

REACH: UPPER BRAZOS RS: 276318.* SS_Rev3.rep

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
1637.44	748.77	1788.36	793.68	578.59	779.93	1218.95	762.24	1380.09	756.33				
3279.07	713.04	3361.31	748.05	2103.95	748.05	2405.21	747.52	3214.36	716.28				
3844.14	717.11	3982.47	711.95	3371.5	711.89	3553.21	718.94	3715.3	718.05				
5171.37	695.02	5314.97	713.59	4320.61	705.52	4732.71	697.11	5039.4	696.4				
6146.53	686.1	6345.24	691.89	5376.75	689.43	5704.03	686.74	6019.34	685.54				
6739.85	679.66	6936.26	682.2	6495.52	680.25	6559.81	678.3	6604.06	678.3				
7481.37	663.33	7620.96	689.68	6993.12	686.89	7110.01	681.94	7438.12	664.5				
8179.51	621.39	8409.11	654.33	7885.63	628.78	7898.35	627.26	8054.28	622.4				
9030.58	597.65	9046.14	623.45	8566.91	622.18	8732.22	616.95	8900.34	614.56				
9368.78	589.58	9483.27	597.55	9127.12	593.65	9279.08	587.8	9330.84	587.8				
10123.96	604.9810316.16		619.09	9580.47	623.65	9930.7	621.9910073.54		613.26				
12709.82	615.8512927.24		604.0610544.08		619.0810815.29		617.811388.87		615.85				
14235.93	610.2914242.23		607.813486.13		607.813916.11		609.7513970.38		611.7				
15472.2	580.5715583.33		602.2114338.57		601.0514933.85		589.2515440.63		583.9				
16094	573.416146.82		575.6915612.01		572.4815657.13		567.9916038.91		567.99				
16945.62	648.217387.92		583.916236.93		609.6616256.24		612.3816498.48		642.89				
20239.42	642.9221241.69		651.8719533.54		650.2519650.63		650.2519883.84		650.54				
24024.39	652.6324685.32		644.1521503.21		646.123205.88		648.0523594.41		648.98				
26969.04	653.927552.28		660.56	24912.9	661.9526045.27		661.95	26690.8	653.9				
28261.36	651.4928560.09		651.9527793.79		650.8227968.09		651.2828110.35		650.38				
31661.09	743.1431806.07		655.6428886.98		658.53	30002.7	684.3430677.61		685.33				
35147.53	757.6335348.16		743.3532432.99		695.9832468.25		696.0334087.46		762.83				
36396.29	781.0936556.93		757.74	35705.7	776.3135747.82		776.636059.32		770.71				
			782.237343.71		79038050.77		791.338407.32		800				

Manning's n values

Sta	n Val	Sta	n Val	Sta	n Val
0	.1515440.63				

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
15440.63	16146.82		5	5	5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.94	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1490596.00	132985.40	1667587.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1490596.00	132985.40	1667587.00
Q Total (cfs)	6730000.00	Flow (cfs)	3111577.00	408590.00	3209833.00
Top width (ft)	33448.46	Top width (ft)	14158.85	706.19	18583.42
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.09	3.07	1.92
Max chl Dpth (ft)	191.95	Hydr. Depth (ft)	105.28	188.31	89.74
Conv. Total (cfs)	71156040.0	Conv. (cfs)	328985800.0	43200070.0	339374500.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14173.93	708.17	18594.61
Min Ch El (ft)	567.99	Shear (lb/sq ft)	0.59	1.05	0.50
Alpha	1.04	Stream Power (lb/ft s)	1.23	3.22	0.96
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	156379.70	24819.17	185145.20
C & E Loss (ft)	0.00	Cum SA (acres)	1441.11	121.93	1769.89

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS

REACH: UPPER BRAZOS RS: 276315.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
1637.84	748.76	1788.79	793.67	578.73	779.92	1219.25	762.23	1380.43	756.32				
3279.88	713.06	3362.13	748.04	2104.46	748.04	2405.8	747.51	3215.15	716.3				
3845.09	717.09	3983.45	711.96	3372.33	711.9	3554.08	718.94	3716.22	718.04				
5172.64	695	5316.28	713.58	4321.67	705.5	4733.87	697.09	5040.63	696.38				
6148.04	686.08	6346.8	691.86	5378.08	689.39	5705.44	686.71	6020.82	685.52				
6741.51	679.61	6937.96	682.16	6497.12	680.2	6561.42	678.24	6605.68	678.24				
7483.21	663.35	7622.84	689.63	6994.84	686.85	7111.75	681.91	7439.95	664.51				
8181.52	621.46	8411.18	654.38	7887.56	628.87	7900.29	627.34	8056.26	622.47				
9032.8	597.74	9048.36	623.54	8569.01	622.28	8734.36	617.03	8902.53	614.63				
9371.08	589.63	9485.6	597.64	9129.37	593.72	9281.36	587.84	9333.13	587.84				
10126.44	605.05	10318.7	619.14	9582.83	623.72	9933.14	622.0510076.02		613.33				
12712.95	615.8812930.41		604.1410546.67		619.1310817.95		617.8411391.67		615.88				
14239.42	610.3514245.73		607.8413489.45		607.8413919.53		609.813973.81		611.76				
15476.13	580.5815587.75		602.2714342.09		601.1114937.52		589.2815444.43		583.92				
16099.15	573.416152.13		575.7115616.55		572.4915661.86		567.9816043.88		567.98				
16950.86	648.16	17393.1	583.9216242.24		609.6516261.55		612.3716503.76		642.85				
20244.3	642.8921246.46		651.83	19538.5	650.219655.57		650.219888.76		650.49				
24028.86	652.6224689.72		644.1221507.96		646.0823210.44		648.0423598.93		648.97				
26973.2	653.9227556.37		660.5724917.28		661.9626049.53		661.9626694.99		653.92				
28265.38	651.4828564.08		651.9627797.86		650.8227972.15		651.2828114.38		650.37				
31664.75	743.0531809.71		655.6428890.93		658.5330006.53		684.3130681.38		685.31				
35150.81	757.5635351.42		743.2732436.56		695.9632471.82		696.0134090.86		762.74				
36399.44	781.0436560.07		757.6835708.92		776.2435751.04		776.53	36062.5	770.66				
			782.1637346.75		79038053.74		791.338410.26		800				

Manning's n values

Sta	n Val	Sta	n Val	Sta	n Val
0	.1515444.43				

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
15444.43	16152.13		5	5	5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.94	Reach Len. (ft)	5.00	5.00	5.00

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20254.05	642.81	21256	644.0621517.44	646.0423219.56	648.0223607.97	648.96			
24037.81	652.6224698.53		660.624926.04	661.9826058.05	661.9826703.37	653.96			
26981.51	653.9627564.57		651.98 27806	650.8327980.25	651.2828122.46	650.34			
28273.42	651.4528572.05		655.6228898.84	658.51 30014.2	684.25 30688.9	685.26			
31672.06	742.8831816.99		743.132443.71	695.9232478.96	695.9734097.66	762.57			
31517.38	757.4235357.95		757.5535715.37	776.135757.48	776.436068.88	770.56			
36405.74	780.9536566.33		782.0837352.85	79038059.68	791.3238416.13	800			
Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.1515452.01		.1516162.77		.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
15452.01	16162.77		5	5		.1	.3		
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1490801.00	133826.20	1668464.00				
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1490801.00	133826.20	1668464.00				
Q Total (cfs)	6730000.00	Flow (cfs)	3108868.00	410894.30	3210238.00				
Top width (ft)	33515.22	Top width (ft)	14169.73	710.76	18634.73				
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.09	3.07	1.92				
Max Chl Dpth (ft)	191.95	Hydr. Depth (ft)	105.21	188.29	89.54				
Conv. Total (cfs)	711981100.0	Conv. (cfs)	328893800.0	43469380.0	339618000.0				
Length wtd. (ft)	5.00	Wetted Per. (ft)	14184.75	712.74	18645.87				
Min Ch El (ft)	567.98	Shear (lb/sq ft)	0.59	1.05	0.50				
Alpha	1.04	Stream Power (lb/ft s)	1.22	3.22	0.96				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	155866.30	24773.23	184570.80				
C & E Loss (ft)	0.00	Cum SA (acres)	1436.23	121.69	1763.48				

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276306.*

INPUT

Description:

Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800 178.01	793.66	579.15	779.88	1220.15	762.23	1381.45	756.29	
1639.05	748.75 1790.11	748.01	2106.01	748.01	2407.58	747.47	3217.52	716.35	
3282.3	713.1 3364.61	711.99	3374.81	711.93	3556.7	718.92	3718.95	718.01	
3847.92	717.05 3986.38	713.53	4324.85	705.44	4737.36	697.05	5044.35	696.33	
5176.45	694.94 5320.19	691.78	5382.04	689.28	5709.64	686.61	6025.25	685.45	
6152.57	686.02 6351.47	682.04	6501.9	680.05	6566.25	678.06	6610.55	678.06	
6746.47	679.45 6943.08	689.47	6999.99	686.71	7116.99	681.83	7445.43	664.53	
7488.72	663.4 7628.45	654.55	7893.38	629.13	7906.11	627.61	8062.19	622.68	
8187.55	621.68 8417.37	623.83	8575.32	622.57	8740.8	617.26	8909.09	614.85	
9039.46	598.01 9055.03	597.91	9136.09	593.93	9288.19	587.96	9340.01	587.96	
9377.99	589.77 9492.58	619.28	9589.89	623.93	9940.46	622.2410083.44		613.54	
10133.9	605.28 10326.3	604.3510554.44		619.2710825.92		617.9611400.06		615.97	
12722.31	615.9712939.94	607.9613499.39		607.9613929.78		609.95 13984.1		611.94	
14249.92	610.514256.22	602.4614352.66		601.314948.53		589.3615455.81		583.98	
15487.92	580.6115600.99	575.7615630.16		572.5215676.07		567.9816058.82		567.98	
16114.6	573.3816168.08	583.9816258.16		609.6516277.46		612.37 16519.6		642.74	
16966.55	648.0617408.65	651.719553.36		650.05 19670.4		650.0519903.51		650.34	
20258.94	642.7821260.77	644.0321522.19		646.0223224.12		648.0123612.49		648.95	
24042.28	652.6124702.93	660.6124930.42		661.99 26062.3		661.9926707.56		653.98	
26985.67	653.9827568.66	651.9927810.07		650.83 27984.3		651.28 28126.5		650.33	
28277.44	651.4428576.04	655.6128902.79		658.530018.04		684.2230692.66		685.24	
31675.72	742.7931820.63	743.0132447.28		695.932482.53		695.9534101.05		762.48	
35160.66	757.3435361.21	757.4935718.59		776.03 35760.7		776.3336072.06		770.52	
36408.89	780.9136569.46	782.04 37355.9		79038062.66		791.3238419.07		800	

Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.1515455.81		.1516168.08		.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
15455.81	16168.08		5	5		.1	.3		

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1490871.00	134102.90	1668766.00				
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1490871.00	134102.90	1668766.00				
Q Total (cfs)	6730000.00	Flow (cfs)	3107978.00	411648.20	3210374.00				
Top width (ft)	33539.02	Top width (ft)	14173.31	712.27	18653.44				
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.08	3.07	1.92				
Max Chl Dpth (ft)	191.95	Hydr. Depth (ft)	105.19	188.28	89.46				
Conv. Total (cfs)	712121000.0	Conv. (cfs)	328864300.0	43557700.0	339699100.0				
Length wtd. (ft)	5.00	Wetted Per. (ft)	14188.31	714.26	18664.56				
Min Ch El (ft)	567.98	Shear (lb/sq ft)	0.59	1.05	0.50				
Alpha	1.04	Stream Power (lb/ft s)	1.22	3.21	0.96				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	155695.20	24757.86	184379.30				
C & E Loss (ft)	0.00	Cum SA (acres)	1434.61	121.61	1761.34				

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276303.*

INPUT

SS_Rev3.rep

Description:									
Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	178.05	793.66	579.3	779.87	1220.45	762.22	1381.78	756.29
1639.45	748.74	1790.55	748	2106.53	748	2408.17	747.46	3218.31	716.37
3283.1	713.12	3365.43	712	3375.64	711.94	3557.57	718.92	3719.87	718
3848.86	717.04	3987.36	713.51	4325.91	705.42	4738.52	697.03	5045.59	696.31
5177.72	694.92	5321.5	691.75	5383.36	689.25	5711.04	686.57	6026.73	685.43
6154.08	686	6353.03	682	6503.5	680	6567.86	678	6612.17	678
7484.13	679.4	6944.78	689.42	7001.71	686.66	7118.74	681.8	7447.26	664.54
7490.56	663.42	7630.33	654.61	7895.31	629.22	7908.05	627.7	8064.17	622.76
8189.56	621.76	8419.44	623.92	8577.43	622.66	8742.94	617.34	8911.27	614.93
9041.67	598.1	9057.25	598	9138.33	594	9290.47	588	9342.3	588
9380.29	589.82	9494.91	619.33	9592.24	624	9942.9	622.310085.91	613.6	
10136.39	605.3610328.83		604.4310557.03		619.3210828.57		61811402.86	616	
12725.49	61612943.12		608	13502.7	608	13933.2	61013987.54	612	
14253.41	610.5614259.72		602.5214356.18		601.3614952.19		589.38	15459.6	584
15491.85	580.62	15605.4	575.78	15634.7	572.53	15680.8	567.98	16063.8	567.98
16119.75	573.38	16173.4	58416263.47		609.6516282.77		612.3616524.88	642.7	
16971.78	648.0217413.84		651.6619558.32		65019675.34		65019908.42	650.29	
20263.81	642.7421265.54		64421526.93		64623228.69		64823617.01	648.95	
24046.76	652.6124707.33		660.6224934.79		66226066.56		66226711.75	654	
26989.83	65427572.76		65227814.14		650.8427988.36		651.2828130.53	650.32	
28281.46	651.4228580.03		655.6128906.75		658.530021.87		684.1930696.42	685.21	
31679.38	742.7131824.27		742.9332450.86		695.88	32486.1	695.9334104.45	762.39	
35163.95	757.2735364.47		757.4235721.82		775.9635763.92		776.2636075.25	770.47	
36412.04	780.86	36572.6	78237358.95		79038065.63		791.33	38422	800

Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.15	15459.6	.15	16173.4	.15				
Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15459.6	16173.4		5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1490936.00	134382.50	1669058.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1490936.00	134382.50	1669058.00
Q Total (cfs)	6730000.00	Flow (cfs)	3107086.00	412412.60	3210502.00
Top Width (ft)	33562.12	Top Width (ft)	14176.95	713.80	18671.37
Vel Total (ft/s)	2.04	Avg. Vel (ft/s)	2.08	3.07	1.92
Max Chl Dpth (ft)	191.95	Hydr. Depth (ft)	105.17	188.26	89.39
Conv. Total (cfs)	712256300.0	Conv. (cfs)	328832300.0	43646880.0	339777200.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14191.93	715.79	18682.48
Min Ch El (ft)	567.98	Shear (lb/sq ft)	0.59	1.05	0.50
Alpha	1.04	Stream Power (lb/ft s)	1.22	3.21	0.96
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	155524.10	24742.45	184187.70
C & E Loss (ft)	0.00	Cum SA (acres)	1432.98	121.52	1759.20

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276300.*

INPUT

Description:									
Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	178.1	793.65	579.44	779.85	1220.75	762.22	1382.12	756.28
1639.85	748.73	1790.99	747.99	2107.05	747.99	2408.76	747.44	3219.1	716.39
3283.91	713.13	3366.26	712.01	3376.47	711.95	3558.44	718.91	3720.78	717.99
3849.81	717.02	3988.34	713.49	4326.97	705.4	4739.68	697.02	5046.82	696.29
5178.99	694.9	5322.81	691.72	5384.68	689.21	5712.44	686.54	6028.21	685.4
6155.59	685.98	6354.59	681.96	6505.09	679.95	6569.48	677.94	6613.79	677.94
6749.79	679.34	6946.48	689.36	7003.43	686.62	7120.49	681.77	7449.08	664.55
7492.4	663.44	7632.2	654.67	7897.25	629.31	7909.99	627.79	8066.15	622.83
8191.57	621.83	8421.5	624.02	8579.53	622.76	8745.09	617.42	8913.46	615
9043.89	598.19	9059.47	598.09	9140.58	594.07	9292.75	588.04	9344.59	588.04
9382.59	589.87	9497.24	619.37	9594.59	624.07	9945.34	622.3610088.39	613.67	
10138.88	605.4410331.37		604.510559.62		619.3610831.23		618.0411405.65	616.03	
12728.56	616.0312946.29		608.0413506.01		608.0413936.62		610.0513990.97	612.06	
14256.91	610.6114263.22		602.59	14359.7	601.4214955.86		589.4115463.39	584.02	
15495.78	580.6415609.81		575.815639.24		572.5415685.53		567.9816068.78	567.98	
16124.91	573.3816178.72		584.0216268.78		609.6516288.07		612.3616530.15	642.67	
16977.01	647.9917419.02		651.6219563.27		649.9519680.29		649.9519913.34	650.24	
20268.69	642.721270.32		643.9721531.68		645.9823233.25		647.9923621.53	648.94	
24051.23	652.6124711.74		660.6324939.17		662.0126070.82		662.0126715.94	654.02	
26993.99	654.0227576.86		652.0127818.21		650.8427992.41		651.2728134.57	650.3	
28285.48	651.4128584.02		655.6	28910.7	658.49	30025.7	684.1630700.19	685.19	
31683.04	742.6231827.92		742.8432454.43		695.8632489.67		695.9134107.85	762.3	
35167.23	757.235367.73		757.3635725.04		775.8935767.14		776.1936078.44	770.42	
36415.19	780.8136575.73		781.96	37362	79038068.61		791.3438424.93	800	

Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1515463.39		.1516178.72		.15				
Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15463.39	16178.72		5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1491012.00	134661.30	1669358.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1491012.00	134661.30	1669358.00
Q Total (cfs)	6730000.00	Flow (cfs)	3106209.00	413168.40	3210623.00

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Top Width (ft)	33585.13	Top Width (ft)	14180.51	715.33	18689.28
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.08	3.07	1.92
Max Chl Dpth (ft)	191.95	Hydr. Depth (ft)	105.15	188.25	89.32
Conv. Total (cfs)	712399500.0	Conv. (cfs)	328805600.0	43735660.0	339858200.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14195.47	717.31	18700.37
Min Ch El (ft)	567.98	Shear (lb/sq ft)	0.59	1.05	0.50
Alpha	1.04	Stream Power (lb/ft s)	1.22	3.21	0.96
Frcn Loss (ft)	0.00	Cum Volume (acre-ft)	155353.00	24727.01	183996.10
C & E Loss (ft)	0.00	Cum SA (acres)	1431.35	121.44	1757.06

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276297.*

INPUT

Description:

[illegible]

Manning's	n Values		num=	3	
Sta	n Val	Sta	n Val	Sta	n Val
0	.1515467.19		.1516184.03		.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15467.19	16184.03		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1491085.00	134938.40	1669667.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1491085.00	134938.40	1669667.00
Q Total (cfs)	6730000.00	Flow (cfs)	3105316.00	413921.90	3210762.00
Top Width (ft)	33608.27	Top Width (ft)	14184.09	716.84	18707.34
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.08	3.07	1.92
Max Chl Dpth (ft)	191.95	Hydr. Depth (ft)	105.12	188.24	89.25
Conv. Total (cfs)	712543700.0	Wetted Per. (cfs)	32877700.0	43824290.0	339941800.0
Length Wd. (ft)	5.00	Wetted Per. (ft)	14199.03	718.82	18718.40
Min Chl El (ft)	567.98	Shear (lb/sq ft)	0.58	1.05	0.50
Alpha	1.04	Stream Power (lb/ft s)	1.22	3.21	0.96
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	155181.80	24711.53	183804.50
C & E Loss (ft)	0.00	Cum SA (acres)	1429.72	121.36	1754.91

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276294.*

INPUT

Description:

Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	178.18	793.64	579.72	779.83	1221.35	762.21	1382.8	756.26		
1640.65	748.72	1791.87	747.97	2108.08	747.97	2409.94	747.42	3220.68	716.42		
3285.52	713.17	3367.91	712.03	3378.13	711.97	3560.19	718.9	3722.6	717.97		
3851.7	716.96	3990.3	713.46	4329.1	705.36	4742.01	696.99	5049.3	696.25		
5181.53	694.87	5325.42	691.67	5387.32	689.14	5715.24	686.47	6031.37	685.36		
6159.61	677.82	6508.28	675.88	6582.28	679.85	6572.7	677.82	677.82	677.82		
6753.1	679.24	6949.89	689.26	7006.86	686.52	7123.98	681.72	7452.74	695.56		
7496.07	663.47	7635.94	654.78	7901.12	629.49	7913.87	627.96	8070.11	622.97		
8195.59	621.97	8425.64	624.21	8583.74	622.95	8749.38	617.58	8917.83	615.15		
9048.33	598.37	9063.92	598.27	9145.06	594.21	9297.31	588.12	9349.18	588.12		
9387.19	589.97	9501.9	619.47	9599.3	624.12	9950.21	622.48	10093.34	613.81		
10143.85	605.59	10336.44	604.64	10564.8	619.46	10836.54	618.12	12141.85	616.09		
12734.8	616.91	12952.64	608.12	123152.64	608.12	123943.46	610.15	13997.23	612.18		
14263.6	610.72	124720.22	607.11	14366.75	601.54	14963.2	589.46	15470.98	584.06		
16135.24	580.66	15618.64	575.83	15648.31	572.56	1569	569.98	16078.74	567.96		
16937.4	575.88	16937.4	575.88	16937.4	575.88	16937.4	575.88	16937.4	575.88		
16987.48	647.92	17429.39	651.93	159573.18	645.85	16960.17	649.85	19923.17	650.15		
20278.45	642.63	21279.86	643.91	21541.16	649.94	23242.37	647.97	23630.57	648.93		
24060.18	652.62	24270.52	660.65	242497.93	660.65	242607.93	662.03	26276.34	654.06		
27002.31	654.06	27585.05	652.03	287826.35	650.85	28000.51	651.27	28142.64	650.28		

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 28293.52 651.38 28592 655.5928918.61 658.4730033.37 684.130707.71 685.14
 31690.35 742.45 31835.2 742.6732461.58 695.8232496.81 695.8734114.64 762.13
 35173.8 757.0635374.26 757.2335731.49 775.7535773.57 776.0536084.81 770.33
 36421.49 780.72 36582 781.88 37368.1 79038074.55 791.35 38430.8 800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515470.98 .1516189.35 .15
 Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15470.9816189.35 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1491149.00	135217.80	1669964.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1491149.00	135217.80	1669964.00
Q Total (cfs)	6730000.00	Flow (cfs)	3104397.00	414683.30	3210920.00
Top width (ft)	33630.45	Top width (ft)	14187.82	718.37	18724.25
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.08	3.07	1.92
Max chl Dpth (ft)	191.95	Hydr. Depth (ft)	105.10	188.23	89.19
Conv. Total (cfs)	712681100.0	Conv. (cfs)	328743700.0	43913360.0	340024000.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14202.75	720.35	18735.30
Min Ch El (ft)	567.98	Shear (lb/sq ft)	0.58	1.05	0.50
Alpha	1.04	Stream Power (lb/ft s)	1.22	3.20	0.95
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	155010.60	24696.03	183612.80
C & E Loss (ft)	0.00	Cum SA (acres)	1428.10	121.28	1752.76

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276291.*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	178.23	793.64	579.86	779.82	1221.65	762.21	1383.14	756.26			
1641.06	748.71	1792.31	747.96	2108.6	747.96	2410.53	747.41	3221.47	716.44			
3286.32	713.18	3368.74	712.04	3378.96	711.98	3561.06	718.89	3723.52	717.96			
3852.64	716.98	3991.28	713.44	4330.16	705.34	4743.17	696.97	5050.54	696.24			
5182.8	694.85	5326.72	691.64	5388.64	689.1	5716.65	686.44	6032.65	685.33			
6160.12	685.92	6359.27	681.84	6509.88	679.8	6574.31	677.76	6618.66	677.76			
6754.75	679.18	6951.59	689.2	7008.58	686.48	7125.73	681.69	7454.57	664.57			
7497.91	663.49	7637.81	654.84	7903.06	629.57	7915.81	628.05	8072.08	623.04			
8197.6	622.05	8427.7	624.3	8585.85	623.05	8751.52	617.66	8920.02	615.23			
9050.55	598.46	9066.14	598.36	9147.3	594.28	9299.59	588.16	9351.47	588.16			
9389.5	590.02	9504.23	619.51	9601.66	624.28	9952.65	622.54	10095.81	613.88			
10146.34	605.67	10338.97	604.71	10567.39	619.5	10839.2	618.16	11414.05	616.12			
12737.92	616.12	12955.82	608.16	13515.95	608.16	13946.88	610.21	14001.26	612.24			
14267.4	610.77	14273.72	602.77	14370.27	601.61	14966.87	589.49	15474.77	584.08			
15507.57	580.67	15623.05	575.85	15652.85	572.56	15699.74	567.98	16083.72	567.98			
16140.36	573.36	16194.67	584.08	16284.7	609.64	16303.99	612.35	16545.99	642.56			
16992.71	647.88	17434.58	651.49	19578.14	649.81	19695.11	649.81	19928.09	650.1			
20283.33	642.59	21284.63	643.88	21545.91	645.92	2246.93	647.96	23635.09	648.93			
24064.65	652.62	24724.95	660.67	24952.31	662.04	26083.59	662.04	26728.5	654.08			
27006.47	654.08	27589.15	652.04	27830.42	650.86	28004.56	651.27	28146.68	650.27			
28297.54	651.36	28595.99	655.58	28922.56	658.47	30037.21	684.07	30711.47	685.12			
31694.01	742.36	31838.84	742.59	32465.15	695.83	32500.38	695.85	34118.04	762.04			
35177.08	756.99	35377.52	757.17	35734.71	775.68	35776.79	775.98	36088	770.28			
36424.64	780.68	36585.13	781.84	37371.14	79038077.52		791.36	38433.74	800			

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515474.77 .1516194.67 .15
 Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15474.7716194.67 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1491218.00	135498.40	1670251.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1491218.00	135498.40	1670251.00
Q Total (cfs)	6730000.00	Flow (cfs)	3103537.00	415449.80	3211013.00
Top width (ft)	33653.70	Top width (ft)	14191.29	719.90	18742.52
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.08	3.07	1.92
Max chl Dpth (ft)	191.95	Hydr. Depth (ft)	105.08	188.22	89.12
Conv. Total (cfs)	712817900.0	Conv. (cfs)	328715700.0	44002980.0	340099200.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14206.19	721.88	18753.55
Min Ch El (ft)	567.98	Shear (lb/sq ft)	0.58	1.04	0.50
Alpha	1.04	Stream Power (lb/ft s)	1.22	3.20	0.95
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	154839.50	24680.49	183421.10
C & E Loss (ft)	0.00	Cum SA (acres)	1426.47	121.20	1750.61

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276288.*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15474.77	748.71	1792.31	747.96	2108.6	747.96	2410.53	747.41	3221.47	716.44			

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0	800	178.27	793.63	580.01	779.8	1221.95	762.21	1383.48	756.25		
1641.46	748.71	1792.75	747.95	2109.12	747.95	2411.12	747.39	3222.26	716.45		
3287.13	713.2	3369.56	712.05	3379.78	711.99	3561.93	718.89	3724.43	717.95		
3853.58	716.96	3992.25	713.42	4331.22	705.32	4744.33	696.96	5051.78	696.22		
5184.07	694.83	5328.03	691.61	5389.96	689.06	5718.05	686.41	6034.12	685.31		
6161.63	685.9	6360.82	681.8	6511.48	679.75	6575.92	677.7	6620.28	677.7		
6756.41	679.13	6953.3	689.15	7010.3	686.43	7127.47	681.66	7456.39	664.57		
7499.75	663.5	7639.69	654.89	7905	629.66	7917.75	628.14	8074.06	623.11		
8199.61	622.12	8429.77	624.4	8587.95	623.15	8753.67	617.73	8922.21	615.3		
9052.77	598.55	9068.36	598.45	9149.54	594.35	9301.87	588.2	9353.76	588.2		
9391.8	590.07	9506.56	619.56	9604.01	624.35	9955.09	622.61	10098.29	613.94		
10148.83	605.74	10341.5	604.79	10569.98	619.55	10841.86	618.21	11416.84	616.15		
12741.05	616.15	12958.99	608.21	13519.26	608.21	13950.29	610.25	14004.7	612.3		
14270.9	610.82	14277.21	602.84	14373.79	601.66	14970.54	589.51	15478.57	584.1		
15511.5	580.68	15627.47	575.87	15657.39	572.57	15704.47	567.97	16088.7	567.97		
16145.51	573.36	16199.99	584.11	16290.01	609.64	16309.29	612.35	16551.27	642.52		
16997.94	647.85	17439.76	651.45	19583.09	649.75	19700.05	649.75	19933.01	650.05		
20288.21	642.56	21289.4	643.85	21550.65	645.9	23251.5	647.95	23639.61	648.92		
24069.13	652.59	24729.35	660.68	24956.69	662.05	26087.85	662.05	26732.69	654.1		
27010.63	654.12	27593.24	652.05	27834.5	650.86	28008.62	651.27	28150.72	650.25		
28301.56	651.35	28599.98	655.57	28926.52	658.46	30041.04	684.04	30715.23	685.09		
31697.66	742.28	31842.48	742.53	32468.73	695.78	32503.96	695.83	34121.44	761.95		
35180.37	756.92	35380.78	757.11	35737.94	775.61	35780.02	775.92	36091.18	770.23		
36427.79	780.63	36588.26	781.8	37374.2	790	38080.5	791.36	38436.68	800		

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515478.57 .1516199.99 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15478.57 16199.99 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1491297.00	135780.30	1670561.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1491297.00	135780.30	1670561.00
Q Total (cfs)	6730000.00	Flow (cfs)	3102654.00	416220.80	3211126.00
Top width (ft)	33677.20	Top width (ft)	14194.86	721.42	18760.92
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.08	3.07	1.92
Max Chl Dpth (ft)	191.96	Hydr. Depth (ft)	105.06	188.21	89.04
Conv. Total (cfs)	712965100.0	Conv. (cfs)	328690000.0	44093750.0	340181400.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14209.75	723.41	18771.93
Min Ch El (ft)	567.97	Shear (lb/sq ft)	0.58	1.04	0.50
Alpha	1.04	Stream Power (lb/ft s)	1.21	3.20	0.95
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	154668.30	24664.92	183229.40
C & E Loss (ft)	0.00	Cum SA (acres)	1424.84	121.11	1748.46

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276285.*

INPUT
Description:

Station Elevation Data num= 120											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	178.31	793.63	580.15	779.79	1222.25	762.21	1383.82	756.24		
1641.86	748.7	1793.19	747.94	2109.63	747.94	2411.71	747.38	3223.05	716.47		
3287.93	712.21	3370.39	712.06	3380.61	712	3562.81	718.88	3725.34	717.94		
3854.53	716.95	3993.23	713.41	4332.28	705.3	4745.49	696.94	5053.01	696.2		
5185.34	694.81	5329.33	691.59	5391.28	689.03	5719.45	686.37	6035.6	685.29		
6163.14	685.88	6362.38	681.76	6513.07	679.7	6577.53	677.64	6621.9	677.64		
6758.06	679.08	6955	689.1	7012.02	686.39	7129.22	681.64	7458.22	664.58		
7501.59	663.52	7641.56	654.95	7906.94	629.75	7919.69	628.23	8076.04	623.18		
8201.62	622.19	8431.83	624.49	8590.05	623.24	8755.81	617.81	8924.39	615.38		
9054.98	598.64	9070.58	598.54	9151.79	594.42	9304.15	588.24	9356.05	588.24		
9394.1	590.12	9508.89	619.61	9606.36	624.42	9957.53	622.67	10100.76	614.01		
10151.31	605.82	10344.04	604.86	10572.57	619.61	10844.51	618.24	11419.64	616.18		
12744.17	616.18	12962.17	608.24	13522.58	608.24	13953.71	610.31	14008.13	612.36		
14274.39	610.87	14280.71	602.91	14377.31	601.72	14974.21	589.54	15482.36	584.12		
15515.43	580.69	15631.88	575.88	15661.92	572.58	15709.2	567.97	16093.67	567.97		
16150.66	573.35	16205.3	584.12	16295.32	609.64	16314.6	612.34	16556.55	642.48		
17003.17	647.81	17444.94	651.41	19588.05	649.71	19704.99	649.71	19937.93	650		
20293.09	642.52	21294.17	643.82	21555.39	645.88	23256.06	647.94	23644.13	648.92		
24073.6	652.59	24733.75	660.69	24961.07	662.06	26092.11	662.06	26736.88	654.12		
27014.79	654.12	27597.34	652.06	27838.57	650.86	28012.67	651.27	28154.75	650.24		
28305.58	651.34	28603.96	655.57	28930.47	658.45	30044.88	684.02	30719	685.07		
31701.32	742.19	31846.12	742.42	32472.3	695.76	32507.53	695.83	34124.83	761.86		
35183.65	756.84	35384.04	757.05	35741.16	775.54	35783.23	775.92	36094.37	770.18		
36430.94	780.59	36591.39	781.76	37377.24	790.38	38083.47	791.37	38439.61	800		

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515482.36 .1516205.3 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15482.36 16205.3 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1491359.00	136059.10	1670862.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1491359.00	136059.10	1670862.00
Q Total (cfs)	6730000.00	Flow (cfs)	3101767.00	416983.70	3211249.00
Top width (ft)	33701.65	Top width (ft)	14198.43	722.94	18780.28
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.08	3.06	1.92
Max Chl Dpth (ft)	191.96	Hydr. Depth (ft)	105.04	188.20	88.97

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Conv. Total (cfs)	713099700.0	Conv. (cfs)	SS_Rev3.rep	44182900.0	340258700.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	328658100.0	724.93	18791.28
Min Ch El (ft)	567.97	Shear (lb/sq ft)	14213.29	1.04	0.49
Alpha	1.04	Stream Power (lb/ft s)	1.21	3.20	0.95
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	154497.10	24649.32	183037.60
C & E Loss (ft)	0.00	Cum SA (acres)	1423.21	121.03	1746.31

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276283.*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	178.36	793.62	580.29	779.78	1222.55	762.2	1384.16	756.23			
1642.26	748.7	1793.63	747.93	2110.15	747.93	2412.3	747.37	3223.84	716.49			
3288.74	713.23	3371.21	712.07	3381.44	712.01	3563.68	718.88	3726.26	717.93			
3855.47	716.93	3994.21	713.39	4333.34	705.29	4746.66	696.93	5054.25	696.18			
5186.61	694.79	5330.64	691.56	5392.6	688.99	5720.85	686.34	6037.08	685.27			
6164.65	685.86	6363.94	681.72	6514.67	679.65	6579.14	677.58	6623.52	677.58			
6759.72	679.02	6956.71	689.04	7013.73	686.34	7130.96	681.61	7460.05	664.59			
7503.43	663.54	7643.43	655.01	7908.87	629.84	7921.63	628.32	8078.02	623.26			
8203.62	622.26	8433.9	624.59	8592.16	623.34	8757.96	617.89	8926.58	615.45			
9057.2	598.73	9072.8	598.63	9154.03	594.49	9306.43	588.28	9358.34	588.28			
9396.4	590.17	9511.22	619.65	9608.72	624.49	9959.97	622.73	10103.24	614.08			
10153.8	605.91	10346.57	604.93	10575.16	619.64	10847.17	618.28	11422.44	616.21			
12747.29	616.21	12965.35	608.28	13525.89	608.28	13957.13	610.35	14011.56	612.42			
14277.89	610.93	14284.21	602.96	14380.83	601.78	14977.87	589.56	15486.15	584.14			
15519.36	580.71	15636.29	575.91	15666.46	572.59	15713.94	567.97	16098.65	567.97			
16155.81	573.35	16210.62	584.14	16300.62	609.63	16319.9	612.34	16561.83	642.45			
17008.4	647.78	17450.13	651.37	19593	649.65	19709.94	649.65	19942.84	649.95			
20297.97	642.49	21298.95	643.79	21560.14	645.86	23260.62	647.93	23648.65	648.91			
24078.07	652.59	24738.16	660.72	24965.45	662.07	26096.37	662.07	26741.07	654.14			
27018.94	654.14	27601.44	652.07	27842.64	650.87	28016.72	651.26	28158.79	650.23			
28309.6	651.32	28607.95	655.56	28934.42	658.44	30048.71	683.99	30722.76	685.05			
31704.97	742.13	31849.76	742.33	32475.88	695.73	32511.1	695.79	34128.23	761.77			
35186.93	756.77	35387.3	756.98	35744.39	775.47	35786.45	775.78	36097.55	770.14			
36434.09	780.54	36594.53	781.72	37380.29	790.38	38086.44	791.38	38442.55	800			

Manning's n	Values	num=	3
Sta	n Val	Sta	n Val
0	.1515486.15	.1516210.62	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
15486.15	16210.62	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1491422.00	136337.80	1671168.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1491422.00	136337.80	1671168.00
Q Total (cfs)	6730000.00	Flow (cfs)	3100862.00	417741.80	3211396.00
Top width (ft)	33725.72	Top width (ft)	14202.17	724.47	18799.09
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.08	3.06	1.92
Max chl depth (ft)	191.96	Hydr. Depth (ft)	105.01	188.19	88.90
Conv. Total (cfs)	713233900.0	Conv. (cfs)	328624100.0	44271570.0	340338300.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14217.01	726.46	18810.07
Min Ch El (ft)	567.97	Shear (lb/sq ft)	0.58	1.04	0.49
Alpha	1.04	Stream Power (lb/ft s)	1.21	3.20	0.95
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	154325.90	24633.69	182845.80
C & E Loss (ft)	0.00	Cum SA (acres)	1421.58	120.95	1744.15

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276280.*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	178.4	793.62	580.43	779.77	1222.85	762.2	1384.5	756.22			
1642.67	748.69	1794.07	747.92	2110.67	747.92	2412.9	747.36	3224.63	716.51			
3289.55	713.24	3372.04	712.08	3382.27	712.02	3564.55	718.87	3727.17	717.92			
3856.42	716.92	3995.19	713.37	4334.4	705.27	4747.82	696.91	5055.49	696.16			
5187.88	694.77	5331.94	691.53	5393.92	688.95	5722.25	686.31	6038.56	685.24			
6166.16	685.84	6365.5	681.68	6516.26	679.6	6580.76	677.52	6625.15	677.52			
6761.38	678.97	6950.41	688.99	7015.45	686.3	7132.71	681.58	7461.88	664.59			
7505.26	663.56	7645.3	655.06	7910.81	629.93	7923.57	628.41	8080	623.33			
8205.63	622.34	8435.96	624.68	8594.26	623.44	8760.1	617.97	8928.77	615.53			
9059.42	598.82	9075.03	598.72	9156.27	594.56	9308.71	588.32	9360.64	588.32			
9398.7	590.22	9513.55	619.7	9611.07	624.56	9962.41	622.79	10105.71	614.15			
10156.29	605.97	10349.11	605.10	10577.75	619.69	10849.83	618.32	11425.24	616.24			
12750.41	616.24	12968.52	608.32	13529.2	608.32	13960.55	610.41	14014.99	612.48			
14281.39	610.98	14287.71	603.02	14384.36	601.84	14981.54	589.59	15489.94	584.16			
15523.29	580.72	15640.71	575.92	15671	572.61	15718.67	567.97	16103.63	567.97			
16160.97	573.35	16215.94	584.16	16305.93	609.63	16325.21	612.34	16567.11	642.41			
17013.63	647.74	17455.31	651.32	19597.96	649.61	19714.88	649.61	19947.76	649.9			
20302.85	642.45	21303.72	643.76	21564.88	645.84	23265.18	647.92	23653.17	648.91			
24082.55	652.58	24742.56	660.71	24969.83	662.08	26100.62	662.08	26745.26	654.16			
27023.1	654.16	27605.53	652.08	27846.71	650.87	28020.77	651.26	28162.83	650.21			
28313.62	651.31	28611.94	655.55	28938.38	658.44	30052.54	683.96	30726.52	685.02			
31708.63	742.02	31853.4	742.24	32479.45	695.71	32514.67	695.77	34131.63	761.69			
35190.22	756.73	35390.57	756.92	35747.61	775.43	35789.67	775.71	36100.74	770.09			

36437.24 780.4936597.66 781.6837383.34 79038089.41 791.3838445.48 800

Manning's n Values num= 3
Sta n Val Sta n Val Sta n Val
0 .1515489.94 .1516215.94 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
15489.9416215.94 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1491492.00	136617.20	1671486.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1491492.00	136617.20	1671486.00
Q Total (cfs)	6730000.00	Flow (cfs)	3099948.00	418495.90	3211556.00
Top width (ft)	33748.00	Top width (ft)	14205.73	726.00	18816.27
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.08	3.06	1.92
Max Chl Dpth (ft)	191.96	Hydr. Depth (ft)	104.99	188.18	88.83
Conv. Total (cfs)	713381400.0	Conv. (cfs)	328595100.0	44360650.0	340425600.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14220.56	727.99	18827.23
Min Ch El (ft)	567.97	Shear (lb/sq ft)	0.58	1.04	0.49
Alpha	1.04	Stream Power (lb/ft s)	1.21	3.19	0.95
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	154154.70	24618.02	182653.90
C & E Loss (ft)	0.00	Cum SA (acres)	1419.95	120.86	1741.99

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276277.*

INPUT

Description:

Station	Elevation	Data	num=	120	Station	Elevation	Data	num=	120	Station	Elevation	Data	num=	120	Station	Elevation	Data	num=	120
0	800	178.45	793.61	580.58	779.76	1223.15	762.2	1384.84	756.22										
1643.07	748.68	1794.51	747.91	2111.18	747.91	2413.49	747.34	3225.42	716.52										
3290.35	713.26	3372.87	712.09	3383.1	712.03	3565.43	718.87	3728.08	717.91										
3857.36	716.9	3996.17	713.36	4335.47	705.25	4748.98	696.9	5056.73	696.14										
5189.15	694.75	5333.25	691.51	5395.25	688.92	5723.65	686.28	6040.04	685.22										
6167.67	685.82	6367.06	681.64	6517.86	679.55	6582.37	677.46	6626.77	677.46										
6763.03	678.92	6960.11	688.94	7017.17	686.25	7134.46	681.56	7463.7	664.6										
7507.1	663.57	7647.17	655.12	7912.75	630.02	7925.51	628.49	8081.98	623.4										
8207.64	622.41	8438.03	624.78	8596.37	623.53	8762.25	618.05	8930.95	615.6										
9061.64	598.91	9077.25	598.81	9158.51	594.63	9310.99	588.36	9362.93	588.36										
9401	590.27	9515.88	619.75	9613.42	624.63	9964.85	622.85	10108.19	614.22										
10158.77	606.05	10351.64	605.07	10580.34	619.74	10852.49	618.36	11428.03	616.27										
12753.53	616.27	12971.7	608.36	13532.51	608.36	13963.97	610.45	14018.42	612.54										
14284.89	611.03	14291.21	603.09	14387.88	601.91	14985.21	589.61	15493.74	584.18										
15527.22	580.73	15645.12	575.94	15675.54	572.61	15723.41	567.97	16108.61	567.97										
16166.12	573.34	16221.25	584.18	16311.24	609.63	16330.51	612.34	16572.39	642.37										
17018.87	647.71	17460.5	651.28	19602.91	649.55	19719.82	649.55	19952.68	649.86										
20307.72	642.41	21308.49	643.73	21569.62	645.82	23269.74	647.91	23657.69	648.9										
24087.02	652.58	24746.96	660.72	24974.21	662.09	26104.88	662.09	26749.45	654.18										
27027.26	654.18	27609.63	652.09	27850.78	650.88	28024.82	651.26	28166.87	650.2										
28317.64	651.29	2828615.93	655.54	28942.33	658.43	30056.38	683.93	30730.28	685										
31712.29	741.93	31857.05	742.16	32483.03	695.69	32518.24	695.73	34135.02	761.6										
35193.5	756.63	35393.83	756.86	35750.84	775.33	35792.89	775.64	36103.93	770.04										
36440.39	780.43	36600.79	781.64	37386.39	79038092.39		791.39	38448.41	800										

Manning's n Values num= 3
Sta n Val Sta n Val Sta n Val
0 .1515493.74 .1516221.25 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
15493.7416221.25 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1491562.00	136893.50	1671793.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1491562.00	136893.50	1671793.00
Q Total (cfs)	6730000.00	Flow (cfs)	3099079.00	419244.80	3211676.00
Top width (ft)	33771.89	Top width (ft)	14209.21	727.51	18835.18
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.08	3.06	1.92
Max Chl Dpth (ft)	191.96	Hydr. Depth (ft)	104.97	188.17	88.76
Conv. Total (cfs)	713521500.0	Conv. (cfs)	328567600.0	44448760.0	340505200.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14224.01	729.50	18846.12
Min Ch El (ft)	567.97	Shear (lb/sq ft)	0.58	1.04	0.49
Alpha	1.04	Stream Power (lb/ft s)	1.21	3.19	0.95
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	153983.50	24602.33	182462.10
C & E Loss (ft)	0.00	Cum SA (acres)	1418.32	120.78	1739.83

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276274.*

INPUT

Description:

Station	Elevation	Data	num=	120	Station	Elevation	Data	num=	120	Station	Elevation	Data	num=	120	Station	Elevation	Data	num=	120
0	800	178.49	793.61	580.72	779.74	1223.45	762.2	1385.17	756.21										
1643.47	748.68	1794.94	747.9	2111.7	747.9	2414.08	747.33	3226.21	716.54										
3291.16	713.28	3373.69	712.1	3383.92	712.04	3566.3	718.86	3728.99	717.9										

SS_Rev3.rep									
3858.31	716.89	3997.15	713.34	4336.53	705.23	4750.14	696.88	5057.97	696.13
5190.42	694.74	5334.56	691.48	5396.57	688.88	5725.05	686.24	6041.52	685.2
6169.18	685.8	6368.82	681.6	6519.45	679.5	6583.98	677.4	6628.39	677.4
6764.69	678.87	6961.82	688.89	7018.89	686.2	7136.2	681.53	7465.53	664.61
7508.94	663.59	7649.05	655.18	7914.68	630.1	7927.45	628.58	8083.96	623.47
8209.65	622.48	8440.1	624.87	8598.47	623.63	8764.39	618.13	8933.14	615.68
9063.86	599	9079.47	598.9	9160.75	594.7	9313.27	588.4	9365.22	588.4
9403.3	590.32	9518.21	619.79	9615.78	624.7	9967.29	622.91	10110.66	614.28
10161.26	606.13	10354.18	605.15	10582.93	619.78	10855.14	618.41	11430.83	616.3
12756.66	616.31	12974.87	608.41	13535.83	608.41	13967.39	610.51	14021.85	612.6
14288.38	611.09	14294.71	603.15	14391.4	601.96	14988.88	589.64	15497.53	584.2
15531.15	580.74	15649.53	575.96	15680.08	572.62	15728.14	567.97	16113.59	567.97
16171.27	573.34	16226.57	584.21	16316.54	609.63	16335.82	612.33	16577.67	642.34
17024.1	647.67	17465.68	651.24	19607.87	649.51	19724.76	649.51	19957.59	649.81
20312.6	642.38	21313.26	643.72	21574.37	645.8	23274.3	647.92	3662.21	648.9
24091.5	652.58	24751.37	660.74	24978.59	662.12	26109.14	662.12	26753.63	654.2
27031.42	654.22	27613.72	652.12	27854.85	650.88	28028.88	651.26	28170.9	650.19
28321.67	651.28	28619.92	655.54	28946.28	658.42	30060.21	683.93	30734.04	684.98
31715.95	741.84	31860.69	742.07	32486.6	695.67	32521.81	695.73	34138.42	761.51
35196.79	756.56	35397.09	756.79	35754.06	775.26	35796.11	775.57	36107.11	769.99
36443.54	780.43	36603.93	781.63	37389.44	79038	38095.36	791.43	38451.35	800

Manning's n Values		num= 3		Sta		n Val	
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1515497.53		.1516226.57		.15		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
15497.53	16226.57	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1491626.00	137172.80	1672093.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1491626.00	137172.80	1672093.00
Q Total (cfs)	6730000.00	Flow (cfs)	3098204.00	420005.30	3211791.00
Top width (ft)	33796.18	Top width (ft)	14212.77	729.04	18854.36
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.08	3.06	1.92
Max Chl Dpth (ft)	191.96	Hydr. Depth (ft)	104.95	188.16	88.68
Conv. Total (cfs)	713655700.0	Conv. (cfs)	328536500.0	44537770.0	340581400.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14227.56	731.03	18865.29
Min Ch El (ft)	567.97	Shear (lb/sq ft)	0.58	1.04	0.49
Alpha	1.04	Stream Power (lb/ft s)	1.21	3.19	0.95
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	153812.30	24586.60	182270.20
C & E Loss (ft)	0.00	Cum SA (acres)	1416.69	120.70	1737.67

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276271.*

INPUT

Description:

Station Elevation Data		num= 120		Sta		Elev		Sta		Elev	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	178.53	793.61	580.86	779.73	1223.74	762.19	1385.51	756.2		
1643.87	748.67	1795.38	747.89	2112.22	747.89	2414.67	747.32	3227	716.56		
3291.96	713.29	3374.52	712.11	3384.75	712.05	3567.17	718.86	3729.91	717.89		
3859.25	716.87	3998.12	713.32	4337.59	705.21	4751.31	696.87	5059.2	696.11		
5191.69	694.72	5335.86	691.45	5397.89	688.84	5726.45	686.21	6043	685.17		
6170.69	685.78	6370.18	681.56	6521.05	679.45	6585.59	677.34	6630.01	677.34		
6766.34	678.81	6963.52	688.83	7020.61	686.16	7137.95	681.5	7467.36	664.61		
7510.78	663.61	7650.92	655.23	7916.62	630.19	7929.39	628.67	8085.93	623.54		
8211.66	622.56	8442.16	624.97	8600.58	623.73	8766.54	618.2	8935.33	615.75		
9066.08	599.09	9081.69	598.99	9163	594.77	9315.55	588.44	9367.51	588.44		
9405.61	590.36	9520.54	619.84	9618.13	624.77	9969.73	622.97	10113.13	614.35		
10163.75	606.21	10356.71	605.22	10585.52	619.83	10857.8	618.44	11433.63	616.33		
12759.78	616.33	12978.05	608.44	13539.14	608.44	13970.8	610.55	14025.29	612.66		
14291.88	611.14	14298.21	603.21	14394.92	602.03	14992.55	589.67	15501.32	584.22		
15535.08	580.75	15653.95	575.97	15684.61	572.63	15732.87	567.97	16118.57	567.97		
16176.42	573.33	16231.89	584.22	16321.85	609.63	16341.12	612.33	16582.95	642.3		
17029.33	647.64	17470.87	651.21	19612.82	649.45	19729.71	649.45	19962.51	649.76		
20317.48	642.34	21318.03	643.67	21579.11	645.78	23278.87	647.89	23666.73	648.89		
24095.97	652.57	24755.77	660.75	24982.96	662.11	26113.4	662.11	26757.82	654.22		
27035.58	654.22	27617.82	652.11	27858.92	650.88	28032.93	651.26	28174.94	650.17		
28325.69	651.26	28623.91	655.53	28950.24	658.41	30064.05	683.87	30737.81	684.95		
31719.6	741.76	31864.33	741.99	32490.18	695.65	32525.38	695.71	34141.82	761.42		
35200.07	756.49	35400.36	756.73	35757.28	775.19	35799.33	775.5	36110.3	769.95		
36446.69	780.36	36607.06	781.56	37392.49	79038	38098.34	791.43	38454.29	800		

Manning's n Values		num= 3		Sta		n Val	
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1515501.32		.1516231.89		.15		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
15501.32	16231.89	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1491694.00	137453.30	1672418.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1491694.00	137453.30	1672418.00
Q Total (cfs)	6730000.00	Flow (cfs)	3097283.00	420767.40	3211951.00
Top width (ft)	33820.63	Top width (ft)	14216.51	730.57	18873.55
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.08	3.06	1.92
Max Chl Dpth (ft)	191.96	Hydr. Depth (ft)	104.93	188.15	88.61
Conv. Total (cfs)	713797000.0	Conv. (cfs)	328503800.0	44627420.0	340665800.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14231.29	732.56	18884.46
Min Ch El (ft)	567.97	Shear (lb/sq ft)	0.58	1.04	0.49

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Alpha	1.04	Stream Power (lb/ft s)	1.21	3.19	0.94
Fcrtn Loss (ft)	0.00	Cum Volume (acre-ft)	153641.10	24570.84	182078.20
C & E Loss (ft)	0.00	Cum SA (acres)	1415.05	120.61	1735.50

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276268.*

INPUT

Description:

[illegible]

Manning's n Values			num= 3		
Sta	n Val	Sta	n Val	Sta	n Val
0	.1515505	.12	.15	16237.2	.15
Bank Sta: Left 15505.12 Right 16237.2			Lengths: Left 5 Channel 5 Right 5		
Coeff			Contr. .1		
Expan. .3					

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	149177.00	137729.00	1627234.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	149177.00	137729.00	1627234.00
Q Total (cfs)	6730000.00	Flow (cfs)	3096424.00	421512.80	3212063.00
Top Width (ft)	33845.67	Top Width (ft)	14220.09	732.08	18893.50
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.08	3.06	1.92
Max Chl Dpth (ft)	191.96	Hydr. Depth (ft)	104.91	188.13	88.53
Conv. T Length (ft)	713937800.0	Conv. (cfs)	328477600.0	4715300.0	340744900.0
Length (ft)	5.00	Wetted Per. (ft)	14234.84	734.07	18904.40
Min Ch El (ft)	567.97	Shear (lb/sq ft)	0.58	1.04	0.49
Alpha	1.04	Stream Power (lb/ft s)	1.21	3.19	0.94
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	153469.80	24555.04	181886.20
C & E Loss (ft)	0.00	Cum SA (acres)	1413.42	120.53	1733.33

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276265.*

INPUT

Description:

[illegible]

Manning's n Values num= 3

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Sta	n Val	Sta	n Val	Sta	n Val
0	.1515508.91	.1516242.52	.15		

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
15508.9116242.52 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	760.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1491828.00	138007.90	1673038.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1491828.00	138007.90	1673038.00
Q Total (cfs)	6730000.00	Flow (cfs)	3095521.00	422269.80	3212210.00
Top Width (ft)	33868.38	Top Width (ft)	14223.65	733.61	18911.11
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.07	3.06	1.92
Max Chl Dpth (ft)	191.96	Hydr. Depth (ft)	104.88	188.12	88.47
Conv. Total (cfs)	714073300.0	Conv. (cfs)	328444100.0	44804090.0	340825200.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14238.38	735.60	18921.99
Min Ch El (ft)	567.97	Shear (lb/sq ft)	0.58	1.04	0.49
Alpha	1.04	Stream Power (lb/ft s)	1.21	3.18	0.94
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	153298.60	24539.22	181694.20
C & E Loss (ft)	0.00	Cum SA (acres)	1411.79	120.44	1731.16

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276262.*

INPUT

Description:

Station	Elevation	Data	num=	120
Sta	Elev	Sta	Elev	Sta
0	800	178.66	793.59	581.29
1645.08	748.65	1796.7	747.86	2113.77
3294.38	713.34	3376.99	712.14	3387.24
3862.08	716.83	4001.06	713.27	4340.77
5195.51	694.66	5339.78	691.37	5401.85
6175.22	685.72	6374.85	681.44	6525.84
6771.31	678.65	6968.63	688.67	7025.76
7516.29	663.66	7656.53	655.4	7922.43
8217.69	622.77	8448.36	625.25	8606.89
9072.73	599.37	9088.36	599.26	9169.72
9412.51	590.51	9527.33	619.98	9625.19
10171.21	606.43	10364.31	605.44	10593.29
12769.15	616.42	12987.58	608.56	13549.08
14302.37	611.3	14308.7	603.41	14405.49
15546.87	580.79	15667.19	576.03	15698.23
16191.88	573.32	16247.84	584.28	16337.77
17045.02	647.53	17486.42	651.07	19627.68
20332.12	642.23	21332.35	643.58	21593.35
24109.39	652.56	24768.98	660.78	24996.1
27048.06	654.28	27630.11	652.14	27871.13
28337.75	651.22	28635.88	655.51	28962.1
31730.57	741.53	31875.25	741.73	32500.9
35209.92	756.27	35410.14	756.54	35766.96
36456.14	780.22	36616.46	781.44	37401.63

Manning's n Values num= 3
Sta n Val Sta n Val Sta n Val
0 .15 15512.7 .1516247.84 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
15512.716247.84 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1491904.00	138291.50	1673374.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1491904.00	138291.50	1673374.00
Q Total (cfs)	6730000.00	Flow (cfs)	3094610.00	423041.10	3212349.00
Top Width (ft)	33893.25	Top Width (ft)	14227.29	735.14	18930.83
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.07	3.06	1.92
Max Chl Dpth (ft)	191.97	Hydr. Depth (ft)	104.86	188.12	88.39
Conv. Total (cfs)	714222800.0	Conv. (cfs)	328416200.0	44895340.0	340911300.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14242.00	737.13	18941.69
Min Ch El (ft)	567.96	Shear (lb/sq ft)	0.58	1.04	0.49
Alpha	1.04	Stream Power (lb/ft s)	1.20	3.18	0.94
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	153127.40	24523.36	181502.10
C & E Loss (ft)	0.00	Cum SA (acres)	1410.16	120.36	1728.99

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276259.*

INPUT

Description:

Station	Elevation	Data	num=	120
Sta	Elev	Sta	Elev	Sta
0	800	178.71	793.59	581.43
1645.48	748.64	1797.14	747.85	2114.28
3295.18	713.35	3377.82	712.15	3388.07
3863.03	716.81	4002.04	713.26	4341.83
5196.78	694.64	5341.08	691.34	5403.17
6176.73	685.7	6376.41	681.4	6527.43

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6772.96	678.6	6970.34	688.62	7027.48	685.97	7144.94	681.39	7474.67	664.64
7518.13	663.68	7458.41	655.46	7924.37	630.55	7937.15	629.03	8093.85	623.83
8219.17	622.85	8450.42	625.35	8609.7	624.11	8775.12	618.52	8944.07	616.05
9074.95	599.46	9090.58	599.35	9171.96	595.05	9324.66	588.6	9376.68	588.6
9414.81	590.56	9529.86	620.03	9627.54	625.05	9979.49	623.22	10123.03	614.62
10173.7	606.5	110366.85	605.5	110595.88	620.02	10868.43	618.61	11444.82	616.45
12772.27	616.45	12990.75	608.6	13352.37	608.61	13984.48	610.75	14039.01	612.9
14305.87	611.35	14312.2	603.46	14409.01	602.27	15007.22	589.77	15516.5	584.3
15550.8	580.8	15671.6	576.04	15702.77	572.67	15751.81	567.96	16163.49	567.96
16197.03	573.32	16253.16	584.3	16343.08	609.62	16362.35	612.32	16604.06	642.16
17050.25	647.5	17491.6	651.03	19632.64	649.25	19749.47	649.25	19982.18	649.17
20337	642.22	1337.12	643.55	21598.09	645.72	3297.11	647.85	23684.81	648.87
24113.87	652.56	24773.38	660.82	25000.48	662.15	26130.43	662.15	26774.58	654.3
25052.21	654.32	27634.21	652.15	27875.2	650.92	28049.13	651.25	28191.09	650.12
28341.77	651.21	28639.86	655.52	28966.04	658.38	30079.38	683.73	30752.62	684.86
31734.23	741.41	31387.88	741.65	32504.47	695.57	32539.66	695.63	33415.55	761.07
35213.2	756.23	35413.41	756.48	35770.18	774.91	35812.23	775.23	36123.04	769.75
36459.29	780.17	36619.59	781.43	37404.68	790381	110.23	791.43	38466.02	800
Manning's n Values									
Sta	n	Val	Sta	n	Val	Sta	n	Val	
0	.15	15516.5		.15	16253.16				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
	15516.5	16253.16		5	5	5	.1	.3	
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.99	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1491962.00	138569.80	1673677.00				
E.G. slope (ft/ft)	0.000089	Area (sq ft)	1491962.00	138569.80	1673677.00				
Total (cfs)	6730000.00	Flow (cfs)	3093729.00	423801.00	3212470.00				
Top Width (ft)	33918.04	Top width (ft)	14230.86	736.66	18950.52				
Vel Total (ft/s)	2.04	Avg. vel. (ft/s)	2.07	3.06	1.92				
Max Chl Dpth (ft)	191.97	Hydr. Depth (ft)	104.84	188.11	88.32				
Conv. Total (cfs)	714353200.0	Conv. (cfs)	328382700.0	44984190.0	340986300.0				
Length wtd. (ft)	5.00	wetted Per. (ft)	14245.56	738.65	18961.37				
Min Ch El (ft)	567.96	Shear (lb/sq ft)	0.58	1.04	0.49				
Alpha	1.04	Stream Power (lb/ft s)	1.20	3.18	0.94				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	152950.16	24507.47	181310.00				
C & E Loss (ft)	0.00	Cum SA (acres)	1408.52	120.28	1726.82				

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276256.*

INPUT

[illegible]

Manning's n Values		num=	3		
Sta	n Val	Sta	n Val	Sta	n Val
0	.1515520.29		.1516258.47		.15

Bank	Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
	15520.29	16258.47	5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1492036.00	138847.60	1673994.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1492036.00	138847.60	1673994.00
Q Total (cfs)	6730000.00	Flow (cfs)	3092866.00	242551.80	3212582.00
Top Width (ft)	33942.99	Top Width (ft)	14234.42	738.18	18970.38
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.07	3.06	1.92
Max Chl Dpth (ft)	191.97	Hydr. Depth (ft)	104.82	188.09	88.24
Conv. Total (cfs)	714493900.0	wetted Per. (ft)	328355700.0	45072760.0	341065400.0
Length Wtd. (ft)	5.00	Shear (lb/sq ft)	14249.10	740.17	18981.21
Min Ch El (ft)	567.96	Stream Power (lb/ft s)	0.58	1.04	0.49
Alpha	1.04	Cum Volume (acre-ft)	1.20	3.18	0.94
Frctn Loss (ft)	0.00	Cum SA (acres)	152784.80	24491.55	181117.90
C & E Loss (ft)	0.00		1406.89	120.19	1724.64

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Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276253.*

INPUT
 Description:

Station Elevation Data			num= 120					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta
0	800	178.79	793.58	581.71	779.66	1225.54	762.18	1387.55
1646.29	748.63	1798.02	747.83	2115.32	747.83	2418.21	747.24	3231.74
3296.79	713.38	3379.47	712.17	3389.72	712.11	3572.41	718.82	3735.38
3864.92	716.78	4003.99	713.22	4343.96	705.09	4758.28	696.78	5066.63
5199.32	694.61	5343.7	691.29	5405.81	688.62	5734.86	686.01	6051.87
6179.75	685.66	6379.53	681.32	6530.62	679.15	6595.26	676.98	6639.75
6776.28	678.49	6973.75	688.52	7030.91	685.88	7148.43	681.34	7478.32
7521.8	663.71	7662.15	655.57	7928.24	630.72	7941.03	629.2	8097.81
8223.72	622.99	8454.56	625.54	8613.2	624.31	8779.41	618.67	8948.44
9079.39	599.64	9095.03	599.53	9176.45	595.19	9329.22	588.68	9381.27
9419.41	590.66	9534.52	620.12	9632.25	625.19	9984.37	623.34	10127.98
10178.67	606.66	10371.92	605.65	10601.06	620.11	110873.74	618.68	11450.42
12778.51	616.51	12997.1	608.68	13559.02	608.68	13991.32	610.85	14045.88
14312.86	611.45	14319.2	603.59	14416.06	602.39	15014.56	589.82	15524.08
15558.66	580.82	15680.43	576.08	15711.84	572.69	15761.28	567.96	16148.44
16207.33	573.31	16263.79	584.34	16353.7	609.62	16372.96	612.31	16614.62
17060.72	647.43	17501.97	650.95	19642.55	649.15	19759.36	649.15	19992.01
20346.76	642.12	21346.66	643.49	21607.58	645.66	23306.24	647.83	23693.85
24122.81	652.55	24782.19	660.82	25009.24	662.17	26138.95	662.17	26782.96
27060.53	654.34	27642.4	652.17	27883.34	650.91	28057.24	651.25	28199.16
28349.81	651.18	28647.84	655.49	28973.96	658.37	30087.05	683.73	30760.38
31741.54	741.24	31886.18	741.48	32511.62	695.53	32546.8	695.59	34162.2
35219.77	756.06	35419.93	756.35	35776.63	774.77	35818.65	775.09	36129.42
36465.59	780.08	36625.86	781.32	37410.78	79038	116.18	791.44	38471.89

Manning's n Values			num= 3		
Sta	n Val	Sta	n Val	Sta	n Val
0	.1515524	.08	.1516263	.79	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
15524.08	16263.79		5	5	5		.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1492108.00	139126.70	1674317.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1492108.00	139126.70	1674317.00
Q Total (cfs)	6730000.00	Flow (cfs)	3091990.00	425305.20	3212705.00
Top width (ft)	33968.23	Top width (ft)	14237.99	739.71	18990.54
Vel Total (ft/s)	2.04	Avg. Vel. (ft/s)	2.07	3.06	1.92
Max Ch Dpth (ft)	191.97	Hydr. depth (ft)	104.80	188.08	88.17
Conv. Total (cfs)	714634800.0	Conv. (cfs)	328327400.0	45161640.0	341145700.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14252.65	741.70	19001.35
Min Ch El (ft)	567.96	Shear (lb/sq ft)	0.58	1.04	0.49
Alpha	1.04	Stream Power (lb/ft s)	1.20	3.17	0.94
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	152613.60	24475.60	180925.80
C & E Loss (ft)	0.00	Cum SA (acres)	1405.26	120.11	1722.46

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276250.*

INPUT
 Description:

Station Elevation Data			num= 120					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta
0	800	178.84	793.57	581.85	779.64	1225.84	762.17	1387.89
1646.69	748.63	1798.46	747.82	2115.83	747.82	2418.8	747.23	3232.52
3297.6	713.4	3380.3	712.18	3390.55	712.12	3573.28	718.82	3736.29
3865.86	716.77	4004.97	713.21	4345.02	705.07	4759.44	696.76	5067.87
5200.59	694.59	5345	691.26	5407.13	688.59	5736.26	685.98	6053.35
6181.26	685.64	6381.09	681.28	6532.22	679.1	6596.87	676.92	6641.37
6777.93	678.44	6975.45	688.46	7032.63	685.84	7150.18	681.31	7480.15
7523.64	663.73	7664.02	655.63	7930.18	630.81	7942.97	629.29	8099.78
8225.73	623.07	8456.62	625.63	8615.31	624.4	8781.55	618.75	8950.63
9081.6	599.73	9097.25	599.62	9178.69	595.26	9331.5	588.72	9383.56
9421.71	590.71	9536.85	620.17	9634.6	625.26	9986.81	623.41	10130.46
10181.16	606.74	10374.45	605.72	10603.65	620.16	10876.4	618.72	11453.21
12781.63	616.54	13000.28	608.72	13562.33	608.72	13994.73	610.91	14049.31
14316.36	611.51	14322.7	603.65	14419.58	602.45	15018.23	589.85	15527.87
15562.59	580.83	15684.84	576.11	15716.38	572.71	15766.01	567.96	16153.42
16212.48	573.31	16269.11	584.36	16359	609.62	16378.26	612.31	16619.9
17065.95	647.39	17507.15	650.91	19647.5	649.1	19764.3	649.11	19996.93
20351.64	642.09	21351.44	643.46	21612.32	645.64	23310.8	647.82	23698.38
24127.29	652.55	24786.59	660.83	25013.62	662.18	26143.2	662.18	26787.14
27064.69	654.36	27646.4	652.18	27887.41	650.91	28061.29	651.25	28203.2
28353.83	651.16	28651.83	655.48	28977.91	658.36	30090.89	683.67	30764.14
31745.2	741.15	31889.82	741.39	32515.2	695.51	32550.37	695.57	34165.6
35223.05	755.98	35423.19	756.29	35779.85	774.73	35821.87	775.02	36132.6
36468.74	780.04	36628.99	781.28	37413.83	79038	119.15	791.45	38474.83

Manning's n Values			num= 3		
Sta	n Val	Sta	n Val	Sta	n Val
0	.1515527	.87	.1516269	.11	.15

Bank Sta: Left Right Lengths: Left Channel Right SS_Rev3.rep
 15527.8716269.11 5 5 5 Coeff Contr. Expan.
 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

Element	Left OB	Channel	Right OB
E.G. Elev (ft)	759.99		
Vel Head (ft)	0.07		
W.S. Elev (ft)	759.93		
Crit W.S. (ft)			
E.G. Slope (ft/ft)	0.000089		
Q Total (cfs)	6730000.00		
Top Width (ft)	33991.92		
Vel Total (ft/s)	2.04		
Max Chl Dpth (ft)	191.97		
Conv. Total (cfs)	714772400.0		
Length wtd. (ft)	5.00		
Min Ch El (ft)	567.96		
Alpha	1.04		
Frctn Loss (ft)	0.00		
C & E Loss (ft)	0.00		
Element			
Wt. n-Val.	0.150	0.150	0.150
Reach Len. (ft)	5.00	5.00	5.00
Flow Area (sq ft)	1492161.00	139406.40	1674646.00
Area (sq ft)	1492161.00	139406.40	1674646.00
Flow (cfs)	3091056.00	426062.90	3212881.00
Top Width (ft)	14241.62	741.24	19009.06
Avg. Vel. (ft/s)	2.07	3.06	1.92
Hydr. Depth (ft)	104.77	188.07	88.10
Conv. (cfs)	328291400.0	45250820.0	341230100.0
Wetted Per. (ft)	14256.26	743.23	19019.86
Shear (lb/sq ft)	0.58	1.04	0.49
Stream Power (lb/ft s)	1.20	3.17	0.93
Cum Volume (acre-ft)	152442.30	24459.61	180733.50
Cum SA (acres)	1403.62	120.02	1720.28

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276248.*

INPUT

Description:

Station	Elevation	Data	num=	120
Sta	Elev	Sta	Elev	Sta
0	800	178.88	793.57	582
1647.09	748.62	1798.9	747.81	2116.35
3298.41	713.42	3381.12	712.19	3391.38
3866.81	716.75	4005.95	713.19	4346.08
5201.86	694.57	5346.31	691.23	5408.45
6182.77	685.62	6382.65	681.24	6533.81
6779.59	678.39	6977.15	688.41	7034.35
7525.48	663.74	7665.9	655.69	7932.12
8227.74	623.14	8458.69	625.73	8617.41
9083.82	599.82	9099.47	599.71	9180.93
9424.02	590.76	9539.18	620.21	9636.96
10183.64	606.82	10376.98	605.81	10606.25
12784.76	616.57	13003.45	608.76	13565.64
14319.86	611.56	14326.2	603.71	14423.1
15566.52	580.85	15689.25	576.12	15720.92
16217.63	573.31	16274.42	584.38	16364.31
17071.18	647.36	17512.34	650.87	19652.46
20356.52	642.05	21356.21	643.43	21617.06
24131.76	652.55	24791	660.84	25018
27068.85	654.38	27650.59	652.19	27891.48
28357.85	681.15	28655.82	655.47	28981.87
31748.86	741.06	31893.46	741.31	32518.77
35226.34	755.91	35426.45	756.23	35783.07
36471.89	779.99	36632.12	781.24	37416.88
			79038122.12	

Manning's n	Values	num=	3
Sta	n Val	Sta	n Val
0	.1515531.67	.1516274.42	.15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15531.6716274.42 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

Element	Left OB	Channel	Right OB
E.G. Elev (ft)	759.99		
Vel Head (ft)	0.07		
W.S. Elev (ft)	759.93		
Crit W.S. (ft)			
E.G. Slope (ft/ft)	0.000089		
Q Total (cfs)	6730000.00		
Top Width (ft)	34017.25		
Vel Total (ft/s)	2.04		
Max Chl Dpth (ft)	191.97		
Conv. Total (cfs)	714912300.0		
Length wtd. (ft)	5.00		
Min Ch El (ft)	567.96		
Alpha	1.04		
Frctn Loss (ft)	0.00		
C & E Loss (ft)	0.00		
Element			
Wt. n-Val.	0.150	0.150	0.150
Reach Len. (ft)	5.00	5.00	5.00
Flow Area (sq ft)	1492237.00	139681.50	1674968.00
Area (sq ft)	1492237.00	139681.50	1674968.00
Flow (cfs)	3090199.00	426803.30	3212998.00
Top Width (ft)	14245.19	742.75	19029.30
Avg. Vel. (ft/s)	2.07	3.06	1.92
Hydr. Depth (ft)	104.75	188.06	88.02
Conv. (cfs)	328264600.0	45338330.0	341309400.0
Wetted Per. (ft)	14259.82	744.74	19040.08
Shear (lb/sq ft)	0.58	1.04	0.49
Stream Power (lb/ft s)	1.20	3.17	0.93
Cum Volume (acre-ft)	152271.00	24443.59	180541.30
Cum SA (acres)	1401.99	119.94	1718.10

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276245.*

INPUT

Description:

Station	Elevation	Data	num=	120
Sta	Elev	Sta	Elev	Sta
0	800	178.93	793.56	582.14
1647.49	748.61	1799.34	747.8	2116.87
3299.21	713.43	3381.95	712.2	3392.21
3867.75	716.74	4006.93	713.17	4347.14
5203.13	694.55	5347.61	691.21	5409.77
6184.28	685.6	6384.21	681.2	6535.41
6781.24	678.34	6978.86	688.36	7036.07
7527.32	663.76	7667.77	655.74	7934.06
8229.75	623.21	8460.75	625.82	8619.52
			624.6	8785.84

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9086.04	599.91	9101.69	599.8	9183.17	595.4	9336.06	588.8	9388.14	588.8
9426.32	590.81	9541.5	620.26	9639.31	625.4	9991.69	623.5310135	41	614.96
10186.13	606.910379	.52	605.8710608	.83	620.2510881	.71	618.811458	.81	616.6
12787.88	616.613006	.63	608.813368	.96	608.814001	.57	61114056	.17	613.2
14323.35	611.6114329	.69	603.7814426	.62	602.5715025	.56	589.915535	.46	584.4
15570.45	580.8615693	.67	576.1315725	.46	572.7115775	.48	567.9616163	.38	567.96
16222.79	573.2916279	.74	584.416369	.62	609.6116388	.87	612.316630	.46	641.97
17076.41	647.3217517	.52	650.8219657	.41	64919774	.18	64920006	.77	649.32
20361.39	642.0121360	.98	643.421621	.81	645.623319	.92	647.823707	.41	648.84
24136.24	652.54	24795.4	660.8525022	.38	662.226151	.72	662.226795	.52	654.4
27073.01	654.427654	.69	652.227895	.56	650.92	28069.4	651.2428211	.27	650.06
28361.87	651.1428659	.81	655.4728985	.82	658.3530098	.55	683.6130771	.67	684.74
31752.52	740.98	31897.1	741.2232522	.34	695.4732557	.51	695.5334172	.39	760.63
35229.62	755.8435429	.71	756.17	35786.3	774.5635828	.31	774.8936138	.98	769.52
36475.04	779.9536635	.26	781.237419	.93	79038125	.09	791.46	38480.7	800

Manning's n Values		num= 3		Sta		n Val	
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1515535	.46	.1516279	.74	.15		
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
15535.46	16279.74	5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.93	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1492302.00	139961.90	1675310.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1492302.00	139961.90	1675310.00
Q Total (cfs)	6730000.00	Flow (cfs)	3089288.00	427560.40	3213152.00
Top width (ft)	34042.73	Top width (ft)	14248.76	744.28	19049.69
Vel Total (ft/s)	2.03	Avg. Vel (ft/s)	2.07	3.05	1.92
Max Chl Dpth (ft)	191.97	Hydr. Depth (ft)	104.73	188.05	87.94
Conv. Total (cfs)	715057000.0	Conv. (cfs)	328234300.0	45427940.0	341394800.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14263.36	746.27	19060.45
Min Ch El (ft)	567.96	Shear (lb/sq ft)	0.58	1.04	0.49
Alpha	1.04	Stream Power (lb/ft s)	1.20	3.17	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	152099.70	24427.54	180349.00
C & E Loss (ft)	0.00	Cum SA (acres)	1400.35	119.85	1715.91

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276242.*

INPUT

Description:

Station Elevation Data		num= 120		Elev		Sta		Elev		Sta		Elev		Sta		Elev	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	178.97	793.56	582.28	779.61	1226.74	762.16	1388.9	756.12								
1647.89	748.61	1799.78	747.79	2117.39	747.79	2420.58	747.19	3234.89	716.73								
3300.02	713.45	3382.77	712.21	3393.03	712.15	3575.9	718.8	3739.03	717.79								
3868.69	716.72	4007.91	713.15	4348.2	705.02	4762.93	696.72	5071.58	695.92								
5204.4	694.53	5348.92	691.18	5411.1	688.48	5740.47	685.88	6057.78	684.94								
6185.79	685.58	6385.76	681.16	6537.01	678.95	6601.7	676.74	6646.24	676.74								
6782.9	678.28	6980.56	688.3	7037.78	685.7	7155.42	681.23	7485.63	664.68								
7529.15	663.78	7669.64	655.8	7935.99	631.08	7948.79	629.56	8105.72	624.26								
8231.75	623.28	8462.82	625.92	8621.62	624.69	8787.99	618.99	8957.19	616.5								
9088.26	600	9103.92	599.89	9185.42	595.47	9338.34	588.84	9390.43	588.84								
9428.62	590.86	9543.83	620.31	9641.66	625.47	9994.12	623.5910137	88	615.03								
10188.62	606.9710382	.05	605.9410611	.42	620.310884	.37	618.8411461	.61	616.63								
12791	616.63	13009.8	608.8413572	.27	608.8414004	.99	611.05	14059.6	613.26								
14326.85	611.6714333	.19	603.8414430	.15	602.6315029	.23	589.9215539	.25	584.42								
15574.38	580.8715698	.08	576.1515729	.99	572.7215780	.21	567.9616168	.36	567.96								
16227.94	573.2916285	.06	584.4216374	.93	609.6116394	.18	612.316635	.74	641.94								
17081.64	647.2917522	.71	650.7819662	.37	648.9519779	.12	648.9520011	.68	649.27								
20366.27	641.9821365	.75	643.3721626	.55	645.5823324	.48	647.7923711	.93	648.84								
24140.71	652.54	24799.8	660.8725026	.75	662.2126155	.98	662.2126799	.71	654.42								
27077.17	654.4227658	.79	652.2127899	.63	650.9328073	.45	651.2428215	.31	650.05								
28365.89	651.1228663	.79	655.4628989	.78	658.3430102	.39	683.5830775	.43	684.71								
31756.17	740.8931900	.74	741.1332525	.92	695.4532561	.08	695.5134175	.79	760.54								
35232.91	755.7735432	.98	756.135789	.52	774.4935831	.53	774.8236142	.16	769.47								
36478.19	779.936638	.39	781.1637422	.98	79038128	.07	791.4738483	.64	800								

Manning's n Values		num= 3		Sta		n Val	
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1515539	.25	.1516285	.06	.15		
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
15539.25	16285.06	5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1492367.00	140240.80	1675634.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1492367.00	140240.80	1675634.00
Q Total (cfs)	6730000.00	Flow (cfs)	3088395.00	428316.00	3213289.00
Top width (ft)	34068.70	Top width (ft)	14252.49	745.81	19070.40
Vel Total (ft/s)	2.03	Avg. Vel (ft/s)	2.07	3.05	1.92
Max Chl Dpth (ft)	191.96	Hydr. Depth (ft)	104.71	188.04	87.87
Conv. Total (cfs)	715191000.0	Conv. (cfs)	328201000.0	45516750.0	341473200.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14267.08	747.80	19081.14
Min Ch El (ft)	567.96	Shear (lb/sq ft)	0.58	1.04	0.49
Alpha	1.04	Stream Power (lb/ft s)	1.20	3.17	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	151928.40	24411.46	180156.70
C & E Loss (ft)	0.00	Cum SA (acres)	1398.72	119.77	1713.73

Warning: Divided flow computed for this cross-section.

SS_Rev3.rep

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276239.*

INPUT

Description:

Station Elevation Data		num= 120		Elev		Sta		Elev		Sta		Elev		Sta		Elev	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	179.01	793.56	582.42	779.59	1227.04	762.16	1389.24	756.11								
1648.3	748.6	1800.22	747.78	2117.9	747.78	2421.17	747.18	3235.68	716.74								
3300.82	713.46	3383.6	712.22	3393.86	712.16	3576.77	718.8	3739.95	717.78								
3869.64	716.71	4008.89	713.14	4349.26	705	4764.1	696.7	5072.82	695.9								
5205.67	694.51	5350.22	691.15	5412.42	688.44	5741.87	685.84	6059.26	684.92								
6187.3	685.56	6387.32	681.12	6538.6	678.9	6603.32	676.68	6647.86	676.68								
6784.55	678.23	6982.26	688.25	7039.5	685.65	7157.16	681.2	7487.46	664.69								
7530.99	663.8	7671.51	655.86	7937.93	631.17	7950.73	629.65	8107.7	624.33								
8233.76	623.36	8464.88	626.01	8623.73	624.79	8790.13	619.07	8959.38	616.57								
9090.48	600.09	9106.14	599.98	9187.66	595.54	9340.62	588.88	9392.73	588.88								
9430.92	590.9	9546.16	620.35	9644.02	625.54	9996.56	623.65	10140.35	615.1								
10191.1	607.05	10384.59	606.01	10614.02	620.34	10887.02	618.88	11464.4	616.66								
12794.12	616.66	13012.98	608.88	13575.58	608.88	14008.41	611.11	14063.04	613.32								
14330.35	611.72	14336.69	603.91	14433.67	602.69	15032.9	589.95	15543.05	584.44								
15578.31	580.88	15702.49	576.17	15734.53	572.73	15784.95	567.96	16173.34	567.96								
16233.09	573.29	16290.37	584.44	16380.23	609.61	16399.48	612.31	16641.02	641.9								
17086.88	647.25	17527.89	650.74	19667.32	648.91	19784.07	648.9	20016.6	649.23								
20371.15	641.94	21370.52	643.34	21631.29	645.56	23329.04	647.78	23716.46	648.83								
24145.19	652.54	24804.21	660.88	25031.13	662.22	26160.23	662.22	26803.9	654.44								
27081.33	654.44	27662.88	652.22	27903.7	650.93	28077.5	651.24	28219.34	650.03								
28369.91	651.11	28667.79	655.45	28993.73	658.33	30106.22	683.53	30779.19	684.69								
31759.83	740.81	31904.38	741.05	32529.49	695.43	32564.65	695.49	34179.19	760.45								
35236.19	755.73	35436.24	756.04	35792.75	774.42	35834.75	774.75	36145.35	769.42								
36481.34	779.85	36641.52	781.12	37426.02	790.38	38131.04	791.48	38486.57	800								

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515543.05 .1516290.37 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15543.05 16290.37 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1492439.00	140516.30	1675965.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1492439.00	140516.30	1675965.00
Q Total (cfs)	6730000.00	Flow (cfs)	3087527.00	429057.50	3213415.00
Top Width (ft)	34094.50	Top Width (ft)	14256.07	747.32	19091.11
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.07	3.05	1.92
Max Chl Dpth (ft)	191.96	Hydr. Depth (ft)	104.69	188.03	87.79
Conv. Total (cfs)	715330900.0	Conv. (cfs)	328172900.0	45604470.0	341553500.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14270.64	749.31	19101.84
Min Ch El (ft)	567.96	Shear (lb/sq ft)	0.58	1.04	0.48
Alpha	1.04	Stream Power (lb/ft s)	1.20	3.16	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	151757.10	24395.35	179964.40
C & E Loss (ft)	0.00	Cum SA (acres)	1397.08	119.68	1711.54

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276236.*

INPUT

Description:

Station Elevation Data		num= 120		Elev		Sta		Elev		Sta		Elev		Sta		Elev	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	179.06	793.55	582.57	779.58	1227.34	762.16	1389.58	756.11								
1648.7	748.59	1800.66	747.77	2118.42	747.77	2421.76	747.16	3236.47	716.76								
3301.63	713.48	3384.43	712.23	3394.69	712.17	3577.64	718.79	3740.86	717.77								
3870.58	716.69	4009.86	713.12	4350.32	704.98	4765.26	696.69	5074.06	695.89								
5206.94	694.49	5351.53	691.12	5413.74	688.41	5743.27	685.81	6060.74	684.9								
6188.81	685.54	6388.88	681.08	6540.2	678.85	6604.93	676.62	6649.48	676.62								
6786.21	678.18	6983.97	688.2	7041.22	685.61	7158.91	681.17	7489.28	664.7								
7532.83	663.81	7673.38	655.91	7939.87	631.25	7952.67	629.73	8109.68	624.4								
8235.77	623.43	8466.95	626.11	8625.83	624.89	8792.28	619.14	8961.56	616.65								
9092.7	600.18	9108.36	600.07	9189.9	595.61	9342.9	588.92	9395.02	588.92								
9433.22	590.95	9548.49	620.4	9646.37	625.61	9999	623.71	10142.83	615.17								
10193.59	607.13	10387.12	606.08	10616.61	620.39	10889.68	618.92	11467.2	616.69								
12797.25	616.69	13016.16	608.92	13578.9	608.92	14011.83	611.15	14066.47	613.38								
14333.84	611.77	14340.19	603.96	14437.19	602.76	15036.57	589.98	15546.84	584.46								
15582.24	580.89	15706.91	576.19	15739.07	572.74	15789.68	567.95	16178.32	567.95								
16238.24	573.28	16295.69	584.46	16385.54	609.61	16404.79	612.29	16646.3	641.86								
17092.11	647.22	17533.08	650.71	19672.28	648.85	19789.01	648.85	20021.52	649.18								
20376.03	641.91	21375.29	643.31	21636.04	645.54	23333.61	647.77	23720.97	648.83								
24149.66	652.53	24808.61	660.89	25035.51	662.23	26164.49	662.23	26808.09	654.46								
27085.49	654.46	27666.98	652.23	27907.77	650.93	28081.55	651.24	28223.38	650.02								
28373.94	651.09	28671.77	655.45	28997.68	658.32	30110.06	683.52	30782.95	684.66								
31763.49	740.72	31908.03	740.96	32533.07	695.41	32568.22	695.47	34182.59	760.37								
35239.48	755.63	35439.5	755.98	35795.97	774.35	35837.96	774.68	36148.54	769.37								
36484.49	779.81	36644.66	781.08	37429.07	790.38	38134.01	791.48	38489.5	800								

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515546.84 .1516295.69 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15546.84 16295.69 5 5 5 .1 .3

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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)		759.99	Element	Left OB	Channel	Right OB
Vel Head (ft)		0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)		759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)			Flow Area (sq ft)	1492499.00	140800.30	1676292.00
E.G. Slope (ft/ft)		0.000088	Area (sq ft)	1492499.00	140800.30	1676292.00
Q Total (cfs)		6730000.00	Flow (cfs)	3086616.00	429830.90	3213553.00
Top width (ft)		34118.11	Top width (ft)	14259.53	748.85	19109.72
Vel Total (ft/s)		2.03	Avg. Vel. (ft/s)	2.07	3.05	1.92
Max Chl Dpth (ft)		191.97	Hydr. Depth (ft)	104.67	188.02	87.72
Conv. Total (cfs)		715474800.0	Conv. (cfs)	328142000.0	45695870.0	341636900.0
Length wtd. (ft)		5.00	Wetted Per. (ft)	14274.08	750.84	19120.44
Min Ch El (ft)		567.95	Shear (lb/sq ft)	0.58	1.04	0.48
Alpha		1.04	Stream Power (lb/ft s)	1.19	3.16	0.93
Frctn Loss (ft)		0.00	Cum Volume (acre-ft)	151585.80	24379.20	179772.00
C & E Loss (ft)		0.00	Cum SA (acres)	1395.44	119.59	1709.34

Warning: Divided flow computed for this cross-section.

CROSS SECTION

 RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276233.*

INPUT

Description:		num=	120						
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	179.1	793.55	582.71	779.57	1227.64	762.16	1389.92	756.1
1649.1	748.59	1801.1	747.76	2118.94	747.76	2422.35	747.15	3237.26	716.78
3302.43	713.49	3385.25	712.24	3395.52	712.18	3578.52	718.79	3741.77	717.76
3871.53	716.68	4010.84	713.1	4351.39	704.96	4766.42	696.67	5075.3	695.87
5208.21	694.47	5352.83	691.1	5415.06	688.37	5744.67	685.78	6062.22	684.88
6190.32	685.52	6390.44	681.04	6541.79	678.8	6606.54	676.56	6651.1	676.56
6787.87	678.12	6985.67	688.15	7042.94	685.56	7160.66	681.15	7491.11	664.7
7534.67	663.83	7675.26	655.97	7941.8	631.34	7954.61	629.82	8111.65	624.47
8237.78	623.5	8469.01	626.2	8627.94	624.98	8794.42	619.22	8963.75	616.72
9094.91	600.27	9110.58	600.16	9192.14	595.68	9345.18	588.96	9397.31	588.96
9435.52	591	9550.82	620.45	9648.72	625.68	10001.44	623.77	10145.3	615.24
10196.08	607.21	10389.65	606.16	10619.2	620.44	10892.34	618.96	11470	616.72
12800.37	616.72	13019.33	608.96	13582.21	608.96	14015.25	611.2	14069.9	613.44
14337.34	611.82	14343.69	604.03	14440.71	602.82	15040.24	59015550.63		584.48
15586.17	580.91	15711.32	576.21	15743.61	572.75	15794.42	567.95	16183.3	567.95
16243.39	573.28	16301.01	584.48	16390.85	609.61	16410.09	612.29	16651.58	641.83
17097.34	647.18	17538.26	650.66	19677.23	648.81	19793.95	648.82	20026.43	649.13
20380.91	641.87	21380.07	643.28	21640.78	645.52	22338.17	647.76	23725.49	648.82
24154.13	652.53	24813.01	660.92	25039.89	662.24	26168.75	662.24	26812.28	654.48
27089.65	654.48	27671.08	652.24	27911.84	650.94	28085.6	651.24	28227.42	650.01
28377.96	651.08	28675.76	655.44	29001.63	658.32	30113.89	683.49	30786.71	684.64
31767.14	740.63	31911.67	740.88	32536.64	695.38	32571.79	695.44	34185.98	760.28
35242.76	755.53	35442.77	755.91	35799.2	774.28	35841.19	774.61	36151.72	769.33
36487.64	779.76	36647.79	781.04	37432.12	79038136.98		791.49	38492.44	800

Manning's n Values		num=	3
Sta	n Val	Sta	n Val
0	.1515550.63	.1516301.01	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
15550.63	16301.01		5	5	5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)		759.99	Element	Left OB	Channel	Right OB
Vel Head (ft)		0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)		759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)			Flow Area (sq ft)	1492566.00	141079.10	1676639.00
E.G. Slope (ft/ft)		0.000088	Area (sq ft)	1492566.00	141079.10	1676639.00
Q Total (cfs)		6730000.00	Flow (cfs)	3085726.00	430581.00	3213694.00
Top width (ft)		34144.52	Top width (ft)	14263.09	750.38	19131.04
Vel Total (ft/s)		2.03	Avg. Vel. (ft/s)	2.07	3.05	1.92
Max Chl Dpth (ft)		191.97	Hydr. Depth (ft)	104.65	188.01	87.64
Conv. Total (cfs)		715616000.0	Conv. (cfs)	328112100.0	45784650.0	341719200.0
Length wtd. (ft)		5.00	Wetted Per. (ft)	14277.62	752.37	19141.74
Min Ch El (ft)		567.95	Shear (lb/sq ft)	0.58	1.04	0.48
Alpha		1.04	Stream Power (lb/ft s)	1.19	3.16	0.93
Frctn Loss (ft)		0.00	Cum Volume (acre-ft)	151414.50	24363.03	179579.50
C & E Loss (ft)		0.00	Cum SA (acres)	1393.81	119.51	1707.15

Warning: Divided flow computed for this cross-section.

CROSS SECTION

 RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276230.*

INPUT

Description:		num=	120						
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	179.14	793.54	582.85	779.56	1227.94	762.15	1390.26	756.09
1649.5	748.58	1801.53	747.75	2119.45	747.75	2422.94	747.14	3238.05	716.8
3303.24	713.51	3386.08	712.25	3396.35	712.19	3579.39	718.78	3742.68	717.75
3872.47	716.66	4011.82	713.09	4352.45	704.94	4767.58	696.66	5076.53	695.85
5209.48	694.46	5354.14	691.07	5416.38	688.33	5746.07	685.74	6063.7	684.85
6191.83	685.5	6392	681	6543.39	678.75	6608.15	676.5	6652.73	676.5
6789.52	678.07	6987.38	688.09	7044.66	685.52	7162.4	681.12	7492.94	664.71
7536.51	663.85	7677.13	656.03	7943.74	631.43	7956.55	629.91	8113.63	624.54
8239.79	623.58	8471.08	626.3	8630.04	625.08	8796.57	619.3	8965.93	616.79
9097.13	600.36	9112.8	600.25	9194.39	595.75	9347.46	589	9399.6	589
9437.83	591.05	9553.15	620.49	9651.08	625.75	10003.88	623.84	10147.78	615.3
10198.56	607.28	10392.19	606.23	10621.79	620.48	10894.99	619	11472.8	616.75

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12803.49	616.7513022.51	60913585.52	60914018.66	611.2514073.33	613.5
14340.84	611.8814347.19	604.0914444.24	602.8815043.91	590.0315554.42	584.5
15590.1	580.9215715.73	576.2215748.14	572.7615799.15	567.9516188.28	567.95
16248.54	573.2716306.33	584.516396.16	609.616415.4	612.2916656.86	641.79
17102.57	647.1517543.44	650.6219682.18	648.7519798.89	648.7520031.35	649.08
20385.79	641.8321384.84	643.2521645.53	645.523342.73	647.7523730.01	648.82
24158.61	652.5324817.42	660.9125044.27	662.2526173.01	662.2526816.46	654.5
27093.8	654.527675.17	652.2527915.91	650.9428089.66	651.2428231.45	649.99
28381.98	651.0628679.75	655.4329005.59	658.3130117.73	683.4630790.48	684.62
31770.8	740.5531915.31	740.7932540.21	695.3632575.37	695.4234189.38	760.19
35246.04	755.4835446.03	755.8535802.42	774.2135844.41	774.5436154.91	769.28
36490.79	779.7236650.92	78137435.17	79038139.96	791.538495.38	800

Manning's n	Values	num=	3
Sta	n Val	Sta	n Val
0	.1515554.42	.1516306.33	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15554.42	16306.33		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1492626.00	141358.60	1676974.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1492626.00	141358.60	1676974.00
Q Total (cfs)	6730000.00	Flow (cfs)	3084818.00	431337.70	3213845.00
Top width (ft)	34170.91	Top width (ft)	14266.82	751.91	19152.17
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.07	3.05	1.92
Max Chl Dpth (ft)	191.97	Hydr. Depth (ft)	104.62	188.00	87.56
Conv. Total (cfs)	715750800.0	Conv. (cfs)	328077300.0	45873740.0	341799700.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14281.34	753.90	19162.85
Min Ch El (ft)	567.95	Shear (lb/sq ft)	0.58	1.03	0.48
Alpha	1.04	Stream Power (lb/ft s)	1.19	3.16	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	151243.20	24346.82	179387.10
C & E Loss (ft)	0.00	Cum SA (acres)	1392.17	119.42	1704.95

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276227.*

INPUT

Description:

Station	Elevation	Data	num=	120					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	179.19	793.54	582.99	779.55	1228.24	762.15	1390.6	756.08
1649.91	748.58	1801.97	747.74	2119.97	747.74	2423.53	747.13	3238.84	716.81
3304.04	713.52	3386.9	712.26	3397.18	712.19	3580.26	718.77	3743.6	717.74
3873.42	716.65	4012.8	713.07	4353.51	704.92	4768.75	696.65	5077.77	695.83
5210.75	694.44	5355.45	691.04	5417.7	688.3	5747.47	685.71	6065.18	684.83
6193.34	685.48	6393.56	680.96	6544.98	678.7	6609.76	676.44	6654.35	676.44
6791.18	678.02	6989.08	688.04	7046.37	685.47	7164.15	681.09	7494.76	664.72
7538.34	663.86	7679	656.08	7945.68	631.52	7958.49	630	8115.61	624.62
8241.8	623.65	8473.15	626.39	8632.14	625.18	8798.71	619.38	8968.12	616.87
9099.35	600.45	9115.03	600.34	9196.63	595.82	9349.74	589.04	9401.9	589.04
9440.13	591.1	9555.48	620.54	9653.43	625.82	10006.32	623.91	10150.25	615.37
10201.05	607.36	10394.72	606.31	10624.38	620.53	10897.65	619.04	11475.59	616.78
12806.61	616.78	13025.68	609.04	13588.83	609.04	14022.08	611.31	14076.76	613.56
14344.34	611.93	14350.69	604.15	14447.76	602.94	15047.58	590.05	15558.22	584.52
15594.03	580.93	15720.15	576.24	15752.68	572.77	15803.88	567.95	16193.25	567.95
16253.69	573.27	16311.64	584.52	16401.46	609.61	16420.71	612.29	16662.14	641.75
17107.8	647.11	17548.63	650.57	19687.14	648.71	19803.84	648.72	20036.27	649.03
20390.67	641.82	1389.61	643.22	21650.27	645.48	23347.29	647.74	23734.54	648.81
24163.08	652.52	24821.82	660.92	25048.65	662.26	26177.27	662.26	26820.65	654.52
27097.96	654.52	27679.27	652.26	27919.98	650.95	28093.71	651.23	28235.49	649.98
28386	651.05	28683.74	655.43	29009.54	658.33	30121.56	683.43	30794.24	684.59
31774.46	740.46	31918.95	740.71	32543.79	695.34	32578.94	695.43	34192.78	760.1
35249.32	755.41	35449.29	755.79	35805.64	774.14	35847.62	774.47	36158.09	769.23
36493.94	779.67	36654.05	780.96	37438.22	79038	142.93	791.53	38498.31	800

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1492695.00	141633.80	1677335.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1492695.00	141633.80	1677335.00
Q Total (cfs)	6730000.00	Flow (cfs)	3083911.00	432072.50	3214017.00
Top width (ft)	34197.29	Top width (ft)	14270.40	753.42	19173.47
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.07	3.05	1.92
Max Chl Dpth (ft)	191.97	Hydr. Depth (ft)	104.60	187.99	87.48
Conv. Total (cfs)	715897400.0	Conv. (cfs)	328048100.0	45961310.0	341888000.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14284.90	755.41	19184.13
Min Ch El (ft)	567.95	Shear (lb/sq ft)	0.58	1.03	0.48
Alpha	1.04	Stream Power (lb/ft s)	1.19	3.16	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	151071.90	24330.57	179194.50
C & E Loss (ft)	0.00	Cum SA (acres)	1390.53	119.33	1702.75

Warning: Divided flow computed for this cross-section.

CROSS SECTION

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SS_Rev3.rep
 20410.19 641.65 21408.7 643.121669.25 645.423365.54 647.723752.62 648.79
 24180.98 652.5124839.43 660.9725066.17 662.3 26194.3 662.326837.41 654.6
 27114.6 654.627695.66 652.327936.26 650.9628109.92 651.2328251.64 649.93
 28402.08 650.9928699.69 655.429025.36 658.27 30136.9 683.3230809.29 684.5
 31789.08 740.1131933.52 740.3732558.09 695.2632593.22 695.3234206.37 759.75
 35262.46 755.1335462.34 755.5435818.54 773.85 35860.5 774.236170.84 769.04
 36506.54 779.4936666.59 780.837450.41 79038154.82 791.5338510.05 800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515573.39 .1516332.91 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15573.3916332.91 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1492946.00	142746.10	1678663.00
E.G. Slope (ft/ft)	0.000092	Area (sq ft)	1492946.00	142746.10	1678663.00
Q Total (cfs)	6730000.00	Flow (cfs)	3145886.00	444321.60	3139793.00
Top width (ft)	34258.87	Top width (ft)	14284.71	759.52	19214.64
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.11	3.11	1.87
Max Chl Dpth (ft)	191.97	Hydr. Depth (ft)	104.51	187.94	87.36
Conv. Total (cfs)	701524700.0	Conv. (cfs)	327922200.0	46315380.0	327287100.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14299.14	761.52	19225.23
Min Ch El (ft)	567.95	Shear (lb/sq ft)	0.60	1.08	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.26	3.35	0.94
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	150386.50	24265.29	178424.10
C & E Loss (ft)	0.00	Cum SA (acres)	1383.98	118.99	1693.93

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276212.*

INPUT Description:

Station	Elevation	Data	num= 120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	179.41	793.51	583.7	779.48	1229.73	762.14	1392.29	756.04			
1651.92	748.54	1804.17	747.69	2122.55	747.69	2426.48	747.06	3242.79	716.9			
3308.07	713.6	3391.03	712.31	3401.32	712.24	3584.63	718.75	3748.16	717.69			
3878.14	716.58	4017.69	712.99	4358.81	704.82	4774.56	696.57	5083.96	695.74			
5217.1	694.34	5361.97	690.91	5424.3	688.11	5754.48	685.54	6072.57	684.72			
6200.89	685.38	6401.35	680.76	6552.96	678.45	6617.82	676.14	6662.46	676.14			
6799.45	677.75	6997.6	687.77	7054.96	685.24	7172.88	680.96	7503.9	664.75			
7547.53	663.95	7688.36	656.37	7955.36	631.96	7968.19	630.44	8125.5	624.97			
8251.85	624.01	8483.47	626.87	8642.67	625.66	8809.44	619.77	8979.05	617.24			
9110.44	600.9	9126.14	600.79	9207.84	596.17	9361.13	589.24	9413.36	589.24			
9451.63	591.35	9567.13	620.77	9665.2	626.17	10018.52	624.21	10162.63	615.71			
10213.49	607.74	10407.39	606.66	10637.33	620.76	10910.93	619.24	11489.58	616.93			
12822.22	616.93	13041.56	609.24	13605.4	609.24	144039.17	611.55	14093.92	613.86			
14361.82	612.19	14368.18	604.46	14465.37	603.24	15065.92	590.18	15577.18	584.62			
15613.69	580.99	15742.21	576.33	15775.37	572.82	15827.55	567.95	16218.15	567.95			
16279.45	573.25	16338.23	584.62	16428	609.59	16447.23	612.27	16688.54	641.57			
17133.96	646.94	17574.55	650.37	17971.91	648.45	19828.55	648.45	20060.85	648.79			
20415.06	641.61	21413.47	643.07	21673.99	645.38	23370.1	647.69	23757.13	648.79			
24185.45	652.51	24843.84	660.98	25070.54	662.31	26198.55	662.31	26841.6	654.62			
27118.76	654.62	27699.75	652.31	27940.33	650.97	28113.97	651.23	28255.67	649.92			
28406.1	650.98	28703.68	655.39	29029.31	658.26	30140.73	683.29	30813.05	684.47			
31792.74	740.03	31937.16	740.28	32561.66	695.24	32596.79	695.33	34209.77	759.66			
35265.75	755.05	35465.6	755.47	35821.77	773.78	35863.72	774.13	36174.02	768.99			
36509.7	779.44	36669.72	780.76	37453.46	790	38157.8	791.54	38512.98	800			

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515577.18 .1516338.23 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15577.1816338.23 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1493021.00	143024.80	1679015.00
E.G. Slope (ft/ft)	0.000092	Area (sq ft)	1493021.00	143024.80	1679015.00
Q Total (cfs)	6730000.00	Flow (cfs)	3144801.00	445055.10	3140144.00
Top width (ft)	34263.25	Top width (ft)	14288.28	761.05	19213.92
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.11	3.11	1.87
Max Chl Dpth (ft)	191.97	Hydr. Depth (ft)	104.49	187.93	87.39
Conv. Total (cfs)	701709400.0	Conv. (cfs)	327895500.0	46404060.0	327409900.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14302.68	763.05	19224.49
Min Ch El (ft)	567.95	Shear (lb/sq ft)	0.60	1.08	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.26	3.35	0.94
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	150215.10	24248.89	178231.40
C & E Loss (ft)	0.00	Cum SA (acres)	1382.34	118.90	1691.73

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276210.*

INPUT Description:

Station	Elevation	Data	num= 120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	179.45	793.51	583.84	779.47	1230.03	762.13	1392.63	756.04	

1652.32	748.54	1804.61	747.68	2123.07	747.68	2427.08	747.05	3243.58	716.91
3308.88	713.62	3391.86	712.32	3402.15	712.25	3585.5	718.74	3749.07	717.68
3879.08	716.56	4018.67	712.97	4359.88	704.8	4775.72	696.56	5085.2	695.72
5218.37	694.33	5363.28	690.88	5425.62	688.08	5755.88	685.51	6074.05	684.69
6202.4	685.36	6402.91	680.72	6554.56	678.4	6619.43	676.08	6664.08	676.08
6801.11	677.7	6999.3	687.72	7056.68	685.2	7174.63	680.93	7505.73	664.76
7549.37	663.97	7690.23	656.42	7957.3	632.05	7970.13	630.53	8127.48	625.04
8253.86	624.08	8485.54	626.97	8644.77	625.76	8811.58	619.85	8981.24	617.32
9112.66	600.99	9128.36	600.88	9210.08	596.24	9363.41	589.28	9415.65	589.28
9453.94	591.4	9569.46	620.82	9667.55	626.24	10020.96	624.27	10165.1	615.78
10215.97	607.82	10409.93	606.73	10639.92	620.81	10913.59	619.28	11492.38	616.96
12825.34	616.96	13044.74	609.28	13608.71	609.28	14042.59	611.61	14097.35	613.92
14365.32	612.25	14371.68	604.53	14468.89	603.31	15069.59	590.21	15580.98	584.64
15617.62	581.57	15746.63	576.35	15779.91	572.83	15832.29	567.94	16223.13	567.94
16284.6	573.24	16343.54	584.64	16433.31	609.59	16452.54	612.27	16693.81	641.54
17139.19	646.91	17579.73	650.32	17971.67	648.41	19833.49	648.42	20065.77	648.74
20419.94	641.58	21418.24	643.04	21678.73	645.36	23374.66	647.68	23761.65	648.78
24189.93	652.52	24848.24	660.99	25074.92	662.32	26202.81	662.32	26845.79	654.64
27122.92	654.64	27703.85	652.32	27944.4	650.97	28118.02	651.22	28259.71	649.9
28410.12	650.96	28707.67	655.38	29033.27	658.26	30144.57	683.26	30816.81	684.45
31796.4	739.94	31940.8	740.23	32565.23	695.22	32600.36	695.28	34213.16	759.57
35269.03	754.98	35468.86	755.41	35824.99	773.71	35866.94	774.06	36177.21	768.94
36512.84	779.43	36672.85	780.72	37456.51	790.38	38160.77	791.54	38515.92	800

Manning's n Values	num=	3
Sta n Val Sta n Val	n Val	n Val
0 .1515580.98	.1516343.54	.15

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
15580.9816343.54	5 5 5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1493076.00	143304.70	1679371.00
E.G. Slope (ft/ft)	0.000092	Area (sq ft)	1493076.00	143304.70	1679371.00
Q Total (cfs)	6730000.00	Flow (cfs)	3143654.00	445804.40	3140541.00
Top width (ft)	34267.55	Top width (ft)	14291.92	762.56	19213.07
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.11	3.11	1.87
Max Chl Dpth (ft)	191.98	Hydr. Depth (ft)	104.47	187.93	87.41
Conv. Total (cfs)	701889400.0	Conv. (cfs)	327860000.0	46494120.0	327535300.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14306.31	764.56	19223.62
Min Ch El (ft)	567.94	Shear (lb/sq ft)	0.60	1.08	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.26	3.35	0.94
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	150043.70	24232.46	178038.70
C & E Loss (ft)	0.00	Cum SA (acres)	1380.70	118.81	1689.52

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276207.*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta Elev Sta Elev Sta Elev	Elev	Elev
0 800 179.49	793.51	583.99
1652.72	748.53	1805.05
3309.68	713.63	3392.68
3880.03	716.55	4019.65
5219.64	694.31	5364.59
6203.91	685.34	6404.47
6802.77	677.65	7001.01
7551.21	663.98	7692.1
8255.87	624.16	8487.61
9114.88	601.09	9130.58
9456.24	591.44	9571.79
10218.46	607.89	10412.46
12828.47	616.99	13047.91
14368.82	612.31	14375.18
15621.55	581.01	15751.04
16289.75	573.24	16348.86
17144.42	646.87	17584.92
20424.82	641.54	21423.01
24194.4	652.52	24852.64
27127.08	654.66	27707.95
28414.14	650.95	28711.66
31800.05	739.85	31944.44
35272.31	754.91	35472.13
36516	779.35	36675.98
	780.68	37459.56
	790.38	38163.75
	791.55	38518.86

Manning's n Values	num=	3
Sta n Val Sta n Val	n Val	n Val
0 .1515584.77	.1516348.86	.15

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
15584.7716348.86	5 5 5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1493143.00	143584.50	1679700.00
E.G. Slope (ft/ft)	0.000092	Area (sq ft)	1493143.00	143584.50	1679700.00
Q Total (cfs)	6730000.00	Flow (cfs)	3142580.00	446547.30	3140873.00
Top width (ft)	34271.79	Top width (ft)	14295.48	764.09	19212.21
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.10	3.11	1.87
Max Chl Dpth (ft)	191.98	Hydr. Depth (ft)	104.45	187.92	87.43
Conv. Total (cfs)	702066100.0	Conv. (cfs)	327830400.0	46583320.0	327652400.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14309.86	766.09	19222.75
Min Ch El (ft)	567.94	Shear (lb/sq ft)	0.60	1.08	0.50

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Alpha	1.05	Stream Power (lb/ft s)	SS_Rev3.rep	1.26	3.34	0.94
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	149872.30	24215.99	177845.90	
C & E Loss (ft)	0.00	Cum SA (acres)	1379.05	118.73	1687.32	

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276204.*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta
0	800	179.54	793.5	584.13	779.45	1230.63	762.13	1393.31	756.02			
1653.12	748.53	1805.49	747.66	2124.1	747.66	2428.26	747.03	3245.16	716.95			
3310.49	713.65	3393.51	712.34	3403.8	712.27	3587.25	718.73	3750.9	717.66			
3880.97	716.53	4020.63	712.93	4362	704.77	4778.05	696.53	5087.68	695.68			
5220.91	694.29	5365.89	690.83	5428.27	688	5758.68	685.44	6077	684.65			
6205.42	685.32	6406.03	680.64	6557.75	678.3	6622.65	675.96	6667.33	675.96			
6804.42	677.59	7002.71	687.62	7060.12	685.1	7178.12	680.87	7509.38	664.77			
7553.05	664	7693.98	656.54	7961.17	632.23	7974.01	630.71	8131.44	625.19			
8257.88	624.23	8489.67	627.16	8648.98	625.95	8815.87	620.01	8985.61	617.47			
9117.1	601.18	9132.8	601.06	9214.56	596.38	9367.97	589.36	9420.23	589.36			
9458.54	591.49	9574.12	620.91	9672.26	626.38	10025.84	624.39	10170.05	615.92			
10220.95	607.97	10415	606.88	10645.1	620.91	10918.91	619.36	11497.98	617.02			
12831.59	617.02	13051.09	609.36	13615.34	609.36	14049.43	611.71	14104.22	614.04			
14372.31	612.35	14378.67	604.65	14475.94	603.42	15076.92	590.26	15588.56	584.68			
15625.48	581.02	15755.45	576.38	15788.99	572.85	15841.76	567.94	16233.09	567.94			
16294.91	573.24	16354.18	584.68	16443.92	609.59	16463.15	612.26	16704.37	641.46			
17149.65	646.83	17590.1	650.24	19726.78	648.31	19843.37	648.32	20075.61	648.64			
20429.7	641.51	21427.79	642.98	21688.22	645.32	23383.78	647.66	23770.7	648.77			
24198.88	652.52	24857.05	661.02	25083.68	662.34	26211.33	662.34	26854.16	654.68			
27131.24	654.68	27712.04	652.34	27952.55	650.98	28126.12	651.22	28267.79	649.88			
28418.16	650.94	28715.65	655.37	29041.17	658.24	30152.24	683.23	30824.34	684.4			
31803.71	739.77	31948.08	740.03	32572.38	695.18	32607.5	695.24	34219.96	759.4			
35275.6	754.84	35475.39	755.29	35831.44	773.57	35873.38	773.92	36183.58	768.85			
36519.14	779.31	36679.12	780.64	37462.61	79038	166.72	791.56	38521.79	800			

Manning's n	Values	num=	3
Sta	n Val	Sta	n Val
0	.1515588.56	.1516354.18	.15
Bank Sta: Left	Right	Lengths: Left	Channel
15588.56	16354.18	5	5
			Right
			5
			Coeff Contr.
			.1
			Expan.
			.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1493201.00	143863.00	1680036.00
E.G. Slope (ft/ft)	0.000092	Area (sq ft)	1493201.00	143863.00	1680036.00
Q Total (cfs)	6730000.00	Flow (cfs)	3141482.00	447285.40	3141233.00
Top Width (ft)	34276.02	Top Width (ft)	14299.04	765.62	19211.36
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.10	3.11	1.87
Max Chl Bpth (ft)	191.98	Hydr. Depth (ft)	104.43	187.90	87.45
Conv. Total (cfs)	702241000.0	Conv. (cfs)	327797500.0	46671940.0	327771500.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14313.40	767.62	19221.88
Min Ch El (ft)	567.94	Shear (lb/sq ft)	0.60	1.07	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.26	3.34	0.94
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	149700.90	24199.49	177653.00
C & E Loss (ft)	0.00	Cum SA (acres)	1377.41	118.64	1685.11

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276201.*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta
0	800	179.58	793.5	584.27	779.43	1230.93	762.13	1393.65	756.01			
1653.53	748.52	1805.93	747.65	2124.62	747.65	2428.85	747.01	3245.95	716.97			
3311.29	713.67	3394.32	712.35	3404.63	712.28	3588.12	718.73	3751.81	717.65			
3881.91	716.52	4021.6	712.92	4363.06	704.75	4779.21	696.51	5088.91	695.66			
5222.18	694.27	5367.2	690.8	5429.59	687.97	5760.08	685.41	6078.48	684.62			
6206.93	685.3	6407.59	680.6	6559.34	678.25	6624.26	675.9	6668.95	675.9			
6806.08	677.54	7004.42	687.56	7061.83	685.06	7179.87	680.85	7511.21	664.78			
7554.88	664.02	7695.85	656.59	7963.11	632.32	7975.95	630.8	8133.42	625.26			
8259.88	624.3	8491.74	627.25	8651.08	626.05	8818.02	620.08	8987.8	617.54			
9119.32	601.27	9135.03	601.15	9216.81	596.45	9370.25	589.4	9422.52	589.4			
9460.84	591.54	9576.45	620.96	9674.61	626.45	10028.28	624.45	10172.52	615.98			
10223.43	608.05	10417.53	606.95	10647.69	620.95	10921.56	619.41	11500.77	617.05			
12834.71	617.05	13054.26	609.41	13618.65	609.41	14052.85	611.75	14107.65	614.1			
14375.81	612.41	14382.17	604.71	14479.46	603.49	15080.59	590.29	15592.36	584.7			
15629.41	581.03	15759.87	576.41	15793.52	572.85	15846.49	567.94	16238.07	567.94			
16300.06	573.23	16359.5	584.71	16449.23	609.59	16468.45	612.26	16709.65	641.43			
17154.88	646.81	17595.29	650.21	19731.73	648.25	19848.31	648.25	20080.52	648.59			
20434.58	641.47	21432.56	642.95	21692.96	645.32	23388.35	647.65	23775.21	648.77			
24203.35	652.49	24861.45	661.03	25088.06	662.35	26215.59	662.35	26858.35	654.7			
27135.39	654.72	27716.14	652.35	27956.62	650.99	28130.18	651.22	28271.82	649.87			
28422.18	650.92	28719.64	655.36	29045.13	658.23	30156.07	683.17	30828.1	684.38			
31807.37	739.68	31951.17	739.94	32575.96	695.16	32611.07	695.22	34223.36	759.31			
35278.88	754.77	35478.65	755.22	35834.66	773.5	35876.6	773.85	36186.77	768.8			
36522.3	779.26	36682.25	780.63	37465.66	79038	169.69	791.56	38524.73	800			

Manning's n	Values	num=	3
Sta	n Val	Sta	n Val
0	.1515592.36	.1516359.5	.15
Bank Sta: Left	Right	Lengths: Left	Channel
			Right
			Coeff Contr.
			Page 138
			Expan.

15592.36 16359.5		5	5	5	SS_Rev3.rep		
					.1	.3	
CROSS SECTION OUTPUT Profile #PF 1							
E.G. Elev (ft)	759.99	Element	Left OB	Channel	Right OB		
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150		
W.S. Elev (ft)	759.92	Reach Len. (ft)	5.00	5.00	5.00		
Crit W.S. (ft)		Flow Area (sq ft)	1493264.00	144140.80	1680383.00		
E.G. Slope (ft/ft)	0.000092	Area (sq ft)	1493264.00	144140.80	1680383.00		
Q Total (cfs)	6730000.00	Flow (cfs)	3140386.00	448020.10	3141595.00		
Top width (ft)	34280.39	Top width (ft)	14302.61	767.14	19210.64		
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.10	3.11	1.87		
Max Chl Dpth (ft)	191.98	Hydr. Depth (ft)	104.41	187.89	87.47		
Conv. Total (cfs)	702419500.0	Conv. (cfs)	327766400.0	46760480.0	327892600.0		
Length wtd. (ft)	19.00	wetted Per. (ft)	14316.96	769.14	19221.14		
Min Ch El (ft)	567.94	Shear (lb/sq ft)	0.60	1.07	0.50		
Alpha	1.05	Stream Power (lb/ft s)	1.26	3.34	0.94		
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	149529.50	24182.96	177460.20		
C & E Loss (ft)	0.00	Cum SA (acres)	1375.77	118.55	1682.91		

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276198.*

INPUT

Description:

[illegible]

Manning's	n values		num=	3	
Sta	n val	Sta	n val	Sta	n val
0	.1515596	.15	.1516364	.81	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15596.1516364	.81		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1493335.00	144416.60	1680734.00
E.G. Slope (ft/ft)	0.000092	Area (sq ft)	1493335.00	144416.60	1680734.00
Q Total (cfs)	6730000.00	Flow (cfs)	3139283.00	448743.40	3141974.00
Top Width (ft)	34284.80	Top Width (ft)	14306.34	768.66	19209.80
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.10	3.11	1.87
Max Chl Dpth (ft)	191.98	Hydr. Depth (ft)	104.38	187.88	87.49
Conv. Total (cfs)	702600400.0	Conv. (cfs)	327735800.0	46848040.0	328016600.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14320.67	770.66	19220.27
Min Chl El (ft)	567.94	Shear (lb/sq ft)	0.60	1.07	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.26	3.34	0.94
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	149358.10	24166.40	172767.30
C & E Loss (ft)	0.00	Cum SA (acres)	1374.13	118.46	1680.70

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276195.*

INPUT

Description:

Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	179.67	793.49	584.55	779.41	1231.53	762.12	1394.33	756		
1654.33	748.51	1806.81	747.63	2125.65	747.63	2430.53	746.99	3247.53	717		
3312.91	713.7	3395.99	712.37	3406.29	712.3	3589.86	718.72	3753.64	697.63		
3883.88	716.49	4023.56	712.88	4365.18	704.71	4781.53	696.48	5091.39	715.63		
5224.72	694.23	5369.81	690.74	5432.23	687.89	5762.88	685.35	6081.44	684.58		
6209.95	685.26	6410.7	680.52	6562.54	678.15	6627.49	675.78	6672.19	675.78		
6809.39	677.43	7007.82	687.46	7065.27	684.97	7183.36	680.79	7514.86	664.79		
7558.56	664.05	7699.59	656.71	7966.99	632.49	7979.83	630.97	8137.38	625.4		
8263.9	624.45	8495.87	627.44	8655.29	626.24	8822.31	620.24	8992.17	617.69		
9123.75	601.45	9139.47	601.33	9221.29	596.59	9374.81	589.48	9427.11	589.48		
9465.44	591.64	9581.11	621.05	9679.32	626.59	10033.16	624.57	10107.47	616.12		
10228.41	608.2	10422.6	607.09	10962.82	621.04	10926.88	619.48	11056.37	617.11		
12840.96	617.11	13060.61	609.48	13625.28	609.48	14059.69	611.85	14114.51	614.22		
14382.8	612.51	14389.17	604.84	14486.5	603.61	15087.93	590.34	151599.94	584.74		

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15637.27	581.0615768.69	576.44 15802.6	572.8715855.96	567.9416248.02	567.94
16310.36	573.2216370.13	584.7416459.84	609.5816479.06	612.2516720.21	641.35
17165.35	646.7317605.65	650.1119741.64	648.15 19858.2	648.1520090.36	648.5
20444.34	641.4 21442.1	642.8921702.45	645.2623397.47	647.6323784.26	648.76
24212.3	652.4924870.26	661.0525096.82	662.37 26224.1	662.3726866.73	654.74
27143.71	654.7427724.33	652.3727964.76	650.9928138.28	651.22 28279.9	649.84
28430.22	650.8928727.62	655.3529053.03	658.2230163.74	683.1230835.62	684.33
31814.68	739.5131959.01	739.7732583.11	695.1232618.21	695.1834230.15	759.13
35285.45	754.6235485.18	755.135841.11	773.3635883.04	773.7236193.14	768.71
36528.59	779.1736688.52	780.5237471.76	79038175.64	791.5838530.59	800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515599.94 .1516370.13 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15599.9416370.13 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1493395.00	144695.80	1681073.00
E.G. Slope (ft/ft)	0.000092	Area (sq ft)	1493395.00	144695.80	1681073.00
Q Total (cfs)	6730000.00	Flow (cfs)	3138192.00	449480.60	3142328.00
Top Width (ft)	34288.94	Top Width (ft)	14309.81	770.19	19208.95
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.10	3.11	1.87
Max Chl Dpth (ft)	191.98	Hydr. Depth (ft)	104.36	187.87	87.52
Conv. Total (cfs)	702778900.0	Conv. (cfs)	327705100.0	46936930.0	328136900.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14324.12	772.19	19219.40
Min Ch El (ft)	567.94	Shear (lb/sq ft)	0.60	1.07	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.25	3.33	0.94
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	149186.70	24149.81	177074.30
C & E Loss (ft)	0.00	Cum SA (acres)	1372.49	118.37	1678.50

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276192.*

INPUT

Description:

Station Elevation Data	num= 120
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev	
0 800 179.71 793.48 584.7 779.4 1231.83 762.12 1394.67 755.99	
1654.73 748.5 1807.25 747.62 2126.17 747.62 2430.62 746.97 3248.32 717.02	
3313.71 713.71 3396.81 712.38 3407.11 712.31 3590.74 718.71 3754.55 717.62	
3884.75 716.47 4024.54 712.87 4366.24 704.69 4782.7 696.47 5092.63 695.61	
5225.99 694.21 5371.11 690.72 5433.55 687.86 5764.29 685.31 6082.92 684.56	
6211.46 685.24 6412.26 680.48 6564.13 678.1 6629.1 675.72 6673.81 675.72	
6811.04 677.38 7009.53 687.4 7066.99 684.92 7185.11 680.76 7516.69 664.8	
7560.4 664.07 7701.46 656.77 7968.92 632.58 7981.78 631.06 8139.35 625.47	
8265.91 624.52 8497.93 627.54 8657.4 626.34 8824.45 620.32 8994.36 617.77	
9125.97 601.54 9141.69 601.42 9223.53 596.66 9377.09 589.52 9429.4 589.52	
9467.74 591.69 9583.44 621.1 9681.67 626.66 10035.6 624.6310179.95 616.19	
10230.9 608.2810425.13 607.1710655.46 621.0910929.53 619.5211509.17 617.14	
12844.08 617.1413063.79 609.5213628.59 609.52 14063.1 611.914117.95 614.28	
14386.3 612.5614392.67 604.914490.03 603.67 15091.6 590.3615603.73 584.76	
15641.2 581.0715773.11 576.4515807.14 572.8815860.69 567.94 16253 567.94	
16315.51 573.2216375.45 584.7616465.15 609.5816484.37 612.2516725.49 641.32	
17170.58 646.6917610.84 650.0719746.59 648.1519863.14 648.120095.27 648.45	
20449.22 641.3621446.87 642.86 21707.2 645.2423402.03 647.6223788.78 648.75	
24216.77 652.4824874.66 661.06 25101.2 662.3826228.36 662.3826870.92 654.76	
27147.87 654.7627728.43 652.3827968.83 651.28142.33 651.2128283.93 649.83	
28434.24 650.88 28731.6 655.3429056.99 658.2130167.57 683.0930839.38 684.33	
31818.34 739.4231962.65 739.6832586.68 695.1232621.78 695.1634233.55 759.05	
35288.73 754.6235488.44 755.0335844.33 773.2935886.26 773.6536196.33 768.66	
36531.75 779.1236691.65 780.48 37474.8 79038178.61 791.5838533.53 800	

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515603.73 .1516375.45 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15603.7316375.45 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1493459.00	144975.20	1681416.00
E.G. Slope (ft/ft)	0.000092	Area (sq ft)	1493459.00	144975.20	1681416.00
Q Total (cfs)	6730000.00	Flow (cfs)	3137104.00	450219.20	3142677.00
Top Width (ft)	34293.32	Top Width (ft)	14313.37	771.72	19208.23
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.10	3.11	1.87
Max Chl Dpth (ft)	191.98	Hydr. Depth (ft)	104.34	187.86	87.54
Conv. Total (cfs)	702957100.0	Conv. (cfs)	327674500.0	47025970.0	328256600.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14327.66	773.72	19218.67
Min Ch El (ft)	567.94	Shear (lb/sq ft)	0.60	1.07	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.25	3.33	0.94
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	149015.30	24133.18	176881.40
C & E Loss (ft)	0.00	Cum SA (acres)	1370.85	118.28	1676.29

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276189.*

INPUT

Description:

Station Elevation Data						SS_Rev3.rep					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	179.76	793.48	584.84	779.39	1232.13	762.11	1395.01	755.98		
1655.13	748.49	1807.68	747.61	2126.69	747.61	2431.21	746.96	3249.11	717.03		
3314.52	713.73	3397.64	712.39	3407.94	712.39	3591.61	718.7	3755.46	717.61		
3885.69	716.46	4025.52	712.85	4367.31	704.67	4783.86	696.45	5093.87	695.59		
5227.26	694.2	5372.42	690.69	5434.87	687.82	5765.69	685.28	6084.4	684.53		
6212.97	685.22	6413.82	680.44	6565.73	678.05	6630.71	675.66	6675.44	675.66		
6812.7	677.33	7011.23	687.35	7068.71	684.87	7186.85	680.74	7518.52	664.81		
7562.23	664.09	7703.34	656.82	7970.86	632.67	7983.72	631.15	8141.33	625.55		
8267.92	624.59	8500	627.63	8659.5	626.43	8826.6	620.4	8996.54	617.84		
9128.19	601.63	9143.92	601.51	9225.77	596.73	9379.37	589.56	9431.69	589.56		
9470.05	591.74	9585.77	621.15	9684.03	626.73	10038.04	624.71	10182.42	616.26		
10233.38	608.35	10427.67	607.24	10658.05	621.13	10932.19	619.56	11511.96	617.17		
12847.2	617.17	13066.96	609.56	13631.9	609.56	14066.52	611.95	14121.38	614.34		
14389.8	612.62	14396.17	604.97	14493.55	603.73	15095.27	590.39	15607.53	584.78		
15645.13	581.08	15777.52	576.47	15811.67	572.89	15865.43	567.94	16257.98	567.94		
16320.67	573.21	16380.76	584.78	16470.46	609.58	16489.67	612.25	16730.77	641.28		
17175.81	646.66	17616.02	650.03	19751.55	648.05	19868.08	648.05	20100.19	648.4		
20454.1	641.32	21451.64	642.83	21711.94	645.22	23406.59	647.61	23793.29	648.74		
24221.24	652.48	24879.06	661.08	25105.58	662.39	26232.62	662.39	26875.11	654.78		
27152.03	654.78	27732.53	652.39	27972.9	651.28	28146.38	651.21	28287.97	649.81		
28438.27	650.86	28735.59	655.33	29060.94	658.23	29171.41	683.06	30843.15	684.28		
31822	739.34	31966.29	739.63	32590.26	695.08	32625.35	695.14	34236.94	758.96		
35292.02	754.48	35491.7	754.97	35847.56	773.22	35889.48	773.58	36199.52	768.61		
36534.89	779.08	36694.79	780.44	37477.86	790.38	38181.58	791.59	38536.46	800		

Manning's n Values				num= 3			
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1515607.53				.1516380.76		.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
15607.53	16380.76	5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1493527.00	145250.80	1681762.00
E.G. Slope (ft/ft)	0.000092	Area (sq ft)	1493527.00	145250.80	1681762.00
Q Total (cfs)	6730000.00	Flow (cfs)	3136003.00	450944.90	3143052.00
Top Width (ft)	34297.72	Top Width (ft)	14317.11	773.23	19207.38
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.10	3.10	1.87
Max chl Dpth (ft)	191.98	Hydr. Depth (ft)	104.32	187.85	87.56
Conv. Total (cfs)	703135400.0	Conv. (cfs)	327642600.0	47113720.0	328379100.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14331.38	775.23	19217.81
Min Ch El (ft)	567.94	Shear (lb/sq ft)	0.60	1.07	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.25	3.33	0.94
Frcn Loss (ft)	0.00	Cum Volume (acre-ft)	148843.80	24116.53	176688.30
C & E Loss (ft)	0.00	Cum SA (acres)	1369.20	118.20	1674.09

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276186.*

INPUT

Description:

Station Elevation Data						num= 120					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	179.8	793.47	584.98	779.37	1232.43	762.11	1395.35	755.97		
1655.54	748.49	1808.12	747.6	2127.2	747.6	2431.8	746.95	3249.9	717.05		
3315.32	713.74	3398.46	712.4	3408.77	712.33	3592.48	718.7	3756.37	717.6		
3886.64	716.44	4026.49	712.83	4368.37	704.65	4785.02	696.44	5095.1	695.57		
5228.53	694.18	5373.72	690.66	5436.19	687.78	5767.09	685.25	6085.88	684.51		
6214.48	685.2	6415.38	680.4	6567.32	678	6632.32	675.6	6677.06	675.6		
6814.36	677.28	7012.94	687.3	7070.42	684.83	7188.6	680.71	7520.34	664.81		
7564.07	664.1	7705.21	656.88	7972.8	632.76	7985.66	631.24	8143.31	625.62		
8269.93	624.67	8502.07	627.73	8661.61	626.53	8828.74	620.48	8998.73	617.91		
9130.41	601.72	9146.14	601.6	9228.02	596.8	9381.65	589.6	9433.99	589.6		
9472.35	591.79	9588.1	621.19	9686.38	626.81	10040.48	624.76	10184.9	616.33		
10235.87	608.43	10430.2	607.31	10660.64	621.18	10934.85	619.61	11514.76	617.2		
12850.32	617.21	13070.14	609.61	13635.21	609.61	14069.94	612.41	14124.81	614.4		
14393.29	612.67	14399.67	605.03	14497.07	603.79	15098.93	590.41	15611.32	584.8		
15649.06	581.09	15781.93	576.49	15816.21	572.91	15870.16	567.94	16262.96	567.94		
16325.82	573.21	16386.08	584.81	16475.77	609.58	16494.98	612.24	16736.05	641.24		
17181.04	646.62	17621.21	649.99	19756.5	648.19	19873.03	648.20	20105.11	648.35		
20458.98	641.29	21456.42	642.82	21716.69	645.22	23411.15	647.62	23797.82	648.74		
24225.72	652.48	24883.47	661.09	25109.96	662.42	26236.88	662.4	26879.3	654.8		
27156.19	654.82	27736.62	652.42	27976.97	651.01	28150.44	651.21	28292.01	649.8		
28442.29	650.85	28739.58	655.33	29064.89	658.23	29175.24	683.03	30846.91	684.26		
31825.65	739.25	31969.93	739.51	32593.83	695.06	32628.92	695.12	34240.34	758.87		
35295.3	754.41	35494.96	754.91	35850.78	773.15	35892.7	773.51	36202.7	768.56		
36538.05	779.03	36697.92	780.4	37480.9	790.38	38184.55	791.6	38539.4	800		

Manning's n Values				num= 3			
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1515611.32				.1516386.08		.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
15611.32	16386.08	5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1493588.00	145529.30	1682092.00
E.G. Slope (ft/ft)	0.000092	Area (sq ft)	1493588.00	145529.30	1682092.00
Q Total (cfs)	6730000.00	Flow (cfs)	3134923.00	451680.80	3143397.00
Top Width (ft)	34301.95	Top Width (ft)	14320.67	774.76	19206.53
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.10	3.10	1.87
Max chl Dpth (ft)	191.98	Hydr. Depth (ft)	104.30	187.84	87.58

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Conv. Total (cfs)	703309600.0	Conv. (cfs)	SS_Rev3.rep	327610800.0	47202290.0	328496400.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14334.92	776.76	19216.93	
Min Ch El (ft)	567.94	Shear (lb/sq ft)	0.60	1.07	0.50	
Alpha	1.05	Stream Power (lb/ft s)	1.25	3.32	0.94	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	148672.40	24099.84	176495.30	
C & E Loss (ft)	0.00	Cum SA (acres)	1367.56	118.11	1671.88	

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276183.*

INPUT
 Description:

Station Elevation Data	num=	120						
Sta Elev Sta Elev Sta Elev								
0 800 179.84	793.47	585.12	779.36	1232.73	762.11	1395.68	755.96	
1655.94 748.48 1808.56	747.59	2127.72	747.59	2432.39	746.94	3250.69	717.07	
3316.13 713.76 3399.29	712.41	3409.6	712.34	3593.36	718.69	3757.29	717.59	
3887.58 716.43 4027.47	712.82	4369.43	704.63	4786.18	696.42	5096.34	695.55	
5229.8 694.16 5375.03	690.64	5437.51	687.75	5768.49	685.21	6087.36	684.49	
6215.99 685.18 6416.94	680.36	6568.92	677.95	6633.93	675.54	6678.68	675.54	
6816.01 677.22 7014.64	687.25	7072.14	684.78	7190.35	680.68	7522.17	664.82	
7565.91 664.12 7707.08	656.94	7974.73	632.85	7987.6	631.33	8145.29	625.69	
8271.94 624.74 8504.13	627.82	8663.71	626.63	8830.89	620.55	9000.92	617.99	
9132.63 601.81 9148.36	601.69	9230.26	596.87	9383.93	589.64	9436.28	589.64	
9474.65 591.84 9590.43	621.24	9688.73	626.87	10042.92	624.82	10187.37	616.39	
10238.36 608.51 10432.74	607.38	10663.23	621.23	10937.5	619.64	11517.56	617.23	
12853.44 617.23 13073.32	609.64	13638.53	609.64	14073.36	612.05	14128.24	614.46	
14396.79 612.72 14403.17	605.09	14500.59	603.85	15102.6	590.44	15615.11	584.82	
15652.99 581.11 15786.34	576.51	15820.75	572.91	15874.89	567.93	16267.94	567.93	
16330.97 573.21 16391.4	584.82	16481.07	609.57	16500.28	612.24	16741.33	641.21	
17186.28 646.59 17626.39	649.95	19761.46	647.95	19877.97	647.95	20110.03	648.3	
20463.86 641.25 21461.19	642.77	21721.43	645.18	23415.71	647.59	23802.34	648.73	
24230.19 652.48 24887.87	661.12	25114.33	662.41	26241.13	662.41	26883.48	654.82	
27160.35 654.82 27740.72	652.41	27981.04	651.01	28154.49	651.21	28296.04	649.79	
28446.31 650.84 28743.57	655.32	29068.85	658.19	30179.08	68330	30850.67	684.23	
31829.31 739.16 31973.57	739.43	32597.4	695.03	32632.49	695.13	34243.74	758.78	
35298.58 754.34 35498.23	754.85	35854	773.08	35895.92	773.44	36205.89	768.52	
36541.2 778.99 36701.05	780.36	37483.95	79038	38187.53	791.63	38542.34	800	

Manning's n Values	num=	3
Sta n Val Sta n Val Sta n Val		
0 .15 15615.11 .15 16391.4 .15		

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
15615.11 16391.4	5 5 5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.92	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1493650.00	145812.30	1682444.00
E.G. Slope (ft/ft)	0.000092	Area (sq ft)	1493650.00	145812.30	1682444.00
Q Total (cfs)	6730000.00	Flow (cfs)	3133803.00	452432.50	3143765.00
Top width (ft)	34306.20	Top width (ft)	14324.23	776.29	19205.68
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.10	3.10	1.87
Max Ch Dpth (ft)	191.99	Hydr. Depth (ft)	104.27	187.83	87.60
Conv. Total (cfs)	703493400.0	Conv. (cfs)	327579400.0	47293200.0	328620800.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14338.47	778.29	19216.07
Min Ch El (ft)	567.93	Shear (lb/sq ft)	0.60	1.07	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.25	3.32	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	148501.00	24083.12	176302.20
C & E Loss (ft)	0.00	Cum SA (acres)	1365.91	118.02	1669.68

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276180.*

INPUT
 Description:

Station Elevation Data	num=	120						
Sta Elev Sta Elev Sta Elev								
0 800 179.89	793.46	585.27	779.35	1233.03	762.11	1396.02	755.96	
1656.34 748.47 1809	747.58	2128.24	747.58	2432.98	746.92	3251.48	717.09	
3316.93 713.77 3400.11	712.42	3410.43	712.35	3594.23	718.69	3758.2	717.58	
3888.52 716.41 4028.45	712.8	4370.49	704.61	4787.35	696.41	5097.58	695.54	
5231.08 694.14 5376.34	690.61	5438.83	687.71	5769.89	685.18	6088.83	684.46	
6217.5 685.16 6418.5	680.32	6570.51	677.9	6635.54	675.48	6680.3	675.48	
6817.67 677.17 7016.34	687.19	7073.86	684.74	7192.09	680.66	7524	664.83	
7567.75 664.14 7708.95	656.99	7976.67	632.94	7989.54	631.42	8147.27	625.76	
8273.95 624.81 8506.2	627.92	8665.82	626.72	8833.03	620.63	9003.1	618.06	
9134.84 601.9 9150.58	601.78	9232.5	596.94	9386.21	589.68	9438.57	589.68	
9476.95 591.89 9592.76	621.29	9691.09	626.94	10045.35	624.88	10189.85	616.46	
10240.84 608.58 10435.27	607.45	10665.82	621.27	10940.16	619.68	11520.36	617.26	
12856.57 617.26 13076.49	609.68	13641.84	609.68	14076.78	612.11	14131.67	614.52	
14400.29 612.77 14406.66	605.15	14504.11	603.91	15106.27	590.47	15618.91	584.84	
15656.92 581.12 15790.76	576.52	15825.29	572.92	15879.63	567.93	16272.92	567.93	
16336.12 573.21 16396.71	584.84	16486.38	609.57	16505.59	612.24	16746.61	641.17	
17191.51 646.55 17631.58	649.91	19766.41	647.91	19882.91	647.92	20114.94	648.25	
20468.73 641.22 21465.96	642.74	21726.17	645.16	23420.28	647.58	23806.86	648.73	
24234.67 652.47 24892.27	661.11	25118.71	662.42	26245.39	662.42	26887.67	654.84	
27164.51 654.84 27744.81	652.42	27985.11	651.01	28158.54	651.21	28300.08	649.77	
28450.33 650.82 28747.56	655.31	29072.8	658.18	30182.91	682.97	30854.43	684.21	
31832.97 739.08 31977.21	739.34	32600.98	695.01	32636.06	695.08	34247.13	758.69	
35301.87 754.27 35501.49	754.78	35857.23	773.01	35899.14	773.37	36209.07	768.47	
36544.35 778.94 36704.18	780.32	37487	790	38190.5	791.61	38545.27	800	

Manning's n Values	num=	3
Sta n Val Sta n Val Sta n Val		

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0	.1515618.91	.1516396.71	.15			
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
15618.91	16396.71	5	5	5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1493716.00	146087.80	1682791.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1493716.00	146087.80	1682791.00
Q Total (cfs)	6730000.00	Flow (cfs)	3132727.00	453155.20	3144118.00
Top Width (ft)	34310.48	Top Width (ft)	14327.70	777.80	19204.98
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.10	3.10	1.87
Max Chl Dpth (ft)	191.98	Hydr. Depth (ft)	104.25	187.82	87.62
Conv. Total (cfs)	703674000.0	Conv. (cfs)	327551000.0	47380920.0	328742100.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14341.93	779.80	19215.34
Min Ch El (ft)	567.93	Shear (lb/sq ft)	0.59	1.07	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.25	3.32	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	148329.50	24066.37	176109.00
C & E Loss (ft)	0.00	Cum SA (acres)	1364.27	117.93	1667.47

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276177.*

INPUT

Description:
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	179.93	793.46	585.41	779.34	1233.33	762.1	1396.36	755.95
1656.74	748.47	1809.44	747.57	2128.76	747.57	2433.57	746.91	3252.27	717.1
3317.74	713.79	3400.94	712.43	3411.26	712.36	3595.1	718.68	3759.11	717.57
3889.47	716.4	4029.43	712.78	4371.55	704.59	4788.51	696.39	5098.82	695.52
5232.35	694.12	5377.64	690.58	5440.15	687.67	5771.29	685.15	6090.31	684.44
6219.01	685.14	6420.06	680.28	6572.11	677.85	6637.16	675.42	6681.93	675.42
6819.32	677.12	7018.05	687.14	7075.58	684.69	7193.84	680.63	7525.83	664.83
7569.59	664.15	7710.83	657.05	7978.61	633.02	7991.48	631.5	8149.25	625.83
8275.96	624.89	8508.26	628.01	8667.92	626.82	8835.18	620.71	9005.29	618.14
9137.06	601.99	9152.8	601.87	9234.74	597.01	9388.49	589.72	9440.86	589.72
9479.25	591.94	9595.08	621.33	9693.44	627.01	10047.79	624.94	10192.32	616.53
10243.33	608.66	10437.8	607.53	10668.41	621.32	10942.82	619.72	11523.16	617.29
12859.69	617.29	13079.67	609.72	13645.15	609.72	14080.2	612.15	14135.1	614.58
14403.79	612.83	14410.16	605.22	14507.64	603.97	15109.94	590.49	15622.7	584.86
15660.85	581.13	15795.17	576.54	15829.83	572.93	15884.36	567.93	16277.9	567.93
16341.27	573.21	16402.03	584.86	16491.69	609.57	16510.89	612.24	16751.89	641.13
17196.74	646.52	17636.76	649.86	19771.37	647.85	19887.85	647.85	20119.86	648.21
20473.61	641.18	21470.73	642.71	21730.92	645.14	23424.84	647.57	23811.38	648.72
24239.14	652.47	24896.68	661.12	25123.09	662.43	26249.65	662.43	26891.86	654.86
27168.67	654.86	27748.91	652.43	27989.18	651.02	28162.59	651.21	28304.12	649.76
28454.35	650.81	28751.55	655.31	29076.76	658.17	30186.75	682.94	30858.2	684.19
31836.62	738.99	31980.85	739.26	32604.55	694.99	32639.63	695.06	34250.53	758.6
35305.15	754.19	35504.75	754.72	35860.45	772.94	35902.36	773.33	36212.26	768.42
36547.5	778.93	36707.32	780.28	37490.05	790.38	38193.48	791.62	38548.2	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.15	15622.7	.15
		1516402.03	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
15622.71	16402.03	5	5	5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1493784.00	146365.90	1683146.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1493784.00	146365.90	1683146.00
Q Total (cfs)	6730000.00	Flow (cfs)	3131612.00	453883.40	3144504.00
Top Width (ft)	34314.89	Top Width (ft)	14331.43	779.33	19204.13
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	2.10	3.10	1.87
Max Chl Dpth (ft)	191.98	Hydr. Depth (ft)	104.23	187.81	87.64
Conv. Total (cfs)	703856000.0	Conv. (cfs)	327519200.0	47469320.0	328867500.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14345.65	781.33	19214.48
Min Ch El (ft)	567.93	Shear (lb/sq ft)	0.59	1.07	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.25	3.32	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	148158.10	24049.58	175915.90
C & E Loss (ft)	0.00	Cum SA (acres)	1362.63	117.84	1665.27

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276175.*

INPUT

Description:
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	179.97	793.45	585.55	779.32	1233.63	762.1	1396.7	755.94
1657.15	748.46	1809.88	747.56	2129.27	747.56	2434.17	746.9	3253.05	717.12
3318.54	713.81	3401.77	712.44	3412.08	712.37	3595.97	718.68	3760.02	717.56
3890.41	716.38	4030.41	712.77	4372.61	704.57	4789.67	696.38	5100.06	695.5
5233.62	694.1	5378.95	690.55	5441.47	687.64	5772.69	685.11	6091.79	684.42
6220.52	685.12	6421.61	680.24	6573.71	677.8	6638.77	675.36	6683.53	675.36
6820.98	677.06	7019.75	687.09	7077.3	684.65	7195.59	680.6	7527.65	664.84
7571.42	664.17	7712.7	657.11	7980.55	633.11	7993.42	631.59	8151.23	625.9
8277.97	624.96	8510.33	628.11	8670.02	626.92	8837.32	620.79	9007.48	618.21
9139.28	602.08	9155.03	601.96	9236.99	597.08	9390.77	589.76	9443.15	589.76
9481.55	591.99	9597.42	621.38	9695.79	627.08	10050.23	625.10	10194.79	616.6

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10245.82	608.7410440.34	607.6	10671	621.3710945.47	619.7611525.95	617.32
12862.81	617.3213082.84	609.7613648.47	609.7614083.61	612.214138.54	614.64	
14407.28	612.8814413.66	605.2814511.16	604.0315113.61	590.5215626.49	584.88	
15664.78	581.1415799.58	576.5615834.36	572.94 15889.1	567.9316282.88	567.93	
16346.42	573.1916407.35	584.88 16497	609.57 16516.2	612.2316757.17	641.1	
17201.97	646.4817641.94	649.8219776.32	647.819892.79	647.820124.78	648.16	
20478.49	641.14 21475.5	642.6821735.66	645.12 23429.4	647.56 23815.9	648.72	
24243.62	652.4724901.08	661.1425127.47	662.4426253.91	662.4426896.05	654.88	
27172.83	654.8827753.01	652.4427993.25	651.0228166.64	651.2128308.15	649.75	
28458.37	650.7928755.54	655.329080.71	658.1730190.58	682.9130861.96	684.16	
31840.28	738.931984.09	739.1732608.13	694.9732643.21	695.0434253.93	758.52	
35308.43	754.1235508.01	754.6635863.68	772.8735905.58	773.2436215.45	768.37	
36550.65	778.8536710.45	780.24 37493.1	79038196.45	791.6238551.14	800	

Manning's n Values	num=	3
Sta n Val Sta n Val	Sta n Val	Sta n Val
0 .1515626.49	.1516407.35	.15

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
15626.4916407.35	5 5 5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1493838.00	146645.00	1683477.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1493838.00	146645.00	1683477.00
Q Total (cfs)	6730000.00	Flow (cfs)	3130520.00	454621.10	3144859.00
Top width (ft)	34319.13	Top width (ft)	14334.99	780.86	19203.28
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.10	3.10	1.87
Max Chl Dpth (ft)	191.98	Hydr. Depth (ft)	104.21	187.80	87.67
Conv. Total (cfs)	704028500.0	Conv. (cfs)	327485200.0	47558120.0	328985200.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14349.19	782.86	19213.61
Min Ch El (ft)	567.93	Shear (lb/sq ft)	0.59	1.07	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.24	3.31	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	147986.60	24032.76	175722.70
C & E Loss (ft)	0.00	Cum SA (acres)	1360.98	117.75	1663.07

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276172.*

INPUT
Description:

Station Elevation Data			num=			120			
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	180.02	793.45	585.69	779.31	1233.93	762.1	1397.04	755.93
1657.55	748.46	1810.32	747.55	2129.79	747.55	2434.76	746.89	3253.84	717.14
3319.35	713.82	3402.59	712.45	3412.91	712.38	3596.85	718.67	3760.94	717.57
3891.36	716.37	4031.39	712.75	4373.67	704.55	4790.83	696.36	5101.29	695.48
5234.89	694.08	5380.25	690.53	5442.79	687.6	5774.09	685.08	6093.27	684.4
6222.03	685.1	6423.17	680.2	6575.3	677.75	6640.38	675.3	6685.17	675.3
6822.63	677.01	7021.45	687.03	7079.01	684.6	7197.33	680.57	7529.48	680.57
7573.26	664.19	7714.57	657.16	7982.48	633.2	7995.36	631.68	8153.2	625.98
8279.98	625.03	8512.39	628.2	8672.13	627.01	8839.47	620.87	9009.66	618.29
9141.5	602.17	9157.25	602.05	9239.23	597.15	9393.05	589.8	9445.45	589.8
9483.85	592.03	9599.74	621.43	9698.15	627.15	10052.67	625.07	10197.27	616.67
10248.3	608.82	10442.87	607.67	10673.59	621.41	10948.13	619.81	11528.75	617.35
12865.93	617.35	13086.02	609.81	13651.78	609.81	14087.03	612.25	15141.97	614.7
14410.78	612.93	14417.16	605.34	14514.68	604.09	15117.28	590.54	15630.29	584.9
15668.71	581.15	15804	576.58	15838.9	572.95	15893.83	567.93	16287.86	567.93
16351.57	573.19	16412.66	584.9	16502.3	609.57	16521.51	612.23	16762.45	641.06
17207.2	646.45	17647.13	649.78	18178.28	647.75	19897.74	647.75	20129.69	648.11
20483.37	641.11	21480.28	642.65	21740.4	645.1	22343.96	647.55	232820.42	648.11
24248.09	652.46	24905.48	661.15	25131.85	662.45	26258.16	662.45	26900.24	654.9
27176.98	654.9	27757.1	652.45	27997.32	651.03	28170.7	651.22	28312.19	649.74
28462.39	650.78	28759.53	655.29	292084.66	658.16	30194.41	682.88	30865.72	684.14
31843.94	738.82	31988.14	739.09	32611.7	694.95	32646.78	695.02	34257.33	758.43
35311.72	754.05	35511.27	754.59	35866.9	772.8	35908.8	773.17	36218.63	768.32
36553.8	778.83	36713.58	780.23	37496.15	79038	199.42	791.63	38554.07	800

Manning's n Values	num=	3
Sta n Val Sta n Val	Sta n Val	Sta n Val
0 .1515630.29	.1516412.66	.15

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
15630.2916412.66	5 5 5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1493907.00	146919.80	1683815.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1493907.00	146919.80	1683815.00
Q Total (cfs)	6730000.00	Flow (cfs)	3129456.00	455341.80	3145203.00
Top width (ft)	34323.50	Top width (ft)	14338.56	782.37	19202.57
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.09	3.10	1.87
Max Chl Dpth (ft)	191.98	Hydr. Depth (ft)	104.19	187.79	87.69
Conv. Total (cfs)	704205400.0	Conv. (cfs)	327456100.0	47645490.0	329103800.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14352.74	784.38	19212.89
Min Ch El (ft)	567.93	Shear (lb/sq ft)	0.59	1.07	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.24	3.31	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	147815.10	24015.92	175529.40
C & E Loss (ft)	0.00	Cum SA (acres)	1359.33	117.66	1660.86

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276169.*

INPUT

Description:

Manning's n Values		num=	3			
Sta	n Val	Sta	n Val	Sta	n Val	
0	.1515634	.08	.1516417	.98	.15	

Bank	Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan
	15634	0816417	.98	5	5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1493973.00	147198.30	1684170.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1493973.00	147198.30	1684170.00
Q Total (cfs)	6730000.00	Flow (cfs)	3128360.00	456067.40	3145573.00
Top width (ft)	34327.66	Top Width (ft)	14342.03	783.90	19201.73
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.09	3.10	1.87
Max Chl Dpth (ft)	191.98	Hydr. Depth (ft)	104.17	187.78	87.71
Conv. Total (cfs)	704390800.0	Conv. (cfs)	327427600.0	47733990.0	329292900.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14356.20	785.91	19212.02
Min Chl El (ft)	567.93	Shear (lb/sq ft)	0.59	1.07	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.24	3.31	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	147643.60	23999.04	175336.10
C & E Loss (ft)	0.00	Cum SA (acres)	1357.69	117.57	1658.66

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276166.*

INPUT

Description:

Manning's n Values		num= 3							
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1515637	.87	.15	16423.3	.15				
Bank	Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan	
	15637.87	16423.3	5	5	5	.1	.3		

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1494034.00	147478.00	1684510.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1494034.00	147478.00	1684510.00
Q Total (cfs)	6730000.00	Flow (cfs)	3127255.00	456805.80	3145939.00

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Top Width (ft)	34332.07	Top Width (ft)	14345.76	785.43	19200.89
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.09	3.10	1.87
Max Chl Dpth (ft)	191.98	Hydr. Depth (ft)	104.14	187.77	87.73
Conv. Total (cfs)	704566800.0	Conv. (cfs)	327393800.0	47823220.0	329349800.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14359.90	787.44	19211.16
Min Ch El (ft)	567.93	Shear (lb/sq ft)	0.59	1.07	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.24	3.30	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	147472.20	23982.12	175142.80
C & E Loss (ft)	0.00	Cum SA (acres)	1356.04	117.48	1656.45

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276163.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	180.15	793.44	586.12	779.27	1234.82	762.09	1398.06	755.91				
1658.75	748.44	1811.64	747.52	2131.34	747.52	2436.53	746.85	3256.21	717.19				
3321.77	713.87	3405.07	712.48	3415.4	712.41	3599.47	718.66	3763.58	717.52				
3894.19	716.32	4034.32	712.7	4376.86	704.5	4794.32	696.32	5105.01	695.42				
5238.7	694.03	5384.17	690.45	5446.76	687.49	5778.3	684.98	6097.71	684.33				
6226.56	685.04	6427.85	680.08	6580.09	677.6	6645.21	675.12	6690.04	675.12				
6827.6	676.85	7026.57	686.88	7084.17	684.46	7202.57	680.49	7534.96	664.87				
7578.77	664.24	7720.19	657.33	7988.29	633.47	8001.18	631.95	8159.14	626.19				
8286.01	625.25	8518.59	628.49	8678.44	627.3	8845.91	621.1	9016.22	618.51				
9148.16	602.44	9163.91	602.32	9245.95	597.36	9399.88	589.92	9452.32	589.92				
9490.76	592.18	9606.73	621.57	9705.21	627.36	10059.99	625.25	10204.69	616.87				
10255.76	609.05	10450.47	607.89	10681.36	621.55	10956.1	619.92	11537.14	617.44				
12875.3	617.44	13095.54	609.92	13661.72	609.92	14097.29	612.41	14152.26	614.88				
14421.27	613.09	14427.66	605.53	14525.25	604.28	15128.28	590.62	15641.66	584.96				
15680.5	581.19	15817.24	576.63	15852.52	572.98	15908.03	567.93	16302.79	567.93				
16367.03	573.18	16428.62	584.96	16518.22	609.56	16537.42	612.22	16778.28	640.95				
17222.89	646.34	17662.68	649.66	19796.14	647.61	19912.56	647.62	20144.45	647.96				
20498.01	642.12	1494.59	642.56	21754.63	645.04	23447.65	647.52	23833.98	648.7				
24261.51	652.45	24918.69	661.18	25144.99	662.48	26270.94	662.48	26912.81	654.96				
27189.46	654.96	27769.39	652.48	28009.54	651.04	28182.85	651.2	28324.3	649.7				
28474.45	650.74	28771.49	655.27	29096.53	658.14	30205.92	682.83	30877.01	684.07				
31854.91	738.56	31999.06	738.83	32622.42	694.89	32657.49	694.96	34267.52	758.16				
35321.57	753.84	35521.06	754.41	35876.57	772.59	35918.46	772.96	36228.19	768.18				
36563.25	778.67	36722.98	780.08	37505.29	790.38	38208.34	791.65	38562.88	800				

Manning's n Values

Sta	n Val	Sta	n Val	Sta	n Val
0	.1515641.66	.1516428.62	.15		

Bank Sta: Left 15641.66 Right 16616428.62
 Lengths: Left Channel 5 Right 5
 Coeff Contr. .1 Expan. .3

CROSS SECTION OUTPUT Profile #P 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1494084.00	147755.10	1684835.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1494084.00	147755.10	1684835.00
Q Total (cfs)	6730000.00	Flow (cfs)	3126170.00	457535.80	3146295.00
Top Width (ft)	34336.31	Top Width (ft)	14349.32	786.96	19200.04
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.09	3.10	1.87
Max Chl Dpth (ft)	191.98	Hydr. Depth (ft)	104.12	187.75	87.75
Conv. Total (cfs)	704734900.0	Conv. (cfs)	327358200.0	47911060.0	329465600.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14363.44	788.97	19210.29
Min Ch El (ft)	567.93	Shear (lb/sq ft)	0.59	1.07	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.24	3.30	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	147300.70	23965.18	174949.40
C & E Loss (ft)	0.00	Cum SA (acres)	1354.40	117.39	1654.25

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276160.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	180.19	793.43	586.26	779.26	1235.12	762.09	1398.4	755.9		
1659.16	748.43	1812.08	747.51	2131.86	747.51	2437.12	746.83	3257	717.2		
3322.57	713.88	3405.89	712.49	3416.22	712.42	3600.34	718.65	3764.59	717.51		
3895.13	716.31	4035.3	712.68	4377.92	704.48	4795.49	696.3	5106.24	695.41		
5239.97	694.01	5385.48	690.42	5448.08	687.45	5779.7	684.95	6099.18	684.3		
6228.07	685.02	6429.41	680.04	6581.68	677.55	6646.82	675.06	6691.66	675.06		
6829.26	676.8	7028.27	686.82	7085.88	684.42	7204.32	680.47	7536.79	664.87		
7580.61	664.26	7722.06	657.39	7990.23	633.56	8003.12	632.03	8161.12	626.26		
8288.01	625.32	8520.66	628.58	8680.55	627.4	8848.05	621.18	9018.41	618.59		
9150.37	602.53	9166.14	602.41	9248.2	597.43	9402.16	589.96	9454.61	589.96		
9493.06	592.23	9609.06	621.61	9707.56	627.43	10062.43	625.31	10207.17	616.94		
10258.25	609.12	10453.01	607.96	10683.95	621.61	10958.76	619.96	11539.94	617.47		
12878.42	617.47	13098.72	609.96	13665.03	609.96	14100.71	612.45	14155.7	614.94		
14424.77	613.14	14431.15	605.59	14528.77	604.34	15131.95	590.65	15645.46	584.98		
15684.43	581.21	15821.65	576.65	15857.05	572.99	15912.77	567.93	16307.77	567.93		
16372.18	573.17	16433.93	584.98	16523.53	609.56	16542.73	612.22	16783.56	640.91		
17228.13	646.31	17667.87	649.61	19801.09	647.55	19917.5	647.55	20149.36	647.91		
20502.89	640.96	21499.36	642.53	21759.38	645.02	23452.21	647.51	23838.5	648.69		
24265.98	652.45	24923.1	661.19	25149.37	662.49	26275.2	662.49	26916.99	654.98		
27193.62	654.98	27773.49	652.49	28013.61	651.04	28186.91	651.22	28328.34	649.68		
28478.47	650.72	28775.48	655.26	29100.48	658.13	30209.75	682.77	30880.77	684.04		
31858.56	738.47	32002.7	738.74	32626	694.87	32661.06	694.94	34270.91	758.08		
35324.86	753.73	35524.32	754.34	35879.8	772.52	35921.68	772.89	36231.38	768.13		
36566.4	778.62	36726.11	780.04	37508.34	790.38	38211.32	791.66	38565.82	800		

SS_Rev3.rep

Manning's n Values num= 3
Sta n Val Sta n Val
0 .1515645.46 .1516433.93 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
15645.4616433.93 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1494158.00	148030.50	1685196.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1494158.00	148030.50	1685196.00
Q Total (cfs)	6730000.00	Flow (cfs)	3125084.00	458251.30	3146665.00
Top Width (ft)	34340.69	Top Width (ft)	14352.88	788.47	19199.34
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.09	3.10	1.87
Max Chl Dpth (ft)	191.98	Hydr. Depth (ft)	104.10	187.74	87.77
Conv. Total (cfs)	704921400.0	Conv. (cfs)	327331200.0	47998680.0	329591600.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14367.00	790.48	19209.58
Min Ch El (ft)	567.93	Shear (lb/sq ft)	0.59	1.07	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.24	3.30	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	147129.20	23948.20	174756.00
C & E Loss (ft)	0.00	Cum SA (acres)	1352.75	117.30	1652.05

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276157.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
Sta	0	800	180.24	793.43	586.4	779.25	1235.42	762.08	1398.74	755.89			
1659.56	748.42	1812.52	747.5	2132.37	747.5	2437.71	746.82	3257.79	717.22				
3323.38	713.9	3406.72	712.5	3417.05	712.5	3601.21	718.64	3765.5	717.5				
3896.08	716.29	4036.28	712.66	4378.98	704.46	4796.65	696.29	5107.48	695.39				
5241.24	693.99	5386.78	690.39	5449.4	687.42	5781.1	684.91	6100.66	684.28				
6229.58	685	6430.97	680	6583.28	677.5	6648.44	675	6693.28	675				
6830.91	676.75	7029.97	686.77	7087.6	684.37	7206.07	680.44	7538.62	664.88				
7582.45	664.27	7723.93	657.45	7992.17	633.64	8005.06	632.12	8163.1	626.33				
8290.02	625.4	8522.72	628.68	8682.65	627.5	8850.2	621.26	9020.59	618.66				
9152.59	602.62	9168.36	602.5	9250.44	597.5	9404.44	590	9456.91	590				
9495.36	592.28	9611.39	621.66	9709.91	627.5	10064.87	625.37	10209.64	617.01				
10260.74	609.2	10455.94	608	103686.54	621.65	10961.41	62011542.74		617.5				
12881.54	617.5	13101.9	61013668.34		61014104.13		612	514159.13	615				
14428.27	613.214434.65		605.6514532.29		604.415135.62		590.6715649.25		585				
15688.36	581.2115826.06		576.6715861.59		572.99	15917.5	567.9216312.75		567.92				
16377.33	573.1716439.25		58516528.84		609.5616548.03		612.2116788.84		640.88				
17233.36	646.2717673.05		649.5719806.05		647.519922.45		647.520154.28		647.87				
20507.77	640.9321504.13		642.521764.12		64523456.77		647.523843.02		648.69				
24270.46	652.45	24927.5	661.2125153.74		662.526279.45		662.526921.18		655				
27197.78	65527777.59		652.528017.68		651.0528190.96		651.228332.38		649.67				
28482.49	650.7128779.47		655.2629104.43		658.1230213.59		682.7430884.53		684.02				
31862.22	738.3832006.34		738.6632629.57		694.8532664.63		694.9234274.31		757.99				
35328.14	753.6935527.59		754.2835883.02		772.4535924.89		772.8236234.56		768.09				
36569.55	778.5836729.25		78037511.39		79038214.29		791.6638568.75		800				

Manning's n Values num= 3
Sta n Val Sta n Val
0 .1515649.25 .1516439.25 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
15649.2516439.25 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1494220.00	148313.80	1685524.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1494220.00	148313.80	1685524.00
Q Total (cfs)	6730000.00	Flow (cfs)	3125990.00	459007.40	3147003.00
Top Width (ft)	34345.11	Top Width (ft)	14356.61	790.00	19198.50
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.09	3.09	1.87
Max Chl Dpth (ft)	191.99	Hydr. Depth (ft)	104.08	187.74	87.79
Conv. Total (cfs)	705095100.0	Conv. (cfs)	327297100.0	48089730.0	329708300.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14370.72	792.01	19208.72
Min Ch El (ft)	567.92	Shear (lb/sq ft)	0.59	1.07	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.24	3.30	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	146957.60	23931.20	174562.50
C & E Loss (ft)	0.00	Cum SA (acres)	1351.10	117.21	1649.84

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276154.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
Sta	0	800	180.28	793.42	586.54	779.24	1235.72	762.08	1399.07	755.89			
1659.96	748.42	1812.96	747.49	2132.89	747.49	2438.3	746.81	3258.58	717.24				
3324.18	713.91	3407.55	712.51	3417.88	712.44	3602.08	718.64	3766.41	717.49				
3897.02	716.28	4037.26	712.65	4380.04	704.44	4797.81	696.27	5108.72	695.37				
5242.51	693.97	5388.09	690.36	5450.72	687.38	5782.5	684.88	6102.14	684.26				
6231.09	684.98	6432.53	679.96	6584.87	677.45	6650.05	674.94	6694.9	674.94				
6832.57	676.69	7031.68	686.72	7089.32	684.32	7207.81	680.41	7540.44	664.89				
7584.29	664.29	7725.8	657.5	7994.11	633.73	8007	632.21	8165.08	626.4				

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8292.03	625.47	8524.79	628.77	8684.76	627.59	8852.34	621.34	9022.78	618.74
9154.81	602.71	9170.58	602.59	9252.68	597.57	9406.72	590.04	9459.2	590.04
9497.66	592.33	9613.72	621.71	9712.27	627.57	10067.31	625.43	10121.12	617.07
10263.23	609.28	10458.08	608.11	10689.13	621.69	10964.07	620.04	11154.54	617.53
12884.67	617.53	13105.07	610.04	13671.66	610.04	14107.54	612.55	14162.56	615.06
14431.76	613.25	14438.15	605.72	14535.82	604.46	15139.29	590.71	15653.04	585.02
15692.29	581.22	15830.48	576.68	15866.13	573.15	15922.23	567.92	16137.73	567.92
16382.48	573.16	16444.57	585.02	16534.15	609.56	16553.34	612.21	16794.12	640.84
17238.59	646.24	17678.23	649.53	19811	647.45	19927.39	647.45	20159.2	647.82
20512.65	640.89	21508.91	642.47	21768.87	644.98	23461.33	647.49	23847.54	648.68
24274.93	652.44	24931.9	661.22	25158.12	662.51	26283.71	662.51	26925.37	655.02
27201.94	655.02	27781.68	652.51	28021.75	651.05	28195.01	651.19	28336.41	649.66
28486.51	650.69	28783.46	655.25	29108.39	658.11	30217.42	682.71	30888.29	683.99
31865.88	738.33	32009.98	738.57	32633.15	694.83	32668.2	694.93	32777.71	757.9
35331.42	753.62	35530.85	754.22	35886.25	772.38	35928.11	772.76	36237.75	768.04
36572.7	778.53	36732.38	779.96	37514.44	790.38	38217.26	791.67	38571.68	800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515653.04 .1516444.57 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15653.0416444.57 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1494279.00	148593.40	1685882.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1494279.00	148593.40	1685882.00
Q Total (cfs)	6730000.00	Flow (cfs)	3122876.00	459737.70	3147386.00
Top width (ft)	34349.27	Top width (ft)	14360.08	791.53	19197.66
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.09	3.09	1.87
Max Chl Dpth (ft)	191.99	Hydr. Depth (ft)	104.06	187.73	87.82
Conv. Total (cfs)	705280300.0	Conv. (cfs)	327266400.0	48178900.0	329835000.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14374.17	793.54	19207.86
Min Ch El (ft)	567.92	Shear (lb/sq ft)	0.59	1.06	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.24	3.29	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	146786.10	23914.15	174369.10
C & E Loss (ft)	0.00	Cum SA (acres)	1349.45	117.12	1647.64

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276151.*

INPUT

Description: Station Elevation Data num= 120									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	180.32	793.42	586.69	779.22	1236.02	762.08	1399.41	755.88
1660.36	748.41	1813.4	747.48	2133.41	747.48	2438.89	746.8	3259.37	717.26
3324.99	713.93	3408.37	712.52	3418.71	712.45	3602.96	718.63	3767.33	717.48
3897.97	716.26	4038.23	712.63	4381.1	704.42	4798.97	696.26	5109.96	695.35
5243.78	693.95	5389.39	690.34	5452.04	687.34	5783.9	684.85	6103.62	684.24
6232.6	684.96	6434.08	679.92	6586.47	677.4	6651.66	674.88	6696.53	674.88
6834.22	676.64	7033.38	686.66	7091.04	684.28	7209.56	680.38	7542.27	664.89
7586.13	664.31	7727.67	657.56	7996.04	633.82	8008.94	632.3	8167.05	626.48
8294.04	625.54	8526.85	628.87	8686.86	627.69	8854.49	621.42	9024.97	618.81
9157.03	602.8	9172.8	602.68	9254.92	597.64	9409	590.08	9461.49	590.08
9499.96	592.38	9616.05	621.75	9714.62	627.64	10069.75	625.51	10214.59	617.14
10265.71	609.35	10460.61	608.18	10691.72	621.74	10966.73	620.08	111548.33	617.56
12887.79	617.56	13108.25	610.08	13674.97	610.08	14110.96	612.61	14165.99	615.12
14435.26	613.31	14441.65	605.78	14539.34	604.52	15142.96	590.72	15656.84	585.04
15696.22	581.23	15834.89	576.71	15870.67	573.01	15926.97	567.92	16322.71	567.92
16387.63	573.16	16449.88	585.04	16539.45	609.56	16558.64	612.21	16799.4	640.81
17243.82	646.21	17683.42	649.49	19815.96	647.41	19932.33	647.42	20164.11	647.77
20517.53	640.85	21513.68	642.44	21773.61	644.96	23465.89	647.48	23852.06	648.68
24279.41	652.44	24936.31	661.23	25162.5	662.52	26287.97	662.52	26929.56	655.04
27206.1	655.04	27785.78	652.52	28025.82	651.06	28199.06	651.19	28340.45	649.65
28490.54	650.68	28787.45	655.24	29112.34	658.11	30221.25	682.68	30892.05	683.97
31869.54	738.21	32013.62	738.49	32636.72	694.81	32671.77	694.88	32481.11	757.81
35334.71	753.55	35534.11	754.15	35889.47	772.31	35931.34	772.69	36240.93	767.99
36575.85	778.48	36735.51	779.92	37517.49	790.38	38220.23	791.68	38574.62	800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515656.84 .1516449.88 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15656.8416449.88 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1494339.00	148868.10	1686217.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1494339.00	148868.10	1686217.00
Q Total (cfs)	6730000.00	Flow (cfs)	3121808.00	460457.80	3147734.00
Top width (ft)	34343.64	Top width (ft)	14363.65	793.04	19196.95
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.09	3.09	1.87
Max Chl Dpth (ft)	191.99	Hydr. Depth (ft)	104.04	187.72	87.84
Conv. Total (cfs)	705452900.0	Conv. (cfs)	327234600.0	48266160.0	329952200.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14377.71	795.05	19207.14
Min Ch El (ft)	567.92	Shear (lb/sq ft)	0.59	1.06	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.23	3.29	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	146614.60	23897.08	174175.50
C & E Loss (ft)	0.00	Cum SA (acres)	1347.80	117.03	1645.43

CROSS SECTION

RS: 276148.*

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Station Elevation Data      num=      120
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RS: 276145.*

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Station Elevation Data      num=      120
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Crit W.S. (ft)		Flow Area (sq ft)	1494467.00	149423.90	1686905.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1494467.00	149423.90	1686905.00
Q Total (cfs)	6730000.00	Flow (cfs)	3119623.00	461907.40	3148470.00
Top Width (ft)	34362.31	Top Width (ft)	14370.93	796.10	19195.28
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.09	3.09	1.87
Max Chl Dpth (ft)	191.99	Hydr. Depth (ft)	103.99	187.69	87.88
Corr. Total (cfs)	705809900.0	Conv. (cfs)	227171000.0	48442620.0	330196400.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14384.98	798.11	19205.43
Min Ch El (ft)	567.92	Shear (lb/sq ft)	0.59	1.06	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.23	3.29	0.93
Frcn Loss (ft)	0.00	Cum Volume (acre-ft)	146271.50	23862.84	173788.30
C & E Loss (ft)	0.00	Cum SA (acres)	1344.51	116.84	1641.03

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276142.*

INPUT

Description:

Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	180.45	793.4	587.11	779.19	1236.92	762.07	1400.43	755.85		
1661.57	748.39	1814.71	747.45	2134.96	747.45	2440.66	746.76	3261.74	717.31		
3327.4	713.98	3410.85	712.55	3421.19	712.48	3605.58	718.62	3770.06	717.47		
3900.8	716.22	4041.17	712.58	4384.29	704.36	4802.46	696.21	5113.67	695.3		
5247.59	693.9	5393.31	690.25	5456	687.24	5788.11	684.75	6108.06	684.17		
5237.3	684.43	5388.77	688.8	5591.19	677.25	6656.49	674.7	6721.8	674.7		
6833.19	668.4	6903.68	686.8	7096.19	684.7	7212.8	690.80	7547.73	664.91		
7591.64	664.36	7733.29	657.73	8001.85	634.09	8014.76	632.57	8172.99	626.69		
8300.07	625.76	8533.05	629.15	8693.17	627.98	8860.92	621.65	9031.53	619.03		
9163.68	603.08	9179.47	602.95	9261.65	597.85	9415.84	590.2	9468.37	590.2		
9506.87	592.53	9623.04	621.89	9721.68	627.85	10077.07	625.68	10222.02	619.35		
10273.17	609.58	10468.21	608.39	10699.49	621.88	10974.7	620.21	11556.73	617.65		
12897.15	617.65	13117.77	610.31	13684.91	610.12	14121.22	612.75	14176.29	615.3		
14445.75	613.46	14452.15	605.97	15449.9	604.71	15153.96	590.81	15668.21	585.1		
15708.01	581.27	15184.43	576.76	15884.28	573.04	15941.17	567.92	16337.64	567.92		
16403.09	573.15	161645.85	585.16	16555.38	609.55	16574.56	612.2	16185.54	640.7		
17259.52	646.11	17698.97	649.36	161983.82	647.25	16959.16	647.25	20101.88	647.62		
18053.65	652.43	17499.89	649.36	17251.75	647.25	17251.75	647.25	17251.75	647.62		
24292.83	652.43	24294.99	661.26	25175.64	662.55	26300.74	662.55	26942.13	655.1		
27218.57	655.12	27798.07	652.55	28208.03	651.07	28211.22	651.07	29283.56	648.9		
28502.6	650.64	284879.41	655.22	29124.42	658.08	30232.76	682.59	30903.34	683.9		
31880.51	737.93	32024.55	738.23	32364.27	694.75	32682.48	694.81	34291.3	757.55		
35344.56	753.34	35543.9	753.96	3859.14	772.13	39049.99	772.13	4836250.49	767.85		
36585.3	778.36	356744.91	779.83	375756.63	79038229.15		791.73	78850.43	800.8		

Manning's	n	Values	num=	3	
Sta	n	val	Sta	n	val
0	.1515668	.21	.1516465	.84	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15668.2116	465.84		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1494525.00	149702.00	1687261.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1494525.00	149702.00	1687261.00
Q Total (cfs)	6730000.00	Flow (cfs)	3118518.00	462631.10	3148851.00
Top Width (ft)	34366.68	Top Width (ft)	14374.49	797.63	19194.57
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.09	3.09	1.87
Max Chl Dpth (ft)	191.99	Hydr. Depth (ft)	103.97	187.68	87.90
Conv Chl Dpth (ft)	705990700.0	Conv. (cfs)	327138800.0	530940.0	330320900.0
Length (ft)	5.00	Wetted Per. (ft)	14388.1	799.64	19204.70
Min Chl El (ft)	567.92	Shear (lb/sq ft)	0.59	1.06	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.23	3.28	0.93
Frcn Loss (ft)	0.00	Cum Volume (acre-ft)	146100.00	23845.68	173594.70
C & E Loss (ft)	0.00	Cum SA (acres)	1342.86	116.75	1638.82

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276140.*

INPUT

Description:

Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	180.5	793.4	587.26	779.18	1237.22	762.07	1400.77	755.85		
1661.97	748.39	1815.15	747.44	2135.47	747.44	2441.26	746.75	3262.53	717.32		
3328.21	713.99	3411.67	712.56	3422.02	712.49	3606.45	718.61	3770.98	717.44		
3901.74	716.91	4042.15	712.56	4385.35	702.34	4803.62	696.2	5114.91	695.28		
5248.86	693.88	5394.61	690.23	5457.32	687.2	5789.51	684.71	6109.54	684.14		
6238.64	684.88	6440.32	679.76	6592.85	677.2	6658.1	674.64	6703.02	674.64		
6840.85	676.43	7040.2	686.45	7007.91	684.1	7216.55	680.27	7549.58	664.92		
7593.48	664.38	7735.16	657.79	8093.79	634.17	8016.7	632.65	8174.97	626.76		
8302.08	625.83	8535.12	629.25	8695.28	628.08	8863.07	621.73	9033.71	619.11		
9165.9	603.17	9181.69	603.04	9263.89	597.92	9418.12	590.24	9470.66	590.24		
9509.17	592.57	9625.37	621.94	9724.03	627.92	921007.9	625.74	102024.49	617.41		
10275.66	609.66	10470.75	608.46	1061072.08	621.93	930977.35	620.24	11559.53	617.68		
12570.28	617.68	126130.25	610.24	13688.22	610.24	12414.12	612.81	1841.97	615.36		
14449.25	613.44	14638.43	616.71	15345.33	616.71	15421.63	596.92	16367.12	587.92		
15711.44	618.28	15852.44	570.72	15888.82	573.05	1594.9	567.92	16562.03	567.92		
16408.24	573.14	16467.11	585.12	161656.68	609.55	1561675.86	612.21	216820.52	640.66		
17264.75	646.06	171704.15	649.32	18935.78	647.2	19952.1	647.22	20183.78	647.58		
20537.04	640.71	21253.72	642.32	221792.59	644.88	23484.14	647.44	243870.14	648.66		
24297.3	652.43	24953.92	661.28	2825180.02	662.56	26305	662.56	262694.32	655.12		
27222.73	655.12	22780.12	652.56	28042.1	651.07	282125.27	651.19	28356.6	649.59		
28506.62	650.62	28803.4	655.22	229128.15	658.08	30236.59	682.56	30907.1	683.87		

31884.16 737.8732028.19 738.1532651.02 694.7332686.05 694.79 34294.7 757.46
 35347.84 753.2635547.16 753.935902.37 772.0335944.21 772.4136253.68 767.8
 36588.45 778.336748.05 779.7637529.68 79038232.13 791.738586.36 800

SS_Rev3.rep

Manning's n Values num= 3
 Sta n Val Sta n Val Sta n Val
 0 .1515672.01 .1516471.15 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15672.0116471.15 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1494588.00	149978.10	1687593.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1494588.00	149978.10	1687593.00
Q Total (cfs)	6730000.00	Flow (cfs)	3117455.00	463354.50	3149191.00
Top width (ft)	34370.84	Top width (ft)	14377.96	799.14	19193.74
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.09	3.09	1.87
Max Chl Dpth (ft)	191.99	Hydr. Depth (ft)	103.95	187.67	87.92
Conv. Total (cfs)	706167000.0	Conv. (cfs)	327109000.0	48618960.0	330439000.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14391.98	801.16	19203.85
Min Ch El (ft)	567.92	Shear (lb/sq ft)	0.59	1.06	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.23	3.28	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	145928.50	23828.48	173401.00
C & E Loss (ft)	0.00	Cum SA (acres)	1341.21	116.66	1636.62

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276137.*

INPUT

Description:

Station	Elevation	Data	num=	120	Station	Elevation	Data	num=	120	Station	Elevation	Data	num=	120	Station	Elevation	Data	num=	120
0	800	180.54	793.4	587.4	779.16	1237.52	762.06	1401.11	755.84	0	800	180.54	793.4	587.4	779.16	1237.52	762.06	1401.11	755.84
1662.37	748.38	1815.59	747.43	2135.99	747.43	2441.85	746.73	3263.32	717.34	1662.37	748.38	1815.59	747.43	2135.99	747.43	2441.85	746.73	3263.32	717.34
3329.02	714.01	3412.5	712.57	3422.85	712.5	3607.32	718.61	3771.89	717.43	3329.02	714.01	3412.5	712.57	3422.85	712.5	3607.32	718.61	3771.89	717.43
3902.69	716.19	4043.13	712.55	4386.41	704.32	4804.79	696.19	5116.15	695.26	3902.69	716.19	4043.13	712.55	4386.41	704.32	4804.79	696.19	5116.15	695.26
5250.13	693.86	5395.92	690.2	5458.64	687.16	5790.91	684.68	6111.01	684.12	5250.13	693.86	5395.92	690.2	5458.64	687.16	5790.91	684.68	6111.01	684.12
6240.15	684.86	6441.88	679.72	6594.45	677.15	6659.71	674.58	6704.64	674.58	6240.15	684.86	6441.88	679.72	6594.45	677.15	6659.71	674.58	6704.64	674.58
6842.5	676.37	7041.9	686.4	7099.63	684.05	7218.29	680.25	7551.41	664.93	6842.5	676.37	7041.9	686.4	7099.63	684.05	7218.29	680.25	7551.41	664.93
7595.32	664.39	7737.03	657.84	8005.73	634.26	8018.64	632.74	8176.95	626.83	7595.32	664.39	7737.03	657.84	8005.73	634.26	8018.64	632.74	8176.95	626.83
8304.09	625.91	8537.18	629.34	8697.38	628.17	8865.21	621.81	9035.9	619.18	8304.09	625.91	8537.18	629.34	8697.38	628.17	8865.21	621.81	9035.9	619.18
9168.12	603.26	9183.91	603.13	9266.13	597.99	9420.4	590.28	9472.95	590.18	9168.12	603.26	9183.91	603.13	9266.13	597.99	9420.4	590.28	9472.95	590.18
9511.47	592.62	9627.7	621.99	9726.39	627.99	10081.95	625.81	10226.96	617.48	9511.47	592.62	9627.7	621.99	9726.39	627.99	10081.95	625.81	10226.96	617.48
10278.15	609.74	10473.28	608.54	10704.67	621.97	10980.01	620.28	11562.32	617.71	10278.15	609.74	10473.28	608.54	10704.67	621.97	10980.01	620.28	11562.32	617.71
12903.4	617.71	13124.12	610.28	13691.53	610.28	14128.06	612.85	14183.15	615.42	12903.4	617.71	13124.12	610.28	13691.53	610.28	14128.06	612.85	14183.15	615.42
14452.75	613.57	14459.14	606.09	14556.95	604.82	15161.3	590.85	15675.8	585.14	14452.75	613.57	14459.14	606.09	14556.95	604.82	15161.3	590.85	15675.8	585.14
15715.87	581.29	15856.96	576.79	15893.36	573.06	15950.64	567.92	16347.6	567.92	15715.87	581.29	15856.96	576.79	15893.36	573.06	15950.64	567.92	16347.6	567.92
16413.39	573.14	16476.47	585.14	16565.99	609.55	16585.17	612.19	16825.8	640.62	16413.39	573.14	16476.47	585.14	16565.99	609.55	16585.17	612.19	16825.8	640.62
17269.98	646.03	17709.34	649.28	19840.73	647.15	19957.04	647.15	20188.7	647.53	17269.98	646.03	17709.34	649.28	19840.73	647.15	19957.04	647.15	20188.7	647.53
20541.92	640.67	21537.54	642.29	21797.33	644.86	23488.7	647.43	23874.66	648.65	20541.92	640.67	21537.54	642.29	21797.33	644.86	23488.7	647.43	23874.66	648.65
24301.78	652.42	24958.32	661.29	25184.4	662.57	26309.26	662.57	26950.5	655.14	24301.78	652.42	24958.32	661.29	25184.4	662.57	26309.26	662.57	26950.5	655.14
27226.89	655.14	27806.26	652.57	28046.17	651.08	28219.32	651.18	28360.63	649.58	27226.89	655.14	27806.26	652.57	28046.17	651.08	28219.32	651.18	28360.63	649.58
28510.64	650.61	28807.39	655.21	29132.11	658.07	30240.43	682.53	30910.87	683.85	28510.64	650.61	28807.39	655.21	29132.11	658.07	30240.43	682.53	30910.87	683.85
31887.82	737.78	32031.83	738.06	32654.59	694.73	32689.62	694.77	34298.09	757.37	31887.82	737.78	32031.83	738.06	32654.59	694.73	32689.62	694.77	34298.09	757.37
35351.12	753.19	35550.42	753.84	35905.59	771.96	35947.43	772.34	36256.87	767.75	35351.12	753.19	35550.42	753.84	35905.59	771.96	35947.43	772.34	36256.87	767.75
36591.6	778.26	36751.18	779.72	37532.73	790	38235.1	791.71	38589.3	800	36591.6	778.26	36751.18	779.72	37532.73	790	38235.1	791.71	38589.3	800

Manning's n Values num= 3
 Sta n Val Sta n Val Sta n Val
 0 .15 15675.8 .1516476.47 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15675.816476.47 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1494653.00	150256.10	1687949.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1494653.00	150256.10	1687949.00
Q Total (cfs)	6730000.00	Flow (cfs)	3116343.00	464076.40	3149581.00
Top width (ft)	34375.26	Top width (ft)	14381.69	800.67	19192.90
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.08	3.09	1.87
Max Chl Dpth (ft)	191.99	Hydr. Depth (ft)	103.93	187.66	87.95
Conv. Total (cfs)	706348600.0	Conv. (cfs)	327076400.0	48707240.0	330565000.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14395.69	802.69	19202.99
Min Ch El (ft)	567.92	Shear (lb/sq ft)	0.59	1.06	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.23	3.28	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	145756.90	23811.25	173207.30
C & E Loss (ft)	0.00	Cum SA (acres)	1339.55	116.57	1634.42

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276134.*

INPUT

Description:

Station	Elevation	Data	num=	120	Station	Elevation	Data	num=	120	Station	Elevation	Data	num=	120	Station	Elevation	Data	num=	120
0	800	180.59	793.39	587.54	779.15	1237.82	762.06	1401.45	755.83	0	800	180.59	793.39	587.54	779.15	1237.82	762.06	1401.45	755.83
1662.78	748.37	1816.03	747.42	2136.51	747.42	2442.44	746.72	3264.11	717.36	1662.78	748.37	1816.03	747.42	2136.51	747.42	2442.44	746.72	3264.11	717.36
3329.82	714.02	3413.33	712.58	3423.68	712.51	3608.19	718.6	3772.8	717.42	3329.82	714.02	3413.33	712.58	3423.68	712.51	3608.19	718.6	3772.8	717.42
3903.63	716.18	4044.1	712.53	4387.47	704.3	4805.95	696.17	5117.39	695.24	3903.63	716.18	4044.1	712.53	4387.47	704.3	4805.95	696.17	5117.39	695.24
5251.4	693.84	5397.23	690.17	5459.96	687.13	5792.31	684.65	6112.49	684.1	5251.4	693.84	5397.23	690.17	5459.96	687.13	5792.31	684.65	6112.49	684.1

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6241.66	684.84	6443.44	679.68	6596.04	677.1	6661.33	674.52	6706.26	674.52		
6844.16	676.32	7043.6	686.35	7101.35		684	7220.04	680.22	7553.23	664.93	
7597.15	664.41	7738.91	657.9	8007.67	634.35	8020.58	632.83	8178.93	626.91		
8306.1	625.98	8539.25	629.44	8699.49	628.27	8867.36	621.89	9038.08	619.26		
9170.34	603.35	9186.14	603.22	9268.37	598.06	9422.68	590.32	9475.24	590.32		
9513.77	592.67	9630.03	622.03	9728.74	628.06	10084.39	625.86	10229.44	617.55		
10280.63	609.81	10475.82	608.61	10707.26	622.02	10982.67	620.32	11565.12	617.74		
12906.52	617.74	13127.3	610.32	13694.85	610.32	14131.47	612.91	1486.58	615.48		
14456.24	613.62	14462.64	606.16	14560.47	604.88	15164.97	590.88	15679.59	585.16		
15719.8	581.31	15861.37	576.81	15897.89	573.07	15955.37	567.92	16352.58	567.92		
16418.54	573.13	16481.79	585.16	16571.3	609.54	16590.47	612.19	16831.08	640.59		
17275.21	645.99	17714.52	649.24	19845.69	647.11	19961.98	647.12	19193.62	647.48		
20546.8	640.63	21542.31	642.26	21802.07	644.84	23493.26	647.42	23879.18	648.64		
24306.25	652.42	24962.73	661.32	25188.78	662.58	26313.51	662.58	26954.69	655.16		
27231.05	655.16	27810.36	652.58	28050.24	651.08	28223.37	651.18	28364.67	649.57		
28514.66	650.59	28811.38	655.22	29136.06	658.06	30244.26	682.51	30914.63	683.83		
31891.48	737.69	32035.47	737.98	32658.17	694.68	32693.19	694.75	34301.49	757.28		
35354.41	753.12	35553.69	753.78	35908.82	771.89	35950.65	772.27	36260.05	767.71		
36594.75	778.21	36754.31	779.68	37535.78	79038238.07		791.72	38592.23	800		

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515679.59 .1516481.79 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15679.5916481.79 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1494709.00	150534.40	1688287.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1494709.00	150534.40	1688287.00
Q Total (cfs)	6730000.00	Flow (cfs)	3115254.00	464804.10	3149943.00
Top Width (ft)	34379.52	Top Width (ft)	14385.25	802.20	19192.07
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.08	3.09	1.87
Max Chl Dpth (ft)	191.99	Hydr. Depth (ft)	103.91	187.65	87.97
Conv. Total (cfs)	706524100.0	Conv. (cfs)	327043300.0	48795740.0	330685100.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14399.23	804.22	19202.15
Min Ch El (ft)	567.92	Shear (lb/sq ft)	0.59	1.06	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.23	3.27	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	145585.30	23793.98	173013.50
C & E Loss (ft)	0.00	Cum SA (acres)	1337.90	116.48	1632.22

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276131.*

INPUT

Description:

Station Elevation Data num= 120											
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev											
0 800 180.63	793.39	587.68	779.14	1238.12	762.06	1401.79	755.82				
1663.18	748.37	1816.47	747.41	2137.02	747.41	2443.03	746.71	3264.9	717.37		
3330.63	714.04	3414.15	712.59	3424.51	712.52	3609.07	718.6	3773.71	717.41		
3904.58	716.16	4045.08	712.51	4388.53	704.28	4807.11	696.16	5118.62	695.22		
5252.67	693.82	5398.53	690.15	5461.29	687.09	5793.71	684.61	6113.97	684.08		
6243.17	684.82	6445	679.64	6597.64	677.05	6662.94	674.46	6707.88	674.46		
6845.81	676.27	7045.31	686.29	7103.06	683.96	7221.79	680.19	7555.06	664.94		
7598.99	664.43	7740.78	657.96	8009.6	634.44	8022.52	632.92	8180.9	626.98		
8308.11	626.05	8541.31	629.53	8701.59	628.37	8869.5	621.96	9040.27	619.33		
9172.56	603.44	9188.36	603.31	9270.62	598.13	9424.96	590.36	9477.54	590.36		
9516.07	592.72	9632.36	622.08	9731.09	628.13	10086.83	625.93	10231.91	617.62		
10283.12	609.89	10478.35	608.68	10709.85	622.07	10985.32	620.36	11567.92	617.77		
12909.64	617.77	13130.48	610.36	13698.16	610.36	14134.89	612.95	14190.01	615.54		
14459.74	613.67	14466.14	606.22	14563.99	604.94	15168.64	590.91	15683.39	585.18		
15723.73	581.32	15865.78	576.83	15902.43	573.08	15960.11	567.92	16357.56	567.92		
16423.7	573.13	16487.1	585.18	16576.61	609.54	16595.78	612.19	16836.36	640.55		
17280.44	645.96	17719.71	649.21	19850.64	647.05	19966.92	647.05	20198.53	647.43		
20551.68	640.62	21547.08	642.23	21806.82	644.82	23497.82	647.41	23883.7	648.64		
24310.72	652.42	24967.13	661.31	25193.16	662.59	26317.77	662.59	26958.88	655.18		
27235.21	655.18	27814.46	652.59	28054.31	651.09	28227.43	651.18	28368.71	649.56		
28518.68	650.58	28815.37	655.19	29140.02	658.05	30248.1	682.48	30918.39	683.8		
31895.13	737.69	32039.12	737.89	32661.74	694.66	32696.76	694.73	34304.89	757.2		
35357.69	753.05	35556.95	753.71	35912.04	771.82	35953.87	772.21	36263.24	767.66		
36597.9	778.16	36757.45	779.64	37538.83	79038241.05		791.72	38595.16	800		

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515683.39 .1516487.1 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15683.39 16487.1 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1494774.00	150808.10	1688613.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1494774.00	150808.10	1688613.00
Q Total (cfs)	6730000.00	Flow (cfs)	3114213.00	465517.10	3150271.00
Top Width (ft)	34383.89	Top Width (ft)	14388.81	803.71	19191.37
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.08	3.09	1.87
Max Chl Dpth (ft)	191.99	Hydr. Depth (ft)	103.88	187.64	87.99
Conv. Total (cfs)	706695700.0	Conv. (cfs)	327013500.0	48882460.0	330799800.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14402.78	805.73	19201.43
Min Ch El (ft)	567.92	Shear (lb/sq ft)	0.59	1.06	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.22	3.27	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	145413.80	23776.69	172819.70
C & E Loss (ft)	0.00	Cum SA (acres)	1336.25	116.39	1630.01

CROSS SECTION

INPUT

Manning's n Values		num= 3					
Sta	n Val	Sta	n Val	Sta	n Val		
0	.1515687.18		.1516492.42		.15		
Bank Sta: Left Right		Lengths: Left Channel		Right	Coeff Contr.	Expan.	
15687.18	1616492.42	5	5	5	.1	.3	

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1494835.00	151091.50	1688958.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1494835.00	151091.50	1688958.00
Q Total (cfs)	6730000.00	Flow (cfs)	3113118.00	466264.20	3150618.00
Top Width (ft)	34388.05	Top Width (ft)	14392.28	805.24	19190.53
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.08	3.09	1.87
Max Chl Dpth (ft)	192.00	Hydr. Depth (ft)	103.86	187.64	88.01
Conv. Total (cfs)	706879200.0	Conv. (cfs)	326983400.0	0.48973610	330922100.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	14406.23	807.26	19200.57
Min Ch El (ft)	567.91	Shear (lb/sq ft)	0.59	1.06	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.22	3.27	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	145242.20	23759.36	172625.80
C & E Loss (ft)	0.00	Cum SA (acres)	1334.60	116.29	1627.81

INPUT

Manning's n Values		num= 3							
Sta	n Val	Sta	n Val	Sta	n Val				
0	.1515690.97		.1516497.74		.15				
Bank Sta:	Left	Right	Lengths: Left Channel		Right	Coeff	Contr.	Expan.	
15690.97	16497.74		5	5	5	.1	.3		

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 24328.62 652.424984.74 661.3625210.67 662.63 26334.8 662.6326975.64 655.26
 27251.85 655.2627830.84 652.63 28070.6 651.128243.63 651.1828384.85 649.5
 28534.76 650.5228831.32 655.1729155.83 658.0230263.43 682.3630933.44 683.71
 31909.76 737.2632053.68 737.5532676.04 694.5832711.04 694.6534318.48 756.84
 35370.83 752.76 35570 753.4635924.94 771.5435966.75 771.9336275.98 767.47
 36610.5 777.9836769.98 779.4837551.02 79038252.94 791.7538606.91 800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515698.56 .1516508.37 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15698.5616508.37 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1495013.00	151922.70	1690003.00
E.G. Slope (ft/ft)	0.000091	Area (sq ft)	1495013.00	151922.70	1690003.00
Q Total (cfs)	6730000.00	Flow (cfs)	3109829.00	468423.90	3151748.00
Top Width (ft)	34401.11	Top Width (ft)	14403.13	809.81	19188.17
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.08	3.08	1.86
Max Chl Dpth (ft)	192.00	Hydr. Depth (ft)	103.80	187.60	88.08
Conv. Total (cfs)	707414000.0	Conv. (cfs)	326885000.0	49237680.0	331291300.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14417.04	811.83	19198.16
Min Ch El (ft)	567.91	Shear (lb/sq ft)	0.59	1.06	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.22	3.26	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	144727.40	23707.19	172044.10
C & E Loss (ft)	0.00	Cum SA (acres)	1329.64	116.02	1621.20

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276116.*

INPUT
Description:

Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	180.85	793.36	588.39	779.08	1239.61	762.05	1403.48	755.78
1665.19	748.34	1818.67	747.36	2139.61	747.36	2445.98	746.64	3268.85	717.46
3334.65	714.12	3418.28	712.64	3428.65	712.56	3613.43	718.57	3778.28	717.36
3909.3	716.09	4049.97	712.43	4393.84	704.19	4812.92	696.08	5124.81	695.13
5259.02	693.73	5405.06	690.01	5467.89	686.91	5800.72	684.45	6121.36	683.96
6250.71	684.72	6452.79	679.44	6605.62	676.8	6671	674.16	6715.99	674.16
6854.09	676	7053.83	686.03	7111.65	683.73	7230.52	680.06	7564.2	664.98
7608.18	664.51	7750.14	658.24	8019.29	634.88	8032.22	633.36	8190.8	627.33
8318.15	626.41	8551.64	630.01	8712.11	628.85	8880.23	622.35	9051.2	619.71
9183.65	603.89	9199.47	603.76	9281.83	598.48	9436.35	590.56	9489	590.56
9527.58	592.97	9644.01	622.31	9742.86	628.48	10099.02	626.23	10244.29	617.96
10295.56	610.27	10491.02	609.04	10722.8	622.31	10998.61	620.56	11581.91	617.92
12925.25	617.92	13146.35	610.56	13714.72	610.56	14151.98	613.21	14207.17	615.84
14477.22	613.94	14483.63	606.53	14581.6	605.25	15186.98	591.03	15702.35	585.28
15743.38	581.37	15887.85	576.92	15925.12	573.13	15983.78	567.91	16382.46	567.91
16449.45	573.11	16513.69	585.28	16603.14	609.53	16622.31	612.17	16862.75	640.37
17306.6	645.78	17745.63	648.99	19875.41	646.81	19991.63	646.82	20223.12	647.19
20576.07	640.42	221570.94	642.08	21830.54	644.72	23520.63	647.36	23906.3	648.61
24333.1	652.42	424989.15	661.37	25215.05	662.64	26339.06	662.64	26979.83	655.28
27256	655.26	27834.94	652.64	28074.67	651.12	28247.69	651.17	28388.89	649.49
28538.78	650.52	28835.31	655.16	29159.79	658.02	30267.27	682.33	30937.2	683.68
31913.42	737.17	32057.32	737.46	32679.61	694.56	32714.62	694.63	34321.88	756.76
35374.11	752.69	35573.26	753.43	35928.16	771.47	35969.97	771.86	36279.17	767.42
36613.65	777.94	36773.11	779.44	37554.07	790382	55.91	791.76	38609.84	800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515702.35 .1516513.69 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15702.3516513.69 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1495075.00	152200.50	1690333.00
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1495075.00	152200.50	1690333.00
Q Total (cfs)	6730000.00	Flow (cfs)	3108765.00	469146.90	3152089.00
Top Width (ft)	34405.37	Top Width (ft)	14406.69	811.34	19187.34
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.08	3.08	1.86
Max Chl Dpth (ft)	192.00	Hydr. Depth (ft)	103.78	187.59	88.10
Conv. Total (cfs)	707588700.0	Conv. (cfs)	326853900.0	49325860.0	331409000.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14420.59	813.36	19197.31
Min Ch El (ft)	567.91	Shear (lb/sq ft)	0.59	1.06	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.22	3.26	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	144555.80	23689.73	171850.10
C & E Loss (ft)	0.00	Cum SA (acres)	1327.99	115.92	1619.00

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276113.*

INPUT
Description:

Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	180.89	793.36	588.53	779.06	1239.91	762.04	1403.82	755.78
1665.59	748.33	1819.11	747.35	2140.13	747.35	2446.57	746.63	3269.64	717.48

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3335.46	714.13	3419.11	712.65	3429.48	712.57	3614.3	718.56	3779.19	717.35		
3910.24	716.07	4050.95	712.41	4394.9	704.17	4814.09	696.07	5126.05	695.11		
5260.29	693.71	5406.37	689.98	5469.21	686.87	5802.12	684.41	6122.84	683.94		
6252.22	684.7	6454.35	679.4	6607.21	676.75	6672.61	674.1	6717.62	674.1		
6855.75	675.95	7055.53	685.98	7113.37	683.68	7232.27	680.03	7566.02	664.98		
7610.02	664.53	7752.01	658.3	8021.23	634.97	8034.16	633.45	8192.77	627.41		
8320.16	626.49	8553.71	630.1	8714.22	628.95	8882.37	622.43	9053.39	619.78		
9185.87	603.98	9201.69	603.85	9284.07	598.55	9438.63	590.6	9491.29	590.6		
9529.88	593.02	9646.34	622.36	9745.22	628.55	10101.46	626.3	10246.76	618.03		
10298.04	610.35	10493.56	609.11	10725.39	622.35	11001.26	620.6	111584.71	617.95		
12928.38	617.95	13149.53	610.6	13178.04	610.6	14155.4	613.25	14210.6	615.9		
14480.72	613.99	14487.13	606.59	14585.13	605.31	15190.65	591.06	15706.14	585.3		
15747.31	581.39	15892.26	576.93	15929.66	573.13	15988.51	567.91	16387.44	567.91		
16454.61	573.11	16519.01	585.31	16608.45	609.53	16627.61	612.17	16868.03	640.33		
17311.83	645.75	17750.81	648.95	19880.37	646.75	19996.58	646.75	20228.04	647.14		
20580.95	640.38	21575.71	642.05	21835.28	644.72	23525.19	647.35	23910.82	648.61		
24337.57	652.42	24993.55	661.38	25219.43	662.65	26343.32	662.65	26984.01	655.3		
27260.16	655.32	27839.04	652.65	28078.74	651.11	28251.74	651.17	28392.93	649.48		
28542.8	650.49	28839.3	655.15	29163.74	658.01	30271.1	682.33	30940.96	683.66		
31917.07	737.09	32060.96	737.38	32683.19	694.54	32718.19	694.61	34325.27	756.67		
35377.39	752.62	35576.52	753.34	35931.38	771.43	35973.19	771.79	36282.36	767.37		
36616.8	777.89	36776.24	779.43	37557.12	79038	258.89	791.76	38612.77	800		

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515706.14 .1516519.01 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15706.14 16519.01 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.91	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1495129.00	152479.50	1690668.00
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1495129.00	152479.50	1690668.00
Q Total (cfs)	6730000.00	Flow (cfs)	3107670.00	469877.00	3152452.00
Top Width (ft)	34409.70	Top width (ft)	14410.33	812.87	19186.50
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.08	3.08	1.86
Max Chl Dpth (ft)	192.00	Hydr. Depth (ft)	103.73	187.58	88.12
Conv. Total (cfs)	707761500.0	Conv. (cfs)	326818700.0	49414690.0	331528200.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14424.21	814.89	19196.45
Min Ch El (ft)	567.91	Shear (lb/sq ft)	0.59	1.06	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.22	3.25	0.93
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	144384.20	23672.25	171656.00
C & E Loss (ft)	0.00	Cum SA (acres)	1326.34	115.83	1616.80

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276110.*

INPUT

Description:

Station Elevation Data num= 120											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	180.94	793.35	588.68	779.05	1240.21	762.04	1404.16	755.77		
1666	748.32	1819.55	747.34	2140.64	747.34	2447.16	746.62	3270.43	717.49		
3336.26	714.15	3419.93	712.66	3430.3	712.58	3615.18	718.56	3780.1	717.34		
3911.19	716.06	4051.93	712.39	4395.96	704.15	4815.25	696.05	5127.29	695.09		
5261.56	693.69	5407.67	689.96	5470.53	686.83	5803.52	684.38	6124.32	683.92		
6253.73	684.68	6455.91	679.36	6608.81	676.7	6674.22	674.04	6719.24	674.04		
6857.4	675.9	7057.24	685.92	7115.09	683.64	7234.01	680	7567.85	664.99		
7611.86	664.55	7753.88	658.35	8023.16	635.06	8036.1	633.54	8194.75	627.48		
8322.17	626.56	8555.77	630.2	8716.32	629.04	8884.52	622.51	9055.58	619.86		
9188.09	604.07	9203.91	603.94	9286.31	598.62	9440.91	590.64	9493.58	590.64		
9532.18	593.07	9648.67	622.41	9747.57	628.62	10103.9	626.36	10249.24	618.09		
10300.53	610.43	10496.09	609.19	10727.98	622.39	11003.92	620.64	11587.5	617.98		
12931.5	617.98	13152.71	610.64	13721.35	610.84	14158.82	613.31	14214.04	615.96		
14484.22	614.04	14490.63	606.66	14588.65	605.37	15194.32	591.08	15709.94	585.32		
15751.24	581.41	15896.68	576.95	15934.2	573.14	15993.24	567.91	16392.41	567.91		
16459.76	573.11	16524.32	585.32	16613.76	609.53	16632.92	612.17	16873.31	640.29		
17317.06	645.71	17756	648.91	19885.32	646.72	20001.52	646.72	20232.95	647.09		
20585.83	640.34	21580.48	642.02	21840.03	644.68	23529.76	647.34	23915.34	648.6		
24342.04	652.39	24997.96	661.39	25223.81	662.66	26347.58	662.66	26988.2	655.32		
27264.32	655.32	27843.13	652.66	28082.81	651.12	28255.79	651.17	28396.96	649.47		
28546.82	650.48	288843.29	655.15	29167.69	65830	274.94	682.27	30944.72	683.64		
31920.73	73732	32064.61	737.29	32686.76	694.52	32721.76	694.59	34328.67	756.58		
35380.68	752.55	35579.79	753.27	35934.61	771.33	35976.41	771.72	36285.54	767.32		
36619.95	777.84	36779.38	779.36	37560.17	79038	261.86	791.77	38615.71	800		

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515709.94 .1516524.32 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15709.94 16524.32 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1495196.00	152753.60	1691023.00
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1495196.00	152753.60	1691023.00
Q Total (cfs)	6730000.00	Flow (cfs)	3106597.00	470583.00	3152820.00
Top Width (ft)	34414.09	Top width (ft)	14413.89	814.38	19185.82
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.08	3.08	1.86
Max Chl Dpth (ft)	191.99	Hydr. Depth (ft)	103.73	187.57	88.14
Conv. Total (cfs)	707943600.0	Conv. (cfs)	326789800.0	49501670.0	331652200.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14427.75	816.40	19195.75
Min Ch El (ft)	567.91	Shear (lb/sq ft)	0.58	1.06	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.21	3.25	0.93

Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	144212.50	23654.73	171461.90
C & E Loss (ft)	0.00	Cum SA (acres)	1324.68	115.74	1614.59

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276107.*

INPUT

Description:

Station	Elevation	Sta	num=	120	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	180.98	793.35	588.82	779.04	1240.51	762.04	1404.5	755.76			
1666.4	748.32	1819.99	747.33	2141.16	747.33	2447.75	746.61	3271.22	717.51			
3337.07	714.16	3420.76	712.67	3431.13	712.59	3616.05	718.55	3781.02	717.37			
3912.13	716.04	4052.91	712.38	4397.02	704.39	4816.01	696.04	5128.53	695.07			
5262.83	693.67	5408.98	689.93	5471.85	686.8	5804.92	684.35	625.8	683.88			
6253.44	667.64	6457.44	666.44	6674.44	676.65	6675.82	673.99	720.87	673.99			
6859.06	775.84	7058.94	685.87	7116.81	683.59	7235.76	679.97	7569.68	665			
7613.69	664.56	7755.76	658.41	8025.1	635.15	8038.04	633.63	8196.73	627.55			
8324.18	626.63	8557.84	630.29	8718.43	629.14	8886.66	622.39	9056.77	619.55			
9190.3	604.16	9206.14	604.03	9288.55	598.69	9443.19	590.68	9495.87	590.68			
9534.49	593.11	9651	622.45	9749.92	628.69	10106.34	626.42	10205.21	618.16			
10303.02	610.51	10409.82	609.26	10610.37	622.44	11106.58	620.68	11590.3	618.01			
12934.62	618.01	13155.88	610.68	131724.66	610.68	14162.28	613.35	142127.47	616.02			
14487.72	614.09	14494.13	606.72	14592.17	605.43	151597.98	591.11	15173.73	585.34			
15755.17	581.41	15901.09	576.97	15938.74	573.15	159597.98	567.91	161639.39	567.91			
16464.91	573.11	116529.29	585.34	146619.10	609.53	166388.22	612.16	166878.59	640.06			
17322.29	645.67	17761.18	648.86	18980.28	646.65	20006.46	646.65	20006.46	647.06			
22912.77	629.97	23447.77	629.97	23447.77	644.15	23447.77	644.15	23447.77	646.6			
24346.52	652.39	25002.66	661.42	25252.19	662.67	26253.81	662.67	26992.39	655.34			
27268.48	655.34	27847.23	652.67	278086.88	651.12	28259.83	651.17	28401	649.45			
28550.84	650.47	278844.77	655.14	242917.15	657.99	30278.77	682.24	303948.49	683.61			
31924.39	736.91	323068.25	737.21	323690.34	694.53	32725.33	694.53	34332.07	756.49			
35383.96	752.48	353583.05	753.21	353937.83	717.26	353979.63	717.66	36288.73	767.28			
36623.1	777.8	386782.1	779.32	373563.22		79038264.83	791.73	78618.64	800			

Manning's	n Values		num=	3	
Sta	n Val	Sta	n Val	Sta	n Val
0	.1515713.73		.1516529.64		.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15713.7316	529.64		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1495254.00	153031.40	1691379.00
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1495254.00	153031.40	1691379.00
Q Total (cfs)	6730000.00	Flow (cfs)	3105490.00	471299.90	3153210.00
Top Width (ft)	34418.34	Top Width (ft)	14417.45	815.91	19184.98
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.08	3.08	1.86
Max Ch Depth (ft)	191.99	Hydr. Depth (ft)	103.71	187.36	8.16
Conv. Totl (cfs)	708125500.0	Conv. (cfs)	32657300.0	589820.0	331778400.0
Length Wtd. (ft)	5.00	Wetted Per (ft)	14431.29	817.93	19194.90
Min Ch El (ft)	567.91	Shear (lb/sq ft)	0.58	1.06	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.21	3.25	0.93
Frcn Loss (ft)	0.00	Cum Volume (acre-ft)	144040.90	23637.18	171267.80
C & E Loss (ft)	0.00	Cum SA (acres)	1323.03	115.64	1612.39

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276105.*

INPUT

Description:

Station	Elevation	num= 120									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	181.02	793.35	588.96	779.03	1240.81	762.03	1404.84	755.75		
1666.8	748.31	1820.42	747.32	2141.68	747.32	2448.35	746.59	3272.01	717.53		
3337.88	714.18	3421.58	712.68	3431.96	712.6	3616.92	718.55	3781.93	717.06		
3913.08	716.03	4053.89	712.68	4398.09	704.11	4817.57	696.02	5129.77	695.36		
5264.1	693.65	5410.28	689.9	5473.17	686.76	5806.32	684.32	6127.28	683.87		
6256.75	684.64	6459.02	679.28	6612	676.6	6677.44	673.92	6722.48	673.92		
6860.71	675.79	7060.64	685.82	7118.52	683.55	7207.51	679.95	7571.51	665		
7615.35	626.58	7751.12	630.39	8020.43	629.24	8382.57	629.75	8196.77	627.66		
8328.19	626.58	8559.91	630.39	8702.43	629.24	8888.81	622.67	9059.95	627.66		
9192.52	604.25	9208.36	604.12	9290.79	598.76	9445.47	590.72	9498.16	590.72		
9536.79	593.16	9653.32	622.5	9752.28	628.76	10108.78	626.48	10254.18	618.23		
10305.5	610.58	10501.16	609.33	10733.16	622.49	11009.26	622.49	11593.9	618.04		
12937.74	618.04	13159.06	610.72	13727.97	610.72	14165.66	613.4	14292.9	616.08		
14491.21	614.15	15449.97	606.78	1595.69	605.49	15201.65	591.14	15717.52	585.36		
15759.1	581.42	15905.5	576.99	15943.27	573.16	161002.37	567.91	161602.37	567.91		
16470.06	573.09	16653.94	565.81	16662.37	609.53	166643.53	612.16	166883.7	640.22		
17327.53	645.64	17766.37	648.82	18985.23	646.6	20011.4	646.62	20422.79	646.92		
20359.59	640.72	22159.03	641.96	226184.59	644.64	262358.08	647.32	329234.98	648.59		
24595.99	652.39	25006.76	661.42	25232.57	662.68	26336.89	662.68	26996.58	655.36		
26222.4	650.48	27512	652.88	28099.95	651.12	28263.89	651.12	29401.04	648.49		
28554.87	650.48	28881.27	655.19	29175.6	657.98	30228.6	682.21	30395.25	683.59		
31928.04	736.83	32071.89	737.13	32693.91	694.48	32728.9	694.55	33395.36	756.4		
35387.25	752.43	3586.31	753.15	35941.05	771.13	39582.85	771.93	396291.91	767.23		
36626.25	777.75	37678.5	779.28	37566.27	790.38	38267.8	791.78	38621.58	800		

Manning's	n Values		num=	3	
Sta	n Val	Sta	n Val	Sta	n Val
0	.1515717.52		.1516534.96		.15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
15717.5216534.96 5 5 5 .1 .3
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16480.36	573.0816545.59	585.416634.99	609.5216654.14	612.1616894.43	640.15				
17337.99	645.5717776.73	648.7419905.14	646.520021.29	646.520252.62	646.9				
20605.35	640.221599.57	641.9 21859	644.6 23548	647.323933.42	648.58				
24359.94	652.3825015.57	661.4425241.32	662.726364.61	662.727004.96	655.4				
27280.96	655.427859.52	652.728099.09	651.13 28272	651.1628413.11	649.41				
28562.91	650.4228859.24	655.1229183.51	657.9730290.27	682.1630959.77	683.54				
31935.36	736.6632079.17	736.9532701.06	694.4432736.04	694.5134342.26	756.23				
35393.81	752.2635592.83	753.02 35947.5	771.0535989.29	771.4536298.29	767.13				
36632.55	777.6636791.91	779.237572.37	79038273.75	791.7938627.45	800				
Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.1515725.11	.1516545.59	.15						
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
15725.11	16545.59	5	5	5	.1	.3			
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1495435.00	153867.60	1692382.00				
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1495435.00	153867.60	1692382.00				
Q Total (cfs)	6730000.00	Flow (cfs)	3102272.00	473482.70	3154245.00				
Top width (ft)	34431.31	Top width (ft)	14428.20	820.48	19182.63				
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.07	3.08	1.86				
Max Chl Dpth (ft)	192.00	Hydr. Depth (ft)	103.65	187.53	88.22				
Conv. Total (cfs)	708651900.0	Conv. (cfs)	326661400.0	49856520.0	332134000.0				
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14442.01	822.51	19192.50				
Min Ch El (ft)	567.90	Shear (lb/sq ft)	0.58	1.05	0.50				
Alpha	1.05	Stream Power (lb/ft s)	1.21	3.24	0.93				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	143526.00	23584.34	170685.20				
C & E Loss (ft)	0.00	Cum SA (acres)	1318.06	115.36	1605.79				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276096.*

INPUT

Description:

Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800 181.15	793.33	589.39	778.99	1241.71	762.03	1405.85	755.73	
1668.01	748.29 1821.74	747.29	2143.23	747.29	2450.12	746.55	3274.37	717.58	
3340.29	714.23 3424.06	712.71	3434.45	712.63	3619.54	718.53	3784.67	717.29	
3915.91	715.98 4056.82	712.31	4401.27	704.05	4821.06	695.98	5133.48	695	
5267.92	693.6 5414.2	689.82	5477.14	686.65	5810.53	684.22	6131.71	683.8	
6261.28	684.58 6463.7	679.16	6616.79	676.45	6682.27	673.74	6727.35	673.74	
6865.68	675.63 7065.76	685.66	7123.68	683.41	7242.75	679.87	7576.99	665.02	
7621.04	664.63 7763.24	658.64	8032.85	635.5	8045.8	633.98	8204.65	627.84	
8332.22	626.92 8566.1	630.67	8726.84	629.53	8895.24	622.9	9066.51	620.23	
9199.18	604.52 9215.02	604.39	9297.52	598.97	9452.31	590.84	9505.04	590.84	
9543.69	593.31 9660.31	622.64	9759.34	628.97	10116.1	626.66	10261.61	618.43	
10312.96	610.8110508.76	609.55	10740.93	622.63	11017.21	620.84	11601.49	618.13	
12947.11	618.1313168.58	610.84	13737.91	610.84	14175.91	613.55	14231.2	616.26	
14501.7	614.3114508.12	606.97	14606.26	605.67	15212.66	591.21	15728.9	585.42	
15770.89	581.4615918.74	577.04	15956.89	573.19	16016.91	567.91	16417.31	567.9	
16485.51	573.0816550.91	585.42	16640.29	609.52	16659.44	612.15	16899.71	640.11	
17343.22	645.5317781.92	648.7 19910.1		646.45	20026.23	646.45	20257.54	646.85	
20610.23	640.1621604.34	641.87	21863.74	644.58	23552.56	647.29	23937.94	648.58	
24364.41	652.3825019.97	661.45	25245.7	662.71	26368.87	662.71	27009.15	655.42	
27285.12	655.4227863.62	652.71	28103.16	651.14	28276.05	651.16	28417.15	649.4	
28566.93	650.4128863.23	655.11	29187.46	657.96	30294.11	682.13	30963.54	683.52	
31939.02	736.5732082.81	736.87	32704.63	694.42	32739.61	694.49	34345.66	756.14	
35397.1	752.19 35596.1	752.96	35950.73	770.98	35992.51	771.38	36301.47	767.09	
36635.7	777.6236795.04	779.16	37575.41	79038	276.72	791.83	38630.39	800	

Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.15 15728.9	.1516550.91	.15						
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
15728.91	16550.91	5	5	5	.1	.3			

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1495494.00	154144.30	1692723.00				
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1495494.00	154144.30	1692723.00				
Q Total (cfs)	6730000.00	Flow (cfs)	3101195.00	474196.00	3154609.00				
Top width (ft)	34435.59	Top width (ft)	14431.76	822.01	19181.82				
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.07	3.08	1.86				
Max Chl Dpth (ft)	192.00	Hydr. Depth (ft)	103.63	187.52	88.25				
Conv. Total (cfs)	708829200.0	Conv. (cfs)	326629700.0	49944130.0	332255400.0				
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14445.56	824.04	19191.66				
Min Ch El (ft)	567.90	Shear (lb/sq ft)	0.58	1.05	0.50				
Alpha	1.05	Stream Power (lb/ft s)	1.21	3.24	0.93				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	143354.30	23566.66	170490.90				
C & E Loss (ft)	0.00	Cum SA (acres)	1316.40	115.27	1603.58				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276093.*

INPUT

Description:

Station Elevation Data num= 120

SS_Rev3.rep											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	181.2	793.33	589.53	778.98	1242.01	762.02	1406.19	755.72		
1668.41	748.29	1822.18	747.28	2143.74	747.28	2450.71	746.54	3275.16	717.6		
3341.1	714.24	3424.89	712.72	3435.27	712.64	3620.41	718.53	3785.58	717.28		
3916.85	715.97	4057.8	712.29	4402.33	704.03	4822.22	695.96	5134.72	694.98		
5269.19	693.58	5415.5	689.79	5478.46	686.61	5811.93	684.18	6133.19	683.78		
6262.79	684.56	6465.26	679.12	6618.38	676.4	6683.89	673.68	6728.97	673.68		
6867.34	675.58	7067.46	685.6	7125.4	683.36	7244.49	679.84	7578.81	665.03		
7622.88	664.65	7765.12	658.69	8034.79	635.59	8047.74	634.07	8206.62	627.91		
8334.23	627	8568.17	630.77	8728.95	629.62	8897.39	622.98	9068.69	620.3		
9201.4	604.61	9217.25	604.48	9299.76	599.04	9454.59	590.88	9507.33	590.88		
9545.99	593.36	9662.64	622.68	9761.69	629.04	10118.54	626.73	10264.08	618.5		
10315.45	610.89	10511.29	609.62	10743.52	622.67	11019.86	620.88	11604.29	618.16		
12950.23	618.16	13171.76	610.88	13741.23	610.88	14179.33	613.61	14234.63	616.32		
14505.2	614.36	14511.62	607.03	14609.78	605.73	15216.33	591.24	15732.7	585.44		
15774.82	581.47	15923.16	577.06	15961.42	573.21	16021.65	567.91	16422.29	567.9		
16490.67	573.08	16556.22	585.44	16645.6	609.52	16664.75	612.15	16904.99	640.08		
17348.45	645.5	17787.1	648.66	19915.05	646.42	20031.17	646.42	20262.46	646.8		
20615.11	640.13	21609.12	641.84	21868.49	644.56	23557.12	647.28	23942.46	648.57		
24368.89	652.37	25024.38	661.46	25250.08	662.72	26373.12	662.72	27013.34	655.44		
27289.28	655.44	27867.71	652.72	28107.23	651.14	28280.1	651.16	28421.19	649.39		
28570.95	650.39	28867.21	655.12	29191.41	657.95	30297.94	682.1	30967.3	683.49		
31942.67	736.48	32086.45	736.78	32708.21	694.43	32743.18	694.47	34349.05	756.05		
35400.38	752.12	35599.36	752.93	35953.95	770.91	35995.73	771.31	36304.66	767.04		
36638.85	777.57	36798.17	779.12	37578.46	790	38279.7	791.81	38633.32	800		

Manning's n Values				num= 3			
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.15	15732.7	.15	1516556.22	.15		

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15732.71	16556.22		5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1495555.00	154418.50	1693076.00
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1495555.00	154418.50	1693076.00
Q Total (cfs)	6730000.00	Flow (cfs)	3100094.00	474902.50	3155004.00
Top Width (ft)	34440.01	Top Width (ft)	14435.49	823.52	19181.00
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.07	3.08	1.86
Max Chl Dpth (ft)	192.00	Hydr. Depth (ft)	103.60	187.51	88.27
Conv. Total (cfs)	709007600.0	Conv. (cfs)	326595900.0	50031130.0	332380600.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14449.28	825.55	19190.82
Mfn Ch El (ft)	567.90	Shear (lb/sq ft)	0.58	1.05	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.21	3.24	0.92
Frcn Loss (ft)	0.00	Cum Volume (acre-ft)	143182.70	23548.95	170296.60
C & E Loss (ft)	0.00	Cum SA (acres)	1314.75	115.17	1601.38

CROSS SECTION

RIVER: BRAZOS

REACH: UPPER BRAZOS

RS: 276090.*

INPUT

Description:

Station Elevation Data num= 120											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	181.24	793.32	589.67	778.97	1242.31	762.02	1406.53	755.71		
1668.81	748.28	1822.62	747.27	2144.26	747.27	2451.3	746.53	3275.95	717.61		
3341.9	714.26	3425.71	712.73	3436.1	712.65	3621.29	718.52	3786.49	717.27		
3917.8	715.95	4058.78	712.28	4403.39	704.01	4823.39	695.95	5135.96	694.96		
5270.46	693.56	5416.81	689.77	5479.78	686.58	5813.33	684.15	6134.67	683.76		
6264.3	684.54	6466.82	679.08	6619.98	676.35	6685.5	673.62	6730.6	673.62		
6868.99	675.53	7069.16	685.55	7127.11	683.32	7246.24	679.81	7580.64	665.04		
7624.72	664.67	7766.99	658.75	8036.72	635.68	8049.68	634.16	8208.6	627.98		
8336.24	627.07	8570.23	630.86	8731.05	629.72	8899.53	623.06	9070.88	620.38		
9203.61	604.71	9219.47	604.57	9302.01	599.11	9456.87	590.92	9509.62	590.92		
9548.29	593.43	9664.97	622.73	9764.04	629.11	10120.98	626.79	10266.56	618.57		
10317.94	610.97	10513.83	609.69	10746.11	622.72	11022.52	620.92	11607.09	618.19		
12953.35	618.19	13174.93	610.92	13744.54	610.92	14182.75	613.65	14238.06	616.38		
14508.7	614.41	14515.12	607.09	14613.3	605.8	15220	591.26	15736.49	585.46		
15778.75	581.48	15927.57	577.08	15965.96	573.21	16026.38	567.91	16427.27	567.9		
16495.82	573.07	16561.54	585.46	16650.91	609.52	16670.05	612.15	16910.27	640.04		
17353.68	645.46	17792.29	648.61	19920	646.35	20036.11	646.35	20267.37	646.75		
20619.99	640.09	21613.89	641.81	21873.23	644.54	23561.69	647.27	23946.98	648.57		
24373.36	652.37	25028.78	661.48	25254.46	662.73	26377.38	662.73	27017.53	655.46		
27293.44	655.46	27871.81	652.73	28111.3	651.14	28284.15	651.16	28425.22	649.38		
28574.97	650.38	28871.21	655.12	29195.37	657.95	30301.78	682.07	30971.06	683.47		
31946.33	736.43	32090.09	736.73	32711.78	694.43	32746.75	694.45	34352.45	755.96		
35403.66	752.05	35602.62	752.83	35957.18	770.84	35998.95	771.24	36307.85	766.99		
36642	777.52	36801.3	779.08	37581.51	790	38282.67	791.81	38636.25	800		

Manning's n Values				num= 3			
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.15	15736.49	.15	1516561.54	.15		

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15736.49	16561.54		5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1495607.00	154696.40	1693414.00
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1495607.00	154696.40	1693414.00
Q Total (cfs)	6730000.00	Flow (cfs)	3099013.00	475624.50	3155363.00
Top Width (ft)	34444.39	Top Width (ft)	14439.05	825.05	19180.30
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.07	3.07	1.86
Max Chl Dpth (ft)	192.00	Hydr. Depth (ft)	103.58	187.50	88.29
Conv. Total (cfs)	709180300.0	Conv. (cfs)	326561500.0	50119390.0	332499500.0

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Length wtd. (ft)	5.00	Wetted Per. (ft)	14452.81	827.08	19190.11
Min Ch El (ft)	567.90	Shear (lb/sq ft)	0.58	1.05	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.21	3.23	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	143011.00	23531.21	170102.30
C & E Loss (ft)	0.00	Cum SA (acres)	1313.09	115.08	1599.18

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276087.*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	181.28	793.32	589.81	778.95	1242.61	762.02	1406.87	755.71			
1669.21	748.27	1823.06	747.26	2144.78	747.26	2451.89	746.52	3276.74	717.63			
3342.71	714.27	3426.54	712.74	3436.93	712.66	3622.16	718.51	3787.4	717.26			
3918.74	715.94	4059.76	712.26	4404.45	703.99	4824.55	695.93	5137.19	694.95			
5271.73	693.54	5418.12	689.74	5481.1	686.54	5814.73	684.12	6136.15	683.73			
6265.81	684.52	6468.38	679.04	6621.57	676.3	6687.11	673.56	6732.22	673.56			
6870.65	675.47	7070.87	685.5	7128.83	683.27	7247.99	679.78	7582.47	665.04			
7626.56	664.68	7768.86	658.81	8038.66	635.77	8051.62	634.25	8210.58	628.05			
8338.25	627.14	8572.3	630.96	8733.16	629.82	8901.68	623.14	9073.07	620.45			
9205.83	604.8	9221.69	604.66	9304.25	599.18	9459.15	590.96	9511.92	590.96			
9550.6	593.46	9667.3	622.78	9766.4	629.18	10123.42	626.85	10269.03	618.64			
10320.43	611.04	10516.36	609.76	10748.7	622.77	11025.18	620.96	11609.88	618.22			
12956.48	618.22	13178.11	610.96	13747.85	610.96	14186.17	613.71	14241.49	616.44			
14512.2	614.46	14518.62	607.16	14616.83	605.86	15223.66	591.29	15740.28	585.48			
15782.68	581.49	15931.98	577.09	15970.5	573.22	16031.12	567.91	16432.25	567.9			
16500.97	573.07	16566.86	585.48	16656.22	609.52	16675.36	612.14	16915.55	640			
17358.91	645.43	17797.47	648.57	17924.96	646.32	20041.05	646.32	20272.29	646.7			
20624.87	640.05	21618.66	641.78	21877.97	644.52	23566.25	647.26	23951.5	648.56			
24377.84	652.37	25033.18	661.49	25258.84	662.74	26381.64	662.74	27021.71	655.48			
27297.59	655.48	27875.9	652.74	28115.38	651.15	28288.21	651.16	28429.26	649.36			
28578.99	650.37	28875.2	655.09	29199.32	657.94	30305.61	682.04	30974.82	683.44			
31949.99	736.31	32093.74	736.61	32715.36	694.35	32750.32	694.43	33455.85	755.88			
35406.95	751.98	35605.88	752.77	35960.4	770.77	36002.16	771.18	36311.03	766.94			
36645.15	777.48	36804.44	779.04	37584.56	79038	285.64	791.82	38639.19	800			

Manning's n	Values	num=	3	Sta	n Val	Sta	n Val
0	.1515740.28	.1516566.86	.15				

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
15740.28	161566.86		5		5		.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1495666.00	154974.90	1693759.00
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1495666.00	154974.90	1693759.00
Q Total (cfs)	6730000.00	Flow (cfs)	3097933.00	476343.80	3155723.00
Top width (ft)	34448.56	Top width (ft)	14442.51	826.58	19179.47
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.07	3.07	1.86
Max Chl Dpth (ft)	192.00	Hydr. Depth (ft)	103.56	187.49	88.31
Conv. Total (cfs)	709360600.0	Conv. (cfs)	326530700.0	50207960.0	332622000.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14456.26	828.61	19189.26
Min Ch El (ft)	567.90	Shear (lb/sq ft)	0.58	1.05	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.20	3.23	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	142839.30	23513.44	169907.90
C & E Loss (ft)	0.00	Cum SA (acres)	1311.43	114.98	1596.98

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276084.*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	181.33	793.31	589.96	778.94	1242.91	762.01	1407.21	755.7			
1669.62	748.27	1823.5	747.25	2145.29	747.25	2452.48	746.5	3277.53	717.65			
3343.51	714.29	3427.36	712.75	3437.76	712.67	3623.03	718.51	3788.32	717.25			
3919.69	715.92	4060.74	712.24	4405.51	703.97	4825.71	695.92	5138.43	694.93			
5273	693.52	5419.42	689.71	5482.42	686.5	5816.13	684.08	6137.63	683.71			
6267.32	684.5	6469.93	679	6623.17	676.25	6688.72	673.5	6733.84	673.5			
6872.3	675.42	7072.57	685.45	7130.55	683.23	7249.73	679.76	7584.3	665.05			
7628.4	664.7	7770.73	658.86	8040.6	635.86	8053.56	634.34	8212.56	628.12			
8340.26	627.22	8574.37	631.05	8735.26	629.91	8903.82	623.22	9075.25	620.53			
9208.05	604.89	9223.91	604.75	9306.49	599.25	9461.43	591	9514.21	591			
9552.9	593.51	9669.63	622.82	9768.75	629.25	10125.86	626.91	10271.51	618.71			
10322.91	611.12	10518.9	609.83	10751.29	622.81	11027.83	621.11	11612.68	618.25			
12959.6	618.25	13181.29	611.13	13751.17	611.14	14189.59	613.75	14244.92	616.5			
14515.69	614.52	14522.12	607.22	14620.35	605.92	15227.33	591.32	15744.08	585.5			
15786.61	581.5	15936.4	577.11	15975.04	573.23	16035.85	567.91	16437.22	567.9			
16506.12	573.06	16572.18	585.51	16661.52	609.51	16680.66	612.14	16920.83	639.97			
17364.15	645.39	17802.65	648.53	17929.91	646.25	20046	646.25	20277.21	646.65			
20629.74	640.02	21623.43	641.75	21882.72	644.52	23570.81	647.25	23956.02	648.56			
24382.31	652.36	25037.58	661.52	25263.22	662.75	26385.9	662.75	27025.9	655.5			
27301.75	655.5	27880	652.75	28119.45	651.15	28292.26	651.16	28433.29	649.35			
28583.01	650.35	28879.19	655.08	29203.28	657.93	30309.45	682.01	30978.58	683.42			
31953.64	736.22	32097.38	736.53	32718.93	694.33	32753.89	694.43	33459.24	755.79			
35410.23	751.93	35609.14	752.71	35963.62	770.77	36005.39	771.13	36314.22	766.9			
36648.3	777.43	36807.57	77937	37587.61	79038	288.62	791.83	38642.12	800			

Manning's n	Values	num=	3	Sta	n Val	Sta	n Val
0	.1515744.08	.1516572.18	.15				

SS_Rev3.rep

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15744.0816572.18 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1495727.00	155251.40	1694105.00
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1495727.00	155251.40	1694105.00
Q Total (cfs)	6730000.00	Flow (cfs)	3096839.00	477057.70	3156103.00
Top width (ft)	34453.00	Top width (ft)	14446.25	828.10	19178.65
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.07	3.07	1.86
Max Chl Dpth (ft)	192.00	Hydr. Depth (ft)	103.54	187.48	88.33
Conv. Total (cfs)	709537500.0	Conv. (cfs)	326496800.0	50295740.0	332745000.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14459.99	830.13	19188.43
Min Ch El (ft)	567.90	Shear (lb/sq ft)	0.58	1.05	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.20	3.23	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	142667.60	23495.63	169713.40
C & E Loss (ft)	0.00	Cum SA (acres)	1309.77	114.89	1594.78

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276081.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	181.37	793.31	590.1	778.93	1243.21	762.01	1407.55	755.69						
1670.02	748.26	1823.94	747.24	2145.81	747.24	2453.07	746.49	3278.32	717.66						
3344.32	714.3	3428.19	712.76	3438.59	712.68	3623.91	718.5	3789.23	717.24						
3920.63	715.91	4061.71	712.23	4406.58	703.96	4826.88	695.9	5139.67	694.91						
5274.27	693.5	5420.73	689.68	5483.74	686.47	5817.53	684.05	6139.11	683.69						
6268.83	684.48	6471.49	678.96	6624.77	676.2	6690.33	673.44	6735.46	673.44						
6873.96	675.37	7074.28	685.39	7132.27	683.18	7251.48	679.73	7586.12	665.06						
7630.23	664.72	7772.6	658.92	8042.53	635.94	8055.5	634.42	8214.54	628.19						
8342.27	627.29	8576.43	631.15	8737.37	630.01	8905.97	623.29	9077.44	620.6						
9210.27	604.98	9226.14	604.84	9308.73	599.32	9463.71	591.04	9516.5	591.04						
9555.2	593.56	9671.96	622.87	9771.1	629.32	10128.3	626.97	10273.98	618.77						
10325.4	611.21	10521.43	609.91	10753.88	622.86	11030.49	621.04	111615.48	618.28						
12962.72	618.28	13184.46	611.04	13754.48	611.04	14193.01	613.81	14248.36	616.56						
14519.19	614.57	14525.62	607.28	14623.87	605.98	15231	591.34	15747.87	585.52						
15790.54	581.51	15940.81	577.33	15979.58	573.24	16040.58	567.9	16442.2	567.9						
16511.27	573.06	16577.49	585.52	16666.83	609.51	16685.97	612.14	16926.11	639.93						
17369.38	645.36	17807.84	648.49	19934.87	646.22	20050.94	646.22	20282.12	646.6						
20634.62	639.98	21628.2	641.72	21887.46	644.48	23575.37	647.24	23960.54	648.55						
24386.79	652.36	25041.99	661.51	25267.6	662.76	26390.15	662.76	27030.09	655.52						
27305.91	655.52	27884.1	652.76	28123.52	651.16	28296.31	651.15	28437.33	649.34						
28587.03	650.34	28883.17	655.08	29207.23	657.92	30313.28	681.98	30982.35	683.4						
31957.3	736.14	32101.02	736.44	32722.5	694.31	32757.46	694.39	34362.64	755.7						
35413.52	751.83	35612.41	752.64	35966.85	770.63	36008.61	771.04	36317.41	766.85						
36651.45	777.39	36810.71	778.96	37590.66	790.38	38291.59	791.83	38645.06	800						

Manning's n values num= 3
 Sta n Val Sta n Val
 0 .1515747.87 .1516577.49 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15747.8716577.49 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1495787.00	153527.10	1694446.00
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1495787.00	153527.10	1694446.00
Q Total (cfs)	6730000.00	Flow (cfs)	3095775.00	477768.70	3156457.00
Top width (ft)	34457.38	Top width (ft)	14449.80	829.62	19177.96
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.07	3.07	1.86
Max Chl Dpth (ft)	192.00	Hydr. Depth (ft)	103.52	187.47	88.35
Conv. Total (cfs)	709713300.0	Conv. (cfs)	326465500.0	50383180.0	332864700.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14463.53	831.65	19187.72
Min Ch El (ft)	567.90	Shear (lb/sq ft)	0.58	1.05	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.20	3.23	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	142496.00	23477.80	169519.00
C & E Loss (ft)	0.00	Cum SA (acres)	1308.12	114.79	1592.58

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276078.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	181.42	793.3	590.24	778.92	1243.51	762.01	1407.89	755.68						
1670.42	748.25	1824.38	747.23	2146.33	747.23	2453.66	746.48	3279.11	717.68						
3345.13	714.32	3429.01	712.77	3439.41	712.69	3624.78	718.5	3790.34	717.23						
3921.58	715.89	4062.69	712.21	4407.64	703.94	4828.04	695.89	5140.91	694.89						
5275.54	693.49	5422.03	689.66	5485.06	686.43	5818.93	684.02	6140.59	683.66						
6270.34	684.46	6473.05	678.92	6526.36	676.15	6691.94	673.38	6737.08	673.38						
6875.61	675.31	7075.98	685.34	7133.98	683.13	7253.23	679.7	7587.95	665.06						
7632.07	664.74	7774.48	658.98	8044.47	636.03	8057.44	634.51	8216.52	628.26						
8344.28	627.36	8578.5	631.24	8739.47	630.11	8908.11	623.37	9079.63	620.68						
9212.49	605.07	9228.36	604.93	9310.97	599.39	9465.99	591.08	9518.79	591.08						
9557.5	593.61	9674.29	622.92	9773.46	629.39	10130.74	627.03	10276.46	618.84						
10327.89	611.27	10523.97	609.98	10756.47	622.91	11033.15	621.08	111618.28	618.31						

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12965.84	618.3113187.64	611.0813757.79	611.0814196.42	613.8514251.79	616.62
14522.69	614.6214529.12	607.3414627.39	606.0415234.67	591.3715751.66	585.54
15794.47	581.5315945.22	577.1515984.11	573.2516045.32	567.916447.18	567.9
16516.42	573.0516582.81	585.5416672.14	609.5116691.28	612.1316931.39	639.89
17374.61	645.3217813.02	648.4519939.82	646.1520055.88	646.1520287.04	646.56
20639.5	639.9521632.97	641.6921892.21	644.4623579.93	647.2323965.06	648.54
24391.26	652.3625046.39	661.5225271.98	662.7726394.41	662.7727034.28	655.54
27310.07	655.5427888.19	652.7728127.59	651.1628300.36	651.1528441.37	649.32
28591.05	650.3228887.16	655.0729211.18	657.9230317.11	681.9530986.11	683.37
31960.96	736.0532104.66	736.3532726.08	694.2932761.03	694.3734366.04	755.61
35416.8	751.7635615.67	752.5835970.07	770.5636011.82	770.9736320.59	766.8
36654.6	777.3436813.84	778.9237593.71	79038294.56	791.84 38648	800

Manning's n Values	num=	3			
Sta n Val Sta n Val	Sta n Val	Sta n Val			
0 .1515751.66	.1516582.81	.15			
Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.		
15751.6616582.81	5 5	.1	.3		

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1495841.00	155804.40	1694792.00
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1495841.00	155804.40	1694792.00
Q Total (cfs)	6730000.00	Flow (cfs)	3094684.00	478481.90	3156835.00
Top Width (ft)	34461.64	Top Width (ft)	14453.35	831.15	19177.14
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.07	3.07	1.86
Max Chl Dpth (ft)	192.00	Hydr. Depth (ft)	103.49	187.46	88.38
Conv. Total (cfs)	709890900.0	Conv. (cfs)	326432000.0	50471010.0	332987800.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14467.07	833.19	19186.88
Min Ch El (ft)	567.90	Shear (lb/sq ft)	0.58	1.05	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.20	3.22	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	142324.30	23459.93	169324.50
C & E Loss (ft)	0.00	Cum SA (acres)	1306.46	114.70	1590.38

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276075.*

INPUT

Description:	Station Elevation Data			num= 120		
	Sta	Elev	Sta	Elev	Sta	Elev
	0	800	181.46	793.3	590.38	778.9
1670.82	748.25	1824.82	747.22	2146.84	747.22	1243.81
3345.93	714.34	3429.84	712.78	3440.24	712.7	1243.81
3922.52	715.88	4063.67	712.19	4408.7	703.92	1243.81
5276.81	693.47	5423.34	689.63	5486.38	686.39	5820.33
6271.85	684.44	6474.61	678.88	6627.96	676.1	5820.33
6877.27	675.26	7077.68	685.29	7135.7	683.09	6693.55
7633.91	664.75	7776.35	659.03	8046.41	636.12	7254.97
8346.28	627.43	8580.56	631.34	8741.58	630.2	8059.38
9214.71	605.16	9230.58	605.02	9313.22	630.2	8910.26
9559.8	593.66	9676.62	622.96	9775.81	599.46	9468.27
10330.37	611.35	10526.5	610.05	10759.06	629.46	961033.18
12968.96	618.34	13190.81	611.12	13761.92	622.95	11035.8
14526.18	614.67	14532.61	607.41	14630.92	611.12	14199.84
15798.4	581.54	15949.63	577.16	161598.65	606.11	15238.34
16521.58	573.05	16588.13	585.56	16677.45	573.26	161050.05
17379.84	645.29	17818.21	648.41	19944.78	609.51	16696.58
20644.38	639.91	21637.75	641.66	21896.95	646.12	120060.82
24395.73	652.35	2525050.79	661.53	25276.36	644.44	23584.5
27314.23	655.56	27892.29	652.78	282131.66	662.78	26398.67
28595.07	650.31	28891.15	655.06	29215.14	651.17	278304.42
31964.62	735.96	32108.3	736.27	32729.65	657.91	30320.95
35420.09	751.69	35618.93	752.52	35973.3	694.27	32764.6
36657.75	777.33	36816.97	778.88	37596.76	770.48	36015.04
					79038297.54	
						791.8538650.93
						800

Manning's n Values	num=	3			
Sta n Val Sta n Val	Sta n Val	Sta n Val			
0 .1515755.45	.1516588.13	.15			
Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.		
15755.4516588.13	5 5	.1	.3		

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1495907.00	156087.60	1695143.00
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1495907.00	156087.60	1695143.00
Q Total (cfs)	6730000.00	Flow (cfs)	3093599.00	479219.70	3157181.00
Top Width (ft)	34465.99	Top Width (ft)	14456.90	832.68	19176.40
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.07	3.07	1.86
Max Chl Dpth (ft)	192.01	Hydr. Depth (ft)	103.47	187.45	88.40
Conv. Total (cfs)	710076400.0	Conv. (cfs)	326402900.0	50562050.0	333111400.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14470.60	834.72	19186.13
Min Ch El (ft)	567.89	Shear (lb/sq ft)	0.58	1.05	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.20	3.22	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	142152.50	23442.03	169129.90
C & E Loss (ft)	0.00	Cum SA (acres)	1304.80	114.60	1588.17

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276072.*

SS_Rev3.rep

INPUT

Description:

Station Elevation Data			num= 120			Elev			Elev			Elev		
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta
0	800	181.5	793.29	590.52	778.89	1244.11	762	1408.57	755.67					
1671.22	748.24	1825.26	747.21	2147.36	747.21	2454.84	746.45	3280.69	717.72					
3346.74	714.35	3430.67	712.79	3441.07	712.71	3626.52	718.49	3791.97	717.21					
3923.46	715.86	4064.65	712.18	4409.76	703.9	4830.36	695.86	5143.38	694.85					
5278.08	693.45	5424.64	689.6	5487.7	686.36	5821.74	683.95	6143.54	683.62					
6273.36	684.42	6476.17	678.84	6629.55	676.05	6695.17	673.26	6740.33	673.26					
6878.93	675.21	7079.39	685.23	7137.42	683.04	7256.72	679.65	7591.6	665.08					
7635.75	664.77	7778.22	659.09	8048.34	636.21	8061.32	634.69	8220.47	628.41					
8348.29	627.51	8582.63	631.43	8743.68	630.3	8912.4	623.53	9084	620.83					
9216.92	605.25	9232.8	605.11	9315.46	599.53	9470.55	591.16	9523.38	591.16					
9562.1	593.7	9678.95	623.01	9778.16	629.53	10135.62	627.16	10281.41	618.98					
10332.86	611.43	10529.03	610.12	10761.65	623.11	1038.46	621.16	11623.87	618.37					
12972.09	618.37	13193.99	611.16	13764.42	611.16	14203.26	613.95	14258.65	616.74					
14529.68	614.73	14536.11	607.47	14634.44	606.16	15242.01	591.42	15759.25	585.58					
15802.33	581.55	15954.05	577.18	15933.19	573.27	16054.79	567.89	16457.14	567.89					
16526.73	573.05	16593.44	585.58	16682.75	609.51	16701.88	612.13	16941.95	639.82					
17385.07	645.25	17823.39	648.36	19949.73	646.05	20065.77	646.05	20296.88	646.46					
20649.26	639.87	21642.52	641.63	21901.69	644.42	23589.06	647.21	23974.1	648.53					
24400.21	652.35	25055.2	661.55	25280.73	662.79	26402.93	662.79	27042.66	655.58					
27318.39	655.58	27896.39	652.79	28135.73	651.17	28308.47	651.15	28449.44	649.3					
28599.09	650.29	28895.14	655.05	29219.09	657.93	30324.78	681.89	30993.63	683.32					
31968.27	735.88	32111.94	736.18	32733.23	694.25	32768.18	694.33	33472.83	755.44					
35423.37	751.62	35622.2	752.46	35976.52	770.41	36018.26	770.83	36326.96	766.7					
36660.9	777.25	36820.11	778.84	37599.8	79038300.51		791.85	38653.86	800					

Manning's n Values

Sta	n Val	Sta	n Val	Sta	n Val
0	.1515759.25		.1516593.44		.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15759.25	16593.44		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1495953.00	156361.10	1695482.00
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1495953.00	156361.10	1695482.00
Q Total (cfs)	6730000.00	Flow (cfs)	3092502.00	479927.20	3157571.00
Top width (ft)	34470.34	Top width (ft)	14460.55	834.19	19175.60
Vel Tot (ft/s)	2.01	Avg. Vel. (ft/s)	2.07	3.07	1.86
Max Chl Dpth (ft)	192.01	Hydr. Depth (ft)	103.45	187.44	88.42
Conv. Total (cfs)	710245600.0	Conv. (cfs)	326364900.0	50648770.0	333231900.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14474.24	836.23	19185.30
Min Ch El (ft)	567.89	Shear (lb/sq ft)	0.58	1.05	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.20	3.22	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	141980.80	23424.10	168935.30
C & E Loss (ft)	0.00	Cum SA (acres)	1303.14	114.51	1585.97

CROSS SECTION

RIVER: BRAZOS

REACH: UPPER BRAZOS

RS: 276070.*

INPUT

Description:

Station Elevation Data			num= 120			Elev			Elev			Elev		
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta
0	800	181.55	793.29	590.67	778.88	1244.41	762	1408.91	755.66					
1671.63	748.24	1825.7	747.2	2147.88	747.2	2455.44	746.44	3281.48	717.73					
3347.54	714.37	3431.49	712.8	3441.9	712.72	3627.4	718.48	3792.88	717.2					
3924.41	715.85	4065.63	712.16	4410.82	703.88	4831.53	695.84	5144.62	694.83					
5279.35	693.43	5425.95	689.58	5489.02	686.32	5823.14	683.92	6145.02	683.6					
6274.87	684.4	6477.73	678.8	6631.15	676	6696.78	673.2	6741.95	673.2					
6880.58	675.15	7081.09	685.18	7139.14	683	7258.46	679.62	7593.43	665.09					
7637.58	664.79	7780.09	659.15	8050.28	636.3	8063.27	634.78	8222.45	628.48					
8350.3	627.58	8584.69	631.53	8745.79	630.4	8914.55	623.61	9086.18	620.9					
9219.14	605.34	9235.02	605.2	9317.7	599.6	9472.83	591.2	9525.67	591.2					
9564.41	593.75	9681.28	623.06	9780.52	629.61	10138.05	627.22	10283.88	619.05					
10335.35	611.51	10531.57	610.21	10764.24	623.04	11041.12	621.21	11626.67	618.4					
12975.21	618.41	13197.16	611.21	13767.73	611.21	14206.68	614.14	14262.08	616.8					
14533.18	614.78	14539.61	607.53	14637.96	606.22	15245.67	591.44	15763.04	585.6					
15806.26	581.56	15958.46	577.21	15997.73	573.27	16059.52	567.89	16462.12	567.89					
16531.88	573.04	16598.76	585.61	16688.06	609.51	16707.19	612.13	16947.22	639.78					
17390.3	645.22	17828.57	648.32	19954.69	646.05	20070.71	646.05	20301.79	646.41					
20654.14	639.84	21647.29	641.62	21906.44	644.42	23593.62	647.22	23978.62	648.53					
24404.68	652.35	25059.6	661.56	25285.11	662.82	26407.19	662.82	27046.85	655.6					
27322.55	655.62	27900.48	652.8	28139.8	651.17	28312.52	651.15	28453.48	649.28					
28603.11	650.28	28899.13	655.05	29223.04	657.89	30328.62	681.87	30997.39	683.3					
31971.93	735.79	32115.58	736.1	32736.8	694.23	32771.75	694.31	33476.23	755.35					
35426.65	751.55	35625.46	752.39	35979.75	770.34	36021.48	770.76	36330.15	766.66					
36664.05	777.23	36823.24	778.83	37602.86	79038303.48		791.86	38656.8	800					

Manning's n Values

Sta	n Val	Sta	n Val	Sta	n Val
0	.1515763.04		.1516598.76		.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15763.04	16598.76		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1496016.00	156639.70	1695805.00
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1496016.00	156639.70	1695805.00
Q Total (cfs)	6730000.00	Flow (cfs)	3091464.00	480649.70	3157886.00
Top width (ft)	34474.73	Top width (ft)	14464.11	835.72	19174.90
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Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.07	3.07	1.86
Max Chl Dpth (ft)	192.01	Hydr. Depth (ft)	103.43	187.43	88.44
Conv. Total (cfs)	710417900.0	Conv. (cfs)	326334600.0	50737320.0	333346000.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14477.78	837.76	19184.59
Min Ch El (ft)	567.89	Shear (lb/sq ft)	0.58	1.05	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.20	3.21	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	141809.10	23406.14	168740.70
C & E Loss (ft)	0.00	Cum SA (acres)	1301.48	114.41	1583.77

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276067.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
Sta	0	800	181.59	793.29	590.81	778.87	1244.71	762	1409.24	755.65			
1672.03	748.23	1826.14	747.19	2148.4	747.19	2456.03	746.43	3282.27	717.75				
3348.35	714.38	3432.32	712.81	3442.73	712.73	3628.27	718.48	3793.79	717.19				
3925.35	715.83	4066.6	712.14	4411.88	703.86	4832.69	695.83	5145.86	694.82				
5280.62	693.41	5427.26	689.55	5490.34	686.28	5824.54	683.88	6146.5	683.57				
6276.38	684.38	6479.29	678.76	6632.74	675.95	6698.39	673.14	6743.57	673.14				
6882.24	675.1	7082.79	685.13	7140.86	682.95	7260.21	679.59	7595.26	665.09				
7639.42	664.8	7781.96	659.2	8052.22	636.39	8065.21	634.87	8224.43	628.55				
8352.31	627.65	8586.76	631.62	8747.89	630.49	8916.69	623.69	9088.37	620.98				
9221.36	605.43	9237.25	605.29	9319.94	599.67	9475.1	591.24	9527.96	591.24				
9566.71	593.8	9683.61	623.1	9782.87	629.67	10140.49	627.28	10286.35	619.11				
10337.83	611.58	10534.1	610.27	10766.83	623.09	11043.77	621.24	11629.47	618.43				
12978.33	618.43	13200.34	611.24	13771.04	611.24	14210.1	614.05	14265.51	616.86				
14536.67	614.83	14543.11	607.61	14641.48	606.28	15249.34	591.47	15766.83	585.62				
15810.19	581.57	15962.88	577.22	16002.27	573.28	16064.25	567.89	16467.1	567.89				
16537.03	573.04	16604.08	585.62	16693.37	609.5	16712.5	612.12	16952.5	639.75				
17395.54	645.18	17833.76	648.28	19959.64	645.95	20075.65	645.95	20306.71	646.36				
20659.02	639.82	1652.06	641.57	21911.18	644.38	23598.18	647.19	23983.14	648.52				
24409.15	652.34	25064	661.57	25289.49	662.81	26411.44	662.81	27051.04	655.62				
27326.71	655.62	27904.58	652.81	28143.87	651.18	28316.57	651.15	28457.52	649.27				
28607.13	650.27	28903.12	655.04	29227	657.89	30332.45	681.84	31001.16	683.28				
31975.59	735.73	2119.22	736.01	32740.38	694.21	32775.32	694.29	34379.63	755.26				
35429.94	751.47	35628.72	752.33	35982.97	770.27	36024.7	770.69	36333.34	766.61				
36667.2	777.16	36826.37	778.76	37605.9	79038306.46		791.87	38659.73	800				

Manning's n Values	num=	3
Sta	n Val	Sta
0	.1515766.83	.1516604.08

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
15766.83	16604.08	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1496078.00	156917.10	1696156.00
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1496078.00	156917.10	1696156.00
Q Total (cfs)	6730000.00	Flow (cfs)	3090383.00	481359.00	3158258.00
Top width (ft)	34478.99	Top width (ft)	14467.66	837.25	19174.08
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.07	3.07	1.86
Max chl Dpth (ft)	192.01	Hydr. Depth (ft)	103.41	187.42	88.46
Conv. Total (cfs)	710600200.0	Conv. (cfs)	326304100.0	50825230.0	333470800.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14481.31	839.29	19183.75
Min Ch El (ft)	567.89	Shear (lb/sq ft)	0.58	1.05	0.50
Alpha	1.05	Stream Power (lb/ft s)	1.20	3.21	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	141637.40	23388.14	168546.00
C & E Loss (ft)	0.00	Cum SA (acres)	1299.82	114.31	1581.57

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276064.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
Sta	0	800	181.63	793.28	590.95	778.85	1245	761.99	1409.58	755.64			
1672.43	748.22	1826.58	747.18	2148.91	747.18	2456.62	746.41	3283.06	717.77				
3349.15	714.4	3433.14	712.82	3443.56	712.74	3629.14	718.47	3794.71	717.18				
3926.3	715.82	4067.58	712.12	4412.94	703.84	4833.85	695.81	5147.1	694.8				
5281.89	693.39	5428.56	689.52	5491.66	686.25	5825.94	683.85	6147.98	683.55				
6277.89	684.36	6480.85	678.72	6634.34	675.9	6700	673.08	6745.2	673.08				
6883.89	675.05	7084.5	685.08	7142.57	682.9	7261.96	679.57	7597.09	665.1				
7641.26	664.82	7783.84	659.26	8054.16	636.47	8067.15	634.95	8226.41	628.62				
8354.32	627.73	8588.83	631.72	8749.99	630.59	8918.84	623.76	9090.56	621.05				
9223.58	605.52	9239.47	605.38	9322.18	599.74	9477.38	591.28	9530.25	591.28				
9569.01	593.85	9685.94	623.15	9785.22	629.74	10142.93	627.34	10288.83	619.18				
10340.32	611.66	10536.64	610.34	10769.42	623.14	11046.43	621.28	11632.27	618.46				
12981.45	618.46	13203.51	611.28	13774.36	611.28	14213.52	614.11	14268.95	616.92				
14540.17	614.89	14546.61	607.66	14645.01	606.34	15253.01	591.51	15770.63	585.64				
15814.12	581.58	15967.29	577.24	16006.8	573.29	16068.99	567.89	16472.08	567.89				
16542.78	573.03	16609.39	585.64	16698.67	609.5	16717.8	612.12	16957.78	639.71				
17400.77	645.15	17838.94	648.24	19964.6	645.92	20080.59	645.92	20311.63	646.31				
20663.9	639.76	21656.83	641.54	21915.93	644.36	23602.74	647.18	23987.66	648.52				
24413.63	652.34	25068.41	661.58	25293.87	662.82	26415.7	662.82	27055.22	655.64				
27330.87	655.64	27908.68	652.82	28147.94	651.18	28320.62	651.14	28461.55	649.26				
28611.15	650.25	28907.11	655.03	29230.95	657.88	30336.29	681.83	31004.92	683.25				
31979.24	735.73	2122.87	735.93	32743.95	694.19	32778.89	694.27	34383.02	755.17				
35433.22	751.43	35631.98	752.27	35986.19	770.23	36027.92	770.63	36336.52	766.56				
36670.36	777.11	36829.5	778.72	37608.95	79038309.43		791.87	38662.67	800				

Manning's n Values			num= 3			SS_Rev3.rep		
Sta	n Val	Sta	n Val	Sta	n Val			
0	.1515770.63		.1516609.39		.15			
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.	
15770.63	16609.39	5	5	5	.1	.3		
CROSS SECTION OUTPUT Profile #PF 1								
E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB			
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150			
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00			
Crit W.S. (ft)		Flow Area (sq ft)	1496135.00	157191.60	1696501.00			
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1496135.00	157191.60	1696501.00			
Q Total (cfs)	6730000.00	Flow (cfs)	3089290.00	482066.30	3158645.00			
Top Width (ft)	34483.44	Top Width (ft)	14471.40	838.76	19173.28			
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.06	3.07	1.86			
Max Chl Dpth (ft)	192.01	Hydr. Depth (ft)	103.39	187.41	88.48			
Conv. Total (cfs)	710774300.0	Conv. (cfs)	326268600.0	50912380.0	333593300.0			
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14485.05	840.80	19182.93			
Min Ch El (ft)	567.89	Shear (lb/sq ft)	0.58	1.05	0.49			
Alpha	1.05	Stream Power (lb/ft s)	1.19	3.21	0.92			
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	141465.70	23370.11	168351.30			
C & E Loss (ft)	0.00	Cum SA (acres)	1298.16	114.22	1579.37			

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276061.*

INPUT

Description:

Station Elevation Data			num= 120					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta
0	800	181.68	793.28	591.09	778.84	1245.3	761.99	1409.92
1672.83	748.22	1827.01	747.17	2149.43	747.17	2457.21	746.4	3283.85
3349.96	714.41	3433.97	712.83	3444.38	712.75	3630.02	718.47	3795.62
3927.24	715.81	4068.56	712.11	4414.01	703.82	4835.01	695.8	5148.33
5283.16	693.37	5429.87	689.49	5492.98	686.21	5827.34	683.82	6149.46
6279.4	684.34	6482.4	678.68	6635.93	675.85	6701.61	673.02	6746.82
6885.55	675	7086.2	685.02	7144.29	682.86	7263.7	679.54	7598.91
7643.1	664.84	7785.71	659.32	8056.09	636.56	8069.09	635.04	8228.39
8356.33	627.8	8590.89	631.82	8752.1	630.69	8920.98	623.84	9092.74
9225.8	605.61	9241.69	605.47	9324.43	599.81	9479.66	591.32	9532.55
9571.31	593.9	9688.27	623.2	9787.58	629.81	10145.37	627.4	10291.3
10342.81	611.73	10539.17	610.41	10772.01	623.18	11049.09	621.32	11635.06
12984.58	618.49	13206.69	611.32	13777.67	611.32	14216.94	614.15	14272.38
14543.67	614.94	14550.11	607.72	14648.53	606.41	15256.68	591.52	15774.42
15818.05	581.6	15971.7	577.25	16011.34	573.31	16073.72	567.89	16477.06
16547.33	573.03	16614.71	585.66	16703.98	609.51	16723.11	612.12	16963.06
17406	645.11	17844.13	648.21	19969.55	645.85	20085.54	645.85	20316.54
20668.78	639.73	21661.61	641.51	21920.67	644.34	23607.3	647.17	23992.18
24418.1	652.34	25072.81	661.59	25298.25	662.83	26419.96	662.83	27059.41
27335.03	655.66	27912.77	652.83	28152.01	651.19	28324.68	651.14	28465.59
28615.18	650.24	28911.1	655.03	29234.91	657.87	30340.12	681.78	31008.68
31982.9	735.53	32126.51	735.84	32747.52	694.17	32782.46	694.24	34386.42
35436.5	751.33	35635.25	752.23	35989.42	770.13	36031.14	770.56	36339.71
36673.5	777.07	36832.64	778.68	37612	790	38312.4	791.88	38665.61

Manning's n Values			num= 3					
Sta	n Val	Sta	n Val	Sta	n Val			
0	.1515774.42		.1516614.71		.15			
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.	
15774.42	16614.71	5	5	5	.1	.3		

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB			
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150			
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00			
Crit W.S. (ft)		Flow Area (sq ft)	1496193.00	157469.00	1696850.00			
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1496193.00	157469.00	1696850.00			
Q Total (cfs)	6730000.00	Flow (cfs)	3088211.00	482777.80	3159012.00			
Top Width (ft)	34487.83	Top Width (ft)	14474.95	840.29	19172.58			
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.06	3.07	1.86			
Max Chl Dpth (ft)	192.01	Hydr. Depth (ft)	103.36	187.40	88.50			
Conv. Total (cfs)	710953000.0	Conv. (cfs)	326236600.0	51000350.0	333716000.0			
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14488.58	842.33	19182.21			
Min Ch El (ft)	567.89	Shear (lb/sq ft)	0.58	1.05	0.49			
Alpha	1.05	Stream Power (lb/ft s)	1.19	3.21	0.92			
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	141293.90	23352.05	168156.50			
C & E Loss (ft)	0.00	Cum SA (acres)	1296.50	114.12	1577.17			

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276058.*

INPUT

Description:

Station Elevation Data			num= 120					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta
0	800	181.72	793.27	591.24	778.83	1245.6	761.99	1410.26
1673.24	748.21	1827.45	747.16	2149.95	747.16	2457.8	746.39	3284.64
3350.76	714.43	3434.79	712.84	3445.21	712.76	3630.89	718.46	3796.53
3928.19	715.79	4069.54	712.09	4415.07	703.8	4836.18	695.78	5149.57
5284.43	693.36	5431.17	689.47	5494.31	686.18	5828.74	683.78	6150.94
6280.91	684.32	6483.96	678.64	6637.53	675.8	6703.22	672.96	6748.44
6887.2	674.94	7087.91	684.97	7146.01	682.81	7265.45	679.51	7600.74
7644.94	664.86	7787.58	659.38	8058.03	636.65	8071.03	635.13	8230.37
8358.34	627.87	8592.96	631.91	8754.2	630.78	8923.13	623.92	9094.93

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9228.02	605.7	9243.91	605.56	9326.67	599.88	9481.94	591.36	9534.84	591.36
9573.61	593.95	9690.6	623.24	9789.93	629.8810147.81	627.4610293.78	619.32		
10345.29	611.81	10541.7	610.4810774.61	623.2311051.74	621.3611637.86	618.52			
12987.7	618.5213209.87	611.3613780.98	611.3614220.35	614.214275.81	617.04				
14547.17	614.9914553.61	607.7814652.05	606.4615260.35	591.5515778.21	585.68				
15821.99	581.6115976.11	577.2716015.88	573.3116078.46	567.8916482.04	567.89				
16552.48	573.0216620.03	585.6816709.29	609.516728.41	612.1116968.34	639.64				
17411.23	645.0817849.31	648.1519974.51	645.820090.48	645.820321.46	646.22				
20673.66	639.6921666.38	641.4821925.41	644.3223611.87	647.16 23996.7	648.51				
24422.58	652.3325077.21	661.625302.63	662.8426424.22	662.84 27063.6	655.68				
27339.18	655.6827916.87	652.8428156.08	651.1928328.73	651.1428469.63	649.23				
28619.2	650.2228915.08	655.0229238.86	657.8630343.95	681.7531012.44	683.2				
31986.56	735.4432130.15	735.76 32751.1	694.1532786.03	694.2234389.82	754.99				
35439.79	751.2635638.51	752.1435992.64	770.0636034.36	770.4936342.89	766.47				
36676.66	777.0236835.77	778.6437615.05	79038315.38	791.8938668.54	800				

Manning's n values num= 3
 Sta n Val Sta n Val Sta n Val
 0 .1515778.21 .1516620.03 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15778.2116620.03 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1496252.00	157746.50	1697213.00
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1496252.00	157746.50	1697213.00
Q Total (cfs)	6730000.00	Flow (cfs)	3087113.00	483484.90	3159402.00
Top Width (ft)	34492.01	Top Width (ft)	14478.42	841.82	19171.77
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.06	3.06	1.86
Max Chl Dpth (ft)	192.01	Hydr. Depth (ft)	103.34	187.39	88.53
Conv. Total (cfs)	711139100.0	Conv. (cfs)	326206000.0	51088420.0	333844600.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14492.04	843.86	19181.39
Min Ch El (ft)	567.89	Shear (lb/sq ft)	0.58	1.05	0.49
Alpha	1.05	Stream Power (lb/ft s)	1.19	3.20	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	141122.20	23333.96	167961.70
C & E Loss (ft)	0.00	Cum SA (acres)	1294.83	114.02	1574.97

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276055.*

INPUT

Description:
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	181.77	793.27	591.38	778.82	1245.9	761.99	1410.6	755.62
1673.64	748.2	1827.89	747.15	2150.46	747.15	2458.39	746.38	3285.43	717.82
3351.57	714.44	3435.62	712.85	3446.04	712.77	3631.76	718.46	3797.44	717.15
3929.13	715.78	4070.52	712.07	4416.13	703.78	4837.34	695.77	5150.81	694.74
5285.7	693.34	5432.48	689.44	5495.63	686.14	5830.14	683.75	6152.42	683.48
6282.42	684.3	6485.52	678.6	6639.13	675.75	6704.83	672.9	6750.06	672.9
6888.86	674.89	7089.61	684.92	7147.73	682.77	7267.2	679.48	7602.57	665.12
7646.77	664.87	7789.45	659.43	8059.97	636.74	8072.97	635.22	8232.35	628.84
8360.35	627.94	8595.02	632.01	8756.31	630.88	8925.27	624	9097.12	621.27
9230.23	605.79	9246.13	605.65	9328.91	599.95	9484.22	591.4	9537.13	591.4
9575.91	594	9692.93	623.29	9792.28	629.9510150.25		627.5310296.25		619.39
10347.78	611.8910544.24		610.56	10777.2	623.28	11054.4	621.411640.66		618.55
12990.82	618.5513213.04		611.413784.29		611.414223.77		614.2514279.24		617.1
14550.66	615.04	14557.1	607.8514655.57		606.5315264.02		591.57	15782	585.7
15825.92	581.6215980.53		577.2916020.42		573.3216083.19		567.8916487.02		567.89
16557.64	573.0216625.35		585.7	16714.6	609.516733.72		612.1116973.62		639.6
17416.46	645.04	17854.5	648.1119979.46		645.7520095.42		645.7520326.38		646.17
20678.54	639.6521671.15		641.4521930.16		644.323616.43		647.1524001.22		648.5
24427.05	652.3325081.62		661.6225307.01		662.8526428.47		662.8527067.79		655.7
27343.34	655.727920.97		652.8528160.15		651.1928332.78		651.1428473.66		649.22
28623.22	650.2128919.07		655.0129242.81		657.8630347.79		681.7231016.21		683.18
31990.21	735.3632133.79		735.6732754.67		694.13 32789.6		694.234393.21		754.91
35443.07	751.1935641.77		752.0835995.87		769.9936037.58		770.4236346.08		766.42
36679.8	776.98	36838.9	778.6	37618.1	79038318.35		791.8938671.48		800

Manning's n values num= 3
 Sta n Val Sta n Val Sta n Val
 0 .15 15782 .1516625.35 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 1578216625.35 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1496299.00	158023.90	1697532.00
E.G. Slope (ft/ft)	0.000090	Area (sq ft)	1496299.00	158023.90	1697532.00
Q Total (cfs)	6730000.00	Flow (cfs)	3086052.00	484203.50	3159745.00
Top Width (ft)	34496.28	Top Width (ft)	14481.97	843.35	19170.96
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.06	3.06	1.86
Max Chl Dpth (ft)	192.01	Hydr. Depth (ft)	103.32	187.38	88.55
Conv. Total (cfs)	711305600.0	Conv. (cfs)	326170200.0	51176320.0	333959000.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14495.57	845.39	19180.56
Min Ch El (ft)	567.89	Shear (lb/sq ft)	0.58	1.04	0.49
Alpha	1.05	Stream Power (lb/ft s)	1.19	3.20	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	140950.40	23315.84	167766.90
C & E Loss (ft)	0.00	Cum SA (acres)	1293.17	113.93	1572.77

CROSS SECTION

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E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1496415.00	158581.20 1698221.00
Q Total (cfs)	6730000.00	Flow (cfs)	3083881.00	485645.00 3160475.00
Top Width (ft)	34505.10	Top width (ft)	14489.25	846.39 19169.45
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.06	3.06 1.86
Max Chl Dpth (ft)	192.02	Hydr. Depth (ft)	103.28	187.36 88.59
Conv. Total (cfs)	711660400.0	Conv. (cfs)	326103300.0	51354280.0 334202800.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	14502.84	848.44 19179.02
Min Ch El (ft)	567.88	Shear (lb/sq ft)	0.58	1.04 0.49
Alpha	1.05	Stream Power (lb/ft s)	1606.19	3.20 0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	140686.90	23279.50 167377.10
C & E Loss (ft)	0.00	Cum SA (acres)	1289.85	113.73 1568.37

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276046.*

INPUT

Description:

[illegible]

Manning's n Values		num= 3							
Sta	n Val	Sta	n Val	Sta	n Val				
0	.1515793.38		.15	16641.3	.15				
Bank	Sta: Left	Right	Lengths: Left Channel		Right	Coeff	Contr.	Expan.	
	15793.38	16641.3	5		5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.90	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1496477.00	158857.40	1698557.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1496477.00	158857.40	1698557.00
Q Total (cfs)	6730000.00	Flow (cfs)	3082835.00	486349.10	3160816.00
Top Width (ft)	34509.29	Top width (ft)	14492.72	847.92	19168.65
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.06	3.06	1.86
Max Chl Dpth (ft)	192.02	Hydr. Depth (ft)	103.26	187.35	88.61
Conv. Total (cfs)	71183810.0	Conv. (cfs)	326074200.0	51441580.0	334322300.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	14506.29	849.97	19178.20
Min Ch El (ft)	567.88	Shear (lb/sq ft)	0.58	1.04	0.49
Alpha	1.05	Stream Power (lb/ft s)	1.19	3.19	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	140435.20	23261.28	167182.20
C & E Loss (ft)	0.00	Cum SA (acres)	1288.18	113.64	1566.17

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276043.*

INPUT

Description:

Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
1675.25	748.18	1829.65	747.11	2152.53	747.11	2460.75	746.33	3288.59	717.87	3354.79	714.51
3354.79	714.51	3438.92	712.89	3449.35	712.81	3635.25	718.43	3801.09	717.11	3932.91	715.72
3932.91	715.72	4074.43	712.01	4420.37	703.7	4841.99	695.71	5155.76	694.67	5290.78	693.26
5290.78	693.26	5437.7	689.33	5500.91	685.99	5835.75	683.62	6138.33	683.39	6288.46	684.22
6288.46	684.22	691.76	678.44	6645.51	675.35	6711.28	672.66	6765.35	672.66	7038.95	675.12
7038.95	675.12	7164.94	675.12	7164.94	682.58	7274.38	679.33	7609.88	665.18	7654.12	664.94
7654.12	664.94	7796.94	659.66	8067.72	637.09	8080.33	635.57	8240.26	629.12	8368.39	628.23
8368.39	628.23	8603.29	632.39	8764.73	631.27	8933.85	624.31	9105.86	621.57	9239.11	606.15
9239.11	606.15	9255.02	606.01	9337.88	600.23	9493.34	591.56	9546.3	591.56	9585.12	594.2
9585.12	594.2	9702.25	623.48	9801.7	630.23	10106.01	627.77	10306.15	619.66	10357.73	612.19
10357.73	612.19	10505.38	610.84	10787.56	623.46	11065.03	621.56	11651.85	618.67	13003.31	618.67
13003.31	618.67	13225.74	611.56	13797.54	611.56	14327.45	614.45	154292.97	617.34	14564.65	615.26
14564.65	615.26	14571.1	608.11	14669.66	606.77	151278.69	591.68	15797.18	585.78	15841.64	581.67
15841.64	581.67	15998.18	577.36	16038.57	573.36	16102.13	567.88	16506.93	567.88	16578.24	574.16
16578.24	574.16	16745.61	585.78	17697.35	609.49	16175.94	612.11	16994.74	639.46	17437.39	643.91
17437.39	643.91	17867.23	647.95	19089.28	645.55	19115.19	645.55	20367.03	645.55	20638.95	639.51
20638.95	639.51	22149.13	632.62	22349.13	632.62	22349.13	632.62	22349.13	632.62	22444.95	652.25
22444.95	652.25	25099.23	661.66	25322.33	662.81	262445.51	662.81	27084.54	655.78	27084.95	655.78
27084.95	655.78	27927.37	652.89	28176.44	651.21	28348.99	651.21	28348.99	649.17	28639.3	650.15
28639.3	650.15	28893.03	654.98	29258.63	657.83	30363.12	681.63	31031.25	683.08	32004.84	735.01
32004.84	735.01	32148.36	735.33	322768.97	694.05	32603.88	694.12	34406.8	754.55		

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6898.79	674.57	7099.83	684.6	7158.04	682.49	7277.68	679.32	7613.53	665.16		
7657.8	664.98	7800.69	659.77	8071.59	637.27	8084.61	635.75	8244.22	629.27		
8372.41	628.38	8607.42	632.58	8768.93	631.46	8938.14	624.47	9110.23	621.72		
9243.54	606.33	9259.47	606.19	9342.36	600.37	9497.9	591.64	9550.88	591.64		
9589.72	594.29	9706.9	623.57	9806.41	630.37	10164.89	627.89	10311.1	619.79		
10362.7	612.35	10559.44	610.99	10792.74	623.56	11070.34	621.64	11657.44	618.73		
13009.55	618.73	13232.09	611.64	13804.17	611.64	14244.28	614.55	14299.83	617.46		
14571.65	615.36	14578.1	608.22	14676.71	606.89	15286.03	591.73	15804.76	585.82		
15849.5	581.69	16007.01	577.41	16047.64	573.38	16111.59	567.88	16516.89	567.88		
16588.54	572.99	16657.25	585.82	16746.44	609.49	16765.55	612.09	17005.3	639.38		
17447.85	644.83	17885.6	647.86	20009.19	645.45	20125.07	645.45	20355.88	645.88		
20707.81	639.44	21699.78	641.27	21958.62	644.18	23643.8	647.09	24028.34	648.47		
24453.89	652.31	25108.04	661.69	25333.28	662.91	26454.02	662.91	27092.92	655.82		
27368.3	655.82	27945.54	652.91	28184.58	651.22	28357.09	651.13	28497.88	649.14		
28647.34	650.12	28943.01	654.97	29266.54	657.81	30370.79	681.55	31038.78	683.04		
32012.15	734.84	32155.64	735.16	32776.12	694.32	32811.02	694.08	34413.6	754.38		
35462.77	750.76	35661.34	751.73	36015.21	769.57	36056.9	770.01	36365.2	766.13		
36698.71	776.7	36857.7	778.36	37636.39	790.38	38336.19	791.93	38689.09	800		

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515804.76 .1516657.25 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15804.7616657.25 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1496642.00	159686.40	1699578.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1496642.00	159686.40	1699578.00
Q Total (cfs)	6730000.00	Flow (cfs)	3079606.00	488475.00	3161919.00
Top width (ft)	34522.39	Top width (ft)	14503.55	852.49	19166.35
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.06	3.06	1.86
Max Chl Dpth (ft)	192.01	Hydr. Depth (ft)	103.19	187.32	88.68
Conv. Total (cfs)	712361700.0	Conv. (cfs)	325972300.0	51704440.0	334685000.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14517.09	854.54	19175.84
Min Ch El (ft)	567.88	Shear (lb/sq ft)	0.57	1.04	0.49
Alpha	1.05	Stream Power (lb/ft s)	1.18	3.19	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	139919.80	23206.44	166597.10
C & E Loss (ft)	0.00	Cum SA (acres)	1283.19	113.34	1559.57

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276034.*

INPUT

Description:

Station	Elevation	Data	num=	120							
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev		
0	800	182.07	793.24	592.37	778.73	1248	761.97	1412.97	755.56		
1676.45	748.16	1830.97	747.08	2154.08	747.08	2462.53	746.29	3290.96	717.94		
3357.21	714.55	3441.4	712.92	3451.84	712.84	3637.87	718.42	3803.83	717.08		
3935.74	715.67	4077.37	711.96	4423.56	703.65	4845.48	695.67	5159.48	694.61		
5294.59	693.21	5441.62	689.25	5504.87	685.88	5839.95	683.52	6162.77	683.32		
6292.99	684.16	6496.43	678.32	6650.3	675.4	6716.11	672.48	6761.42	672.48		
6900.45	674.52	7101.54	684.55	7159.75	682.45	7279.42	679.29	7615.36	665.17		
7659.64	664.99	7802.56	659.83	8073.53	637.36	8086.55	635.84	8246.2	629.34		
8374.42	628.45	8609.48	632.67	8771.04	631.56	8940.29	624.55	9112.42	621.8		
9245.76	606.42	9261.69	606.28	9344.61	600.44	9500.18	591.68	9553.18	591.68		
9592.02	594.34	9709.23	623.62	9808.76	630.44	10167.33	627.96	10313.57	619.86		
10365.19	612.42	10561.98	611.06	10795.33	623.6	11073	621.68	11660.24	618.76		
13012.67	618.76	13235.27	611.68	13807.48	611.68	14247.7	614.61	14303.26	617.52		
14575.14	615.41	14581.59	608.28	14680.23	606.95	15289.7	591.75	15808.56	585.84		
15853.43	581.71	16011.42	577.41	16052.18	573.39	16116.33	567.88	16521.87	567.88		
16593.7	572.99	16662.56	585.84	16751.75	609.48	16770.85	612.09	17010.58	639.35		
17453.08	644.81	17890.79	647.82	20014.14	645.4	20130.01	645.4	20360.8	645.83		
20712.69	639.42	21704.55	641.24	21963.36	644.16	23648.36	647.08	24032.86	648.47		
24458.37	652.31	25112.44	661.72	25337.66	662.92	26458.28	662.92	27097.11	655.84		
27372.46	655.84	27949.64	652.92	28188.65	651.22	28361.14	651.13	28501.92	649.13		
28651.36	650.12	28946.99	654.96	29270.49	657.83	30374.63	681.52	31042.54	683.01		
32015.81	734.84	32159.28	735.07	32779.69	693.98	32814.59	694.06	34417	754.29		
35466.06	750.76	35664.61	751.64	36018.43	769.53	36060.12	769.94	36368.39	766.09		
36701.86	776.66	36860.83	778.32	37639.44	790.38	38339.16	791.94	38692.02	800		

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515808.56 .1516662.56 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15808.5616662.56 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1496697.00	159961.00	1699927.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1496697.00	159961.00	1699927.00
Q Total (cfs)	6730000.00	Flow (cfs)	3078523.00	489177.30	3162300.00
Top width (ft)	34526.68	Top width (ft)	14507.12	854.00	19165.56
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	2.06	3.06	1.86
Max Chl Dpth (ft)	192.01	Hydr. Depth (ft)	103.17	187.31	88.70
Conv. Total (cfs)	712539500.0	Conv. (cfs)	325938900.0	51791700.0	334808800.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14520.64	856.05	19175.04
Min Ch El (ft)	567.88	Shear (lb/sq ft)	0.57	1.04	0.49
Alpha	1.05	Stream Power (lb/ft s)	1.18	3.18	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	139748.00	23188.09	166402.00
C & E Loss (ft)	0.00	Cum SA (acres)	1281.53	113.25	1557.37

SS_Rev3.rep

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276032.*

INPUT

Description:

Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	182.11	793.23	592.51	778.72	1248.3	761.96	1413.31	755.56		
1676.86	748.15	1831.41	747.07	2154.6	747.07	2463.12	746.28	3291.75	717.95		
3358.01	714.57	3442.23	712.93	3452.67	712.85	3638.74	718.41	3804.74	717.07		
3936.68	715.66	4078.34	711.94	4424.62	703.63	4846.64	695.65	5160.71	694.59		
5295.86	693.19	5442.92	689.22	5506.19	685.85	5841.35	683.48	6164.25	683.3		
6294.5	684.14	6497.99	678.28	6651.89	675.35	6717.73	672.42	6763.04	672.42		
6902.1	674.47	7103.24	684.49	7161.47	682.4	7281.17	679.27	7617.19	665.17		
7661.48	665.01	7804.43	659.89	8075.46	637.45	8088.49	635.93	8248.17	629.41		
8376.42	628.53	8611.55	632.77	8773.14	631.65	8942.43	624.63	9114.61	621.87		
9247.98	606.52	9263.91	606.37	9346.85	600.51	9502.46	591.72	9555.47	591.72		
9594.32	594.39	9711.56	623.66	9811.11	630.51	10169.77	628.02	10316.05	619.93		
10367.68	612.51	10564.51	611.13	10797.92	623.65	11075.66	621.72	11663.04	618.79		
13015.8	618.79	13238.45	611.72	13810.8	611.72	14251.12	614.65	14306.7	617.58		
14578.64	615.47	14585.09	608.35	14683.75	607.01	15293.37	591.78	15812.35	585.86		
15857.36	581.71	161015.83	577.43	16056.72	573.41	16121.06	567.88	16526.85	567.88		
16598.85	572.99	16667.88	585.86	16757.06	609.48	16776.16	612.09	17015.86	639.31		
17458.31	644.76	17895.97	647.78	20019.1	645.35	20134.96	645.35	20365.71	645.78		
20717.57	639.36	21709.32	641.21	21968.11	644.14	23652.92	647.07	24037.38	648.46		
24462.84	652.31	25116.84	661.71	25342.04	662.93	26462.54	662.93	27101.3	655.86		
27376.62	655.86	27953.74	652.93	28192.72	651.23	28365.2	651.13	28505.96	649.12		
28655.38	650.09	28950.98	654.96	29274.44	657.83	30378.46	681.49	31046.3	682.99		
32019.47	734.67	32162.92	734.99	32783.27	693.96	32818.16	694.04	34420.39	754.2		
35469.34	750.62	35667.87	751.58	36021.66	769.43	36063.34	769.87	36371.57	766.04		
36705.01	776.61	36863.96	778.28	37642.49	79038	38342.13	791.95	38694.95	800		

Manning's n Values			num= 3		
Sta	n Val	Sta	n Val	Sta	n Val
0	.1515812.35		.1516667.88		.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15812.35	16667.88		5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1496751.00	160238.10	1700257.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1496751.00	160238.10	1700257.00
Q Total (cfs)	6730000.00	Flow (cfs)	3077459.00	489888.70	3162653.00
Top Width (ft)	34531.04	Top Width (ft)	14510.76	855.53	19164.76
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.06	3.06	1.86
Max Chl Dpth (ft)	192.01	Hydr. Depth (ft)	103.15	187.30	88.72
Conv. Total (cfs)	712710500.0	Conv. (cfs)	325904500.0	51879470.0	334926600.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14524.27	857.59	19174.22
Min Ch El (ft)	567.88	Shear (lb/sq ft)	0.57	1.04	0.49
Alpha	1.05	Stream Power (lb/ft s)	1.18	3.18	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	139576.20	23169.71	166206.80
C & E Loss (ft)	0.00	Cum SA (acres)	1279.86	113.15	1555.17

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276029.*

INPUT

Description:

Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	182.16	793.23	592.66	778.71	1248.6	761.96	1413.65	755.55		
1677.26	748.15	1831.85	747.06	2155.11	747.06	2463.71	746.26	3292.54	717.97		
3358.82	714.59	3443.05	712.94	3453.49	712.86	3639.62	718.41	3805.66	717.06		
3937.63	715.64	4079.32	711.92	4425.68	703.61	4847.8	695.64	5161.95	694.58		
5297.13	693.17	5444.23	689.19	5507.51	685.81	5842.75	683.45	6165.72	683.27		
6296.01	684.12	6499.55	678.24	6653.49	675.3	6719.34	672.36	6764.66	672.36		
6903.76	674.41	7104.95	684.44	7163.19	682.35	7282.92	679.24	7619.01	665.18		
7663.31	665.03	7806.3	659.94	8077.4	637.54	8090.43	636.02	8250.15	629.48		
8378.43	628.6	8613.61	632.86	8775.25	631.75	8944.58	624.7	9116.79	621.95		
9250.2	606.61	9266.13	606.46	9349.09	600.58	9504.74	591.76	9557.76	591.76		
9596.62	594.44	9713.89	623.71	9813.47	630.58	10172.21	628.08	10318.52	620		
10370.17	612.58	10567.05	611.21	10800.51	623.71	11078.31	621.76	11665.84	618.82		
13018.92	618.82	13241.62	611.76	13814.11	611.76	14254.54	614.71	14310.13	617.64		
14582.14	615.52	14588.59	608.41	14687.27	607.07	15297.03	591.81	15816.14	585.88		
15861.29	581.73	16020.25	577.45	16061.26	573.41	16125.8	567.88	16531.83	567.88		
16604	572.98	16673.2	585.88	16762.36	609.48	16781.46	612.08	17021.13	639.27		
17463.54	644.73	17901.15	647.74	20024.05	645.3	20139.9	645.32	20370.63	645.73		
20722.45	639.33	21714.1	641.18	21972.85	644.12	23657.48	647.06	24041.9	648.46		
24467.32	652.32	25121.25	661.72	25346.42	662.94	26466.79	662.94	27105.49	655.88		
27380.77	655.88	27957.84	652.94	28196.79	651.23	28369.25	651.13	28510	649.1		
28659.4	650.08	28954.97	654.95	29278.4	657.79	30382.3	681.46	31050.06	682.97		
32023.12	734.58	32166.56	734.93	32786.84	693.94	32821.73	694.02	34423.79	754.11		
35472.62	750.54	35671.13	751.51	36024.88	769.36	36066.56	769.83	36374.76	765.99		
36708.16	776.56	36867.1	778.24	37645.54	79038	38345.11	791.95	38697.89	800		

Manning's n Values			num= 3		
Sta	n Val	Sta	n Val	Sta	n Val
0	.1515816.14		.1516673.2		.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15816.14	16673.2		5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB
			Page 172		

Vel Head (ft)	0.07	wt. n-val.	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1496806.00	1700608.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1496806.00	1700608.00
Q Total (cfs)	6730000.00	Top (cfs)	3076378.00	490591.50
Top width (ft)	34535.42	Flow width (ft)	14514.31	857.06
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.06	3.06
Max Chl Dpth (ft)	192.01	Hydr. depth (ft)	103.13	187.29
Conv. Total (cfs)	71288860.0	Conv. (cfs)	325871500.0	51966880.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14527.80	859.11
Min Ch El (ft)	567.88	Shear (lb/sq ft)	0.57	1.04
Alpha	1.05	Stream Power (lb/ft s)	1.18	3.18
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	139404.40	23151.30
C & E Loss (ft)	0.00	Cum SA (acres)	1278.19	113.05

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276026.*

INPUT

Description:

[illegible]

Manning's	n Values		num=	3	
Sta	n Val	Sta	n Val	Sta	n Val
0	.1515819.93		.1516678.52		.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff Contr.	Expan.
	15819.9316678.52			5	5	5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)		759.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07		wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89		Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)			Flow Area (sq ft)	1496867.00	160791.90	1700945.00
E.G. Slope (ft/ft)	0.000089		Area (sq ft)	1496867.00	160791.90	1700945.00
Q Total (cfs)	6730000.00		Flow (cfs)	3075323.00	491300.00	3163377.00
Top Width (ft)	34539.70		Top Width (ft)	14517.85	858.59	19163.26
Vel Total (ft/s)	2.00		Avg. Vel. (ft/s)	2.05	3.06	1.86
Max Chl Dpth (ft)	192.01		Hydr. Depth (ft)	103.11	187.27	88.76
Cov. Total (cfs)	71306590.0		Wetted Per (ft)	300440700.0	1054870.0	335170300.0
Length Wtd. (ft)	5.00		Shear (lb/sq ft)	14531.34	860.65	19172.68
Min Ch El (ft)	567.88		Stream Power (lb/ft s)	1.18	3.17	0.49
Alpha	1.06		Cum Volume (acre-ft)	139232.60	23132.86	165816.40
Frctn Loss (ft)	0.00		Cum SA (acres)	1272.53	112.95	1550.77
C & E Loss (ft)	0.00					

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276023.*

INPUT

Description:

Station	Elevation	Sta		Sta		Sta		Sta		Sta		Sta		Sta	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	182.25	793.22	592.94	778.68	1249.2	761.96	1414.33	755.53						
1678.06	748.13	1832.73	747.04	2156.15	747.04	2464.89	746.24	3294.11	718.01						
3360.43	714.62	3444.7	712.96	3455.15	712.87	3641.36	718.4	3807.48	717.04						
3959.52	773.61	4081.28	711.89	4517.27	703.57	4850.13	695.63	5184.43	695.63						
5299.67	689.13	5446.84	689.13	5510.16	685.74	5845.56	681.39	6168.68	683.23						
6299.03	684.08	6502.67	678.16	6656.68	675.2	6722.56	672.24	6767.91	672.24						
6907.07	674.31	7108.35	684.33	7166.62	682.26	7286.41	679.18	7622.67	665.19						
7666.99	665.06	7810.05	660.06	8081.28	637.71	8094.31	636.19	8254.11	629.62						
8382.45	628.74	8617.75	633.05	8779.46	631.94	8948.87	624.86	9121.17	622.09						
9254.64	606.79	9270.58	606.64	9353.57	600.72	9509.3	591.84	9562.34	591.84						
9601.23	594.54	9718.55	623.8	9818.17	630.72	10177.09	628.21	10323.47	620.83						
10375.14	612.73	11057.12	611.35	10850.69	623.79	11083.62	621.84	11671.43	618.88						
13025.16	618.88	13247.97	611.84	13820.74	611.84	14261.36	614.81	14316.99	617.76						
14589.13	615.63	14595.59	608.53	14694.32	607.19	15130.47	591.86	15823.73	585.92						
1581.15	571.75	16104.07	571.75	16107.33	569.48	16240.27	569.48	16240.27	569.48						
16614.3	562.73	16683.33	585.92	17177.98	609.48	17927.77	612.08	17031.69	639.2						
17474.01	644.66	17911.52	647.65	18200.33	645.22	18014.78	645.22	18030.47	645.63						
20732.21	639.26	21723.64	641.12	21982.34	644.08	23666.61	647.04	242050.94	648.45						
24476.27	652.32	32150.05	661.74	32535.58	662.96	26475.31	662.96	27113.87	655.92						

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 27389.09 655.9227966.03 652.9628204.93 651.2428377.35 651.1228518.07 649.08
 28667.44 650.0528962.95 654.93 29286.3 657.7730389.96 681.431057.59 682.92
 32030.44 734.4132173.85 734.7332793.99 693.932828.87 693.9834430.59 753.94
 35479.19 750.435677.66 751.3936031.33 769.22 36073 769.6636381.13 765.89
 36714.46 776.4736873.37 778.1637651.64 79038351.05 791.9738703.76 800

Manning's n Values num= 3
 Sta n Val Sta n Val Sta n Val
 0 .1515823.73 .1516683.83 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15823.7316683.83 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1496921.00	161071.80	1701290.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1496921.00	161071.80	1701290.00
Q Total (cfs)	6730000.00	Flow (cfs)	3074234.00	492025.40	3163741.00
Top width (ft)	34543.98	Top width (ft)	14521.41	860.10	19162.47
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.05	3.05	1.86
Max Chl Dpth (ft)	192.02	Hydr. Depth (ft)	103.08	187.27	88.78
Conv. Total (cfs)	713245500.0	Conv. (cfs)	325807400.0	52144860.0	335293300.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14534.89	862.16	19171.88
Min Ch El (ft)	567.87	Shear (lb/sq ft)	0.57	1.04	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.18	3.17	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	139060.80	23114.39	165621.20
C & E Loss (ft)	0.00	Cum SA (acres)	1274.86	112.85	1548.57

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276020.*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	182.29	793.21	593.08	778.67	1249.5	761.95	1414.67	755.52					
1678.46	748.13	1833.16	747.03	2156.66	747.03	2465.48	746.22	3294.9	718.02					
3361.24	714.63	3445.53	712.97	3455.98	712.88	3642.24	718.39	3808.4	717.03					
3940.46	715.6	4082.26	711.87	4428.86	703.55	4851.29	695.59	5165.67	694.52					
5300.94	693.11	5448.15	689.11	5511.48	685.7	5846.96	683.35	6170.16	683.21					
6300.54	684.06	6504.23	678.12	6658.27	675.15	6724.17	672.18	6769.53	672.18					
6908.73	674.25	7110.06	684.28	7168.34	682.22	7288.16	679.16	7624.49	665.2					
7668.83	665.08	7811.92	660.11	8083.21	637.8	8096.25	636.28	8256.09	629.7					
8384.46	628.82	8619.81	633.15	8781.56	632.04	8951.01	624.94	9123.35	622.17					
9256.86	606.88	9272.8	606.73	9355.82	600.79	9511.58	591.88	9564.64	591.88					
9603.53	594.59	9720.88	623.85	9820.53	630.79	10179.53	628.26	10325.95	620.2					
10377.63	612.81	110574.65	611.42	110808.28	623.84	11086.28	621.88	11674.23	618.91					
13028.29	618.91	113251.15	611.88	113824.05	611.88	114264.79	614.85	114320.42	617.82					
14592.63	615.68	14599.09	608.61	14697.84	607.25	15308.04	591.88	15827.52	585.94					
15873.08	581.76	16033.49	577.51	16074.87	573.43	16140	567.87	16546.76	567.87					
16619.46	572.97	16689.15	585.94	16778.29	609.48	16797.38	612.08	17036.97	639.16					
17479.24	644.62	17916.71	647.61	20038.92	645.15	20154.72	645.15	20385.38	645.59					
20737.08	639.22	221728.41	641.09	21987.08	644.06	23671.17	647.03	24055.46	648.44					
24480.74	652.29	25134.46	661.76	25359.56	662.97	26479.57	662.97	27118.05	655.94					
27393.25	655.94	27970.12	652.97	28209	651.24	28381.4	651.12	28522.11	649.07					
28671.46	650.04	28966.94	654.93	29290.26	657.77	30393.8	681.37	31061.35	682.89					
32034.1	734.32	32177.49	734.65	32797.56	693.88	32832.44	693.96	34433.98	753.85					
35482.48	750.33	35680.92	751.32	36034.55	769.15	36076.21	769.59	36384.32	765.85					
36717.61	776.43	36876.5	778.12	37654.68	790383	38354.03	791.97	38706.7	800					

Manning's n Values num= 3
 Sta n Val Sta n Val Sta n Val
 0 .1515827.52 .1516689.15 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15827.5216689.15 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1496986.00	161348.90	1701635.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1496986.00	161348.90	1701635.00
Q Total (cfs)	6730000.00	Flow (cfs)	3073169.00	492731.00	3164100.00
Top width (ft)	34548.54	Top width (ft)	14525.14	861.63	19161.77
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.05	3.05	1.86
Max Chl Dpth (ft)	192.02	Hydr. Depth (ft)	103.06	187.26	88.80
Conv. Total (cfs)	713422800.0	Conv. (cfs)	325775400.0	52232620.0	335414800.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14538.60	863.69	19171.16
Min Ch El (ft)	567.87	Shear (lb/sq ft)	0.57	1.04	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.17	3.17	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	138889.00	23095.89	165425.90
C & E Loss (ft)	0.00	Cum SA (acres)	1273.19	112.75	1546.37

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276017.*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	182.33	793.21	593.22	778.66	1249.8	761.95	1415.01	755.52					
1678.87	748.12	1833.6	747.02	2157.18	747.02	2466.07	746.21	3295.69	718.04					
3362.04	714.65	3446.35	712.98	3456.81	712.89	3643.11	718.38	3809.31	717.02					

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3941.41	715.58	4083.24	711.85	4429.93	703.53	4852.45	695.58	5166.9	694.5		
5302.21	693.09	5449.45	689.09	5512.8	685.66	5848.36	683.32	6171.64	683.18		
6302.05	684.04	6505.79	678.08	6659.87	675.1	6725.78	672.12	6771.15	672.12		
6910.38	674.2	7111.76	684.23	7170.06	682.17	7289.9	679.13	7626.32	665.21		
7670.67	665.09	7813.79	660.17	8085.15	637.89	8098.19	636.37	8258.07	629.77		
8386.47	628.89	8621.88	633.24	8783.67	632.14	8953.16	625.02	9125.54	622.24		
9259.07	606.97	9275.02	606.82	9358.06	600.86	9513.85	591.92	9566.93	591.92		
9605.83	594.64	9723.21	623.9	9822.88	630.86	10181.97	628.32	10328.42	620.27		
10380.11	612.89	10577.18	611.49	10810.87	623.88	11088.94	621.92	11677.03	618.94		
13031.41	618.94	13254.32	611.92	13827.36	611.92	14268.21	614.91	14323.86	617.88		
14596.12	615.73	14602.59	608.66	14701.36	607.32	15311.71	591.91	15831.31	585.96		
15877.01	581.77	16037.9	577.52	16079.41	573.44	16144.73	567.87	16551.74	567.87		
16624.61	572.97	16694.47	585.96	16783.59	609.47	16802.69	612.07	17042.25	639.13		
17484.47	644.59	17921.89	647.57	20043.87	645.12	20159.67	645.1	20390.3	645.54		
20741.96	639.18	21733.18	641.06	21991.83	644.04	23675.73	647.02	24059.98	648.43		
24485.21	652.29	25138.86	661.77	25363.94	662.98	26483.83	662.98	27122.24	655.96		
27397.41	655.96	27974.22	652.98	28213.07	651.25	28385.46	651.12	28526.14	649.05		
28675.49	650.02	28970.93	654.92	29294.21	657.76	30397.63	681.34	31065.11	682.87		
32037.75	734.23	32181.13	734.56	32801.14	693.86	32836.01	693.94	34437.38	753.76		
35485.76	750.26	35684.18	751.26	36037.78	769.08	36079.43	769.53	36387.5	765.8		
36720.76	776.38	36879.63	778.08	37657.73	790	38357	791.98	38709.63	800		

Manning's n Values			num= 3		
Sta	n Val	Sta	n Val	Sta	n Val
0	.1515831.31		.1516694.47		.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15831.31	16694.47		5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1497035.00	161625.80	1701979.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1497035.00	161625.80	1701979.00
Q Total (cfs)	6730000.00	Flow (cfs)	3072091.00	493435.80	3164474.00
Top width (ft)	34552.73	Top width (ft)	14528.60	863.16	19160.97
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.05	3.05	1.86
Max Chl Dpth (ft)	192.02	Hydr. Depth (ft)	103.04	187.25	88.83
Conv. Total (cfs)	71359970.0	Conv. (cfs)	325741900.0	52320300.0	335537500.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14542.05	865.22	19170.35
Min Ch El (ft)	567.87	Shear (lb/sq ft)	0.57	1.04	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.17	3.17	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	138717.10	23077.35	165230.50
C & E Loss (ft)	0.00	Cum SA (acres)	1271.53	112.65	1544.17

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276014.*

INPUT

Description:

Station Elevation Data			num= 120					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta
0	800	182.38	793.2	593.37	778.65	1250.09	761.95	1415.35
1679.27	748.12	1834.04	747.01	2157.7	747.01	2466.66	746.2	3296.48
3362.85	714.66	3447.18	712.99	3457.64	712.99	3643.98	718.38	3810.22
3942.35	715.57	4084.21	711.84	4430.99	703.51	4853.61	695.56	5168.14
5303.48	693.08	5450.76	689.06	5514.12	685.63	5849.76	683.29	6173.12
6303.56	684.02	6507.34	678.04	6661.46	675.05	6727.39	672.06	6772.77
6912.04	674.15	7113.46	684.18	7171.78	682.13	7291.65	679.1	7628.15
7672.5	665.11	7815.66	660.23	8087.09	637.98	8100.13	636.46	8260.04
8388.48	628.96	8623.94	633.34	8785.77	632.23	8955.3	625.1	9127.73
9261.29	607.06	9277.25	606.91	9360.3	600.93	9516.13	591.96	9569.22
9608.13	594.69	9725.54	623.94	9825.23	630.93	10184.41	628.39	10330.9
10382.6	612.96	10579.72	611.57	10813.46	623.93	11091.6	621.96	11679.83
13034.53	618.97	13257.5	611.96	13830.67	611.96	14271.63	614.95	14327.29
14599.62	615.78	14606.08	608.72	14704.88	607.38	15315.38	591.93	15835.11
15880.94	581.78	16042.31	577.54	16083.95	573.45	16149.47	567.87	16556.72
16629.76	572.96	16699.78	585.98	16788.9	609.47	16807.99	612.07	17042.53
17489.7	644.55	17927.07	647.53	20048.82	645.05	20164.61	645.05	20395.22
20746.84	639.15	21737.95	641.03	21996.57	644.02	23680.29	647.01	24064.5
24489.69	652.29	25143.26	661.78	25368.31	662.99	26488.08	662.99	27126.43
27401.57	655.98	27978.32	652.99	28217.14	651.25	28389.51	651.12	28530.18
28679.51	650.01	28974.91	654.91	29298.17	657.75	30401.47	681.31	31068.88
32041.41	734.15	32184.77	734.48	32804.71	693.84	32839.59	693.92	34440.78
35489.04	750.19	35687.44	751.2	36041	769.01	36082.66	769.46	36390.69
36723.91	776.34	36882.77	778.04	37660.78	790	38359.97	791.99	38712.57

Manning's n Values			num= 3		
Sta	n Val	Sta	n Val	Sta	n Val
0	.1515835.11		.1516699.78		.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15835.11	16699.78		5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1497083.00	161899.40	1702311.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1497083.00	161899.40	1702311.00
Q Total (cfs)	6730000.00	Flow (cfs)	3071023.00	494136.40	3164840.00
Top width (ft)	34557.02	Top width (ft)	14532.17	864.67	19160.18
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.05	3.05	1.86
Max Chl Dpth (ft)	192.02	Hydr. Depth (ft)	103.02	187.24	88.85
Conv. Total (cfs)	713769100.0	Conv. (cfs)	325706000.0	52407030.0	335656000.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14545.61	866.73	19169.54
Min Ch El (ft)	567.87	Shear (lb/sq ft)	0.57	1.04	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.17	3.16	0.92
Frctn Loss (ft)	0.00	Cum volume (acre-ft)	138545.30	23058.78	165035.10
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C & E Loss (ft) 0.00 Cum SA (acres) SS_Rev3.rep 1269.86 112.56 1541.97

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276011.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	182.42	793.2	593.51	778.63	1250.39	761.95	1415.69	755.5				
1679.67	748.11	1834.48	747	2158.22	747	2467.25	746.19	3297.27	718.07				
3363.65	714.68	3448.01	713	3458.46	712.91	3644.85	718.37	3811.13	717				
3943.29	715.55	4085.19	711.82	4432.05	703.49	4854.78	695.55	5169.38	694.47				
5304.76	693.06	5452.06	689.03	5515.44	685.59	5851.16	683.25	6174.6	683.14				
6305.07	684	6508.9	678	6663.06	675	6729.01	672	6774.4	672				
6913.69	674.09	7115.17	684.12	7173.5	682.08	7293.4	679.08	7629.98	665.22				
7674.34	665.13	7817.53	660.28	8089.02	638.07	8102.07	636.55	8262.02	629.91				
8390.49	629.04	8626.01	633.43	8787.88	632.33	8957.45	625.17	9129.91	622.39				
9263.51	607.15	9279.47	607	9362.54	601	9518.41	592	9571.51	592				
9610.43	594.74	9727.87	623.99	9827.59	631	10186.84	628.45	10333.37	620.41				
10385.09	613.04	10582.25	611.64	10816.05	623.98	11094.25	622.11	11682.62	619				
13037.65	61913260.67		61213833.99		61214275.05		61514330.72		618				
14603.12	615.84	14609.58	608.78	14708.41	607.44	15319.04	591.96	15838.9	586				
15884.87	581.81	16046.73	577.56	16088.49	573.46	16154.2	567.87	16561.7	567.87				
16634.91	572.96	16705.1	58616794.21		609.47	16813.3	612.07	17052.81	639.05				
17494.93	644.52	17932.26	647.49	20053.78	64520169.55		64520400.13		645.44				
20751.72	639.11	21742.73	64122001.31		64423684.85		64724069.02		648.42				
24494.16	652.28	25147.67	661.79	25372.69	66326492.34		66327130.62		656				
27405.73	65627982.41		65328221.21		651.26	28393.56	651.12	28534.22	649.03				
28683.53	649.99	28978.9	654.91	29302.12	657.74	30405.3	681.28	31072.64	682.82				
32045.07	734.06	32188.41	734.39	32808.29	693.82	32843.16	693.93	34444.18	753.59				
35492.33	750.11	35690.7	751.14	36044.23	768.94	36085.88	769.39	36393.88	765.7				
36727.06	776.29	36885.9	77837663.83		79038362.95		791.99	38715.5	800				

Manning's n	Values	num=	3	Sta	n Val	Sta	n Val
0	.15	15838.9	.15	16705.1	.15		

Bank Sta: Left 15838.9 Right 16705.1 Lengths: Left 5 Channel 5 Right 5 Coeff Contr. .1 Expan. .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1497140.00	162175.20	1702660.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1497140.00	162175.20	1702660.00
Q Total (cfs)	6730000.00	Flow (cfs)	3069951.00	494833.50	3165216.00
Top Width (ft)	34561.30	Top Width (ft)	14535.72	866.20	19159.38
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.05	3.05	1.86
Max Chl Dpth (ft)	192.02	Hydr. Depth (ft)	103.00	187.23	88.87
Conv. Total (cfs)	713948000.0	Conv. (cfs)	325673900.0	52494120.0	335780100.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14549.15	868.26	19168.72
Min Ch El (ft)	567.87	Shear (lb/sq ft)	0.57	1.04	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.17	3.16	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	138373.40	23040.18	164839.70
C & E Loss (ft)	0.00	Cum SA (acres)	1268.19	112.46	1539.77

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 276008.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	182.46	793.19	593.65	778.62	1250.69	761.94	1416.03	755.49				
1680.07	748.11	1834.92	746.99	2158.73	746.99	2467.84	746.17	3298.06	718.09				
3364.46	714.69	3448.83	713.01	3459.29	712.92	3645.73	718.37	3812.05	716.99				
3944.24	715.54	4086.17	711.8	4433.11	703.47	4855.94	695.53	5170.62	694.45				
5306.03	693.04	5453.37	689	5516.76	685.55	5852.56	683.22	6176.07	683.11				
6306.58	683.98	6510.46	677.96	6664.66	674.95	6730.62	671.94	6776.02	671.94				
6915.35	674.04	7116.87	684.07	7175.21	682.03	7295.14	679.05	7631.8	665.23				
7676.18	665.15	7819.41	660.34	8090.96	638.16	8104.01	636.64	8264	629.98				
8392.5	629.11	8628.07	633.53	8789.98	632.43	8959.59	625.25	9132.1	622.47				
9265.73	607.24	9281.69	607.09	9364.78	601.07	9520.69	592.04	9573.8	592.04				
9612.74	594.79	9730.2	624.04	9829.94	631.07	10189.28	628.51	10335.85	620.47				
10387.57	613.12	10584.79	611.71	10818.64	624.02	11096.91	622.04	11685.42	619.03				
13040.77	619.03	13263.85	612.04	13837.3	612.04	14278.47	615.05	14334.15	618.06				
14606.62	615.89	14613.08	608.85	14711.93	607.51	15322.71	591.99	15842.69	586.02				
15888.8	581.81	16051.14	577.57	16093.02	573.47	16158.93	567.87	16566.68	567.87				
16640.06	572.95	16710.42	586.02	16799.51	609.47	16818.6	612.06	17058.09	639.02				
17500.17	644.48	17937.44	647.45	20058.73	644.95	20174.49	644.95	20405.05	645.39				
20756.6	639.07	21747.5	640.97	22006.06	643.98	23689.41	646.99	24073.54	648.42				
24498.64	652.28	25152.07	661.82	25377.07	663.01	26496.6	663.01	27134.81	656.02				
27409.89	656.02	27986.51	653.01	28225.28	651.26	28397.61	651.11	28538.25	649.01				
28687.55	649.98	28982.89	654.92	29306.07	657.74	30409.14	681.26	31076.4	682.8				
32048.72	733.97	32192.05	734.31	32811.86	693.83	32846.73	693.88	34447.57	753.5				
35495.61	750.04	35693.96	751.07	36047.45	768.87	36089.09	769.32	36397.06	765.66				
36730.21	776.24	36889.03	777.96	37666.88	79038365.92		79238718.43		800				

Manning's n	Values	num=	3	Sta	n Val	Sta	n Val
0	.15	15842.69	.15	16710.42	.15		

Bank Sta: Left 15842.69 Right 16710.42 Lengths: Left 5 Channel 5 Right 5 Coeff Contr. .1 Expan. .3

SS_Rev3.rep

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1497199.00	162453.80	1702989.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1497199.00	162453.80	1702989.00
Q Total (cfs)	6730000.00	Flow (cfs)	3068896.00	495550.00	3165554.00
Top Width (ft)	34565.86	Top Width (ft)	14539.44	867.73	19158.69
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.05	3.05	1.86
Max Chl Dpth (ft)	192.02	Hydr. Depth (ft)	102.98	187.22	88.89
Conv. Total (cfs)	714119200.0	Conv. (cfs)	325640000.0	52582720.0	335896400.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14552.86	869.79	19168.02
Min Ch El (ft)	567.87	Shear (lb/sq ft)	0.57	1.04	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.17	3.16	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	138201.60	23021.55	164644.30
C & E Loss (ft)	0.00	Cum SA (acres)	1266.52	112.36	1537.57

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276005.*

INPUT

Description:

Station Elevation Data			num= 120														
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	182.51	793.19	593.79	778.61	1250.99	761.94	1416.36	755.49								
1680.48	748.1	1835.36	746.98	2159.25	746.98	2468.43	746.16	3298.85	718.11								
3365.26	714.71	3449.66	713.02	3460.12	712.93	3646.6	718.36	3812.96	716.98								
3945.18	715.52	4087.15	711.79	4434.17	703.45	4857.1	695.52	5171.85	694.43								
5307.3	693.02	5454.67	688.98	5518.08	685.52	5853.96	683.19	6177.55	683.09								
6308.09	683.96	6512.02	677.92	6666.25	674.9	6732.23	671.88	6777.64	671.88								
6917.01	673.99	7118.58	684.02	7176.93	681.99	7296.89	679.02	7633.63	665.24								
7678.02	665.16	7821.28	660.4	8092.9	638.24	8105.95	636.72	8265.98	630.05								
8394.51	629.18	8630.14	633.62	8792.08	632.52	8961.74	625.33	9134.29	622.54								
9267.95	607.33	9283.91	607.18	9367.03	601.14	9522.97	592.08	9576.1	592.08								
9615.04	594.83	9732.53	624.08	9832.29	631.14	10191.72	628.57	10338.32	620.54								
10390.06	613.19	10587.32	611.78	10821.23	624.07	11099.57	622.08	11688.22	619.06								
13043.9	619.06	13267.03	612.08	13840.61	612.08	14281.89	615.11	14337.58	618.12								
14610.11	615.94	14616.58	608.91	14715.45	607.56	15326.38	592.01	15846.49	586.04								
15892.73	581.82	16055.55	577.59	16097.56	573.48	16163.67	567.87	16571.66	567.87								
16645.21	572.95	16715.73	586.04	16804.82	609.47	16823.91	612.06	17063.37	638.98								
17505.4	644.45	17942.63	647.42	20063.69	644.92	20179.43	644.92	20409.97	645.34								
20761.48	639.04	21752.27	640.94	22010.8	643.96	23693.97	646.98	24078.06	648.41								
24503.11	652.28	25156.47	661.82	25381.45	663.02	26500.86	663.02	27139	656.04								
27414.04	656.04	27990.61	653.02	28229.35	651.27	28401.66	651.12	28542.29	649								
28691.57	649.97	28986.88	654.89	29310.03	657.73	30412.97	681.23	31080.16	682.77								
32052.38	733.89	32195.69	734.22	32815.43	693.78	32850.3	693.86	34450.97	753.41								
35498.89	749.97	35697.23	751.01	36050.68	768.83	36092.31	769.25	36400.25	765.61								
36733.36	776.23	36892.16	777.92	37669.93	79038	3868.89	792.01	38721.37	800								

Manning's n Values			num= 3								
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1515846	49	.1516715	73	.15						

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15846.49	16715.73		5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1497254.00	162727.10	1703337.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1497254.00	162727.10	1703337.00
Q Total (cfs)	6730000.00	Flow (cfs)	3067828.00	496241.10	3165931.00
Top Width (ft)	34570.07	Top Width (ft)	14542.92	869.24	19157.91
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.05	3.05	1.86
Max Chl Dpth (ft)	192.02	Hydr. Depth (ft)	102.95	187.21	88.91
Conv. Total (cfs)	714297800.0	Conv. (cfs)	325608200.0	52669230.0	336020400.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14556.32	871.31	19167.21
Min Ch El (ft)	567.87	Shear (lb/sq ft)	0.57	1.04	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.17	3.16	0.92
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	138029.70	23002.89	164448.80
C & E Loss (ft)	0.00	Cum SA (acres)	1264.85	112.26	1535.37

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 276002.*

INPUT

Description:

Station Elevation Data			num= 120														
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	182.55	793.19	593.94	778.6	1251.29	761.94	1416.7	755.48								
1680.88	748.09	1835.8	746.97	2159.77	746.97	2469.03	746.15	3299.64	718.12								
3366.07	714.73	3450.48	713.03	3460.95	712.94	3647.47	718.36	3813.87	716.97								
3946.13	715.51	4088.13	711.77	4435.23	703.44	4858.27	695.5	5173.09	694.41								
5308.57	693	5455.98	688.95	5519.4	685.48	5855.36	683.15	6179.03	683.07								
6309.6	683.94	6513.58	677.88	6667.85	674.85	6733.84	671.82	6779.26	671.82								
6918.66	673.94	7120.28	683.96	7178.65	681.94	7298.64	678.99	7635.46	665.24								
7679.85	665.18	7823.15	660.45	8094.84	638.33	8107.89	636.81	8267.96	630.13								
8396.52	629.25	8632.21	633.72	8794.19	632.62	8963.88	625.41	9136.47	622.62								
9270.17	607.42	9286.13	607.27	9369.27	601.21	9525.25	592.12	9578.39	592.12								
9617.34	594.88	9734.86	624.13	9834.65	631.21	10194.16	628.63	10340.07	620.61								
10392.55	613.27	10589.85	611.85	10823.82	624.12	11102.22	622.12	11691.02	619.09								
13047.02	619.09	13270.2	612.12	13843.93	612.12	14282.31	615.15	14341.01	618.18								
14613.61	615.99	14620.08	608.97	14718.97	607.62	15330.05	592.04	15850.28	586.06								
15896.66	581.83	16059.97	577.61	16102.1	573.49	16168.4	567.87	16576.64	567.87								
16650.37	572.94	16721.05	586.06	16810.13	609.47	16829.21	612.06	17068.65	638.94								

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17510.63	644.4117947.81	647.3620068.64	644.8520184.38	644.8520414.89	645.29
20766.36	63921757.04	640.9122015.55	643.9423698.54	646.9724082.58	648.41
24507.58	652.2725160.88	661.8325385.83	663.0326505.12	663.0327143.19	656.06
27418.21	656.0627994.71	653.0328233.43	651.2728405.72	651.1128546.33	648.99
28695.59	649.9528990.87	654.8929313.98	657.7230416.81	681.231083.92	682.75
32056.04	733.832199.34	734.1432819.01	693.7632853.87	693.8434454.37	753.32
35502.18	749.935700.49	750.95 36053.9	768.7336095.54	769.1836403.43	765.56
36736.51	776.15 36895.3	777.8837672.98	79038371.86	792.01 38724.3	800

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.1515850.28	.1516721.05	.15		
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.
15850.28	16721.05	5	5	5	.1
					Expan. .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1497308.00	163004.70	1703683.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1497308.00	163004.70	1703683.00
Q Total (cfs)	6730000.00	Flow (cfs)	3066752.00	496945.90	3166302.00
Top width (ft)	34574.35	Top width (ft)	14546.47	870.77	19157.11
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.05	3.05	1.86
Max Chl Dpth (ft)	192.02	Hydr. Depth (ft)	102.93	187.20	88.93
Conv. Total (cfs)	714476000.0	Conv. (cfs)	325575200.0	52757200.0	336143600.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14559.86	872.84	19166.40
Min Ch El (ft)	567.87	Shear (lb/sq ft)	0.57	1.03	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.17	3.15	0.92
Frctn Loss (ft)	0.00	Cum volume (acre-ft)	137857.90	22984.19	164253.20
C & E Loss (ft)	0.00	Cum SA (acres)	1263.18	112.16	1533.17

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275999.*

INPUT

Description:

Station Elevation Data					
Sta	Elev	Sta	Elev	Sta	Elev
0	800	182.6	793.18	594.08	778.58
1681.28	748.08	1836.24	746.96	2160.28	746.96
3366.87	714.74	3451.31	713.04	3461.78	712.95
3947.07	715.49	4089.11	711.75	4436.29	703.42
5309.84	692.98	5457.28	688.92	5520.72	685.44
6311.11	683.92	6515.14	677.84	6669.44	674.8
6920.32	673.88	7121.98	682.91	7180.37	681.9
7681.69	665.2	7825.02	660.51	8096.77	638.42
8398.53	629.33	8634.27	633.81	8796.29	632.72
9272.38	607.51	9288.36	607.36	9371.51	601.28
9619.64	594.93	9737.19	624.18	9837	631.28
10395.03	613.35	10592.39	611.93	10826.41	624.16
13050.14	619.12	1213273.38	612.16	13847.24	612.16
14617.11	616.05	14623.58	609.04	14722.5	607.68
15900.59	581.84	16064.38	577.63	16106.64	573.51
16655.52	572.94	16726.37	586.08	16815.44	609.46
17515.86	644.38	17953	647.32	20073.6	644.82
20771.24	638.96	21761.81	640.88	22020.29	643.92
24512.06	652.27	25165.28	661.84	25390.21	663.04
27422.36	656.08	27998.8	653.04	28237.5	651.27
28699.61	649.94	28994.86	654.88	29317.93	657.71
32059.69	733.73	32202.98	734.05	32822.58	693.74
35505.46	749.83	35703.75	750.88	36057.12	768.66
36739.66	776.11	36898.43	777.84	37676.03	79038374.84

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.1515854.07	.1516726.37	.15		
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.
15854.07	16726.37	5	5	5	.1
					Expan. .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1497360.00	163281.10	1704019.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1497360.00	163281.10	1704019.00
Q Total (cfs)	6730000.00	Flow (cfs)	3065679.00	497651.70	3166670.00
Top width (ft)	34578.91	Top width (ft)	14550.19	872.30	19156.42
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.05	3.05	1.86
Max Chl Dpth (ft)	192.02	Hydr. Depth (ft)	102.91	187.18	88.95
Conv. Total (cfs)	714645600.0	Conv. (cfs)	325538500.0	52844660.0	336262500.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14563.57	874.37	19165.69
Min Ch El (ft)	567.87	Shear (lb/sq ft)	0.57	1.03	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.17	3.15	0.91
Frctn Loss (ft)	0.00	Cum volume (acre-ft)	137686.00	22965.47	164057.70
C & E Loss (ft)	0.00	Cum SA (acres)	1261.51	112.06	1530.97

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275997.*

INPUT

Description:

Station Elevation Data					
Sta	Elev	Sta	Elev	Sta	Elev

SS_Rev3.rep									
0	800	182.64	793.18	594.22	778.57	1251.89	761.93	1417.38	755.46
1681.68	748.08	1836.68	746.95	2160.8	746.95	2470.21	746.12	3301.22	718.16
3367.68	714.76	3452.13	713.05	3462.6	712.96	3649.22	718.35	3815.7	716.95
3948.02	715.48	4090.08	711.74	4437.36	703.4	4860.59	695.47	5175.57	694.37
5311.11	692.96	5458.59	688.9	5522.04	685.41	5858.17	683.09	6181.99	683.02
6312.62	683.9	6516.7	677.8	6671.04	674.75	6737.06	671.7	6782.51	671.7
6921.97	673.83	7123.69	683.86	7182.08	681.85	7302.13	678.94	7639.11	665.26
7683.53	665.21	7826.9	660.57	8098.71	638.51	8111.77	636.99	8271.92	630.27
8400.54	629.4	8636.34	633.91	8798.4	632.81	8968.17	625.57	9140.84	622.77
9274.6	607.6	9290.58	607.45	9373.75	601.35	9529.81	592.2	9582.97	592.2
9621.94	594.98	9739.52	624.22	9839.35	631.35	10199.04	628.75	10345.74	620.75
10397.52	613.42	10594.92	612	10829	624.21	11107.54	622.21	11696.61	619.15
13053.26	619.15	13276.55	612.21	13850.55	612.21	14292.14	615.25	14347.88	618.3
14620.6	616.11	14627.08	609.11	14726.02	607.74	15337.39	592.09	15857.87	586.1
15904.52	581.85	16068.79	577.64	16111.17	573.51	16177.87	567.86	16586.6	567.86
16660.67	572.94	16731.69	586.11	16820.74	609.46	16839.82	612.05	17079.21	638.87
17521.09	644.34	17958.18	647.28	20078.55	644.75	20194.26	644.75	20424.72	645.2
20776.12	638.93	21766.58	640.85	22025.03	643.92	23707.66	646.95	24091.62	648.4
24516.53	652.27	25169.68	661.85	25394.59	663.05	26513.63	663.05	27151.56	656.1
27426.52	656.1	28002.9	653.05	28241.57	651.28	28413.82	651.11	28554.4	648.96
28703.63	649.92	28998.85	654.87	29321.89	657.71	30424.47	681.14	31091.45	682.7
32063.35	733.63	32206.62	733.96	32826.16	693.72	32861.01	693.83	34461.16	753.15
35508.75	749.76	35707.02	750.82	36060.35	768.59	36101.97	769.05	36409.8	765.47
36742.81	776.06	36901.56	777.83	37679.07	790.38	38377.81	792.03	38730.18	800

Manning's n Values		num= 3	
Sta	n Val	Sta	n Val
0	.1515857.87	.1516731.69	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
15857.87	16731.69	5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1497413.00	163561.90	1704348.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1497413.00	163561.90	1704348.00
Q Total (cfs)	6730000.00	Flow (cfs)	3064616.00	498379.30	3167005.00
Top width (ft)	34583.20	Top width (ft)	14553.75	873.82	19155.63
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.05	3.05	1.86
Max Chl Dpth (ft)	192.03	Hydr. Depth (ft)	102.89	187.18	88.97
Conv. Total (cfs)	714819900.0	Conv. (cfs)	325505000.0	52934840.0	336380100.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14567.11	875.89	19164.89
Min Ch El (ft)	567.86	Shear (lb/sq ft)	0.57	1.03	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.16	3.15	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	137514.10	22946.71	163862.00
C & E Loss (ft)	0.00	Cum SA (acres)	1259.84	111.96	1528.78

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275994.*

INPUT

Description:

Station Elevation Data		num= 120	
Sta	Elev	Sta	Elev
0	800	182.68	793.17
1682.08	748.07	1837.12	746.94
3368.48	714.77	3452.96	713.06
3948.96	715.46	4091.06	711.72
5312.38	692.95	5459.9	688.87
6314.13	683.88	6518.25	677.76
6923.63	673.78	7125.39	683.81
7685.37	665.23	7828.77	660.62
8402.54	629.47	8638.4	634
9276.82	607.69	9292.8	607.54
9624.24	595.03	9741.85	624.27
10400.01	613.51	10597.46	612.07
13056.39	619.18	13279.73	612.24
14624.1	616.15	14630.58	609.16
15908.45	581.87	16073.21	577.66
16665.82	572.93	16737	586.12
17526.32	644.31	17963.36	647.24
20780.99	638.89	21771.36	640.82
24521.01	652.26	25174.09	661.86
27430.68	656.12	28006.99	653.06
28707.65	649.91	29002.84	654.86
32067.01	733.54	32210.26	733.88
35512.03	749.68	35710.28	750.76
36745.96	776.02	36904.7	777.76

Manning's n Values		num= 3	
Sta	n Val	Sta	n Val
0	.1515861.66	.15	16737

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
15861.66	16737	5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1497475.00	163836.50	1704700.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1497475.00	163836.50	1704700.00
Q Total (cfs)	6730000.00	Flow (cfs)	3063554.00	499069.60	3167377.00
Top width (ft)	34587.48	Top width (ft)	14557.29	875.34	19154.85
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.05	3.05	1.86
Max Chl Dpth (ft)	192.03	Hydr. Depth (ft)	102.87	187.17	89.00
Conv. Total (cfs)	715001400.0	Conv. (cfs)	325474800.0	53021610.0	336505000.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14570.65	877.41	19164.09

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Min Ch El (ft)	567.86	Shear (lb/sq ft)	0.57	1.03	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.16	3.15	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	137342.20	22927.92	163666.40
C & E Loss (ft)	0.00	Cum SA (acres)	1258.17	111.86	1526.58

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275991.*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev		
0 800 182.73 793.17 594.5 778.55 1252.49 761.93 1418.06 755.45		
1682.49 748.06 1837.56 746.93 2161.83 746.93 2471.39 746.1 3302.8 718.19		
3369.29 714.79 3453.79 713.07 3464.26 712.98 3650.96 718.34 3817.52 716.93		
3949.9 715.45 4092.04 711.7 4439.48 703.36 4862.92 695.44 5178.04 694.34		
5313.65 692.93 5461.2 688.84 5524.68 685.33 5860.97 683.02 6184.95 682.98		
6315.64 683.86 6519.81 677.72 6674.23 674.65 6740.29 671.58 6785.75 671.58		
6925.28 673.72 7127.1 683.75 7185.52 681.76 7305.62 678.88 7642.77 665.27		
7687.21 665.25 7830.64 660.68 8102.58 638.69 8115.65 637.17 8275.87 630.41		
8404.55 629.55 8640.47 634.1 8802.61 633.01 8972.46 625.72 9145.22 622.92		
9279.04 607.78 9295.02 607.63 9378.24 601.49 9534.37 592.28 9587.56 592.28		
9626.54 595.08 9744.18 624.32 9844.06 631.4910203.92 628.8810350.69 620.88		
10402.5 613.5810599.99 612.1410834.18 624.311112.85 622.2811702.21 619.21		
13059.51 619.21 13282.9 612.2813857.18 612.2814298.98 615.3514354.74 618.42		
14627.6 616.2114634.07 609.2214733.06 607.8615344.72 592.1415865.45 586.14		
15912.38 581.8816077.62 577.6816120.25 573.5316187.34 567.8616596.55 567.86		
16670.97 572.9316742.32 586.1416831.36 609.4616850.43 612.0517089.77 638.8		
17531.55 644.2717968.55 647.220088.46 644.6520204.14 644.6520434.55 645.1		
20785.87 638.8621776.13 640.7922034.52 643.8623716.78 646.9324100.66 648.39		
24525.48 652.2625178.49 661.8725403.35 663.0726522.15 663.0727159.94 656.14		
27434.84 656.1428011.09 653.0728249.71 651.2928421.92 651.128562.47 648.94		
28711.67 649.8929006.82 654.8629329.79 657.6930432.14 681.0831098.97 682.65		
32070.66 733.46 32213.9 733.7932833.31 693.6732868.15 693.7634467.96 752.97		
35515.32 749.6135713.54 750.7 36066.8 768.4536108.41 768.9136416.18 765.37		
36749.11 775.9736907.83 777.7237685.17 79038383.76 792.0438736.05 800		

Manning's n Values	num=	3
Sta n Val Sta n Val		
0 .1515865.45 .1516742.32 .15		

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
15865.4516742.32	5 5 5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1497523.00	164113.20	1705042.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1497523.00	164113.20	1705042.00
Q Total (cfs)	6730000.00	Flow (cfs)	3062480.00	499771.10	3167750.00
Top width (ft)	34591.69	Top width (ft)	14560.76	876.87	19154.06
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.05	3.05	1.86
Max Chl Dpth (ft)	192.03	Hydr. Depth (ft)	102.85	187.16	89.02
Conv. Total (cfs)	715176600.0	Conv. (cfs)	325440400.0	53109150.0	336627100.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14574.11	878.94	19163.28
Min Ch El (ft)	567.86	Shear (lb/sq ft)	0.57	1.03	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.16	3.14	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	137170.30	22909.10	163470.70
C & E Loss (ft)	0.00	Cum SA (acres)	1256.50	111.76	1524.38

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275988.*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev		
0 800 182.77 793.16 594.65 778.53 1252.79 761.92 1418.4 755.44		
1682.89 748.06 1838 746.92 2162.35 746.92 2471.98 746.08 3303.59 718.21		
3370.1 714.8 3454.61 713.08 3465.09 712.99 3651.84 718.33 3818.44 716.92		
3950.85 715.43 4093.02 711.69 4440.54 703.34 4864.08 695.43 5179.28 694.32		
5314.92 692.91 5462.51 688.81 5526 685.3 5862.37 682.99 6186.43 682.95		
6317.15 683.84 6521.37 677.68 6675.83 674.6 6741.9 671.52 6787.38 671.52		
6926.94 673.67 7128.8 683.7 7187.24 681.71 7307.37 678.86 7644.59 665.28		
7689.04 665.27 7832.51 660.74 8104.52 638.78 8117.59 637.26 8277.85 630.48		
8406.56 629.62 8642.53 634.19 8804.71 633.1 8974.61 625.8 9147.4 622.99		
9281.26 607.87 9297.25 607.72 9380.48 601.56 9536.65 592.32 9589.85 592.32		
9628.85 595.13 9746.51 624.36 9846.41 631.5610206.36 628.9410353.17 620.95		
10404.98 613.6510602.52 612.2110836.77 624.3511115.51 622.32 11705 619.24		
13062.63 619.2413286.08 612.3213860.49 612.32 14302.4 615.414358.17 618.48		
14631.1 616.2614637.57 609.2914736.58 607.9215348.39 592.1715869.24 586.16		
15916.31 581.8916082.03 577.716124.79 573.5416192.07 567.8616601.53 567.86		
16676.72 572.9216747.64 586.1616836.67 609.4616855.74 612.0417095.05 638.76		
17536.79 644.2417973.73 647.1520093.42 644.620209.09 644.620439.47 645.05		
20790.75 638.82 21780.9 640.7622039.27 643.8423721.34 646.9224105.18 648.38		
24529.96 652.2625182.89 661.8925407.72 663.08 26526.4 663.0827164.13 656.16		
27439 656.1628015.19 653.0828253.78 651.2928425.98 651.128566.51 648.92		
28715.69 649.8829010.81 654.8529333.75 657.6830435.98 681.0531102.73 682.63		
32074.32 733.3732217.54 733.7132836.88 693.6532871.72 693.7434471.35 752.88		
35518.6 749.54 35716.8 750.6336070.02 768.3836111.63 768.8436419.36 765.32		
36752.26 775.9236910.96 777.6837688.22 79038386.73 792.0538738.98 800		

Manning's n Values	num=	3
Sta n Val Sta n Val		
0 .1515869.24 .1516747.64 .15		

Bank Sta: Left Right Lengths: Left Channel Right SS_Rev3.rep
15869.2416747.64 5 5 5 Coeff Contr. Expan.
.1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1497576.00	164390.50	1705397.00
E.G. Slope (ft/ft)	0.000089	Area (sq ft)	1497576.00	164390.50	1705397.00
Q Total (cfs)	6730000.00	Flow (cfs)	3061383.00	500474.10	3168143.00
Top width (ft)	34596.25	Top width (ft)	14564.48	878.40	19153.36
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.04	3.04	1.86
Max Chl Dpth (ft)	192.03	Hydr. Depth (ft)	102.82	187.15	89.04
Conv. Total (cfs)	715353700.0	Conv. (cfs)	325404400.0	53197020.0	336752300.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14577.82	880.47	19162.57
Min Ch El (ft)	567.86	Shear (lb/sq ft)	0.57	1.03	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.16	3.14	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	136998.50	22890.24	163275.00
C & E Loss (ft)	0.00	Cum SA (acres)	1254.83	111.66	1522.18

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275985.*

INPUT

Description:
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	182.81	793.16	594.79	778.52	1253.09	761.92	1418.74	755.43
1683.29	748.05	1838.44	746.91	2162.87	746.91	2472.57	746.07	3304.38	718.23
3370.9	714.82	3455.44	713.09	3465.92	713.09	3652.71	718.32	3819.35	716.91
3951.79	715.42	4094	711.67	4441.6	703.32	4865.24	695.41	5180.52	694.3
5316.19	692.89	5463.81	688.79	5527.33	685.26	5863.77	682.95	6187.9	682.93
6318.66	683.82	6522.93	677.64	6677.42	674.55	6743.51	671.46	6789	671.46
6928.6	673.62	7130.5	683.65	7188.96	681.67	7309.12	678.83	7646.42	665.28
7690.88	665.28	7834.38	660.79	8106.46	638.86	8119.53	637.34	8279.83	630.55
8408.57	629.69	8644.6	634.29	8806.81	633.2	8976.75	625.88	9149.59	623.07
9283.48	607.96	9299.47	607.81	9382.72	601.63	9538.93	592.36	9592.14	592.36
9631.15	595.18	9748.84	624.41	9848.77	631.63	10208.8	62910355.64	621.02	
10407.47	613.73	10605.06	612.29	10839.36	624.41	11118.16	622.36	11707.8	619.27
13065.75	619.27	13289.25	612.36	13863.8	612.36	14305.82	615.45	14361.61	618.54
14634.59	616.31	14641.07	609.35	14740.11	607.98	15352.06	592.19	15873.04	586.18
15920.24	581.91	16086.45	577.72	16129.33	573.55	16196.81	567.86	16608.51	567.86
16681.27	572.92	16752.95	586.18	16841.97	609.45	16861.04	612.04	17100.33	638.73
17542.02	644.21	17978.92	647.12	20098.37	644.55	20214.03	644.55	20444.39	645
20795.63	638.78	21785.67	640.73	22044.01	643.82	22372.91	646.91	24109.7	648.38
24534.43	652.25	25187.3	661.9	25412.1	663.09	26530.66	663.09	27168.32	656.18
27443.16	656.18	28019.28	653.09	28257.85	651.32	28430.03	651.12	28570.55	648.91
28719.71	649.87	29014.8	654.84	29337.7	657.68	30439.81	681.02	31106.5	682.61
32077.98	733.28	32221.18	733.62	32840.46	693.63	32875.29	693.72	34474.75	752.79
35521.88	749.47	35720.07	750.57	36073.24	768.31	36114.85	768.77	36422.55	765.28
36755.41	775.88	36914.09	777.64	37691.27	790	38389.7	792.05	38741.91	800

Manning's n Values num= 3
Sta n Val Sta n Val
0 .1515873.04 .1516752.95 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
15873.0416752.95 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1497637.00	164663.20	1705737.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1497637.00	164663.20	1705737.00
Q Total (cfs)	6730000.00	Flow (cfs)	3060339.00	501161.70	3168500.00
Top width (ft)	34600.54	Top width (ft)	14568.04	879.91	19152.59
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.04	3.04	1.86
Max Chl Dpth (ft)	192.03	Hydr. Depth (ft)	102.80	187.14	89.06
Conv. Total (cfs)	715530600.0	Conv. (cfs)	325373900.0	53283290.0	336873500.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14581.36	881.98	19161.78
Min Ch El (ft)	567.86	Shear (lb/sq ft)	0.57	1.03	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.16	3.14	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	136826.50	22871.36	163079.20
C & E Loss (ft)	0.00	Cum SA (acres)	1253.16	111.55	1519.98

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275982.*

INPUT

Description:
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	182.86	793.15	594.93	778.51	1253.39	761.92	1419.08	755.42
1683.69	748.05	1838.88	746.9	2163.38	746.9	2473.16	746.06	3305.17	718.24
3371.71	714.83	3456.26	713.1	3466.75	713.01	3653.58	718.32	3820.26	716.9
3952.74	715.41	4094.98	711.65	4442.66	703.3	4866.4	695.4	5181.76	694.28
5317.46	692.87	5465.12	688.76	5528.65	685.22	5865.17	682.92	6189.38	682.91
6320.17	683.8	6524.49	677.6	6679.02	674.5	6745.12	671.4	6790.62	671.4
6930.25	673.56	7132.21	683.59	7190.67	681.62	7310.86	678.8	7648.25	665.29
7692.72	665.3	7836.26	660.85	8108.4	638.95	8121.47	637.43	8281.81	630.63
8410.58	629.76	8646.67	634.38	8808.92	633.3	8978.9	625.96	9151.78	623.14
9285.69	608.05	9301.69	607.9	9384.96	601.7	9541.21	592.4	9594.43	592.4
9633.45	595.23	9751.17	624.46	9851.12	631.71	10211.24	629.06	10358.12	621.09
10409.96	613.81	10607.59	612.36	10841.95	624.44	11120.82	622.4	11710.6	619.3
13068.87	619.31	3292.43	612.43	3867.12	612.41	4309.24	615.51	4365.04	618.6

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SS_Rev3.rep									
14638.09	616.3614644.57	609.4117473.63	608.0515355.73	592.2215876.83	586.2				
15924.17	581.9116090.86	577.7316133.86	573.5516201.54	567.8616611.49	567.86				
16686.43	572.9116758.27	586.216847.28	609.4516866.35	612.0417105.61	638.69				
17547.25	644.17 17984.1	647.0720103.32	644.520218.97	644.520449.31	644.95				
20800.51	638.7521790.44	640.722048.75	643.823730.47	646.924114.22	648.37				
24538.9	652.25 25191.7	661.9125416.48	663.126534.92	663.127172.51	656.2				
27447.32	656.228023.38	653.128261.92	651.328434.08	651.128574.58	648.9				
28723.73	649.8529018.79	654.8429341.66	657.6730443.65	680.9931110.26	682.58				
32081.63	733.232224.82	733.5432844.03	693.6132878.86	693.734478.15	752.71				
35525.17	749.435723.33	750.5136076.47	768.2436118.07	768.736425.74	765.23				
36758.56	775.8336917.23	777.637694.32	79038392.68	792.0638744.85	800				
Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.1515876.83		.1516758.27		.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
15876.8316758.27 5 5 5 .1 .3									
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1497739.00	164942.30	1706060.00				
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1497739.00	164942.30	1706060.00				
Q Total (cfs)	6730000.00	Flow (cfs)	3059286.00	501878.10	3168836.00				
Top width (ft)	34604.83	Top width (ft)	14571.59	881.44	19151.80				
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.04	3.04	1.86				
Max Chl Dpth (ft)	192.03	Hydr. Depth (ft)	102.76	187.12	89.10				
Conv. Total (cfs)	715700200.0	Conv. (cfs)	325339000.0	53372110.0	336989100.0				
Length wtd. (ft)	5.00	Wetted Per. (ft)	14584.90	883.52	19160.97				
Min Ch El (ft)	567.86	Shear (lb/sq ft)	0.57	1.03	0.49				
Alpha	1.06	Stream Power (lb/ft s)	1.16	3.13	0.91				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	136654.60	22852.44	162883.40				
C & E Loss (ft)	0.00	Cum SA (acres)	1251.49	111.45	1517.78				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275979.*

INPUT

Description:

Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	182.9	793.15	595.07	778.5	1253.69	761.91	1419.42	755.41
1684.1	748.04	1839.32	746.89	2163.9	746.89	2473.75	746.05	3305.96	718.26
3372.51	714.85	3457.09	713.11	3467.57	713.02	3654.46	718.31	3821.17	716.89
3953.68	715.39	4095.95	711.63	4443.72	703.28	4867.57	695.38	5183	694.26
5318.73	692.85	5466.42	688.73	5529.97	685.19	5866.57	682.89	6190.86	682.89
6321.68	683.78	6526.05	677.56	6680.61	674.45	6746.73	671.34	6792.24	671.34
6931.91	673.51	7133.91	683.54	7192.39	681.58	7312.61	678.78	7650.07	665.3
7694.56	665.32	7838.13	660.91	8110.33	639.04	8123.41	637.52	8283.79	630.7
8412.59	629.84	8648.73	634.48	8811.02	633.39	8981.04	626.04	9153.96	623.21
9287.91	608.14	9303.91	607.99	9387.21	601.77	9543.49	592.44	9596.73	592.44
9635.75	595.28	9753.5	624.5	9853.47	631.77	10213.68	629.12	10360.59	621.15
10412.44	613.88	10610.13	612.43	10844.54	624.49	11123.48	622.44	11713.4	619.33
13072	619.33	13295.61	612.44	13870.43	612.44	14312.65	615.55	14368.47	618.66
14641.59	616.42	14648.07	609.47	14747.15	608.11	15359.4	592.24	15880.62	586.22
15928.1	581.92	16095.27	577.75	16138.4	573.56	16206.27	567.86	16616.47	567.86
16691.58	572.91	16763.59	586.22	16852.59	609.45	16871.65	612.03	17110.88	638.65
17552.48	644.13	17989.29	647.03	20108.28	644.45	20223.91	644.45	20454.22	644.91
20805.39	638.71	212195.21	640.67	22053.5	643.78	23735.03	646.89	24118.74	648.37
24543.38	652.25	25196.1	661.92	25420.86	663.11	26539.18	663.11	27176.7	656.22
27451.48	656.22	28027.48	653.11	28265.99	651.32	28438.13	651.12	28578.62	648.89
28727.75	649.84	29022.78	654.83	29345.61	657.66	30447.48	680.97	31114.02	682.56
32085.29	733.11	32228.47	733.45	32847.61	693.59	32882.43	693.68	334481.54	752.62
35528.45	749.33	35726.59	750.44	36079.69	768.17	36121.29	768.63	36428.92	765.18
36761.71	775.79	36920.36	777.56	37697.37	79038395.65		792.07	38747.79	800

Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.1515880.62		.1516763.59		.15				

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15880.6216763.59 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.89	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1497739.00	165218.90	1706396.00				
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1497739.00	165218.90	1706396.00				
Q Total (cfs)	6730000.00	Flow (cfs)	3058218.00	502581.30	3169201.00				
Top width (ft)	34609.39	Top width (ft)	14575.31	882.97	19151.11				
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.04	3.04	1.86				
Max Chl Dpth (ft)	192.03	Hydr. Depth (ft)	102.76	187.12	89.10				
Conv. Total (cfs)	715870600.0	Conv. (cfs)	325302900.0	53459600.0	337108100.0				
Length wtd. (ft)	5.00	Wetted Per. (ft)	14588.62	885.05	19160.26				
Min Ch El (ft)	567.86	Shear (lb/sq ft)	0.57	1.03	0.49				
Alpha	1.06	Stream Power (lb/ft s)	1.16	3.13	0.91				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	136482.70	22833.49	162687.50				
C & E Loss (ft)	0.00	Cum SA (acres)	1249.81	111.35	1515.58				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275976.*

INPUT

Description:			Station Elevation Data			num= 120		
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	
0	800	182.94	793.14	595.21	778.48	1253.99	761.91	
1684.5	748.03	1839.75	746.88	2164.42	746.88	2474.34	746.03	
3373.32	714.87	1837.91	713.12	3468.4	713.03	3655.33	718.31	
3954.63	715.38	4096.93	711.62	4444.79	703.26	4867.98	695.37	
5320	692.83	5467.73	688.71	5531.29	685.15	5867.98	682.85	
6323.19	683.76	6527.61	677.52	6682.21	674.4	6748.34	671.28	
6933.56	673.46	7135.62	683.49	7194.11	681.53	7314.36	678.75	
7696.39	665.33	7840	660.96	8112.27	639.13	8125.35	637.61	
8414.6	629.91	8650.8	634.57	8813.13	633.49	8983.19	626.11	
9290.13	608.23	9306.13	608.08	9389.45	601.84	9545.77	592.48	
9638.05	595.33	9755.83	624.55	9855.83	631.84	10126.12	629.19	
10414.93	638.96	10612.64	612.51	10847.77	624.34	11126.13	624.48	
13075.32	613.31	13277.78	612.81	13870.74	612.48	14313.07	615.6	
16465.08	616.47	14651.57	609.54	15147.50	608.17	151363.07	592.17	
1932.03	581.94	16099.69	577.77	161642.94	573.57	161261.01	567.86	
16696.73	572.91	16768.9	586.24	16857.9	609.45	16876.96	612.03	
17557.71	644.11	17994.47	646.99	20113.23	644.42	20228.58	644.42	
20810.27	638.67	211799.99	640.64	22058.24	643.76	23739.59	646.88	
24547.85	652.24	242500.51	661.93	25425.24	663.12	26543.44	663.12	
27455.63	656.24	248031.57	653.12	228270.06	651.31	228462.19	651.12	
28731.78	649.82	92026.77	654.82	229345.56	657.65	30451.31	680.94	
32088.95	733.02	32232.11	733.37	32381.18	693.57	32886	693.66	
35531.73	749.25	355729.85	750.38	36082.92	768.13	36124.51	768.56	
36764.86	775.74	363923.49	777.52	337700.42	79038398.62		792.07	

CROSS SECTION OUTPUT Profile #PF 1

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275973.*

Description:			Station Elevation Data			num= 120			Station Elevation Data			Station Elevation Data		
Sta	Elev		Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
	0	800	182.99	793.14	595.36	778.47	1254.29	761.91	1420.09	755.4				
1684.9		748.03	1840.19	746.87	2164.93	746.87	2474.93	746.02	3307.54	718.29				
3374.12		714.88	3458.74	713.13	3469.23	713.04	3656.2	718.3	3823	716.87				
3955.57		715.36	4097.91	711.6	4445.85	703.24	4869.89	695.35	5185.47	694.23				
5321.27		692.81	5469.04	688.68	5532.61	685.11	5869.38	682.82	6193.82	682.84				
6324.7		683.74	6529.17	677.48	6863.8	674.35	6749.95	671.22	6795.49	671.22				
6935.22		673.4	7137.32	683.44	7195.83	681.48	7316.1	678.72	7653.73	665.31				
7498.23		665.35	7841.87	661.02	8114.21	639.22	8127.29	637.7	8287.75	630.84				
8416.61		629.98	8652.86	634.67	8815.23	639.59	8985.33	626.19	9158.33	623.36				
9292.35		608.33	9308.36	608.17	9391.69	601.91	9548.05	592.52	9601.31	592.52				
9640.35		595.37	9758.16	624.6	9858.18	631.91	101218.56	629.25	10365.54	621.29				
10417.2		614.04	10615.2	610.58	10849.97	624.58	11126.79	622.52	11718.99	618.79				
13078.6		519.39	13301.96	612.51	13877.05	612.52	14319.49	615.65	14375.33	619.37				
14648.58		581.95	15101.1	602.58	14754.2	601.58	15136.68	597.82	15889.25	618.79				
1593.96		581.95	16101.1	577.7	791614.48	73.58	16215.74	567.86	16626.43	567.86				
16701.88		572.9	16774.22	586.26	16863.2	609.45	16882.27	612.03	17121.44	638.58				
17562.94		644.06	17999.65	646.95	182118.19	644.35	20233.8	644.35	20464.06	644.81				
20885.15		638.64	242180.76	640.61	210262.98	643.74	242374.15	646.87	24127.78	648.36				
24552.32		652.24	252504.91	661.94	25429.62	651.33	26547.69	663.13	27185.07	656.26				
27459.79		656.26	28038.65	653.13	328274.13	653.13	328446.24	651.1	28586.7	648.86				
28735.79		649.81	292030.36	654.82	293533.52	657.65	30455.15	680.93	31121.54	682.51				
32092.61		732.94	323225.75	733.28	328354.57	693.55	332889.57	693.63	34488.34	752.44				
35535.02		749.18	335733.11	750.32	336086.14	768.03	336217.73	768.5	36435.3	765.08				
36768.01		775.73	36926.62	777.48	37703.46	790.39	38401.6	792.08	38375.36	800				

CROSS SECTION OUTPUT Profile #PF 1

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Max Chl Dpth (ft)	192.02	Hydr. Depth (ft)	102.72	187.09	89.15
Conv. Total (cfs)	716225700.0	Conv. (cfs)	325237900.0	53633190.0	337354600.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14595.61	888.09	19158.67
Min Chl El (ft)	567.86	Shear (lb/sq ft)	0.57	1.03	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.15	3.13	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	136138.90	22795.50	162295.70
C & E Loss (ft)	0.00	Cum SA (acres)	1246.47	111.15	1511.19

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275970.*

INPUT
Description:

[illegible]

Manning's n Values		num= 3							
Sta	n Val	Sta	n Val	Sta	n Val				
0	.15	15892	.1516779	54	.15				
Bank Sta:	Left	Right	Lengths: Left Channel		Right	Coeff	Contr.	Expan.	
	15892	16779	54	5	5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1497895.00	166050.00	1707442.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1497895.00	166050.00	1707442.00
Q Total (cfs)	6730000.00	Flow (cfs)	3054992.00	504686.20	3170322.00
Top width (ft)	34622.27	Top width (ft)	14585.88	887.54	19148.86
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.04	3.04	1.86
Max Chl Dpth (ft)	192.03	Hydr. Depth (ft)	102.69	187.09	89.17
Conv. Total (cfs)	716405900.0	Conv. (cfs)	325202700.0	53723650.0	337479500.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14599.16	889.62	19157.96
Min Ch El (ft)	567.85	Shear (lb/sq ft)	0.57	1.03	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.15	3.13	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	135967.00	22776.46	162099.80
C & E Loss (ft)	0.00	Cum SA (acres)	1244.79	111.05	1508.99

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275967.*

INPUT
Description:

Station Elevation Data			num= 120						
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	183.08	793.13	595.64	778.45	1254.89	761.9	1420.77	755.38
1685.7	748.01	1841.07	746.85	2165.97	746.85	2476.12	746	3309.12	718.33
3375.73	714.91	3460.39	713.15	3470.89	713.06	3657.95	718.29	3824.82	716.88
3957.46	715.33	4099.87	711.57	4447.97	703.2	4872.22	695.32	5187.95	694.19
5323.81	692.78	5471.65	688.62	5535.25	685.04	5872.18	682.75	6196.78	682.79
6327.72	683.7	6532.28	677.4	6686.99	674.25	6753.18	671.1	6798.73	671.1
6938.53	673.3	7140.73	683.33	7199.26	681.39	7319.6	678.67	7657.38	665.32
7701.71	670.1	7737.65	661.1	8188.08	639.3	813.1	637.87	8291.78	637.87
8426.63	630.33	8656.99	633.8	8618.81	633.8	8899.62	615.5	9162.71	623.51
9296.79	608.51	9312.81	608.35	9396.17	602.05	9552.6	592.6	9605.89	592.6
9644.96	595.47	9762.8	624.69	9862.89	632.05	10223.44	629.37	10370.49	621.43
10422.39	614.19	10620.26	612.72	10854.9	624.68	11134.1	622.61	11724.59	619.45
13084.49	619.45	13308.31	612.6	13883.68	612.6	14326.33	615.75	14382.2	618.9
14655.57	616.63	14662.06	609.72	14761.24	608.35	15374.07	592.35	15895.79	586.3
15943.82	581.97	16112.92	577.82	16156.55	573.6	16125.25	567.85	16636.38	567.85
16752.18	572.89	16784.86	586.36	16873.82	609.44	16892.88	612.02	17132	638.51
17573.41	643.99	18010.02	646.86	20101.28	644.25	20243.68	644.25	202473.89	644.25
20824.91	638.57	21814.3	640.6	25202.48	643.72	25553.28	646.85	24136.82	648.35
24561.27	652.23	25213.72	661.97	25438.38	663.15	26756.21	663.15	27193.45	656.83
25111.11	649.78	26048.66	652.82	28829.27	651.3	32845.34	651.09	35853.77	648.83
28743.84	649.78	29038.33	654.8	829361.43	657.63	10462.82	680.85	13129.07	682.46
32099.92	732.76	32342.31	733.11	32861.9	693.51	32896.71	693.59	39445.95	752.27
35541.59	749.04	35739.64	750.19	396092.59	767.89	386134.17	768.36	36441.67	764.99
36774.31	775.63	36932.89	777.43	43770.99	790.38	4307.54	792.09	38759.52	800.9

Manning's n Values num= 3

SS_Rev3.rep									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.1515895.79		.1516784.86		.15				
Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15895.79	16784.86		5	5	5	.1		.3
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)		759.95	Element		Left OB	Channel		Right OB	
Vel Head (ft)		0.07	wt. n-Val.		0.150	0.150		0.150	
W.S. Elev (ft)		759.88	Reach Len. (ft)		5.00	5.00		5.00	
Crit W.S. (ft)			Flow Area (sq ft)		1497951.00	166327.30		1707780.00	
E.G. Slope (ft/ft)		0.000088	Area (sq ft)		1497951.00	166327.30		1707780.00	
Q Total (cfs)		6730000.00	Flow (cfs)		3053925.00	505388.30		3170687.00	
Top Width (ft)		34626.75	Top Width (ft)		14589.60	889.07		19148.08	
Vel Total (ft/s)		2.00	Avg. Vel. (ft/s)		2.04	3.04		1.86	
Max Chl Dpth (ft)		192.03	Hydr. Depth (ft)		102.67	187.08		89.19	
Conv. Total (cfs)		716579800.0	Conv. (cfs)		325168100.0	53811450.0		337600400.0	
Length wtd. (ft)		5.00	wetted Per. (ft)		14602.87	891.15		19157.17	
Min Ch El (ft)		567.85	Shear (lb/sq ft)		0.56	1.03		0.49	
Alpha		1.06	Stream Power (lb/ft s)		1.15	3.12		0.91	
Frctn Loss (ft)		0.00	Cum Volume (acre-ft)		135795.00	22757.38		161903.80	
C & E Loss (ft)		0.00	Cum SA (acres)		1243.12	110.95		1506.79	

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275964.*

INPUT

Description:

Station Elevation Data num= 120									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	183.12	793.13	595.78	778.44	1255.19	761.9	1421.11	755.38
1686.11	748.01	1841.51	746.84	2166.48	746.84	2476.71	745.98	3309.91	718.35
3376.54	714.93	3461.22	713.16	3471.71	713.07	3658.82	718.29	3825.74	716.84
3958.4	715.32	4100.85	711.55	4449.03	703.18	4873.38	695.31	5189.19	694.17
5325.08	692.76	5472.95	688.6	5536.57	685.01	5873.58	682.72	6198.25	682.77
6329.23	683.68	6533.84	677.36	6688.59	674.2	6754.79	671.04	6800.35	671.04
6940.18	673.25	7142.43	683.28	7200.98	681.35	7321.34	678.64	7659.21	665.33
7703.75	665.4	7847.49	661.19	8120.02	639.48	8133.11	637.96	8293.68	631.06
8422.64	630.2	8659.06	634.95	8821.55	633.88	8991.77	626.43	9164.89	623.59
9299	608.6	9315.02	608.44	9398.42	602.12	9554.88	592.64	9608.19	592.64
9647.26	595.52	9765.14	624.74	9865.24	632.12	10225.88	629.43	10372.96	621.49
10424.88	614.27	10622.8	612.79	10857.49	624.72	11136.76	622.64	11727.39	619.48
13087.61	619.48	13311.48	612.64	13886.99	612.64	14329.75	615.81	14385.63	618.96
14659.07	616.68	14665.56	609.79	14764.76	608.41	15377.74	592.37	15899.59	586.32
15947.75	581.98	16117.34	577.84	16161.09	573.61	16229.94	567.85	16661.36	567.85
16717.33	572.89	16790.17	586.32	16879.12	609.44	16898.18	612.02	17137.28	638.47
17578.64	643.96	18015.21	646.82	20133.05	644.22	20248.62	644.22	20478.81	644.66
20829.79	638.53	21819.07	640.52	22077.22	643.68	23757.84	646.84	24141.34	648.34
24565.75	652.23	25218.12	661.98	25442.76	663.16	26560.47	663.16	27197.64	656.32
27472.27	666.32	28047.96	651.62	28286.34	651.32	28458.39	651.09	28598.8	648.82
28747.86	649.77	29042.72	654.79	29365.38	657.62	30466.65	680.82	31132.83	682.44
32103.58	732.68	32246.67	733.03	32865.48	693.49	32900.28	693.57	33449.53	752.18
35544.87	748.97	35742.9	750.13	36095.81	767.82	36137.39	768.29	36444.86	764.94
36777.46	775.56	36936.02	777.36	37712.61	790.38	38410.52	792.13	38762.46	800

Manning's n Values num= 3									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.1515899.59		.1516790.17		.15				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
15899.59	16790.17	5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498002.00	166600.20	1708117.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1498002.00	166600.20	1708117.00
Q Total (cfs)	6730000.00	Flow (cfs)	3052875.00	506076.40	3171048.00
Top Width (ft)	34630.96	Top Width (ft)	14593.08	890.58	19147.30
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.04	3.04	1.86
Max Chl Dpth (ft)	192.03	Hydr. Depth (ft)	102.65	187.07	89.21
Conv. Total (cfs)	716753300.0	Conv. (cfs)	325134900.0	53897760.0	337720500.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14606.33	892.67	19156.38
Min Ch El (ft)	567.85	Shear (lb/sq ft)	0.56	1.03	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.15	3.12	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	135623.10	22738.27	161707.70
C & E Loss (ft)	0.00	Cum SA (acres)	1241.44	110.84	1504.59

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275962.*

INPUT

Description:

Station Elevation Data num= 120									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	183.16	793.12	595.93	778.42	1255.48	761.9	1421.45	755.37
1686.51	748.18	1841.95	746.83	2167	746.83	2477.3	745.97	3310.7	718.36
3377.35	714.94	3462.04	713.17	3472.54	713.08	3659.69	718.28	3826.65	716.83
3959.35	715.3	4101.82	711.53	4450.09	703.17	4874.54	695.29	5190.42	694.15
5326.35	692.74	5474.26	688.57	5537.89	684.97	5874.98	682.69	6199.73	682.75
6330.74	683.66	6535.4	677.32	6690.19	674.15	6756.4	670.98	6801.98	670.98
6941.84	673.19	7144.13	683.22	7202.7	681.3	7323.09	678.61	7661.04	665.34
7705.58	665.42	7849.36	661.25	8121.96	639.57	8135.05	638.05	8295.66	631.13
8424.65	630.27	8661.12	635.05	8823.65	633.97	8993.92	626.51	9167.08	623.66
9301.22	608.69	9317.25	608.53	9400.66	602.19	9557.16	592.68	9610.48	592.68

9649.56	595.57	9767.47	624.78	9867.59	632.1910228.32	629.4910375.44	621.56
10427.37	614.3410625.33	612.8610860.08	624.7711139.42	622.6811730.18	619.51		
13090.73	619.5113314.66	612.6813890.31	612.6814333.17	615.8514389.06	619.02		
14662.57	616.7314669.06	609.8514768.29	608.4715381.41	592.415903.38	586.34		
15951.68	581.9916121.75	577.8616165.63	573.6216234.68	567.8516646.34	567.85		
16722.49	572.8916795.49	586.3416884.43	609.4416903.49	612.0217142.56	638.43		
17583.87	643.9218020.39	646.7820138.01	644.1520253.56	644.1520483.73	644.61		
20834.66	638.4921823.85	640.4922081.96	643.66 23762.4	646.8324145.86	648.33		
24570.22	652.2325222.52	661.9925447.14	663.1726564.72	663.1727201.83	656.34		
27476.43	656.3428052.06	653.1728290.41	651.3328462.45	651.0928602.84	648.81		
28751.88	649.7529046.71	654.7929369.33	657.6230470.49	680.7931136.59	682.41		
32107.23	732.5932250.31	732.9432869.05	693.4732903.85	693.5534501.93	752.09		
35548.15	748.935746.16	750.0736099.04	767.7536140.61	768.2236448.04	764.89		
36780.61	775.5136939.16	777.3237715.66	79038413.49	792.1138765.39	800		

Manning's n values		num= 3					
Sta	n Val	Sta	n Val				
0	.1515903.38		.1516795.49		.15		
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.	
15903.38	16795.49	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498059.00	166876.60	1708464.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1498059.00	166876.60	1708464.00
Q Total (cfs)	6730000.00	Flow (cfs)	3051814.00	506770.40	3171417.00
Top Width (ft)	34635.27	Top Width (ft)	14596.63	892.11	19146.53
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)	2.04	3.04	1.86
Max Chl Dpth (ft)	192.03	Hydr. Depth (ft)	102.63	187.06	89.23
Conv. Total (cfs)	716932600.0	Conv. (cfs)	325103200.0	53985180.0	337844300.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14609.87	894.20	19155.58
Min Ch El (ft)	567.85	Shear (lb/sq ft)	0.56	1.03	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.15	3.12	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	135451.10	22719.13	161511.60
C & E Loss (ft)	0.00	Cum SA (acres)	1239.77	110.74	1502.40

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275959.*

INPUT

Description:

Station Elevation Data		num=	120		
Sta	Elev	Sta	Elev	Sta	Elev
0	800 183.21	793.12	596.07	778.41	1255.78
1686.91	748 1842.39	746.82	2167.52	745.96	3311.49
3378.15	714.96 3462.87	713.18	3473.37	718.28	3827.56
3960.29	715.29 4102.8	711.52	4451.15	703.15	4875.7
5327.62	692.72 5475.56	688.54	5539.21	684.93	5876.38
6332.25	683.64 6536.96	677.28	6691.78	674.1	6758.01
6943.5	673.14 7145.84	683.17	7204.42	681.25	7324.83
7707.42	665.44 7851.23	661.3	8123.89	639.66	8136.99
8426.66	630.35 8663.19	635.14	8825.75	634.07	8996.06
9303.44	608.78 9319.47	608.62	9402.9	602.26	9559.44
9651.86	595.62 9769.8	624.83	9869.95	632.2610230.75	
10429.85	614.4210627.87	612.9410862.67		624.8211142.07	
13093.85	619.5413317.83	612.7213893.62		612.7214336.58	
14666.07	616.7914672.56	609.9114771.81		608.5315385.08	
15955.61	582.0116126.17	577.8816170.17		573.6316239.41	
16727.64	572.8816800.81	586.3616889.74		609.4416908.79	
17589.1	643.8918025.57	646.7420142.96		644.120258.51	
20839.54	638.4621828.62	640.46 22086.7		643.6423766.96	
24574.7	652.2225226.93	66225451.52		663.1826568.98	
27480.59	656.3628056.15	653.1828294.49		651.33 28466.5	
28755.9	649.74 29050.7	654.7829373.29		657.6130474.32	
32110.89	732.532253.96	732.8532872.62		693.4532907.43	
35551.44	748.8335749.43	75036102.26		767.6836143.83	
36783.76	775.4736942.29	777.2837718.71		79038416.46	

Manning's n Values		num=	3		
Sta	n Val	Sta	n Val		
0	.1515907.17	.1516800.81	.15		
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.
15907.17	16800.81	5	5	5	.1
					Expan
					.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498108.00	167152.60	1708802.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1498108.00	167152.60	1708802.00
Q Total (cfs)	6730000.00	Flow (cfs)	3050740.00	507468.80	3171791.00
Top Width (ft)	34639.83	Top Width (ft)	14600.35	893.64	19145.84
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.04	3.04	1.86
Max Chl Dpth (ft)	192.03	Hydr. Depth (ft)	102.61	187.05	89.25
Conv. Total (cfs)	717101900.0	Conv. (cfs)	325065600.0	54072330.0	337963900.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14613.59	895.73	19154.88
Min Ch El (ft)	567.85	Shear (lb/sq ft)	0.56	1.03	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.15	3.12	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	135279.20	22699.96	161315.50
C & E Loss (ft)	0.00	Cum SA (acres)	1238.09	110.64	1500.20

CROSS SECTION

RIVER: BRAZOS

REACH: UPPER BRAZOS

RS: 275956.*

SS_Rev3.rep

INPUT

Description:

Station Elevation Data			num= 120											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta
0	800	183.25	793.11	596.21	778.4	1256.08	761.89	1422.13	755.35					
1687.31	747.99	1842.83	746.81	2168.03	746.81	2478.48	745.94	3312.28	718.4					
3378.96	714.98	3463.69	713.19	3474.2	713.1	3661.44	718.27	3828.47	716.81					
3961.24	715.27	4103.78	711.5	4452.21	703.13	4876.87	695.26	5192.9	694.11					
5328.89	692.7	5476.87	688.51	5540.53	684.9	5877.78	682.62	6202.69	682.7					
6333.76	683.62	6538.52	677.24	6693.38	674.05	6759.62	670.86	6805.22	670.86					
6945.15	673.09	7147.54	683.12	7206.14	681.21	7326.58	678.56	7664.69	665.35					
7709.26	665.45	7853.1	661.36	8125.83	639.75	8138.93	638.23	8299.62	631.27					
8428.67	630.42	8665.26	635.24	8827.86	634.17	8998.21	626.66	9171.45	623.81					
9305.66	608.87	9321.69	608.71	9405.14	602.33	9561.72	592.76	9615.06	592.76					
9654.16	595.67	9772.13	624.88	9872.3	632.33	10233.19	629.62	10380.39	621.7					
10432.34	614.5	10630.4	613.01	10865.26	624.86	11144.73	622.76	11735.78	619.57					
13096.97	619.57	13321.01	612.76	13896.93	612.76	14340	615.95	14395.92	619.14					
14669.56	616.84	14676.06	609.97	14775.33	608.59	15388.75	592.45	15910.97	586.38					
15959.54	582.02	16130.58	577.89	16174.71	573.64	16244.15	567.85	16656.3	567.85					
16732.79	572.88	16806.12	586.38	16895.05	609.44	16914.1	612.01	17153.12	638.36					
17594.33	643.85	18030.76	646.69	20147.92	644.05	20263.45	644.05	20493.56	644.52					
20844.42	638.42	22183.39	640.43	22091.45	643.62	23771.52	646.81	24154.9	648.32					
24579.17	652.22	25231.33	662.01	25455.89	663.19	26573.24	663.19	27210.21	656.38					
27484.75	656.38	28060.25	653.19	28298.56	651.34	28470.55	651.09	28610.92	648.78					
28759.92	649.72	29054.69	634.77	29377.24	657.63	30478.16	680.73	31144.12	682.37					
32114.55	732.42	32257.6	732.77	32876.2	693.43	32911	693.51	34508.72	751.91					
3554.72	748.75	35752.69	749.94	36105.48	767.61	36147.05	768.08	36454.41	764.8					
36786.91	775.42	36945.43	777.24	37721.76	790.38	38419.44	792.12	38771.27	800					

Manning's n Values			num= 3		
Sta	n Val	Sta	n Val	Sta	n Val
0	.15	15910.97	.15	16806.12	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15910.97	16806.12		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498162.00	167426.20	1709163.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1498162.00	167426.20	1709163.00
Q Total (cfs)	6730000.00	Flow (cfs)	3049657.00	508153.80	3172189.00
Top Width (ft)	34644.12	Top Width (ft)	14603.90	895.15	19145.07
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.04	3.04	1.86
Max Chl Dpth (ft)	192.03	Hydr. Depth (ft)	102.59	187.04	89.27
Conv. Total (cfs)	717284000.0	Conv. (cfs)	325032700.0	54159080.0	338092200.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14617.13	897.24	19154.09
Min Ch El (ft)	567.85	Shear (lb/sq ft)	0.56	1.03	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.15	3.11	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	135107.20	22680.76	161119.30
C & E Loss (ft)	0.00	Cum SA (acres)	1236.42	110.54	1498.00

CROSS SECTION

RIVER: BRAZOS

REACH: UPPER BRAZOS

RS: 275953.*

INPUT

Description:

Station Elevation Data			num= 120											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta
0	800	183.29	793.11	596.35	778.39	1256.38	761.89	1422.47	755.34					
1687.72	747.98	1843.27	746.8	2168.55	746.8	2479.07	745.93	3313.07	718.41					
3379.76	714.99	3464.52	713.2	3475.03	713.11	3662.31	718.27	3829.39	716.8					
3962.18	715.26	4104.76	711.48	4453.28	703.11	4878.03	695.25	5194.14	694.1					
5330.16	692.68	5478.17	688.49	5541.85	684.86	5879.18	682.59	6204.17	682.68					
6335.27	683.6	6540.08	677.2	6694.97	674	6761.23	670.8	6806.84	670.8					
6946.81	673.03	7149.25	683.06	7207.85	681.16	7328.33	678.53	7666.52	665.36					
7711.1	665.47	7854.98	661.42	8127.77	639.84	8140.87	638.32	8301.59	631.34					
8430.67	630.49	8667.32	635.33	8829.96	634.26	9000.35	626.74	9173.64	623.89					
9307.88	608.96	9323.91	608.8	9407.38	602.4	9564	592.8	9617.36	592.8					
9656.46	595.72	9774.46	624.92	9874.66	632.41	10235.63	629.68	10382.86	621.77					
10434.83	614.57	10632.93	613.08	10867.85	624.91	11147.39	622.81	11738.58	619.6					
13100.1	619.61	13324.19	612.81	13900.24	612.81	14343.42	616.14	14399.36	619.2					
14673.06	616.89	14679.56	610.04	14778.85	608.65	15392.42	592.48	15914.76	586.4					
15963.47	582.03	16134.99	577.91	16179.24	573.65	16248.88	567.85	16661.28	567.85					
16737.94	572.87	16811.44	586.41	16900.35	609.44	16919.4	612.01	17158.4	638.32					
17599.56	643.82	18035.94	646.65	20152.87	644.05	20268.39	644.05	20498.48	644.47					
20849.3	638.38	21838.16	640.42	22096.19	643.62	23776.08	646.82	24159.42	648.32					
24583.64	652.22	25235.73	662.03	25460.27	663.2	26577.5	663.22	27214.39	656.4					
27488.91	656.42	28064.35	653.22	28302.63	651.34	28474.6	651.08	28614.95	648.77					
28763.94	649.71	29058.68	654.77	29381.19	657.59	30481.99	680.73	31147.88	682.34					
32118.2	732.33	32261.24	732.68	32879.77	693.41	32914.57	693.49	34512.12	751.83					
35558	748.68	35755.95	749.88	36108.71	767.54	36150.27	768.01	36457.6	764.75					
36790.06	775.38	36948.56	777.23	37724.81	790.38	38422.41	792.13	38774.2	800					

Manning's n Values			num= 3		
Sta	n Val	Sta	n Val	Sta	n Val
0	.15	15914.76	.15	16811.44	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15914.76	16811.44		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498213.00	167703.30	1709491.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1498213.00	167703.30	1709491.00

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Q Total (cfs)	6730000.00	Flow (cfs)	3048610.00	508855.30	3172535.00
Top width (ft)	34648.42	Top width (ft)	14607.45	896.68	19144.29
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.03	3.03	1.86
Max Chl Dpth (ft)	192.03	Hydr. Depth (ft)	102.57	187.03	89.30
Conv. Total (cfs)	717455600.0	Conv. (cfs)	324998800.0	54246820.0	338210000.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14620.66	898.77	19153.29
Min Ch El (ft)	567.85	Shear (lb/sq ft)	0.56	1.03	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.15	3.11	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	134935.20	22661.53	160923.10
C & E Loss (ft)	0.00	Cum SA (acres)	1234.74	110.43	1495.80

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275950.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev
0	800	183.34	793.1	596.49	778.37	1256.68	761.89	1422.81	755.34
1688.12	747.98	1843.71	746.79	2169.07	746.79	2479.66	745.92	3313.85	718.43
3380.57	715.01	3465.35	713.21	3475.86	713.12	3663.18	718.26	3830.3	716.79
3963.13	715.24	4105.74	711.47	4454.34	703.09	4879.19	695.24	5195.38	694.08
5331.43	692.67	5479.48	688.46	5543.18	684.82	5880.59	682.55	6205.65	682.66
6336.78	683.58	6541.64	677.16	6696.57	673.95	6762.85	670.74	6808.46	670.74
6948.46	672.98	7150.95	683.01	7209.57	681.12	7330.07	678.5	7668.35	665.36
7712.93	665.49	7856.85	661.47	8129.7	639.93	8142.81	638.41	8303.57	631.41
8432.68	630.56	8669.39	635.43	8832.07	634.36	9002.5	626.82	9175.83	623.96
9310.1	609.05	9326.13	608.89	9409.63	602.47	9566.28	592.84	9619.65	592.84
9658.76	595.77	9776.79	624.97	9877.01	632.47	10238.07	629.74	10385.34	621.83
10437.31	614.65	10635.47	613.15	10870.44	624.96	11150.04	622.84	11741.38	619.63
13103.22	619.63	13327.36	612.84	13903.56	612.84	14346.84	616.05	14402.79	619.26
14676.56	616.94	14683.05	610.11	14782.37	608.71	15396.08	592.51	15918.55	586.42
15967.4	582.04	16139.4	577.93	16183.78	573.66	16253.61	567.85	16666.26	567.85
16743.09	572.87	16816.76	586.42	16905.66	609.43	16924.71	61217163.68	638.29	638.29
17604.8	643.78	18041.13	646.61	20157.83	643.95	20273.33	643.95	20503.39	644.42
20854.18	638.35	21842.93	640.37	22100.94	643.58	23780.65	646.79	24163.94	648.31
24588.12	652.21	25240.14	662.04	25464.65	663.21	26581.76	663.21	27218.58	656.42
27493.07	656.42	28068.44	653.21	28306.7	651.35	28478.65	651.08	28618.99	648.76
28767.96	649.69	29062.67	654.76	29385.15	657.59	30485.82	680.67	31151.64	682.32
32121.86	732.25	32264.88	732.63	32883.35	693.39	32918.14	693.47	34515.52	751.74
35561.29	748.61	35759.21	749.81	36111.93	767.47	36153.48	767.95	36460.79	764.7
36793.21	775.33	36951.69	777.16	37727.86	79038425.38		792.13	38777.14	800

Manning's n	Values	num=	3
Sta	n Val	Sta	n Val
0	.1515918.55	.1516816.76	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15918.55	16816.76		5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498263.00	167979.60	1709823.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1498263.00	167979.60	1709823.00
Q Total (cfs)	6730000.00	Flow (cfs)	3047568.00	509552.40	3172880.00
Top width (ft)	34652.73	Top width (ft)	14610.92	898.21	19143.60
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.03	3.03	1.86
Max Chl Dpth (ft)	192.03	Hydr. Depth (ft)	102.54	187.02	89.32
Conv. Total (cfs)	717627600.0	Conv. (cfs)	324995700.0	54334160.0	338327800.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14624.11	900.30	19152.59
Min Ch El (ft)	567.85	Shear (lb/sq ft)	0.56	1.02	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.14	3.11	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	134763.30	22642.26	160726.90
C & E Loss (ft)	0.00	Cum SA (acres)	1233.06	110.33	1493.61

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275947.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev
0	800	183.38	793.1	596.64	778.36	1256.98	761.88	1423.14	755.33
1688.52	747.97	1844.15	746.78	2169.59	746.78	2480.25	745.91	3314.64	718.45
3381.37	715.02	3466.17	713.22	3476.68	713.13	3664.06	718.25	3831.21	716.78
3964.07	715.23	4106.72	711.45	4455.4	703.07	4880.35	695.22	5196.61	694.06
5332.7	692.65	5480.79	688.43	5544.5	684.79	5881.99	682.52	6207.13	682.63
6338.29	683.56	6543.19	677.12	6698.16	673.9	6764.46	670.68	6810.09	670.68
6950.12	672.93	7152.65	682.96	7211.29	681.07	7331.82	678.48	7670.17	665.37
7714.77	665.51	7858.72	661.53	8131.64	640.01	8144.75	638.49	8305.55	631.48
8434.69	630.64	8671.45	635.52	8834.17	634.46	9004.64	626.9	9178.01	624.04
9312.31	609.14	9328.36	608.98	9411.87	602.54	9568.56	592.88	9621.94	592.88
9661.07	595.82	9779.12	625.02	9879.36	632.54	10240.51	629.81	10387.81	621.9
10439.8	614.73	10638	613.22	10873.03	625	11152.7	622.88	11744.17	619.66
13106.34	619.66	13330.54	612.88	13906.87	612.88	14350.26	616.11	14406.22	619.32
14680.05	617.14	14686.55	610.16	14785.9	608.77	15399.75	592.53	15922.35	586.44
15971.33	582.05	16143.82	577.95	16188.32	573.67	16258.35	567.85	16671.24	567.85
16748.24	572.86	16822.07	586.44	16910.97	609.43	16930.01	61217168.96	638.25	638.25
17610.03	643.75	18046.31	646.57	20162.78	643.92	20278.28	643.92	20508.31	644.37
20859.06	638.31	2121847.71	640.34	22105.68	643.56	23785.21	646.78	24168.46	648.31
24592.59	652.21	25244.54	662.05	25469.03	663.22	26586.01	663.22	27222.77	656.44
27497.22	656.44	28072.54	653.22	28310.77	651.35	28482.71	651.08	28623.03	648.74
28771.98	649.68	29066.66	654.75	29389.1	657.58	30489.66	680.65	31155.4	682.3
32125.52	732.16	32268.52	732.51	32886.92	693.37	32921.71	693.45	34518.91	751.65
35564.57	748.54	35762.48	749.75	36115.16	767.43	36156.71	767.88	36463.97	764.66

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36796.36 775.2836954.82 777.1237730.91 79038428.36 792.1438780.07 800

Manning's n Values num= 3
Sta n Val Sta n Val
0 .1515922.35 .1516822.07 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
15922.3516822.07 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498313.00	168253.00	1710158.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1498313.00	168253.00	1710158.00
Q Total (cfs)	6730000.00	Flow (cfs)	3046503.00	510243.80	3173253.00
Top width (ft)	34657.21	Top width (ft)	14614.65	899.72	19142.84
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.03	3.03	1.86
Max Chl Dpth (ft)	192.03	Hydr. Depth (ft)	102.52	187.01	89.34
Conv. Total (cfs)	717796700.0	Conv. (cfs)	324928700.0	54420710.0	338447300.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14627.85	901.81	19151.81
Min Ch El (ft)	567.85	Shear (lb/sq ft)	0.56	1.02	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.14	3.11	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	134591.30	22622.96	160530.60
C & E Loss (ft)	0.00	Cum SA (acres)	1231.38	110.23	1491.41

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275944.*

INPUT

Description:
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	183.47	793.09	596.78	778.35	1257.28	761.88	1423.48	755.32
1688.92	747.96	1844.59	746.77	2170.1	746.77	2480.84	745.89	3315.43	718.47
3382.18	715.04	3467	713.23	3477.51	713.14	3664.93	718.25	3832.12	716.77
3965.01	715.21	4107.69	711.43	4456.46	703.05	4881.52	695.21	5197.85	694.04
5333.97	692.63	5482.09	688.41	5545.82	684.75	5883.39	682.49	6208.6	682.61
6339.8	683.54	6544.75	677.08	6699.76	673.85	6766.07	670.62	6811.71	670.62
6951.77	672.87	7154.36	682.91	7213.01	681.03	7333.57	678.45	7672	665.38
7716.61	665.52	7860.59	661.59	8133.58	640.1	8146.7	638.58	8307.53	631.56
8436.7	630.71	8673.52	635.62	8836.28	634.55	9006.79	626.98	9180.2	624.11
9314.53	609.23	9330.58	609.07	9414.11	602.61	9570.84	592.92	9624.23	592.92
9663.7	595.87	9781.45	625.06	9881.72	632.61	10242.95	629.86	10390.29	621.97
10442.29	614.81	10640.54	613.31	10875.62	625.05	11155.36	622.92	11746.97	619.69
13109.46	619.69	13333.71	612.92	13910.18	612.92	14353.68	616.15	14409.65	619.38
14683.55	617.03	14690.05	610.23	14789.42	608.84	15403.42	592.55	15926.14	586.46
15975.26	582.07	16148.23	577.96	16192.86	573.68	16263.08	567.84	16676.22	567.84
16753.39	572.86	16827.39	586.46	16916.28	609.43	16935.32	61217174.24	638.21	
17615.26	643.71	18051.49	646.53	20167.73	643.85	20283.22	643.85	20513.23	644.32
20863.94	638.28	21852.48	640.31	22110.42	643.54	23789.77	646.77	24172.98	648.3
24597.06	652.21	25248.94	662.06	25473.41	663.23	26590.27	663.23	27226.96	656.46
27501.38	656.46	28076.63	653.23	28314.84	651.35	28486.76	651.08	28627.06	648.73
28776	649.67	29070.64	654.75	29393.05	657.57	30493.49	680.62	31159.17	682.27
32129.17	732.07	32272.16	732.43	32890.5	693.34	32925.28	693.43	334522.31	751.56
35567.86	748.47	35765.74	749.69	36118.38	767.33	36159.93	767.81	36467.16	764.61
36799.51	775.24	36957.96	777.08	37733.95	79038431.33	792.15	38783	800	

Manning's n Values num= 3
Sta n Val Sta n Val
0 .1515926.14 .1516827.39 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
15926.1416827.39 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498364.00	168534.10	1710505.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1498364.00	168534.10	1710505.00
Q Total (cfs)	6730000.00	Flow (cfs)	3045422.00	510959.10	3173619.00
Top width (ft)	34661.50	Top width (ft)	14618.19	901.25	19142.06
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.03	3.03	1.86
Max Chl Dpth (ft)	192.04	Hydr. Depth (ft)	102.50	187.00	89.36
Conv. Total (cfs)	717976300.0	Conv. (cfs)	324894600.0	54510620.0	338571100.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14631.37	903.35	19151.01
Min Ch El (ft)	567.84	Shear (lb/sq ft)	0.56	1.02	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.14	3.10	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	134419.30	22603.64	160334.30
C & E Loss (ft)	0.00	Cum SA (acres)	1229.71	110.12	1489.21

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275941.*

INPUT

Description:
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	183.47	793.09	596.92	778.34	1257.58	761.88	1423.82	755.31
1689.32	747.96	1845.03	746.76	2170.62	746.76	2481.43	745.88	3316.22	718.48
3382.98	715.05	3467.82	713.24	3478.34	713.15	3665.8	718.24	3833.04	716.76
3965.96	715.2	4108.67	711.42	4457.52	703.03	4882.68	695.19	5199.09	694.02
5335.24	692.61	5483.4	688.38	5547.14	684.71	5884.79	682.46	6210.08	682.59
6341.31	683.52	6546.31	677.04	6701.36	673.8	6767.68	670.56	6813.33	670.56
6953.43	672.82	7156.06	682.85	7214.72	680.98	7335.31	678.42	7673.83	665.39

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SS_Rev3.rep											
7718.45	665.54	7862.46	661.64	8135.51	640.19	8148.64	638.67	8309.51	631.63		
8438.71	630.78	8675.58	635.71	8838.38	634.65	9008.93	627.05	9182.38	624.18		
9316.75	609.32	9332.8	609.16	9416.35	602.68	9573.12	592.96	9626.52	592.96		
9665.67	595.91	9783.78	625.11	9884.07	632.68	10245.39	629.92	10392.76	622.04		
10444.77	614.88	10643.07	613.37	10878.21	625.09	11158.02	622.96	11749.77	619.72		
13112.58	619.72	13336.89	612.96	13913.5	612.96	14357.09	616.21	14413.08	619.44		
14687.05	617.11	14693.55	610.29	14792.94	608.91	15407.09	592.58	15929.93	586.48		
15979.19	582.08	16152.64	577.98	16197.39	573.69	16267.82	567.84	16681.2	567.84		
16758.55	572.86	16832.71	586.48	16921.58	609.43	16940.62	61217179.52	638.18			
17620.49	643.68	18056.68	646.49	20172.69	643.82	20288.16	643.82	20518.15	644.27		
20868.82	638.24	21857.25	640.28	22115.17	643.52	23794.33	646.76	24177.5	648.3		
24601.54	652.22	2253.35	662.07	25477.79	663.24	26594.53	663.24	27231.15	656.48		
27505.54	656.48	28080.73	653.24	28318.91	651.36	28490.81	651.08	28631.1	648.72		
28780.02	649.65	29074.63	654.74	29397.01	657.56	30497.33	680.59	31162.93	682.25		
32132.83	731.99	32275.8	732.34	32894.07	693.32	32928.85	693.41	34525.71	751.47		
35571.14	748.4	35769	749.63	36121.61	767.26	36163.14	767.74	36470.34	764.56		
36802.66	775.19	36961.09	777.04	37737	790	38434.3	792.15	38785.94	800		

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.1515929.93		.1516832.71		.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15929.93	16832.71		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498423.00	168810.40	1710842.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1498423.00	168810.40	1710842.00
Q Total (cfs)	6730000.00	Flow (cfs)	3044382.00	511651.70	3173967.00
Top width (ft)	34665.81	Top width (ft)	14621.74	902.78	19141.29
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.03	3.03	1.86
Max Chl Dpth (ft)	192.04	Hydr. Depth (ft)	102.48	186.99	89.38
Conv. Total (cfs)	718153300.0	Conv. (cfs)	324863800.0	54597970.0	338691600.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14634.91	904.88	19150.23
Min Ch El (ft)	567.84	Shear (lb/sq ft)	0.56	1.02	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.14	3.10	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	134247.30	22584.28	160138.00
C & E Loss (ft)	0.00	Cum SA (acres)	1228.03	110.02	1487.01

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275938.*

INPUT

Description:

Station Elevation Data											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800.183.51		793.08	597.06	778.32	1257.88	761.88	1424.16	755.3		
1689.73	747.95	1845.47	746.75	2171.14	746.75	2482.02	745.87	3317.01	718.5		
3383.79	715.07	3468.65	713.25	3479.17	713.16	3666.68	718.24	3833.95	716.75		
3966.9	715.18	4109.65	711.4	4458.58	703.01	4883.84	695.18	5200.33	694		
5336.51	692.59	5484.7	688.35	5548.46	684.68	5886.19	682.42	6211.56	682.57		
6342.82	683.5	6547.87	677	6702.95	673.75	6769.29	670.5	6814.95	670.5		
6955.09	672.77	7157.77	682.8	7216.44	680.93	7337.06	678.39	7675.65	665.39		
7720.29	665.56	7864.34	661.7	8137.45	640.28	8150.58	638.76	8311.49	631.7		
8440.72	630.86	8677.65	635.81	8840.49	634.75	9011.08	627.13	9184.57	624.26		
9318.97	609.41	9335.02	609.25	9418.59	602.75	9575.4	593	9628.82	593		
9667.97	595.96	9786.11	625.16	9886.42	632.75	10247.83	629.98	10395.24	622.11		
10447.26	614.96	10645.61	613.44	10880.8	625.14	11160.67	62311752.57	619.75			
13115.71	619.75	13340.06	61313916.81		61314360.51		616.25	14416.51	619.5		
14690.54	617.16	14697.05	610.35	14796.46	608.96	15410.76	592.61	15933.72	586.5		
15983.12	582.09	16157.06	57816201.93		573.71	16272.55	567.84	16686.18	567.84		
16763.7	572.85	16838.03	586.51	16926.89	609.43	16945.93	611.99	17184.79	638.14		
17625.72	643.64	18061.86	646.44	20177.64	643.75	20293.1	643.75	20523.06	644.23		
20873.7	638.22	21862.02	640.25	22119.91	643.52	23798.89	646.75	24182.02	648.29		
24606.01	652.22	22527.75	662.08	25482.17	663.25	26598.79	663.25	27235.34	656.5		
27509.7	656.52	28084.83	653.25	28322.98	651.36	28494.86	651.08	28635.14	648.7		
28784.04	649.64	29078.62	654.73	29400.96	657.56	30501.16	680.56	31166.69	682.22		
32136.49	731.93	32279.45	732.26	32897.64	693.33	32932.42	693.39	34529.11	751.39		
35574.43	748.32	35772.26	749.56	36124.83	767.19	36166.36	767.67	36473.53	764.51		
36805.81	775.15	36964.22	77737740.05		79038437.27		792.16	38788.88	800		

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.1515933.72		.1516838.03		.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15933.72	16838.03		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.07	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498470.00	169087.00	1711196.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1498470.00	169087.00	1711196.00
Q Total (cfs)	6730000.00	Flow (cfs)	3043299.00	512345.30	3174356.00
Top width (ft)	34670.19	Top width (ft)	14625.28	904.31	19140.60
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.03	3.03	1.86
Max Chl Dpth (ft)	192.04	Hydr. Depth (ft)	102.46	186.98	89.40
Conv. Total (cfs)	718330400.0	Conv. (cfs)	324828300.0	54685470.0	338816700.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14638.45	906.41	19149.52
Min Ch El (ft)	567.84	Shear (lb/sq ft)	0.56	1.02	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.14	3.10	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	134075.30	22564.88	159941.60
C & E Loss (ft)	0.00	Cum SA (acres)	1226.35	109.92	1484.82

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275935.*

[illegible]

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Manning's n Values      num=      3
Sta  n Val      Sta  n Val      Sta  n Val
0      .1515937.52      .1516843.34      .15

```

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff Contr.	Expan.
	15937.5216	843.34		5	5	5	.1	.3

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498515.00	169360.20	1711525.00
E.G. slope (ft/ft)	0.000088	Area (sq ft)	1498515.00	169360.20	1711525.00
Q Total (cfs)	6730000.00	Flow (cfs)	3042242.00	513036.20	3174722.00
Top width (ft)	34674.59	Top width (ft)	14628.94	905.82	19139.84
Vel Total (ft/s)	1.99	Avg. vel. (ft/s)	2.03	3.03	1.84
Max Chl Dpth (ft)	192.04	Hydr. depth (ft)	102.44	186.97	89.42
Conv. Total (cfs)	718497400.0	Conv. (cfs)	324790900.0	0.54771940.0	338934500.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14642.09	907.92	19148.74
Min Ch El (ft)	567.84	Shear (lb/sq ft)	0.56	1.02	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.14	3.10	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	133903.30	22545.46	159745.10
C & E Loss (ft)	0.00	Cum SA (acres)	1224.67	109.81	1482.62

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275932.*

[illegible]

```
Manning's n Values      num=      3
Sta   n Val      Sta   n Val      Sta   n Val
0      .1515941.31      .1516848.66      .15
```

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15941.3116	848.66		5	5	5		.1	.3

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
			Page 191		

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275929.*

INPUT

Description:

Station Elevation Data			num= 120						
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
1690.93	747.93	183.64	793.07	597.49	778.29	1258.78	761.87	1425.18	755.28
3386.21	715.12	3471.13	746.72	2172.69	746.72	2483.8	745.83	3319.38	718.55
3969.74	715.14	4112.58	713.25	3481.67	713.19	3669.29	718.22	3836.69	716.76
5340.33	692.53	5488.62	688.27	5552.42	702.95	4887.33	695.13	5204.04	693.95
6347.35	683.44	6552.55	676.88	6707.74	673.6	6774.13	670.32	6819.82	670.32
6960.05	672.61	7162.88	682.64	7221.6	680.8	7342.3	678.31	7681.48	665.41
7725.8	665.61	7689.85	661.09	8153.26	684.54	8156.5	639.03	8347.77	638.56
8776.87	609.68	9341.69	638.89	9348.85	613.94	9999.9	617.97	9191.13	624.48
9325.62	609.68	9341.69	609.52	9425.32	602.96	9582.24	593.12	9635.69	593.12
9674.87	596.11	9793.1	625.3	9893.48	632.96	10255.15	630.17	10402.66	622.31
10454.72	615.19	10653.21	613.66	10888.57	625.28	11168.64	623.12	121176.69	619.68
13125.07	619.84	13349.59	613.12	121396.75	613.12	124370.77	616.41	14426.81	619.68
14701.04	617.31	14707.54	610.54	14807.03	609.14	15421.76	592.68	15945.1	586.56
15994.91	582.12	16170.3	578.05	156215.55	573.72	16286.75	567.84	16701.11	567.84
16779.15	542.84	16853.98	586.56	161694.82	609.42	16961.84	611.98	17200.63	638.03
17641.42	673.54	18107.42	546.32	192192.51	643.62	20307.93	643.62	2037.81	644.08
20868.33	638.92	201876.34	640.16	21234.14	643.44	23812.58	646.72	224195.58	648.26
24611.9	652.08	270.96	662.12	25.95	663.28	26611.56	663.28	26611.56	648.26
2822.18	652.08	270.96	662.12	25.95	663.28	26611.56	663.28	26611.56	648.26
28796.11	649.59	29090.99	654.71	129412.82	657.53	3530512.66	680.47	31177.98	682.15
32147.46	731.64	32290.37	733.29	32908.37	693.24	32943.13	693.33	34539.3	751.12
35584.2	748.11	353782.05	779.37	36134.34	766.97	36176.02	767.47	36484.03	764.37
36815.26	745.10	361973.62	746.88	37749.2	790.38	38446.2	792.13	388797.68	800.37

Manning's n	Values	num=	3			
Sta	n Val	Sta	n Val	Sta	n Val	
0	.15	15945.1	.15	16853.98	.15	

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15945	16853.98		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498627.00	169914.20	1712222.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1498627.00	169914.20	1712222.00
Q Total (cfs)	6730000.00	Flow (cfs)	3040129.00	514423.30	3175448.00
Top Width (ft)	34683.40	Top Width (ft)	14636.02	908.88	19138.50
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.03	3.03	1.85
Max Chl Dpth (ft)	192.04	Hydr. Depth (ft)	102.39	186.95	89.46
Conv. Total (cfs)	718855000.0	Conv. (cfs)	324726900.0	54947370.0	339180700.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	146474.36	910.98	19147.36
Min Ch El (ft)	567.84	Shear (lb/sq ft)	0.56	1.02	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.14	3.09	0.91
Frcn Loss (ft)	0.00	Cum Volume (acre-ft)	133559.30	22506.52	159352.10
C & E Loss (ft)	0.00	Cum SA (acres)	12221.31	109.60	1478.23

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275927.*

INPUT

Description:

Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	183.69	793.07	597.63	778.28	1259.08	761.86	1425.52	755.27		
1691.34	747.93	1847.22	746.71	2173.2	746.71	2484.39	745.82	3320.17	718.57		
3397.01	715.13	3471.95	713.29	3482.48	713.2	3670.17	718.22	3837.6	716.71		
3970.68	715.12	4113.56	711.33	4462.83	702.93	4888.49	695.12	5205.28	693.93		
5341.6	692.52	5489.93	688.24	5553.74	684.53	5891.8	682.29	6217.48	682.47		
688.86	683.42	6534.0	676.84	6799.33	673.5	6775.74	670.24	6881.46	670.26		
6966.1	673.7	7222.18	688.99	7222.1	680.75	7343.05	678.29	7628.96	665.42		
7427.66	665.62	7871.83	661.93	8145.2	640.63	8158.34	639.11	8319.4	631.99		
8884.76	631.5	8685.91	636.19	8848.9	635.13	9019.66	627.45	9193.32	624.56		
9327.84	609.77	9343.91	609.61	9427.56	603.03	9584.52	593.16	9637.98	593.16		
9677.18	596.16	9795.43	625.34	9895.84	633.03	10257.59	630.23	10405.13	622.38		
10457.21	615.27	10655.74	613.73	10891.16	625.3	11171.3	623.16	11763.76	619.87		
13128.2	619.87	13352.77	613.16	13930.06	613.16	14374.19	616.45	14430.24	619.74		
14704.53	617.37	14717.04	610.61	14810.5	609.21	15425.43	592.71	15948.9	586.58		
15998.84	582.14	16474.77	578.07	16282.08	557.73	16191.19	569.16	16767.06	568.1		
16794.3	584.2	17045.1	584.2	17045.1	609.9	17045.1	611.98	17200.91	638		
17646.65	643.5	18882.1	646.28	20197.46	643.52	20312.87	643.55	25024.73	644.03		
20893.21	638.06	21801.16	640.13	23218.98	643.42	23817.14	646.71	24200.1	648.27		
24623.91	652.19	25275.73	662.13	25499.68	663.29	26615.8	663.29	27252.09	656.58		
27526.34	656.58	28101.21	653.29	2928339.26	651.38	288511.07	651.72	28651.29	648.65		

SS_Rev3.rep
 28800.13 649.5829094.58 654.729416.78 657.53 30516.5 680.4431181.74 682.13
 32151.12 731.5532294.01 731.9232911.94 693.22 32946.7 693.31 34542.7 751.03
 35587.56 748.0435785.31 749.3136137.73 766.936179.24 767.436486.28 764.32
 36818.41 774.9736976.75 776.8437752.25 79038449.17 792.1938800.61 800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .15 15948.9 .1516859.29 .15
 Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15948.916859.29 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #P 1

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498667.00	170185.90	1712551.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1498667.00	170185.90	1712551.00
Q Total (cfs)	6730000.00	Flow (cfs)	3039060.00	515109.40	3175831.00
Top width (ft)	34687.89	Top width (ft)	14639.75	910.39	19137.75
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.03	3.03	1.85
Max chl Dpth (ft)	192.04	Hydr. Depth (ft)	102.37	186.94	89.49
Conv. Total (cfs)	719018000.0	Conv. (cfs)	324686300.0	55033120.0	339298600.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14652.88	912.49	19146.60
Min Ch El (ft)	567.84	Shear (lb/sq ft)	0.56	1.02	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.13	3.09	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	133387.30	22487.00	159155.60
C & E Loss (ft)	0.00	Cum SA (acres)	1219.63	109.50	1476.03

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275924.*

INPUT

Description:

Station	Elevation	Data	num= 120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	183.73	793.06	597.77	778.26	1259.38	761.86	1425.86	755.27			
1691.74	747.92	1847.66	746.7	2173.72	746.7	2484.98	745.8	3320.96	718.58			
3387.82	715.15	3472.78	713.3	3483.31	713.2	3671.04	718.21	3838.51	716.7			
3971.62	715.11	4114.54	711.31	4463.89	702.91	4889.66	695.1	5206.52	693.91			
5342.87	692.5	5491.23	688.22	5555.06	684.49	5893.2	682.26	6218.96	682.45			
6350.37	683.4	6555.66	676.8	6710.93	673.5	6777.35	670.2	6823.07	670.2			
6963.36	672.5	7166.29	682.54	7225.03	680.7	7345.79	678.26	7684.79	665.43			
7729.48	665.64	7873.7	661.98	8147.14	640.72	8160.28	639.2	8321.38	632.06			
8450.77	631.22	8687.98	636.28	8851.01	635.23	9021.8	627.52	9195.5	624.63			
9330.06	609.86	9346.13	609.7	9429.8	603.1	9586.8	593.2	9640.28	593.2			
9679.48	596.21	9797.76	625.39	9898.19	633.110260.03		630.2910407.61		622.45			
10459.7	615.3410658.28		613.810893.75		625.3711173.96		623.211766.55		619.9			
13131.32	619.913355.94		613.213933.37		613.214377.61		616.514433.67		619.8			
14708.03	617.4214714.54		610.6614814.08		609.26	15429.1	592.7315952.69		586.6			
16002.77	582.1516179.12		578.0916224.62		573.7416296.22		567.8416711.07		567.84			
16789.46	572.8316864.61		586.616953.43		609.4216972.46		611.9817211.19		637.96			
17651.88	643.4718087.79		646.2420202.42		643.520317.81		643.520547.65		643.98			
20898.09	638.0221885.88		640.122143.63		643.4	23821.7	646.724204.62		648.27			
24628.38	652.1825279.77		662.1425504.06		663.326620.08		663.327256.28		656.6			
27530.5	656.628105.31		653.328343.33		651.3828515.12		651.0728655.32		648.64			
28804.15	649.5729098.56		654.729420.73		657.5230520.33		680.41	31185.5	682.1			
32154.77	731.4732297.65		731.8332915.52		693.232950.27		693.2934546.09		750.94			
35590.84	747.9735788.57		749.2536140.95		766.8336182.46		767.3336489.46		764.27			
36821.56	774.9236979.89		776.8	37755.3	79038452.14		792.1938803.55		800			

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515952.69 .1516864.61 .15
 Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15952.6916864.61 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #P 1

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498738.00	170462.10	1712896.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1498738.00	170462.10	1712896.00
Q Total (cfs)	6730000.00	Flow (cfs)	3038041.00	515793.50	3176166.00
Top width (ft)	34692.12	Top width (ft)	14643.22	911.92	19136.98
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.03	3.03	1.85
Max chl Dpth (ft)	192.04	Hydr. Depth (ft)	102.35	186.93	89.51
Conv. Total (cfs)	719202900.0	Conv. (cfs)	324660900.0	55120380.0	339421600.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14656.34	914.02	19145.82
Min Ch El (ft)	567.84	Shear (lb/sq ft)	0.56	1.02	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.13	3.08	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	133215.20	22467.45	158959.00
C & E Loss (ft)	0.00	Cum SA (acres)	1217.95	109.39	1473.83

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275921.*

INPUT

Description:

Station	Elevation	Data	num= 120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	183.77	793.06	597.92	778.25	1259.68	761.86	1426.2	755.26	
1692.14	747.91	1848.1	746.69	2174.24	746.69	2485.57	745.79	3321.75	718.6	
3388.62	715.16	3473.6	713.31	3484.14	713.21	3671.91	718.21	3839.43	716.69	
3972.57	715.09	4115.52	711.3	4464.95	702.9	4890.82	695.09	5207.75	693.89	

SS_Rev3.rep											
5344.14	692.48	5492.54	688.19	5556.38	684.46	5894.6	682.22	6220.43	682.43		
6351.88	683.38	6557.22	676.76	6712.52	673.45	6778.96	670.14	6824.69	670.14		
6965.02	672.45	7167.99	682.48	7226.75	680.66	7247.54	678.23	7686.62	665.43		
7731.31	665.66	7875.57	662.04	8149.07	640.81	8162.22	639.29	8323.36	632.13		
8452.78	631.29	8690.04	636.38	8853.11	635.33	9023.95	627.6	9197.69	624.71		
9332.28	609.95	9348.36	609.79	9432.05	603.17	9589.08	593.24	9642.57	593.24		
9681.78	596.26	9800.09	625.44	9900.54	633.17	10262.47	630.35	10410.08	622.51		
10462.18	615.42	10660.81	613.87	10896.34	625.42	11176.61	623.24	11769.35	619.93		
13134.44	619.93	13359.12	613.24	13936.69	613.24	14381.02	616.55	14437.11	619.86		
14711.53	617.47	14718.04	610.73	14817.6	609.32	15432.77	592.76	15956.48	586.62		
16006.7	582.16	16183.54	578.11	16229.16	573.75	16300.95	567.84	16716.05	567.84		
16794.61	572.83	16869.93	586.62	16958.73	609.42	16977.76	611.98	17216.47	637.92		
17657.11	643.43	18092.97	646.19	20207.37	643.45	20322.75	643.45	20552.57	643.94		
20902.97	637.98	21890.65	640.07	22148.37	643.38	23826.26	646.69	24209.14	648.26		
24632.86	652.18	25284.17	662.16	25508.44	663.31	26624.33	663.31	27260.47	656.62		
27534.65	656.62	28109.41	653.31	28347.4	651.39	28519.17	651.07	28659.36	648.63		
28808.17	649.55	29102.55	654.69	29424.69	657.51	30524.17	680.38	31189.26	682.08		
32158.43	731.38	32301.29	731.75	32919.09	693.18	32953.84	693.27	34549.49	750.86		
35594.12	747.89	35791.84	749.19	36144.17	766.76	36185.68	767.26	36492.65	764.23		
36824.71	774.87	36983.02	776.76	37758.34	790.38	38455.11	792.23	38806.48	800		

Manning's n Values		num= 3				
Sta	n Val	Sta	n Val			
0	.1515956.48	.1516869.93	.15			
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
15956.48	16869.93	5	5	5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498777.00	170738.10	1713240.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1498777.00	170738.10	1713240.00
Q Total (cfs)	6730000.00	Flow (cfs)	3036959.00	516485.80	3176556.00
Top Width (ft)	34696.42	Top Width (ft)	14646.76	913.45	19136.21
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.03	3.03	1.85
Max Chl Dpth (ft)	192.04	Hydr. Depth (ft)	102.33	186.92	89.53
Conv. Total (cfs)	719374700.0	Conv. (cfs)	324622700.0	55207540.0	339544400.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14659.87	915.55	19145.04
Min Ch El (ft)	567.84	Shear (lb/sq ft)	0.56	1.02	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.13	3.08	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	133043.20	22447.86	158762.30
C & E Loss (ft)	0.00	Cum SA (acres)	1216.27	109.29	1471.64

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275918.*

INPUT

Description:		num= 120	
Sta	Elev	Sta	Elev
0	800 183.82	793.05	598.06
1692.54	747.91 1848.54	746.68	2174.75
3389.43	715.18 3474.43	713.32	3484.97
3973.51	715.08 4116.5	711.28	4466.01
5345.41	692.46 5493.84	688.16	5557.7
6353.39	683.36 6558.78	676.72	6714.12
6966.68	672.4 7169.69	682.43	7228.47
7733.15	665.68 7877.44	662.1 8151.01	640.9 8164.16
8454.79	631.37 8692.11	636.47	8855.22
9334.5	610.04 9350.58	609.88	9434.29
9684.08	596.31 9802.42	625.48	9902.9
10464.67	615.51 10663.34	613.95	10898.93
13137.56	619.96 13362.29	613.28	13940
14715.02	617.53 14721.54	610.79	14821.12
16010.63	582.17 16187.95	578.12	16233.7
16799.76	572.82 16875.24	586.64	16964.04
17662.34	643.41 18098.15	646.15	20212.33
20907.85	637.95 21895.42	640.04	22153.12
24637.33	652.18 25288.57	662.17	25512.82
27538.81	656.64 28113.5	653.32	28351.47
28812.19	649.54 29106.54	654.68	29428.64
32162.09	731.29 32304.94	731.66	32922.66
35597.41	747.82 35795.1	749.12	36147.4
36827.86	774.83 36986.15	776.72	37761.39
			79038458.09

Manning's n Values		num= 3				
Sta	n Val	Sta	n Val			
0	.1515960.28	.1516875.24	.15			
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
15960.28	16875.24	5	5	5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498823.00	171017.30	1713568.00
E.G. Slope (ft/ft)	0.000088	Area (sq ft)	1498823.00	171017.30	1713568.00
Q Total (cfs)	6730000.00	Flow (cfs)	3035903.00	517201.90	3176895.00
Top Width (ft)	34700.82	Top Width (ft)	14650.32	914.96	19135.54
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.03	3.02	1.85
Max Chl Dpth (ft)	192.05	Hydr. Depth (ft)	102.31	186.91	89.55
Conv. Total (cfs)	719545100.0	Conv. (cfs)	324586800.0	55297190.0	339661100.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14663.42	917.07	19144.34
Min Ch El (ft)	567.83	Shear (lb/sq ft)	0.56	1.02	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.13	3.08	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	132871.20	22428.25	158565.70
C & E Loss (ft)	0.00	Cum SA (acres)	1214.59	109.19	1469.44