		4944.20	5015.00	
Reach - 1 Upper	22241.1	Floodway	5401.75	0.16	5402.21	70.80		1193.00		4944.20	4944.20	5015.00	5015.00
Reach - 1 Mid	22027.5	100 yr	5397.65		5398.44	122.42	68.87	1087.72	58.42		4974.80	5039.90	
Reach - 1 Mid	22027.5	Floodway	5397.56	-0.09	5398.55	80.00	29.01	1141.68	44.31	4970.00	4974.80	5039.90	5050.00
Reach - 1 Mid	21845.5	100 yr	5392.61		5393.54	96.51	121.40	904.73	188.87		4976.80	5015.00	
Reach - 1 Mid	21845.5	Floodway	5392.74	0.12	5394.10	50.00	80.64	1074.05	60.32	4970.00	4976.80	5015.00	5020.00
Reach - 1 Mid	21335.5	100 yr	5375.48		5376.23	116.80		1215.00			4997.39	5179.10	
Reach - 1 Mid	21335.5	Floodway	5375.48	0.00	5376.23	116.84		1215.00		4904.44	4997.39	5179.10	5306.53
Reach - 1 Mid	21001.7	100 yr	5368.37		5369.42	74.32	8.59	1196.10	10.31		4968.60	5028.90	
Reach - 1 Mid	21001.7	Floodway	5368.28	-0.09	5369.46	60.30		1215.00		4968.60	4968.60	5028.90	5028.90
Split Flow	22027.5	100 yr	5400.04		5400.96	88.58		1214.67	0.33		4951.10	5041.10	
Split Flow	22027.5	Floodway	5400.03	-0.02	5400.96	86.25		1215.00		4951.10	4951.10	5041.10	5041.10
Split Flow	21845.5	100 yr	5397.14		5398.12	82.93	0.85	1214.15			4941.30	5021.30	
Split Flow	21845.5	Floodway	5397.15	0.02	5398.12	79.80		1215.00		4941.30	4941.30	5021.30	5021.30
Split Flow	21335.5	100 yr	5383.91		5384.45	192.67		1215.00			4910.65	5111.26	
Split Flow	21335.5	Floodway	5383.95	0.04	5384.45	195.88		1215.00		4910.65	4910.65	5111.26	5111.26
Split Flow	21001.7	100 yr	5372.24		5372.85	158.80	581.65	625.35	8.00		4950.00	5030.00	
Split Flow	21001.7	Floodway	5372.93	0.68	5373.88	80.00		1215.00		4950.00	4950.00	5030.00	5030.00
Split Flow	20774.5	100 yr	5369.90		5370.61	128.58		1215.00			4939.64	5072.87	
Split Flow	20774.5	Floodway	5369.90	0.01	5370.61	128.86		1215.00		4939.64	4939.64	5072.87	5072.87
Reach - 1 Lower	20573.7	100 yr	5362.96		5363.33	223.02	54.97	583.63	579.41		4985.00	5035.10	
Reach - 1 Lower	20573.7	Floodway	5363.96	1.00	5364.75	60.00	73.80	1097.26	46.94	4979.00	4985.00	5035.10	5039.00
Reach - 1 Lower	20390.6	100 yr	5360.86		5361.49	153.68	552.70	539.95	125.36		5015.00	5053.00	

HEC-RAS Plan: Eff Fldwy (Continued)

Reach	River Sta	Profile	W.S. Elev	Prof Delta WS	E.G. Elev	Top Wdth 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	20390.6	Floodway	5361.67	0.81	5362.97	53.00	92.65	984.36	140.99	5009.00	5015.00	5053.00	5062.00
Reach - 1 Lower	19770.6	100 yr	5353.24		5353.84	173.76	207.02	892.15	118.83		4958.40	5029.00	
Reach - 1 Lower	19770.6	Floodway	5353.87	0.63	5354.63	70.60		1218.00		4958.40	4958.40	5029.00	5029.00
Reach - 1 Lower	18766.3	100 yr	5342.36		5343.16	130.91	124.88	1064.19	28.93		4972.10	5030.10	
Reach - 1 Lower	18766.3	Floodway	5342.31	-0.05	5343.52	58.00		1218.00		4972.10	4972.10	5030.10	5030.10
Reach - 1 Lower	18016.1	100 yr	5328.99		5329.93	86.45	0.06	1217.94			4937.40	5021.80	
Reach - 1 Lower	18016.1	Floodway	5329.10	0.11	5329.94	84.40		1218.00		4937.40	4937.40	5021.80	5021.80
Reach - 1 Lower	17129.8	100 yr	5316.05		5316.86	120.13	269.92	911.82	116.26		4980.00	5021.00	
Reach - 1 Lower	17129.8	Floodway	5316.44	0.39	5318.03	41.00		1298.00		4980.00	4980.00	5021.00	5021.00
Reach - 1 Lower	17000.0	100 yr	5275.25		5277.25	34.25	2.15	1279.97	15.88		4987.70	5010.10	
Reach - 1 Lower	17000.0	Floodway	5275.25	0.00	5277.25	34.08	2.15	1279.89	15.96	4985.00	4987.70	5010.10	5020.00
Reach - 1 Lower	16457.0	100 yr	5204.29		5205.23	90.37	2.43	1294.84	0.73		4943.50	5027.40	
Reach - 1 Lower	16457.0	Floodway	5204.29	0.00	5205.23	88.89	2.56	1294.71	0.73	4940.00	4943.50	5027.40	5030.00


BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Reach - 1 Upper RS = 25374.6 Cross Section Boca Negra Arroyo 28.0
.035
.035
.035
Legend
WS Floodway
WS 100 yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Reach - 1 Upper RS = 24989.3 Cross Section Boca Negra Arroyo 27.0
.035
.035
Legend
WS 100 yr
WS Floodway
Ground
Bank Sta
Encroachment
Elevation (ft)
Station (ft)
BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Reach - 1 Upper RS = 24106.4 Cross Section Boca Negra Arroyo 26.0
.035
.035
.035
Legend
WS Floodway
WS 100 yr
Ground
Bank Sta
Encroachment
Elevation (ft)
Station (ft)
BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Reach - 1 Upper RS = 23000.0 Cross Section Boca Negra Arroyo 25.0
.035
.035
.035
Legend
WS Floodway
WS 100 yr
Ground
Bank Sta
Encroachment
Elevation (ft)
Station (ft)


BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Reach - 1 Upper RS = 22241.1 Cross Section Boca Negra Arroyo 24.0
.035
.035
.035
Elevation (ft)
Station (ft)
Legend
WS Floodway
WS 100 yr
Ground
Bank Sta
Encroachment
BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Reach - 1 Mid RS = 22027.5 Cross Section Boca Negra Arroyo 23.75
.035
.035
.035
Elevation (ft)
Station (ft)
Legend
WS 100 yr
WS Floodway
Ground
Bank Sta
Encroachment
BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Reach - 1 Mid RS = 21845.5 Cross Section Boca Negra Arroyo 23.5
.035
.035
.035
Elevation (ft)
Station (ft)
Legend
WS Floodway
WS 100 yr
Ground
Bank Sta
Encroachment
BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Reach - 1 Mid RS = 21335.5 Cross Section Boca Negra Arroyo 23.25
.035
.035
.035
Elevation (ft)
Station (ft)
Legend
WS Floodway
WS 100 yr
Ground
Bank Sta


BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
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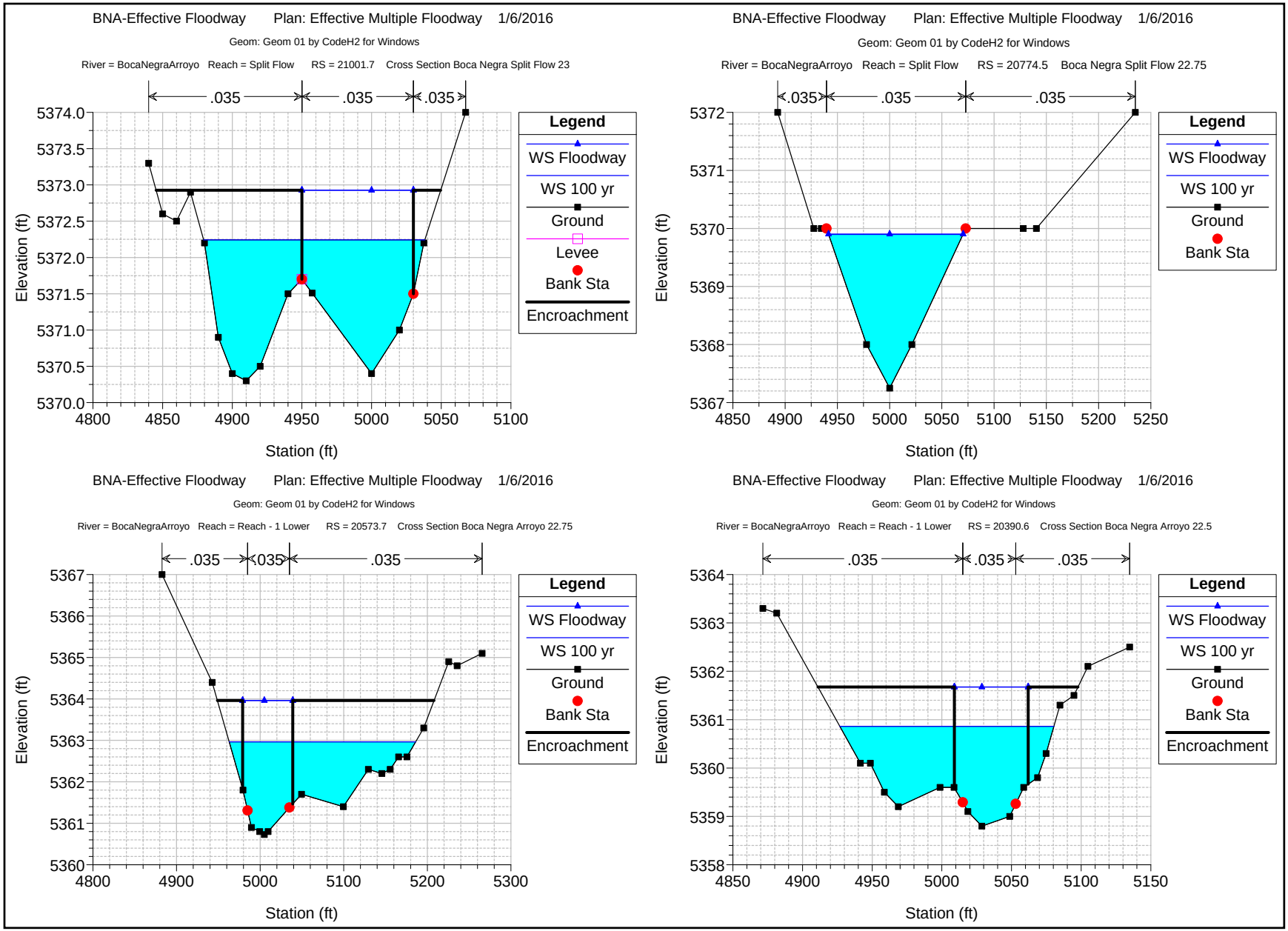
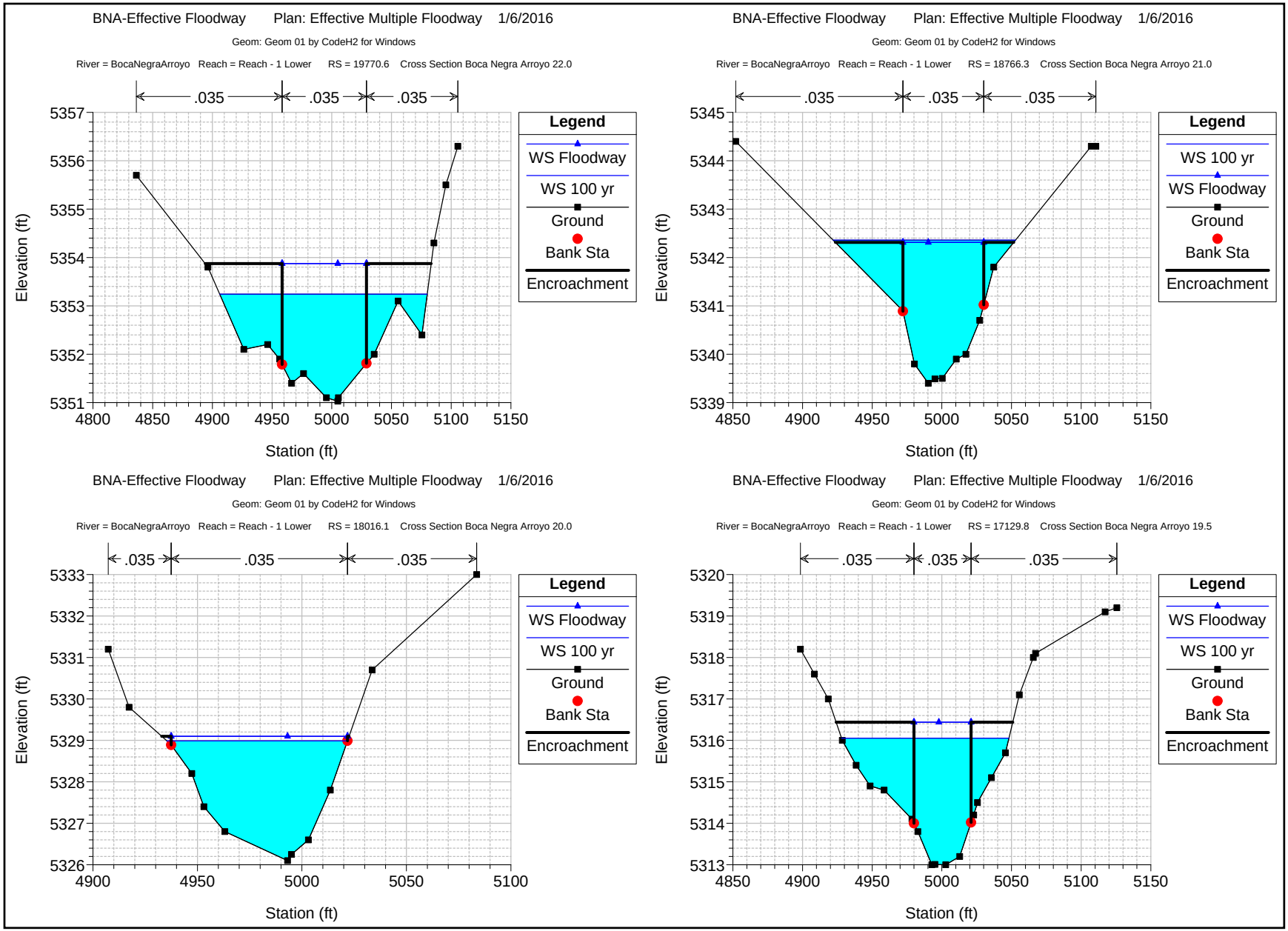
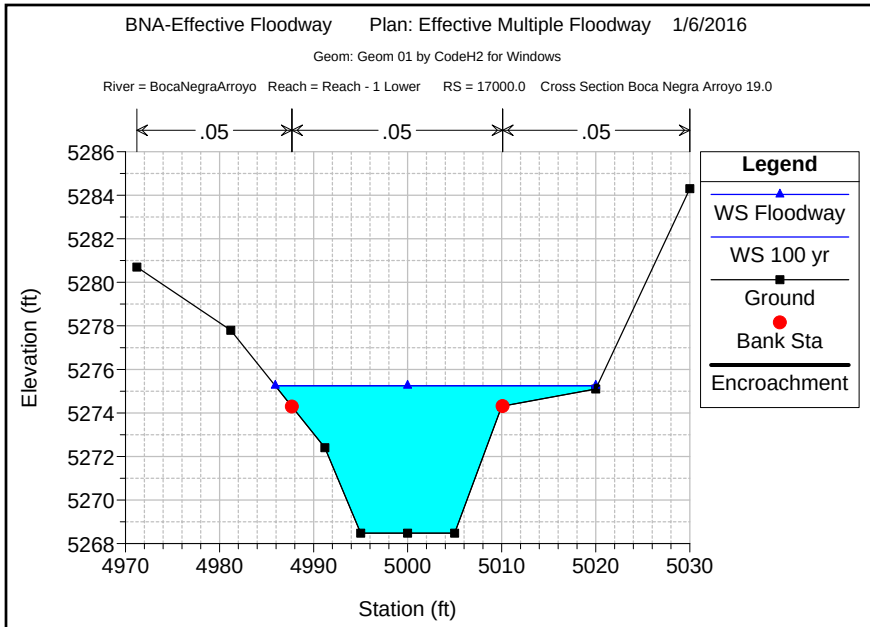
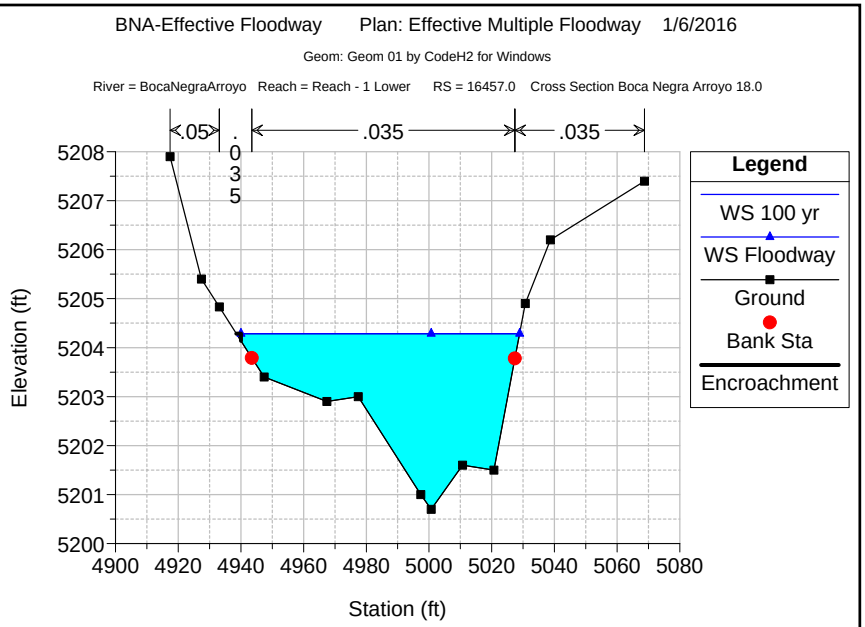
.035
.035
.035
Elevation (ft)
Station (ft)
Legend
WS 100 yr
WS Floodway
Ground
Ineff
Bank Sta
Encroachment
BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Split Flow RS = 22027.5 Cross Section Boca Negra Split Flow 23.75
.035
.035
.035
Elevation (ft)
Station (ft)
Legend
WS 100 yr
WS Floodway
Ground
Bank Sta
Encroachment
BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Split Flow RS = 21845.5 Cross Section Boca Negra Split Flow 23.5
.035
.035
.035
Elevation (ft)
Station (ft)
Legend
WS Floodway
WS 100 yr
Ground
Levee
Bank Sta
Encroachment
BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Split Flow RS = 21335.5 Cross Section Boca Negra Split Flow 23.25
.035
.035
Elevation (ft)
Station (ft)
Legend
WS Floodway
WS 100 yr
Ground
Bank Sta


BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Split Flow RS = 21001.7 Cross Section Boca Negra Split Flow 23
.035
.035
.035
Elevation (ft)
Station (ft)
Legend
WS Floodway
WS 100 yr
Ground
Levee
Bank Sta
Encroachment
BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Split Flow RS = 20774.5 Boca Negra Split Flow 22.75
.035
.035
.035
Elevation (ft)
Station (ft)
Legend
WS Floodway
WS 100 yr
Ground
Bank Sta
BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Reach - 1 Lower RS = 20573.7 Cross Section Boca Negra Arroyo 22.75
.035
.035
.035
Elevation (ft)
Station (ft)
Legend
WS Floodway
WS 100 yr
Ground
Bank Sta
Encroachment
BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Reach - 1 Lower RS = 20390.6 Cross Section Boca Negra Arroyo 22.5
.035
.035
.035
Elevation (ft)
Station (ft)
Legend
WS Floodway
WS 100 yr
Ground
Bank Sta
Encroachment


BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Reach - 1 Lower RS = 19770.6 Cross Section Boca Negra Arroyo 22.0
.035
.035
.035
Elevation (ft)
Station (ft)
Legend
WS Floodway
WS 100 yr
Ground
Bank Sta
Encroachment
BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Reach - 1 Lower RS = 18766.3 Cross Section Boca Negra Arroyo 21.0
.035
.035
.035
Elevation (ft)
Station (ft)
Legend
WS 100 yr
WS Floodway
Ground
Bank Sta
Encroachment
BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Reach - 1 Lower RS = 18016.1 Cross Section Boca Negra Arroyo 20.0
.035
.035
.035
Elevation (ft)
Station (ft)
Legend
WS Floodway
WS 100 yr
Ground
Bank Sta
Encroachment
BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Reach - 1 Lower RS = 17129.8 Cross Section Boca Negra Arroyo 19.5
.035
.035
.035
Elevation (ft)
Station (ft)
Legend
WS Floodway
WS 100 yr
Ground
Bank Sta
Encroachment


BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
River = BocaNegraArroyo Reach = Reach - 1 Lower RS = 17000.0 Cross Section Boca Negra Arroyo 19.0
.05
.05
.05
Elevation (ft)
5286
5284
5282
5280
5278
5276
5274
5272
5270
5268
4970
4980
4990
5000
5010
5020
5030
Station (ft)
Legend
WS Floodway
WS 100 yr
Ground
Bank Sta
Encroachment


BNA-Effective Floodway Plan: Effective Multiple Floodway 1/6/2016
Geom: Geom 01 by CodeH2 for Windows
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.05
.035
.035
Elevation (ft)
5208
5207
5206
5205
5204
5203
5202
5201
5200
4900
4920
4940
4960
4980
5000
5020
5040
5060
5080
Station (ft)
Legend
WS 100 yr
WS Floodway
Ground
Bank Sta
Encroachment

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

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: BNA-Effective Floodway
Project File : BNA-EffectFloodway.prj
Run Date and Time: 1/6/2016 8:39:43 AM

Project in English units

PLAN DATA

Plan Title: Effective Multiple Floodway
Plan File : t:\Projects\x321807802\Eng\2012 Final Plans_Specifications_Estimate_Reports\2014 Final Construction Acceptance Reports\H&H\LOMR - RAS\BNA RAS FLOODWAY\BNA-EffectFloodway.p09

Geometry Title: Geom 01 by CodeH2 for Windows
Geometry File : t:\Projects\x321807802\Eng\2012 Final Plans_Specifications_Estimate_Reports\2014 Final Construction Acceptance Reports\H&H\LOMR - RAS\BNA RAS FLOODWAY\BNA-EffectFloodway.g01

Flow Title : Updated 2014 - Effective
Flow File : t:\Projects\x321807802\Eng\2012 Final Plans_Specifications_Estimate_Reports\2014 Final Construction Acceptance Reports\H&H\LOMR - RAS\BNA RAS FLOODWAY\BNA-EffectFloodway.f06

Plan Summary Information:
Number of: Cross Sections = 22 Multiple Openings = 0
Culverts = 0 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	4958	5052
24989.3	Floodway	1	4942	5033
24106.4	Floodway	1	4968	5030
23000.0	Floodway	1	4971.7	5054.7
22241.1	Floodway	1	4944.2	5015

River = BocaNegraArroyo Reach = Reach - 1 Mid

RS	Profile	Method	Value1	Value2
22027.5	Floodway	1	4970	5050
21845.5	Floodway	1	4970	5020
21335.5	Floodway	1	4904.44	5306.53
21001.7	Floodway	1	4968.6	5028.9

River = BocaNegraArroyo Reach = Split Flow

RS	Profile	Method	Value1	Value2
22027.5	Floodway	1	4951.1	5041.1
21845.5	Floodway	1	4941.3	5021.3
21335.5	Floodway	1	4910.65	5111.26
21001.7	Floodway	1	4950	5030
20774.5	Floodway	1	4939.64	5072.87

River = BocaNegraArroyo Reach = Reach - 1 Lower

RS	Profile	Method	Value1	Value2
20573.7	Floodway	1	4979	5039

```
20390.6 Floodway              1    5009    5062
19770.6 Floodway              1  4958.4    5029
18766.3 Floodway              1  4972.1  5030.1
18016.1 Floodway              1  4937.4  5021.8
17129.8 Floodway              1    4980    5021
17000.0 Floodway              1    4985    5020
16457.0 Floodway              1    4940    5030
```

FLOW DATA

Flow Title: Updated 2014 - Effective
Flow File : t:\Projects\x321807802\Eng\2012 Final Plans_Specifications_Estimate_Reports\2014 Final Construction Acceptance Reports\H&H\LOMR - RAS\BNA RAS FLOODWAY\BNA-EffectFloodway.f06

Flow Data (cfs)

River	Reach	RS	100 yr	Floodway
BocaNegraArroyo	Reach - 1 Upper	25374.6	1193	1193
BocaNegraArroyo	Reach - 1 Mid	22027.5	1215	1215
BocaNegraArroyo	Split Flow	22027.5	1215	1215
BocaNegraArroyo	Reach - 1 Lower	20573.7	1218	1218
BocaNegraArroyo	Reach - 1 Lower	17129.8	1298	1298

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
BocaNegraArroyo	Reach - 1 Lower	100 yr		Normal S = 0.0283

GEOMETRY DATA

Geometry Title: Geom 01 by CodeH2 for Windows
Geometry File : t:\Projects\x321807802\Eng\2012 Final Plans_Specifications_Estimate_Reports\2014 Final Construction Acceptance Reports\H&H\LOMR - RAS\BNA RAS FLOODWAY\BNA-EffectFloodway.g01

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 River	Reach	Tributary River	Reach	Length	Angle
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 River	Reach	Tributary River	Reach	Length	Angle
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
Station Elevation Data num= 16

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4839	5439.4	4869	5437.8	4919	5437	4939	5437.3	4949	5436.8
4959	5435.9	4967.3	5434.82	4979	5433.3	4999	5433.5	5001.6	5433.6
5011.6	5433.5	5031.6	5433.7	5041.6	5434.4	5044.6	5434.85	5071.6	5438.9
5081.6	5440.1								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
4839	.035	4967.3	.035	5044.6	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
4967.3 5044.6 385.3 385.3 385.3 .1 .3

CROSS SECTION

RIVER: BocaNegraArroyo
REACH: Reach - 1 Upper RS: 24989.3

INPUT
Description: Cross Section Boca Negra Arroyo 27.0
Station Elevation Data num= 17

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4764.7	5438.3	4784.7	5436.8	4934.7	5431.4	4944.7	5430.5	4954.7	5430
4967.5	5429.7	4987.5	5429.7	4987.6	5429.68	4997.5	5428.2	5005	5428.45
5007.5	5429.1	5015	5429.74	5023.9	5430.5	5033.9	5431.5	5043.9	5433.2
5073.9	5434.1	5083.9	5434.7						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
4764.7	.035	4987.6	.035	5015	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
4987.6 5015 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
Station Elevation Data num= 14

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4889.8	5425	4919.8	5424.2	4949.8	5421.8	4968.1	5421.3	4989.8	5420.7
4999.6	5420.7	5005	5420.73	5009.6	5420.6	5019.6	5420.9	5029.6	5421.5
5030	5421.54	5039.6	5422.5	5059.6	5424.9	5079.6	5426.3		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
4889.8	.035	4968.1	.035	5030	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
4968.1 5030 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
Station Elevation Data num= 22

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4834.3	5413	4874.3	5411	4894.3	5411.1	4904.3	5410.8	4914.3	5411.1
4954.3	5409.8	4971.7	5408.64	4984.3	5407.8	4995	5407.37	5000	5407.37
5005	5407.37	5010	5407.8	5020	5408	5030	5408	5040	5407.7
5054.7	5408.58	5060	5408.9	5070	5409.1	5100	5408.7	5120	5410
5130	5409.9	5170	5413.5						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
4834.3	.035	4971.7	.035	5054.7	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
4971.7 5054.7 758.9 758.9 758.9 .1 .3

CROSS SECTION

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

INPUT
Description: Cross Section Boca Negra Arroyo 24.0
Station Elevation Data num= 17

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4820.81	5404	4874.8	5402.4	4884.8	5401.6	4894.8	5401.6	4934.9	5400
4944.2	5399.4	4954.9	5398.7	4994.9	5398.3	4995	5398.4	5004.9	5398.6
5014.9	5399.2	5015	5399.2	5034.9	5399.1	5043.3	5399.3	5063.3	5401.5
5113.3	5403.5	5123.3	5403.7						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
4820.81	.035	4944.2	.035	5015	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
4944.2 5015 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
Station Elevation Data num= 18

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4890.5	5401.7	4910.5	5399.2	4920.5	5398.3	4960.5	5397	4974.8	5396.19
4990.5	5395.3	4995	5394.86	5000.5	5394.9	5010.5	5394.9	5020.5	5395.4
5030.5	5395.7	5031.1	5395.7	5039.9	5396.27	5051.1	5397	5061.1	5397.3
5071.1	5399.2	5081.1	5400.7	5101.1	5401.3				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
4890.5	.035	4974.8	.035	5039.9	.035

Bank Sta: Left	Right	Lengths: Left Channel	Channel	Right	Coeff Contr.	Expan.
4974.8	5039.9	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
Station Elevation Data num= 13

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4880.3	5397.6	4900.3	5396.1	4971.3	5391	4976.8	5390.62	4991.3	5389.6
4995	5389.14	5001.3	5389	5011.3	5390.6	5015	5390.69	5031.3	5391.1
5041.3	5392.3	5071.3	5394.6	5161.3	5397.6				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
4880.3	.035	4976.8	.035	5015	.035

Bank Sta: Left	Right	Lengths: Left Channel	Channel	Right	Coeff Contr.	Expan.
4976.8	5015	510	510	510	.1	.3

CROSS SECTION

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

INPUT
Description: Cross Section Boca Negra Arroyo 23.25
Station Elevation Data num= 13

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4904.44	5382	4948.86	5380	4997.39	5378	5027.42	5376	5073.36	5374
5111.31	5372	5124.36	5374	5167.63	5376	5179.1	5378	5202.04	5380
5231.06	5382	5293.41	5384	5306.53	5385				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
4904.44	.035	4997.39	.035	5179.1	.035

Bank Sta: Left	Right	Lengths: Left Channel	Channel	Right	Coeff Contr.	Expan.
4997.39	5179.1	333.8	333.8	333.8	.1	.3

CROSS SECTION

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

INPUT
Description: Cross Section Boca Negra Arroyo 23.0
Station Elevation Data num= 24

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4883.3	5374.8	4933.3	5371	4943.3	5369.9	4950	5369.5	4960	5368.7
4968.6	5367.41	4980	5365.7	4990	5365.6	4995	5365.4	5000	5365.4
5005	5365.4	5010	5365.5	5020	5366.3	5028.9	5367.41	5040	5368.8
5050	5369.5	5080	5369.2	5100	5368.2	5120	5367.8	5130	5368
5140	5367.9	5160	5368.4	5180	5369.6	5270	5373.3		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
4883.3	.035	4968.6	.035	5028.9	.035

Bank Sta: Left	Right	Lengths: Left Channel	Channel	Right	Coeff Contr.	Expan.
4968.6	5028.9	0	0	0	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
5080	5270	5369.5	F

CROSS SECTION

RIVER: BocaNegraArroyo
REACH: Split Flow RS: 22027.5

INPUT
Description: Cross Section Boca Negra Split Flow 23.75
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4931.1	5401.6	4941.1	5401	4951.1	5400.4	4971.1	5398.4	4981.1	5398.2
5001.1	5396.8	5011.1	5397.2	5041.1	5399.8	5071.1	5403.2	5080.6	5403.7

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
4931.1	.035	4951.1	.035	5041.1	.035

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
4951.1	5041.1	146	146	.1	.3

CROSS SECTION

RIVER: BocaNegraArroyo
REACH: Split Flow RS: 21845.5

INPUT
Description: Cross Section Boca Negra Split Flow 23.5
Station Elevation Data num= 13

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4801.3	5397.6	4841.3	5396.9	4881.3	5396.3	4891.3	5396.8	4921.3	5398.9
4941.3	5396.8	4971.3	5395.6	4991.3	5393.7	5001.3	5393.6	5011.3	5394.9
5021.3	5397.2	5031.3	5399	5069.3	5401.9				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
4801.3	.035	4941.3	.035	5021.3	.035

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
4941.3	5021.3	628	628	.1	.3

Left Levee Station= 4921.3 Elevation= 5398.9

CROSS SECTION

RIVER: BocaNegraArroyo
REACH: Split Flow RS: 21335.5

INPUT
Description: Cross Section Boca Negra Split Flow 23.25
Station Elevation Data num= 6

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4904.44	5385	4910.65	5384	4988.57	5382	5011.44	5382	5111.26	5384
5357.11	5386								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
4904.44	.035	4910.65	.035	5111.26	.035

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
4910.65	5111.26	683	683	.1	.3

CROSS SECTION

RIVER: BocaNegraArroyo
REACH: Split Flow RS: 21001.7

INPUT
Description: Cross Section Boca Negra Split Flow 23
Station Elevation Data num= 17

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4840	5373.3	4850	5372.6	4860	5372.5	4870	5372.9	4880	5372.2
4890	5370.9	4900	5370.4	4910	5370.3	4920	5370.5	4940	5371.5
4950	5371.7	4957.32	5371.51	5000	5370.4	5020	5371	5030	5371.5
5037.5	5372.2	5067.5	5374						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
4840	.035	4950	.035	5030	.035

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
4950	5030	130	130	.1	.3

Left Levee Station= 4950 Elevation= 5371.7

CROSS SECTION

RIVER: BocaNegraArroyo
REACH: Split Flow RS: 20774.5

INPUT

```
Description: Boca Negra Split Flow 22.75
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 4892.85    5372 4927.47    5370 4934.65    5370 4939.64    5370 4977.96    5368
    5000 5367.25  5021.3    5368 5072.87    5370  5127.9    5370 5140.39    5370
 5235.19    5372

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 4892.85    .035 4939.64    .035 5072.87    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       4939.64 5072.87                0       0       0             .1      .3

CROSS SECTION


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

INPUT
Description: Cross Section Boca Negra Arroyo 22.75
Station Elevation Data    num=      20
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  4882.6    5367  4942.6  5364.4  4979.5  5361.8    4985 5361.31  4989.5  5360.9
  4999.5  5360.8    5005 5360.73  5009.5  5360.8  5035.1 5361.38  5049.5  5361.7
  5099.5  5361.4  5129.5  5362.3  5145.6  5362.2  5155.6  5362.3  5165.6  5362.6
  5175.6  5362.6  5195.6  5363.3  5225.6  5364.9  5235.6  5364.8  5265.6  5365.1

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  4882.6    .035    4985    .035  5035.1    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4985  5035.1            183.1   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
Station Elevation Data    num=      20
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  4871.5  5363.3  4881.5  5363.2  4941.5  5360.1  4948.7  5360.1  4958.7  5359.5
  4968.7  5359.2  4998.7  5359.6  5008.7  5359.6    5015 5359.29  5018.7  5359.1
  5028.7  5358.8  5048.7    5359    5053 5359.26  5058.7  5359.6  5068.7  5359.8
  5074.8  5360.3  5084.8  5361.3  5094.8  5361.5  5104.8  5362.1  5134.8  5362.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  4871.5    .035    5015    .035    5053    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5015    5053              620     620     620             .1      .3

CROSS SECTION


RIVER: BocaNegraArroyo
REACH: Reach - 1 Lower    RS: 19770.6

INPUT
Description: Cross Section Boca Negra Arroyo 22.0
Station Elevation Data    num=      18
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  4836.3  5355.7  4896.3  5353.8  4926.3  5352.1  4946.3  5352.2  4956.3  5351.9
  4958.4 5351.79  4966.3  5351.4  4976.3  5351.6  4995.5  5351.1    5005 5351.03
  5005.5  5351.1    5029 5351.81  5035.5    5352  5055.5  5353.1  5075.5  5352.4
  5085.5  5354.3  5095.5  5355.5  5105.5  5356.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  4836.3    .035  4958.4    .035    5029    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        4958.4    5029           1004.3  1004.3  1004.3             .1      .3

CROSS SECTION


RIVER: BocaNegraArroyo
REACH: Reach - 1 Lower    RS: 18766.3

INPUT
Description: Cross Section Boca Negra Arroyo 21.0
Station Elevation Data    num=      14
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
    4852  5344.4    4972  5340.9  4972.1 5340.89  4980.3  5339.8  4990.3  5339.4
```

```
    4995 5339.49  5000.3  5339.5  5010.3  5339.9  5017.2    5340  5027.2  5340.7
  5030.1 5341.02  5037.2  5341.8  5107.2  5344.3  5110.5  5344.3

Manning's n Values        num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
    4852    .035  4972.1    .035  5030.1    .035  5110.5      .2

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        4972.1  5030.1            750.2   750.2   750.2             .1       .3

CROSS SECTION


RIVER: BocaNegraArroyo
REACH: Reach - 1 Lower    RS: 18016.1

INPUT
Description: Cross Section Boca Negra Arroyo 20.0
Station Elevation Data    num=      14
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  4907.3  5331.2  4917.3  5329.8  4937.3  5328.9  4937.4 5328.89  4947.3  5328.2
  4953.1  5327.4  4963.1  5326.8  4993.1  5326.1    4995 5326.25  5003.1  5326.6
  5013.6  5327.8  5021.8 5328.99  5033.6  5330.7  5083.6    5333

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  4907.3    .035  4937.4    .035  5021.8    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        4937.4  5021.8            886.3   886.3   886.3             .1       .3

CROSS SECTION


RIVER: BocaNegraArroyo
REACH: Reach - 1 Lower    RS: 17129.8

INPUT
Description: Cross Section Boca Negra Arroyo 19.5
Station Elevation Data    num=      24
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  4898.5  5318.2  4908.5  5317.6  4918.5    5317  4928.5    5316  4938.5  5315.4
  4948.5  5314.9  4958.5  5314.8  4978.5  5314.1    4980    5314  4982.8  5313.8
  4992.8    5313    4995 5313.01  5002.8    5313  5012.8  5313.2    5021 5314.02
  5022.8  5314.2  5025.6  5314.5  5035.6  5315.1  5045.6  5315.7  5055.6  5317.1
  5065.6    5318  5067.2  5318.1  5117.2  5319.1  5125.6  5319.2

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  4898.5    .035    4980    .035    5021    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4980    5021            129.8   129.8   129.8             .1       .3

CROSS SECTION


RIVER: BocaNegraArroyo
REACH: Reach - 1 Lower    RS: 17000.0

INPUT
Description: Cross Section Boca Negra Arroyo 19.0
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  4971.2  5280.7  4981.2  5277.8  4987.7 5274.29  4991.2  5272.4    4995 5268.48
    5000 5268.48    5005 5268.48    5010  5274.3  5010.1 5274.31    5020  5275.1
    5030  5284.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
  4971.2     .05  4987.7     .05  5010.1     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        4987.7  5010.1              543     543     543             .1       .3

CROSS SECTION


RIVER: BocaNegraArroyo
REACH: Reach - 1 Lower    RS: 16457.0

INPUT
Description: Cross Section Boca Negra Arroyo 18.0
Station Elevation Data    num=      15
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  4917.4  5207.9  4927.4  5205.4  4933.1 5204.83  4943.5 5203.79  4947.4  5203.4
  4967.4  5202.9  4977.4    5203  4997.4    5201  5000.7  5200.7  5010.7  5201.6
  5020.7  5201.5  5027.4 5203.78  5030.7  5204.9  5038.7  5206.2  5068.7  5207.4

Manning's n Values        num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
```

4917.4	.05	4933.1	.035	4943.5	.035	5027.4	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
4943.5	5027.4	0	0	0	.1	.3

SUMMARY OF MANNING'S N VALUES

River:BocaNegraArroyo

Reach	River Sta.	n1	n2	n3	n4
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	
Reach - 1 Mid	22027.5	.035	.035	.035	
Reach - 1 Mid	21845.5	.035	.035	.035	
Reach - 1 Mid	21335.5	.035	.035	.035	
Reach - 1 Mid	21001.7	.035	.035	.035	
Split Flow	22027.5	.035	.035	.035	
Split Flow	21845.5	.035	.035	.035	
Split Flow	21335.5	.035	.035	.035	
Split Flow	21001.7	.035	.035	.035	
Split Flow	20774.5	.035	.035	.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	18766.3	.035	.035	.035	.2
Reach - 1 Lower	18016.1	.035	.035	.035	
Reach - 1 Lower	17129.8	.035	.035	.035	
Reach - 1 Lower	17000.0	.05	.05	.05	
Reach - 1 Lower	16457.0	.05	.035	.035	.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	510	510	510
Reach - 1 Mid	21335.5	333.8	333.8	333.8
Reach - 1 Mid	21001.7	0	0	0
Split Flow	22027.5	146	146	146
Split Flow	21845.5	628	628	628
Split Flow	21335.5	683	683	683
Split Flow	21001.7	130	130	130
Split Flow	20774.5	0	0	0
Reach - 1 Lower	20573.7	183.1	183.1	183.1
Reach - 1 Lower	20390.6	620	620	620
Reach - 1 Lower	19770.6	1004.3	1004.3	1004.3
Reach - 1 Lower	18766.3	750.2	750.2	750.2
Reach - 1 Lower	18016.1	886.3	886.3	886.3
Reach - 1 Lower	17129.8	129.8	129.8	129.8
Reach - 1 Lower	17000.0	543	543	543
Reach - 1 Lower	16457.0	0	0	0

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
Reach - 1 Mid	21845.5	.1	.3
Reach - 1 Mid	21335.5	.1	.3
Reach - 1 Mid	21001.7	.1	.3
Split Flow	22027.5	.1	.3
Split Flow	21845.5	.1	.3
Split Flow	21335.5	.1	.3
Split Flow	21001.7	.1	.3
Split Flow	20774.5	.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	18766.3	.1	.3
Reach - 1 Lower	18016.1	.1	.3
Reach - 1 Lower	17129.8	.1	.3
Reach - 1 Lower	17000.0	.1	.3
Reach - 1 Lower	16457.0	.1	.3