

SS_Rev3.rep											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	190.28	792.38	619.09	776.41	1304.29	761.44	1476.71	754.09		
1752.07	746.97	1913.56	745.2	2251.25	745.2	2573.6	743.9	3439.4	721.14		
3508.64	717.49	3596.63	714.8	3607.54	714.66	3801.97	717.4	3975.41	715.2		
4113.27	712.89	4261.29	708.78	4623.09	700.02	5064.04	692.87	5392.21	691.14		
5533.42	689.7	5687.07	684.14	5753.18	679.01	6103.38	677.27	6440.75	679.02		
6576.83	680.4	6789.47	670.8	6950.27		666	7019.06	661.2	7066.41	661.2	
7211.71	664.55	7421.87	674.6	7482.71	673.83	7607.78	674.17	7958.87	666.45		
8005.15	668.21	8154.51	670.5	8437.7	653.99	8451.31	652.48	8618.16	642.79		
8752.16	642.14	8997.83	650.55	9166.68	649.73	9343.56	639.27	9523.46	635.83		
9662.82	623.44	9679.46	623.2	9766.12	613.6	9928.71	599.2	9984.09	599.2		
10024.69	603.58	10147.19	632.39	10251.21	643.61	10625.95	639.52	10778.79	632.65		
10832.74	626.86	11038.4	624.62	11282.28	632.36	11572.47	629.21	12186.21	624.4		
13599.64	624.41	13832.28	619.2	14430.3	619.21	14890.38		62414948.45	628.8		
15232.59	625.34	15239.33	620.06	15342.42	618.38	15979.38	596.61	16521.64	589.6		
16592.3	583.91	16841.11	580.76	16905.3	575.14	17006.32	567.67	17457.92	567.67		
17562.19	572.21	17662.16	589.61	17749.53	609.15	17768.25	611.54	18003.1	632.49		
18436.61	638.21	18865.41	639.98	19045.61		63621059.12		63621285.22	636.7		
21629.95	632.58	22601.65	635.62	22855.21	640.42	24505.95	645.22	24882.63	647.48		
25299.49	651.72	25940.27	663.92	26160.91	664.82	27258.75	664.82	27884.59	659.6		
28154.34	659.62	28719.79	654.82	28953.94	652.01	29122.93	650.83	29260.85	646.71		
29407.25	647.42	29696.87	653.65	30013.79	656.39	31095.48	676.06	31749.82	678.51		
32703.3	718.53	32843.86	719.03	33451.66	690.11	33485.85	690.24	35055.68	737.74		
36083.41	737.23	36277.93	739.82	36624.56	756.3	36665.4	757.02	36967.4	757.13		
37294.09	768.06	37449.84	770.83	38212.62		79038898.11	793.19	39243.8	800		

Manning's n	Values	num=	3
Sta	n Val	Sta	n Val
0	.1516521.64	.1517662.16	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
16521.64	17662.16		5	5	5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1504670.00	211549.50	1764711.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504670.00	211549.50	1764711.00
Q Total (cfs)	6730000.00	Flow (cfs)	2898676.00	618329.80	3212995.00
Top Width (ft)	35705.13	Top Width (ft)	15179.18	1140.52	19385.43
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.93	2.92	1.82
Max Chl Dpth (ft)	192.14	Hydr. Depth (ft)	99.13	185.49	91.03
Conv. Total (cfs)	740825200.0	Conv. (cfs)	319080600.0	68064540.0	353680100.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15191.77	1142.89	19392.04
Min Ch El (ft)	567.67	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.98	2.79	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	107354.90	19177.91	129025.70
C & E Loss (ft)	0.00	Cum SA (acres)	961.21	91.73	1143.31

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275483.\*

INPUT

Description:											
Station	Elevation	Data	num=	120							
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	190.33	792.37	619.23	776.4	1304.59	761.44	1477.05	754.08		
1752.48	746.97	1914	745.19	2251.76	745.19	2574.2	743.89	3440.19	721.16		
3509.45	717.5	3597.46	714.81	3608.37	714.67	3802.84	717.39	3976.33	715.19		
4114.22	712.87	4262.26	708.76	4624.15	700	5065.21	692.86	5393.44	691.13		
5534.69	689.68	5688.38	684.11	5754.5	678.97	6104.78	677.24	6442.23	679		
6578.36	680.38	6791.03	670.76	6951.87	665.95	7020.67	661.14	7068.03	661.14		
7213.37	664.5	7423.57	674.54	7484.43	673.78	7609.53	674.14	7960.69	666.46		
8006.98	668.22	8156.38	670.55	8439.64	654.08	8453.25	652.56	8620.14	642.86		
8754.17	642.21	8999.9	650.64	9168.78	649.83	9345.71	639.35	9525.65	635.9		
9665.03	623.53	9681.68	623.29	9768.36	613.67	9930.99	599.24	9986.39	599.24		
10027	603.63	10149.52	632.43	10253.56	643.67	10628.39	639.58	10781.27	632.72		
10835.23	626.94	11040.94	624.69	11284.87	632.41	11575.13	629.24	12189	624.43		
13602.77	624.43	13835.46	619.24	14433.62	619.24	14893.8	624.05	14951.88	628.86		
15236.09	625.39	15242.83	620.12	15345.94	618.44	15983.04	596.62	16525.43	589.62		
16596.23	583.92	16845.52	580.77	16909.84	575.15	17011.05	567.67	17462.9	567.67		
17567.34	572.19	17667.48	589.62	17754.84	609.15	17773.55	611.53	18008.38	632.45		
18441.84	638.18	18870.6	639.94	20950.56	635.95	21064.06	635.95	21290.13	636.66		
21634.83	632.54	22606.43	635.57	22859.95	640.38	24510.51	645.19	24887.15	647.47		
25303.96	651.69	25944.67	663.91	26165.29	664.81	27263.01	664.81	27888.78	659.62		
28158.5	659.62	28723.89	654.81	28958.01	652.02	29126.98	650.83	29264.88	646.69		
29411.27	647.42	29696.86	653.64	30017.74	656.38	31099.32	676.03	31753.58	678.49		
32706.96	718.41	32847.5	718.94	33455.23	690.09	33489.42	690.22	35059.08	737.65		
36086.7	737.23	36281.19	739.75	36627.79	756.23	36668.62	756.95	36970.59	757.08		
37297.24	768.02	37452.97	770.76	38215.67		79038901.09	793.23	39246.73	800		

Manning's n	Values	num=	3
Sta	n Val	Sta	n Val
0	.1516525.43	.1517667.48	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
16525.43	17667.48		5	5	5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1504704.00	211824.20	1765079.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1504704.00	211824.20	1765079.00
Q Total (cfs)	6730000.00	Flow (cfs)	2897628.00	618963.80	3213409.00
Top Width (ft)	35709.46	Top Width (ft)	15182.71	1142.05	19384.70
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.93	2.92	1.82
Max Chl Dpth (ft)	192.14	Hydr. Depth (ft)	99.11	185.48	91.06
Conv. Total (cfs)	741006200.0	conv. (cfs)	319043100.0	68150960.0	353812100.0

Length wtd. (ft)	5.00	wetted Per. (ft)	15195.29	1144.42	19391.30
Min Ch El (ft)	567.67	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.98	2.79	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	107182.20	19153.62	128823.10
C & E Loss (ft)	0.00	Cum SA (acres)	959.47	91.59	1141.08

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275480.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	190.37	792.37	619.38	776.39	1304.89	761.44	1477.39	754.07
1752.88	746.96	1914.44	745.18	2252.28	745.18	2574.79	743.87	3440.98	721.17
3510.25	717.52	3598.28	714.82	3609.2	714.68	3803.71	717.39	3977.24	715.18
4115.16	712.86	4263.24	708.75	4625.22	699.98	5066.37	692.85	5394.68	691.11
5535.96	689.66	5689.69	684.08	5755.82	678.94	6106.18	677.21	6443.71	678.97
6579.87	680.36	6792.59	670.72	6953.46	665.9	7022.28	661.08	7069.65	661.08
7215.02	664.44	7425.28	674.49	7486.15	673.74	7611.27	674.12	7962.52	666.46
8008.82	668.24	8158.26	670.61	8441.58	654.17	8455.19	652.65	8622.12	642.93
8756.18	642.29	9001.97	650.74	9170.89	649.92	9347.85	639.43	9527.83	635.98
9667.25	623.62	9683.91	623.38	9770.6	613.74	9933.27	599.28	9988.68	599.28
10029.3	603.68	10151.85	632.48	10255.91	643.74	10630.83	639.64	10783.74	632.79
10837.71	627.02	11043.47	624.76	11287.46	632.46	11577.79	629.28	12191.8	624.46
13605.89	624.46	13838.63	619.28	14436.93	619.28	14897.22	624.11	14955.31	628.92
15239.58	625.44	15246.33	620.18	15349.46	618.51	15986.71	596.65	16529.23	589.64
16600.16	583.93	16849.94	580.79	16914.38	575.16	17015.79	567.67	17467.88	567.67
17572.49	572.19	17672.79	589.64	17760.15	609.15	17778.86	611.53	18013.66	632.41
18447.07	638.14	18875.78	639.92	19955.52	635.92	19955.52	635.92	19955.52	636.61
21639.71	632.5	22611.2	635.54	22864.69	640.36	24515.07	645.18	24891.67	647.47
25308.44	651.69	25949.07	663.93	26169.67	664.82	27267.26	664.82	27892.97	659.64
28162.66	659.64	28727.99	654.82	28962.08	652.02	29131.04	650.83	29268.92	646.68
29415.29	647.42	29704.85	653.63	30021.7	656.38	31103.15	6763	31757.34	678.47
32710.62	718.32	32851.14	718.86	33458.81	690.07	33492.99	690.23	35062.47	737.56
36089.98	737.08	36284.45	739.69	36631.01	756.16	36671.84	756.88	36973.77	757.03
37300.39	767.93	37456.11	770.72	38218.71	7903	38904.06	793.23	39249.67	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516529.23		.1517672.79		.15

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

16529.23	17672.79	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.81	Reach Len. (ft)	0.00	5.00	5.00
Crit W.S. (ft)	0.000082	Flow Area (sq ft)	1504730.00	212092.10	1765432.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1504730.00	212092.10	1765432.00
Q Total (cfs)	6730000.00	Flow (cfs)	2896601.00	619581.80	3213817.00
Top Width (ft)	35713.84	Top Width (ft)	15186.24	1143.56	19384.04
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.92	2.92	1.82
Max Chl Dpth (ft)	192.14	Hydr. Depth (ft)	99.09	185.47	91.08
Conv. Total (cfs)	741176000.0	Conv. (cfs)	319003200.0	68234640.0	353938200.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15198.83	1145.93	19390.63
Min Ch El (ft)	567.67	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.98	2.78	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	107009.50	19129.29	128620.50
C & E Loss (ft)	0.00	Cum SA (acres)	957.73	91.46	1138.86

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275477.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	190.41	792.36	619.52	776.38	1305.19	761.44	1477.73	754.06
1753.28	746.96	1914.88	745.17	2252.8	745.17	2575.38	743.86	3441.77	721.19
3511.06	717.53	3599.11	714.83	3610.03	714.69	3804.58	717.38	3978.15	715.17
4116.1	712.84	4264.22	708.73	4626.28	699.97	5067.53	692.83	5395.92	691.09
5537.23	689.64	5690.99	684.06	5757.15	678.9	6107.58	677.17	6445.19	678.95
6581.38	680.34	6794.15	670.68	6955.06	665.85	7023.9	661.02	7071.28	661.02
7216.68	664.39	7426.98	674.44	7487.86	673.69	7613.02	674.09	7964.35	666.47
8010.66	668.26	8160.13	670.67	8443.51	654.26	8457.13	652.74	8624.1	643.01
8758.19	642.36	9004.03	650.83	9172.99	650.02	9350	639.51	9530.02	636.05
9669.47	623.71	9686.13	623.47	9772.84	613.81	9935.55	599.32	9990.97	599.32
10031.6	603.72	10154.18	632.53	10258.27	643.81	10633.27	639.71	10786.22	632.85
10840.2	627.09	11046	624.84	11290.05	632.51	11580.44	629.32	12194.6	624.49
13609.01	624.49	13841.81	619.32	14440.24	619.32	14900.64	624.15	14958.74	628.98
15243.08	625.51	15249.83	620.24	15352.98	618.56	15990.38	596.68	16533.02	589.66
16604.09	583.94	16854.35	580.81	16918.92	575.17	17020.52	567.67	17472.86	567.67
17577.64	572.18	17678.11	589.66	17765.45	609.15	17784.16	611.53	18018.94	632.38
18452.3	638.11	18880.97	639.85	20960.47	635.85	21073.95	635.85	21299.97	636.56
21644.59	632.47	22615.97	635.51	22869.44	640.34	24519.63	645.17	24896.19	647.46
25312.91	651.69	25953.48	663.94	26174.05	664.83	27271.52	664.83	27897.16	659.66
28166.82	659.66	28732.08	654.83	28966.15	652.02	29135.09	650.83	29272.96	646.67
29419.31	647.38	29708.84	653.62	30025.65	656.37	31106.99	675.97	31761.1	678.44
32714.28	718.24	32854.78	718.77	33462.38	690.05	33496.56	690.18	35065.87	737.47
36093.27	737.01	36287.71	739.63	36634.23	756.09	36675.06	756.82	36976.96	756.98
37303.54	767.93	37459.24	770.68	38221.77	7903	38907.03	793.23	39252.61	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516533.02		.1517678.11		.15

SS\_Rev3.rep

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16533.0217678.11 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1504756.00	212365.20	1765801.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1504756.00	212365.20	1765801.00
Q Total (cfs)	6730000.00	Flow (cfs)	2895541.00	620209.80	3214250.00
Top width (ft)	35718.16	Top Width (ft)	15189.76	1145.09	19383.31
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.92	2.92	1.82
Max Chl Dpth (ft)	192.14	Hydr. Dpth (ft)	99.06	185.46	91.10
Conv. Total (cfs)	741353700.0	Conv. (cfs)	318962800.0	68320180.0	354070800.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15202.36	1147.47	19389.88
Min Ch El (ft)	567.67	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.98	2.78	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	106836.80	19104.92	128417.80
C & E Loss (ft)	0.00	Cum SA (acres)	955.98	91.33	1136.63

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275474.\*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev
0	800	190.46	792.36	619.66	776.36	1305.49	761.43	1478.07	754.05
1753.68	746.95	1915.32	745.16	2253.31	745.16	2575.97	743.85	3442.56	721.21
3511.86	717.55	3599.94	714.84	3610.85	714.7	3805.46	717.38	3979.06	715.16
4117.05	712.83	4265.2	708.71	4627.34	699.95	5068.69	692.82	5397.16	691.07
5538.5	689.63	5692.3	684.03	5758.47	678.86	6108.98	677.14	6446.67	678.93
6582.89	680.32	6795.71	670.64	6956.66	665.8	7025.51	660.96	7072.9	660.96
7218.33	664.34	7428.69	674.39	7489.58	673.65	7614.77	674.06	7966.18	666.48
8012.5	668.27	8162	670.72	8445.45	654.35	8459.07	652.83	8626.07	643.08
8760.2	642.43	9006.1	650.93	9175.1	650.12	9352.14	639.59	9532.21	636.13
9671.69	623.8	9688.35	623.56	9775.08	613.88	9937.83	599.36	9993.26	599.36
10033.9	603.77	10156.51	632.57	10260.62	643.88	10635.71	639.76	10788.69	632.92
10842.69	627.17	11048.54	624.91	11292.64	632.55	11583.1	629.36	12197.4	624.52
13612.13	624.52	13844.98	619.36	14443.56	619.36	14904.05	624.21	14962.18	629.04
15246.58	625.55	15253.33	620.31	15356.51	618.63	15994.05	596.71	16536.81	589.68
16608.02	583.95	16858.76	580.83	16923.46	575.18	17025.26	567.67	17477.84	567.67
17582.8	572.18	17683.43	589.68	17770.76	609.15	17789.47	611.52	18024.21	632.34
18457.54	638.07	18886.15	639.81	20965.43	635.82	21078.89	635.82	21304.88	636.51
21649.47	632.43	22620.74	635.48	22874.18	640.32	24524.19	645.16	24900.71	647.46
25317.39	651.68	25957.88	663.95	26178.43	664.84	27275.78	664.84	27901.35	659.68
28170.98	659.68	28736.18	654.84	28970.22	652.03	29139.14	650.82	29276.99	646.65
29423.33	647.37	29712.83	653.62	30029.61	656.36	31110.82	675.94	31764.87	678.42
32717.93	718.15	32858.42	718.69	33465.96	690.03	33500.13	690.16	33506.27	737.39
36096.55	736.94	36290.98	739.56	36363.74	756.02	36678.28	756.75	36980.14	756.94
37306.69	767.88	37462.37	770.64	38224.81	790	38910	793.22	39255.54	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.1516536.81		.1517683.43

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16536.8117683.43 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1504777.00	212636.90	1766154.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1504777.00	212636.90	1766154.00
Q Total (cfs)	6730000.00	Flow (cfs)	2894477.00	620838.90	3214685.00
Top width (ft)	35722.51	Top Width (ft)	15193.47	1146.62	19382.42
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.92	2.92	1.82
Max Chl Dpth (ft)	192.14	Hydr. Dpth (ft)	99.04	185.45	91.12
Conv. Total (cfs)	741523200.0	Conv. (cfs)	318918500.0	68405120.0	354199600.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15206.06	1149.00	19388.98
Min Ch El (ft)	567.67	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.98	2.78	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	106664.00	19080.53	128215.10
C & E Loss (ft)	0.00	Cum SA (acres)	954.24	91.20	1134.41

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275471.\*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev
0	800	190.5	792.35	619.8	776.35	1305.79	761.43	1478.4	754.05
1754.08	746.94	1915.76	745.15	2253.83	745.15	2576.56	743.83	3443.35	721.23
3512.67	717.56	3600.76	714.85	3611.68	714.71	3806.33	717.37	3979.98	715.15
4117.99	712.81	4266.18	708.7	4628.4	699.93	5069.86	692.8	5398.4	691.05
5539.77	689.61	5693.6	684	5759.79	678.83	6110.38	677.11	6448.15	678.91
6584.4	680.3	6797.26	670.6	6958.25	665.75	7027.12	660.9	7074.52	660.9
7219.99	664.29	7430.39	674.33	7491.3	673.6	7616.51	674.03	7968	666.48
8014.33	668.29	8163.87	670.78	8447.39	654.44	8461.01	652.92	8628.05	643.15
8762.21	642.5	9008.16	651.02	9177.2	650.21	9354.29	639.66	9534.39	636.2
9673.91	623.89	9690.57	623.65	9777.33	613.95	9940.1	599.4	9995.56	599.4
10036.2	603.82	10158.84	632.62	10262.97	643.95	10638.15	639.82	10791.17	632.99
10845.17	627.25	11051.07	624.98	11295.23	632.61	11585.76	629.41	12200.19	624.55

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13615.25	624.5513848.16	619.414446.87	619.414907.47	624.2514965.61	629.1
13250.08	625.615256.83	620.3715360.03	618.6915997.72	596.7316540.61	589.7
16611.95	583.9616863.18	580.8416927.99	575.1917029.99	567.6717482.81	567.67
17587.95	572.1817688.74	589.1717776.07	609.1417794.78	611.5218029.49	632.3
18462.77	638.0418891.33	639.7720970.38	635.7521083.83	635.75 21309.8	636.46
21654.35	632.3922625.51	635.4522878.92	640.324528.76	645.1524905.23	647.45
25321.86	651.6825962.28	663.96 26182.8	664.8527280.04	664.8527905.54	659.7
28175.13	659.728740.28	654.8528974.29	652.0329143.19	650.8229281.03	646.64
29427.35	647.3529716.81	653.6130033.56	656.3531114.66	675.9131768.63	678.4
32721.59	718.0732862.07	718.633469.53	690.01 33503.7	690.1435072.67	737.3
36099.84	736.8736294.24	739.536640.68	755.95 36681.5	756.6836983.33	756.89
37309.84	767.84 37465.5	770.638227.86	79038912.98	793.2239258.48	800

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516540.61		.1517688.74		.15

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	16540.61	17688.74		5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1504813.00	212907.10	1766510.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1504813.00	212907.10	1766510.00
Q Total (cfs)	6730000.00	Flow (cfs)	2893458.00	621460.20	3215082.00
Top width (ft)	35726.77	Top width (ft)	15196.96	1148.13	19381.69
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.92	2.92	1.82
Max Chl Dpth (ft)	192.14	Hydr. Depth (ft)	99.02	185.44	91.14
Conv. Total (cfs)	741700300.0	Conv. (cfs)	318882400.0	68489930.0	354327900.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15209.55	1150.51	19388.23
Min Ch El (ft)	567.67	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.98	2.78	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	106491.30	19056.11	128012.40
C & E Loss (ft)	0.00	Cum SA (acres)	952.50	91.07	1132.18

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275468.\*

INPUT

Description:											
Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	190.55	792.35	619.95	776.34	1306.09	761.43	1478.74	754.04		
1754.49	746.94	1916.19	745.14	2254.35	745.14	2577.15	743.82	3444.14	721.24		
3513.48	717.58	3601.59	714.86	3612.51	714.72	3807.2	717.37	3980.89	715.14		
4118.94	712.8	4267.16	708.68	4629.46	699.91	5071.02	692.79	5399.63	691.03		
5541.04	689.59	5694.91	683.97	5761.11	678.79	6111.78	677.07	6449.63	678.88		
6585.91	680.28	6798.82	670.56	6959.85	665.7	7028.73	660.84	7076.14	660.84		
7221.65	664.23	7432.09	674.28	7493.02	673.56	7618.26	674.01	7969.83	666.49		
8016.17	668.31	8165.74	670.84	8449.33	654.52	8462.95	653.01	8630.03	643.22		
8764.22	642.58	9010.23	651.12	9179.3	650.31	9356.43	639.74	9536.58	636.28		
9676.13	623.98	9692.79	623.74	9779.57	614.02	9942.38	599.44	9997.85	599.44		
10038.5	603.87	10161.17	632.67	10265.33	644.02	10640.59	639.88	10793.64	633.06		
10847.66	627.32	11053.61	625.05	11297.82	632.64	11588.41	629.44	12202.99	624.58		
13618.38	624.58	13851.33	619.44	14450.18	619.44	14910.89	624.31	14969.04	629.16		
15253.57	625.65	15260.33	620.43	15363.55	618.75	16001.39	596.75	16544.4	589.72		
16615.88	583.98	16867.59	580.86	16932.53	575.21	17034.72	567.67	17487.79	567.67		
17593.1	572.17	17694.06	589.72	17781.38	609.14	17800.08	611.52	18034.77	632.27		
18468	638	18896.52	639.73	20975.33	635.72	1088.78	635.72	1314.72	636.41		
21659.23	632.36	22630.29	635.42	22883.67	640.28	24533.32	645.14	24909.75	647.45		
25326.34	651.68	25966.69	663.97	26187.18	664.86	27284.29	664.86	27909.72	659.72		
28179.29	659.72	28744.37	654.86	28978.37	652.04	29147.24	650.82	29285.07	646.63		
29431.37	647.34	29720.8	653.63	30037.51	656.35	31118.49	675.88	31772.39	678.37		
32725.25	717.98	32865.71	718.51	33473.11	689.99	33507.27	690.12	35076.06	737.21		
36103.12	736.8	36297.5	739.44	36643.91	755.88	36684.72	756.61	36986.52	756.84		
37312.99	767.79	37468.64	770.56	38230.91	790389	15.95	793.22	39261.41	800		

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.15 16544.4		.1517694.06		.15

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	16544.41	17694.06		5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1504847.00	213178.10	1766861.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1504847.00	213178.10	1766861.00
Q Total (cfs)	6730000.00	Flow (cfs)	2892446.00	622082.70	3215472.00
Top width (ft)	35731.17	Top width (ft)	15200.48	1149.66	19381.03
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.92	2.92	1.82
Max Chl Dpth (ft)	192.14	Hydr. Depth (ft)	99.00	185.43	91.16
Conv. Total (cfs)	741872800.0	Conv. (cfs)	318845000.0	68574480.0	354453300.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15213.08	1152.04	19387.56
Min Ch El (ft)	567.67	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.98	2.77	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	106318.60	19031.65	127809.60
C & E Loss (ft)	0.00	Cum SA (acres)	950.75	90.94	1129.96

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275465.\*

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INPUT

Description:  
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	190.59	792.34	620.09	776.33	1306.39	761.43	1479.08	754.03
1754.89	746.93	1916.63	745.13	2254.86	745.13	2577.74	743.81	3444.93	721.26
3514.28	717.6	3602.41	714.87	3613.34	714.73	3808.08	717.36	3981.8	715.13
4119.88	712.78	4268.13	708.66	4630.52	699.89	5072.18	692.77	5400.87	691.02
5542.31	689.57	5696.21	683.95	5762.43	678.75	6113.18	677.04	6451.1	678.86
6587.42	680.26	6800.38	670.52	6961.44	665.65	7030.34	660.78	7077.77	660.78
7223.3	664.18	7433.8	674.23	7494.74	673.51	7620.01	673.98	7971.66	666.5
8018.01	668.33	8167.62	670.89	8451.26	654.61	8464.89	653.1	8632.01	643.29
8766.23	642.65	9012.29	651.21	9181.41	650.41	9358.58	639.82	9538.76	636.35
9678.34	624.07	9695.02	623.83	9781.81	614.09	9944.66	599.4810000.14	599.48	599.48
10040.8	603.92	10163.5	632.7110267.68	644.0910643.03	644.0910643.03	644.0910643.03	639.9510796.12	633.13	633.13
10850.15	627.411056.14	625.1311300.41	632.6911591.07	629.4812205.79	629.4812205.79	629.4812205.79	624.61	624.61	624.61
13621.5	624.6113854.51	619.4814453.49	619.4814453.49	619.4814453.49	619.4814453.49	619.4814453.49	624.3514972.47	629.22	629.22
15257.07	625.7115263.82	620.4915367.07	618.8116005.06	596.7816548.19	596.7816548.19	596.7816548.19	589.74	589.74	589.74
16619.81	583.99	16872	580.8816937.07	575.2117039.46	567.6617492.77	567.6617492.77	567.66	567.66	567.66
17598.25	572.1717699.38	589.7417786.68	609.1417805.38	635.6521093.72	635.6521093.72	635.6521093.72	645.1324914.27	647.44	647.44
18473.23	637.97	18901.7	639.6920980.29	635.6521093.72	635.6521093.72	635.6521093.72	645.1324914.27	647.44	647.44
21664.11	632.3222635.06	635.3922888.41	640.2624537.88	664.8727288.55	664.8727288.55	664.8727288.55	650.82	29289.1	646.62
25330.81	651.6725971.09	663.9826191.56	654.8728982.44	652.0429151.29	652.0429151.29	652.0429151.29	675.8531776.15	678.35	678.35
28183.45	659.7428748.47	653.630041.47	654.8728982.44	652.0429151.29	652.0429151.29	652.0429151.29	690.135079.46	737.12	737.12
29435.39	647.3229724.79	653.630041.47	654.8728982.44	652.0429151.29	652.0429151.29	652.0429151.29	756.54	36989.7	756.79
32728.9	717.8932869.35	718.4333476.68	739.3836647.13	755.8136687.94	755.8136687.94	755.8136687.94	793.2439264.34	800	800
36106.4	736.7336300.76	739.3836647.13	739.3836647.13	755.8136687.94	755.8136687.94	755.8136687.94	793.2439264.34	800	800
37316.14	767.7437471.77	770.5238233.96	770.5238233.96	793.2439264.34	793.2439264.34	793.2439264.34			

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516548.19				
			.1517699.38		.15

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

16548.19	17699.38	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1504868.00	213455.60	1767225.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1504868.00	213455.60	1767225.00
Q Total (cfs)	6730000.00	Flow (cfs)	2891380.00	622732.50	3215888.00
Top width (ft)	35735.55	Top width (ft)	15204.00	1151.19	19380.36
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.92	2.92	1.82
Max chl Dpth (ft)	192.15	Hydr. Depth (ft)	98.98	185.42	91.19
Conv. Total (cfs)	742048700.0	Conv. (cfs)	318803000.0	68662380.0	354583300.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15216.61	1153.58	19386.88
Min ch El (ft)	567.66	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	7.98	2.77	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	106145.80	19007.17	127606.80
C & E Loss (ft)	0.00	Cum SA (acres)	949.01	90.81	1127.73

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275463.\*

INPUT

Description:  
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	190.63	792.34	620.23	776.31	1306.69	761.42	1479.42	754.02
1755.29	746.92	1917.07	745.12	2255.38	745.12	2578.33	743.8	3445.72	721.28
3515.09	717.61	3603.24	714.88	3614.17	714.74	3808.95	717.35	3982.71	715.12
4120.83	712.77	4269.11	708.65	4631.58	699.87	5073.34	692.76	5402.11	691
5543.58	689.55	5697.52	683.92	5763.75	678.72	6114.59	677.01	6452.58	678.84
6588.93	680.24	6801.94	670.48	6963.04	665.6	7031.95	660.72	7079.39	660.72
7224.96	664.13	7435.5	674.17	7496.45	673.46	7621.75	673.95	7973.48	666.5
8019.85	668.34	8169.49	670.95	8453.2	654.7	8466.83	653.18	8633.99	643.36
8768.24	642.72	9014.36	651.31	9183.51	650.5	9360.72	639.9	9540.95	636.43
9680.56	624.16	9697.24	623.92	9784.05	614.16	9946.94	599.5210002.43	599.52	599.52
10043.11	603.9710165.83	632.7610270.03	644.1610645.47	640.0110798.59	640.0110798.59	640.0110798.59	633.19	633.19	633.19
10852.63	627.4811058.68	625.2	11303	632.7411593.73	629.5212208.59	629.5212208.59	624.64	624.64	624.64
13624.62	624.6413857.68	619.5214456.81	619.5214456.81	619.5214456.81	619.5214456.81	619.5214456.81	624.4	14975.9	629.28
15260.57	625.7615267.32	620.5615370.59	618.8716008.72	596.8116551.98	596.8116551.98	596.8116551.98	589.76	589.76	589.76
16623.74	58416876.42	580.916941.61	575.2217044.19	567.6617497.75	567.6617497.75	567.6617497.75	567.66	567.66	567.66
17603.4	572.16	17704.7	589.7617791.99	609.1417810.69	609.1417810.69	609.1417810.69	611.5118045.33	632.19	632.19
18478.46	637.9318906.89	639.6520985.24	635.621098.66	635.621098.66	635.621098.66	635.621098.66	645.1224918.79	647.44	647.44
21668.99	632.2922639.83	635.3622893.16	640.2424542.44	664.8827292.81	664.8827292.81	664.8827292.81	650.82	29293.14	646.6
25335.28	651.6725975.49	66426195.94	654.8828986.51	652.0529155.35	652.0529155.35	652.0529155.35	675.8251779.92	678.32	678.32
28187.61	659.7628752.57	653.5930045.42	656.3331126.16	689.9533514.41	689.9533514.41	689.9533514.41	690.0835082.86	737.03	737.03
29439.41	647.3129728.78	653.5930045.42	656.3331126.16	689.9533514.41	689.9533514.41	689.9533514.41	756.4736992.89	756.75	756.75
32732.56	717.8132872.99	718.3433480.25	739.3136650.36	755.7436669.16	755.7436669.16	755.7436669.16	793.2439267.28	800	800
36109.69	736.6536304.03	739.3136650.36	739.3136650.36	755.7436669.16	755.7436669.16	755.7436669.16			
37319.29	767.7	37474.9	770.4838237.01	790	38921.9	790	793.2439267.28		

Manning's n values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516551.98				
			.15	17704.7	.15

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

16551.98	17704.7	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1504891.00	213727.90	1767582.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1504891.00	213727.90	1767582.00
Q Total (cfs)	6730000.00	Flow (cfs)	2890311.00	623360.30	3216329.00
Top width (ft)	35739.83	Top width (ft)	15207.71	1152.72	19379.40

Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	SS_Rev3.rep	1.92	1.82
Max Chl Dpth (ft)	192.15	Hydr. Depth (ft)		98.96	185.41
Conv. Total (cfs)	742221600.0	Conv. (cfs)	318759500.0	68747610.0	354714500.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15220.31	1155.11	19385.91
Min Ch El (ft)	567.66	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.97	2.77	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	105973.10	18982.65	127403.90
C & E Loss (ft)	0.00	Cum SA (acres)	947.26	90.67	1125.51

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275460.\*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta Elev Sta Elev		
0 800 190.68	792.34	620.37
1755.69 746.92 1917.51	745.11	2255.9
3515.89 717.63 3604.06	714.89	3615
4121.77 712.75 4270.09	708.63	4632.65
5544.85 689.53 5698.83	683.89	5765.07
6590.44 680.22 6803.5	670.44	6964.63
7226.61 674.12 7437.21	674.12	7498.17
8021.69 668.36 8171.36	671.01	8455.14
8770.25 642.8 9016.43	651.41	9185.62
9682.78 624.25 9699.46	624.01	9786.3
10045.41 604.02 10168.16	632.81	10272.39
10855.12 627.55 11061.21	625.27	11305.59
13627.74 624.67 13860.86	619.56	14460.12
15264.06 625.81 15270.82	620.62	15374.12
16627.67 584.01 16880.83	580.92	16946.14
17608.55 572.16 17710.01	589.78	17797.3
18483.69 637.91 18912.07	639.6	20990.2
21673.87 632.25 22644.6	635.33	22897.9
25339.76 651.67 25979.9	664.01	26200.32
28191.77 659.78 28756.66	654.89	28990.58
29443.44 647.32 29732.77	653.58	30049.38
32736.22 717.72 32876.63	718.26	33483.83
36112.97 736.58 36307.29	739.25	36653.58
37322.45 767.65 37478.04	770.44	38240.06

Manning's n Values	num=	3
Sta n Val Sta n Val		
0 .1516555.78	.1517710.01	.15

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
16555.78 17710.01	5 5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1504935.00	213996.30	1767942.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1504935.00	213996.30	1767942.00
Q Total (cfs)	6730000.00	Flow (cfs)	2889313.00	623969.90	3216718.00
Top width (ft)	35744.17	Top width (ft)	15211.19	1154.23	19378.75
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.92	2.92	1.82
Max Chl Dpth (ft)	192.15	Hydr. Depth (ft)	98.94	185.40	91.23
Conv. Total (cfs)	742401200.0	Conv. (cfs)	318726500.0	68831500.0	354843200.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15223.80	1156.62	19385.24
Min Ch El (ft)	567.66	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.97	2.77	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	105800.40	18958.10	127201.00
C & E Loss (ft)	0.00	Cum SA (acres)	945.51	90.54	1123.28

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275457.\*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta Elev Sta Elev		
0 800 190.72	792.33	620.51
1756.1 746.91 1917.95	745.1 2256.41	745.1 2579.51
3516.7 717.64 3604.89	714.9 3615.82	714.76 3810.69
4122.71 712.74 4271.07	708.61 4633.71	699.83 5075.67
5546.12 689.51 5700.13	683.87 5766.39	678.64 6117.39
6591.95 680.2 6805.06	670.4 6966.23	665.5 7035.18
7228.27 664.02 7438.91	674.07 7499.89	673.37 7625.25
8023.52 668.38 8173.23	671.06 8457.08	654.88 8470.71
8772.26 642.8 9018.49	651.5 9187.72	650.7 9365.01
9685 624.34 9701.68	624.1 9788.54	614.3 9951.5
10047.71 604.07 10170.49	632.85 10274.74	644.31 10650.35
10857.61 627.63 11063.74	625.34 11308.18	632.83 11599.04
13630.87 624.71 13864.04	619.61 14463.43	619.61 14924.57
15267.56 625.81 15274.32	620.68 15377.64	618.99 16016.06
16631.6 584.02 16885.24	580.93 16950.68	575.24 17053.66
17613.71 572.15 17715.33	589.81 17802.61	609.14 17821.3
18488.92 637.86 18917.26	639.56 20995.15	635.52 21108.54
21678.74 632.21 22649.37	635.32 22902.64	640.22 24551.56
25344.23 651.66 25984.3	664.02 26204.7	664.92 27301.33
28195.93 659.82 28760.76	654.92 28994.65	652.05 29163.45
29447.46 647.28 29736.76	653.57 30053.33	656.32 31133.83
32739.88 717.72 32880.27	718.17 33487.4	689.93 3521.55
36116.25 736.58 36310.55	739.19 36656.8	755.63 36697.59
37325.59 767.65 37481.17	770.43 38243.11	79038927.84

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Manning's n Values num= 3  
 Sta n Val Sta n Val  
 0 .1516559.57 .1517715.33 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16559.5717715.33 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1504954.00	214270.60	1768296.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1504954.00	214270.60	1768296.00
Q Total (cfs)	6730000.00	Flow (cfs)	2888261.00	624607.90	3217132.00
Top width (ft)	35748.48	Top width (ft)	15214.72	1155.76	19378.00
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.92	2.92	1.82
Max chl Dpth (ft)	192.15	Hydr. Depth (ft)	98.91	185.39	91.25
Conv. Total (cfs)	742572500.0	Conv. (cfs)	318683900.0	68917780.0	354970800.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15227.33	1158.15	19384.47
Min Ch El (ft)	567.66	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.97	2.77	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	105627.60	18933.52	126998.00
C & E Loss (ft)	0.00	Cum SA (acres)	943.77	90.41	1121.06

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275454.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	190.76	792.33	620.66	776.28	1307.59	761.41	1480.44	754
1756.5	746.91	1918.39	745.09	2256.93	745.09	2580.1	743.76	3448.09	721.33
3517.5	717.66	3605.72	714.91	3616.65	714.77	3811.57	717.34	3985.45	715.09
4123.66	712.72	4272.05	708.6	4634.77	699.81	5076.83	692.71	5405.82	690.94
5547.39	689.49	5701.44	683.84	5767.71	678.61	6118.79	676.91	6457.02	678.77
6593.46	680.18	6806.62	670.36	6967.83	665.45	7036.79	660.54	7084.25	660.54
7229.92	663.97	7440.61	674.01	7501.61	673.33	7626.99	673.87	7978.97	666.53
8025.36	668.39	8175.1	671.12	8459.01	654.97	8472.65	653.45	8639.92	643.58
8774.27	642.94	9020.56	651.6	9189.83	650.79	9367.16	640.13	9547.51	636.65
9687.22	624.43	9703.91	624.19	9790.78	614.37	9953.78	599.64	10009.31	599.64
10050.01	604.12	10172.82	632.91	10277.09	644.37	10652.79	640.19	10806.01	633.4
10860.09	627.71	11066.28	625.41	11310.77	632.88	11601.7	629.64	12216.98	624.73
12633.99	624.73	13867.21	619.64	14466.75	619.64	14927.98	624.55	14986.2	629.46
15271.06	625.92	15277.82	620.74	15381.16	619.05	16019.73	596.88	16563.36	589.82
16635.53	584.03	16889.66	580.95	16955.22	575.25	17058.39	567.66	17512.69	567.66
17618.86	572.15	17720.65	589.82	17807.91	609.13	17826.61	611.51	18061.17	632.09
18494.15	637.83	18922.44	639.52	21000.11	635.45	21113.48	635.45	21339.3	636.17
21683.62	632.18	22654.14	635.27	22907.39	640.18	24556.12	645.09	24932.35	647.42
25348.71	651.66	25988.7	664.03	26209.08	664.91	27305.58	664.91	27930.67	659.82
28200.09	659.82	28764.86	654.91	28998.72	652.06	29167.5	650.81	29305.25	646.56
29451.48	647.27	29740.75	653.57	30057.28	656.31	31137.66	675.74	31791.2	678.25
32743.53	717.55	32883.91	718.09	33490.98	689.88	33525.12	690.01	335093.05	736.77
36119.54	736.44	36313.81	739.12	36660.03	755.53	36700.82	756.27	37002.45	756.6
37328.74	767.56	37484.3	770.36	38246.16	79038930.82		793.26	39276.09	800

Manning's n Values num= 3  
 Sta n Val Sta n Val  
 0 .1516563.36 .1517720.65 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16563.3617720.65 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1504981.00	214542.40	1768653.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1504981.00	214542.40	1768653.00
Q Total (cfs)	6730000.00	Flow (cfs)	2887216.00	625233.40	3217551.00
Top width (ft)	35753.04	Top width (ft)	15218.42	1157.29	19377.33
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.92	2.91	1.82
Max chl Dpth (ft)	192.15	Hydr. Depth (ft)	98.89	185.38	91.27
Conv. Total (cfs)	742743100.0	Conv. (cfs)	318641800.0	69002650.0	355098700.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15231.04	1159.69	19383.79
Min Ch El (ft)	567.66	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.97	2.76	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	105454.90	18908.91	126795.00
C & E Loss (ft)	0.00	Cum SA (acres)	942.02	90.28	1118.83

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275451.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	190.81	792.32	620.8	776.26	1307.89	761.41	1480.78	753.99
1756.9	746.9	1918.83	745.08	2257.45	745.08	2580.69	743.75	3448.88	721.34
3518.31	717.67	3606.54	714.92	3617.48	714.78	3812.44	717.33	3986.37	715.08
4124.6	712.71	4273.03	708.58	4635.83	699.79	5078	692.7	5407.06	690.92
5548.66	689.48	5702.74	683.81	5769.03	678.57	6120.19	676.87	6458.5	678.75
6594.97	680.18	6808.17	670.32	6969.42	665.4	7038.4	660.48	7085.88	660.48
7231.58	663.91	7442.32	673.96	7503.33	673.28	7628.74	673.84	7980.79	666.53
8027.2	668.41	8176.98	671.18	8460.95	655.05	8474.59	653.54	8641.9	643.65
8776.28	643.01	9022.62	651.69	9191.93	650.89	9369.3	640.21	9549.7	636.72

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9689.44	624.52	9706.13	624.28	9793.02	614.44	9956.06	599.68	10011.6	599.68
10052.31	604.1710175.15		632.9410279.45		644.4410655.22		640.2510808.49		633.47
10862.58	627.7811068.81		625.4911313.36		632.9211604.35		629.6812219.78		624.76
13637.11	624.7613870.39		619.6814470.06		619.68 14931.4		624.614989.63		629.52
15274.55	625.9715281.32		620.8115384.68		619.11 16023.4		596.9116567.16		589.84
16639.46	584.0516894.07		580.9716959.76		575.2517063.13		567.6617517.67		567.66
17624.01	572.1517725.96		589.8417813.22		609.1317831.91		611.518066.45		632.05
18499.39	637.7918927.62		639.4821005.06		635.421118.43		635.421344.22		636.12
21688.5	632.1422658.92		635.2422912.13		640.1624560.69		645.0824936.87		647.42
25353.18	651.6625993.11		664.0426213.46		664.9227309.84		664.9227934.86		659.84
28204.25	659.8428768.95		654.9229002.79		652.0629171.55		650.8129309.29		646.55
29455.5	647.2529744.74		653.5630061.24		656.3 31141.5		675.7131794.96		678.23
32747.19	717.4632887.55		71833494.55		689.86 33528.7		689.9935096.45		736.68
36122.82	736.3736317.07		739.0636663.25		755.4636704.04		756.237005.64		756.55
37331.89	767.5237487.43		770.32 38249.2		79038933.79		793.2739279.02		800

Manning's n Values

num=	3
Sta n Val	Sta n Val
0 .1516567.16	.1517725.96

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

16567.1617725.96		5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505020.00	214809.60	1769018.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1505020.00	214809.60	1769018.00
Q Total (cfs)	6730000.00	Flow (cfs)	2886196.00	625837.40	3217967.00
Top width (ft)	35757.34	Top width (ft)	15221.96	1158.80	19376.59
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.92	2.91	1.82
Max Chl Dpth (ft)	192.15	Hydr. Depth (ft)	98.87	185.37	91.30
Conv. Total (cfs)	742922300.0	Conv. (cfs)	318606200.0	69085970.0	355230200.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15234.57	1161.20	19383.04
Min Ch El (ft)	567.66	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.97	2.76	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	105282.10	18884.27	126592.00
C & E Loss (ft)	0.00	Cum SA (acres)	940.27	90.14	1116.61

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275448.\*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev		
0 800 190.85 792.32 620.94 776.25 1308.19 761.41 1481.12 753.98		
1757.3 746.89 1919.27 745.07 2257.96 745.07 2581.29 743.73 3449.67 721.36		
3519.11 717.69 3607.37 714.93 3618.31 714.79 3813.31 717.33 3987.28 715.07		
4125.55 712.69 4274 708.56 4636.89 699.77 5079.16 692.68 5408.3 690.9		
5549.93 689.46 5704.05 683.78 5770.35 678.53 6121.59 676.84 6459.98 678.72		
6596.48 680.14 6809.73 670.28 6971.02 665.35 7040.01 660.42 7087.5 660.42		
7233.23 663.86 7444.02 673.91 7505.04 673.23 7630.49 673.82 7982.62 666.54		
8029.04 668.43 8178.85 671.23 8462.89 655.14 8476.53 653.63 8643.88 643.72		
8778.28 643.09 9024.69 651.79 9194.04 650.99 9371.45 640.29 9551.88 636.8		
9691.66 624.61 9708.35 624.39 9795.26 614.51 9958.34 599.7210013.89 599.72		
10054.61 604.2210177.48 632.99 10281.8 644.5110657.66 640.3210810.96 633.53		
10865.07 627.8611071.35 625.5611315.95 632.9711607.01 629.7212222.58 624.79		
13640.23 624.7913873.56 619.7214473.37 619.7214934.82 624.6514993.06 629.58		
15278.05 626.0215284.82 620.8715388.21 619.1716027.07 596.9316570.95 589.86		
16643.39 584.0616898.48 580.9916964.29 575.2617067.86 567.6617522.65 567.66		
17629.16 572.1417731.28 589.8617818.53 609.1317837.22 611.518071.73 632.01		
18504.62 637.7618932.81 639.4421010.02 635.3521123.37 635.3521349.14 636.07		
21693.38 632.122663.69 635.2122916.88 640.1424565.25 645.0724941.39 647.41		
25357.65 651.6525997.51 664.0526217.84 664.93 27314.1 664.9327939.05 659.86		
28208.41 659.8628773.05 654.9329006.86 652.0729175.61 650.8129313.32 646.54		
29459.52 647.2429748.72 653.5530065.19 656.2931145.33 675.6831798.73 678.2		
32750.85 717.37 32891.2 717.9233498.12 689.8433532.27 689.9735099.84 736.59		
36126.11 736.336320.34 73936666.48 755.3936707.25 756.1337008.82 756.51		
37335.04 767.4737490.57 770.2838252.25 79038936.77 793.2839281.95 800		

Manning's n Values

num=	3
Sta n Val	Sta n Val
0 .1516570.95	.1517731.28

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

16570.9517731.28		5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505051.00	215082.20	1769385.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1505051.00	215082.20	1769385.00
Q Total (cfs)	6730000.00	Flow (cfs)	2885148.00	626457.60	3218394.00
Top width (ft)	35761.52	Top width (ft)	15225.48	1160.33	19375.71
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.92	2.91	1.82
Max Chl Dpth (ft)	192.15	Hydr. Depth (ft)	98.85	185.36	91.32
Conv. Total (cfs)	743193400.0	Conv. (cfs)	318568100.0	69171290.0	355364000.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15238.09	1162.73	19382.15
Min Ch El (ft)	567.66	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.97	2.76	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	105109.40	18859.60	126388.90
C & E Loss (ft)	0.00	Cum SA (acres)	938.53	90.01	1114.39

CROSS SECTION



SS\_Rev3.rep

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275445.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	190.9	792.31	621.08	776.24	1308.49	761.41	1481.46	753.98
1757.71	746.89	1919.71	745.06	2258.48	745.06	2581.88	743.72	3450.46	721.38
3519.92	717.7	3608.19	714.94	3619.14	714.8	3814.19	717.32	3988.19	715.06
4126.49	712.68	4274.98	708.54	4637.95	699.75	5080.32	692.67	5409.54	690.89
5551.2	689.44	5705.35	683.76	5771.67	678.5	6122.99	676.81	6461.45	678.7
6597.99	680.12	6811.29	670.24	6972.61	665.3	7041.62	660.36	7089.12	660.36
7234.89	663.81	7445.72	673.86	7506.76	673.19	7632.23	673.79	7984.45	666.55
8030.87	668.45	8180.72	671.29	8464.82	655.23	8478.47	653.71	8645.86	643.79
8780.29	643.16	9026.75	651.88	9196.14	651.08	9373.59	640.37	9554.07	636.87
9693.87	624.7	9710.57	624.46	9797.51	614.58	9960.62	599.76	10016.18	599.76
10056.91	604.27	10179.81	633.04	10284.16	644.58	10660.1	640.38	10813.44	633.6
10867.56	627.94	11073.88	625.63	11318.54	633.02	11609.67	629.76	12225.37	624.82
13643.35	624.82	13876.74	619.76	14476.68	619.76	14938.24	624.71	14996.49	629.64
15281.5	626.08	15288.31	620.93	15391.73	619.23	16030.74	596.96	16574.74	589.88
16647.32	584.07	16902.9	581.96	16968.83	575.27	17072.6	567.66	17527.63	567.66
17634.31	572.14	17736.6	589.88	17823.83	609.13	17842.52	611.49	18077.01	631.98
18509.85	637.72	18937.99	639.42	1914.97	635.32	1128.31	635.32	1354.06	636.02
21698.26	632.07	22668.46	635.18	22921.62	640.12	24569.81	645.06	24945.91	647.4
25362.13	651.65	26001.91	664.07	26222.21	664.94	27318.36	664.94	27943.23	659.88
28212.57	659.88	28777.14	654.94	29010.93	652.07	29179.66	650.81	29317.36	646.53
29463.54	647.22	29752.71	653.55	30069.14	656.29	31149.17	675.65	31802.49	678.18
32754.5	717.29	32894.84	717.83	33501.7	689.82	33535.84	689.95	335103.24	736.51
36129.39	736.23	36323.6	738.94	36669.7	755.32	36710.47	756.06	37012.01	756.46
37338.2	767.42	37493.7	770.24	38255.3	7903	8939.74	793.28	39284.89	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.1516574.74	17736.6	.15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16574.74 17736.6 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505064.00	215355.10	1769711.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1505064.00	215355.10	1769711.00
Q Total (cfs)	6730000.00	Flow (cfs)	2884133.00	627098.90	3218768.00
Top width (ft)	35765.86	Top width (ft)	15228.95	1161.86	19375.05
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.92	2.91	1.82
Max ch dpth (ft)	192.15	Hydr. Depth (ft)	98.83	185.31	91.34
Conv. Total (cfs)	743262300.0	Conv. (cfs)	318324100.0	69256900.0	355481300.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15241.57	1164.26	19381.47
Min ch El (ft)	567.66	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.97	2.76	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	104936.60	18834.89	126185.80
C & E Loss (ft)	0.00	Cum SA (acres)	936.78	89.88	1112.16

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275442.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	190.94	792.31	621.22	776.23	1308.78	761.4	1481.8	753.97
1758.11	746.88	1920.15	745.05	2259	745.05	2582.47	743.71	3451.25	721.4
3520.73	717.72	3609.02	714.95	3619.96	714.81	3815.06	717.32	3989.1	715.05
4127.44	712.66	4275.96	708.53	4639.01	699.73	5081.48	692.65	5410.78	690.87
5552.47	689.42	5706.66	683.73	5772.99	678.46	6124.39	676.77	6462.93	678.68
6599.5	680.1	6812.85	670.2	6974.21	665.25	7043.23	660.3	7090.74	660.3
7236.55	663.76	7447.43	673.8	7508.48	673.14	7633.98	673.76	7986.27	666.55
8032.71	668.46	8182.59	671.35	8466.76	655.32	8480.42	653.8	8647.84	643.86
8782.3	643.23	9028.82	651.98	9198.25	651.18	9375.74	640.45	9556.25	636.95
9696.09	624.8	9712.79	624.55	9799.75	614.65	9962.9	599.81	10018.48	599.8
10059.22	604.31	10182.14	633.08	10286.51	644.65	10662.54	640.44	10815.91	633.67
10870.04	628.01	11076.42	625.71	11321.13	633.06	11612.33	629.81	12228.17	624.85
13646.48	624.85	13879.91	619.8	14480	619.81	14941.66	624.75	14999.93	629.7
15285.05	626.13	15291.81	621.53	15395.25	619.29	16034.4	596.99	16578.54	589.9
16651.25	584.08	16907.31	581.02	16973.37	575.28	17077.33	567.66	17532.61	567.66
17639.46	572.13	17741.91	589.91	17829.14	609.13	17847.83	611.49	18082.29	631.94
18515.08	637.69	18943.18	639.35	19109.93	635.25	11133.25	635.25	1358.97	635.98
21703.14	622.03	22673.23	635.15	22926.96	640.12	24574.37	645.05	24950.43	647.4
25366.6	651.65	26006.32	664.08	26226.59	664.95	27322.62	664.95	27947.42	659.9
28216.72	659.92	28781.24	654.95	29015	652.08	29183.71	650.81	29321.4	646.51
29467.56	647.21	29756.7	653.54	30073.1	656.28	31153	675.62	31806.25	678.16
32758.16	717.23	28988.48	717.75	33505.27	689.83	33539.41	689.93	335106.64	736.42
36132.67	736.15	36326.86	738.87	36672.93	755.25	36713.69	755.99	37015.2	756.41
37341.34	767.38	37496.83	770.23	38258.35	7903	8942.71	793.29	39287.82	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.1516578.54	17741.91	.15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16578.54 17741.91 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505097.00	215624.50	1770085.00

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E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1505097.00	215624.50	1770085.00
Q Total (cfs)	6730000.00	Flow (cfs)	2883076.00	627711.50	3219212.00
Top Width (ft)	35770.34	Top Width (ft)	15232.67	1163.37	19374.30
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.92	2.91	1.82
Max Chl Dpth (ft)	192.15	Hydr. Depth (ft)	98.81	185.34	91.36
Conv. Total (cfs)	743440600.0	Conv. (cfs)	318483800.0	69341190.0	355615600.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15245.29	1165.77	19380.71
Min Ch El (ft)	567.66	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.97	2.75	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	104763.80	18810.16	125982.70
C & E Loss (ft)	0.00	Cum SA (acres)	935.03	89.74	1109.94

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275439.\*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev
0	800	190.98	792.3	621.37	776.22	1309.08	761.4	1482.13	753.96	
1758.51	746.87	1920.59	745.04	2259.51	745.04	2583.06	743.69	3452.04	721.41	
3521.53	717.74	3609.84	714.96	3620.79	714.82	3815.93	717.31	3990.02	715.04	
4128.38	712.65	4276.94	708.51	4640.08	699.71	5082.65	692.64	5412.01	690.85	
5553.74	689.4	5707.96	683.7	5774.32	678.42	6125.8	676.74	6464.41	678.65	
6601.01	680.08	6814.41	670.16	6975.8	665.2	7044.84	660.24	7092.37	660.24	
7238.2	663.7	7449.13	673.75	7510.2	673.1	7635.73	673.73	7988.1	666.56	
8034.55	668.48	8184.46	671.4	8468.7	655.41	8482.36	653.89	8649.82	643.94	
8784.31	643.31	9030.89	652.07	9200.35	651.28	9377.88	640.53	9558.44	637.02	
9698.31	624.89	9715.02	624.84	9801.99	614.72	9965.18	599.84	10020.77	599.84	
10061.52	604.36	10184.47	633.13	10288.86	644.72	10664.98	640.51	10818.39	633.74	
10872.53	628.09	10178.95	625.77	11323.72	633.11	11614.98	629.84	12230.97	624.88	
13649.6	624.88	13883.09	619.84	14483.31	619.84	14945.08	624.81	15003.36	629.76	
15288.54	626.18	15295.31	621.06	15398.77	619.35	16038.07	597.01	16582.33	589.92	
16655.19	584.09	16911.72	581.04	16977.91	575.29	17082.06	567.65	17537.58	567.65	
17644.62	572.13	17747.23	589.92	17834.45	609.12	17853.13	611.49	18087.57	631.9	
18520.31	637.65	18948.36	639.31	21024.88	635.2	21138.2	635.22	21363.89	635.93	
21708.02	632	22678	635.12	22931.11	640.08	24578.93	645.04	24954.95	647.39	
25371.08	651.64	26010.72	664.09	26230.97	664.96	27326.87	664.96	27951.61	659.92	
28220.88	659.92	28785.34	654.96	29019.07	652.08	29187.76	650.82	29325.44	646.5	
29471.58	647.22	29760.69	653.53	30077.05	656.27	31156.83	675.59	31810.01	678.13	
32761.82	717.11	32902.12	717.66	33508.85	689.78	33542.98	689.91	335110.04	736.33	
36135.96	736.08	36330.12	738.81	36676.15	755.18	36716.91	755.92	37018.38	756.36	
37344.5	767.33	37499.96	770.16	38261.4	790.38	38945.68	793.33	39290.76	800	

Manning's n Values

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516582	33	.1517747	23	.15

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	16582.33	17747.23		5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
w.s. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505136.00	215901.50	1770459.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1505136.00	215901.50	1770459.00
Q Total (cfs)	6730000.00	Flow (cfs)	2882037.00	628348.00	3219616.00
Top Width (ft)	35774.73	Top Width (ft)	15236.20	1164.90	19373.63
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.91	2.91	1.82
Max Chl Dpth (ft)	192.16	Hydr. Depth (ft)	98.79	185.34	91.39
Conv. Total (cfs)	743626900.0	Conv. (cfs)	318448700.0	69428900.0	355749300.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15248.82	1167.31	19380.02
Min Ch El (ft)	567.65	Shear (lb/sq ft)	0.50	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.97	2.75	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	104591.10	18785.39	125779.50
C & E Loss (ft)	0.00	Cum SA (acres)	933.28	89.61	1107.71

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275436.\*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev
0	800	191.03	792.3	621.51	776.2	1309.38	761.4	1482.47	753.95	
1758.91	746.87	1921.03	745.03	2260.03	745.03	2583.65	743.68	3452.83	721.43	
3522.34	717.75	3610.67	714.97	3621.62	714.83	3816.8	717.31	3990.93	715.03	
4129.32	712.63	4277.92	708.49	4641.14	699.7	5083.81	692.62	5413.25	690.83	
5555.01	689.38	5709.27	683.68	5775.64	678.39	6127.2	676.71	6465.89	678.63	
6602.52	680.06	6815.97	670.12	6977.4	665.15	7046.46	660.18	7093.99	660.18	
7239.86	663.65	7450.84	673.7	7511.91	673.05	7637.47	673.71	7989.93	666.57	
8036.39	668.5	8186.34	671.46	8470.63	655.5	8484.3	653.98	8651.8	644.01	
8786.32	643.38	9032.95	652.17	9202.45	651.37	9380.03	640.6	9560.63	637.1	
9700.53	624.98	9717.24	624.73	9804.23	614.79	9967.46	599.88	10023.06	599.88	
10063.82	604.41	10186.8	633.18	10291.22	644.79	10667.42	640.56	10820.86	633.81	
10875.02	628.17	10818.48	625.85	11326.31	633.15	11617.64	629.88	12233.77	624.91	
13652.72	624.91	13886.26	619.88	14486.62	619.88	14948.5	624.85	15006.79	629.82	
15292.04	626.24	15298.81	621.12	15402.29	619.42	16041.74	597.04	16586.12	589.94	
16659.12	584.11	16916.14	581.06	16982.45	575.3	17086.8	567.65	17542.56	567.65	
17649.77	572.12	17752.55	589.94	17839.76	609.12	17858.44	611.49	18092.85	631.87	
18925.54	637.62	18953.54	639.27	21029.84	635.15	21143.14	635.15	21368.81	635.88	
21712.9	631.96	22682.77	635.09	22935.85	640.06	24583.49	645.03	24959.47	647.39	
25375.55	651.64	26015.12	664.12	26235.35	664.97	27331.13	664.97	27955.8	659.94	
28225.04	659.94	28789.44	654.97	29203.14	652.08	29191.82	650.82	29329.47	646.49	
29475.6	647.18	29764.68	653.53	30081	656.26	31160.67	675.56	31813.77	678.11	
32765.47	717.03	32905.76	717.57	33512.42	689.76	33546.55	689.89	335113.43	736.24	

36139.24 736.0136333.39 738.7536679.37 755.1136720.13 755.8537021.57 756.32  
 37347.64 767.29 37503.1 770.1238264.45 79038948.66 793.3 39293.7 800

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Manning's n Values num= 3  
 Sta n Val Sta n Val Sta n Val  
 0 .1516586.12 .1517752.55 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16586.1217752.55 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505145.00	216174.10	1770803.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1505145.00	216174.10	1770803.00
Q Total (cfs)	6730000.00	Flow (cfs)	2880973.00	628979.30	3220049.00
Top width (ft)	35778.81	Top width (ft)	15239.72	1166.43	19372.66
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.91	2.91	1.82
Max Chl Dpth (ft)	192.16	Hydr. Depth (ft)	98.76	185.33	91.41
Conv. Total (cfs)	743793300.0	Conv. (cfs)	318402400.0	69514200.0	355876800.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15252.35	1168.84	19379.04
Min Ch El (ft)	567.65	Shear (lb/sq ft)	0.50	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.97	2.75	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	104418.30	18760.60	125576.20
C & E Loss (ft)	0.00	Cum SA (acres)	931.53	89.47	1105.49

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275433.\*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev		
0 800 191.07 792.29 621.65 776.19 1309.68 761.39 1482.81 753.94		
1759.31 746.86 1921.47 745.02 2260.55 745.02 2584.24 743.67 3453.62 721.45		
3523.14 717.77 3611.5 714.98 3622.45 714.84 3817.68 717.3 3991.84 715.02		
4130.27 712.62 4278.9 708.48 4642.2 699.68 5084.97 692.61 5414.49 690.81		
5556.28 689.36 5710.58 683.65 5776.96 678.35 6128.6 676.68 6467.37 678.61		
6604.03 680.04 6817.53 670.08 6978.99 665.1 7048.07 660.12 7095.61 660.12		
7241.51 663.6 7452.54 673.64 7513.63 673.01 7639.22 673.68 7991.76 666.57		
8038.23 668.51 8188.21 671.52 8472.57 655.59 8486.24 654.07 8653.77 644.08		
8788.33 643.45 9035.02 652.26 9204.56 651.47 9382.17 640.68 9562.81 637.17		
9702.75 625.07 9719.46 624.82 9806.47 614.86 9969.74 599.9210025.35 599.92		
10066.12 604.4610189.13 633.2210293.57 644.8610669.86 640.6210823.34 633.87		
10877.5 628.2411084.02 625.92 11328.9 633.2111620.29 629.9212236.56 624.94		
13655.84 624.9413889.44 619.9214489.94 619.9214951.91 624.915010.22 629.88		
15295.54 626.2915302.31 621.1815405.82 619.4816045.41 597.0616589.91 589.96		
16663.04 584.1216920.55 581.0816986.98 575.3117091.53 567.6517547.54 567.65		
17654.92 572.1217757.87 589.9617845.06 609.1217863.74 611.4818098.13 631.83		
18530.78 637.5818958.73 639.2321034.79 635.1211148.08 635.121373.72 635.83		
21717.78 631.9222687.55 635.0622940.59 640.0424588.06 645.0224963.99 647.38		
25380.03 651.6426019.53 664.1126239.73 664.9827335.39 664.9827959.99 659.96		
28229.2 659.9628793.53 654.9829027.21 652.0929195.87 650.829333.51 646.47		
29479.62 647.1729768.67 653.5230084.96 656.26 31164.5 675.5331817.54 678.08		
32769.13 716.94 32909.4 717.49 33516 689.7433550.12 689.8735116.83 736.15		
36142.52 735.9436336.65 738.68 36682.6 755.0436723.35 755.7937024.75 756.27		
37350.8 767.2437506.23 770.08 38267.5 79038951.63 793.3139296.63 800		

Manning's n Values num= 3  
 Sta n Val Sta n Val Sta n Val  
 0 .1516589.91 .1517757.87 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16589.9117757.87 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505176.00	216443.50	1771168.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1505176.00	216443.50	1771168.00
Q Total (cfs)	6730000.00	Flow (cfs)	2879933.00	629590.20	3220477.00
Top width (ft)	35783.37	Top width (ft)	15243.43	1167.96	19371.99
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.91	2.91	1.82
Max Chl Dpth (ft)	192.16	Hydr. Depth (ft)	98.74	185.32	91.43
Conv. Total (cfs)	743967400.0	Conv. (cfs)	318362000.0	69598000.0	356007400.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15256.06	1170.37	19378.36
Min Ch El (ft)	567.65	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.96	2.75	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	104245.50	18735.77	125372.90
C & E Loss (ft)	0.00	Cum SA (acres)	929.78	89.34	1103.27

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275430.\*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev		
0 800 191.11 792.29 621.79 776.18 1309.98 761.39 1483.15 753.94		
1759.72 746.85 1921.91 745.01 2261.07 745.01 2584.83 743.66 3454.41 721.46		
3523.95 717.78 3612.32 714.99 3623.28 714.85 3818.55 717.29 3992.75 715.01		
4131.21 712.6 4279.87 708.46 4643.26 699.66 5086.13 692.59 5415.73 690.79		
5557.55 689.35 5711.88 683.62 5778.28 678.32 6130 676.64 6468.85 678.59		
6605.54 680.02 6819.09 670.04 6980.59 665.05 7049.68 660.06 7097.23 660.06		

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7243.17	663.54	7454.24	673.59	7515.35	672.96	7640.97	673.65	7993.58	666.58
8040.06	668.53	8190.08	671.57	8474.51	655.67	8488.18	654.16	8655.73	644.15
8790.34	643.52	9037.08	652.36	9206.66	651.57	9384.32	640.76	9565.63	637.25
9704.96	625.16	9721.68	624.91	9808.72	614.93	9972.02	599.9610027	65	599.96
10068.42	604.5110191	46	633.2710295	92	644.93	10672.3	640.6810825	81	633.94
10879.99	628.3211086	55	625.9911331	49	633.2511622	95	629.9612239	36	624.97
13658.96	624.9713892	62	619.9614493	25	619.9614955	33	624.9515013	65	629.94
15299.03	626.3415305	81	621.2515409	34	619.5416049	08	597.0916593	71	589.98
16666.97	584.1316924	96	581.0916991	52	575.3217096	27	567.6517552	52	567.65
17660.07	572.1217763	18	589.9817850	37	609.1217869	05	611.4818103	41	631.79
18536.01	637.5518963	91	639.1921039	74	635.0521153	02	635.0521378	64	635.78
21722.65	631.8922692	32	635.0322945	34	640.0224592	62	645.0124968	51	647.38
25384.5	651.6326023	93	664.1326244	11	664.9927339	65	664.9927964	18	659.98
28233.36	659.9828797	63	654.9929031	28	652.0929199	92	650.829337	55	646.46
29483.64	647.1529772	66	653.5130088	91	656.2531168	34	675.5	31821.3	678.06
32772.79	716.8632913	04	717.433519	57	689.7233553	69	689.8535120	23	736.07
36145.81	735.8736339	91	738.6236685	82	754.9736726	57	755.7237027	94	756.22
37353.95	767.237509	36	770.0438270	55	790	38954.6	793.3239299	57	800

Manning's n Values			
Sta	n Val	Sta	n Val
0	.1516593	71	.1517763

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	16593.71	17763.18	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit w.S. (ft)		Flow Area (sq ft)	1505208.00	216713.00	1771505.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1505208.00	216713.00	1771505.00
Q Total (cfs)	6730000.00	Flow (cfs)	2878941.00	630211.00	3220848.00
Top width (ft)	35787.61	Top width (ft)	15246.91	1169.47	19371.23
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.91	2.91	1.82
Max chl Dpth (ft)	192.16	Hydr. Depth (ft)	98.72	185.31	91.45
Conv. Total (cfs)	744316800.0	Conv. (cfs)	318324800.0	69682500.0	356129500.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15259.54	1171.88	19377.60
Min Ch El (ft)	567.65	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.96	2.75	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	104072.80	18710.91	125169.60
C & E Loss (ft)	0.00	Cum SA (acres)	928.03	89.21	1101.04

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275428.\*

INPUT

Description:									
Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	191.16	792.28	621.94	776.17	1310.28	761.39	1483.49	753.93
1760.12	746.85	1922.34	745	2261.58	745	2585.42	743.64	3455.19	721.48
3524.75	717.8	3613.15	715	3624.11	714.86	3819.42	717.29	3993.67	715
4132.16	712.59	4280.85	708.44	4644.32	699.64	5087.3	692.58	5416.96	690.78
5558.83	689.33	5713.19	683.59	5779.6	678.28	6131.4	676.61	6470.33	678.56
6607.05	680	6820.64	670	6982.19	665	7051.29	660	7098.85	660
7244.82	663.49	7455.95	673.54	7517.07	672.91	7642.71	673.63	7995.41	666.59
8041.9	668.55	8191.95	671.63	8476.45	655.76	8490.12	654.25	8657.73	644.22
8792.35	643.6	9039.15	652.45	9208.77	651.66	9386.46	640.84	9567.19	637.32
9707.18	625.25	9723.91	625	9810.96	615	9974.29	600	10029.94	600
10070.72	604.5610193	79	633.3210298	28	64510674.74	640.7510828	29	634.01	625
10882.48	628.411089	09	626.0611334	08	633.2911625	61	63012242.16	625	630
13662.09	62513895	79	62014496	56	62014958	75	62515017	08	630
15302.53	626.3915309	31	621.3115412	86	619.616052	75	597.11	16597.5	590
16670.91	584.1416929	38	581.1116996	06	575.33	17101	567.65	17537.5	567.65
17665.22	572.11	17768.5	590	17855.68	609.1217874	36	611.4818108	69	631.76
18541.24	637.51	18969.1	639.15	21044.7	63521157	96	63521383	56	635.73
21727.54	631.8522697	09	63522950	08	64024597	18	64524973	03	647.37
25388.97	651.6326028	33	664.1426248	49	665.27343	9	66527968	37	660
28237.52	66028801	72	65529035	36	652.129203	97	650.829341	58	646.45
29487.66	647.1429776	64	653.530092	87	656.2431172	17	675.4731825	06	678.04
32776.45	716.7732916	69	717.3233523	14	689.733557	26	689.8335123	62	735.98
36149.09	735.836343	17	738.5636689	05	754.936729	79	755.6537031	12	756.17
37357.09	767.15	37512.5	77038273	59	79038957	58	793.32	39302.5	800

Manning's n Values			
Sta	n Val	Sta	n Val
0	.15	16597.5	.15
		17768.5	.15

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	16597.5	17768.5	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit w.S. (ft)		Flow Area (sq ft)	1505234.00	216985.50	1771862.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1505234.00	216985.50	1771862.00
Q Total (cfs)	6730000.00	Flow (cfs)	2877909.00	630835.40	3212256.00
Top width (ft)	35791.99	Top width (ft)	15250.43	1171.00	19370.55
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.91	2.91	1.82
Max chl Dpth (ft)	192.16	Hydr. Depth (ft)	98.70	185.30	91.47
Conv. Total (cfs)	744310000.0	Conv. (cfs)	318284700.0	69767760.0	356257500.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15263.07	1173.41	19376.90
Min Ch El (ft)	567.65	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.96	2.74	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	103900.00	18686.02	124966.30
C & E Loss (ft)	0.00	Cum SA (acres)	926.28	89.07	1098.82

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CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275425.\*

INPUT

Description:

Station	Elevation	Data	num=	120	Stations	Elevations	Stations	Elevations	Stations	Elevations
0	800	191.2	792.28	622.08	776.15	1310.58	761.39	1483.83	753.92	
1760.52	746.84	1922.78	744.99	2262.1	744.99	2586.01	743.63	3455.98	721.5	
3525.56	717.81	3613.97	715.01	3624.93	714.87	3820.3	717.28	3994.58	714.99	
4133.1	712.57	4281.83	708.43	4645.38	699.62	5088.46	692.56	5418.2	690.76	
5560.1	689.31	5714.49	683.57	5780.92	678.24	6132.8	676.58	6471.81	678.54	
6608.56	679.98	6822.2	669.96	6983.78	664.95	7052.9	659.94	7100.48	659.54	
7246.48	663.44	7457.65	673.49	7518.79	672.87	7644.46	673.6	7997.24	666.59	
8043.74	668.57	8193.83	671.69	8478.38	655.85	8492.06	654.33	8659.71	644.29	
8794.36	643.67	9041.21	652.55	9210.87	651.76	9388.61	640.92	9569.37	637.4	
9709.4	625.34	9726.13	625.09	9813.2	615.07	9976.58	600.04	10032.23	600.04	
10073.02	604.61	10196.11	633.36	10300.63	645.07	10677.18	640.81	10830.76	634.08	
10884.96	628.47	11091.62	626.14	11336.67	633.34	11628.27	630.04	12244.96	625.03	
13665.21	625.03	13898.97	620.04	14499.88	620.04	14962.17	625.05	15020.52	630.06	
15306.03	626.45	15312.8	621.37	15416.38	619.66	16056.42	597.14	16601.29	590.02	
16674.84	584.15	16933.79	581.13	17000.6	575.34	17105.73	567.65	17562.48	567.65	
17670.37	572.11	17773.82	590.02	17860.99	609.12	17879.66	611.47	18113.96	631.72	
18546.47	637.48	18974.28	639.12	19049.65	634.95	21162.91	634.95	21388.48	635.68	
21732.41	631.81	22701.86	634.97	22954.83	639.98	24601.74	644.99	24977.55	647.37	
25393.45	651.63	26032.74	664.15	26252.87	665.01	27348.16	665.01	27972.56	660.02	
28241.68	660.02	28805.82	655.01	29039.43	652.12	29208.02	650.82	29345.62	646.43	
29491.68	647.12	29780.63	653.53	30096.82	656.23	31176.01	675.45	31828.82	678.01	
32780.1	716.68	32920.33	717.23	33352.67	689.68	33560.83	689.81	335127.02	735.89	
36152.38	735.72	36346.44	738.53	36692.27	754.83	36733.01	755.58	37034.31	756.13	
37360.25	767.13	37515.63	769.96	38276.64	79038960.55		793.33	39305.43	800	

Manning's n Values

Station	n Val	Station	n Val
0	.1516601.29		.15

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

16601.29	17773.82	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.81	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1505253.00	217257.10	1772235.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1505253.00	217257.10	1772235.00
Q total (cfs)	673000.00	Top width (ft)	2876837.00	631450.30	3221713.00
Top width (ft)	35796.17	Avg. Vel. (ft/s)	15253.95	1172.53	19369.69
Vel Total (ft/s)	1.93	Hydr. Depth (ft)	1.91	2.91	1.82
Max Chl Dpth (ft)	192.16	Conv. (cfs)	98.68	185.29	91.50
Conv. Total (cfs)	744488500.0	Wetted Per. (ft)	318242500.0	69852530.0	356393500.0
Length wtd. (ft)	5.00	Shear (lb/sq ft)	15266.60	1174.95	19376.02
Min Ch El (ft)	567.65	Stream Power (lb/ft s)	0.50	0.94	0.47
Alpha	1.06	Cum Volume (acre-ft)	0.96	2.74	0.85
Frctn Loss (ft)	0.00	Cum SA (acres)	103727.20	18661.10	124762.90
C & E Loss (ft)	0.00		924.53	88.94	1096.60

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275422.\*

INPUT

Description:

Station	Elevation	Data	num=	120	Stations	Elevations	Stations	Elevations	Stations	Elevations
0	800	191.24	792.28	622.22	776.14	1310.88	761.38	1484.17	753.91	
1760.92	746.84	1923.22	744.98	2262.62	744.98	2586.6	743.62	3456.77	721.52	
3526.36	717.83	3614.8	715.02	3625.76	714.88	3821.17	717.28	3995.49	714.98	
4134.05	712.56	4282.81	708.41	4646.44	699.6	5089.62	692.55	5419.44	690.74	
5561.37	689.29	5715.8	683.54	5782.24	678.21	6134.2	676.54	6473.28	678.52	
6610.07	679.96	6823.76	669.92	6985.38	664.9	7054.51	659.88	7102.1	659.88	
7248.14	663.38	7459.36	673.43	7520.5	672.82	7646.2	673.57	7999.07	666.6	
8045.58	668.58	8195.7	671.74	8480.32	655.94	8494	654.42	8661.69	644.36	
8796.37	643.74	9043.28	652.64	9212.98	651.86	9390.75	641.95	9571.56	637.47	
9711.62	625.43	9728.35	625.18	9815.44	615.14	9978.85	600.08	10034.52	600.08	
10075.33	604.66	10198.44	633.41	10302.98	645.14	10679.62	640.87	10833.23	634.15	
10887.45	628.55	11094.15	626.21	11339.26	633.39	11630.92	630.08	12247.75	625.06	
13668.33	625.06	13902.14	620.08	14503.19	620.08	14965.59	625.11	15023.95	630.12	
15309.53	626.5	15316.3	621.43	15419.91	619.72	16060.08	597.17	16605.09	590.04	
16678.77	584.16	16938.2	581.15	17005.14	575.35	17110.47	567.65	17567.46	567.65	
17675.52	572.11	17779.13	590.04	17866.29	609.11	17884.96	611.47	18119.24	631.68	
18551.7	637.44	18979.47	639.06	21054.61	634.92	21167.85	634.92	21393.39	635.64	
21737.29	631.78	22706.63	634.94	22959.57	639.96	24606.3	644.98	24982.07	647.36	
25397.92	651.62	26037.14	664.16	26257.25	665.02	27352.42	665.02	27976.74	660.04	
28245.84	660.04	28809.92	655.02	29043.5	652.12	29212.08	650.79	29349.66	646.42	
29495.7	647.11	29784.62	653.49	30100.77	656.23	31179.84	675.42	31832.58	677.99	
32783.76	716.63	32923.97	717.15	33350.29	689.66	33564.4	689.79	335130.42	735.8	
36155.66	735.65	36349.47	738.43	36695.49	754.76	36736.23	755.51	37037.5	756.08	
37363.39	767.06	37518.77	769.92	38279.69	79038963.52		793.34	39308.37	800	

Manning's n Values

Station	n Val	Station	n Val
0	.1516605.09		.15

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

16605.09	17779.13	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB

		SS_Rev3.rep			
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1505280.00	217525.90	1772586.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1505280.00	217525.90	1772586.00
Q Total (cfs)	6730000.00	Flow (cfs)	2875803.00	632066.90	3222131.00
Top width (ft)	35800.63	Top width (ft)	15257.67	1174.04	19368.92
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.91	2.91	1.82
Max Chl Dpth (ft)	192.15	Hydr. Depth (ft)	98.66	185.28	91.52
Conv. Total (cfs)	744657500.0	Conv. (cfs)	318200300.0	69936610.0	356520600.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	15270.32	1176.46	19375.24
Min Ch El (ft)	567.65	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.96	2.74	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	103554.40	18636.14	124559.40
C & E Loss (ft)	0.00	Cum SA (acres)	922.78	88.80	1094.37

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275419.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	191.29	792.27	622.36	776.13	1311.18	761.38	1484.51	753.91
1761.33	746.83	1923.66	744.97	2263.13	744.97	2587.19	743.61	3457.56	721.53
3527.17	717.84	3615.62	715.03	3626.59	714.89	3822.04	717.27	3996.4	714.97
4134.99	712.54	4283.79	708.39	4647.5	699.58	5090.78	692.53	5420.68	690.72
5562.64	689.27	5717.1	683.51	5783.56	678.17	6135.6	676.51	6474.76	678.49
6611.58	679.94	6825.32	669.88	6986.97	664.85	7056.12	659.82	7103.72	659.82
7249.79	663.33	7461.06	673.38	7522.22	672.78	7647.95	673.54	8000.89	666.61
8047.41	668.6	8197.57	671.8	8482.26	656.03	8495.94	654.51	8663.67	644.44
8798.38	643.82	9045.35	652.74	9215.08	651.95	9392.9	641.07	9573.75	637.55
9713.84	625.52	9730.57	625.27	9817.68	615.21	9981.13	600.1210036.81	600.12	
10077.63	604.7110200.77		633.4610305.34		645.2110682.06		640.9310835.71	634.21	
10889.94	628.6311096.69		626.2811341.85		633.4311633.58		630.1212250.55	625.09	
13671.45	625.0913905.32		620.12 14506.5		620.1214969.01		625.1515027.38	630.18	
15313.02	626.55 15319.8		621.515423.43		619.7816063.75		597.1916608.88	590.06	
16682.7	584.1716942.62		581.1617009.67		575.36 17115.2		567.6517572.44	567.65	
17680.68	572.117784.45		590.06 17871.6		609.1117890.27		611.4718124.52	631.65	
18556.93	637.4118984.65		639.0221059.56		634.8521172.79		634.8521398.31	635.59	
21742.17	631.7422711.41		634.9122964.31		639.9424610.87		644.9724986.59	647.36	
25402.39	651.6226041.54		664.1726261.63		665.0327356.68		665.0327980.93	660.06	
28250	660.0628814.01		655.0329047.57		652.1129216.13		650.7929353.69	646.41	
29499.72	647.129788.61		653.4830104.73		656.2231183.68		675.3931836.35	677.96	
32787.41	716.5132927.61		717.0633533.87		689.6433567.97		689.7735133.82	735.71	
36158.94	735.5836352.96		738.3736698.72		754.6936739.45		755.4437040.68	756.03	
37366.55	767.01 37521.9		769.8838282.74		790 38966.5		793.34 39311.3	800	

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.1516608.88		
			.1517784.45

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

16608.8817784.45		5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

		Element			
E.G. Elev (ft)	759.87	Left OB	0.150	Channel	0.150
Vel Head (ft)	0.06	Right OB	0.150		0.150
W.S. Elev (ft)	759.80	Reach Len. (ft)	5.00		5.00
Crit W.S. (ft)		Flow Area (sq ft)	1505315.00	217798.50	1772946.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1505315.00	217798.50	1772946.00
Q Total (cfs)	6730000.00	Flow (cfs)	2874789.00	632687.90	3222524.00
Top width (ft)	35804.96	Top width (ft)	15261.14	1175.57	19368.25
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.91	2.90	1.82
Max Chl Dpth (ft)	192.15	Hydr. Depth (ft)	98.64	185.27	91.54
Conv. Total (cfs)	744836300.0	Conv. (cfs)	318164500.0	70022120.0	356649700.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	15273.79	1177.99	19374.56
Min Ch El (ft)	567.65	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.96	2.74	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	103381.60	18611.16	124355.90
C & E Loss (ft)	0.00	Cum SA (acres)	921.03	88.67	1092.15

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275416.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	191.33	792.27	622.5	776.12	1311.48	761.38	1484.85	753.9
1761.73	746.82	1924.1	744.96	2263.65	744.96	2587.78	743.59	3458.35	721.55
3527.98	717.86	3616.45	715.04	3627.42	714.89	3822.91	717.27	3997.32	714.96
4135.94	712.53	4284.77	708.38	4648.57	699.56	5091.95	692.52	5421.92	690.7
5563.91	689.25	5718.41	683.49	5784.88	678.13	6137.01	676.48	6476.24	678.47
6613.09	679.92	6826.88	669.84	6988.57	664.8	7057.74	659.76	7105.34	659.76
7251.45	663.28	7462.76	673.33	7523.94	672.73	7649.7	673.52	8002.72	666.61
8049.25	668.62	8199.44	671.86	8484.19	656.12	8497.88	654.6	8665.65	644.51
8800.39	643.89	9047.41	652.83	9217.19	652.05	9395.04	641.13	9575.93	637.62
9716.06	625.61	9732.79	625.36	9819.93	615.28	9983.41	600.1610039.11	600.16	
10079.93	604.76	10203.1	633.510307.69		645.28 10684.5		640.9910838.18	634.28	
10892.43	628.7111099.22		626.3511344.44		633.4811636.24		630.1612253.35	625.12	
13674.58	625.1213908.49		620.1614509.81		620.1614972.42		625.215030.81	630.24	
15316.52	626.6 15323.3		621.5615426.95		619.8416067.42		597.2216612.67	590.08	
16686.63	584.1916947.03		581.1817014.21		575.3717119.94		567.6517577.42	567.65	
17685.83	572.117789.77		590.0817876.91		609.1117895.58		611.46 18129.8	631.61	
18562.16	637.3718989.83		638.9821064.52		634.821177.73		634.821403.23	635.54	
21747.05	631.7122716.18		634.8822969.06		639.9224615.43		644.9624991.11	647.35	
25406.87	651.6226045.95		664.1826266.01		665.0427360.94		665.0427985.12	660.08	

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28254.16	660.0828818.11	655.0429051.64	652.1129220.18	650.7929357.73	646.4
29503.74	647.08 29792.26	653.4830108.68	656.2131187.51	675.3631840.11	677.94
32791.07	716.4232931.25	716.9835337.44	689.6233571.54	689.7535137.21	735.62
36162.23	735.5136356.22	738.3136701.94	754.6236742.67	755.3737043.87	755.98
37369.7	766.9737525.03	769.8438285.79	79038969.47	793.3539314.24	800

Manning's n Values

num=	3
Sta n Val	Sta n Val
0 .1516612.67	.1517789.77 .15

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

16612.6717789.77	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1505337.00	218068.30	1773301.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1505337.00	218068.30	1773301.00
Q Total (cfs)	6730000.00	Flow (cfs)	2873754.00	633299.60	3222946.00
Top Width (ft)	35809.25	Top Width (ft)	15264.67	1177.10	19367.48
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.91	2.90	1.82
Max Chl Dpth (ft)	192.15	Hydr. Depth (ft)	98.62	185.26	91.56
Conv. Total (cfs)	745007600.0	Conv. (cfs)	318123100.0	70105940.0	356778500.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15277.31	1179.52	19373.77
Min Ch El (ft)	567.65	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.96	2.74	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	103208.90	18586.14	124152.40
C & E Loss (ft)	0.00	Cum SA (acres)	919.28	88.53	1089.93

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275413.\*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev		
0 800 191.38 792.26 622.65 776.1 1311.78 761.38 1485.19 753.89		
1762.13 746.82 1924.54 744.95 2264.17 744.95 2588.38 743.58 3459.14 721.57		
3528.78 717.88 3617.28 715.05 3628.25 714.9 3823.79 717.26 3998.23 714.95		
4136.88 712.51 4285.74 708.36 4649.63 699.54 5093.11 692.5 5423.15 690.68		
5565.18 689.23 5719.72 683.46 5786.2 678.1 6138.41 676.44 6477.72 678.45		
6614.6 679.9 6828.44 669.8 6990.16 664.75 7059.35 659.7 7106.97 659.7		
7253.1 663.23 7464.47 673.27 7525.66 672.68 7651.44 673.49 8004.55 666.62		
8051.09 668.63 8201.31 671.91 8486.13 656.2 8499.82 654.69 8667.62 644.58		
8802.4 643.96 9049.48 652.93 9219.29 652.15 9397.19 641.23 9578.12 637.7		
9718.28 625.7 9735.02 625.45 9822.17 615.35 9985.69 600.2 10041.4 600.2		
10082.23 604.8110205.43 633.5510310.04 645.3510686.94 641.0510840.66 634.35		
10894.91 628.7811101.76 626.4211347.03 633.5311638.89 630.212256.15 625.15		
13677.7 625.1513911.67 620.214513.13 620.214975.84 625.2515034.24 630.3		
15320.02 626.66 15326.8 621.6215430.47 619.916071.09 597.2416616.46 590.1		
16690.56 584.216951.44 581.217018.75 575.3817124.67 567.6417582.39 567.64		
17690.98 572.0917795.09 590.117882.21 609.1117900.88 611.4618135.08 631.57		
18567.4 637.3418995.02 638.9421069.47 634.7521182.67 634.7521408.14 635.49		
21751.93 631.6722720.95 634.85 22973.8 639.924619.99 644.9524995.63 647.35		
25411.34 651.6126050.35 664.226270.38 665.0527365.19 665.0527989.31 660.1		
28258.31 660.128802.21 655.0529055.71 652.1229224.23 650.7929361.77 646.38		
29507.77 647.0729796.59 653.4730112.63 656.231191.34 675.3331843.87 677.92		
32794.73 716.3432934.89 716.8933541.02 689.633575.11 689.7335140.61 735.54		
36165.51 735.4436359.48 738.2436705.16 754.5536745.89 755.337047.05 755.94		
37372.85 766.9237528.16 769.838288.84 79038972.44 793.3639317.18 800		

Manning's n Values

num=	3
Sta n Val	Sta n Val
0 .1516616.46	.1517795.09 .15

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

16616.4617795.09	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1505369.00	218346.10	1773640.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1505369.00	218346.10	1773640.00
Q Total (cfs)	6730000.00	Flow (cfs)	2872740.00	633946.80	3223314.00
Top Width (ft)	35813.43	Top Width (ft)	15268.19	1178.63	19366.61
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.91	2.90	1.82
Max Chl Dpth (ft)	192.16	Hydr. Depth (ft)	98.60	185.25	91.58
Conv. Total (cfs)	745182300.0	Conv. (cfs)	318085400.0	70194050.0	356902900.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15280.85	1181.05	19372.89
Min Ch El (ft)	567.64	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.96	2.73	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	103036.10	18561.10	123948.80
C & E Loss (ft)	0.00	Cum SA (acres)	917.53	88.40	1087.70

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275410.\*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev		
0 800 191.42 792.26 622.79 776.09 1312.08 761.37 1485.52 753.88		
1762.53 746.81 1924.98 744.94 2264.68 744.94 2588.97 743.57 3459.93 721.58		
3529.59 717.89 3618.1 715.06 3629.07 714.91 3824.66 717.26 3999.14 714.94		

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4137.82	712.5	4286.72	708.34	4650.69	699.52	5094.27	692.49	5424.39	690.66
5566.45	689.21	5721.02	683.43	5787.52	678.06	6139.81	676.41	6479.2	678.43
6616.11	679.88	6830	669.76	6991.76	664.7	7060.96	659.64	7108.59	659.64
7254.76	663.17	7466.17	673.22	7527.38	672.64	7653.19	673.46	8006.37	666.63
8052.93	668.65	8203.19	671.97	8488.07	656.29	8501.76	654.78	8669.6	644.65
8804.41	644.03	9051.54	653.02	9221.39	652.24	9399.33	641.31	9580.31	637.77
9720.49	625.79	9737.24	625.54	9824.41	615.42	9987.97	600.2410043	69	600.24
10084.53	604.8510207	76	633.6	10312.4	645.4210689	38	641.1110843	13	634.42
10897.4	628.8611104	29	626.511349	62	633.5711641	55	630.2412258	95	625.18
13680.82	625.1813914	84	620.2414516	44	620.2414979	26	625.315037	68	630.36
15323.51	626.71	15330.3	621.68	15434	619.9616074	76	597.2716620	26	590.12
16694.49	584.2116955	86	581.2217023	29	575.39	17129.4	567.6417587	37	567.64
17696.13	572.09	17800.4	590.1217887	52	609.1117906	19	611.4618140	36	631.54
18572.63	637.3	19000.2	638.921074	43	634.7211187	62	634.721413	06	635.44
21756.81	631.6322725	72	634.8222978	54	639.8824624	55	644.9425000	15	647.34
25415.82	651.6126054	75	664.2126274	76	665.0627369	45	665.06	27993.5	660.12
28262.47	660.12	28826.3	655.0629059	78	652.1229228	28	650.79	29365.8	646.37
29511.79	647.0529800	58	653.4630116	59	656.231195	18	675.331847	63	677.89
32798.38	716.2532938	54	716.8133544	59	689.5733578	68	689.7135144	01	735.45
36168.79	735.3736362	75	738.1836708	39	754.4836749	11	755.2437050	24	755.89
37376	766.88	37531.3	769.7638291	89	79038975	41	793.3639320	11	800

Manning's n Values			
Sta	n Val	Sta	n Val
0	.1516620.26	.15	17800.4

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
16620.26	17800.4		5	5	5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505398.00	218614.00	1774004.00
E.G. Slope (ft/ft)	0.000082	Area (sq ft)	1505398.00	218614.00	1774004.00
Q Total (cfs)	6730000.00	Flow (cfs)	2871696.00	634553.90	3223750.00
Top width (ft)	35817.88	Top width (ft)	15271.90	1180.14	19365.84
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.91	2.90	1.82
Max Chl Dpth (ft)	192.16	Hydr. Depth (ft)	98.57	185.24	91.60
Conv. Total (cfs)	745356200.0	Conv. (cfs)	318004700.0	70277660.0	357034400.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15284.56	1182.57	19372.11
Min Ch El (ft)	567.64	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.96	2.73	0.85
Frctn Loss (ft)	0.00	Cum volume (acre-ft)	102863.30	18536.02	123745.20
C & E Loss (ft)	0.00	Cum SA (acres)	915.77	88.26	1085.48

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275407.\*

INPUT

Description: Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	191.46	792.25	622.93	776.08	1312.38	761.37	1485.86	753.87
1762.93	746.8	1925.42	744.93	2265.2	744.93	2589.56	743.55	3460.72	721.6
3530.39	717.91	3618.93	715.07	3629.9	714.92	3825.53	717.25	4000.06	714.93
4138.77	712.49	4287.7	708.33	4651.75	699.5	5095.43	692.47	5425.63	690.65
5567.72	689.2	5722.33	683.4	5788.84	678.02	6141.21	676.38	6480.68	678.4
6617.62	679.86	6831.56	669.72	6993.36	664.65	7062.57	659.58	7110.21	659.58
7256.41	663.12	7467.88	673.17	7529.09	672.59	7654.94	673.43	8008.2	666.63
8054.77	668.67	8205.06	672.03	8490.01	656.38	8503.7	654.87	8671.58	644.72
8806.41	644.11	9053.61	653.12	9223.5	652.34	9401.48	641.39	9582.49	637.84
9722.71	625.88	9739.46	625.63	9826.65	615.49	9990.25	600.2810045	98	600.28
10086.83	604.910210	09	633.6410314	75	645.4910691	82	641.1810845	61	634.49
10899.89	628.9411106	82	626.5711352	21	633.6211644	21	630.2812261	74	625.21
13683.94	625.2113918	02	620.2814519	75	620.2814982	68	625.3515041	11	630.42
15327.01	626.76	15333.8	621.7515437	52	620.0216078	43	597.2916624	05	590.14
16698.42	584.2216960	27	581.2417027	83	575.417134	14	567.6417592	35	567.64
17701.28	572.0817805	72	590.1417892	83	609.1117911	49	611.4618145	64	631.5
18577.86	637.2719005	39	638.8521079	38	634.6521192	56	634.6521417	98	635.39
21761.69	631.622730	49	634.7922983	29	639.8624629	11	644.9325004	67	647.34
25420.29	651.6126059	16	664.2226279	14	665.0727373	71	665.0727997	69	660.14
28266.63	660.14	28830.4	655.0729063	85	652.1329232	34	650.7929369	84	646.36
29515.81	647.0429804	57	653.4630120	54	656.1931199	01	675.2731851	39	677.87
32802.04	716.1632942	18	716.7233548	16	689.5533582	25	689.6935147	41	735.36
36172.08	735.2936366	01	738.1236711	61	754.4136752	33	755.1737053	43	755.84
37379.15	766.8337534	43	769.7238294	93	79038978	39	793.3739323	05	800

Manning's n Values			
Sta	n Val	Sta	n Val
0	.1516624.05	.1517805.72	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
16624.05	17805.72		5	5	5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505425.00	218886.10	1774367.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505425.00	218886.10	1774367.00
Q Total (cfs)	6730000.00	Flow (cfs)	2870662.00	635171.80	3224166.00
Top width (ft)	35822.26	Top width (ft)	15275.43	1181.67	19365.16
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.91	2.90	1.82
Max Chl Dpth (ft)	192.16	Hydr. Depth (ft)	98.55	185.23	91.63
Conv. Total (cfs)	745532400.0	Conv. (cfs)	318004700.0	70362730.0	357165000.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15288.09	1184.10	19371.42
Min Ch El (ft)	567.64	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.96	2.73	0.85
Frctn Loss (ft)	0.00	Cum volume (acre-ft)	102690.50	18510.91	123541.60



C & E Loss (ft) 0.00 Cum SA (acres) SS\_Rev3.rep 914.02 88.13 1083.26

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275404.\*

INPUT

Description:  
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	191.51	792.25	623.07	776.07	1312.68	761.37	1486.2	753.87
1763.34	746.8	1925.86	744.92	2265.72	744.92	2590.15	743.54	3461.51	721.62
3531.2	717.92	3619.75	715.08	3630.73	714.93	3826.41	717.25	4000.97	714.92
4139.71	712.47	4288.68	708.31	4652.81	699.48	5096.6	692.46	5428.87	690.63
5568.99	689.18	5723.63	683.38	5790.17	677.99	6142.61	676.34	6482.16	678.38
6619.13	679.84	6833.11	669.68	6994.95	664.6	7064.18	659.52	7111.83	659.52
7258.07	663.07	7469.58	673.12	7530.81	672.55	7656.68	673.41	8010.03	666.64
8056.6	668.68	8206.93	672.08	8491.94	656.47	8505.64	654.95	8673.56	644.79
8808.42	644.18	9055.67	653.21	9225.6	652.44	9403.62	641.47	9584.68	637.92
9724.93	625.97	9741.68	625.72	9828.9	615.56	9992.53	600.32	10048.27	600.32
10089.13	604.95	10212.42	633.69	10317.1	645.56	10694.26	641.24	10848.08	634.55
10902.37	629.01	11109.36	626.64	11354.8	633.67	11646.86	630.32	12264.54	625.24
13687.06	625.24	13921.2	620.32	14523.07	620.32	14986.1	625.41	15044.54	630.48
15330.51	626.82	15337.29	621.81	15441.04	620.08	16082.09	597.32	16627.84	590.16
16702.35	584.23	16964.68	581.25	17032.36	575.41	17138.87	567.64	17597.33	567.64
17706.43	572.08	17811.04	590.16	17898.14	609.1	17916.8	611.45	18150.92	631.47
18383.09	637.23	19010.57	638.81	21084.34	634.6	21197.5	634.6	21422.9	635.34
21766.57	631.56	22735.26	634.76	22988.03	639.84	24633.67	644.92	25009.19	647.33
25424.77	651.62	26063.56	664.23	26283.52	665.08	27377.97	665.08	28001.88	660.16
28270.79	660.16	28834.5	655.08	29067.92	652.13	29236.39	650.78	29373.88	646.34
29519.83	647.02	29808.55	653.45	30124.49	656.18	31202.85	675.24	31855.16	677.84
32805.7	716.08	32945.82	716.64	33551.74	689.53	33585.82	689.67	35150.8	735.27
36175.36	735.22	36369.27	738.06	36714.84	754.34	36755.55	755.13	37056.61	755.79
37382.3	766.78	37537.56	769.68	38297.98	79038	3981.36	793.38	39325.98	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.1516627	.84	.1517811

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

16627.84	17811.04	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1505441.00	219159.80	1774740.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505441.00	219159.80	1774740.00
Q Total (cfs)	6730000.00	Flow (cfs)	2869597.00	635797.30	3224607.00
Top Width (ft)	35826.59	Top Width (ft)	15278.90	1183.20	19364.49
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.91	2.90	1.82
Max Chl Dpth (ft)	192.16	Hydr. Depth (ft)	98.53	185.23	91.65
Conv. Total (cfs)	745709100.0	Conv. (cfs)	317962000.0	70448700.0	357298400.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15291.57	1185.63	19370.73
Min Ch El (ft)	567.64	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.95	2.73	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	102517.70	18485.77	123337.90
C & E Loss (ft)	0.00	Cum SA (acres)	912.27	87.99	1081.03

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275401.\*

INPUT

Description:  
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	191.55	792.24	623.21	776.06	1312.98	761.36	1486.54	753.86
1763.74	746.79	1926.3	744.91	2266.23	744.91	2590.74	743.53	3462.3	721.63
3532	717.94	3620.58	715.09	3631.56	714.94	3827.28	717.24	4001.88	714.91
4140.66	712.46	4289.66	708.29	4653.87	699.46	5097.76	692.44	5428.11	690.61
5570.26	689.16	5724.94	683.35	5791.49	677.95	6144.01	676.31	6483.63	678.36
6620.64	679.82	6834.67	669.64	6996.55	664.55	7065.79	659.46	7113.46	659.46
7259.72	663.01	7471.28	673.06	7532.53	672.5	7658.43	673.38	8011.86	666.65
8058.44	668.7	8208.8	672.14	8495.88	656.56	8507.58	655.04	8675.54	644.87
8810.43	644.25	9057.74	653.31	9227.71	652.53	9405.77	641.54	9586.86	637.99
9727.15	626.06	9743.91	625.81	9831.14	615.63	9994.81	600.36	10050.57	600.36
10091.44	605.10	10214.75	633.74	10319.46	645.63	10696.7	641.31	10850.56	634.62
10904.86	629.09	11111.89	626.71	11357.39	633.71	11649.52	630.36	12267.34	625.27
13690.19	625.27	13924.37	620.36	14526.38	620.36	14989.52	625.41	15047.97	630.54
15334	626.82	15340.79	621.81	15444.56	620.15	16085.76	597.35	16631.64	590.18
16706.28	584.25	16969.1	581.27	17036.9	575.41	17143.61	567.64	17602.31	567.64
17711.59	572.07	17816.35	590.18	17903.45	609.1	17922.1	611.45	18156.2	631.43
18588.32	637.21	19015.76	638.77	21089.29	634.55	21202.44	634.55	21427.81	635.3
21771.45	631.52	22274.04	634.73	22992.78	639.82	24638.23	644.92	25013.71	647.33
25429.24	651.62	26067.96	664.24	26287.9	665.09	27382.22	665.09	28006.07	660.18
28274.95	660.18	28838.59	655.09	29071.99	652.13	29240.44	650.78	29377.91	646.33
29523.85	647.01	29812.54	653.44	30128.45	656.17	31206.68	675.24	31858.92	677.82
32809.36	715.99	32949.46	716.53	33555.31	689.51	33589.39	689.65	35154.2	735.18
36178.64	735.15	36372.54	737.99	36718.06	754.27	36758.77	755.03	37059.8	755.74
37385.45	766.74	37540.7	769.64	38301.03	79038	3984.34	793.38	39328.91	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.1516631	.64	.1517816

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

16631.64	17816.35	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit w.S. (ft)		Flow Area (sq ft)	1505472.00	219426.70	1775098.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505472.00	219426.70	1775098.00
Q Total (cfs)	673000.00	Flow (cfs)	2868568.00	636400.10	3225032.00
Top width (ft)	35831.04	Top Width (ft)	15282.61	1184.71	19363.71
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.91	2.90	1.82
Max Chl Dpth (ft)	192.16	Hydr. Depth (ft)	98.51	185.22	91.67
Conv. Total (cfs)	745881700.0	Conv. (cfs)	317921600.0	70531830.0	357428300.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15295.29	1187.14	19369.94
Min Ch El (ft)	567.64	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.95	2.72	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	102344.90	18460.60	123134.10
C & E Loss (ft)	0.00	Cum SA (acres)	910.51	87.86	1078.81

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275398.\*

INPUT

Description:

Station	Elevation	Data	num=	120
Sta	Elev	Sta	Elev	Sta
0	800	191.59	792.24	623.36
1764.14	746.79	1926.74	744.9	2266.75
3532.81	717.95	3621.4	715.1	3632.39
4141.6	712.44	4290.63	708.27	4654.93
5571.53	689.14	5726.24	683.32	5792.81
6622.15	679.8	6836.23	669.6	6998.14
7261.38	662.96	7472.99	673.01	7534.25
8060.28	668.72	8210.67	672.2	8495.82
8812.44	644.33	9059.81	653.4	9229.81
9729.37	626.15	9746.13	625.9	9833.38
10093.74	605.05	10217.08	633.78	10321.81
10907.35	629.17	11114.43	626.78	11359.98
13693.31	625.31	13927.55	620.41	14529.69
1537.5	626.92	15344.29	621.93	15448.08
16710.21	584.26	16973.51	581.29	17041.44
17716.74	572.07	17821.67	590.21	17908.75
18593.55	637.16	19020.94	638.73	19094.25
21776.32	631.49	22744.81	634.72	22997.52
25433.71	651.62	26072.37	664.25	26292.28
28279.11	660.22	28842.69	655.12	29076.06
29527.87	647.29	29816.53	653.43	30132.4
32813.01	715.9	32953.1	716.47	33558.89
36181.93	735.08	36375.8	737.93	36721.29
37388.6	766.69	37543.83	769.63	38304.08

Manning's n	Values	num=	3
Sta	n Val	Sta	n Val
0	.1516635	43	.1517821

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16635.43	17821.67	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit w.S. (ft)		Flow Area (sq ft)	1505491.00	219698.10	1775428.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505491.00	219698.10	1775428.00
Q Total (cfs)	673000.00	Flow (cfs)	2867556.00	637024.10	3225420.00
Top width (ft)	35835.22	Top Width (ft)	15286.13	1186.24	19362.85
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.90	2.90	1.82
Max Chl Dpth (ft)	192.16	Hydr. Depth (ft)	98.49	185.21	91.69
Conv. Total (cfs)	746045400.0	Conv. (cfs)	317879200.0	70616480.0	357549800.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15298.81	1188.67	19369.06
Min Ch El (ft)	567.64	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.95	2.72	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	102172.10	18435.39	122930.40
C & E Loss (ft)	0.00	Cum SA (acres)	908.76	87.72	1076.59

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275395.\*

INPUT

Description:

Station	Elevation	Data	num=	120
Sta	Elev	Sta	Elev	Sta
0	800	191.64	792.23	623.5
1764.54	746.78	1927.18	744.89	2267.27
3533.61	717.97	3622.23	715.11	3633.22
4142.55	712.43	4291.61	708.26	4656
5572.8	689.12	5727.55	683.29	5794.13
6623.66	679.78	6837.79	669.56	6999.74
7263.04	662.91	7474.69	672.96	7535.96
8062.12	668.74	8212.55	672.25	8497.75
8814.45	644.4	9061.87	653.5	9231.92
9731.59	626.24	9748.35	625.99	9835.62
10096.04	605.11	10219.41	633.83	10324.16
10909.83	629.24	11116.96	626.86	11362.57
13696.43	625.33	13930.72	620.44	14533
15341	626.97	15347.79	622.51	15451.61
16714.14	584.27	16977.92	581.31	17045.98
17721.89	572.07	17826.99	590.22	17914.06

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18598.79	637.1319026.12	638.69 21099.2	634.4521212.33	634.4521437.65	635.2
21781.2	631.4522749.58	634.6723002.26	639.7824647.36	644.8925022.75	647.32
25438.19	651.5926076.77	664.2726296.66	665.1127390.74	665.1128014.44	660.22
28283.27	660.2228846.79	655.1129080.13	652.1429248.54	650.7829385.99	646.31
29531.89	646.9829820.52	653.4330136.36	656.1631214.35	675.1631866.44	677.77
32816.67	715.8232956.74	716.3833562.46	689.4733596.54	689.61 35161	735.01
36185.21	735.0136379.06	737.8736724.51	754.1336765.21	754.8937066.17	755.65
37391.75	766.6537546.96	769.5638307.13	79038990.28	793.439334.79	800

Manning's n Values	num=	3
Sta n Val	Sta n Val	Sta n Val
0 .1516639.22	.1517826.99	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16639.22	17826.99	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505516.00	219969.00	1775776.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505516.00	219969.00	1775776.00
Q Total (cfs)	6730000.00	Flow (cfs)	2866537.00	637640.10	3225823.00
Top width (ft)	35839.48	Top width (ft)	15289.66	1187.77	19362.06
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.90	2.90	1.82
Max Chl Dpth (ft)	192.16	Hydr. Depth (ft)	98.47	185.20	91.71
Conv. Total (cfs)	746216800.0	Conv. (cfs)	317839300.0	70701000.0	357676600.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15302.33	1190.20	19368.27
Min Ch El (ft)	567.64	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.95	2.72	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	101999.30	18410.16	122726.60
C & E Loss (ft)	0.00	Cum SA (acres)	907.00	87.58	1074.37

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275393.\*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev		
0 800 191.68 792.23 623.64 776.02 1313.88 761.36 1487.36 753.83		
1764.95 746.77 1927.62 744.88 2267.78 744.88 2592.51 743.49 3464.67 721.69		
3534.42 717.99 3623.06 715.12 3634.04 714.97 3829.9 717.22 4004.62 714.88		
4143.49 712.41 4292.59 708.24 4657.06 699.41 5101.25 692.4 5431.82 690.55		
5574.07 689.1 5728.85 683.27 5795.45 677.84 6148.21 676.21 6488.07 678.29		
6625.17 679.76 6839.35 669.52 7001.33 664.4 7070.63 659.28 7118.32 659.28		
7264.69 662.85 7476.39 672.9 7537.68 672.36 7663.67 673.3 8017.34 666.67		
8063.96 668.75 8214.42 672.31 8499.69 656.82 8513.4 655.31 8681.47 645.08		
8816.46 644.47 9063.94 653.59 9234.02 652.82 9412.2 641.78 9593.42 638.22		
9733.8 626.33 9750.57 626.08 9837.86 615.8410001.65 600.4810057.44 600.48		
10098.34 605.1510221.74 633.8810326.52 645.8410704.01 641.4810857.98 634.83		
10912.32 629.32 11119.5 626.9311365.16 633.8511657.49 630.4812275.73 625.36		
13699.55 625.36 13933.9 620.4814536.32 620.4814999.77 625.615058.27 630.72		
15344.5 627.0315351.29 622.0615455.13 620.3316096.77 597.4216643.02 590.24		
16718.07 584.2816982.33 581.3217050.52 575.4417157.81 567.6417617.25 567.64		
17727.04 572.06 17832.3 590.2417919.37 609.117938.02 611.4418172.04 631.32		
18604.02 637.0919031.31 638.6421104.15 634.421217.27 634.421442.56 635.15		
21786.08 631.4122754.35 634.6423007.01 639.7624651.92 644.8825027.27 647.31		
25442.66 651.5926081.17 664.2826301.04 665.12 27395 665.1228018.63 660.24		
28287.43 660.2428850.88 655.12 29084.2 652.15 29252.6 650.7829390.03 646.29		
29535.91 646.9729824.51 653.4230140.31 656.1531218.18 675.1331870.21 677.75		
32820.32 715.7332960.38 716.2933566.04 689.4533600.11 689.5935164.39 734.92		
36188.5 734.9436382.32 737.836727.73 754.0636768.43 754.8237069.36 755.6		
37394.9 766.637550.09 769.5238310.18 79038993.25 793.439337.72 800		

Manning's n Values	num=	3
Sta n Val	Sta n Val	Sta n Val
0 .1516643.02	.15 17832.3	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16643.02	17832.3	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505550.00	220239.50	1776157.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505550.00	220239.50	1776157.00
Q Total (cfs)	6730000.00	Flow (cfs)	2865496.00	638248.80	3226256.00
Top width (ft)	35843.86	Top width (ft)	15293.19	1189.28	19361.39
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.90	2.90	1.82
Max Chl Dpth (ft)	192.16	Hydr. Depth (ft)	98.45	185.19	91.74
Conv. Total (cfs)	746400900.0	Conv. (cfs)	317802200.0	70785950.0	357812800.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15305.88	1191.72	19367.58
Min Ch El (ft)	567.64	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.95	2.72	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	101826.50	18384.90	122522.70
C & E Loss (ft)	0.00	Cum SA (acres)	905.25	87.45	1072.14

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275390.\*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev		

SS_Rev3.rep											
0	800	191.73	792.23	623.78	776.01	1314.17	761.35	1487.9	753.83		
1765.35	746.77	1928.06	744.87	2268.3	744.87	2593.1	743.48	3465.46	721.7		
3535.22	718	3623.88	715.13	3634.87	714.98	3830.77	717.22	4005.53	714.87		
4144.43	712.4	4293.57	708.22	4658.12	699.39	5102.41	692.39	5433.06	690.54		
5575.34	689.08	5730.16	683.24	5796.77	677.8	6149.62	676.18	6489.55	678.27		
6626.68	679.74	6840.91	669.48	7002.93	664.35	7072.24	659.22	7119.94	659.22		
7266.35	662.8	7478.1	672.85	7539.4	672.32	7665.42	673.27	8019.16	666.68		
8065.79	668.77	8216.29	672.37	8501.63	656.91	8515.34	655.4	8683.45	645.15		
8818.47	644.54	9066	653.69	9236.13	652.92	9414.35	641.86	9595.61	638.29		
9736.02	626.42	9752.79	626.17	9840.11	615.9110003.93		600.5210059.74		600.52		
10100.64	605.210224.07		633.9210328.87		645.9110706.45		641.5510860.45		634.89		
10914.81	629.411122.03		62711367.75		639.911660.15		630.5212278.53		625.39		
13702.98	625.391937.07		620.5214539.63		620.5215003.19		625.6515061.7		630.78		
15307.99	627.0815354.79		622.1215458.65		620.3916100.44		597.4516646.81		590.26		
16722	584.2916986.75		581.3417055.05		575.4517162.54		567.6417622.23		567.64		
17732.19	572.0617837.62		590.2617924.67		609.0917943.32		611.4418177.32		631.28		
18609.25	637.0619036.49		638.621109.11		634.3521222.21		634.3521447.48		635.1		
21790.96	631.3822759.12		634.6123011.75		639.7424656.48		644.8725031.79		647.31		
25447.13	651.5926085.58		664.2926305.42		665.1327399.26		665.1328022.82		660.26		
28291.99	660.2628854.98		655.1329088.27		652.1529256.65		650.7829394.06		646.28		
29539.93	646.95 29828.5		653.4130144.26		656.1431222.02		675.131873.97		677.73		
32823.98	715.6432964.02		716.2133569.61		689.4333603.68		689.5735167.79		734.83		
36191.78	734.8736385.59		737.7436730.96		753.9936771.64		754.7537072.55		755.55		
37398.05	766.5637553.23		769.4838313.23		79038996.23		793.4139340.66		800		

Manning's n Values		num= 3	
Sta	n Val	Sta	n Val
0	.1516646.81		.1517837.62

  

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16646.81	17837.62		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505562.00	220510.10	1776506.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505562.00	220510.10	1776506.00
Q Total (cfs)	6730000.00	Flow (cfs)	2864445.00	638868.60	3226687.00
Top Width (ft)	35848.27	Top Width (ft)	15296.85	1190.81	19360.60
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.90	2.90	1.82
Max Chl Dpth (ft)	192.16	Hydr. Depth (ft)	98.42	185.18	91.76
Conv. Total (cfs)	746565900.0	conv. (cfs)	317755800.0	70870350.0	357939700.0
Length wtd. (ft)	5.00	wetted per. (ft)	15309.54	1193.25	19366.78
Min Ch El (ft)	567.61	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.95	2.72	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	101653.60	18359.60	122318.80
C & E Loss (ft)	0.00	Cum SA (acres)	903.49	87.31	1069.92

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275387.\*

INPUT Description:

Station Elevation Data		num= 120	
Sta	Elev	Sta	Elev
0	800	191.77	792.22
1765.75	746.76	1928.5	744.86
3536.03	718.02	3624.71	715.14
4145.38	712.38	4294.55	708.21
5576.61	689.07	5731.47	683.21
6628.19	679.72	6842.47	669.44
7268	662.75	7479.8	672.8
8067.63	668.79	8218.16	672.42
8820.48	644.62	9068.07	653.78
9738.24	626.51	9755.02	626.26
10102.94	605.25	10226.4	633.97
10917.29	629.47	11124.56	627.07
13705.8	625.42	13940.25	620.56
15351.49	627.13	15358.29	622.18
16725.93	584.31	16991.16	581.36
17737.34	572.05	17842.94	590.28
18614.48	637.02	19041.68	638.62
21795.84	631.34	22763.89	634.58
25451.61	651.58	26089.98	664.32
28295.74	660.28	28859.08	655.14
29543.95	646.94	29832.49	653.41
32827.64	715.63	2967.66	716.21
36195.07	734.79	36388.85	737.68
37401.2	766.51	37556.36	769.48

Manning's n Values		num= 3	
Sta	n Val	Sta	n Val
0	.15	16650.6	.1517842.94

  

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16650.61	17842.94		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505588.00	220788.10	1776870.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505588.00	220788.10	1776870.00
Q Total (cfs)	6730000.00	Flow (cfs)	2863391.00	639507.10	3227102.00
Top Width (ft)	35852.45	Top Width (ft)	15300.37	1192.34	19359.74
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.90	2.90	1.82
Max Chl Dpth (ft)	192.17	Hydr. Depth (ft)	98.40	185.17	91.78
Conv. Total (cfs)	746747500.0	conv. (cfs)	317716200.0	70958450.0	358072900.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15313.07	1194.78	19365.90

Min Ch El (ft)	567.63	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.95	2.71	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	101480.80	18334.28	122114.90
C & E Loss (ft)	0.00	Cum SA (acres)	901.74	87.17	1067.70

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275384.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	191.81	792.22	624.07	775.98	1314.77	761.35	1488.58	753.81
1766.15	746.75	1928.93	744.85	2269.33	744.85	2594.28	743.45	3467.04	721.74
3536.84	718.03	3625.53	715.15	3636.53	715.15	3832.52	717.21	4007.36	714.85
4146.32	712.37	4295.53	708.19	4660.24	699.35	5104.73	692.36	5435.53	690.5
5577.88	689.05	5732.77	683.19	5799.41	677.73	6152.42	676.11	6492.51	678.22
6629.7	679.7	6844.03	669.4	7006.12	664.25	7075.46	659.1	7123.19	659.1
7269.66	662.7	7481.51	672.74	7542.84	672.23	7668.91	673.22	8022.82	666.69
8069.47	668.8	8220.03	672.48	8505.5	657.09	8519.22	655.57	8687.41	645.3
8822.49	644.69	9070.13	653.88	9240.33	653.11	9418.64	642.01	9599.98	638.44
9740.46	626.61	9757.24	626.35	9844.59	616.05	10008.49	600.61	10064.32	600.6
10105.25	605.31	10228.73	634.02	10333.58	646.05	10711.33	641.67	10865.4	635.03
10919.78	629.55	11127.1	627.15	11372.93	633.99	11665.46	630.61	12284.12	625.45
13708.92	625.45	13943.42	620.61	14546.25	620.61	15010.03	625.75	15068.56	630.9
15354.99	627.19	15361.79	622.25	15465.7	620.51	16107.77	597.51	16654.39	590.3
16729.86	584.32	16995.57	581.38	17064.13	575.47	17172.01	567.63	17632.19	567.63
17742.49	572.05	17848.26	590.31	17935.29	609.09	17953.93	611.43	18187.88	631.21
18619.71	636.99	19046.86	638.52	21119.02	634.25	21232.1	634.25	21457.31	635
21800.72	631.31	22768.67	634.55	23021.24	639.7	24665.6	644.85	25040.83	647.29
25456.08	651.58	26094.38	664.31	26314.17	665.15	27407.77	665.15	28031.2	660.3
28299.9	660.32	28863.17	655.15	29096.42	652.16	29264.75	650.77	29402.13	646.25
29547.97	646.92	29836.48	653.43	30152.17	656.13	31229.69	675.04	31881.49	677.68
32831.3	715.47	32971.3	716.04	33576.76	689.39	33610.82	689.53	335174.58	734.66
36198.35	734.72	36392.11	737.62	36737.41	753.85	36778.09	754.62	37078.92	755.46
37404.35	766.47	37559.49	769.43	3819.38	790.39	39002.17	793.42	39346.52	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516654.39				
			.1517848.26		.15

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

16654.39	17848.26	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
w.s. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505613.00	221057.20	1777207.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505613.00	221057.20	1777207.00
Q Total (cfs)	6730000.00	Flow (cfs)	2862391.00	640117.40	3227492.00
Top width (ft)	35856.71	Top width (ft)	15303.89	1193.87	19358.95
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.90	2.90	1.82
Max chl Dpth (ft)	192.17	Hydr. depth (ft)	98.38	185.16	91.80
Conv. Total (cfs)	746914300.0	Conv. (cfs)	317676200.0	71042030.0	358196100.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15316.59	1196.31	19365.10
Min ch El (ft)	567.63	Shear (lb/sq ft)	1.06	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.95	2.71	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	101308.00	18308.92	121910.90
C & E Loss (ft)	0.00	Cum SA (acres)	899.98	87.04	1065.48

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275381.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	191.86	792.21	624.21	775.97	1315.07	761.34	1488.91	753.8
1766.55	746.75	1929.37	744.84	2269.85	744.84	2594.87	743.44	3467.83	721.75
3537.64	718.05	3626.36	715.16	3637.36	715.01	3833.39	717.2	4008.27	714.84
4147.27	712.35	4296.5	708.17	4661.3	699.33	5105.9	692.34	5436.77	690.48
5579.15	689.03	5734.08	683.16	5800.73	677.69	6153.82	676.08	6493.99	678.2
6631.21	679.68	6845.58	669.36	7007.72	664.2	7077.07	659.04	7124.81	659.04
7271.31	662.64	7483.21	672.69	7544.55	672.18	7670.66	673.19	8024.65	666.7
8071.31	668.82	8221.91	672.54	8507.44	657.18	8521.16	655.66	8689.39	645.37
8824.5	644.76	9072.2	653.97	9242.44	653.21	9420.78	642.09	9602.17	638.52
9742.68	626.7	9759.46	626.44	9846.83	616.12	10010.77	600.64	10066.61	600.64
10107.55	605.35	10231.06	634.06	10335.93	646.12	10713.77	641.73	10867.88	635.1
10922.27	629.63	11129.63	627.22	11375.52	634.04	11668.12	630.64	12286.92	625.48
13712.04	625.48	13946.6	620.64	14549.57	620.64	15013.45	625.81	15071.99	630.96
15358.48	627.24	15365.28	622.31	15469.22	620.57	16111.44	597.53	16658.19	590.32
16733.79	584.33	16999.99	581.41	17068.67	575.48	17176.74	567.63	17637.16	567.63
17747.65	572.04	17853.57	590.32	17940.6	609.09	17959.24	611.43	18193.16	631.17
18624.94	636.95	19052.04	638.48	21123.97	634.22	21237.04	634.22	21462.23	634.96
21805.6	631.27	22773.44	634.52	23025.98	639.68	24670.17	644.84	25045.35	647.29
25460.56	651.58	26098.79	664.32	26318.55	665.16	27412.03	665.16	28035.39	660.32
28304.06	660.32	28867.27	655.16	29100.49	652.16	29268.8	650.77	29406.17	646.24
29551.99	646.91	29840.46	653.39	30156.12	656.12	31233.52	675.01	31885.25	677.65
32834.95	715.39	32974.95	715.95	33580.33	689.37	33614.39	689.53	335177.98	734.57
36201.63	734.65	36395.37	737.53	36740.63	753.78	36781.3	754.53	37082.11	755.41
37407.5	766.42	37562.62	769.36	38322.38	790.39	39005.15	793.43	39349.46	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516658.19				
			.1517853.57		.15

Bank Sta: Left Right Lengths: Left Channel Right SS\_Rev3.rep  
 16658.1917853.57 5 5 Coeff Contr. Expan.  
 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1505642.00	221326.10	1777572.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505642.00	221326.10	1777572.00
Q Total (cfs)	6730000.00	Flow (cfs)	2861355.00	640725.60	3227920.00
Top Width (ft)	35861.26	Top Width (ft)	15307.61	1195.38	19358.27
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.90	2.89	1.82
Max Chl Dpth (ft)	192.17	Hydr. Depth (ft)	98.36	185.15	91.82
Conv. Total (cfs)	747088100.0	conv. (cfs)	317635100.0	71126070.0	358326900.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15320.31	1197.83	19364.41
Min Ch El (ft)	567.63	Shear (lb/sq ft)	0.50	0.94	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.95	2.71	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	101135.20	18283.53	121706.90
C & E Loss (ft)	0.00	Cum SA (acres)	898.22	86.90	1063.26

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275378.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	191.9	792.21	624.35	775.96	1315.37	761.34
1766.96	746.74	1929.81	744.83	2270.37	744.83	2595.47	743.43
3538.45	718.06	3627.18	715.17	3638.19	715.02	3834.26	717.2
4148.21	712.34	4297.48	708.16	4662.36	699.31	5107.06	692.33
5580.42	689.01	5735.38	683.13	5802.05	677.66	6155.22	676.04
6632.72	679.66	6847.14	669.32	7009.31	664.15	7078.68	658.98
7272.97	662.59	7484.91	672.64	7546.27	672.13	7672.4	673.16
8073.14	668.84	8223.78	672.6	8509.38	657.27	8523.1	655.75
8826.51	644.83	9074.27	654.07	9244.54	653.31	9422.93	642.17
9744.9	626.79	9761.68	626.53	9849.07	616.19	10013.04	600.68
10109.85	605.39	10233.39	634.11	10338.28	646.19	10716.21	641.79
10924.76	629.71	11132.17	627.29	11378.11	634.09	11670.77	630.68
13715.16	625.51	13949.78	620.68	14552.88	620.68	15016.87	625.85
15361.98	627.29	15368.78	622.37	15472.74	620.63	16115.11	597.55
16737.72	584.34	17004.4	581.41	17073.21	575.49	17181.48	567.63
17752.8	572.04	17858.89	590.34	17945.9	609.09	17964.54	611.43
18630.17	636.92	19057.23	638.44	1128.93	634.15	1241.98	634.15
21810.48	631.23	22778.21	634.49	23030.73	639.66	24674.73	644.83
25465.03	651.58	26103.19	664.34	26322.93	665.17	27416.29	665.17
28308.22	660.34	28871.37	655.17	29104.56	652.17	29272.86	650.77
29556.01	646.92	29844.45	653.39	30160.08	656.11	31237.36	674.98
32838.61	715.33	32978.59	715.87	33583.91	689.35	33617.96	689.49
36204.92	734.58	36398.63	737.49	36743.86	753.71	36784.52	754.48
37410.65	766.37	37565.76	769.32	38325.42	79039	008.12	793.44

Manning's n Values num= 3  
 Sta n Val Sta n Val  
 0 .1516661.98 .1517858.89 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16661.9817858.89 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1505666.00	221598.50	1777916.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505666.00	221598.50	1777916.00
Q Total (cfs)	6730000.00	Flow (cfs)	2860347.00	641348.40	3228304.00
Top Width (ft)	35865.58	Top Width (ft)	15311.08	1196.91	19357.59
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.90	2.89	1.82
Max Chl Dpth (ft)	192.17	Hydr. Depth (ft)	98.34	185.14	91.85
Conv. Total (cfs)	747257900.0	conv. (cfs)	317595400.0	71211390.0	358451100.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15323.79	1199.36	19363.72
Min Ch El (ft)	567.63	Shear (lb/sq ft)	0.50	0.94	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.95	2.71	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	100962.40	18258.11	121502.80
C & E Loss (ft)	0.00	Cum SA (acres)	896.47	86.76	1061.03

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275375.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	191.94	792.2	624.49	775.94	1315.67	761.34
1767.36	746.73	1930.25	744.82	2270.89	744.82	2596.06	743.41
3539.25	718.08	3628.01	715.18	3639.01	715.03	3835.13	717.19
4149.16	712.32	4298.46	708.14	4663.42	699.29	5108.22	692.31
5581.69	688.99	5736.69	683.1	5803.37	677.62	6156.62	676.01
6634.23	679.64	6848.7	669.28	7010.91	664.1	7080.3	658.92
7274.63	662.54	7486.62	672.59	7547.99	672.09	7674.15	673.13
8074.98	668.86	8225.65	672.65	8511.31	657.36	8525.04	655.84
8828.52	644.91	9076.33	654.16	9246.65	653.4	9425.07	642.25
9747.11	626.88	9763.91	626.62	9851.32	616.26	10015.33	600.72
10112.15	605.44	10235.72	634.16	10340.64	646.26	10718.65	641.85
10927.24	629.78	11134.7	627.36	11380.7	634.13	11673.43	630.72
13718.29	625.54	13952.95	620.72	14556.19	620.72	15020.28	625.91

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15365.48	627.3415372.28	622.4415476.26	620.6916118.78	597.5816665.77	590.36
16741.65	584.3517008.81	581.4317077.74	575.517186.21	567.6317647.12	567.63
17757.95	572.0417864.21	590.3617951.21	609.0917969.85	611.4218203.71	631.1
18635.41	636.8819062.41	638.3921133.88	634.121246.92	634.121472.07	634.86
21815.36	631.222782.98	634.4623035.47	639.6424679.29	644.8225054.39	647.28
25469.51	651.5726107.59	664.3526327.31	665.1827420.54	665.1828043.76	660.36
28312.38	660.3628875.46	655.1829108.63	652.1729276.91	650.7729414.25	646.22
29560.04	646.8829848.44	653.3830164.03	656.1131241.19	674.9531892.78	677.61
32842.27	715.2132982.23	715.7833587.48	689.3333621.53	689.4735184.78	734.39
36208.2	734.5136401.89	737.4336747.08	753.6436787.74	754.4137088.48	755.32
37413.8	766.3337568.89	769.2838328.47	79039011.09	793.4439355.33	800

Manning's n Values num= 3  
 Sta n Val Sta n Val  
 0 .1516665.77 .1517864.21 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16665.7717864.21 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1505698.00	221869.70	1778281.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505698.00	221869.70	1778281.00
Q Total (cfs)	6730000.00	Flow (cfs)	2859313.00	641953.80	3228734.00
Top width (ft)	35869.66	Top width (ft)	15314.60	1198.44	19356.61
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.90	2.89	1.82
Max Chl Dpth (ft)	192.17	Hydr. Depth (ft)	98.32	185.13	91.87
Conv. Total (cfs)	747439900.0	Conv. (cfs)	317557900.0	71295960.0	358586000.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15327.31	1200.89	19362.73
Min Ch El (ft)	567.63	Shear (lb/sq ft)	0.50	0.94	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.94	2.71	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	100789.50	18232.66	121298.70
C & E Loss (ft)	0.00	Cum SA (acres)	894.71	86.62	1058.81

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275372.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	191.99	792.2	624.64	775.93	1315.97	761.34	1489.93	753.78
1767.76	746.73	1930.69	744.81	2271.4	744.81	2596.65	743.4	3470.2	721.8
3540.06	718.09	3628.84	715.19	3639.84	715.04	3836.01	717.19	4011.01	714.81
4150.1	712.31	4299.44	708.12	4664.49	699.27	5109.38	692.3	5440.49	690.43
5582.96	688.97	5737.99	683.08	5804.69	677.58	6158.02	675.98	6498.42	678.13
6635.74	679.62	6850.26	669.24	7012.5	664.05	7081.91	658.86	7129.68	658.86
7276.28	662.48	7488.32	672.53	7549.71	672.04	7675.9	673.11	8030.13	666.72
8076.82	668.87	8227.52	672.71	8513.25	657.44	8526.98	655.93	8695.32	645.58
8830.53	644.98	9078.4	654.26	9248.75	653.5	9427.22	642.33	9608.73	638.74
9749.33	626.97	9766.13	626.71	9853.56	616.33	10017.6	600.7610073.49	600.76	
10114.45	605.4910238.05	634.210342.99	646.3310721.09	641.91	10875.3	635.3			
10929.73	629.8611137.23	627.4311383.29	634.1811676.09	630.7612295.32	625.57				
13721.41	625.5713956.13	620.7614559.51	620.76	15023.7	625.9515082.25	631.14			
15368.98	627.415375.78	622.515479.79	620.7516122.45	597.616669.57	590.38				
16745.58	584.3617013.23	581.4517082.28	575.5117190.95	567.63	17652.1	567.63			
17763.1	572.0317869.52	590.3817956.52	609.0817975.15	611.4218208.99	631.06				
18640.64	636.85	19067.6	638.3521138.84	634.0521251.86	634.0521476.98	634.81			
21820.24	631.1622787.75	634.4323040.21	639.6224683.85	644.8125058.91	647.27				
25473.98	651.57	26112	664.3626331.69	665.19	27424.8	665.1928047.95			
28316.54	660.3828879.56	655.19	29112.7	652.1829280.96	650.7729418.28	646.2			
29564.05	646.8729852.43	653.3730167.99	656.131245.02	674.9231896.54	677.58				
32845.93	715.1332985.87	715.7333591.05	689.31	33625.1	689.4535188.17	734.3			
36211.48	734.4436405.16	737.36	36750.3	753.5736790.96	754.3437091.66	755.27			
37416.95	766.2837572.02	769.2438331.52	79039014.07	793.4439358.27	800				

Manning's n Values num= 3  
 Sta n Val Sta n Val  
 0 .1516669.57 .1517869.52 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16669.5717869.52 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1505722.00	222137.60	1778644.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505722.00	222137.60	1778644.00
Q Total (cfs)	6730000.00	Flow (cfs)	2858283.00	642558.00	3229159.00
Top width (ft)	35874.02	Top width (ft)	15318.13	1199.95	19355.94
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.90	2.89	1.82
Max Chl Dpth (ft)	192.17	Hydr. Depth (ft)	98.30	185.12	91.89
Conv. Total (cfs)	747613800.0	Conv. (cfs)	317517400.0	71379670.0	358716700.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15330.85	1202.40	19362.04
Min Ch El (ft)	567.63	Shear (lb/sq ft)	0.50	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.94	2.70	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	100616.70	18207.17	121094.60
C & E Loss (ft)	0.00	Cum SA (acres)	892.95	86.49	1056.59

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275369.\*

INPUT

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Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.03	792.19	624.78	775.92	1316.27	761.33	1490.27	753.77				
1768.16	746.72	1931.13	744.8	2271.92	744.8	2597.24	743.39	3470.99	721.82				
3540.86	718.11	3629.66	715.2	3640.67	715.05	3836.88	717.18	4011.92	714.8				
4151.04	712.29	4300.42	708.11	4665.55	699.25	5110.55	692.28	5441.72	690.41				
5584.23	688.95	5739.3	683.05	5806.02	677.55	6159.42	675.94	6499.9	678.11				
6637.25	679.6	6851.82	669.2	7014.1	664	7083.52	658.8	7131.3	658.8				
7277.94	662.43	7490.03	672.48	7551.43	672	7677.64	673.08	8031.95	666.72				
8078.66	668.89	8229.39	672.77	8515.19	657.53	8528.92	656.02	8697.3	645.65				
8832.54	645.05	9080.46	654.35	9250.86	653.6	9429.37	642.41	9610.91	638.82				
9751.55	627.06	9768.33	626.8	9855.8	616	410019.88	600	810075.78	600.8				
10116.25	605.54	10240.38	634.25	10345.34	646	410723.53	641	9810877.78	635.37				
10932.22	629.93	11139.77	627.51	11385.88	634.23	11678.74	630	812298.11	625.6				
13724.53	625.6	13959.3	620	814562.82	620	815027.12	626	15085.72	631.2				
15372.47	627.45	15379.28	622	5615483.31	620	8116126.12	597	6316673.36	590.4				
16749.51	584.37	17017.64	581	4717086.82	575	5217195.68	567	6317657.08	567.63				
17768.25	572.03	17874.84	590	417961.83	609	0817980.46	611	4218214.27	631.03				
18645.87	636.81	19072.78	638	3121143.79	634	21256.8	634	21481.9	634.76				
21825.12	631.12	22792.53	634	423044.96	639	624688.41	644	825063.43	647.27				
25478.45	651.57	26116.4	664	3726336.07	665	227429.06	665	228052.14	660.4				
28320.7	660.42	28883.66	655	229116.77	652	1829285.01	650	7729422.32	646.19				
29568.08	646.85	29856.42	653	3630171.94	656	0931248.86	674	89	31900.3	677.56			
32849.58	715.04	32989.51	715	6133594.63	689	2933628.67	689	4335191.57	734.22				
36214.77	734.36	36408.42	737	336753.53	753	536794.18	754	2737094.85	755.22				
37420.1	766.24	37575.16	769	238334.57	790	39017.04	793	46	39361.2	800			

Manning's n Values

Sta	n Val	Sta	n Val
0	.1516673.36		
		.1517874.84	.15

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

16673.36	17874.84	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505740.00	222408.70	1778996.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505740.00	222408.70	1778996.00
Q Total (cfs)	6730000.00	Flow (cfs)	2857238.00	643174.20	3229588.00
Top width (ft)	35878.45	Top width (ft)	15321.83	1203.01	19355.14
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.90	2.89	1.82
Max ch Dpth (ft)	192.7	Hydr. Depth (ft)	98.27	185.11	91.91
Conv. Tota. (cfs)	747781600.0	Conv. (cfs)	317472500.0	71464170.0	358844900.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15334.56	1203.93	19361.23
Min Ch El (ft)	567.63	Shear (lb/sq ft)	0.50	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.94	2.70	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	100443.90	18181.66	120890.60
C & E Loss (ft)	0.00	Cum SA (acres)	891.19	86.35	1054.37

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275366.\*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.07	792.19	624.92	775.91	1316.57	761.33	1490.61	753.76				
1768.57	746.72	1931.57	744.79	2272.44	744.79	2597.83	743.38	3471.78	721.84				
3541.67	718.11	3630.49	715.21	3641.5	715.06	3837.75	717.18	4012.83	714.79				
4151.99	712.28	4301.4	708.09	4666.61	699.23	5111.71	692.27	5442.96	690.39				
5585.5	688.93	5740.61	683.02	5807.34	677.51	6160.83	675.91	6501.38	678.08				
6638.76	679.58	6853.38	669.16	7015.69	663.95	7085.13	658.74	7132.92	658.74				
7279.59	662.38	7491.73	672.43	7553.14	671.95	7679.39	673.05	8033.78	666.73				
8080.5	668.91	8231.27	672.82	8517.12	657.62	8530.86	656.1	8699.28	645.72				
8834.54	645.13	9082.53	654.45	9252.96	653.69	9431.51	642.48	9613.1	638.89				
9753.77	627.15	9770.57	626.89	9858.04	616	4710022.16	600	8410078.07	600.84				
10119.05	605.59	10242.71	634.3	10347.7	646	4710725.97	642	0410880.25	635.44				
10934.7	630.01	11142.3	627	5811388.47	634.27	11681.4	630	8412300.91	625.63				
13727.65	625.63	13962.48	620	8414566.13	620	8415030.54	626	0515089.15	631.26				
15375.97	627.51	15382.78	622	6215486.83	620	8716129.79	597	6616677.15	590.42				
16753.44	584.39	17022.05	581	4817091.36	575	5317200.41	567	6317662.06	567.63				
17773.4	572.02	17880.16	590	4217967.13	609	0817985.77	611	4118219.58	630.99				
18651.1	636.78	19077.96	638	2721148.75	633	9521261.75	633	9521486.82	634.71				
21829.99	631.09	22797.3	634.37	23049.7	639	5824692.97	644	7925067.95	647.26				
25482.93	651.56	26120.8	664	3826340.45	665	2127433.32	665	2128056.33	660.42				
28324.86	660.42	28887.75	655	2129120.84	652	1829289.06	650	7629426.36	646.18				
29572.1	646.84	29860.41	653	3630175.89	656	0831252.69	674	8631904.06	677.53				
32853.24	714.95	32993.16	715.53	33598.2	689	2733632.24	689	435194.97	734.13				
36218.05	734.29	36411.68	737	2436756.75	753	43	36797.4	754	2137098.04	755.17			
37423.25	766.19	37578.29	769	1638337.62	790	39020.01	793	4639364.14	800				

Manning's n Values

Sta	n Val	Sta	n Val
0	.1516677.15		
		.1517880.16	.15

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

16677.15	17880.16	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505761.00	222680.40	1779364.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505761.00	222680.40	1779364.00
Q Total (cfs)	6730000.00	Flow (cfs)	2856194.00	643787.10	3230019.00
Top width (ft)	35882.82	Top width (ft)	15325.36	1203.01	19354.45
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.90	2.89	1.82



Max Chl Dpth (ft)	192.17	Hydr. Depth (ft)	98.25	185.10	91.94
Conv. Total (cfs)	747957800.0	Conv. (cfs)	317431200.0	71549110.0	358977400.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15338.08	1205.47	19360.53
Min Ch El (ft)	567.63	Shear (lb/sq ft)	0.50	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.94	2.70	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	100271.00	18156.12	120686.20
C & E Loss (ft)	0.00	Cum SA (acres)	889.43	86.21	1052.15

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275363.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.12	792.18	625.06	775.89	1316.87	761.33	1490.95	753.76
1768.97	746.71	1932.01	744.78	2272.95	744.78	2598.42	743.36	3472.57	721.86
3542.47	718.14	3631.31	715.22	3642.33	715.07	3838.63	717.17	4013.75	714.78
4152.93	712.26	4302.37	708.07	4667.67	699.21	5112.87	692.25	5444.2	690.37
5586.77	688.92	5741.91	683	5808.66	677.47	6162.23	675.88	6502.86	678.06
6640.27	679.56	6854.94	669.12	7017.29	663.9	7086.74	658.68	7134.55	658.68
7281.25	662.32	7493.43	672.37	7554.86	671.91	7681.14	673.03	8035.61	666.74
8082.33	668.92	8233.14	672.88	8519.06	657.71	8532.8	656.19	8701.26	645.8
8836.55	645.2	9084.59	654.54	9255.07	653.79	9433.66	642.56	9615.29	638.96
9755.99	627.24	9772.79	626.98	9860.28	616.54	10024.44	600.88	10080.36	600.88
10121.35	605.64	10245.04	634.34	10350.05	646.54	10728.41	642.11	10882.73	635.51
10937.19	630.09	11144.84	627.65	11391.06	634.32	11684.06	630.88	12303.71	625.66
13730.78	625.66	11396.65	620.88	14569.45	620.88	15033.96	626.11	15092.58	631.32
15379.47	627.56	11538.62	622.69	15490.35	620.94	16133.45	597.68	16680.95	590.44
16757.37	584.41	17026.47	581.51	17095.89	575.54	17205.15	567.63	17667.04	567.63
17778.55	572.02	17885.47	590.44	17972.44	609.08	17991.07	611.41	18224.83	630.95
18656.33	636.74	19083.15	638.23	21153.7	633.92	1266.69	633.92	1491.73	634.67
21834.87	631.05	22802.07	634.34	23054.45	639.56	24697.54	644.78	25072.47	647.26
25487.4	651.56	26125.21	664.39	26344.83	665.22	27437.58	665.22	28060.52	660.44
28329.02	660.44	28891.85	655.22	29124.91	652.19	29293.12	650.76	29430.39	646.16
29576.12	646.82	29864.4	653.35	30179.85	656.08	31256.53	674.84	31907.83	677.51
32856.89	714.87	32996.8	715.44	33601.78	689.24	33635.81	689.38	35198.36	734.04
36221.34	734.22	36414.95	737.18	36759.98	753.36	36800.62	754.14	37101.22	755.12
37426.4	766.15	37581.43	769.12	38340.67	790.39	39022.98	793.47	39367.07	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516680.95		.1517885.47		.15

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

16680.95	17885.47	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
w.S. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit w.S. (ft)		Flow Area (sq ft)	1505787.00	22948.00	1779707.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505787.00	22948.00	1779707.00
Q Total (cfs)	6730000.00	Flow (cfs)	2855196.00	644390.90	3230413.00
Top width (ft)	35887.01	Top width (ft)	15328.84	1204.52	19353.65
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.90	2.89	1.82
Max Chl Dpth (ft)	192.17	Hydr. Depth (ft)	98.23	185.09	91.96
Conv. Total (cfs)	748127700.0	Conv. (cfs)	317392500.0	71632500.0	359102700.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15341.57	1206.98	19359.71
Min Ch El (ft)	567.63	Shear (lb/sq ft)	0.50	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.94	2.70	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	100098.20	18130.54	120481.90
C & E Loss (ft)	0.00	Cum SA (acres)	887.67	86.07	1049.93

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275360.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.16	792.18	625.2	775.88	1317.17	761.33	1491.29	753.75
1769.37	746.7	1932.45	744.77	2273.47	744.77	2599.01	743.35	3473.36	721.87
3543.28	718.16	3632.14	715.23	3643.15	715.08	3839.5	717.16	4014.66	714.77
4153.88	712.25	4303.35	708.05	4668.73	699.19	5114.04	692.24	5445.44	690.35
5588.04	688.9	5743.22	682.97	5809.98	677.44	6163.63	675.84	6504.34	678.04
6641.78	679.54	6856.5	669.08	7018.89	663.85	7088.35	658.62	7136.17	658.62
7282.9	662.27	7495.14	672.32	7556.58	671.86	7682.88	673	8037.44	666.74
8084.17	668.94	8235.01	672.94	8521	657.8	8534.74	656.28	8703.24	645.87
8838.56	645.27	9086.66	654.64	9257.17	653.89	9435.8	642.64	9617.47	639.04
9758.21	627.33	9775.02	627.07	9862.53	616.61	10026.72	600.92	10082.66	600.92
10123.66	605.69	10247.37	634.39	10352.41	646.61	10730.85	642.16	10885.2	635.97
10939.68	630.16	11147.37	627.72	11395.65	634.37	11686.71	630.92	12306.51	625.69
13733.9	625.69	13968.83	620.92	14572.76	620.92	15037.38	626.15	15096.02	631.38
15382.96	627.61	15389.77	622.75	15493.87	621.16	137.12	597.71	16684.74	590.46
16761.3	584.41	17030.88	581.52	17100.43	575.54	17209.88	567.62	17672.02	567.62
17783.71	572.01	17890.79	590.46	17977.75	609.08	17996.38	611.41	18230.11	630.92
18661.56	636.71	19088.33	638.19	1158.65	633.85	1271.63	633.85	1496.65	634.62
21839.75	631.02	22806.84	634.31	23059.19	639.54	24702.1	644.77	25076.99	647.25
25491.88	651.56	26129.61	664.41	26349.21	665.23	27441.83	665.23	28064.71	660.46
28333.18	660.46	28895.95	655.23	29128.98	652.19	29297.17	650.76	29434.43	646.15
29580.14	646.81	29868.39	653.34	30183.8	656.07	31260.36	674.81	31911.59	677.49
32860.55	714.78	33000.44	715.36	33605.35	689.23	33639.38	689.38	35201.76	733.95
36224.62	734.15	36418.21	737.11	36763.2	753.29	36803.84	754.07	37104.41	755.08
37429.55	766.13	37584.56	769.08	38343.71	790.39	39025.96	793.48	39370	800

Manning's n Values num= 3

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Sta n Val Sta n Val Sta n Val  
 0 .1516684.74 .1517890.79 .15  
 Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16684.7417890.79 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505811.00	223226.10	1780049.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505811.00	223226.10	1780049.00
Q Total (cfs)	6730000.00	Flow (cfs)	2854171.00	645035.90	3230793.00
Top width (ft)	35891.21	Top width (ft)	15332.36	1206.05	19352.80
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.90	2.89	1.82
Max Chl Dpth (ft)	192.18	Hydr. Depth (ft)	98.21	185.09	91.98
Conv. Total (cfs)	748301400.0	Conv. (cfs)	317352200.0	71720840.0	359228400.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15345.10	1208.51	19358.86
Min Ch El (ft)	567.62	Shear (lb/sq ft)	0.50	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.94	2.70	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	99925.35	18104.93	120277.60
C & E Loss (ft)	0.00	Cum SA (acres)	885.91	85.93	1047.70

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275358.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.21	792.18	625.35	775.87	1317.47	761.32	1491.63	753.74
1769.77	746.7	1932.89	744.76	2273.99	744.76	2599.6	743.34	3474.15	721.89
3544.09	718.17	3632.96	715.24	3643.98	715.09	3840.37	717.16	4015.57	714.76
4154.82	712.23	4304.33	708.04	4669.79	699.18	5115.2	692.22	5446.68	690.33
5589.31	688.88	5744.52	682.94	5811.3	677.4	6165.03	675.81	6505.81	678.01
6643.29	679.52	6858.05	669.04	7020.48	663.8	7089.96	658.56	7137.79	658.56
7284.56	662.22	7496.84	672.27	7558.3	671.81	7684.63	672.97	8039.26	666.75
8086.01	668.96	8236.88	672.99	8522.94	657.89	8536.68	656.37	8705.22	645.94
8840.57	645.34	9088.73	654.73	9259.27	653.98	9437.95	642.72	9619.66	639.11
9760.42	627.42	9777.24	627.16	9864.77	616.68	10029	600.96	10084.95	600.96
10125.96	605.74	10249.69	634.44	10354.76	646.68	10733.29	642.22	10887.67	635.64
10942.16	630.24	11149.91	627.79	11396.24	634.41	11689.37	630.96	12309.3	625.72
13737.02	625.72	13972.01	620.96	14576.07	620.96	15040.79	626.21	15099.45	631.44
15386.46	627.66	15393.27	622.81	15497.4	621.06	16140.79	597.73	16688.53	590.48
16765.23	584.42	17035.29	581.54	17104.97	575.55	17214.62	567.62	17677	567.62
17788.86	572.01	17896.11	590.48	17983.05	609.08	18001.68	611.41	18235.39	630.88
18666.79	636.67	19093.52	638.14	21163.61	633.82	21276.57	633.82	21501.57	634.57
21844.63	630.98	22811.61	634.28	23063.93	639.52	24706.66	644.76	25081.51	647.25
25496.35	651.55	26134.01	664.42	26353.58	665.24	27446.09	665.24	28068.9	660.48
28337.33	660.48	28900.04	655.24	29133.05	652.22	29301.22	650.76	29438.47	646.14
29584.16	646.82	29872.38	653.34	30187.75	656.06	31264.2	674.78	31915.35	677.46
32864.21	714.69	33004.08	715.27	33608.93	689.23	33642.95	689.34	33520.16	733.86
36227.9	734.08	36421.47	737.05	36766.42	753.23	36807.06	754.37	37107.59	755.03
37432.7	766.05	37587.69	769.04	38346.77	790.39	39028.93	793.48	39372.94	800

Manning's n Values num= 3  
 Sta n Val Sta n Val  
 0 .1516688.53 .1517896.11 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16688.5317896.11 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505839.00	223497.00	1780429.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505839.00	223497.00	1780429.00
Q Total (cfs)	6730000.00	Flow (cfs)	2853114.00	645640.10	3231247.00
Top width (ft)	35895.75	Top width (ft)	15336.06	1207.58	19352.11
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.89	2.89	1.81
Max Chl Dpth (ft)	192.18	Hydr. Depth (ft)	98.19	185.08	92.00
Conv. Total (cfs)	748481100.0	Conv. (cfs)	317310800.0	71805260.0	359365100.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15348.81	1210.04	19358.15
Min Ch El (ft)	567.62	Shear (lb/sq ft)	0.50	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.94	2.69	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	99752.51	18079.29	120073.30
C & E Loss (ft)	0.00	Cum SA (acres)	884.15	85.80	1045.48

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275355.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.25	792.17	625.49	775.86	1317.77	761.32	1491.97	753.73
1770.17	746.69	1933.33	744.75	2274.5	744.75	2600.19	743.33	3474.94	721.91
3544.89	718.19	3633.79	715.25	3644.81	715.1	3841.24	717.15	4016.48	714.75
4155.77	712.22	4305.31	708.02	4670.85	699.16	5116.36	692.21	5447.91	690.31
5590.58	688.86	5745.83	682.91	5812.62	677.36	6166.43	675.78	6507.29	677.99
6644.8	679.5	6859.61	669	7022.08	663.75	7091.58	658.5	7139.41	658.5
7286.22	662.16	7498.54	672.22	7560.02	671.77	7686.38	672.94	8041.09	666.76
8087.85	668.98	8238.76	673.05	8524.87	657.97	8538.62	656.46	8707.19	646.01
8842.58	645.42	9090.79	654.83	9261.38	654.08	9440.09	642.8	9621.85	639.19
9762.64	627.51	9779.46	627.25	9867.01	616.75	10031.28	601.10	10087.24	601

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10128.26	605.7910252.02	634.4810357.11	646.7510735.73	642.2810890.15	635.71
10944.65	630.3211152.44	627.8711398.83	634.4611692.03	631.12312.1	625.75
13740.14	625.7513975.18	621.14579.38	621.15044.21	626.2515102.88	631.5
15389.96	627.7115396.77	622.8715500.92	621.1216144.46	597.7616692.32	590.5
16769.16	584.4317039.71	581.5617109.51	575.5617219.35	567.6217681.97	567.62
17794.01	572.0117901.43	590.517988.36	609.0718006.99	611.418240.67	630.84
18672.03	636.64 19098.7	638.121168.56	633.7521281.52	633.7521506.49	634.52
21849.51	630.9422816.38	634.2523068.68	639.524711.22	644.7525086.03	647.24
25500.82	651.5526138.42	664.4326357.96	665.2527450.35	665.2528073.09	660.5
28341.49	660.528904.14	655.2529137.12	652.229305.27	650.76 29442.5	646.13
29588.18	646.7829876.36	653.3330191.71	656.0531268.03	674.7531919.11	677.44
32867.87	714.6133007.73	715.18 33612.5	689.1833646.52	689.3235208.55	733.78
36231.19	734.0136424.73	736.9936769.65	753.1536810.28	753.9337110.78	754.98
37435.85	766.0137590.82	76938349.81	79039031.91	793.4939375.88	800

Manning's n Values	num=	3
Sta n Val Sta	n Val	n Val
0 .1516692.32	.1517901.43	.15

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
16692.3217901.43	5 5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1505851.00	223767.50	1780774.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505851.00	223767.50	1780774.00
Q Total (cfs)	6730000.00	Flow (cfs)	2852083.00	646254.10	3231664.00
Top width (ft)	35899.99	Top Width (ft)	15339.58	1209.11	19351.30
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.89	2.89	1.81
Max Chl Dpth (ft)	192.18	Hydr. Depth (ft)	98.17	185.07	92.02
Conv. Total (cfs)	748647600.0	conv. (cfs)	317266700.0	71889530.0	359491400.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15352.33	1211.57	19357.33
Min Ch El (ft)	567.62	Shear (lb/sq ft)	0.49	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.94	2.69	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	99579.66	18053.62	119868.90
C & E Loss (ft)	0.00	Cum SA (acres)	882.39	85.66	1043.26

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275352.\*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta	Elev Sta	Elev Sta
0 800 192.29	792.17 625.63	775.85 1318.07
1770.58 746.68 1933.77	744.74 2275.02	744.74 2600.78
3545.7 718.2 3634.61	715.26 3645.64	715.11 3842.12
4156.71 712.2 4306.29	708 4671.92	699.14 5117.52
5591.85 688.84 5747.13	682.89 5813.94	677.33 6167.83
6646.31 679.48 6861.17	668.96 7023.67	663.7 7093.19
7287.87 662.11 7500.25	672.16 7561.73	671.72 7688.12
8089.68 668.99 8240.63	673.11 8526.81	658.06 8540.56
8844.59 645.49 9092.86	654.92 9263.48	654.18 9442.24
9764.86 627.6 9781.68	627.34 9869.25	616.8210033.56
10130.56 605.8410254.35	634.5310359.47	646.8210738.17
10947.14 630.3911154.97	627.9411401.42	634.5111694.69
13743.26 625.7813978.36	621.04 14582.7	621.0415047.63
15393.46 627.7715400.27	622.9415504.44	621.1816148.13
16773.09 584.4417044.12	581.5717114.04	575.5717224.08
17799.16 57217906.74	590.5217993.67	609.0718012.29
18677.26 636.619103.89	638.0621173.52	633.721286.46
21854.39 630.9122821.16	634.2223073.42	639.4824715.78
25505.3 651.5526142.82	664.4426362.34	665.2627454.61
28345.65 660.5228908.23	655.2629141.19	652.229309.32
29592.2 646.7729880.35	653.3230195.66	656.0531271.87
32871.52 714.5233011.36	715.133616.07	689.1633650.09
36234.47 733.93 36428	736.9236772.87	753.08 36813.5
37439 765.9637593.96	768.9638352.86	79039034.88
		793.539378.81
		800

Manning's n Values	num=	3
Sta n Val Sta	n Val	n Val
0 .1516696.12	.1517906.74	.15

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
16696.1217906.74	5 5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1505886.00	224037.80	1781134.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505886.00	224037.80	1781134.00
Q Total (cfs)	6730000.00	Flow (cfs)	2851077.00	646863.20	3232060.00
Top width (ft)	35904.36	Top Width (ft)	15343.11	1210.62	19350.62
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.89	2.89	1.81
Max Chl Dpth (ft)	192.18	Hydr. Depth (ft)	98.15	185.06	92.05
Conv. Total (cfs)	748825400.0	conv. (cfs)	317230100.0	71974380.0	359620900.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15355.87	1213.09	19356.64
Min Ch El (ft)	567.62	Shear (lb/sq ft)	0.49	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.94	2.69	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	99406.81	18027.92	119664.50
C & E Loss (ft)	0.00	Cum SA (acres)	880.63	85.52	1041.04

CROSS SECTION

RIVER: BRAZOS

SS\_Rev3.rep

REACH: UPPER BRAZOS RS: 275349.\*

INPUT

Description:  
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.34	792.16	625.77	775.83	1318.37	761.31	1492.64	753.72
1770.98	746.68	1934.21	744.73	2275.54	744.73	2601.37	743.3	3476.51	721.94
3546.5	718.22	3635.44	715.27	3646.47	715.12	3842.99	717.14	4018.31	714.73
4157.65	712.19	4307.27	707.99	4672.98	699.12	5118.69	692.18	5450.39	690.28
5593.12	688.82	5748.44	682.86	5815.26	677.29	6169.23	675.71	6510.25	677.95
6647.82	679.46	6862.73	668.92	7025.27	663.65	7094.8	658.38	7142.66	658.38
7289.53	662.06	7501.95	672.11	7563.45	671.68	7689.87	672.89	8044.74	666.77
8091.52	669.01	8242.5	673.16	8528.75	658.15	8542.5	656.64	8711.15	646.13
8846.6	645.36	9094.92	655.02	9265.59	654.27	9444.38	642.95	9626.22	639.34
9767.08	627.69	9783.91	627.43	9871.5	616.89	10035.84	601.08	10091.83	601.08
10132.86	605.89	10256.68	634.58	10361.82	646.89	10740.61	642.41	10895.1	635.85
10949.62	630.47	11157.51	628.01	11404.01	634.55	11697.34	631.08	12317.7	625.81
13746.39	625.81	113981.53	621.08	14586.01	621.08	15051.05	626.35	15109.74	631.62
15396.95	627.82	15403.77	623.15	15507.96	621.24	16151.8	597.81	16699.91	590.54
16777.02	584.46	17048.53	581.59	17118.58	575.58	17228.82	567.62	17691.93	567.62
17804.31	572	17912.06	590.54	17998.98	609.07	18017.6	611.41	18251.23	630.77
18682.49	636.57	19109.07	638.02	1178.47	633.65	21291.4	633.65	21516.32	634.42
21859.27	630.87	22825.93	634.19	23078.17	639.46	24720.34	644.73	25095.07	647.23
25509.77	651.54	26147.22	664.45	26366.72	665.27	27458.87	665.27	28081.46	660.54
28349.81	660.54	28912.33	655.27	29145.26	652.21	29313.38	650.75	29450.58	646.1
29596.22	646.75	29884.34	653.32	30199.62	656.04	31275.7	674.69	31926.64	677.39
32875.18	714.43	33015	715.01	33619.65	689.14	33653.66	689.28	35215.35	733.6
36237.75	733.86	36431.26	736.86	36776.09	753.01	36816.72	753.79	37117.15	754.89
37442.15	765.92	37597.09	768.92	38355.91	7903	39037.85	793.53	3981.75	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516699.91		.1517912.06		.15

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

16699.91	17912.06	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505900.00	224306.60	1781494.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505900.00	224306.60	1781494.00
Q Total (cfs)	6730000.00	Flow (cfs)	2850016.00	647464.20	3232520.00
Top width (ft)	35908.55	Top width (ft)	15346.77	1212.15	19349.63
vel total (ft/s)	1.92	Avg. vel. (ft/s)	1.89	2.89	1.81
Max Chl Dpth (ft)	19.18	Hydr. Depth (ft)	98.12	185.05	92.07
Conv. Total (cfs)	748997000.0	Conv. (cfs)	317184800.0	72057760.0	359754500.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15359.53	1214.62	19355.64
Min Ch El (ft)	567.62	Shear (lb/sq ft)	0.49	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.94	2.69	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	99233.96	18002.19	119460.00
C & E Loss (ft)	0.00	Cum SA (acres)	878.87	85.38	1038.82

CROSS SECTION

RIVER: BRAZOS REACH: UPPER BRAZOS RS: 275346.\*

INPUT

Description:  
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.34	792.16	625.91	775.82	1318.67	761.31	1492.98	753.71
1771.38	746.67	1934.65	744.72	2276.05	744.72	2601.96	743.29	3477.3	721.96
3547.31	718.23	3636.27	715.28	3647.3	715.13	3843.86	717.14	4019.22	714.72
4158.6	712.17	4308.24	707.97	4674.04	699.1	5119.85	692.16	5451.63	690.26
5594.4	688.8	5749.74	682.83	5816.58	677.26	6170.63	675.68	6511.73	677.92
6649.33	679.44	6864.29	668.88	7026.86	663.6	7096.41	658.32	7144.28	658.32
7291.18	662.01	7503.66	672.06	7565.17	671.63	7691.62	672.86	8046.57	666.78
8093.36	669.03	8244.37	673.22	8530.68	658.24	8544.44	656.72	8713.13	646.23
8848.61	645.64	9096.99	655.11	9267.69	654.37	9446.53	643.03	9628.41	639.41
9769.3	627.78	9786.13	627.52	9873.74	616.96	10038.12	601.12	10094.12	601.12
10135.16	605.94	10259.01	634.62	10364.17	646.96	10743.05	642.47	10897.57	635.92
10952.11	630.55	11160.04	628.08	11406.6	634.6	11700	631.12	12320.5	625.84
13749.51	625.84	13984.71	621.12	14589.32	621.12	15054.47	626.41	15113.18	631.68
15400.45	627.87	15407.27	623.06	15511.49	621.31	16155.46	597.84	16703.7	590.56
16780.95	584.47	17052.95	581.61	17123.12	575.59	17233.55	567.62	17696.91	567.62
17809.46	571.99	17917.38	590.56	18004.29	609.07	18022.9	611.39	18256.51	630.74
18687.72	636.53	19114.26	637.98	21183.43	633.62	21296.34	633.62	21521.24	634.37
21864.15	630.83	22830.7	634.16	23082.91	639.44	24724.91	644.72	25099.59	647.23
25514.25	651.54	26151.63	664.47	26371.1	665.28	27463.12	665.28	28085.65	660.56
28353.97	660.56	28916.43	655.28	29149.33	652.21	29317.43	650.75	29454.62	646.09
29600.24	646.74	29888.33	653.31	30203.57	656.03	31279.53	674.66	31930.4	677.37
32878.84	714.35	33018.64	714.93	33623.23	689.12	33657.23	689.26	35218.75	733.51
36241.04	733.79	36434.52	736.83	36779.32	752.94	36819.94	753.72	37120.34	754.84
37445.3	765.87	37600.22	768.88	38358.96	7903	39040.82	793.51	39384.68	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	16703.7	.1517917.38		.15

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

16703.71	17917.38	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.80 <td>Reach Len. (ft)</td> <td>5.00</td> <td>5.00</td> <td>5.00</td>	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1505920.00	224578.50	1781839.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505920.00	224578.50	1781839.00

Q Total (cfs)	6730000.00	Flow (cfs)	2849003.00	648081.70	3232915.00
Top width (ft)	35912.92	Top width (ft)	15350.29	1213.68	19348.95
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.89	2.89	1.81
Max Chl Dpth (ft)	192.18	Hydr. Depth (ft)	98.10	185.04	92.09
Conv. Total (cfs)	749164900.0	Conv. (cfs)	317143100.0	72142660.0	359879100.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15363.05	1216.15	19354.94
Min Ch El (ft)	567.62	Shear (lb/sq ft)	0.49	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.93	2.68	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	99061.11	17976.43	119255.50
C & E Loss (ft)	0.00	Cum SA (acres)	877.11	85.24	1036.60

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275343.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.42	792.15	626.06	775.81	1319.26	761.31	1493.32	753.7
1771.78	746.67	1935.08	744.71	2276.57	744.71	2603.15	743.27	3478.88	721.98
3548.11	718.25	3637.09	715.29	3648.12	715.14	3845.61	717.13	4021.05	714.7
4159.54	712.16	4309.22	707.95	4675.1	699.06	5122.17	692.13	5454.1	690.22
5595.67	688.79	5751.05	682.81	5817.9	677.18	6173.44	675.61	6514.69	677.88
6650.84	679.42	6865.85	668.84	7028.46	663.5	7099.63	658.2	7147.52	658.2
7292.84	661.95	7505.36	672	7566.89	671.58	7693.36	672.84	8048.4	666.78
8095.2	669.04	8246.24	673.28	8532.62	658.33	8546.38	656.81	8715.11	646.3
8850.62	645.71	9099.05	655.21	9269.8	654.47	9448.67	643.11	9630.59	639.49
9771.52	627.87	9788.35	627.61	9875.98	617.03	10040.4	601.1610096.41	601.16	
10137.46	605.9810261.34	634.6710366.53	647.0310745.49	642.5310900.05	635.98		631.1612323.29	625.87	
10954.6	630.6311162.58	628.1511409.19	634.6511702.66	626.4515116.61	631.74		597.86	16707.5	590.58
13752.63	625.8713987.88	621.1614592.64	621.1615057.89	626.4515116.61	631.74		567.6217701.89	567.62	
15403.95	627.9215410.77	623.1215515.01	621.3616159.13	597.86	16707.5		611.3918261.79	630.7	
16784.88	584.4817057.36	581.6317127.66	575.617238.29	633.5521301.28	633.5521526.15	634.33	644.7125104.11	647.22	
17814.62	571.9917922.69	590.5818009.59	609.0718028.21	639.4224729.47	665.2927467.38	665.2928089.84	660.58	660.58	
18692.95	636.519119.44	637.9421188.38	633.5521301.28	639.4224729.47	665.2927467.38	665.2928089.84	660.58	660.58	
21869.03	630.822835.47	634.1323087.65	639.4224729.47	655.29	29153.4	652.2229321.48	674.6331934.16	677.34	
25518.72	651.5426156.03	664.4826375.48	665.2927467.38	655.29	29153.4	652.2229321.48	674.6331934.16	677.34	
28358.13	660.5828920.53	653.330207.52	656.0231283.37	689.1	33660.8	689.133660.8	689.2435222.14	733.42	
29604.26	646.7229892.32	714.84	33626.8	736.7436782.54	752.8736823.16	753.6637123.53	754.79	800	
32882.49	714.2633022.29	714.84	33626.8	736.7436782.54	752.8736823.16	753.6637123.53	754.79	800	
36244.32	733.7236437.78	736.7436782.54	752.8736823.16	753.6637123.53	754.79	800			
37448.45	765.8337603.36	768.8438362.01	790	39043.8	793.5239387.61	800			

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.15	16707.5	.1517922.69

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

16707.5	17922.69	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.80	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1505947.00	224845.20	1782197.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505947.00	224845.20	1782197.00
Q Total (cfs)	6730000.00	Flow (cfs)	2847986.00	648677.10	3233337.00
Top width (ft)	35917.15	Top width (ft)	15353.82	1215.19	19348.14
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.89	2.88	1.81
Max Chl Dpth (ft)	192.18	Hydr. Depth (ft)	98.08	185.03	92.11
Conv. Total (cfs)	749339500.0	Conv. (cfs)	317103800.0	72225760.0	360010000.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15366.59	1217.66	19354.12
Min Ch El (ft)	567.62	Shear (lb/sq ft)	0.49	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.93	2.68	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	98888.25	17950.64	119051.00
C & E Loss (ft)	0.00	Cum SA (acres)	875.35	85.10	1034.38

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275340.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.47	792.15	626.2	775.8	1319.26	761.31	1493.66	753.69
1772.19	746.66	1935.52	744.7	2277.09	744.7	2603.15	743.26	3478.88	721.99
3548.92	718.27	3637.92	715.3	3648.95	715.15	3845.61	717.13	4021.05	714.7
4160.49	712.14	4310.2	707.94	4676.16	699.06	5122.17	692.13	5454.1	690.22
5596.94	688.77	5752.36	682.78	5819.22	677.18	6173.44	675.61	6514.69	677.88
6652.35	679.4	6867.41	668.8	7030.05	663.5	7099.63	658.2	7147.52	658.2
7294.49	661.9	7507.06	671.95	7568.6	671.54	7695.11	672.81	8050.23	666.79
8097.04	669.06	8248.12	673.33	8534.56	658.42	8548.32	656.9	8717.09	646.37
8852.63	645.78	9101.12	655.3	9271.9	654.56	9450.82	643.19	9632.78	639.56
9773.73	627.96	9790.57	627.7	9878.22	617.110042.68	601.2	10098.7	601.2	
10139.77	606.0310263.67	634.7210368.88	647.110042.68	642.5910902.52	636.05		631.212326.09	625.9	
10957.09	630.711165.11	628.2311411.78	634.6911705.31	621.215061.31	626.515120.04	631.8		631.8	
13755.75	625.913991.06	621.214595.95	621.215061.31	621.215061.31	626.515120.04	631.8		631.8	
15407.44	627.9815414.26	623.1915518.53	621.42	16162.8	597.8916711.29	590.6		590.6	
16788.81	584.4917061.77	581.64	17132.2	575.6117243.02	567.6217706.87	567.62		567.62	
17819.77	571.9917928.01	590.6	18014.9	609.0618033.51	611.3918267.07	630.66		630.66	
18698.18	636.4619124.62	637.8921193.34	633.521306.23	633.521306.23	633.521531.07	634.28		634.28	
21873.91	630.7622840.24	634.1	23092.4	639.424734.03	644.725108.63	647.22		647.22	
25523.19	651.5326160.43	664.4926379.86	665.327471.64	665.327471.64	665.328094.03	660.6		660.6	
28362.29	660.628924.62	655.329157.48	652.2229325.53	650.7529462.69	646.06	646.06		646.06	
29608.28	646.7129896.31	653.2930211.48	656.02	31287.2	674.631937.92	677.32		677.32	
32886.15	714.1733025.93	714.7633630.38	689.0833664.38	689.2235225.54	733.34	733.34		733.34	
36247.61	733.6536441.04	736.6736785.77	752.7936826.38	753.5937126.71	754.74	754.74		754.74	

37451.6 765.7837606.49 768.838365.06 79039046.77 793.5239390.55 800

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Manning's n Values num= 3  
 Sta n Val Sta n Val  
 0 .1516711.29 .1517928.01 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16711.2917928.01 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1505975.00	225117.70	1782556.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505975.00	225117.70	1782556.00
Q Total (cfs)	6730000.00	Flow (cfs)	2846969.00	649290.60	3233740.00
Top Width (ft)	35921.52	Top Width (ft)	15357.35	1216.72	19347.45
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.89	2.88	1.81
Max Chl Dpth (ft)	192.17	Hydr. Depth (ft)	98.06	185.02	92.13
Conv. Total (cfs)	749515800.0	Conv. (cfs)	317065100.0	72311070.0	360139600.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15370.12	1219.19	19353.42
Min Ch El (ft)	567.62	Shear (lb/sq ft)	0.49	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.93	2.68	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	98715.39	17924.81	118846.40
C & E Loss (ft)	0.00	Cum SA (acres)	873.58	84.96	1032.16

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275337.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.51	792.14	626.34	775.78	1319.56	761.3	1494	753.69
1772.57	746.65	1935.96	744.69	2277.6	744.69	2603.74	743.25	3479.67	722.01
3549.72	718.28	3638.74	715.31	3649.78	715.16	3846.48	717.12	4021.96	714.69
4161.43	712.13	4311.18	707.92	4677.22	699.04	5123.34	692.12	5455.34	690.2
5598.21	688.75	5753.66	682.75	5820.54	677.15	6174.84	675.58	6516.17	677.85
6653.86	679.38	6868.96	668.76	7031.65	663.45	7101.24	658.14	7149.15	658.14
7296.15	661.81	7508.77	671.9	7570.22	671.49	7696.86	672.78	8052.05	666.8
8098.87	660.08	8249.99	673.39	8536.5	658.51	8550.26	656.99	8719.07	646.44
8854.64	645.85	9103.19	655.4	9274.01	654.66	9452.96	643.27	9634.96	639.64
9775.95	628.05	9792.79	627.79	9880.46	617.17	10044.96	601.24	10100.99	601.24
10142.07	606.08	10266	634.76	10371.23	647.17	10750.36	642.65	10905	636.12
10959.57	630.78	11167.64	628.31	11414.38	634.74	11707.97	631.24	12328.89	625.93
13758.88	625.93	13994.23	621.24	14599.26	621.24	15064.72	626.55	15123.47	631.86
15410.94	628.03	15417.76	623.25	15522.05	621.48	16166.47	597.91	16715.08	590.62
16792.74	584.51	17066.19	581.66	17136.73	575.62	17247.75	567.62	17711.85	567.62
17824.92	571.98	17933.33	590.62	18020.21	609.06	18038.82	611.38	18272.35	630.63
18703.42	636.43	19129.81	637.85	21198.29	633.45	21311.17	633.45	21535.99	634.23
21878.79	630.73	22845.02	634.07	23097.14	639.38	24738.59	644.69	25113.15	647.21
25527.67	651.53	26164.84	664.52	26384.24	665.31	27475.9	665.31	28098.22	660.62
28366.45	660.62	28928.72	655.31	29161.55	652.23	29329.59	650.75	29466.72	646.05
29612.3	646.72	29900.29	653.29	30215.43	656.01	31291.04	674.57	31941.69	677.29
32889.81	714.09	33029.57	714.67	33633.95	689.06	33667.95	689.23	35228.94	733.25
36250.89	733.58	36444.3	736.61	36788.99	752.72	36829.6	753.52	37129.9	754.7
37454.75	765.73	37609.62	768.76	38368.11	79039049.74		793.53	39393.48	800

Manning's n Values num= 3  
 Sta n Val Sta n Val  
 0 .1516715.08 .1517933.33 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16715.0817933.33 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1505993.00	225389.20	1782902.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1505993.00	225389.20	1782902.00
Q Total (cfs)	6730000.00	Flow (cfs)	2845937.00	649905.90	3234157.00
Top Width (ft)	35925.86	Top Width (ft)	15361.00	1218.25	19346.60
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)	1.89	2.88	1.81
Max Chl Dpth (ft)	192.17	Hydr. Depth (ft)	98.04	185.01	92.16
Conv. Total (cfs)	749684000.0	Conv. (cfs)	317021300.0	72395850.0	360266800.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15373.78	1220.73	19352.55
Min Ch El (ft)	567.62	Shear (lb/sq ft)	0.49	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.93	2.68	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	98542.53	17898.96	118641.70
C & E Loss (ft)	0.00	Cum SA (acres)	871.82	84.82	1029.94

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275334.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.56	792.14	626.48	775.77	1319.86	761.3	1494.34	753.68
1772.99	746.65	1936.4	744.68	2278.12	744.68	2604.33	743.24	3480.46	722.03
3550.53	718.3	3639.57	715.32	3650.61	715.17	3847.35	717.12	4022.87	714.68
4162.38	712.11	4312.16	707.9	4678.28	699.02	5124.5	692.1	5456.58	690.19
5599.48	688.73	5754.97	682.72	5821.86	677.11	6176.24	675.55	6517.64	677.83
6655.37	679.36	6870.52	668.72	7033.25	663.4	7102.86	658.08	7150.77	658.08
7297.8	661.79	7510.47	671.85	7572.04	671.45	7698.6	672.75	8053.88	666.81

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8100.71	669.1	8251.86	673.45	8538.43	658.59	8552.2	657.08	8721.04	646.51
8856.65	645.93	9105.25	655.49	9276.11	654.76	9455.11	643.35	9637.15	639.71
9778.17	628.14	9795.02	627.88	9882.71	617.2410047.24	601.2810103.29	601.2810103.29	601.28	601.28
10144.37	606.1310268.33	634.8110373.59	634.8110373.59	647.24	10752.8	642.7110907.47	642.7110907.47	636.19	636.19
10962.06	630.8611170.18	628.3711416.96	628.3711416.96	634.7911710.63	631.2812331.69	625.96	625.96	625.96	625.96
13762	625.9613997.41	621.2814602.57	621.2814602.57	621.2815068.14	626.6	15126.9	626.6	15126.9	631.92
15414.44	628.0815421.26	623.3115525.57	623.3115525.57	621.5416170.14	597.9416718.88	590.64	590.64	590.64	590.64
16796.67	584.51	17070.6	581.6817141.27	575.6317252.49	567.6117716.83	567.61	567.61	567.61	567.61
17830.07	571.9817938.64	590.6418025.51	590.6418025.51	609.0618044.12	611.3818277.62	630.59	630.59	630.59	630.59
21883.66	630.6922849.79	637.8121203.25	637.8121203.25	633.421316.11	633.421540.91	634.18	634.18	634.18	634.18
25332.14	651.5326169.24	664.5126388.62	664.5126388.62	665.3227480.15	665.3228102.41	660.64	660.64	660.64	660.64
28370.61	660.6428932.81	655.3229165.62	655.3229165.62	652.2329333.64	650.7529470.76	646.04	646.04	646.04	646.04
29616.32	646.6829904.29	653.2830219.38	653.2830219.38	65631294.87	674.5531945.45	677.27	677.27	677.27	677.27
32893.46	71433033.21	714.5933637.52	714.5933637.52	689.0433671.52	689.1835232.34	733.16	733.16	733.16	733.16
36254.18	733.536447.57	736.5536792.21	736.5536792.21	752.6536832.82	753.4537133.09	754.65	754.65	754.65	754.65
37457.9	765.6937612.75	768.7238371.16	768.7238371.16	79039052.72	793.5439396.42	800	800	800	800

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516718.88				

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	16718.88	17938.64		5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506010.00	225661.90	1783259.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1506010.00	225661.90	1783259.00
Q Total (cfs)	6730000.00	Flow (cfs)	2844894.00	650528.80	3234577.00
Top Width (ft)	35930.09	Top Width (ft)	15364.54	1219.76	19345.79
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.89	2.88	1.81
Max Chl Dpth (ft)	192.18	Hydr. Depth (ft)	98.02	185.01	92.18
Conv. Total (cfs)	749857600.0	Conv. (cfs)	316978500.0	72482020.0	360397100.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15377.32	1222.24	19351.73
Min Ch El (ft)	567.61	Shear (lb/sq ft)	0.49	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.93	2.68	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	98369.66	17873.07	118437.10
C & E Loss (ft)	0.00	Cum SA (acres)	870.06	84.68	1027.71

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275331.\*

INPUT

Description:

Station Elevation Data num= 120									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.6	792.13	626.63	775.76	1320.16	761.3	1494.68	753.67
1773.39	746.64	1936.84	744.67	2278.64	744.67	2604.92	743.22	3481.25	722.04
3551.33	718.31	3640.4	715.33	3651.44	715.18	3848.23	717.11	4023.78	714.67
4163.32	712.1	4313.14	707.89	4679.35	699	5125.66	692.09	5457.82	690.17
5600.75	688.71	5756.27	682.7	5823.19	677.07	6177.64	675.51	6519.12	677.81
6656.88	679.34	6872.08	668.68	7034.84	663.35	7104.47	658.02	7312.39	658.02
7299.46	661.74	7512.18	671.79	7573.76	671.4	7700.35	672.73	8055.71	666.81
8102.55	669.11	8253.73	673.5	8540.37	658.68	8554.14	657.17	8723.02	646.58
8858.66	646	9107.32	655.59	9278.21	654.85	9457.25	643.42	9639.34	639.79
9780.39	628.23	9797.24	627.97	9884.95	617.3110049.52	601.3210105.58	601.32	10105.58	601.32
10146.67	606.1810270.66	634.8610375.94	647.3110755.24	642.7710909.95	636.26				
10964.55	630.9311172.71	628.4411419.55	634.8311713.28	631.3212334.48	625.99				
13765.12	625.9914000.59	621.3214605.89	621.3215071.56	626.6515130.33	631.98				
15417.93	628.1415424.76	623.37	15529.1	621.616173.81	597.9616722.67	590.66			
16800.6	584.5317075.01	581.717145.81	575.6417257.22	567.6117721.81	567.61				
17835.22	571.9717943.96	590.6618030.82	609.0618049.43	611.38	18282.9	630.55			
18713.88	636.3619140.18	637.77	21208.2	633.3521321.05	633.3521545.82	634.13			
21888.54	630.6522854.56	634.0123106.63	639.3424747.71	644.67	25122.2	647.2			
25536.62	651.5226173.64	664.52	26393	665.3327484.41	665.33	28106.6	660.66		
28374.77	660.6628936.91	655.3329169.69	652.2329337.69	650.74	29474.8	646.02			
29620.34	646.6729908.27	653.2730223.34	655.9931298.71	674.5531949.21	677.25				
32897.12	713.9233036.85	714.5	33641.1	689.0233675.09	689.1635235.73	733.07			
36257.46	733.4336450.83	736.4836795.44	752.5836836.04	753.3837136.27	754.6				
37461.05	765.6437615.89	768.68	38374.2	79039055.69	793.5439399.36	800			

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516722.67				

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	16722.67	17943.96		5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506049.00	225932.00	1783623.00
E.G. Slope (ft/ft)	0.000081	Area (sq ft)	1506049.00	225932.00	1783623.00
Q Total (cfs)	6730000.00	Flow (cfs)	2843897.00	651125.10	3234978.00
Top Width (ft)	35934.44	Top Width (ft)	15368.05	1221.29	19345.09
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.89	2.88	1.81
Max Chl Dpth (ft)	192.18	Hydr. Depth (ft)	98.00	184.99	92.20
Conv. Total (cfs)	750038600.0	Conv. (cfs)	316943900.0	72565960.0	360528700.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15380.85	1223.77	19351.02
Min Ch El (ft)	567.61	Shear (lb/sq ft)	0.49	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.93	2.67	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	98196.80	17847.15	118232.40
C & E Loss (ft)	0.00	Cum SA (acres)	868.29	84.54	1025.49

CROSS SECTION

SS\_Rev3. rep

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275328.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.64	792.13	626.77	775.75	1320.46	761.29	1495.02	753.66
1773.79	746.63	1937.28	744.66	2279.15	744.66	2605.51	743.21	3482.04	722.06
3552.14	718.33	3641.22	715.34	3652.26	715.19	3849.1	717.11	4024.7	714.66
4164.26	712.08	4314.11	707.87	4680.41	698.98	5126.82	692.07	5459.05	690.15
5602.02	688.69	5757.58	682.67	5824.51	677.04	6179.04	675.48	6520.6	677.79
6658.39	679.32	6873.64	668.64	7036.44	663.3	7106.08	657.96	7154.01	657.96
7301.12	661.69	7513.88	671.74	7575.48	671.36	7702.1	672.7	8057.54	666.82
8104.39	669.13	8255.6	673.56	8542.31	658.77	8556.08	657.25	8725	646.65
8860.67	646.07	9109.38	655.68	9280.32	654.95	9459.4	643.5	9641.52	639.86
9782.61	628.32	9799.46	628.06	9887.19	617.3810051.79		601.3610107.87		601.36
10148.97	606.2310272.99		634.910378.29		647.3810757.68		642.8410912.42		636.32
10967.03	631.0111175.25		628.5211422.14		634.8811715.94		631.3612337.28		626.02
13768.24	626.0214003.76		621.3614609.2		621.3615074.98		626.715133.77		632.04
15421.43	628.1915428.26		623.4415532.62		621.6716177.48		597.9916726.46		590.68
16804.53	584.5417079.43		581.7217150.35		575.6517261.96		567.6117726.79		567.61
17840.38	571.9717949.28		590.6818036.13		609.0618054.73		611.3818288.18		630.52
18719.11	636.3219145.36		637.7321213.16		633.321325.99		633.321550.74		634.08
21893.42	630.6222859.33		633.9823111.37		639.3224752.28		644.6625126.71		647.19
25541.09	651.5226178.05		664.5426397.38		665.3427488.67		665.3428110.78		660.68
28378.92	660.6828941.01		655.3429173.76		652.2429341.74		650.7429478.84		646.01
29624.37	646.6529912.26		653.2730227.29		655.9831302.54		674.4931952.97		677.22
32900.78	713.8333040.49		714.4233644.67		68933678.66		689.1435239.13		732.98
36260.74	733.3636454.09		736.4236798.66		752.5136839.26		753.3137139.46		754.55
37464.2	765.637619.02		768.6438377.25		79039058.66		793.5539402.29		800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516726.46		.1517949.28		.15

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

16726.46	167949.28	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506060.00	226202.00	1783974.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506060.00	226202.00	1783974.00
Q Total (cfs)	6730000.00	Flow (cfs)	2842846.00	651736.00	3235418.00
Top width (ft)	35938.84	Top Width (ft)	15371.76	1222.82	19344.27
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.89	2.88	1.81
Max chl Dpth (ft)	192.18	Hydr. Depth (ft)	97.98	184.98	92.22
Conv. Total (cfs)	750203900.0	Conv. (cfs)	316896600.0	72650060.0	360657200.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15384.55	1225.30	19350.18
Min ch El (ft)	567.61	Shear (lb/sq ft)	0.49	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.93	2.67	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	98023.92	17821.20	118027.60
C & E Loss (ft)	0.00	Cum SA (acres)	866.53	84.40	1023.27

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275325.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.69	792.12	626.91	775.73	1320.76	761.29	1495.36	753.65
1774.2	746.63	1937.72	744.65	2279.67	744.65	2606.1	743.2	3482.83	722.08
3552.95	718.34	3642.05	715.35	3653.09	715.2	3849.97	717.1	4025.61	714.65
4165.21	712.07	4315.09	707.85	4681.47	698.96	5127.99	692.06	5460.29	690.13
5603.29	688.67	5758.88	682.64	5825.83	677	6180.44	675.45	6522.08	677.76
6659.9	679.3	6875.2	668.6	7038.03	663.25	7107.69	657.9	7155.64	657.9
7302.77	661.63	7515.58	671.69	7577.19	671.31	7703.84	672.67	8059.36	666.83
8106.22	669.15	8257.48	673.62	8544.24	658.86	8558.02	657.34	8726.98	646.73
8862.67	646.15	9111.45	655.78	9282.42	655.05	9461.54	643.58	9643.71	639.93
9784.83	628.42	9801.68	628.15	9889.43	617.4510054.08		601.410110.16		601.4
10151.27	606.2810275.32		634.9510380.65		647.4510760.12		642.910914.9		636.39
10969.52	631.0911177.78		628.5911424.74		634.9311718.6		631.412340.08		626.05
13771.36	626.0514006.94		621.414612.51		621.415078.4		626.7515137.2		632.1
15424.93	628.2415431.76		623.515536.14		621.7316181.14		598.0216730.26		590.7
16808.46	584.5517083.84		581.7317154.89		575.6617266.69		567.6117731.77		567.61
17845.53	571.9617954.6		590.718041.44		609.0618060.04		611.3718293.46		630.48
18724.34	636.2919150.54		637.6921218.11		633.2521330.94		633.2521555.66		634.03
21898.3	630.5822864.1		633.9523116.12		639.324756.84		644.6525131.23		647.19
25545.56	651.5226182.45		664.5526401.75		665.3527492.93		665.3528114.97		660.7
28383.08	660.728945.1		655.3529177.83		652.2429345.79		650.7429482.87		646
29628.39	646.6429916.25		653.2630231.25		655.9831306.37		674.4631956.73		677.2
32904.43	713.7433044.13		714.4333648.25		688.9833682.23		689.1235242.53		732.9
36264.02	733.2936457.36		736.3636801.89		752.4436842.48		753.2437142.64		754.51
37467.35	765.5537622.15		768.638380.3		79039061.64		793.5639405.23		800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516730.26		.1517954.6		.15

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

16730.26	17954.6	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150



		SS_Rev3.rep			
W.S. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	
Crit W.S. (ft)		Flow Area (sq ft)	1506073.00	226473.80	1784307.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506073.00	226473.80	1784307.00
Q Total (cfs)	6730000.00	Flow (cfs)	2841829.00	652357.60	3235813.00
Top Width (ft)	35943.04	Top Width (ft)	15375.28	1224.34	19343.42
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.89	2.88	1.81
Max Ch Dpth (ft)	192.18	Hydr. Depth (ft)	97.95	184.98	92.24
Conv. Total (cfs)	750368400.0	Conv. (cfs)	316852700.0	72735300.0	360780400.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15388.08	1226.83	19349.32
Min Ch El (ft)	567.61	Shear (lb/sq ft)	0.49	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.93	2.67	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	97851.05	17795.22	117822.80
C & E Loss (ft)	0.00	Cum SA (acres)	864.77	84.26	1021.05

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275322.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.73	792.12	627.05	775.72	1321.06	761.29	1495.69	753.65
1774.6	746.62	1938.16	744.64	2280.19	744.64	2606.69	743.19	3483.62	722.09
3553.75	718.36	3642.87	715.36	3653.92	715.21	3850.85	717.09	4026.52	714.64
4166.15	712.06	4316.07	707.84	4682.53	698.94	5129.15	692.04	5461.53	690.11
5604.56	688.66	5760.19	682.62	5827.15	676.96	6181.84	675.41	6523.56	677.74
6661.41	679.28	6876.76	668.56	7039.63	663.2	7109.3	657.84	7157.26	657.84
7304.43	661.58	7517.29	671.63	7578.91	671.26	7705.59	672.64	8061.19	666.83
8108.06	669.16	8259.35	673.67	8546.18	658.15	8539.96	657.43	8728.96	646.8
8864.68	646.22	9113.51	655.87	9284.53	655.14	9463.69	643.66	9645.9	640.01
9787.04	628.51	9803.9	628.24	9891.67	617.52	10056.35	601.44	10112.45	601.44
10153.58	606.33	10277.65	635	10383	647.52	10762.56	642.96	10917.37	636.46
10972.01	631.16	11180.32	628.66	11427.33	634.97	11721.25	631.44	12342.88	626.08
13774.49	626.08	14010.11	621.44	14615.83	621.44	15081.82	626.81	15140.63	632.16
15428.43	628.29	15435.26	623.56	15539.66	621.79	16184.81	598.04	16734.05	590.72
16812.39	584.56	17088.25	581.75	17159.42	575.67	17271.42	567.61	17736.74	567.61
17850.68	571.96	17959.91	590.72	18046.74	609.05	18065.35	611.37	18298.74	630.44
18729.57	636.25	19155.73	637.64	21223.06	633.22	21335.88	633.22	21560.57	633.99
21903.18	630.54	22868.88	633.92	23120.86	639.28	24761.4	644.64	25135.75	647.18
25550.04	651.51	26186.85	664.56	26406.13	665.36	27497.19	665.36	28119.16	660.72
28387.24	660.72	28949.4	655.36	29181.9	652.25	29349.85	650.74	29486.91	645.98
29632.41	646.22	29920.24	653.25	30235.2	655.97	31310.21	674.43	31960.5	677.17
32908.09	713.66	33047.77	714.25	33651.82	688.96	33685.8	689.13	35245.93	732.81
36267.31	733.22	36460.62	736.29	36805.11	752.37	36845.7	753.17	37145.83	754.46
37470.5	765.51	37625.29	768.56	38383.35		39064.61	793.56	39408.16	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.1516734.05		
		1517959.91	.15

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

16734.05	17959.91	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

		Element					
E.G. Elev (ft)	759.85	Left OB	0.150	Channel	0.150	Right OB	0.150
Vel Head (ft)	0.06	Wt. n-val.	5.00		5.00		5.00
W.S. Elev (ft)	759.79	Reach Len. (ft)	5.00		5.00		5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506110.00	226742.30	1784691.00		
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506110.00	226742.30	1784691.00		
Q Total (cfs)	6730000.00	Flow (cfs)	2840803.00	652943.80	3236253.00		
Top Width (ft)	35947.21	Top Width (ft)	15378.76	1225.86	19342.59		
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.89	2.88	1.81		
Max Ch Dpth (ft)	192.18	Hydr. Depth (ft)	97.93	184.97	92.27		
Conv. Total (cfs)	750556800.0	Conv. (cfs)	316817900.0	72818940.0	360920000.0		
Length wtd. (ft)	5.00	wetted Per. (ft)	15391.57	1228.35	19348.48		
Min Ch El (ft)	567.61	Shear (lb/sq ft)	0.49	0.93	0.46		
Alpha	1.06	Stream Power (lb/ft s)	0.93	2.67	0.84		
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	97678.17	17769.21	117618.00		
C & E Loss (ft)	0.00	Cum SA (acres)	863.00	84.12	1018.83		

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275320.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev		
0	800	192.77	792.12	627.19	775.71	1321.36	761.29	1496.03	753.64
1775	746.62	1938.6	744.63	2280.71	744.63	2607.28	743.17	3484.41	722.11
3554.56	718.38	3643.7	715.37	3654.75	715.22	3851.72	717.09	4027.44	714.63
4167.1	712.04	4317.05	707.82	4683.59	698.92	5130.31	692.03	5462.77	690.09
5605.83	688.64	5761.5	682.59	5828.47	676.93	6183.24	675.38	6525.04	677.72
6662.92	679.26	6878.32	668.52	7041.22	663.15	7110.91	657.78	7158.88	657.78
7306.08	661.53	7518.99	671.58	7580.63	671.22	7707.33	672.62	8063.02	666.84
8109.9	669.18	8261.22	673.73	8548.12	659.04	8561.91	657.52	8730.94	646.87
8866.69	646.29	9115.58	655.97	9286.63	655.24	9465.83	643.74	9648.08	640.08
9789.26	628.6	9806.13	628.33	9893.92	617.59	10058.63	601.48	10114.75	601.48
10155.88	606.38	10279.98	635.04	10385.35	647.59	10765	643.02	10919.84	636.53
10974.5	631.24	11182.85	628.73	11429.92	635.02	11723.91	631.48	12345.67	626.11
13777.61	626.11	14013.29	621.48	14619.14	621.48	15085.24	626.81	15144.06	632.22
15431.92	628.35	15438.75	623.63	15543.19	621.85	16188.48	598.07	16737.84	590.74
16816.32	584.57	17092.67	581.77	17163.96	575.68	17276.16	567.61	17741.72	567.61
17855.83	571.96	17965.23	590.74	18052.05	609.05	18070.65	611.37	18304.02	630.41
18734.8	636.22	19160.91	637.62	21228.02	633.15	21340.82	633.15	21565.49	633.94
21908.06	630.51	222873.65	633.89	23125.6	639.26	24765.96	644.63	25140.28	647.18
25554.51	651.51	26191.26	664.57	26410.51	665.37	27501.44	665.37	28123.35	660.74
28391.4	660.74	28953.3	655.37	29185.97	652.25	29353.9	650.74	29490.95	645.97

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29636.43	646.6129924.23	653.2530239.15	655.9631314.04	674.431964.26	677.15		
32911.75	713.5733051.42	714.1633655.39	688.9433689.37	689.0835249.32	732.72		
36270.59	733.1536463.88	736.2336808.34	752.336848.91	753.1137149.02	754.41		
37473.65	765.4637628.42	768.52 38386.4	79039067.58	793.5739411.09	800		

Manning's n Values		num= 3			
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516737.84		.1517965.23		.15

  

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
16737.8417965.23			5	5	5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506120.00	227012.80	1785031.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506120.00	227012.80	1785031.00
Q Total (cfs)	6730000.00	Flow (cfs)	2839785.00	653557.20	3236658.00
Top width (ft)	35951.57	Top width (ft)	15382.28	1227.39	19341.90
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.89	2.88	1.81
Max Chl Dpth (ft)	192.18	Hydr. Depth (ft)	97.91	184.96	92.29
Conv. Total (cfs)	750719500.0	Conv. (cfs)	316772900.0	72903140.0	361043500.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15395.09	1229.88	19347.78
Min Ch El (ft)	567.61	Shear (lb/sq ft)	0.49	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.93	2.67	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	97505.30	17743.17	117413.10
C & E Loss (ft)	0.00	Cum SA (acres)	861.24	83.98	1016.61

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275317.\*

INPUT

Description:		num= 120			
Station	Elevation	Data	num= 120	Sta	Elev
0	800	192.82	792.11	627.34	775.7
1775.4	746.61	1939.04	744.62	2281.22	744.62
3555.36	718.39	3644.52	715.38	3655.58	715.23
4168.04	712.03	4318.03	707.8	4684.65	698.91
5607.1	688.62	5762.8	682.56	5829.79	676.89
6664.43	679.24	6879.88	668.48	7042.82	663.1
7307.74	661.48	7520.7	671.53	7582.35	671.17
8111.74	669.2	8263.09	673.79	8550.06	659.12
8868.7	646.36	9117.65	656.06	9288.74	655.34
9791.48	628.69	9808.35	628.42	9896.16	617.66
10158.18	606.43	10282.31	635.09	10387.71	647.66
10976.98	631.32	11185.38	628.81	11432.51	635.06
13780.73	626.14	141016.46	621.52	14622.45	621.52
15435.42	628.41	15442.25	623.69	15546.71	621.91
16820.25	584.59	17097.08	581.79	17168.5	575.68
17860.98	571.95	17970.55	590.76	18057.36	609.05
18740.04	636.18	19166.1	637.56	21232.97	633.12
21912.94	630.47	22878.42	633.86	23130.35	639.24
25558.99	651.51	26195.66	664.58	26414.89	665.38
28395.56	660.76	28957.39	655.38	29190.04	652.26
29640.45	646.62	29928.22	653.24	30243.11	655.95
32915.41	713.48	3055.06	714.08	33658.97	688.92
36273.88	733.08	36467.14	736.17	36811.56	752.23
37476.8	765.43	37631.55	768.48	38389.45	79039070.55

Manning's n Values		num= 3			
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516741.63		.1517970.55		.15

  

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
16741.6317970.55			5	5	5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506146.00	227283.30	1785390.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506146.00	227283.30	1785390.00
Q Total (cfs)	6730000.00	Flow (cfs)	2838761.00	654161.90	3237078.00
Top width (ft)	35956.11	Top width (ft)	15385.98	1228.92	19341.21
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.88	2.88	1.81
Max Chl Dpth (ft)	192.18	Hydr. Depth (ft)	97.89	184.95	92.31
Conv. Total (cfs)	750892100.0	Conv. (cfs)	316731500.0	72987380.0	361173200.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15398.80	1231.41	19347.07
Min Ch El (ft)	567.61	Shear (lb/sq ft)	0.49	0.93	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.92	2.66	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	97332.41	17717.10	117208.20
C & E Loss (ft)	0.00	Cum SA (acres)	859.47	83.84	1014.39

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275314.\*

INPUT

Description:		num= 120			
Station	Elevation	Data	num= 120	Sta	Elev
0	800	192.86	792.11	627.48	775.69
1775.81	746.61	1939.48	744.61	2281.74	744.61
3556.17	718.41	3645.35	715.39	3656.41	715.23
4168.99	712.01	4319.01	707.78	4685.71	698.89

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5608.37	688.6	5764.11	682.53	5831.11	676.85	6186.05	675.31	6527.99	677.67		
6665.94	679.22	6881.43	668.44	7044.42	663.05	7114.14	657.66	7162.12	657.66		
7309.39	661.42	7522.4	671.47	7584.06	671.13	7710.83	672.56	8066.67	666.85		
8113.58	669.21	8264.96	673.84	8551.99	659.21	8565.79	657.7	8734.89	647.01		
8870.71	646.44	9119.71	656.16	9290.84	655.43	9470.12	643.89	9652.46	640.23		
9793.7	628.78	9810.57	628.51	9898.4	617.7310063.19		601.5610119.33		601.56		
10160.48	606.4810284.64		635.1410390.06		647.7310769.88		643.1410924.79		636.66		
10979.47	631.3911187.92		628.88 11435.1		635.1111729.22		631.5612351.27		626.17		
13783.85	626.1714019.64		621.5614625.76		621.5615092.07		626.9515150.93		632.34		
15438.92	628.4515445.75		623.7515550.23		621.9716195.82		598.1216745.43		590.78		
16824.18	584.617101.49		581.817173.04		575.6917285.63		567.6117751.68		567.61		
17866.13	571.9517975.86		590.7818062.67		609.0518081.26		611.3618314.58		630.33		
18745.27	636.1519171.28		637.5221237.93		633.0521350.71		633.0521575.33		633.84		
21917.82	630.4322883.19		633.8323135.09		639.2224775.08		644.6125149.31		647.17		
25563.46	651.526200.06		664.5926419.27		665.3927509.96		665.3928131.73		660.78		
28399.72	660.7828961.49		655.3929194.11		652.26 29362		650.7429499.02		645.94		
29644.47	646.5829932.21		653.2330247.06		655.9531321.71		674.3431971.78		677.1		
32919.06	713.4 33058.7		713.9933662.54		688.8933696.51		689.0435256.12		732.54		
36277.16	73336470.41		736.1136814.79		752.1636855.36		752.9377155.39		754.31		
37479.95	765.3737634.68		768.44 38392.5		79039073.53		793.5839416.96		800		

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516745.43		.1517975.86		.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16745.43	17975.86		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (ft)	759.85				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
w.s. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1506171.00	227551.80	1785760.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506171.00	227551.80	1785760.00
Q Total (cfs)	673000.00	Flow (cfs)	283772.00	654758.30	3237515.00
Top width (ft)	35964.52	Top width (ft)	15393.03	1231.96	19339.54
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.88	2.88	1.81
Max Chl Dpth (ft)	192.18	Hydr. Depth (ft)	97.85	184.93	92.35
Conv. Total (cfs)	751237100.0	conv. (cfs)	316648400.0	73155990.0	361432700.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15405.86	1234.45	19345.38
Min Ch El (ft)	567.61	Shear (lb/sq ft)	0.49	0.92	0.46
Alpha	1.06	Stream Power (lb/ft s)	1.92	2.66	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	96986.65	17664.86	116798.20
C & E Loss (ft)	0.00	Cum SA (acres)	855.94	83.56	1009.95

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275311.\*

INPUT

Description:											
Station Elevation Data											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	192.9	792.1	627.62	775.67	1322.26	761.28	1497.05	753.61		
1776.21	746.6	1939.92	744.6	2282.26	744.6	2609.05	743.13	3486.78	722.16		
3556.97	718.42	3646.18	715.4	3657.23	715.24	3854.34	717.07	4030.17	714.6		
4169.93	712	4319.98	707.77	4686.77	698.87	5133.8	691.98	5466.48	690.04		
5609.64	688.58	5765.41	682.51	5832.43	676.82	6187.45	675.28	6529.47	677.65		
6667.45	679.2	6882.99	668.4	7046.01	663	7115.75	657.6	7163.75	657.6		
7311.05	661.37	7524.1	671.42	7585.78	671.08	7712.57	672.54	8068.5	666.86		
8115.41	669.23	8266.84	673.9	8553.93	659.3	8567.73	657.79	8736.87	647.08		
8872.72	646.51	9121.78	656.26	9292.95	655.53	9472.27	643.97	9654.64	640.31		
9795.92	628.87	9812.79	628.6	9900.64	617.810065.47		601.610121.62		601.6		
10162.78	606.5210286.97		635.1810392.41		647.810772.32		643.2110927.27		636.73		
10981.96	631.4711190.45		628.9511437.69		635.1611731.88		631.612354.07		626.2		
13786.97	626.214022.81		621.614629.08		621.615095.49		627.151514.36		632.4		
15442.41	628.5115449.23		623.8115553.75		622.0316199.49		598.1516749.22		590.8		
16828.11	584.6117105.91		581.8217177.58		575.717290.36		567.6117756.66		567.61		
17871.28	571.9417981.18		590.818067.97		609.0518086.57		611.3618319.86		630.3		
18750.5	636.1119176.46		637.4821242.88		63321355.65		63321580.24		633.79		
21922.7	630.422887.96		633.823139.84		639.224779.64		644.625153.83		647.16		
25567.94	651.526204.47		664.6126423.65		665.427514.22		665.428135.92		660.8		
28403.88	660.828965.59		655.429198.18		652.2629366.05		650.7329503.06		645.93		
29648.49	646.5729936.19		653.2230251.01		655.9431325.54		674.3131975.54		677.08		
32922.72	713.3133062.34		713.933666.12		688.8733700.08		689.0235259.52		732.46		
36280.45	732.9336473.67		736.0436818.01		752.0936858.57		752.937158.57		754.27		
37483.1	765.3237637.82		768.438395.55		790 39076.5		793.59 39419.9		800		

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516749.22		.1517981.18		.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16749.22	17981.18		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (ft)	759.85				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
w.s. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1506185.00	227823.00	1786097.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506185.00	227823.00	1786097.00
Q Total (cfs)	6730000.00	Flow (cfs)	2836712.00	655372.10	3237916.00
Top width (ft)	35964.52	Top width (ft)	15393.03	1231.96	19339.54
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.88	2.88	1.81
Max Chl Dpth (ft)	192.18	Hydr. Depth (ft)	97.85	184.93	92.35
Conv. Total (cfs)	751237100.0	conv. (cfs)	316648400.0	73155990.0	361432700.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15405.86	1234.45	19345.38
Min Ch El (ft)	567.61	Shear (lb/sq ft)	0.49	0.92	0.46
Alpha	1.06	Stream Power (lb/ft s)	1.92	2.66	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	96986.65	17664.86	116798.20
C & E Loss (ft)	0.00	Cum SA (acres)	855.94	83.56	1009.95

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CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275308.\*

INPUT

Table with columns: Station, Elevation, Data, num=, 120, Sta, Elev, Sta, Elev, Sta, Elev, Sta, Elev. Contains 20 rows of station and elevation data.

Table with columns: Manning's n Values, num=, 3, Sta, n Val, Sta, n Val, Sta, n Val. Contains 2 rows of Manning's n values.

Table with columns: Bank Sta, Left, Right, Lengths, Left, Channel, Right, Coeff, Contr., Expan. Contains 1 row of bank station and length data.

CROSS SECTION OUTPUT Profile #PF 1

Table with columns: E.G. Elev (ft), Vel Head (ft), w.s. Elev (ft), Crit W.s (ft), E.G. Slope (ft/ft), Q Total (cfs), Top Width (ft), Vel Total (ft/s), Max Chl Dpth (ft), Conv. Total (cfs), Length wtd. (ft), Min Ch El (ft), Alpha, Frctn Loss (ft), C & E Loss (ft). Contains 1 row of cross-section output data.

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275305.\*

INPUT

Table with columns: Station, Elevation, Data, num=, 120, Sta, Elev, Sta, Elev, Sta, Elev, Sta, Elev. Contains 20 rows of station and elevation data.

Table with columns: Manning's n Values, num=, 3, Sta, n Val, Sta, n Val, Sta, n Val. Contains 2 rows of Manning's n values.

Table with columns: Bank Sta, Left, Right, Lengths, Left, Channel, Right, Coeff, Contr., Expan. Contains 1 row of bank station and length data.

CROSS SECTION OUTPUT Profile #PF 1

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E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1506236.00	228367.30	1786825.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506236.00	228367.30	1786825.00
Q Total (cfs)	6730000.00	Flow (cfs)	2834648.00	656593.00	3238759.00
Top width (ft)	35973.22	Top width (ft)	15400.21	1235.00	19338.01
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.88	2.88	1.81
Max Chl Dpth (ft)	192.19	Hydr. Depth (ft)	97.81	184.91	92.40
Conv. Total (cfs)	751591800.0	conv. (cfs)	316567300.0	73326880.0	361697600.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15413.06	1237.50	19343.83
Min Ch El (ft)	567.60	Shear (lb/sq ft)	0.49	0.92	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.92	2.66	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	96640.87	17612.50	116388.10
C & E Loss (ft)	0.00	Cum SA (acres)	852.40	83.27	1005.51

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275302.\*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.04	792.09	628.05	775.64	1323.16	761.27	1498.07	753.59	
1777.41	746.58	1941.24	744.57	2283.81	744.57	2610.83	743.1	3489.15	722.21	
3559.39	718.47	3648.65	715.43	3659.72	715.27	3856.96	717.06	4032.91	714.57	
4172.76	711.95	4322.92	707.72	4689.96	698.81	5137.29	691.94	5470.2	689.98	
5613.45	688.52	5769.33	682.42	5836.39	676.71	6191.65	675.18	6533.91	677.58	
6671.98	679.14	6887.67	668.28	7050.8	662.85	7120.58	657.42	7168.61	657.42	
7316.02	661.21	7529.22	671.26	7590.94	670.94	7717.81	672.45	8073.98	666.88	
8120.93	669.28	8272.45	674.07	8559.74	659.57	8573.55	658.05	8742.81	647.3	
8878.75	646.73	9127.97	656.54	9299.26	655.82	9478.7	644.21	9661.2	640.53	
9802.57	629.14	9819.46	628.87	9907.37	618.01	10072.31	601.72	10128.5	601.72	
10169.69	606.67	10293.96	635.32	10399.47	648.01	10779.64	643.39	10934.69	636.94	
10989.42	631.71	11198.05	629.16	11445.46	635.31	11739.85	631.72	12362.46	626.29	
13796.34	626.29	14032.34	621.72	14639.02	621.72	15105.75	627.15	15164.65	632.58	
15452.91	628.66	15459.75	624.15	1564.32	622.21	16210.49	598.22	16760.6	590.86	
16839.9	584.64	17119.15	581.88	17191.19	575.73	17304.56	567.6	17771.6	567.6	
17886.74	571.93	17997.13	590.86	18083.89	609.04	18102.48	611.35	18335.7	630.19	
18766.19	636.01	19192.02	637.35	1257.75	632.85	1370.47	632.85	1594.99	633.65	
21937.33	630.29	22902.28	633.71	23154.07	639.14	242793.33	644.57	25167.39	647.15	
25581.36	651.49	26217.68	664.64	26436.79	665.43	27526.99	665.43	28148.48	660.86	
28416.36	660.86	28977.88	655.43	29210.39	652.28	29378.21	650.73	29515.17	645.89	
29660.55	646.52	29948.16	653.23	20262.88	655.92	231337.05	674.23	31986.83	677.01	
32933.69	713.05	33073.27	713.65	33676.84	688.81	33710.79	688.96	35269.71	732.19	
36290.3	732.72	36483.45	735.85	36827.68	751.88	36868.23	752.69	37168.13	754.12	
37492.55	765.19	37647.22	768.28	38404.69	790.39	39085.42	793.61	39428.7	800	

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.15	16760.6	.1517997.13

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

16760.61	7997.13	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1506255.00	228637.60	1787158.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506255.00	228637.60	1787158.00
Q Total (cfs)	6730000.00	Flow (cfs)	2833652.00	657201.30	3239146.00
Top width (ft)	35977.42	Top width (ft)	15403.73	1236.53	19337.16
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.88	2.87	1.81
Max Chl Dpth (ft)	192.19	Hydr. Depth (ft)	97.79	184.90	92.42
Conv. Total (cfs)	751757700.0	conv. (cfs)	316526000.0	73411020.0	361820700.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15416.58	1239.03	19342.97
Min Ch El (ft)	567.60	Shear (lb/sq ft)	0.49	0.92	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.92	2.65	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	96467.98	17586.27	116183.00
C & E Loss (ft)	0.00	Cum SA (acres)	850.63	83.13	1003.29

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275299.\*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.08	792.08	628.19	775.62	1323.46	761.27	1498.41	753.58	
1777.82	746.57	1941.67	744.56	2284.32	744.56	2611.42	743.08	3489.94	722.23	
3560.2	718.48	3649.48	715.44	3660.55	715.28	3857.83	717.05	4033.82	714.56	
4173.71	711.94	4323.9	707.7	4691.02	698.79	5138.45	691.92	5471.43	689.96	
5614.72	688.51	5770.63	682.4	5837.71	676.67	6193.05	675.15	6535.39	677.56	
6673.49	679.12	6889.23	668.24	7052.39	662.8	7122.19	657.36	7170.24	657.36	
7317.67	661.16	7530.92	671.21	7592.65	670.9	7719.56	672.43	8075.81	666.89	
8122.76	669.3	8274.33	674.13	8561.68	659.66	8575.49	658.14	8744.79	647.37	
8880.76	646.8	9130.04	656.64	9301.36	655.92	9480.85	644.29	9663.39	640.61	
9804.79	629.23	9821.68	628.96	9909.61	618.08	10074.59	601.76	10130.79	601.76	
10171.99	606.72	10296.29	635.37	10401.83	648.08	10782.08	643.45	10937.17	637	
10991.9	631.78	11200.59	629.24	11448.05	635.34	11742.51	631.76	12365.26	626.32	
13799.46	626.32	14035.52	621.76	14642.33	621.76	15109.16	627.21	15168.09	632.64	
15456.4	628.72	15463.24	624.06	15567.84	622.27	16214.16	598.25	16764.39	590.88	
16843.83	584.66	17123.56	581.89	17195.73	575.74	17309.3	567.61	17776.58	567.6	
17891.89	571.93	18002.45	590.88	18089.2	609.04	18107.79	611.35	18340.98	630.15	
18771.43	635.97	19197.2	637.31	21262.7	632.82	21375.42	632.82	21599.91	633.6	

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21942.21	630.2522907.05	633.6823158.81	639.1224797.89	644.5625171.92	647.14
25585.83	651.4926222.08	664.6526441.16	665.4427531.25	665.4428152.67	660.88
28420.51	660.8828981.97	655.4429214.46	652.2829382.26	650.73 29519.2	645.88
29664.57	646.5129952.15	653.230266.83	655.9131340.88	674.231990.59	676.98
32937.35	712.9633076.91	713.5633680.41	688.7933714.36	688.9435273.11	732.1
36293.58	732.6536486.72	735.7936830.91	751.8136871.45	752.6237171.32	754.08
37495.7	765.1437650.35	768.2438407.74	79039088.39	793.6239431.64	800

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516764.39		.1518002.45		.15

  

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	16764.39	18002.45		5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

	759.85	Element	Left OB	Channel	Right OB
E.G. Elev (ft)	759.85	wt. n-Val.	0.150	0.150	0.150
Vel Head (ft)	0.06	Reach Len. (ft)	5.00	5.00	5.00
w.s. Elev (ft)	759.79	Flow Area (sq ft)	1506270.00	228907.30	1787524.00
Crit w.s. (ft)		Area (sq ft)	1506270.00	228907.30	1787524.00
E.G. Slope (ft/ft)	0.000080	Flow (cfs)	2832608.00	657799.90	3239593.00
Q Total (cfs)	6730000.00	Top width (ft)	15407.25	1238.06	19336.32
Top width (ft)	35981.63	Avg. Vel. (ft/s)	1.88	2.87	1.81
Vel Total (ft/s)	1.91	Hydr. Depth (ft)	97.76	184.89	92.44
Max Chl Dpth (ft)	192.19	Conv. (cfs)	316482800.0	73494960.0	361954700.0
Conv. Total (cfs)	751932500.0	wetted Per. (ft)	15420.11	1240.56	19342.12
Length Wtd. (ft)	5.00	Shear (lb/sq ft)	0.49	0.92	0.46
Min Ch El (ft)	567.60	Stream Power (lb/ft s)	0.92	2.65	0.84
Alpha	1.06	Cum Volume (acre-ft)	96295.08	17560.01	115977.80
Frctn Loss (ft)	0.00	Cum SA (acres)	848.87	82.99	1001.07
C & E Loss (ft)	0.00				

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275296.\*

INPUT

Description:											
Station	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.12	792.08	628.33	775.61	1323.76	761.26	1498.75	753.58		
1778.22	746.56	1942.11	744.55	2284.84	744.55	2612.01	743.07	3490.73	722.25		
3561	718.5	3650.3	715.45	3661.38	715.29	3858.7	717.05	4034.74	714.55		
4174.65	711.92	4324.88	707.68	4692.08	698.77	5139.61	691.91	5472.67	689.95		
5615.99	688.49	5771.94	682.37	5839.04	676.63	6194.45	675.11	6536.87	677.53		
6675	679.1	6890.79	668.2	7053.99	662.75	7123.8	657.3	7171.86	657.3		
7319.33	661.1	7532.62	671.16	7594.37	670.85	7721.31	672.4	8077.63	666.89		
8124.6	669.32	8276.2	674.18	8563.62	659.74	8577.43	658.23	8746.77	647.44		
8882.77	646.87	9132.11	656.73	9303.47	656.01	9482.99	644.36	9665.57	640.68		
9807.01	629.32	9823.9	629.05	9911.85	618.15	10076.87	601.81	10133.08	601.8		
10174.29	606.77	10298.62	635.42	10404.18	648.15	10784.52	643.51	10939.64	637.07		
10994.39	631.85	11203.12	629.31	11450.64	635.39	11745.16	631.81	12368.06	626.35		
13802.58	626.35	14038.69	621.81	14645.64	621.81	15112.58	627.25	15171.52	632.7		
15459.9	628.77	15466.74	624.13	15571.36	622.33	16217.83	598.27	16768.19	590.9		
16847.76	584.67	17127.97	581.91	17200.27	575.75	17314.03	567.61	17781.55	567.6		
17897.04	571.92	18007.77	590.91	18094.51	609.04	18113.09	611.34	18346.26	630.11		
18776.66	635.94	19202.39	637.27	19267.66	632.75	19380.36	632.75	19604.83	633.55		
21947.09	630.22	22911.82	633.65	23163.55	639.12	24802.45	644.55	25176.44	647.14		
25590.3	651.48	26226.48	664.66	26445.54	665.45	27535.51	665.45	28156.86	660.9		
28424.67	660.92	28986.07	655.45	29218.54	652.28	29386.31	650.73	29523.24	645.87		
29668.59	646.52	29956.14	653.19	30270.78	655.93	31344.72	674.17	31994.36	676.96		
32941	712.88	33080.55	713.48	33683.99	688.77	33717.93	688.92	35276.5	732.01		
36296.86	732.57	36489.98	735.73	36834.13	751.74	36874.67	752.56	37174.51	754.03		
37498.86	765.09	37653.48	768.23	38410.79	79039091.37		793.62	39434.57	800		

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516768.19		.1518007.77		.15

  

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	16768.19	18007.77		5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

	759.85	Element	Left OB	Channel	Right OB
E.G. Elev (ft)	759.85	wt. n-Val.	0.150	0.150	0.150
Vel Head (ft)	0.06	Reach Len. (ft)	5.00	5.00	5.00
w.s. Elev (ft)	759.79	Flow Area (sq ft)	1506304.00	229177.10	1787873.00
Crit w.s. (ft)		Area (sq ft)	1506304.00	229177.10	1787873.00
E.G. Slope (ft/ft)	0.000080	Flow (cfs)	2831616.00	658401.90	3239982.00
Q Total (cfs)	6730000.00	Top width (ft)	15410.92	1239.58	19335.63
Top width (ft)	35986.13	Avg. Vel. (ft/s)	1.88	2.87	1.81
Vel Total (ft/s)	1.91	Hydr. Depth (ft)	97.74	184.88	92.47
Max Chl Dpth (ft)	192.19	Conv. (cfs)	316444800.0	73579130.0	362081400.0
Conv. Total (cfs)	752105300.0	wetted Per. (ft)	15423.78	1242.09	19341.41
Length Wtd. (ft)	5.00	Shear (lb/sq ft)	0.49	0.92	0.46
Min Ch El (ft)	567.60	Stream Power (lb/ft s)	0.92	2.65	0.84
Alpha	1.06	Cum Volume (acre-ft)	96122.18	17533.72	115772.60
Frctn Loss (ft)	0.00	Cum SA (acres)	847.10	82.85	998.85
C & E Loss (ft)	0.00				

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275293.\*

INPUT

Description:											
Station	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.17	792.07	628.47	775.6	1324.06	761.26	1499.09	753.57		

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Table with 6 columns of numerical data representing station elevations and other metrics.

Manning's n Values table with columns for Sta, n Val, and num=3.

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

CROSS SECTION OUTPUT Profile #PF 1

Table with 6 columns: E.G. Elev (ft), Vel Head (ft), w.s. Elev (ft), Crit w.s. (ft), E.G. Slope (ft/ft), Q Total (cfs), Top width (ft), Vel Total (ft/s), Max Chl Dpth (ft), Conv. Total (cfs), Length Wtd. (ft), Min ch El (ft), Alpha, Frctn Loss (ft), C & E Loss (ft). Includes sub-headers for Element, Left OB, Channel, Right OB, wt. n-Val., Reach Len. (ft), Flow Area (sq ft), Area (sq ft), Flow (cfs), Top width (ft), Avg. Vel. (ft/s), Hydr. Depth (ft), Conv. (cfs), wetted Per. (ft), Shear (lb/sq ft), Stream Power (lb/ft s), cum Volume (acre-ft), cum SA (acres).

CROSS SECTION

RIVER: BRAZOS REACH: UPPER BRAZOS RS: 275290.\*

INPUT

Station Elevation Data table with columns for Sta, Elev, Sta, Elev, Sta, Elev, Sta, Elev, Sta, Elev.

Manning's n Values table with columns for Sta, n Val, and num=3.

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

CROSS SECTION OUTPUT Profile #PF 1

Table with 6 columns: E.G. Elev (ft), Vel Head (ft), w.s. Elev (ft), Crit w.s. (ft), E.G. Slope (ft/ft), Q Total (cfs), Top width (ft), Vel Total (ft/s), Max Chl Dpth (ft), Conv. Total (cfs), Length Wtd. (ft), Min ch El (ft). Includes sub-headers for Element, Left OB, Channel, Right OB, wt. n-Val., Reach Len. (ft), Flow Area (sq ft), Area (sq ft), Flow (cfs), Top width (ft), Avg. Vel. (ft/s), Hydr. Depth (ft), Conv. (cfs), wetted Per. (ft), Shear (lb/sq ft), Stream Power (lb/ft s), cum Volume (acre-ft), cum SA (acres).

Alpha	1.06	Stream Power (lb/ft s)	0.92	2.65	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	95776.38	17481.04	115362.10
C & E Loss (ft)	0.00	Cum SA (acres)	843.56	82.56	994.42

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275287.\*

INPUT

Description:

Station	Elevation	Data	num=	120
Sta	Elev	Sta	Elev	Sta
0	800	193.25	792.07	628.76
1779.43	746.55	1943.43	744.52	2286.39
3563.42	718.55	3652.78	715.48	3663.86
4177.48	711.88	4327.81	707.63	4695.27
5619.8	688.43	5775.86	682.29	5843
6679.53	679.04	6895.46	668.08	7058.78
7324.29	660.95	7537.73	671	7599.53
8130.12	669.37	8281.81	674.35	8569.43
8888.8	647.09	9138.3	657.02	9309.78
9813.67	629.59	9830.57	629.32	9918.58
10181.19	606.92	10305.6	635.5610411.24	648.3610791.84
11001.85	632.0811210.73	629.5311458.41	635.5311753.13	631.9212376.45
13811.95	626.4414048.22	621.9214655.58	621.9215122.84	627.415181.81
15470.39	628.9315477.24	624.3115581.93	622.5216228.83	598.3516779.56
16859.55	584.717141.21	581.9617213.88	575.7817328.23	567.617796.49
17912.5	571.9118023.72	590.9618110.43	609.0318129.01	611.33 18362.1
18792.35	635.8319217.94	637.1421282.52	632.621395.18	632.621619.58
21961.73	630.1122926.14	633.5623177.79	639.0424816.14	644.52 25190
25603.73	651.4726239.69	664.726458.68	665.4827548.28	665.4828169.43
28437.15	660.9628998.36	655.4829230.75	652.329398.47	650.7229535.35
29680.65	646.45 29968.1	653.1730282.64	655.8831356.22	674.0832005.64
32951.97	712.6233091.47	713.2233694.71	688.7133728.64	688.8635286.69
36306.71	732.3636499.77	735.54 36843.8	751.5336884.33	752.3537184.07
37508.3	764.9637662.88	768.0838419.94	79039100.29	793.6439443.38

Manning's n Values

Sta	n Val	Sta	n Val
0	.1516779.56	.1518023.72	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16779.56	18023.72	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506351.00	229988.50	1788934.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506351.00	229988.50	1788934.00
Q Total (cfs)	6730000.00	Flow (cfs)	2828530.00	660214.50	3241256.00
Top width (ft)	35998.73	Top width (ft)	15421.48	1244.16	19333.10
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.88	2.87	1.81
Max Chl Dpth (ft)	192.19	Hydr. Depth (ft)	97.68	184.85	92.53
Conv. total (cfs)	752620500.0	conv. (cfs)	316316400.0	73832240.0	362471800.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15434.37	1246.67	19338.84
Min Ch El (ft)	567.60	Shear (lb/sq ft)	0.49	0.92	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.91	2.64	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	95603.48	17454.66	115156.80
C & E Loss (ft)	0.00	Cum SA (acres)	841.79	82.42	992.20

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275285.\*

INPUT

Description:

Station	Elevation	Data	num=	120
Sta	Elev	Sta	Elev	Sta
0	800	193.3	792.06	628.9
1779.83	746.54	1943.87	744.51	2286.91
3564.22	718.56	3653.61	715.49	3664.69
4178.43	711.86	4328.79	707.62	4696.33
5621.07	688.41	5777.16	682.26	5844.32
6681.04	679.02	6897.02	668.04	7060.37
7325.95	660.89	7539.44	670.95	7601.24
8131.95	669.39	8283.69	674.41	8571.36
8890.8	647.16	9140.37	657.11	9311.89
9815.88	629.68	9832.79	629.41	9920.82
10183.49	606.9710307.93	635.610413.59	648.4310794.28	643.7610949.54
11004.34	632.1611213.26	629.6 11461	635.5811755.79	631.9612379.25
13815.07	626.47 14051.4	621.9614658.89	621.9615126.26	627.4515185.25
15473.89	628.9815480.74	624.3815585.45	622.58 16292.5	598.3816783.36
16863.48	584.7117145.62	581.9817218.42	575.7917332.97	567.617801.47
17917.65	571.9118029.03	590.9818115.74	609.0318134.31	611.3318367.38
18797.58	635.819223.12	637.121287.47	632.5521400.12	632.55 21624.5
21966.61	630.0722930.91	633.5323182.53	639.02 24820.7	644.5125194.52
25608.2	651.47 26244.1	664.7126463.06	665.4927552.54	665.4928173.62
28441.31	660.9829002.46	655.4929234.82	652.329402.52	650.7229539.39
29684.68	646.4429972.09	653.16 30286.6	655.8731360.05	674.05 32009.4
32955.63	712.5333095.11	713.1433698.29	688.6933732.21	688.8435290.09
36310	732.2936503.03	735.4836847.02	751.4636887.55	752.2837187.25
37511.46	764.9137666.02	768.0438422.98	79039103.26	793.6539446.32

Manning's n Values

Sta	n Val	Sta	n Val
0	.1516783.36	.1518029.03	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
							Page 319



16783.3618029.03 5 5 5 SS\_Rev3.rep .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1506371.00	230255.00	1789295.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506371.00	230255.00	1789295.00
Q Total (cfs)	6730000.00	Flow (cfs)	2827501.00	660807.00	3241692.00
Top width (ft)	36003.27	Top width (ft)	15425.19	1245.67	19332.41
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.88	2.87	1.81
Max Chl Dpth (ft)	192.20	Hydr. Depth (ft)	97.64	184.84	92.55
Conv. Total (cfs)	752790000.0	Conv. (cfs)	316272600.0	73915140.0	362602300.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15438.08	1248.18	19338.14
Min Ch El (ft)	567.60	Shear (lb/sq ft)	0.49	0.92	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.91	2.64	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	95430.57	17428.25	114951.40
C & E Loss (ft)	0.00	Cum SA (acres)	840.02	82.28	989.98

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275282.\*

INPUT

Description: Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.34	792.06	629.04	775.55	1325.25	761.25	1500.44	753.54
1780.23	746.53	1944.31	744.5	2287.42	744.5	2614.96	743.01	3494.68	722.33
3565.03	718.58	3654.43	715.5	3665.52	715.34	3863.07	717.02	4039.3	714.5
4179.37	711.85	4329.77	707.6	4697.39	698.67	5145.43	691.84	5478.86	689.85
5622.34	688.39	5778.47	682.23	5845.64	676.45	6201.46	674.95	6544.26	677.42
6682.55	679	6898.58	668	7061.97	662.5	7131.86	657	7179.97	657
7327.61	660.84	7541.14	670.89	7602.96	670.62	7730.04	672.26	8086.77	666.93
8133.79	669.4	8285.56	674.47	8573.3	660.19	8587.13	658.67	8756.66	647.8
8892.81	647.24	9142.43	657.21	9313.99	656.5	9493.72	644.76	9676.51	641.05
9818.1	629.77	9835.02	629.5	9923.06	618.51	10088.27	602.10	10144.54	602
10185.8	607.02	1010310.26	635.65	101415.95	648.51	10796.71	643.82	10952.01	637.41
11006.83	632.24	11215.79	629.67	11463.59	635.62	11758.45	632.12	12382.04	626.5
13818.2	626.51	14054.57	622.14	14662.21	622.15	15129.68	627.51	15188.68	633
15477.38	629.03	15484.24	624.44	15588.98	622.64	16236.17	598.41	16787.15	591
16867.42	584.73	17150.04	582.17	1722.96	575.8	17337.7	567.59	17806.45	567.59
17922.8	571.91	818034.35	591	18121.05	609.03	18139.62	611.33	18372.65	629.93
18802.81	635.76	19228.31	637.06	21292.43	632.52	1405.07	632.52	1629.41	633.31
21971.49	630.04	22935.68	633.52	3187.27	639	2485.26	644.52	5199.04	647.11
25612.68	651.47	26248.5	664.72	26467.44	665.52	7556.79	665.5	28177.8	661
28445.47	661.29	9006.55	655.52	9238.89	652.31	29406.57	650.72	29543.42	645.8
29688.7	646.42	29976.08	653.15	30290.55	655.86	31363.89	674.02	32013.17	676.84
32959.29	712.45	33098.75	713.05	33701.86	688.67	33735.79	688.82	35293.49	731.57
36313.28	732.22	6506.29	735.41	36850.25	751.39	36890.77	752.21	37190.44	753.79
37514.61	764.87	37669.15	768	38426.04	790	39106.23	793.66	39449.25	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516787	.15	.1518034	.35	.15

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

16787.15	18034.35	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1506392.00	230530.00	1789647.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506392.00	230530.00	1789647.00
Q Total (cfs)	6730000.00	Flow (cfs)	2826480.00	661426.30	3242094.00
Top width (ft)	36007.42	Top width (ft)	15428.66	1247.20	19331.56
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.88	2.87	1.81
Max Chl Dpth (ft)	192.20	Hydr. Depth (ft)	97.64	184.84	92.58
Conv. Total (cfs)	752966100.0	Conv. (cfs)	316232400.0	74001730.0	362732000.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15441.56	1249.72	19337.28
Min Ch El (ft)	567.59	Shear (lb/sq ft)	0.49	0.92	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.91	2.64	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	95257.66	17401.80	114746.00
C & E Loss (ft)	0.00	Cum SA (acres)	838.25	82.13	987.76

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275279.\*

INPUT

Description: Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.39	792.05	629.18	775.54	1325.55	761.25	1500.78	753.53
1780.63	746.53	1944.75	744.49	2287.94	744.49	2615.55	743	3495.47	722.35
3565.83	718.59	3655.26	715.51	3666.34	715.35	3863.94	717.01	4040.21	714.49
4180.32	711.83	4330.75	707.58	4698.45	698.65	5146.59	691.82	5480.1	689.83
5623.61	688.38	5779.77	682.21	5846.96	676.41	6202.86	674.91	6545.74	677.4
6684.06	678.98	6900.14	667.96	7063.56	662.45	7133.47	656.94	7181.59	656.94
7329.26	660.79	7542.85	670.84	7604.68	670.58	7731.79	672.24	8088.6	666.93
8135.63	669.42	8287.43	674.52	8575.24	660.27	8589.07	658.76	8758.64	647.87
8894.82	647.31	9144.5	657.3	9316.1	656.59	9495.86	644.83	9678.69	641.13
9820.32	629.86	9837.24	629.59	9925.3	618.57	10090.54	602.04	10106.84	602.04
10188.1	607.06	101312.59	635.7	10418.3	648.57	10799.15	643.88	10954.49	637.48
11009.31	632.31	111218.33	629.74	11466.18	635.67	11761.1	632.04	12384.84	626.53
13821.32	626.53	14057.75	622.04	14665.52	622.04	15133.09	627.55	15192.11	633.06
15480.88	629.09	15487.73	624.5	15592.5	622.71	16239.84	598.43	16790.94	591.02

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16871.35	584.7417154.45	582.0217227.49	575.8117342.43	567.5917811.43	567.59
17927.95	571.918039.67	591.0218126.35	609.0318144.92	611.3318377.93	629.9
18808.05	635.7319233.49	637.0221297.38	632.4521410.01	632.4521634.33	633.26
21976.37	63022940.45	633.4723192.02	638.9824829.82	644.4925203.55	647.11
25617.15	651.46 26252.9	664.7326471.82	665.5127561.05	665.5128181.99	661.02
28449.63	661.0229010.65	655.5129242.96	652.3129410.63	650.7229547.46	645.79
29692.72	646.4129980.07	653.1530294.51	655.8631367.72	673.9932016.93	676.82
32962.95	712.3633102.39	712.9733705.43	688.6533739.36	688.7935295.88	731.49
36316.57	732.1436509.55	735.3536853.47	751.3236893.99	752.1437193.62	753.74
37517.75	764.8237672.28	767.9638429.08	79039109.21	793.6639452.18	800

Manning's n Values	num=	3
Sta n Val Sta n Val	n Val	n Val
0 .1516790.94	.1518039.67	.15

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
16790.9418039.67	5 5 5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506414.00	230800.20	1789990.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506414.00	230800.20	1789990.00
Q Total (cfs)	6730000.00	Flow (cfs)	2825487.00	662029.50	3242484.00
Top width (ft)	36011.76	Top Width (ft)	15432.18	1248.73	19330.85
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.88	2.87	1.81
Max Chl Dpth (ft)	192.20	Hydr. Depth (ft)	97.62	184.83	92.60
Conv. Total (cfs)	753134800.0	conv. (cfs)	316192100.0	74085810.0	362857000.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15445.09	1251.25	19336.56
Min Ch El (ft)	567.59	Shear (lb/sq ft)	0.49	0.92	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.91	2.64	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	95084.75	17375.32	114540.60
C & E Loss (ft)	0.00	Cum SA (acres)	836.48	81.99	985.54

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275276.\*

INPUT

Description:	Station	Elevation	Data	num=	120
	Sta	Elev	Sta	Elev	Sta
	0	800	193.43	792.05	629.33
	1781.03	746.52	1945.19	744.48	2288.46
	3566.64	718.61	3656.08	715.52	3667.17
	4181.26	711.82	4331.72	707.57	4699.51
	5624.88	688.36	6811.08	682.18	5848.28
	6685.57	678.96	6901.7	667.92	7065.16
	7330.92	660.73	7544.55	670.79	7606.4
	8137.47	669.44	8289.3	674.58	8577.18
	8896.83	647.38	9146.57	657.4	9318.2
	9822.54	629.95	9839.46	629.68	9927.55
	10190.4	607.11	110314.92	635.74	10420.66
	11011.8	632.39	11220.86	629.81	11468.77
	13824.44	626.56	14060.92	622.08	14668.83
	13484.38	629.14	15491.23	624.36	15596.02
	16875.28	584.75	17158.87	582.04	17232.03
	17933.1	571.89	18044.98	591.04	18131.66
	18813.28	635.69	19238.68	636.98	19302.34
	21981.25	629.96	22945.22	633.44	23196.76
	25621.62	651.46	26257.31	664.75	26476.2
	28453.79	661.04	29014.75	655.52	29247.03
	29696.74	646.42	29984.06	653.14	30298.46
	32966.6	712.27	33106.04	712.88	33709.01
	36319.85	732.07	36512.82	735.29	36856.7
	37520.91	764.77	37675.41	767.92	38432.13
					79039112.18
					793.6739455.12

Manning's n Values	num=	3
Sta n Val Sta n Val	n Val	n Val
0 .1516794.74	.1518044.98	.15

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
16794.7418044.98	5 5 5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506432.00	231067.70	1790356.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506432.00	231067.70	1790356.00
Q Total (cfs)	6730000.00	Flow (cfs)	2824441.00	662622.60	3242937.00
Top width (ft)	36016.16	Top Width (ft)	15435.89	1250.24	19330.03
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.87	2.87	1.81
Max Chl Dpth (ft)	192.20	Hydr. Depth (ft)	97.59	184.82	92.62
Conv. Total (cfs)	753307600.0	conv. (cfs)	316147500.0	74169190.0	362990900.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15448.81	1252.76	19335.73
Min Ch El (ft)	567.59	Shear (lb/sq ft)	0.49	0.92	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.91	2.64	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	94911.84	17348.82	114335.10
C & E Loss (ft)	0.00	Cum SA (acres)	834.70	81.85	983.32

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275273.\*

INPUT

Description: Page 321

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Station Elevation Data		num= 120		Elev		Elev		Elev		Elev	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.47	792.04	629.47	775.51	1326.15	761.24	1501.46	753.51		
1781.44	746.51	1945.63	744.47	2288.97	744.47	2616.74	742.97	3497.04	722.38		
3567.44	718.62	3656.91	715.53	3668	715.38	3865.68	717	4042.04	714.47		
4182.21	711.8	4332.7	707.55	4700.57	698.62	5148.91	691.79	5482.58	689.8		
5626.15	688.34	5782.39	682.15	5849.6	676.34	6205.66	674.85	6548.7	677.35		
6687.08	678.94	6903.26	667.88	7066.75	662.35	7136.7	656.82	7184.84	656.82		
7332.57	660.68	7546.25	670.73	7608.12	670.48	7735.28	672.18	8092.25	666.95		
8139.3	669.45	8291.17	674.64	8579.11	660.45	8592.95	658.94	8762.59	648.01		
8898.84	647.46	9148.63	657.49	9320.3	656.79	9500.15	644.99	9683.06	641.28		
9824.76	630.04	9841.68	629.77	9929.79	618.71	10095.1	602.12	10151.42	602.12		
10192.7	607.16	10317.25	635.79	10423.01	648.71	110804.03		64410959.44	637.62		
11014.29	632.47	11223.4	629.89	11471.36	635.76	11766.42	632.12	1212390.44	626.59		
13827.56	626.59	14064.1	622.12	14672.14	622.12	15139.93	627.65	15198.97	633.18		
15487.88	629.19	15494.73	624.63	15599.54	622.82	16247.18	598.48	16798.53	591.06		
16879.21	584.76	17163.28	582.05	17236.57	575.82	17351.9	567.59	17821.39	567.59		
17938.25	571.89	18050.3	591.06	18136.97	609.02	18155.54	611.32	18388.49	629.82		
18818.51	635.66	19243.86	636.93	21307.29	632.35	21419.89	632.35	21644.17	633.16		
21986.12	629.93	22950	633.41	23201.51	638.94	24838.95	644.47	25212.6	647.1		
25626.1	651.46	26261.71	664.76	26480.57	665.53	27569.57	665.53	28190.37	661.06		
28457.95	661.06	29018.84	655.53	29251.1	652.32	29418.73	650.71	29555.94	645.76		
29700.76	646.38	29988.05	653.13	30302.41	655.84	31375.39	673.94	32024.45	676.77		
32970.26	712.19	33109.68	712.79	33712.58	688.61	33746.5	688.75	35303.68	731.31		
36323.13	73236516.08		735.23	36859.92	751.18	36900.43	752.01	37200	753.65		
37524.05	764.73	37678.55	767.88	38435.18	79039115.15		793.68	39458.05	800		

Manning's n Values		num= 3	
Sta	n Val	Sta	n Val
0	.1516798.53	.15	18050.3

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
16798.53	18050.3		5	5	5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506454.00	231340.50	1790704.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506454.00	231340.50	1790704.00
Q Total (cfs)	6730000.00	Flow (cfs)	2823429.00	663233.30	3243338.00
Top width (ft)	36020.34	Top width (ft)	15439.41	1251.77	19329.16
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.87	2.87	1.81
Max Chl Dpth (ft)	192.20	Hydr. Depth (ft)	97.57	184.81	92.64
Conv. Total (cfs)	753481400.0	Conv. (cfs)	316107200.0	74254670.0	363119600.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15452.33	1254.30	19334.85
Min Ch El (ft)	567.59	Shear (lb/sq ft)	0.49	0.92	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.91	2.63	0.84
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	94738.92	17322.28	114129.60
C & E Loss (ft)	0.00	Cum SA (acres)	832.93	81.70	981.10

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275270.\*

INPUT

Description:

Station Elevation Data		num= 120		Elev		Elev		Elev		Elev	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.52	792.04	629.61	775.5	1326.45	761.24	1501.8	753.5		
1781.84	746.51	1946.07	744.46	2289.49	744.46	2617.33	742.96	3497.83	722.4		
3568.25	718.64	3657.73	715.54	3668.83	715.38	3866.56	717	4042.95	714.46		
4183.15	711.79	4333.68	707.53	4701.63	698.6	5150.08	691.78	5483.81	689.78		
5627.42	688.32	5783.69	682.13	5850.92	676.3	6207.06	674.82	6550.17	677.33		
6688.59	678.92	6904.81	667.84	7068.35	662.3	7138.31	656.76	7186.46	656.76		
7334.23	660.63	7547.96	670.68	7609.83	670.44	7737.03	672.15	8094.08	666.96		
8141.14	669.47	8293.05	674.69	8581.05	660.54	8594.89	659.02	8764.57	648.09		
8900.85	647.53	9150.7	657.59	9322.41	656.88	9302.3	645.07	9685.25	641.35		
9826.98	630.13	9843.9	629.86	9932.03	618.78	10097.38	602.16	10153.71	602.16		
10195	607.21	10319.58	635.84	10425.36	648.78	10806.47	644.07	10961.91	637.68		
11016.77	632.54	11225.93	629.96	11473.95	635.81	11769.08	632.16	12393.23	626.62		
13830.68	626.62	14067.27	622.16	14675.46	622.16	15143.35	627.7	15202.4	633.24		
15491.37	629.24	15498.23	624.69	15603.06	622.88	16250.85	598.51	16802.32	591.08		
16883.14	584.77	17167.69	582.07	17241.11	575.83	17356.64	567.59	17826.37	567.59		
17943.41	571.88	18055.62	591.08	18142.28	609.02	18160.84	611.32	18393.77	629.79		
18823.74	635.62	19249.04	636.89	21312.25	632.32	21424.84	632.32	21649.08	633.11		
21991	629.89	22954.77	633.38	23206.25	638.92	24843.51	644.46	25217.12	647.09		
25630.57	651.45	26266.11	664.77	26484.95	665.54	27573.83	665.54	28194.56	661.08		
28462.1	661.08	29022.94	655.54	29255.17	652.32	29422.78	650.71	29559.57	645.75		
29704.78	646.37	29992.04	653.13	30306.37	655.83	31379.23	673.91	32028.21	676.74		
32973.91	712.13	33113.32	712.71	33716.16	688.59	33750.07	688.73	35307.08	731.22		
36326.42	731.93	36519.34	735.16	36863.14	751.11	36903.65	751.94	37203.18	753.6		
37527.21	764.68	37681.68	767.84	38438.23	79039118.12		793.68	39460.99	800		

Manning's n Values		num= 3	
Sta	n Val	Sta	n Val
0	.1516802.32	.15	18055.62

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
16802.32	18055.62		5	5	5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506461.00	231611.20	1791072.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506461.00	231611.20	1791072.00
Q Total (cfs)	6730000.00	Flow (cfs)	2823378.00	663835.30	3243787.00
Top width (ft)	36024.69	Top width (ft)	15442.93	1253.30	19328.46
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.87	2.87	1.81
Max Chl Dpth (ft)	192.20	Hydr. Depth (ft)	97.55	184.80	92.66

Conv. Total (cfs)	753653600.0	Conv. (cfs)	316061700.0	74339060.0	363252900.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	15455.85	1255.83	19334.14
Min Ch El (ft)	567.59	Shear (lb/sq ft)	0.49	0.92	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.91	2.63	0.84
Frcn Loss (ft)	0.00	Cum Volume (acre-ft)	94566.01	17295.71	113924.00
C & E Loss (ft)	0.00	Cum SA (acres)	831.16	81.56	978.88

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275267.\*

INPUT

Description:  
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.6	792.03	629.75	775.49	1326.75	761.24	1502.14	753.5
1782.24	746.5	1946.51	744.45	2290.01	744.45	2617.92	742.94	3498.62	722.42
3569.06	718.66	3658.56	715.55	3669.66	715.39	3867.43	716.99	4043.86	714.45
4184.1	711.77	4334.66	707.51	4702.7	698.58	5151.24	691.76	5485.05	689.76
5628.69	688.3	5785	682.1	5852.24	676.27	6208.47	674.78	6551.65	677.3
6690.1	678.9	6906.37	667.8	7069.95	662.25	7139.92	656.7	7188.08	656.7
7335.88	660.57	7549.66	670.63	7611.55	670.39	7738.77	672.13	8095.91	666.96
8142.98	669.49	8294.92	674.75	8582.99	660.63	8596.83	659.11	8766.55	648.16
8902.86	647.6	9152.76	657.68	9324.51	656.98	9504.44	645.15	9687.44	641.43
9829.39	630.23	9846.13	629.95	9934.27	618.85	10099.66	602.2	10156	602.2
10197.3	607.26	10321.91	635.88	10427.72	648.85	10808.91	644.13	10964.39	637.75
11019.26	632.62	11228.46	630.03	11476.54	635.86	11771.73	632.21	12396.03	626.65
13833.81	626.65	14070.45	622.21	14678.77	622.21	15146.77	627.75	15205.84	633.3
15494.87	629.31	15501.73	624.75	15606.59	622.94	16254.51	598.53	16806.12	591.1
16887.07	584.78	17172.11	582.09	17245.64	575.84	17361.37	567.59	17831.35	567.59
17948.56	571.88	18060.94	591.11	18147.58	609.02	18166.14	611.31	18399.05	629.75
18828.97	635.59	19254.23	636.85	21317.2	632.25	21429.78	632.25	21654	633.06
21995.88	629.85	22959.54	633.35	23210.99	638.92	24848.07	644.45	25221.64	647.08
25635.04	651.45	26270.52	664.78	26489.33	665.55	27578.08	665.55	28198.75	661.1
28466.26	661.12	29027.04	655.55	29259.24	652.33	29426.83	650.71	29563.61	645.74
29708.8	646.35	29996.03	653.12	30310.32	655.83	31383.06	673.88	32031.98	676.72
32977.57	712.01	33116.96	712.62	33719.73	688.56	33753.64	688.71	33510.47	731.13
36329.7	731.86	36522.6	735.13	36866.37	751.04	36906.87	751.87	37206.37	753.55
37530.36	764.64	37684.81	767.83	38441.28	790	39121.1	793.69	39463.93	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.15	16806.12	.15
		1518060.94	.15

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

16806.12	18060.94	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.79	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1506492.00	231879.70	1791427.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506492.00	231879.70	1791427.00
Q Total (cfs)	6730000.00	Flow (cfs)	2821385.00	664424.30	3244192.00
Top width (ft)	36028.82	Top width (ft)	15446.41	1254.82	19327.60
Vel total (ft/s)	1.91	Avg. vel. (ft/s)	1.87	2.87	1.81
Max chl Dpth (ft)	192.20	Hydr. Dpth (ft)	97.53	184.79	92.69
Conv. Total (cfs)	753831300.0	Conv. (cfs)	316025000.0	74422550.0	363383800.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15459.35	1257.35	19333.26
Min Ch El (ft)	567.59	Shear (lb/sq ft)	0.48	0.92	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.91	2.63	0.83
Frcn Loss (ft)	0.00	Cum volume (acre-ft)	94393.09	17269.11	113718.40
C & E Loss (ft)	0.00	Cum SA (acres)	829.39	81.42	976.66

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275264.\*

INPUT

Description:  
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev		
0	800	193.6	792.03	629.89	775.48	1327.05	761.23	1502.48	753.49
1782.64	746.5	1946.95	744.44	2290.52	744.44	2618.51	742.93	3499.41	722.44
3569.86	718.67	3659.39	715.56	3670.49	715.4	3868.3	716.99	4044.78	714.44
4185.04	711.76	4335.64	707.5	4703.76	698.56	5152.4	691.75	5486.29	689.74
5629.96	688.28	5786.3	682.07	5853.56	676.23	6209.87	674.75	6553.13	677.28
6691.6	678.88	6907.93	667.76	7071.54	662.2	7141.53	656.64	7189.7	656.64
7337.54	660.52	7551.37	670.57	7613.27	670.35	7740.52	672.1	8097.73	666.97
8144.82	669.51	8296.79	674.81	8584.92	660.72	8598.77	659.2	8768.53	648.23
8904.87	647.67	9154.83	657.78	9326.62	657.08	9506.59	645.22	9689.62	641.5
9831.41	630.32	9848.35	630.04	9936.52	618.92	10101.94	602.24	10158.3	602.24
10199.6	607.31	10324.24	635.93	10430.07	648.92	10811.35	644.19	10966.86	637.82
11021.75	632.7	11231	630.11	11479.13	635.91	11774.39	632.24	12398.83	626.68
13836.93	626.68	14073.62	622.24	14682.08	622.24	15150.19	627.81	15209.27	633.36
15498.37	629.31	15505.23	624.81	15610.11	623.16	258.18	598.56	16809.91	591.12
16891	584.81	17176.52	582.11	17250.18	575.85	17366.1	567.59	17836.32	567.59
17953.71	571.88	18066.25	591.12	18152.89	609.02	18171.45	611.31	18404.33	629.71
18834.2	635.55	19259.41	636.81	21322.16	632.22	21434.72	632.22	21658.92	633.01
22000.76	629.82	22964.31	633.32	23215.74	638.88	24852.63	644.44	25226.16	647.08
25639.52	651.45	26274.92	664.79	26493.71	665.56	27582.34	665.56	28202.94	661.12
28470.42	661.12	29031.13	655.56	29263.31	652.33	29430.89	650.71	29567.65	645.73
29712.82	646.34	30000.01	653.11	30314.27	655.82	31386.89	673.85	32035.74	676.7
32981.23	711.93	33120.6	712.54	33723.3	688.54	33757.21	688.69	33513.87	731.05
36332.98	731.79	36525.87	735.04	36869.59	750.97	36910.09	751.83	37209.55	753.5
37533.51	764.59	37687.95	767.76	38444.33	790	39124.07	793.73	39466.86	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val

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0 .1516809.91 .1518066.25 .15  
 Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16809.9118066.25 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

	759.85	Element	Left OB	Channel	Right OB
E.G. Elev (ft)	759.85	Wt. n-Val.	0.150	0.150	0.150
Vel Head (ft)	0.06	Reach Len. (ft)	5.00	5.00	5.00
w.s. Elev (ft)	759.79	Flow Area (sq ft)	1506503.00	232145.80	1791758.00
Crit w.s. (ft)		Area (sq ft)	1506503.00	232145.80	1791758.00
E.G. Slope (ft/ft)	0.000080	Flow (cfs)	2820381.00	665021.60	3244598.00
Q Total (cfs)	6730000.00	Top width (ft)	15450.11	1256.34	19326.90
Top width (ft)	36033.35	Avg. Vel. (ft/s)	1.87	2.86	1.81
Vel Total (ft/s)	1.91	Hydr. Depth (ft)	97.51	184.78	92.71
Max Chl Dpth (ft)	192.20	Conv. (cfs)	315978000.0	74504920.0	363504700.0
Conv. Total (cfs)	753987700.0	wetted Per. (ft)	15463.06	1258.87	19332.55
Length Wtd. (ft)	5.00	Shear (lb/sq ft)	0.48	0.92	0.46
Min Ch El (ft)	567.59	Stream Power (lb/ft s)	0.91	2.63	0.83
Alpha	1.06	Cum Volume (acre-ft)	94220.16	17242.47	113512.80
Frctn Loss (ft)	0.00	Cum SA (acres)	827.61	81.27	974.45
C & E Loss (ft)	0.00				

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275261.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.69	792.02	630.04	775.46	1327.35	761.23	1502.81	753.48
1783.05	746.49	1947.39	744.43	2291.04	744.43	2619.1	742.92	3500.2	722.45
3570.67	718.69	3660.21	715.57	3671.31	715.41	3869.18	716.98	4045.69	714.43
4185.98	711.74	4336.61	707.48	4704.82	698.54	5153.56	691.73	5487.53	689.72
5631.24	688.26	5787.61	682.04	5854.88	676.19	6211.27	674.72	6554.61	677.26
6693.12	678.86	6909.49	667.72	7073.14	662.15	7143.14	656.58	7191.33	656.58
7339.2	660.47	7553.07	670.52	7614.99	670.3	7742.27	672.07	8099.56	666.98
8146.66	669.52	8298.66	674.86	8586.86	660.81	8600.71	659.29	8770.51	648.3
8906.88	647.75	9156.89	657.87	9328.72	657.17	9508.73	645.3	9691.81	641.58
9833.63	630.41	9850.57	630.13	9938.76	618.99	10104.22	602.28	10160.59	602.28
10201.91	607.36	10326.57	635.98	10432.42	648.99	10813.79	644.25	10969.34	637.89
11024.23	632.78	11233.53	630.17	11481.72	635.95	11777.05	632.28	12401.63	626.71
13840.05	626.71	14076.8	622.28	14685.4	622.28	15153.6	627.85	15212.7	633.42
15501.86	629.41	15508.73	624.88	15613.63	623.06	16261.85	598.58	16813.7	591.14
16894.93	584.81	17180.93	582.12	17254.72	575.86	17370.84	567.59	17841.3	567.59
17938.86	571.87	18071.57	591.14	18158.2	609.02	18176.76	611.31	18409.61	629.68
18839.44	635.52	19264.6	636.77	19327.11	632.15	19439.66	632.15	19663.83	632.97
22005.64	629.78	22969.08	633.29	23220.48	638.86	24857.19	644.43	25230.68	647.07
25643.99	651.44	26279.32	664.81	26498.09	665.57	27586.6	665.57	28207.12	661.14
28474.58	661.14	29035.23	655.57	29267.38	652.33	29434.94	650.71	29571.68	645.71
29716.84	646.32	30004.0	653.11	30318.23	655.81	31390.73	673.82	32039.5	676.67
32984.89	711.84	33124.24	712.45	33726.88	688.52	33760.78	688.67	335317.27	730.96
36336.27	731.72	36529.13	734.97	36872.82	750.93	36913.31	751.73	3737212.74	753.46
37536.66	764.55	37691.08	767.72	38447.38	79039	127.05	793.7	39469.8	800

Manning's n Values num= 3  
 Sta n Val Sta n Val  
 0 .15 16813.7 .1518071.57 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16813.718071.57 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

	759.84	Element	Left OB	Channel	Right OB
E.G. Elev (ft)	759.84	Wt. n-Val.	0.150	0.150	0.150
Vel Head (ft)	0.06	Reach Len. (ft)	5.00	5.00	5.00
w.s. Elev (ft)	759.78	Flow Area (sq ft)	1506532.00	232418.70	1792119.00
Crit w.s. (ft)		Area (sq ft)	1506532.00	232418.70	1792119.00
E.G. Slope (ft/ft)	0.000080	Flow (cfs)	2819361.00	665623.90	3245015.00
Q Total (cfs)	6730000.00	Top width (ft)	15453.63	1257.87	19325.90
Top width (ft)	36037.40	Avg. Vel. (ft/s)	1.87	2.86	1.81
Vel Total (ft/s)	1.91	Hydr. Depth (ft)	97.49	184.77	92.73
Max Chl Dpth (ft)	192.19	Conv. (cfs)	315940200.0	74590410.0	363639300.0
Conv. Total (cfs)	754169900.0	wetted Per. (ft)	15466.57	1260.40	19331.54
Length Wtd. (ft)	5.00	Shear (lb/sq ft)	0.48	0.92	0.46
Min Ch El (ft)	567.59	Stream Power (lb/ft s)	0.91	2.63	0.83
Alpha	1.06	Cum Volume (acre-ft)	94047.24	17215.81	113307.10
Frctn Loss (ft)	0.00	Cum SA (acres)	825.84	81.13	972.23
C & E Loss (ft)	0.00				

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275258.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.69	792.02	630.18	775.45	1327.65	761.23	1503.15	753.47
1783.45	746.48	1947.82	744.42	2291.56	744.42	2619.69	742.91	3500.99	722.47
3571.47	718.7	3661.04	715.58	3672.14	715.42	3870.05	716.98	4046.6	714.42
4186.93	711.73	4337.59	707.46	4705.88	698.52	5154.73	691.72	5488.77	689.71
5632.51	688.24	5788.91	682.02	5856.21	676.16	6212.67	674.68	6556.09	677.24
6694.62	678.84	6911.05	667.68	7074.73	662.1	7144.75	656.52	7192.95	656.52
7340.85	660.42	7554.77	670.47	7616.7	670.26	7744.01	672.04	8101.39	666.98
8148.49	669.54	8300.53	674.92	8588.8	660.89	8602.65	659.38	8772.49	648.37
8908.89	647.82	9158.96	657.97	9330.83	657.27	9510.88	645.38	9694	641.65
9835.85	630.5	9852.79	630.22	9941	619.06	10106.5	602.32	10162.88	602.32
10204.21	607.41	10328.9	636.02	10434.78	649.06	10816.23	644.31	10971.81	637.96

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11026.72	632.8511236.07	630.2511484.31	636.11779.7	632.3212404.42	626.74
13843.17	626.7414079.98	622.3214688.71	622.3215157.02	627.915216.13	633.48
15505.36	629.4615512.23	624.9415617.15	623.1216265.52	598.6116817.49	591.16
16898.86	584.8217185.34	582.1417259.26	575.8717375.57	567.5917846.28	567.59
17964.01	571.8718076.89	591.1618163.51	609.0218182.06	611.3118414.89	629.64
18844.67	635.4819269.78	636.7321332.07	632.1.21444.6	632.121668.75	632.92
22010.52	629.7422973.86	633.2623225.22	638.8424861.75	644.42.25235.2	647.07
25648.47	651.4426283.73	664.8226502.47	665.5827590.86	665.5828211.31	661.16
28478.74	661.1629039.32	655.5829271.46	652.3429438.99	650.729575.72	645.7
29720.86	646.3130007.99	653.130322.18	655.831394.56	673.7932043.26	676.65
32988.54	711.7533127.89	712.3733730.45	688.533764.35	688.6535320.66	730.87
36339.55	731.6436532.39	734.9136876.04	750.8336916.53	751.6637215.93	753.41
37539.81	764.537694.21	767.6838450.43	79039130.02	793.7139472.73	800

Manning's n Values

num=	3
Sta	n Val
0	.1516817.49
Sta	n Val
0	.1518076.89

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

16817.49	18076.89	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1506540.00	232688.40	1792479.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506540.00	232688.40	1792479.00
Q Total (cfs)	6730000.00	Flow (cfs)	2818325.00	666222.50	3245453.00
Top width (ft)	36041.75	Top width (ft)	15457.35	1259.40	19325.20
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.87	2.86	1.81
Max Chl Dpth (ft)	192.19	Hydr. Depth (ft)	97.47	184.76	92.75
Conv. Total (cfs)	754339100.0	Conv. (cfs)	315894900.0	74674250.0	363770000.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15470.10	1261.93	19330.83
Min Ch El (ft)	567.59	Shear (lb/sq ft)	0.48	0.92	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.91	2.62	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	93874.31	17189.12	113101.30
C & E Loss (ft)	0.00	Cum SA (acres)	824.07	80.98	970.01

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275255.\*

INPUT

Description: Station Elevation Data

num=	120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.73	792.02	630.32	775.44	1327.95	761.23	1503.49	753.47
1783.85	746.48	1948.26	744.41	2292.08	744.41	2620.28	742.89	3501.78	722.49
3572.28	718.72	3661.86	715.59	3672.97	715.43	3870.92	716.97	4047.51	714.41
4187.87	711.71	4338.57	707.45	4706.94	698.5	5155.89	691.7	5490	689.69
5633.78	688.23	5790.22	681.99	5857.53	676.12	6214.07	674.65	6557.57	677.21
6696.13	678.82	6912.61	667.64	7076.33	662.05	7146.36	656.46	7194.57	656.46
7342.51	660.36	7556.48	670.42	7618.42	670.21	7745.76	672.02	8103.21	666.99
8150.33	669.56	8302.41	674.98	8590.74	660.98	8604.59	659.47	8774.46	648.44
8910.9	647.89	9161.03	658.06	9332.93	657.37	9513.02	645.46	9696.18	641.73
9838.07	630.59	9855.01	630.31	9943.24	619.13	10108.78	602.36	10165.17	602.36
10206.51	607.46	10331.23	636.07	10437.13	649.13	10818.67	644.37	10974.29	638.02
11029.21	632.93	11238.6	630.32	11486.9	636.04	11782.36	632.36	12407.22	626.77
13846.3	626.77	14083.15	622.36	14692.02	622.36	15160.44	627.95	15219.56	633.54
15508.86	629.51	15515.72	625.15	1620.68	623.19	16269.19	598.63	16821.29	591.18
16902.79	584.83	17189.76	582.16	17263.79	575.88	17380.31	567.59	17851.26	567.59
17969.16	571.86	18082.2	591.18	18168.81	609.01	18187.37	611.31	18420.17	629.6
18849.9	635.45	19274.96	636.68	19337.02	632.05	1449.55	632.05	1673.67	632.87
22015.4	629.71	22978.63	633.23	23229.97	638.82	24866.32	644.41	25239.72	647.06
25652.94	651.44	26288.13	664.83	26506.85	665.59	27595.12	665.59	28215.5	661.18
28482.9	661.18	29043.42	655.59	29275.53	652.34	29443.04	650.72	29579.76	645.69
29724.88	646.33	30011.98	653.09	30326.13	655.8	31398.4	673.76	32047.03	676.62
32992.2	711.67	33131.53	712.28	33734.03	688.48	33767.92	688.63	35324.06	730.78
36342.84	731.57	36535.65	734.85	36879.27	750.76	36919.75	751.59	37219.11	753.36
37542.96	764.45	37697.34	767.64	38453.47	79039	132.99	793.72	39475.66	800

Manning's n Values

num=	3
Sta	n Val
0	.1516821.29
Sta	n Val
0	.1518082.2

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

16821.29	18082.2	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1506562.00	232955.80	1792841.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506562.00	232955.80	1792841.00
Q Total (cfs)	6730000.00	Flow (cfs)	2817316.00	666811.10	3245873.00
Top width (ft)	36046.04	Top width (ft)	15460.63	1260.91	19324.50
Vel Total (ft/s)	1.91	Avg. Vel. (ft/s)	1.87	2.86	1.81
Max Chl Dpth (ft)	192.19	Hydr. Depth (ft)	97.45	184.75	92.78
Conv. Total (cfs)	754514200.0	Conv. (cfs)	315855100.0	74757570.0	363901500.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15473.60	1263.45	19330.12
Min Ch El (ft)	567.59	Shear (lb/sq ft)	0.48	0.92	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.90	2.62	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	93701.98	17162.39	112895.60
C & E Loss (ft)	0.00	Cum SA (acres)	822.29	80.84	967.79

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275252.\*

SS\_Rev3.rep

INPUT  
Description:  
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.78	792.01	630.46	775.43	1328.25	761.22	1503.83	753.46
1784.25	746.47	1948.7	744.4	2292.59	744.4	2620.87	742.88	3502.57	722.5
3573.08	718.73	3662.69	715.6	3673.8	715.44	3871.79	716.96	4048.43	714.4
4188.82	711.7	4339.55	707.43	4708	698.48	5157.05	691.69	5491.24	689.67
5635.05	688.21	5791.52	681.96	5858.85	676.09	6215.47	674.62	6559.05	677.19
6697.64	678.8	6914.17	667.6	7077.92	662	7147.98	656.4	7196.19	656.4
7344.1a1	660.31	7558.18	670.36	7620.14	670.16	7747.51	671.99	8105.04	667
8152.17	669.57	8304.28	675.03	8592.67	661.07	8606.53	659.56	8776.44	648.52
8912.91	647.97	9163.09	658.16	9335.04	657.46	9515.17	645.54	9698.37	641.8
9840.29	630.68	9857.24	630.4	9945.48	619.210111.06		602.410167.46		602.4
10208.81	607.5110333.56		636.1210439.48		649.210821.11		644.4410976.76		638.09
11031.7	633.0111241.14		630.3911489.49		636.0911785.02		632.412410.02		626.8
13849.42	626.814086.33		622.414695.33		622.415163.86		628	15223	633.6
15512.36	629.5615519.22		625.07	15624.2	623.2516272.86		598.6616825.08		591.2
16906.72	584.8417194.17		582.1817268.33		575.8917385.04		567.5817856.24		567.58
17974.31	571.8618087.52		591.218174.12		609.0118192.67		611.318425.45		629.57
18855.13	635.4119280.15		636.6421341.97		63221454.49		63221678.59		632.82
22020.28	629.67	22983.4	633.223234.71		638.824870.88		644.425244.24		647.06
25657.42	651.4326292.53		664.8426511.23		665.627599.37		665.628219.69		661.2
28487.06	661.229047.52		655.6	29279.6	652.35	29447.1	650.729583.79		645.67
29728.9	646.2830015.97		653.0830330.09		655.7931402.23		673.732050.79		676.6
32995.86	711.583135.17		712.2	33737.6	688.4633771.49		688.6135327.46		730.69
36346.12	731.536338.91		734.7936882.49		750.6936922.96		751.53	37222.3	753.31
37546.11	764.4337700.48		767.638456.52		79039135.96		793.72	39478.6	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.1516825.08	.1518087.52	.15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
16825.0818087.52 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1506575.00	233231.30	1793197.00
E.G. Slope (ft/ft)	0.000080	Area (sq ft)	1506575.00	233231.30	1793197.00
Q Total (cfs)	6730000.00	Flow (cfs)	2816263.00	667433.60	3246304.00
Top Width (ft)	36050.40	Top Width (ft)	15464.33	1262.44	19323.63
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.87	2.86	1.81
Max Chl Dpth (ft)	192.20	Hydr. Depth (ft)	97.42	184.75	92.80
Conv. total (cfs)	754686700.0	conv. (cfs)	315809200.0	74844460.0	364033000.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15477.30	1264.98	19329.24
Min Ch El (ft)	567.58	Shear (lb/sq ft)	0.48	0.92	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.90	2.62	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	93528.45	17135.64	112689.80
C & E Loss (ft)	0.00	Cum SA (acres)	820.52	80.69	965.57

CROSS SECTION  
RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275250.\*

INPUT  
Description:  
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.82	792.01	630.6	775.41	1328.55	761.22	1504.17	753.45
1784.66	746.46	1949.14	744.39	2293.11	744.39	2621.46	742.87	3503.36	722.52
3573.89	718.75	3663.51	715.61	3674.63	715.45	3872.67	716.96	4049.34	714.39
4189.76	711.68	4340.53	707.41	4709.06	698.46	5158.21	691.67	5492.48	689.65
5636.32	688.19	5792.83	681.94	5860.17	676.05	6216.87	674.58	6560.52	677.17
6699.15	678.78	6915.73	667.56	7079.52	661.95	7149.59	656.34	7197.81	656.34
7345.82	660.26	7559.89	670.31	7621.86	670.12	7749.25	671.96	8106.87	667
8154.01	669.59	8306.15	675.09	8594.61	661.16	8608.47	659.64	8778.42	648.59
8914.92	648.04	9165.16	658.25	9337.14	657.56	9517.31	645.62	9700.56	641.88
9842.5	630.77	9859.46	630.49	9947.73	619.2710113.34		602.4410169.76		602.44
10211.11	607.5610335.89		636.1610441.84		649.2710823.55		644.510979.23		638.16
11034.18	633.0811243.67		630.4611492.08		636.1411787.67		632.4412412.82		626.83
13852.54	626.83	14089.5	622.4414698.65		622.4415167.28		628.0515226.43		633.66
15515.85	629.6115522.72		625.1315627.72		623.3116276.53		598.6916828.87		591.22
16910.65	584.8517198.58		582.217272.87		575.917389.77		567.5817861.22		567.58
17979.47	571.8518092.84		591.2218179.43		609.0118197.98		611.318430.73		629.53
18860.36	635.3819285.33		636.621346.93		631.9521459.43		631.95	21683.5	632.77
22025.16	629.6422988.17		633.1723239.46		638.7824875.44		644.3925248.76		647.05
25661.89	651.4326296.94		664.8526515.61		665.6127603.63		665.6128223.88		661.22
28491.22	661.2229051.61		655.6129283.67		652.3529451.15		650.729587.83		645.66
29732.92	646.2730019.96		653.0830334.04		655.7831406.07		673.732054.55		676.58
32999.51	711.4933138.81		712.1133741.18		688.4433775.06		688.5935330.86		730.61
36349.41	731.4336542.18		734.7236885.71		750.6236926.18		751.4637225.48		753.27
37549.26	764.3637703.61		767.5638459.57		79039138.94		793.7339481.54		800

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.1516828.87	.1518092.84	.15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
16828.8718092.84 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1506595.00	233502.50	1793532.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1506595.00	233502.50	1793532.00
Q Total (cfs)	6730000.00	Flow (cfs)	2815274.00	668039.30	3246687.00

				SS_Rev3.rep			
Top Width (ft)	36054.62	Top Width (ft)	15467.85	1263.97	19322.80		
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.87	2.86	1.81		
Max Chl Dpth (ft)	192.20	Hydr. Depth (ft)	97.40	184.74	92.82		
Conv. Total (cfs)	754854300.0	Conv. (cfs)	315768400.0	74929020.0	364156800.0		
Length Wtd. (ft)	5.00	wetted Per. (ft)	15480.82	1266.51	19328.39		
Min Ch El (ft)	567.58	Shear (lb/sq ft)	0.48	0.91	0.46		
Alpha	1.06	Stream Power (lb/ft s)	0.90	2.62	0.83		
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	93355.52	17108.85	112483.90		
C & E Loss (ft)	0.00	Cum SA (acres)	818.74	80.55	963.36		

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275247.\*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.87	792	630.75	775.4	1328.85	761.22	1504.51	753.44	
1785.06	746.46	1949.58	744.38	2293.63	744.38	2622.05	742.86	3504.15	722.54	
3574.69	718.77	3664.34	715.62	3675.45	715.46	3873.54	716.95	4050.25	714.38	
4190.71	711.67	4341.51	707.4	4710.12	698.44	5159.38	691.66	5493.72	689.63	
5637.59	688.17	5794.14	681.91	5861.49	676.01	6218.27	674.55	6562	677.14	
6700.66	678.76	6917.28	667.52	7081.11	661.9	7151.2	656.28	7199.44	656.28	
7347.47	660.2	7561.59	670.26	7623.58	670.07	7751	671.94	8108.7	667.01	
8155.85	669.61	8308.02	675.15	8596.55	661.25	8610.41	659.73	8780.4	648.66	
8916.93	648.11	9167.22	658.35	9339.24	657.66	9519.46	645.69	9702.74	641.95	
9844.72	630.86	9861.68	630.58	9949.97	619.34	10115.62	602.48	10172.05	602.48	
10213.41	607.61	11038.22	636.21	11044.19	649.34	110825.99	644.56	110981.71	638.23	
11036.67	633.16	11246.2	630.54	11494.67	636.18	11790.33	632.48	12415.62	626.86	
13855.66	626.86	14092.68	622.48	14701.96	622.48	15170.7	628.11	15229.86	633.72	
15519.35	629.67	15526.22	625.19	15631.24	623.37	16280.19	598.71	16832.67	591.24	
16914.58	584.87	17203	582.21	17277.41	575.91	17394.51	567.58	17866.2	567.58	
17984.62	571.85	18098.15	591.24	18184.73	609.01	18203.28	611.29	18436.01	629.49	
18865.59	635.34	19290.52	636.56	21351.88	631.92	21464.37	631.92	21688.42	632.72	
22030.04	629.62	22992.94	633.14	23244.2	638.76	24880	644.38	25253.28	647.05	
25666.36	651.43	26301.34	664.86	26519.99	665.62	27607.89	665.62	28228.07	661.24	
28495.38	661.24	29055.71	655.62	29287.74	652.36	29455.2	650.72	29591.87	645.65	
29736.94	646.25	30023.95	653.07	30338	655.77	31409.9	673.67	32058.31	676.55	
33003.17	711.41	313142.45	712.03	33744.75	688.42	33778.63	688.57	35334.25	730.52	
36352.69	731.36	36545.44	734.66	36888.94	750.55	36929.41	751.39	37228.67	753.22	
37552.41	764.32	37706.75	767.52	38462.62	790.39	39141.91	793.74	39484.47	800	

Manning's n Values

Sta	n Val	Sta	num=	3	Sta	n Val
0	.1516832.67		.1518098.15			.15

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	16832.67	18098.15		5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
w.s. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1506610.00	233768.50	1793891.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1506610.00	233768.50	1793891.00
Q Total (cfs)	6730000.00	Flow (cfs)	2814249.00	668623.90	3247127.00
Top Width (ft)	36058.79	Top Width (ft)	15471.37	1265.48	19321.93
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.87	2.86	1.81
Max Chl Dpth (ft)	192.20	Hydr. Depth (ft)	97.38	184.73	92.84
Conv. Total (cfs)	755026600.0	Conv. (cfs)	315725500.0	75011710.0	364289300.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15484.37	1268.02	19327.52
Min Ch El (ft)	567.58	Shear (lb/sq ft)	0.48	0.91	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.90	2.62	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	93182.59	17082.03	112278.00
C & E Loss (ft)	0.00	Cum SA (acres)	816.97	80.40	961.14

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275244.\*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.91	792	630.89	775.39	1329.15	761.21	1504.85	753.43	
1785.46	746.45	1950.02	744.37	2294.14	744.37	2622.64	742.84	3504.94	722.55	
3575.5	718.78	3665.17	715.63	3676.28	715.47	3874.41	716.95	4051.16	714.37	
4191.65	711.66	4342.48	707.38	4711.19	698.42	5160.54	691.64	5494.95	689.61	
5638.86	688.15	5795.44	681.88	5862.81	675.98	6219.68	674.52	6563.48	677.12	
6702.17	678.74	6918.84	667.48	7082.71	661.85	7152.81	656.22	7201.06	656.22	
7349.13	660.15	7563.29	670.2	7625.29	670.03	7752.75	671.91	8110.52	667.02	
8157.68	669.63	8309.9	675.21	8598.48	661.34	8612.35	659.82	8782.38	648.73	
8918.94	648.18	9169.29	658.44	9341.35	657.75	9521.6	645.77	9704.93	642.02	
9846.94	630.95	9863.9	630.67	9952.21	619.41	10117.9	602.52	10174.34	602.52	
10215.71	607.65	10340.55	636.26	10446.54	649.41	110828.43	644.62	110984.18	638.3	
11039.16	633.24	11248.74	630.61	11497.26	636.23	11792.99	632.52	12418.41	626.89	
13858.78	626.89	14095.85	622.52	14705.27	622.52	15174.12	628.11	15233.29	633.78	
15522.85	629.72	15529.72	625.25	15634.77	623.43	16283.86	598.74	16836.46	591.26	
16918.51	584.88	17207.41	582.23	17281.95	575.92	17399.24	567.58	17871.18	567.58	
17989.77	571.85	18103.47	591.26	18190.04	609.01	18208.59	611.29	18441.29	629.46	
18870.82	635.31	19295.7	636.52	19356.84	631.85	21469.31	631.85	21693.34	632.68	
22034.92	629.56	22997.71	633.11	23248.94	638.74	24884.56	644.37	25257.8	647.04	
25670.84	651.43	26305.74	664.88	26524.37	665.63	27612.15	665.63	28232.26	661.26	
28499.53	661.26	29059.81	655.63	29291.81	652.36	29459.25	650.7	29595.9	645.64	
29740.96	646.24	30027.93	653.06	30341.95	655.77	31413.74	673.64	32062.07	676.53	
33006.83	711.32	31469.09	711.94	33748.32	688.4	33782.2	688.53	35337.65	730.43	
36355.97	731.29	36548.7	734.63	36892.16	750.48	36932.62	751.32	37231.86	753.17	
37555.56	764.27	37709.88	767.48	38465.67	790.39	39144.89	793.74	39487.41	800	



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Manning's n Values num= 3  
 Sta n Val Sta n Val  
 0 .1516836.46 .1518103.47 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16836.4618103.47 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506636.00	234038.00	1794231.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1506636.00	234038.00	1794231.00
Q Total (cfs)	6730000.00	Flow (cfs)	2813260.00	669222.90	3247517.00
Top width (ft)	36063.31	Top width (ft)	15475.07	1267.01	19321.22
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.87	2.86	1.81
Max Chl Dpth (ft)	192.20	Hydr. Depth (ft)	97.36	184.72	92.86
Conv. Total (cfs)	755193200.0	Conv. (cfs)	315684300.0	75095490.0	364413500.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15488.07	1269.55	19326.80
Min Ch El (ft)	567.58	Shear (lb/sq ft)	0.48	0.91	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.90	2.61	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	93009.65	17055.19	112072.10
C & E Loss (ft)	0.00	Cum SA (acres)	815.19	80.26	958.92

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275241.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	193.95	791.99	631.03	775.38	1329.45	761.21	1505.19	753.43
1785.86	746.44	1950.46	744.36	2294.66	744.36	2623.23	742.83	3505.73	722.57
3576.31	718.8	3665.99	715.64	3677.11	715.48	3875.29	716.94	4052.08	714.36
4192.59	711.64	4343.46	707.36	4712.25	698.4	5161.7	691.63	5496.19	689.59
5640.13	688.13	5796.75	681.85	5864.13	675.94	6221.08	674.48	6564.96	677.1
6703.68	678.72	6920.4	667.44	7084.31	661.8	7154.42	656.16	7202.68	656.16
7350.79	660.1	7565	670.15	7627.01	669.98	7754.49	671.88	8112.35	667.02
8159.52	669.64	8311.77	675.26	8600.42	661.42	8614.29	659.91	8784.36	648.8
8920.94	648.26	9171.35	658.54	9343.45	657.85	9523.75	645.85	9707.12	642.1
9849.16	631.04	9866.13	630.76	9954.45	619.48	10120.18	602.56	10176.63	602.56
10218.02	607.71	10342.88	636.3	10448.9	649.48	10830.87	644.68	10986.66	638.36
11041.64	633.31	11251.27	630.68	11499.85	636.28	11795.64	632.56	12421.21	626.92
13861.91	626.92	14099.03	622.56	14708.59	622.56	15177.53	628.21	15236.72	633.84
15526.34	629.77	15533.22	625.32	15638.29	623.49	16287.53	598.76	16840.25	591.28
16922.44	584.89	17211.82	582.25	17286.48	575.93	17403.98	567.58	17876.16	567.58
17994.92	571.84	18108.79	591.28	18195.35	609.18	18213.89	611.29	18446.56	629.42
18876.06	635.27	19300.89	636.48	19361.79	631.82	19474.26	631.82	19698.25	632.63
22039.79	629.53	23002.49	633.08	23253.69	638.72	24889.12	644.36	25262.32	647.04
25675.31	651.42	26310.15	664.89	26528.74	665.64	27616.4	665.64	28236.45	661.28
28503.69	661.28	29063.9	655.64	29295.88	652.36	29463.3	650.72	29599.94	645.62
29744.99	646.22	30031.92	653.06	30345.9	655.76	31417.57	673.62	32065.84	676.5
33010.48	711.23	33149.73	711.86	33751.9	688.38	33785.77	688.53	3341.05	730.34
36359.26	731.21	36551.96	734.53	36895.39	750.41	36935.84	751.25	37235.05	753.12
37558.71	764.23	37713.01	767.44	38468.72	790.39	39147.86	793.75	39490.34	800

Manning's n Values num= 3  
 Sta n Val Sta n Val  
 0 .1516840.25 .1518108.79 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16840.2518108.79 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506660.00	234308.70	1794592.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1506660.00	234308.70	1794592.00
Q Total (cfs)	6730000.00	Flow (cfs)	2812247.00	669815.60	3247937.00
Top width (ft)	36067.43	Top width (ft)	15478.55	1268.54	19320.35
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.87	2.86	1.81
Max Chl Dpth (ft)	192.20	Hydr. Depth (ft)	97.34	184.71	92.89
Conv. Total (cfs)	755372200.0	Conv. (cfs)	315645400.0	75179800.0	364547000.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15491.55	1271.09	19325.91
Min Ch El (ft)	567.58	Shear (lb/sq ft)	0.48	0.91	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.90	2.61	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	92836.71	17028.31	111866.10
C & E Loss (ft)	0.00	Cum SA (acres)	813.41	80.11	956.70

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275238.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	194	791.99	631.17	775.36	1329.75	761.21	1505.53	753.42
1786.26	746.44	1950.9	744.35	2295.18	744.35	2623.83	742.82	3506.52	722.59
3577.11	718.81	3666.82	715.65	3677.94	715.49	3876.16	716.94	4052.99	714.35
4193.54	711.63	4344.44	707.35	4713.31	698.38	5162.86	691.61	5497.43	689.58
5641.4	688.11	5798.05	681.83	5865.45	675.9	6222.48	674.45	6566.44	677.08
6705.19	678.7	6921.96	667.4	7085.9	661.75	7156.03	656.1	7204.3	656.1
7352.44	660.04	7566.7	670.1	7628.73	669.93	7756.24	671.85	8114.18	667.03
8161.36	669.66	8313.64	675.32	8602.36	661.51	8616.23	660	8786.34	648.87

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8922.95	648.33	9173.42	658.63	9345.56	657.95	9525.89	645.93	9709.3	642.17		
9851.38	631.13	9868.35	630.85	9956.69	619.55	10122.46	602.61	10178.93	602.6		
10220.32	607.75	10345.21	636.35	10451.25	649.55	10833.31	644.74	10989.13	638.43		
11044.13	633.39	11253.81	630.75	11502.44	636.32	11798.3	632.61	12424.01	626.95		
13865.03	626.95	14102.2	622.6	14711.9	622.61	15180.95	628.25	15240.15	633.9		
15529.84	629.83	15536.72	625.38	15641.81	623.55	16291.2	598.79	16844.04	591.3		
16926.37	584.91	17216.24	582.27	17291.02	575.94	17408.71	567.58	17881.13	567.58		
18000.07	571.84	18114.11	591.31	18200.66	609	18219.2	611.28	18451.84	629.39		
18881.29	635.24	19306.07	636.43	19366.75	631.75	19479.2	631.75	19703.17	632.58		
22044.67	629.49	2007.26	633.05	23258.43	638.72	24893.69	644.35	25266.84	647.03		
25679.79	651.42	26314.55	664.92	26533.12	665.65	27620.66	665.65	28240.63	661.3		
28507.85	661.3	29068	655.65	29299.95	652.37	29467.36	650.69	29603.98	645.61		
29749.01	646.21	30035.91	653.05	30349.86	655.75	31421.4	673.59	32069.6	676.48		
33014.14	711.15	33153.38	711.77	33755.47	688.36	33789.34	688.51	335344.45	730.25		
36362.54	731.14	36555.23	734.47	36898.61	750.34	36939.06	751.18	37238.23	753.08		
37561.86	764.18	37716.14	767.43	38471.77	790.39	39150.83	793.76	39493.27	800		

Manning's n Values											
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516844	04	.1518114	11	.15						

  

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16844.04	18114.11		5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (ft)	759.84				
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506668.00	234578.50	1794952.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1506668.00	234578.50	1794952.00
Q Total (cfs)	6730000.00	Flow (cfs)	2811209.00	670410.60	3248381.00
Top width (ft)	36071.65	Top width (ft)	15482.06	1270.07	19319.52
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.87	2.86	1.81
Max Chl Dpth (ft)	192.20	Hydr. Depth (ft)	97.32	184.70	92.91
Conv. Total (cfs)	755543200.0	Conv. (cfs)	315500300.0	75263620.0	364679300.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15495.07	1272.62	19325.07
Min Ch El (ft)	567.58	Shear (lb/sq ft)	0.48	0.91	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.90	2.61	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	92663.77	17001.40	111660.10
C & E Loss (ft)	0.00	Cum SA (acres)	811.64	79.97	954.48

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275235.\*

INPUT

Description:											
Station Elevation Data											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	194.04	791.98	631.32	775.35	1330.04	761.21	1505.87	753.41		
1786.67	746.43	1951.34	744.34	2295.69	744.34	2624.42	742.8	3507.31	722.61		
3577.92	718.83	3667.64	715.66	3678.77	715.5	3877.03	716.93	4053.9	714.34		
4194.48	711.61	4345.42	707.33	4714.37	698.37	5164.03	691.6	5498.67	689.56		
5642.67	688.1	5799.36	681.8	5866.77	675.87	6223.88	674.42	6567.92	677.05		
6706.7	678.68	6923.52	667.36	7087.5	661.7	7157.64	656.04	7205.93	656.04		
7354.1	659.99	7568.4	670.05	7630.45	669.89	7757.99	671.83	8116	667.04		
8163.2	669.68	8315.51	675.38	8604.29	661.6	8618.17	660.09	8788.31	648.94		
8924.96	648.4	9175.49	658.73	9347.66	658.04	9528.04	646.01	9711.49	642.25		
9853.6	631.22	9870.57	630.94	9958.94	619.62	10124.74	602.64	10181.22	602.64		
10222.62	607.81	10347.54	636.4	10453.6	649.62	10835.75	644.81	10991.61	638.5		
11046.62	633.47	11256.34	630.82	11505.03	636.37	11800.96	632.64	12426.81	626.98		
13868.15	626.98	14105.38	622.64	14715.21	622.64	15184.37	628.31	15243.59	633.96		
15533.34	629.88	15540.21	625.44	15645.33	623.61	16294.87	598.82	16847.84	591.32		
16930.3	584.91	17220.65	582.28	17295.56	575.95	17413.44	567.58	17886.11	567.58		
18005.22	571.83	18119.42	591.32	18205.96	609	18224.5	611.28	18457.12	629.35		
18886.52	635.24	19311.25	636.39	19371.7	631.72	19484.14	631.72	19708.09	632.53		
22049.55	629.49	23012.03	633.02	23263.18	638.68	24898.25	644.34	25271.36	647.03		
25684.26	651.42	26318.95	664.91	26537.5	665.66	27624.92	665.66	28244.82	661.32		
28512.01	661.32	29072.1	655.66	29304.02	652.37	29471.41	650.69	29608.01	645.6		
29753.03	646.2	30039.9	653.04	30353.81	655.74	31425.24	673.56	32073.36	676.46		
33017.8	711.06	33157.02	711.68	33759.05	688.34	33792.91	688.49	335347.84	730.17		
36365.82	731.07	36558.49	734.41	36901.84	750.27	36942.29	751.13	37241.42	753.03		
37565.01	764.13	37719.28	767.36	38474.82	790	39153.8	793.76	39496.21	800		

Manning's n Values											
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516847	84	.1518119	42	.15						

  

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16847.84	18119.42		5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (ft)	759.84				
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506678.00	234847.50	1795298.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1506678.00	234847.50	1795298.00
Q Total (cfs)	6730000.00	Flow (cfs)	2810195.00	671013.80	3248791.00
Top width (ft)	36076.00	Top width (ft)	15485.60	1271.58	19318.82
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.87	2.86	1.81
Max Chl Dpth (ft)	192.20	Hydr. Depth (ft)	97.30	184.69	92.93
Conv. Total (cfs)	755708700.0	Conv. (cfs)	315555500.0	75347850.0	364805300.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15498.62	1274.13	19324.36
Min Ch El (ft)	567.58	Shear (lb/sq ft)	0.48	0.91	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.90	2.61	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	92490.83	16974.46	111454.10
C & E Loss (ft)	0.00	Cum SA (acres)	809.86	79.82	952.27

CROSS SECTION

SS\_Rev3.rep

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275232.\*

INPUT

Table with columns: Station, Elevation, Data, num=, Elev, Sta, Elev, Sta, Elev, Sta, Elev. Contains stationing data from Sta 0 to Sta 37568.16.

Manning's n Values table with columns: Sta, n Val, Sta, n Val. Shows values for Sta 0 and Sta 16851.6318124.74.

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan. Table with values for Sta 16851.6318124.74.

CROSS SECTION OUTPUT Profile #PF 1

Table with columns: E.G. Elev (ft), Vel Head (ft), w.s. Elev (ft), Crit w.s. (ft), E.G. Slope (ft/ft), Q Total (cfs), Top width (ft), Vel Total (ft/s), Max chl Dpth (ft), Conv. Total (cfs), Length wtd. (ft), Min Ch El (ft), Alpha, Frctn Loss (ft), C & E Loss (ft). Includes Element, Left OB, Channel, Right OB, wt. n-Val., Reach Len., Flow Area, Area, Flow, Top Width, Avg. Vel., Hydr. Depth, Conv., wetted Per., Shear, Stream Power, Cum Volume, Cum SA.

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275229.\*

INPUT

Table with columns: Station, Elevation, Data, num=, Elev, Sta, Elev, Sta, Elev, Sta, Elev. Contains stationing data from Sta 0 to Sta 37571.31.

Manning's n Values table with columns: Sta, n Val, Sta, n Val. Shows values for Sta 0 and Sta 16855.4218130.06.

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan. Table with values for Sta 16855.4218130.06.

CROSS SECTION OUTPUT Profile #PF 1

Table with columns: E.G. Elev (ft), Vel Head (ft), w.s. Elev (ft). Includes Element, Left OB, Channel, Right OB, wt. n-Val., Reach Len.

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		ss_Rev3.rep	
Crit W.S. (ft)		1506717.00	235386.90 1795999.00
E.G. Slope (ft/ft)	0.000079	1506717.00	235386.90 1795999.00
Q Total (cfs)	6730000.00	2808175.00	672203.10 3249622.00
Top Width (ft)	36084.68	15492.81	1274.64 19317.22
Vel Total (ft/s)	1.90	1.86	2.86 1.81
Max Chl Dpth (ft)	192.20	97.25	184.67 92.97
Conv. Total (cfs)	756050100.0	315471100.0	75515480.0 365063500.0
Length Wtd. (ft)	5.00	15505.84	1277.20 19322.74
Min Ch El (ft)	567.58	567.58	0.48 0.91 0.46
Alpha	1.06	0.90	2.60 0.83
Frctn Loss (ft)	0.00	92144.94	16920.48 111041.80
C & E Loss (ft)	0.00	806.30	79.53 947.83

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275226.\*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev
0	800	194.17	791.97	631.74	775.32	1330.94	761.2	1506.88	753.39	
1787.87	746.41	1952.66	744.31	2297.24	744.31	2626.19	742.77	3509.68	722.66	
3580.33	718.87	3670.12	715.69	3681.25	715.53	3879.65	716.92	4056.64	714.31	
4197.32	711.57	4348.35	707.28	4717.55	698.31	5167.51	691.55	5502.38	689.5	
5646.48	688.04	5803.28	681.72	5870.73	675.76	6228.08	674.32	6572.35	676.98	
6711.23	678.62	6928.2	667.24	7092.28	661.55	7162.48	655.86	7210.79	655.86	
7359.06	659.83	7573.52	669.89	7635.6	669.75	7763.23	671.74	8121.49	667.06	
8168.71	669.73	8321.13	675.55	8610.11	661.87	8623.99	660.35	8794.23	649.16	
8930.99	648.62	9181.68	659.01	9353.98	658.33	9534.47	646.24	9718.05	642.47	
9860.25	631.49	9877.24	631.21	9965.66	619.83	10131.57	602.76	10188.09	602.76	
10229.52	607.95	10354.53	636.54	10460.66	649.83	10843.07	644.99	10999.03	638.7	
11054.08	633.71	11263.94	631.04	11512.8	636.51	11808.93	632.76	12435.2	627.07	
13877.52	627.07	14114.91	622.76	14725.15	622.76	15194.63	628.45	15253.88	634.14	
15543.83	630.04	15550.71	625.63	15655.9	623.79	16305.87	598.89	16859.22	591.38	
16942.09	584.95	17233.89	582.34	17309.17	575.97	17427.65	567.57	17901.05	567.57	
18020.68	571.82	18135.37	591.38	18221.89	609	18240.42	611.27	18472.96	629.24	
18902.21	635.11	19326.81	636.27	19386.57	631.55	19498.97	631.55	19722.84	632.38	
22064.19	629.35	23026.35	632.93	23277.41	638.62	24911.93	644.31	25284.92	647.01	
25697.68	651.41	26332.16	664.95	26550.64	665.69	27637.69	665.69	28257.39	661.38	
28524.49	661.38	29084.39	655.69	29316.23	652.39	29483.56	650.69	29620.12	645.56	
29765.09	646.15	30051.87	653.02	30365.67	655.72	31436.74	673.47	32084.65	676.39	
33028.77	710.83	3167.94	711.43	33769.77	688.28	33803.62	688.43	3358.04	729.9	
36375.68	730.86	36568.28	734.22	36911.51	750.06	36951.94	750.91	37250.98	752.89	
37574.46	7643	7728.68	767.24	38483.96	790	39162.72	793.78	39505.02	800	

Manning's n Values

Sta	n Val	Sta	n Val
0	.1516859.22		
		1518135.37	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16859.22	18135.37	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506735.00	235658.50	1796342.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1506735.00	235658.50	1796342.00
Q Total (cfs)	6730000.00	Flow (cfs)	2807166.00	672811.50	3250023.00
Top Width (ft)	36088.68	Top Width (ft)	15496.30	1276.15	19316.23
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.86	2.86	1.81
Max Chl Dpth (ft)	192.20	Hydr. Depth (ft)	97.25	184.66	93.00
Conv. Total (cfs)	756223200.0	Conv. (cfs)	315430000.0	75601140.0	365192100.0
Length Wtd. (ft)	5.00	wetted per. (ft)	15509.34	1278.71	19321.74
Min Ch El (ft)	567.57	Shear (lb/sq ft)	0.48	0.91	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.89	2.60	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	91971.99	16893.44	110835.70
C & E Loss (ft)	0.00	Cum SA (acres)	804.52	79.38	945.61

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275223.\*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev
0	800	194.22	791.97	631.88	775.3	1331.24	761.19	1507.22	753.38	
1788.28	746.41	1953.1	744.3	2297.76	744.3	2626.78	742.75	3510.47	722.67	
3581.14	718.89	3670.95	715.7	3682.08	715.54	3880.52	716.91	4057.55	714.3	
4198.26	711.55	4349.33	707.26	4718.62	698.29	5168.68	691.54	5503.62	689.48	
5647.75	688.02	5804.58	681.69	5872.06	675.72	6229.48	674.28	6573.83	676.96	
6712.74	678.6	6929.75	667.2	7093.88	661.5	7164.09	655.8	7212.42	655.8	
7360.72	659.78	7575.22	669.83	7637.32	669.71	7764.97	671.72	8123.31	667.06	
8170.55	669.74	8323	675.6	8612.04	661.96	8625.93	660.44	8796.23	649.23	
8933	648.69	9183.75	659.11	9356.08	658.43	9536.62	646.32	9720.23	642.55	
9862.47	631.58	9879.46	631.3	9967.9	619.91	10133.85	602.81	10190.39	602.8	
10231.82	6081	10356.85	636.58	10463.02	649.9	10845.5	645.05	11001.5	638.77	
11056.56	633.77	11266.48	631.11	11515.39	636.56	11811.58	632.8	12438	627.1	
13880.64	627.11	14118.08	622.81	14728.46	622.81	15198.05	628.51	15257.31	634.2	
15547.33	630.09	15554.21	625.69	15659.42	623.85	16309.54	598.92	16863.01	591.4	
16946.02	584.96	17238.3	582.36	17313.71	575.98	17432.38	567.57	17906.03	567.57	
18023.83	571.82	18140.69	591.41	18227.19	608.99	18245.72	611.27	18478.24	629.2	
18907.45	635.06	19331.99	636.23	19391.52	631.52	19503.91	631.52	19727.76	632.34	
22069.07	629.31	23031.12	632.92	23282.15	638.62	24916.49	644.32	25289.44	647.01	
25702.16	651.42	26336.57	664.96	26555.02	665.72	27641.95	665.72	28261.58	661.4	
28528.65	661.42	29088.48	655.7	29320.3	652.39	29487.62	650.69	29624.16	645.55	
29769.11	646.14	30055.86	653.01	30369.63	655.71	31440.58	673.44	32088.41	676.36	

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33032.43	710.7233171.58	711.3433773.34	688.26	33807.2	688.4135361.43	729.81	
36378.96	730.7836571.54	734.1636914.73	749.9936955.16		750.8437254.16	752.84	
37577.61	763.9537731.81	767.238487.01	790	39165.7	793.7939507.95	800	

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516863.01		.1518140.69		.15

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
16863.01	18140.69		5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element		Left OB	0.150	Channel	0.150	Right OB	0.150
Vel Head (ft)	0.06	wt. n-Val.							
W.S. Elev (ft)	759.78	Reach Len. (ft)			5.00		5.00		5.00
Crit W.S. (ft)		Flow Area (sq ft)		1506761.00	235928.20	1796710.00			
E.G. Slope (ft/ft)	0.000079	Area (sq ft)		1506761.00	235928.20	1796710.00			
Q Total (cfs)	6730000.00	Flow (cfs)		2806144.00	673399.60	3250456.00			
Top width (ft)	36093.20	Top Width (ft)		15500.00	1277.68	19315.52			
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)		1.86	2.85	1.81			
Max Chl Dpth (ft)	192.21	Hydr. Depth (ft)		97.21	184.65	93.02			
Conv. Total (cfs)	756399900.0	Conv. (cfs)		315388900.0	75684900.0	365326100.0			
Length wtd. (ft)	5.00	wetted Per. (ft)		15513.05	1280.24	19321.01			
Min Ch El (ft)	567.57	Shear (lb/sq ft)		0.48	0.91	0.46			
Alpha	1.06	Stream Power (lb/ft s)		0.89	2.60	0.83			
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)		91799.04	16866.38	110629.50			
C & E Loss (ft)	0.00	Cum SA (acres)		802.75	79.24	943.40			

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275220.\*

INPUT

Description:											
Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
1788.68	746.4	1953.54	744.29	2298.28	744.29	2627.37	742.74	3511.26	722.69		
3581.94	718.91	3671.77	715.71	3682.91	715.55	3881.4	716.9	4058.47	714.29		
4199.2	711.54	4350.31	707.24	4719.68	698.27	5169.84	691.52	5504.86	689.47		
5649.02	688	5805.89	681.66	5873.38	675.68	6230.89	674.25	6575.31	676.94		
6714.25	678.58	6931.31	667.16	7095.48	661.45	7165.7	655.74	7214.04	655.74		
7362.38	659.73	7576.92	669.78	7639.04	669.66	7766.72	671.69	8125.14	667.07		
8172.39	669.76	8324.87	675.66	8613.98	662.04	8627.87	660.53	8798.21	649.3		
8935.01	648.77	9185.81	659.2	9358.18	658.53	9538.76	646.4	9722.42	642.62		
9864.69	631.67	9881.68	631.39	9970.15	619.97	10136.13	602.84	10192.68	602.84		
10234.13	608.05	10359.18	636.63	10465.37	649.97	10847.94	645.11	11003.98	638.84		
11059.05	633.85	11269.01	631.18	11517.98	636.61	11814.24	632.84	12440.79	627.13		
13883.76	627.13	14121.26	622.84	14731.78	622.84	15201.46	628.55	15260.75	634.26		
15550.82	630.14	15557.71	625.75	15662.94	623.92	16313.21	598.94	16866.8	591.42		
16949.95	584.97	17242.72	582.37	17318.25	575.99	17437.11	567.57	17911.01	567.57		
18030.98	571.81	18146.01	591.42	18232.5	608.99	18251.03	611.27	18483.52	629.17		
18912.68	635.03	19337.18	636.18	19396.48	631.45	19508.85	631.45	19732.67	632.29		
22073.95	629.27	23035.89	632.87	23286.89	638.58	24921.06	644.29	25293.96	647		
25706.63	651.42	26340.97	664.97	26559.4	665.71	27646.21	665.71	28265.77	661.42		
28532.81	661.42	29092.58	655.71	29324.38	652.39	29491.67	650.68	29628.2	645.53		
29773.13	646.12	30059.84	653.01	30373.58	655.71	31444.41	673.41	32092.17	676.34		
33036.08	710.63	33175.22	711.26	33776.92	688.24	33810.77	688.39	3364.83	729.73		
36382.24	730.71	36574.8	734.09	36917.96	749.92	36958.38	750.77	37257.35	752.79		
37580.76	763.91	37734.94	767.16	38490.06	790.39	39168.67	793.83	39510.89	800		

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.15	16866.8		.1518146.01	.15

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
16866.81	81846.01		5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element		Left OB	0.150	Channel	0.150	Right OB	0.150
Vel Head (ft)	0.06	wt. n-Val.							
W.S. Elev (ft)	759.78	Reach Len. (ft)			5.00		5.00		5.00
Crit W.S. (ft)		Flow Area (sq ft)		1506777.00	236200.50	1797057.00			
E.G. Slope (ft/ft)	0.000079	Area (sq ft)		1506777.00	236200.50	1797057.00			
Q Total (cfs)	6730000.00	Flow (cfs)		2805131.00	674005.00	3250864.00			
Top width (ft)	36097.35	Top Width (ft)		15503.51	1279.21	19314.63			
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)		1.86	2.85	1.81			
Max Chl Dpth (ft)	192.21	Hydr. Depth (ft)		97.19	184.65	93.04			
Conv. Total (cfs)	756571600.0	Conv. (cfs)		315346600.0	75770140.0	365454900.0			
Length wtd. (ft)	5.00	wetted Per. (ft)		15516.58	1281.77	19320.11			
Min Ch El (ft)	567.57	Shear (lb/sq ft)		0.48	0.91	0.46			
Alpha	1.06	Stream Power (lb/ft s)		0.89	2.60	0.83			
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)		91626.09	16839.28	110423.20			
C & E Loss (ft)	0.00	Cum SA (acres)		800.97	79.09	941.18			

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275217.\*

INPUT

Description:											
Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
1789.08	746.39	1953.98	744.28	2298.79	744.28	2627.96	742.73	3512.05	722.71		
3582.75	718.92	3672.6	715.72	3683.74	715.56	3882.27	716.9	4059.38	714.28		
4200.15	711.52	4351.29	707.23	4720.74	698.25	5171	691.51	5506.1	689.45		
5650.29	687.98	5807.19	681.64	5874.7	675.65	6232.29	674.22	6576.79	676.92		

ss_Rev3.rep											
6715.76	678.56	6932.87	667.12	7097.07	661.4	7167.31	655.68	7215.66	655.68		
7364.03	659.67	7578.63	669.73	7640.75	669.61	7768.47	671.66	8126.97	667.08		
8174.22	669.78	8326.74	675.72	8615.92	662.13	8629.81	660.62	8800.19	649.37		
8937.02	648.84	9187.88	659.3	9360.29	658.62	9540.91	646.48	9724.61	642.7		
9866.91	631.76	9883.9	631.48	9972.39	620.04	10138.41	602.88	10194.97	602.88		
10236.43	608.11	10361.51	636.68	10467.72	650.04	10850.38	645.17	11006.45	638.91		
11061.54	633.93	11271.55	631.26	11520.57	636.65	11816.9	632.88	12443.59	627.16		
13886.88	627.16	14124.43	622.88	14735.09	622.88	15204.88	628.61	15264.18	634.32		
15554.32	630.19	15561.21	625.82	15666.47	623.98	16316.88	598.97	16870.6	591.44		
16953.88	584.98	17247.13	582.39	17322.79	576.17	17441.85	567.57	17915.99	567.57		
18036.13	571.81	18151.32	591.44	18237.81	608.99	18256.34	611.26	18488.8	629.13		
18917.91	634.99	19342.36	636.14	19401.43	631.42	19513.79	631.42	19737.59	632.24		
22078.83	629.24	23040.66	632.84	23291.64	638.56	24925.62	644.28	25298.48	647		
25711.11	651.42	26345.37	664.98	26563.78	665.72	27650.47	665.72	28269.96	661.44		
28536.96	661.44	29096.68	655.72	29328.45	652.42	29495.72	650.68	29632.23	645.52		
29777.15	646.11	30063.83	653.30	30377.53	655.73	31448.24	673.38	32095.93	676.31		
33039.74	710.54	33178.86	711.17	33780.49	688.21	33814.34	688.37	35368.23	729.64		
36385.53	730.64	36578.06	734.03	36921.18	749.85	36961.6	750.73	37260.54	752.74		
37583.91	763.86	37738.07	767.12	38493.11	790.39	39174.64	793.83	39513.82	800		

Manning's n Values	num=	3
Sta n Val Sta n Val	n Val	n Val
0 .15 16870.6	.1518151.32	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16870.618151.32		5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506780.00	236466.60	1797420.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1506780.00	236466.60	1797420.00
Q Total (cfs)	6730000.00	Flow (cfs)	2804093.00	674590.40	3251318.00
Top width (ft)	36101.68	Top width (ft)	15507.04	1280.72	19313.92
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.86	2.85	1.81
Max Chl Dpth (ft)	192.21	Hydr. Depth (ft)	97.17	184.64	93.06
Conv. total (cfs)	756739600.0	conv. (cfs)	315299800.0	75852790.0	365587000.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15520.10	1283.29	19319.39
Min Ch El. (ft)	567.57	Shear (lb/sq ft)	0.48	0.91	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.89	2.60	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	91453.13	16812.16	110216.90
C & E Loss (ft)	0.00	Cum SA (acres)	799.19	78.94	938.96

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275215.\*

INPUT

Station	Elevation	Data	num=	120					
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev									
0 800 194.35	791.95	632.31	775.27	1332.14	761.19	1508.24	753.36		
1789.48	746.39	1954.41	744.27	2299.31	744.27	2628.55	742.72	3512.84	722.72
3583.55	718.94	3673.42	715.73	3684.56	715.56	3883.14	716.89	4060.29	714.27
4201.09	711.51	4352.27	707.21	4721.8	698.23	5172.17	691.49	5507.33	689.43
5651.56	687.96	5808.5	681.61	5876.02	675.61	6233.69	674.18	6578.27	676.89
6717.27	678.54	6934.43	667.08	7098.67	661.35	7168.92	655.62	7217.28	655.62
7365.69	659.62	7580.33	669.68	7642.47	669.57	7770.21	671.64	8128.79	667.09
8176.06	669.8	8328.62	675.77	8617.85	662.22	8631.75	660.71	8802.16	649.45
8939.03	648.91	9189.95	659.39	9362.39	658.72	9543.05	646.56	9726.79	642.77
9869.12	631.85	9886.13	631.57	9974.63	620.11	10104.69	602.92	10197.26	602.92
10238.73	608.15	10363.84	636.72	10470.08	650.11	10852.82	645.23	11008.93	638.98
11064.03	634.11	1274.08	631.33	1523.16	636.71	1819.55	632.92	21446.39	627.19
13890.01	627.19	14127.61	622.92	14738.4	622.92	15208.3	628.65	15267.61	634.38
1557.82	630.25	15564.7	625.88	15669.99	624.04	16320.55	59916874.39	591.46	
16957.81	585.17	251.54	582.41	17327.33	576.01	17446.58	567.57	17920.97	567.57
18041.29	571.81	18156.64	591.46	18243.12	608.99	18261.64	611.26	18494.08	629.09
18923.14	634.96	19347.54	636.12	19406.38	631.35	21518.73	631.35	21742.51	632.19
22083.71	629.22	23045.43	632.84	23296.38	638.54	24930.18	644.27	25303	646.99
25715.58	651.39	26349.78	664.99	26568.15	665.73	27654.72	665.73	28274.14	661.46
28541.12	661.46	29100.77	655.73	29332.52	652.42	29499.77	650.68	29636.27	645.51
29781.17	646.13	30067.82	652.99	30381.49	655.69	31452.08	673.35	32099.7	676.29
33043.39	710.46	33182.5	711.09	33784.07	688.19	33817.91	688.35	35371.62	729.55
36388.81	730.57	36581.32	733.97	36924.4	749.78	36964.82	750.63	37263.72	752.69
37587.06	763.81	37741.21	767.08	38496.16	790.39	39174.62	793.81	39516.75	800

Manning's n Values	num=	3
Sta n Val Sta n Val	n Val	n Val
0 .1516874.39	.1518156.64	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16874.3918156.64		5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506799.00	236735.30	1797773.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1506799.00	236735.30	1797773.00
Q Total (cfs)	6730000.00	Flow (cfs)	2803097.00	675177.80	3251726.00
Top width (ft)	36105.97	Top width (ft)	15510.51	1282.25	19313.20
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.86	2.85	1.81
Max Chl Dpth (ft)	192.21	Hydr. Depth (ft)	97.15	184.62	93.09
Conv. total (cfs)	756911400.0	conv. (cfs)	315239400.0	75936060.0	365716000.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15523.59	1284.82	19318.66
Min Ch El. (ft)	567.57	Shear (lb/sq ft)	0.48	0.91	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.89	2.59	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	91280.18	16785.00	110010.60
C & E Loss (ft)	0.00	Cum SA (acres)	797.41	78.79	936.75

SS\_Rev3.rep

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275212.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	194.39	791.95	632.45	775.25	1332.44	761.18	1508.58	753.35
1789.88	746.38	1954.85	744.26	2299.83	744.26	2629.14	742.7	3513.63	722.74
3584.36	718.95	3674.25	715.74	3685.39	715.57	3884.01	716.89	4061.2	714.26
4202.04	711.49	4353.25	707.19	4722.86	698.21	5173.33	691.48	5508.57	689.41
5652.83	687.95	5809.8	681.58	5877.34	675.57	6235.09	674.15	6579.75	676.87
6718.78	678.52	6935.99	667.04	7100.26	661.3	7170.54	655.56	7218.9	655.56
7367.34	659.57	7582.04	669.62	7644.19	669.52	7771.96	671.61	8130.62	667.09
8177.9	669.81	8330.49	675.83	8619.79	662.31	8633.69	660.79	8804.14	649.52
8941.04	648.98	9192.01	659.49	9364.5	658.82	9545.2	646.63	9728.98	642.85
9871.34	631.94	9888.35	631.66	9976.87	620.1810142.97		602.9610199.55		602.96
10241.03	608.1910366.17		636.7710472.43		650.1810855.26		645.3	11011.4	639.04
11066.51	634.0811276.61		631.411525.75		636.7411822.21		632.9612449.19		627.22
13893.13	627.2214130.78		622.9614741.71		622.9615211.72		628.715271.04		634.44
15561.31	630.3	15568.2	625.9415673.51		624.116324.22		599.0216878.18		591.48
16961.74	585.0117255.96		582.4317331.86		576.0217451.32		567.5717925.95		567.57
18046.44	571.818161.96		591.4818248.42		608.9918266.95		611.2618499.36		629.06
18928.37	634.9219352.73		636.0621411.34		631.321523.68		631.321747.43		632.14
22088.59	629.1623050.21		632.7823301.12		638.5224934.74		644.2625307.52		646.98
25720.05	651.3926354.18		66526572.53		665.7427658.98		665.7428278.33		661.48
28545.28	661.4829104.87		655.7429336.59		652.4129503.82		650.6829640.31		645.49
29785.19	646.0830071.81		652.9930385.44		655.6831455.91		673.3332103.46		676.27
33047.05	710.3733186.15		71133787.64		688.1733821.48		688.3335375.02		729.46
36392.09	730.536584.59		733.9136927.63		749.7136968.04		750.5637266.91		752.65
37590.21	763.7737744.34		767.0438499.21		79039177.59		793.8239519.69		800

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.1516878.18		.1518161.96

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16878.1818161.96 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1506826.00	237004.80	1798117.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1506826.00	237004.80	1798117.00
Q Total (cfs)	6730000.00	Flow (cfs)	2802095.00	675768.40	3252137.00
Top width (ft)	36110.20	Top width (ft)	15514.21	1283.78	19312.20
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.86	2.85	1.81
Max Chl Dpth (ft)	192.21	Hydr. Depth (ft)	97.13	184.61	93.11
Conv. Total (cfs)	757083400.0	Conv. (cfs)	315218300.0	76019770.0	365845300.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15527.30	1286.35	19317.65
Min Ch El (ft)	567.57	Shear (lb/sq ft)	0.48	0.91	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.89	2.59	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	91107.22	16757.81	109804.20
C & E Loss (ft)	0.00	Cum SA (acres)	795.63	78.65	934.53

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275209.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	194.43	791.94	632.59	775.24	1332.74	761.18	1508.92	753.34
1790.29	746.38	1955.29	744.25	2300.34	744.25	2629.73	742.69	3514.42	722.76
3585.17	718.97	3675.07	715.75	3686.22	715.58	3884.89	716.88	4062.12	714.25
4202.98	711.48	4354.22	707.18	4723.92	698.19	5174.49	691.46	5509.81	689.39
5654.1	687.93	5811.11	681.55	5878.66	675.54	6236.49	674.12	6581.23	676.85
6720.29	678.5	6937.53	667	7101.86	661.25	7172.15	655.5	7220.53	655.5
7369	659.51	7585.74	669.57	7645.91	669.48	7773.71	671.58	8132.45	667.1
8179.74	669.83	8332.36	675.89	8621.73	662.4	8635.63	660.88	8806.12	649.59
8943.05	649.06	9194.08	659.58	9366.6	658.91	9547.34	646.71	9731.17	642.92
9873.56	632.03	9890.57	631.75	9979.11	620.2510145.25		60310201.85		603
10243.33	608.24	10368.5	636.8210474.78		650.25	10857.7	645.3611013.88		639.11
11069	634.1611279.15		631.4711528.34		636.7911824.87		63312451.99		627.25
13896.25	627.2514133.96		62314745.03		62315215.14		628.7515274.47		634.5
15564.81	630.35	15571.7	62615677.03		624.1616327.88		599.0516881.97		591.5
16965.67	585.0217260.37		582.44	17336.4	576.0317456.05		567.5717930.93		567.57
18051.59	571.818167.28		591.518253.73		608.9918272.25		611.2518504.64		629.02
18933.6	634.8919357.91		636.0221416.29		631.2521528.62		631.2521752.34		632.09
22093.46	629.1323054.98		632.7523305.87		638.5	24939.3	644.2525312.04		646.98
25724.53	651.3926358.58		665.0226576.91		665.7527663.24		665.7528282.52		661.5
28549.44	661.529108.97		655.7529340.66		652.4129507.88		650.6829644.35		645.48
29789.21	646.07	30075.8	652.9830389.39		655.6831459.75		673.332107.22		676.24
33050.71	710.2833189.79		710.9233791.21		688.1533825.05		688.3335378.42		729.37
36395.38	730.4336587.85		733.8436930.85		749.6436971.26		750.537270.09		752.6
37593.36	763.7237747.47		76738502.25		79039180.56		793.8239522.62		800

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.1516881.97		.1518167.28

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16881.9718167.28 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

		SS_Rev3.rep				
		Element	Left OB	Channel	Right OB	
E.G. Elev (ft)	759.84	wt. n-Val.	0.150	0.150	0.150	
Vel Head (ft)	0.06	Reach Len. (ft)	5.00	5.00	5.00	
W.S. Elev (ft)	759.78	Flow Area (sq ft)	1506833.00	237275.60	1798459.00	
Crit W.S. (ft)	0.000079	Area (sq ft)	1506833.00	237275.60	1798459.00	
E.G. Slope (ft/ft)	0.000079	Flow (cfs)	2801085.00	676372.60	3252542.00	
Q Total (cfs)	6730000.00	Top Width (ft)	15517.73	1285.31	19311.49	
Top Width (ft)	36114.52	Avg. Vel. (ft/s)	1.86	2.85	1.81	
Vel Total (ft/s)	1.90	Hydr. Depth (ft)	97.10	184.61	93.13	
Max Chl Dpth (ft)	192.21	Conv. (cfs)	315173300.0	76104280.0	365970400.0	
Conv. Total (cfs)	757248000.0	wetted Per. (ft)	15530.83	1287.88	19316.92	
Length wtd. (ft)	5.00	Shear (lb/sq ft)	0.48	0.91	0.46	
Min Ch El (ft)	567.57	Stream Power (lb/ft s)	0.89	2.59	0.83	
Alpha	1.06	Cum Volume (acre-ft)	90934.26	16730.59	109597.80	
Frctn Loss (ft)	0.00	Cum SA (acres)	793.85	78.50	932.31	
C & E Loss (ft)	0.00					

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275206.\*

INPUT

Description:

Station Elevation Data		num= 120	
Sta	Elev	Sta	Elev
0	800	194.48	791.94
1790.69	746.37	1955.73	744.24
3585.97	718.98	3675.9	715.76
4203.93	711.46	4355.2	707.16
5655.37	687.91	5812.41	681.53
6721.8	678.48	6939.11	666.96
7370.65	659.46	7585.44	669.52
8181.57	669.85	8334.23	675.94
8945.06	649.13	9196.14	659.68
9875.78	632.13	9892.79	631.84
10245.63	608.29	10370.83	636.86
11071.49	634.23	11281.68	631.54
13899.37	627.28	14137.14	623.04
15568.31	630.41	15575.2	626.07
16969.6	585.03	17264.78	582.46
18056.74	571.79	18172.59	591.52
18938.83	634.85	19363.61	635.98
22098.34	629.09	23059.75	632.72
25729	651.38	26362.99	665.03
28553.6	661.52	29113.06	655.76
29793.23	646.05	30079.79	652.97
33054.37	710.23	3193.43	710.83
36398.66	730.35	35691.11	733.78
37596.51	763.68	37750.61	766.96

  

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
791.94	632.74	775.23	1333.04	761.18	1509.26	753.33			
744.24	2300.86	744.24	2630.32	742.68	3515.21	722.78			
715.76	3687.05	715.59	3885.76	716.88	4063.03	714.24			
698.17	5175.65	691.45	5511.05	689.37					
681.53	5879.98	675.5	6237.89	674.08	6582.7	676.82			
666.96	7103.45	661.2	7173.76	655.44	7222.15	655.44			
669.52	7647.63	669.43	7775.45	671.55	8134.28	667.11			
675.94	8623.67	662.49	8637.57	660.97	8808.1	649.66			
659.68	9368.71	659.01	9549.49	646.79	9733.35	643			
631.84	9981.36	620.32	10147.53	603.04	10204.14	603.04			
636.86	10477.14	650.32	10860.14	645.42	11016.35	639.18			
631.54	11530.93	636.84	11827.52	633.04	12454.78	627.28			
623.04	14748.34	623.04	15218.56	628.8	15277.9	634.56			
626.07	15680.55	624.22	16331.55	599.07	16885.77	591.52			
582.46	17340.94	576.04	17460.78	567.57	17935.9	567.57			
591.52	18259.04	608.98	18277.56	611.25	18509.92	628.98			
631.22	1533.56	631.22	1533.56	631.22	1757.26	632.04			
638.48	24943.87	644.24	25316.56	646.97					
665.76	27667.5	665.76	27667.5	665.76	28286.71	661.52			
652.41	29511.93	652.41	29511.93	650.68	29648.38	645.47			
655.67	31463.58	673.27	32110.98	676.22					
688.13	33828.62	688.13	33828.62	688.29	35381.82	729.29			
749.57	36974.48	750.43	37273.28	752.55					
79039183.54		793.83	39525.56	800					

Manning's n Values		num= 3	
Sta	n Val	Sta	n Val
0	.1516885.77		
		1518172.59	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
16885.77	18172.59	5	5	5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

		SS_Rev3.rep				
		Element	Left OB	Channel	Right OB	
E.G. Elev (ft)	759.84	wt. n-Val.	0.150	0.150	0.150	
Vel Head (ft)	0.06	Reach Len. (ft)	5.00	5.00	5.00	
W.S. Elev (ft)	759.78	Flow Area (sq ft)	1506853.00	237542.80	1798816.00	
Crit W.S. (ft)	0.000079	Area (sq ft)	1506853.00	237542.80	1798816.00	
E.G. Slope (ft/ft)	0.000079	Flow (cfs)	2800075.00	676955.70	3252970.00	
Q Total (cfs)	6730000.00	Top Width (ft)	15521.25	1286.82	19310.60	
Top Width (ft)	36118.67	Avg. Vel. (ft/s)	1.86	2.85	1.81	
Vel Total (ft/s)	1.90	Hydr. Depth (ft)	97.08	184.60	93.15	
Max Chl Dpth (ft)	192.21	Conv. (cfs)	315132400.0	76187480.0	366103100.0	
Conv. Total (cfs)	757422900.0	wetted Per. (ft)	15534.36	1289.39	19316.03	
Length wtd. (ft)	5.00	Shear (lb/sq ft)	0.48	0.91	0.46	
Min Ch El (ft)	567.57	Stream Power (lb/ft s)	0.89	2.59	0.83	
Alpha	1.06	Cum Volume (acre-ft)	90761.30	16703.34	109391.30	
Frctn Loss (ft)	0.00	Cum SA (acres)	792.06	78.35	930.10	
C & E Loss (ft)	0.00					

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275203.\*

INPUT

Description:

Station Elevation Data		num= 120	
Sta	Elev	Sta	Elev
0	800	194.52	791.93
1791.09	746.36	1956.17	744.23
3586.78	719	3676.73	715.77
4204.87	711.45	4356.18	707.14
5656.64	687.89	5813.72	681.5
6723.31	678.46	6940.67	666.92
7372.31	659.41	7587.15	669.46
8183.41	669.86	8336.1	676
8947.07	649.2	9198.21	659.77
9878	632.22	9895.01	631.93
10247.93	608.34	10373.16	636.91
11073.97	634.31	11284.22	631.62
13902.5	627.31	14140.31	623.08
15571.8	630.46	15578.7	626.13
16973.53	585.04	17269.2	582.48
18061.89	571.79	18177.91	591.54
18944.07	634.82	19368.28	635.93
22103.22	629.06	23064.52	632.69

  

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
791.93	632.88	775.22	1333.34	761.18	1509.59	753.32			
744.23	2301.38	744.23	2630.92	742.66	3515.99	722.79			
715.6	3886.63	715.6	3886.63	716.87	4063.94	714.23			
698.15	5176.81	691.44	5512.29	689.36					
675.46	6239.29	674.05	6584.18	676.8					
661.15	7175.37	655.38	7223.77	655.38					
669.39	7777.2	671.53	8136.1	667.11					
662.58	8639.51	661.06	8810.08	649.73					
659.11	9551.63	646.87	9735.54	643.07					
620.39	10149.81	603.08	10206.43	603.08					
650.39	10862.58	645.48	11018.83	639.25					
636.88	11830.18	633.08	12457.58	627.31					
623.08	15221.97	628.85	15281.34	634.62					
624.28	16335.22	599.11	16889.56	591.54					
576.05	17465.52	567.57	17940.88	567.57					
608.98	18282.86	611.25	18515.2	628.95					
631.15	21538.5	631.15	21538.5	632					
638.46	24948.43	644.23	25321.08	646.97					



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25733.47	651.3826367.39	665.0426585.67	665.7727671.76	665.77 28290.9	661.54
28557.76	661.5429117.16	655.77 29348.8	652.4229515.98	650.6729652.42	645.45
29797.25	646.0430083.78	652.97 30397.3	655.6631467.42	673.2432114.74	676.19
33058.02	710.1133197.07	710.7533798.36	688.1133832.19	688.2735385.21	729.2
36401.95	730.2836594.38	733.72 36937.3	749.5 36977.7	750.3637276.46	752.5
37599.66	763.6337753.74	766.9238508.35	79039186.51	793.84 39528.5	800

Manning's n Values

num=	3
Sta n Val	Sta n Val
0 .1516889.56	.1518177.91 .15

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

16889.5618177.91	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1506872.00	237811.90	1799171.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1506872.00	237811.90	1799171.00
Q Total (cfs)	6730000.00	Flow (cfs)	2799075.00	677543.60	3253382.00
Top width (ft)	36122.99	Top width (ft)	15524.77	1288.35	19309.88
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.86	2.85	1.81
Max Chl Dpth (ft)	192.21	Hydr. Depth (ft)	97.06	184.59	93.17
Conv. Total (cfs)	757595100.0	Conv. (cfs)	315091500.0	76270990.0	366232700.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15537.88	1290.92	19315.29
Min Ch El (ft)	567.57	Shear (lb/sq ft)	0.48	0.91	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.89	2.59	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	90588.34	16676.06	109184.80
C & E Loss (ft)	0.00	Cum SA (acres)	790.28	78.20	927.88

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275200.\*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev		
0 800 194.56 791.93 633.02 775.2 1333.64 761.17 1509.93 753.32		
1791.49 746.36 1956.61 744.22 2301.9 744.22 2631.51 742.65 3516.78 722.81		
3587.58 719.01 3677.55 715.78 3688.71 715.61 3887.51 716.87 4064.85 714.22		
4205.81 711.43 4357.16 707.13 4727.11 698.13 5177.98 691.42 5513.52 689.34		
5657.91 687.87 5815.03 681.47 5882.62 675.43 6240.69 674.02 6585.66 676.78		
6724.82 678.44 6942.22 666.88 7106.65 661.1 7176.98 655.32 7225.39 655.32		
7373.96 659.35 7588.85 669.41 7651.06 669.34 7778.94 671.5 8137.93 667.12		
8185.25 669.88 8337.98 676.06 8627.54 662.66 8641.45 661.15 8812.06 649.8		
8949.08 649.28 9200.27 659.87 9372.92 659.2 9553.78 646.95 9737.72 643.14		
9880.22 632.31 9897.24 632.02 9985.84 620.4610152.09 603.1210208.72 603.12		
10250.24 608.3910375.49 636.9610481.84 650.4610865.02 645.54 11021.3 639.32		
11076.46 634.3911286.75 631.6911536.11 636.9311832.84 633.1212460.38 627.34		
13905.62 627.3414143.49 623.1214754.97 623.1215225.39 628.915284.77 634.68		
15575.3 630.51 15582.2 626.19 15687.6 624.3416338.89 599.1216893.35 591.56		
16977.46 585.0517273.61 582.517350.02 576.0617470.25 567.5617945.86 567.56		
18067.04 571.7818183.23 591.5618269.65 608.9818288.17 611.2518520.48 628.91		
18949.3 634.7819373.46 635.8921431.16 631.121543.45 631.121767.09 631.95		
22108.1 629.0223069.29 632.66 23320.1 638.4424952.99 644.22 25325.6 646.96		
25737.95 651.3826371.79 665.0526590.05 665.7827676.01 665.7828295.09 661.56		
28561.92 661.5629121.26 655.7829352.87 652.4229520.03 650.6729656.46 645.44		
29801.28 646.0230087.77 652.9630401.26 655.6531471.25 673.2132118.51 676.17		
33061.68 710.0233200.71 710.6633801.94 688.0933835.76 688.2535388.61 729.11		
36405.23 730.2136597.64 733.6536940.52 749.4336980.92 750.2937279.65 752.46		
37602.81 763.5937756.87 766.88 38511.4 79039189.48 793.8439531.43 800		

Manning's n Values

num=	3
Sta n Val	Sta n Val
0 .1516893.35	.1518183.23 .15

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

16893.3518183.23	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1506883.00	238088.50	1799533.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1506883.00	238088.50	1799533.00
Q Total (cfs)	6730000.00	Flow (cfs)	2798014.00	678161.00	3253825.00
Top width (ft)	36127.18	Top width (ft)	15528.43	1289.88	19308.87
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.86	2.85	1.81
Max Chl Dpth (ft)	192.22	Hydr. Depth (ft)	97.04	184.58	93.20
Conv. Total (cfs)	757772500.0	Conv. (cfs)	315045800.0	76358360.0	366368300.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15541.55	1292.46	19314.28
Min Ch El (ft)	567.56	Shear (lb/sq ft)	0.48	0.91	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.89	2.58	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	90415.37	16648.74	108978.30
C & E Loss (ft)	0.00	Cum SA (acres)	788.50	78.06	925.66

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275197.\*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev		
0 800 194.61 791.92 633.16 775.19 1333.94 761.17 1510.27 753.31		
1791.9 746.35 1957.05 744.21 2302.41 744.21 2632.1 742.64 3517.57 722.83		

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3588.39	719.03	3678.38	715.79	3689.53	715.62	3888.38	716.86	4065.77	714.21
4206.76	711.42	4358.14	707.11	4728.17	698.12	5179.14	691.41	5514.76	689.32
5659.18	687.85	5816.33	681.45	5883.94	675.39	6242.1	673.98	6587.14	676.76
6726.33	678.42	6943.78	666.84	7108.24	661.05	7178.59	655.26	7227.02	655.26
7375.62	659.3	7590.56	669.36	7652.78	669.29	7780.69	671.47	8139.76	667.13
8187.09	669.9	8339.85	676.11	8629.48	662.75	8643.39	661.24	8814.04	649.87
8951.08	649.35	9202.34	659.96	9375.02	659.3	9555.92	647.03	9739.91	643.22
9882.43	632.4	9899.46	632.11	9988.08	620.53	10154.37	603.16	10211.02	603.16
10252.54	608.44	10377.82	637	10484.2	650.53	10867.46	645.61	11023.78	639.38
11078.95	634.46	11289.29	631.76	11538.7	636.98	11835.5	633.16	12463.18	627.37
13908.74	627.37	14146.66	623.16	14758.28	623.16	15228.81	628.95	15288.2	634.74
15578.8	630.56	15585.7	626.25	15691.12	624.41	16342.56	599.15	15689.7	591.58
16981.39	585.07	17278.02	582.52	17354.55	576.07	17474.99	567.56	17950.84	567.56
18072.19	571.78	18188.54	591.58	18274.96	608.98	18293.47	611.24	18525.76	628.87
18954.53	634.75	19378.65	635.85	21436.11	631.05	21548.39	631.05	21772.01	631.9
22112.98	628.98	23074.06	632.63	23324.85	638.42	24957.55	644.21	25330.12	646.96
25742.42	651.37	26376.2	665.06	26594.43	665.79	27680.27	665.79	28299.28	661.58
28566.08	661.58	29125.35	655.79	29356.94	652.43	29524.08	650.67	29660.49	645.43
29805.29	646.01	30091.75	652.95	30405.21	655.65	31475.09	673.18	31212.27	676.15
33065.34	709.94	33204.36	710.58	33805.51	688.07	33839.33	688.23	335392.01	729.02
36408.51	730.14	36600.9	733.59	36943.75	749.36	36984.14	750.23	37282.84	752.41
37605.96	763.54	37760	766.84	38514.45	79039	39192.46	793.85	39534.36	800

Manning's n Values

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516897.15		.1518188.54		.15

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

16897.15	18188.54	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
w.s. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1506897.00	238351.90	1799876.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1506897.00	238351.90	1799876.00
Q Total (cfs)	6730000.00	Flow (cfs)	2797028.00	678737.10	3254235.00
Top width (ft)	36131.51	Top width (ft)	15535.47	1292.92	19307.45
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.86	2.85	1.81
Max Chl Dpth (ft)	192.22	Hydr. Depth (ft)	97.00	184.56	93.24
Conv. Total (cfs)	757936300.0	Conv. (cfs)	314961300.0	7652020.0	366626800.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15548.61	1295.50	19312.83
Min Ch El (ft)	567.56	Shear (lb/sq ft)	0.48	0.91	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.88	2.58	0.83
Frctn Loss (ft)	0.00	Cum volume (acre-ft)	90242.40	16621.40	108771.70
C & E Loss (ft)	0.00	Cum SA (acres)	786.72	77.91	923.45

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275194.\*

INPUT

Description: Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	194.65	791.92	633.31	775.18	1334.24	761.17	1510.61	753.3
1792.3	746.34	1957.49	744.2	2302.93	744.2	2632.69	742.63	3518.36	722.84
3589.19	719.05	3679.2	715.8	3690.36	715.63	3889.25	716.86	4066.68	714.2
4207.7	711.4	4359.12	707.09	4729.23	698.1	5180.3	691.39	5516	689.3
5660.45	687.83	5817.64	681.42	5885.26	675.35	6243.5	673.95	6588.62	676.73
6727.84	678.4	6945.34	666.8	7109.84	661	7180.2	655.2	7228.64	655.2
7377.28	659.25	7592.26	669.3	7654.5	669.25	7782.44	671.45	8141.58	667.13
8188.93	669.92	8341.72	676.17	8631.41	662.84	8645.33	661.33	8816.01	649.95
8953.09	649.42	9204.41	660.06	9377.12	659.4	9558.07	647.1	9742.1	643.29
9884.65	632.49	9901.68	632.2	9990.33	620.61	10156.65	603.21	10213.31	603.2
10254.84	608.44	10380.15	637.05	10486.55	650.6	10869.9	645.66	11026.25	639.45
11081.43	634.54	11291.82	631.83	11541.29	637.02	11838.15	633.21	12465.97	627.4
13911.86	627.41	14149.84	623.21	14761.59	623.21	15232.23	62915	291.63	634.8
15582.3	630.62	15589.19	626.32	15694.94	624.46	16346.23	599.18	16900.94	591.6
16985.35	585.08	17282.44	582.53	17359.09	576.08	17479.72	567.56	17950.82	567.56
18077.35	571.77	18193.86	591.61	18280.27	608.98	18298.78	611.24	18531.04	628.84
18959.76	634.71	19383.83	635.81	21441.07	6312	21553.33	6312	21776.93	631.85
22117.86	628.95	23078.84	632.62	23329.59	638.42	24962.11	644.22	25334.64	646.95
25746.9	651.37	26380.6	665.08	26598.81	665.82	27684.53	665.82	28303.47	661.6
28570.24	661.62	29129.45	655.82	29361.01	652.43	29528.14	650.67	29664.53	645.42
29809.32	646.03	30095.74	652.94	30409.16	655.64	31478.92	673.15	31216.03	676.12
33069	709.85	33208	710.49	33809.09	688.05	33842.9	688.23	335395.41	728.93
36411.8	730.07	36604.16	733.53	36946.97	749.28	36987.36	750.15	37286.02	752.36
37609.11	763.49	37763.14	766.8	38517.5	79039	39195.43	793.86	39537.3	800

Manning's n Values

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516900.94		.1518193.86		.15

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

16900.94	18193.86	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
w.s. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1506915.00	238624.50	1800241.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1506915.00	238624.50	1800241.00
Q Total (cfs)	6730000.00	Flow (cfs)	2796007.00	679335.80	3254657.00
Top width (ft)	36135.83	Top width (ft)	15535.47	1292.92	19307.45
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.86	2.85	1.81
Max Chl Dpth (ft)	192.22	Hydr. Depth (ft)	97.00	184.56	93.24
Conv. Total (cfs)	758113200.0	Conv. (cfs)	314961300.0	7652020.0	366626800.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15548.61	1295.50	19312.83
Min Ch El (ft)	567.56	Shear (lb/sq ft)	0.48	0.91	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.88	2.58	0.83

Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	90069.43	16594.03	108565.10
C & E Loss (ft)	0.00	Cum SA (acres)	784.93	77.76	921.23

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CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275191.\*

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
0	800	194.7	791.91	633.45	775.17	1334.54	761.16	1510.95	753.29						
1792.7	746.34	1957.93	744.19	2303.45	744.19	2633.28	742.61	3519.15	722.86						
3590	719.06	3680.03	715.81	3691.19	715.64	3890.12	716.85	4067.59	714.19						
4208.65	711.39	4360.09	707.08	4730.29	698.08	5181.47	691.38	5517.24	689.28						
5661.72	687.82	5818.94	681.39	5886.58	675.32	6244.9	673.92	6590.1	676.71						
6729.35	678.38	6946.9	666.76	7111.43	660.95	7181.81	655.14	7230.26	655.14						
7378.93	659.2	7593.96	669.25	7656.22	669.2	7784.18	671.42	8143.41	667.14						
8190.76	669.93	8343.59	676.23	8633.35	662.93	8647.28	661.41	8817.99	650.02						
8955.1	649.49	9206.47	660.15	9379.23	659.49	9560.21	647.18	9744.28	643.37						
9886.87	632.58	9903.9	632.29	9992.57	620.67	10158.93	603.24	10215.6	603.24						
10257.14	608.54	10382.48	637.11	10488.91	650.67	10872.34	645.73	11028.73	639.52						
11083.92	634.62	11294.35	631.91	11543.88	637.07	11840.81	633.24	12468.77	627.43						
13914.98	627.43	14153.01	623.24	14764.91	623.24	15235.65	629.05	15295.06	634.86						
15585.79	630.67	15592.69	626.38	15698.17	624.52	16349.9	599.21	16904.73	591.62						
16989.25	585.09	17286.85	582.55	17363.63	576.09	17484.45	567.56	17960.8	567.56						
18082.5	571.77	18199.18	591.62	18285.57	608.97	18304.08	611.24	18536.31	628.8						
18964.99	634.68	19389.02	635.72	19446.02	630.95	19558.27	630.95	19781.85	631.8						
22122.74	628.91	23083.61	632.57	23334.33	638.38	24966.67	644.19	25339.16	646.95						
25751.37	651.37	26385	665.09	26603.19	665.81	27688.79	665.81	28207.65	661.62						
28574.39	661.62	29133.54	655.81	29365.08	652.44	29532.19	650.67	29668.57	645.4						
29813.34	645.98	30099.73	652.94	30413.12	655.63	31482.75	673.13	32129.79	676.1						
33072.65	709.77	33211.64	710.43	33812.66	688.03	33846.47	688.18	35398.8	728.85						
36415.08	730.36	36607.43	733.47	36950.2	749.21	36990.58	750.08	37289.21	752.31						
37612.26	763.45	37766.27	766.76	38520.55	790	39198.4	793.86	39540.23	800						

Manning's n Values	num= 3	Sta	n Val	Sta	n Val
		0	.1516904.73	.1518199.18	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16904.73	18199.18	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
w.s. Elev (ft)	759.78	Reach Len. (ft)	5.00	5.00	5.00
Crit W.s. (ft)		Flow Area (sq ft)	1506926.00	238893.50	1800573.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1506926.00	238893.50	1800573.00
Q Total (cfs)	6730000.00	Flow (cfs)	2795001.00	679932.30	3255067.00
Top Width (ft)	36140.16	Top Width (ft)	15539.17	1294.45	19306.54
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.85	2.85	1.81
Max Chl Dpth (ft)	192.22	Hydr. Depth (ft)	96.98	184.55	93.26
Conv. Total (cfs)	758274800.0	Conv. (cfs)	314915100.0	76608540.0	366751200.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15552.32	1297.03	19311.91
Min Ch El (ft)	567.56	Shear (lb/sq ft)	0.48	0.91	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.88	2.58	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	89896.46	16566.62	108358.40
C & E Loss (ft)	0.00	Cum SA (acres)	783.15	77.61	919.01

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275188.\*

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
0	800	194.74	791.91	633.59	775.16	1334.84	761.16	1511.29	753.28						
1793.1	746.33	1958.37	744.18	2303.96	744.18	2633.87	742.6	3519.94	722.88						
3590.8	719.08	3680.85	715.82	3692.02	715.65	3891	716.85	4068.51	714.18						
4209.59	711.37	4361.07	707.06	4731.35	698.06	5182.63	691.36	5518.48	689.26						
5662.99	687.8	5820.25	681.36	5887.9	675.28	6246.3	673.88	6591.58	676.69						
6730.86	678.36	6948.46	666.72	7113.03	660.9	7183.43	655.08	7231.88	655.08						
7380.59	659.14	7595.67	669.2	7657.93	669.16	7785.93	671.39	8145.24	667.15						
8192.6	669.95	8345.46	676.28	8635.29	663.02	8649.21	661.5	8819.97	650.09						
8957.11	649.37	9208.54	660.25	9381.33	659.59	9562.36	647.26	9746.47	643.44						
9889.09	632.67	9906.12	632.38	9994.81	620.74	10161.21	603.28	10217.89	603.28						
10259.44	608.59	10384.81	637.14	10491.26	650.74	10874.78	645.79	11031.2	639.59						
11086.41	634.71	11296.89	631.98	11546.47	637.11	11843.46	633.28	12471.57	627.46						
13918.11	627.46	14156.19	623.28	14768.22	623.28	15239.07	629.1	15298.5	634.92						
15589.29	630.72	15596.19	626.44	15701.69	624.58	16353.56	599.23	16908.53	591.64						
16993.18	585.11	17291.26	582.57	17368.17	576.11	17489.19	567.56	17965.78	567.56						
18087.65	571.77	18204.49	591.64	18290.88	608.97	18309.39	611.23	18541.59	628.77						
18970.22	634.64	19394.2	635.73	19450.98	630.92	19563.21	630.92	19786.76	631.75						
22127.62	628.87	23088.38	632.54	23339.08	638.36	24971.23	644.18	25343.68	646.94						
25755.85	651.36	26389.41	665.12	26607.57	665.82	27693.04	665.82	28311.84	661.64						
28578.55	661.64	29137.64	655.82	29369.15	652.44	29536.24	650.67	29672.6	645.39						
29817.36	645.97	30103.72	652.93	30417.07	655.62	31486.59	673.09	32133.55	676.07						
33076.31	709.68	33215.28	710.32	33816.23	688.01	33850.04	688.16	35402.2	728.76						
36418.36	729.93	36610.69	733.43	36953.42	749.14	36993.8	750.01	37292.4	752.27						
37615.41	763.43	37769.41	766.72	38523.6	790	39201.38	793.87	39543.17	800						

Manning's n Values	num= 3	Sta	n Val	Sta	n Val
		0	.1516908.53	.1518204.49	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16908.53	18204.49	5	5	5	.1	.3	

SS\_Rev3.rep

CROSS SECTION OUTPUT Profile #PF 1

Table with 6 columns: Parameter, Value, Element, Left OB, Channel, Right OB. Rows include E.G. Elev, Vel Head, W.S. Elev, Crit W.S., E.G. Slope, Q Total, Top width, Vel Total, Max Chl Dpth, Conv. Total, Length wtd., Min Ch El, Alpha, Frctn Loss, C & E Loss.

CROSS SECTION

RIVER: BRAZOS REACH: UPPER BRAZOS RS: 275185.\*

INPUT

Table with 12 columns: Station, Elev, Data, num=, Elev, Sta, Elev, Sta, Elev, Sta, Elev. Rows show station elevations and corresponding data points.

Table with 4 columns: Manning's n, Val, Sta, n Val. Row shows Manning's n values for different station elevations.

Table with 6 columns: Bank Sta, Left, Right, Lengths, Channel, Right, Coeff, Contr., Expan. Row shows bank station data and coefficients.

CROSS SECTION OUTPUT Profile #PF 1

Table with 6 columns: Parameter, Value, Element, Left OB, Channel, Right OB. Rows include E.G. Elev, Vel Head, W.S. Elev, Crit W.S., E.G. Slope, Q Total, Top width, Vel Total, Max Chl Dpth, Conv. Total, Length wtd., Min Ch El, Alpha, Frctn Loss, C & E Loss.

CROSS SECTION

RIVER: BRAZOS REACH: UPPER BRAZOS RS: 275182.\*

INPUT

Table with 12 columns: Station, Elev, Data, num=, Elev, Sta, Elev, Sta, Elev, Sta, Elev. Rows show station elevations and corresponding data points.

SS_Rev3.rep									
18097.95	571.7618215.13	591.68	18301.5	608.97	18320	611.2318552.15	628.69		
18980.69	634.5719404.57	635.6421460.89		630.8	21573.1	630.8	21796.6		
22137.38	628.823097.92	632.4823348.56		638.3224980.36		644.1625352.72	646.93		
25764.79	651.3626398.21	665.1226616.32		665.8427701.56		665.8428320.22	661.68		
28586.87	661.6829145.83	655.8429377.29		652.4529544.34		650.6629680.68	645.36		
29825.4	645.94	30111.7		652.9230424.98		655.6131494.26	673.0332141.08		676.03
33083.62	709.5133222.56			710.1533823.39		687.9733857.18	688.1235408.99		728.58
36424.93	729.7836617.21			733.2836959.87		74937000.23	749.8837298.77		752.17
37621.71	763.3137775.67			766.64	38529.7	79039207.32	793.8839549.04		800

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516916.11		.1518215.13		.15

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	16916.11	18215.13		5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	759.83	Element	0.150	0.150	0.150
Vel Head (ft)	0.06	wt. n-val.	5.00	5.00	5.00
W.S. Elev (ft)	759.77	Reach Len. (ft)	1506969.00	239701.80	1801646.00
Crit W.S. (ft)		Flow Area (sq ft)	1506969.00	239701.80	1801646.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	2791956.00	681698.70	3256345.00
Q Total (cfs)	6730000.00	Flow (cfs)	15549.69	1299.02	19304.10
Top Width (ft)	36152.81	Top Width (ft)	1.85	2.84	1.81
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	96.91	184.52	93.33
Max Chl Dpth (ft)	192.21	Hydr. Depth (ft)	314787800.0	76860240.0	367146800.0
Conv. Total (cfs)	758794800.0	Conv. (cfs)	15562.86	1301.61	19309.44
Length Wtd. (ft)	5.00	Wetted Per. (ft)	0.48	0.90	0.46
Min Ch El (ft)	567.56	Shear (lb/sq ft)	0.88	2.57	0.83
Alpha	1.06	Stream Power (lb/ft s)	89377.54	16484.22	107738.20
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	777.80	77.16	912.37
C & E Loss (ft)	0.00	Cum SA (acres)			

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275180.\*

INPUT

Description:									
Station	Elevation	Data	num=	120					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	194.87	791.9	634.02	775.12	1335.73	761.15	1512.31	753.26
1794.31	746.31	1959.69	744.15	2305.51	744.15	2635.64	742.56	3522.31	722.93
3593.22	719.12	3683.33	715.85	3694.5	715.68	3893.62	716.83	4071.24	714.15
4212.42	711.33	4364.01	707.01	4734.54	698	5186.12	691.32	5522.19	689.21
5666.8	687.74	5824.17	681.28	5891.87	675.17	6250.5	673.79	6596.01	676.62
6735.39	678.3	6953.13	666.6	7117.81	660.75	7188.26	654.9	7236.75	654.9
7385.55	658.98	7600.78	669.04	7663.09	669.02	7791.17	671.31	8150.72	667.17
8198.11	670	8351.08	676.45	8641.1	663.28	8635.04	661.77	8825.91	650.3
8963.14	649.79	9214.73	660.53	9387.65	659.88	9568.79	647.5	9753.03	643.67
9895.75	632.94	9912.79	632.65	10001.54	620.95	10168.04	603	410224.77	603.4
10266.35	608.73	10391.8	637	2810498.32	650.95	10882.1	645.97	11038.62	639.79
11093.87	634.93	11304.49	632.19	11554.24	637.25	11851.44	633	412479.96	627.55
13927.47	627.55	14165.72	623	414778.16	623	415249.32	629	2515308.79	635.1
15599.78	630.88	15606.69	626	6315712.25	624	7716364.57	599.3	16919.9	591.7
17004.97	585.14	17304.5	582	6217381.78	576	1217503.39	567	5617980.71	567.56
18103.1	571.75	18220.45	591.7	18306.8	608.97	18325.3	611	2318557.43	628.66
18985.92	634.54	19409.75	635	621465.84	630	7521578.04	630	7521801.51	631.61
22142.26	628.76	23102.7	632	4523353.31	638	324984.92	644	1525357.24	646.93
25769.27	651.35	26402.62	665	13	26620.7	665	8527705.82	665	8528324.41
28591.03	661.72	29149.93	655	8529381.37	652	45	29548.4	650	6629684.71
29829.42	645.92	30115.69	652	9130428.93	655	631498.09	673	0132144.84	676
33087.28	709.42	33226.2	710	0633826.96	687	9533860.75	688	135412.39	728.49
36428.21	729.71	36620.47	733	2136963.09	748	9337003.46	749	8137301.96	752.12
37624.86	763.27	37778.8	766	638532.74	790	39210.29	793	8939551.98	800

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.15	16919.9	.1518220.45		.15

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	16919.91	18220.45		5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	759.83	Element	0.150	0.150	0.150
Vel Head (ft)	0.06	wt. n-val.	5.00	5.00	5.00
W.S. Elev (ft)	759.77	Reach Len. (ft)	1506990.00	239969.60	1802004.00
Crit W.S. (ft)		Flow Area (sq ft)	1506990.00	239969.60	1802004.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	2790941.00	682277.80	3256782.00
Q Total (cfs)	6730000.00	Flow (cfs)	15553.39	1300.55	19303.18
Top Width (ft)	36157.11	Top Width (ft)	1.85	2.84	1.81
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	96.89	184.51	93.35
Max Chl Dpth (ft)	192.21	Hydr. Depth (ft)	314745300.0	76943150.0	367280100.0
Conv. Total (cfs)	758968600.0	Conv. (cfs)	15566.57	1303.14	19308.51
Length Wtd. (ft)	5.00	Wetted Per. (ft)	0.48	0.90	0.46
Min Ch El (ft)	567.56	Shear (lb/sq ft)	0.88	2.57	0.83
Alpha	1.06	Stream Power (lb/ft s)	89204.56	16456.69	107531.40
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	776.01	77.02	910.15
C & E Loss (ft)	0.00	Cum SA (acres)			

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275177.\*

INPUT

Description:									
Station	Elevation	Data	num=	120					

SS_Rev3.rep											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
1794.71	746.31	1960.13	744.14	2306.03	744.14	2636.23	742.55	3523.1	722.95		
3594.03	719.14	3684.16	715.86	3695.33	715.69	3894.49	716.82	4072.16	714.14		
4213.37	711.31	4364.99	706.99	4735.6	697.98	5187.28	691.3	5523.43	689.19		
5668.08	687.72	5825.47	681.26	5893.19	675.13	6251.9	673.75	6597.49	676.6		
6736.9	678.28	6956.69	666.36	7119.41	660.7	7189.87	654.84	7238.37	654.84		
7387.21	658.93	7602.48	668.99	7664.8	668.97	7792.92	671.28	8152.55	667.17		
8199.95	670.02	8352.95	676.51	8643.04	663.37	8656.98	661.86	8827.89	650.38		
8965.15	649.86	9216.8	660.63	9389.75	659.98	9570.94	647.57	9755.21	643.74		
9897.96	633.03	9915.01	632.7410003	7.8	621.0210170	.32	603.4410227	.06	603.44		
10268.65	608.7810394	.13	637.3310500	.67	651.0210884	.54	646.03	11041.1	639.86		
11096.36		63511307.02	632.2711556	.83	637.311854	.09	633.4412482	.76	627.58		
13930.59	627.5814168	.89	623.4414781	.47	623.4415252	.74	629.315312	.22	635.16		
15603.28	630.9315610	.19	626.6915715	.78	624.8316368	.24	599.33	16923.7	591.72		
17008.9	585.1517308	.92	582.6417386	.32	576.1317508	.12	567.5617985	.69	567.56		
18108.26	571.7518225	.76	591.7218312	.11	608.9718330	.61	611.2218562	.71	628.62		
18991.15	634.519414	.94	635.5621470	.79	630.721582	.98	630.721806	.43	631.56		
22147.13	628.7323107	.47	632.4223358	.05	638.2824989	.48	644.1425361	.76	646.92		
25773.74	651.3526407	.02	665.1526625	.08	665.8627710	.08	665.86	28328.6	661.72		
28595.19	661.7229154	.03	655.8629385	.44	652.4629552	.45	650.6629688	.75	645.34		
29833.44	645.9130119	.67	652.930432	.89	655.5931501	.93	672.98	32148.6	675.98		
33090.94	709.333229	.84	709.9833830	.54	687.9333864	.32	688.0835415	.79	728.4		
36431.5	729.6436623	.73	733.1536966	.32	748.8637006	.68	749.7437305	.14	752.08		
37628.01	763.2237781	.94	766.5638535	.79	79039213	.27	793.939554	.91	800		

Manning's n Values	num=	3
Sta n Val	Sta n Val	Sta n Val
0 .15 16923.7	.1518225.76	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16923.718225.76		5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1507004.00	240235.50	1802348.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1507004.00	240235.50	1802348.00
Q Total (cfs)	6730000.00	Flow (cfs)	2789947.00	682859.10	3257194.00
Top Width (ft)	36161.35	Top Width (ft)	15556.91	1302.06	19302.38
Vel total (ft/s)	1.90	Avg. Vel. (ft/s)	1.85	2.84	1.81
Max chl Dpth (ft)	192.21	Hydr. Depth (ft)	96.87	184.50	93.37
Conv. Total (cfs)	759135500.0	Conv. (cfs)	314702500.0	77025650.0	367407300.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15570.11	1304.66	19307.70
Min Ch El. (ft)	567.56	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.88	2.57	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	89031.59	16429.13	107324.50
C & E Loss (ft)	0.00	Cum SA (acres)	774.23	76.87	907.94

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275174.\*

INPUT

Description:										
Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev
0	800	194.96	791.89	634.3	775.09	1336.33	761.15	1512.98	753.25	
1795.11	746.3	1960.56	744.13	2306.55	744.13	2636.82	742.54	3523.89	722.96	
3594.83	719.16	3684.98	715.87	3696.16	715.7	3895.36	716.82	4073.07	714.13	
4214.31	711.3	4365.96	706.97	4736.66	697.96	5188.44	691.29	5524.67	689.17	
5669.35	687.7	5826.78	681.23	5894.51	675.1	6253.3	673.72	6598.97	676.57	
6738.41	678.26	6956.25	666.52	7121.01	660.65	7191.48	654.78	7239.99	654.78	
7388.87	658.88	7604.19	668.93	7666.52	668.93	7794.66	671.25	8154.38	667.18	
8201.79	670.04	8354.83	676.57	8644.97	663.46	8658.92	661.94	8829.86	650.45	
8967.16	649.93	9218.87	660.72	9391.86	660.07	9573.08	647.65	9757.4	643.82	
9900.18	633.12	9917.24	632.8310006	.02	621.09	10172.6	603.4810229	.35	603.48	
10270.95	608.8310396	.46	637.3810503	.03	651.0910886	.98	646.111043	.57	639.93	
11098.84	635.0811309	.56	632.3411539	.42	637.3511856	.75	633.4812485	.56	627.61	
13933.72	627.6114172	.07	623.4814784	.78	623.4815256	.16	629.3515315	.65	635.22	
15606.78	630.9915613	.68	626.76	15719.3	624.8916371	.91	599.3616927	.49	591.74	
17012.83	585.1617313	.33	582.6617390	.86	576.1417512	.86	567.5517990	.67	567.55	
18113.41	571.7418231	.08	591.7418317	.42	608.9618335	.91	611.2218567	.99	628.58	
18996.38	634.4719420	.12	635.5221475	.75	630.6521587	.92	630.6521811	.35	631.51	
22152.01	628.6923112	.24	632.3923362	.79	638.2624994	.04	644.1325366	.28	646.92	
25778.21	651.3526411	.42	665.1626629	.46	665.8727714	.33	665.8728332	.79	661.74	
28599.35	661.7429158	.12	655.8729389	.51	652.46	29556.5	650.6629692	.79	645.33	
29837.46	645.930123	.66	652.930436	.84	655.5931505	.76	672.9532152	.37	675.95	
33094.59	709.2533233	.48	709.9833834	.11	687.9133867	.89	688.0635419	.19	728.32	
36434.79	729.57	36627	733.0936969	.54	748.7937009	.89	749.6737308	.33	752.03	
37631.16	763.1737785	.07	766.5238538	.84	79039216	.24	793.939557	.84	800	

Manning's n Values	num=	3
Sta n Val	Sta n Val	Sta n Val
0 .1516927.49	.1518231.08	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16927.4918231.08		5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1507010.00	240511.60	1802680.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1507010.00	240511.60	1802680.00
Q Total (cfs)	6730000.00	Flow (cfs)	2788945.00	683483.90	3257571.00
Top Width (ft)	36165.63	Top Width (ft)	15560.39	1303.59	19301.66
Vel total (ft/s)	1.90	Avg. Vel. (ft/s)	1.85	2.84	1.81
Max chl Dpth (ft)	192.22	Hydr. Depth (ft)	96.85	184.50	93.40
Conv. Total (cfs)	759300100.0	Conv. (cfs)	314657700.0	77112830.0	367529600.0

Length wtd. (ft)	5.00	Wetted Per. (ft)	15573.59	SS_Rev3.rep	1306.19	19306.97
Min Ch El (ft)	567.55	Shear (lb/sq ft)	0.47		0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.88		2.57	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	88858.60	16401.54		107117.60
C & E Loss (ft)	0.00	Cum SA (acres)	772.44	76.72		905.72

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275171.\*

INPUT

Description:  
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	195	791.88	634.44	775.08	1336.63	761.14	1513.32	753.24
1795.52	746.29	1961	744.12	2307.06	744.12	2637.42	742.52	3524.68	722.98
3595.64	719.17	3685.81	715.88	3696.99	715.71	3896.23	716.81	4079.98	714.12
4215.26	711.28	4366.94	706.96	4737.72	697.94	5189.6	691.27	5525.9	689.15
5670.62	687.69	5828.08	681.2	5895.83	675.06	6254.71	673.69	6600.45	676.55
6739.92	678.24	6957.81	666.48	7122.6	660.6	7193.1	654.72	7241.62	654.72
7390.52	658.82	7605.89	668.88	7668.24	668.88	7796.41	671.23	8156.2	667.19
8203.63	670.05	8356.7	676.62	8646.91	663.55	8660.86	662.03	8831.84	650.52
8969.17	650	9220.93	660.82	9393.96	660.17	9575.23	647.73	9759.59	643.89
9902.4	633.21	9919.46	632.9210008	26	621.1610174	88	603.5210231	64	603.52
10273.25	608.8810398	79	637.4210505	38	651.1610889	42	646.1611046	05	640
11101.33	635.1611312	09	632.4111562	01	637.3911859	41	633.5212488	36	627.64
13936.84	627.6414175	24	623.5214788	09	623.5215259	58	629.415319	09	635.28
15610.27	631.0415617	18	626.8215722	82	624.9516375	58	599.3816931	28	591.76
17016.76	585.1717317	74	582.6817395	39	576.1517517	59	567.5517995	65	567.55
18118.56	571.74	18236.4	591.7618322	73	608.9618341	22	611.2218573	27	628.55
19001.61	634.4319425	31	635.4821480	71	630.621592	87	630.621816	27	631.46
22156.89	628.6623117	01	632.3623367	54	638.24	24998.6	644.12	25370.8	646.91
25782.69	651.3426415	83	665.1726633	84	665.8827718	59	665.8828336	98	661.76
28603.51	661.7629162	22	655.8829393	58	652.4629560	55	650.6629696	82	645.31
29841.48	645.8830127	65	652.8930440	79	655.5831509	59	672.9232156	13	675.93
33098.25	709.1633237	12	709.8133837	68	687.8833871	46	688.0435422	58	728.23
36438.07	729.536630	26	733.0336972	77	748.7237013	11	749.637311	52	751.98
37634.31	763.13	37788.2	766.4838541	89	79039219	21	793.9139560	78	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516931	28	.15	18236.4	.15

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

16931.28	18236.4	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)	0.000079	Flow Area (sq ft)	1507036.00	240780.80	1803038.00
E.G. Slope (ft/ft)	0.000079	Area (sq ft)	1507036.00	240780.80	1803038.00
Q Total (cfs)	6730000.00	Flow (cfs)	2787936.00	684065.70	3257998.00
Top width (ft)	36169.94	Top width (ft)	15564.08	1305.12	19300.74
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)	1.85	2.84	1.81
Max Chl Dpth (ft)	192.22	Hydr. Depth (ft)	96.83	184.49	93.42
Conv. Total (cfs)	759476200.0	Conv. (cfs)	314616800.0	77196380.0	367663000.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	15577.30	1307.72	19306.04
Min Ch El (ft)	567.55	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.88	2.56	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	88685.62	16373.92	106910.70
C & E Loss (ft)	0.00	Cum SA (acres)	770.66	76.57	903.50

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275168.\*

INPUT

Description:  
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	195.05	791.88	634.58	775.07	1336.93	761.14	1513.66	753.23
1795.92	746.29	1961.44	744.11	2307.58	744.11	2638.01	742.51	3525.47	723
3596.44	719.19	3686.63	715.89	3697.82	715.72	3897.11	716.81	4074.89	714.11
4216.2	711.27	4367.92	706.94	4738.78	697.92	5190.77	691.26	5527.14	689.13
5671.89	687.67	5829.39	681.17	5897.15	675.03	6256.11	673.65	6601.93	676.53
6741.43	678.22	6959.37	666.44	7124.2	660.55	7194.71	654.66	7243.24	654.66
7392.18	658.77	7607.59	668.83	7669.96	668.84	7798.16	671.2	8158.03	667.19
8205.47	670.07	8358.57	676.68	8648.85	663.64	8662.8	662.12	8833.82	650.59
8971.18	650.08	9223	660.91	9396.07	660.27	9577.38	647.81	9761.77	643.97
9904.62	633.3	9921.68	633.01	10010.5	621.2310177	16	603.5610233	94	603.56
10275.55	608.9310401	12	637.4710507	73	651.2310891	83	646.2211048	52	640.06
11103.82	635.2311314	63	632.48	11564.6	637.4411862	06	633.5612491	15	627.67
13939.96	627.6714178	42	623.5614791	41	623.56	15263	629.4515322	52	635.34
15613.77	631.0915620	68	626.8815726	34	625.0116379	24	599.4116935	08	591.78
17020.69	585.1817322	15	582.6917399	93	576.1617522	33	567.5518000	63	567.55
18123.71	571.7418241	71	591.7818328	03	608.9618346	53	611.2118578	55	628.51
19006.84	634.419430	49	635.4321485	66	630.5521597	81	630.5521821	18	631.41
22161.77	628.6223121	78	632.3323372	28	638.2225003	17	644.1125375	32	646.91
25787.16	651.3426420	23	665.1826638	22	665.8927722	85	665.8928341	16	661.78
28607.67	661.7829166	32	655.8929397	65	652.4729564	61	650.6629700	86	645.3
29845.5	645.8730131	64	652.8830444	75	655.5731513	43	672.8932159	89	675.91
33101.91	709.0733240	77	709.7233841	26	687.8633875	04	688.0235425	98	728.14
36441.35	729.4236633	52	732.9636975	99	748.6537016	33	749.53	3734.7	751.93
37637.46	763.0837791	34	766.4438544	94	79039222	19	793.9239563	71	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516935	08	.1518241	71	.15

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Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16935.0818241.71 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
w.s. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1507043.00	241048.10	1803412.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507043.00	241048.10	1803412.00
Q Total (cfs)	6730000.00	Flow (cfs)	2786895.00	684646.90	3258458.00
Top Width (ft)	36174.26	Top Width (ft)	15567.61	1306.63	19300.02
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.85	2.84	1.81
Max Chl Dpth (ft)	192.22	Hydr. Depth (ft)	96.81	184.48	93.44
Conv. Total (cfs)	759650800.0	Conv. (cfs)	314571600.0	77279730.0	367799400.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15580.83	1309.23	19303.31
Min Ch El (ft)	567.55	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.88	2.56	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	88512.63	16346.26	106703.70
C & E Loss (ft)	0.00	Cum SA (acres)	768.87	76.42	901.29

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275165.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	195.09	791.87	634.73	775.06	1337.23	761.14	1514	753.22
1796.32	746.28	1961.88	744.1	2308.1	744.1	2638.6	742.5	3526.26	723.01
3597.25	719.2	3687.46	715.9	3698.64	715.73	3897.98	716.8	4075.81	714.1
4217.15	711.25	4368.9	706.92	4739.84	697.9	5191.93	691.24	5528.38	689.12
5673.16	687.65	5830.69	681.15	5898.47	674.99	6257.51	673.62	6603.41	676.5
6742.94	678.2	6960.93	666.4	7125.79	660.5	7196.32	654.6	7244.86	654.6
7393.83	658.72	7609.3	668.78	7671.68	668.79	7799.9	671.17	8159.86	667.2
8207.3	670.09	8360.44	676.74	8650.79	663.73	8664.74	662.21	8835.8	650.66
8973.19	650.15	9225.06	661.01	9398.17	660.36	9579.52	647.89	9763.96	644.04
9906.84	633.39	9923.9	633.110012.75	621.310179.44	603.610236.23	603.6			
10277.85	608.9810403.45	637.5210510.09	651.310894.29	646.28	11051	640.13			
11106.3	635.3111317.16	632.5511567.19	637.4911864.72	633.612493.95	627.7				
13943.08	627.714181.59	623.614794.72	623.615266.42	629.515325.95	635.4				
15617.27	631.1415624.18	626.9415729.87	625.0716382.91	599.4316938.87	591.8				
17024.62	585.1917326.57	582.7117404.47	576.1717527.06	567.5518005.61	567.55				
18128.86	571.7318247.03	591.818333.34	608.9618351.83	611.2118583.83	628.47				
19012.08	634.3619435.68	635.3921490.61	630.521602.75	630.5	21826.1	631.36			
22166.65	628.5823126.55	632.323377.03	638.225007.73	644.125379.84	646.9				
25791.64	651.3426424.63	665.19	26642.6	665.927727.11	665.928345.35	661.8			
28611.83	661.829170.41	655.929401.72	652.4729568.66	650.65	29704.9	645.29			
29849.52	645.8530135.63	652.87	30448.7	655.5631517.26	672.8632163.65	675.88			
33105.56	708.9933244.41	709.6433844.83	687.8433878.61	68835429.38	728.05				
36444.64	729.3536636.79	732.936979.21	748.5837019.55	749.4637317.89	751.88				
37640.61	763.0437794.47	766.438547.99	79039225.16	793.9239566.65	800				

Manning's n values num= 3  
 Sta n Val Sta n Val  
 0 .1516938.87 .1518247.03 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16938.8718247.03 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
w.s. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1507065.00	241318.00	1803774.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507065.00	241318.00	1803774.00
Q Total (cfs)	6730000.00	Flow (cfs)	2785886.00	685228.90	3258885.00
Top Width (ft)	36178.38	Top Width (ft)	15571.12	1308.16	19299.10
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.85	2.84	1.81
Max Chl Dpth (ft)	192.22	Hydr. Depth (ft)	96.79	184.47	93.46
Conv. Total (cfs)	759829800.0	Conv. (cfs)	314531800.0	77363660.0	367934300.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15584.36	1310.77	19304.37
Min Ch El (ft)	567.55	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.88	2.56	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	88339.65	16318.58	106496.70
C & E Loss (ft)	0.00	Cum SA (acres)	767.08	76.27	899.07

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275162.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	195.13	791.87	634.87	775.04	1337.53	761.14	1514.34	753.21
1796.72	746.27	1962.32	744.09	2308.61	744.09	2639.19	742.49	3527.05	723.03
3598.05	719.22	3688.29	715.91	3699.47	715.74	3898.85	716.8	4076.72	714.09
4218.09	711.24	4369.88	706.91	4740.9	697.88	5193.09	691.23	5529.62	689.1
5674.43	687.63	5832	681.12	5899.79	674.95	6258.91	673.59	6604.88	676.48
6744.45	678.18	6962.49	666.36	7127.39	660.45	7197.93	654.54	7246.48	654.54
7395.49	658.67	7611	668.72	7673.39	668.74	7801.65	671.15	8161.68	667.21
8209.14	670.1	8362.31	676.79	8652.72	663.81	8666.68	662.3	8837.78	650.73
8975.2	650.22	9227.13	661.11	9400.27	660.46	9581.67	647.97	9766.15	644.11
9909.05	633.48	9926.12	633.1910014.99	621.3710181.72	603.6410238.52	603.64			
10280.15	609.0310405.78	637.5610512.44	651.3710896.73	646.3411053.47	640.2				
11108.79	635.39	11319.7	632.6311569.78	637.5311867.38	633.6412496.75	627.73			



SS_Rev3.rep					
13946.21	627.7314184.77	623.6414798.03	623.6415269.83	629.5515329.38	635.46
15620.76	631.215627.68	627.0115733.39	625.1316386.58	599.4616942.66	591.82
17028.55	585.2117330.98	582.7317409.01	576.1817531.79	567.5518010.59	567.55
18134.01	571.7318252.35	591.8218338.65	608.9618357.14	611.2118589.11	628.44
19017.31	634.3319440.86	635.3521495.57	630.4521607.69	630.4521831.02	631.32
22171.53	628.5523131.33	632.2723381.77	638.1825012.29	644.0925384.36	646.9
25796.11	651.3326429.04	665.226646.98	665.9127731.37	665.9128349.54	661.82
28615.98	661.8229174.51	655.9129405.79	652.4829572.71	650.6529708.94	645.27
29853.54	645.8430139.62	652.8730452.65	655.5631521.1	672.8332167.41	675.86
33109.22	708.933248.05	709.5533848.41	687.8233882.18	687.9835432.77	727.96
36447.92	729.2836640.05	732.8436982.44	748.5137022.77	749.437321.07	751.84
37643.76	762.9937797.6	766.3638551.04	79039228.13	793.9339569.59	800

Manning's n Values			
Sta	n Val	Sta	n Val
0	.1516942.66	.1518252.35	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
16942.66	18252.35		5	5	5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507069.00	241584.80	1804103.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507069.00	241584.80	1804103.00
Q Total (cfs)	6730000.00	Flow (cfs)	2784897.00	685815.00	3259288.00
Top Width (ft)	36182.61	Top width (ft)	15574.63	1309.69	19298.29
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.85	2.84	1.81
Max Chl Dpth (ft)	192.22	Hydr. Depth (ft)	96.76	184.46	93.49
Conv. Total (cfs)	75998700.0	Conv. (cfs)	314486000.0	77446010.0	368056700.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	15587.88	1312.30	19303.55
Min Ch El (ft)	567.55	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.87	2.56	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	88166.66	16290.86	106289.60
C & E Loss (ft)	0.00	Cum SA (acres)	765.29	76.12	896.86

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275159.\*

INPUT

Description:									
Station	Elevation	Data	num=	120					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	195.18	791.86	635.01	775.03	1337.83	761.13	1514.68	753.21
1797.12	746.27	1962.76	744.08	2309.13	744.08	2639.78	742.47	3527.84	723.05
3598.86	719.23	3689.11	715.92	3700.3	715.75	3899.73	716.79	4077.63	714.08
4219.03	711.23	4370.85	706.89	4741.97	697.86	5194.25	691.21	5530.85	689.08
5675.7	687.61	5833.3	681.09	5901.11	674.92	6260.31	673.55	6606.36	676.46
6745.96	678.16	6964.05	666.32	7128.98	660.4	7199.54	654.48	7248.11	654.48
7397.14	658.61	7612.71	668.67	7675.11	668.7	7803.4	671.12	8163.51	667.21
8210.98	670.12	8364.19	676.85	8654.66	663.9	8668.62	662.39	8839.76	630.81
8977.21	650.3	9229.19	661.2	9402.38	660.56	9583.81	648.04	9768.33	644.19
9911.27	633.57	9928.35	633.28	10017.23	621.44	10184	603.68	10240.81	603.68
10282.46	609.08	10408.11	637.61	110514.79	651.44	110899.17	646.41	11055.95	640.27
11111.28	635.46	11322.23	632.71	11572.37	637.58	11870.03	633.68	12499.55	627.76
13949.33	627.73	14187.95	623.68	14801.35	623.68	15273.25	629.61	15332.81	635.52
15624.26	631.25	15631.18	627.07	15736.91	625.19	16390.25	599.49	16946.46	591.84
17032.48	585.22	17335.39	582.75	17413.54	576.19	17536.53	567.55	18015.57	567.55
18139.16	571.72	18257.66	591.84	18343.96	608.96	18362.44	611.21	18594.39	628.4
19022.54	634.29	19446.04	635.31	21500.52	630.42	21612.63	630.42	21835.93	631.27
22176.41	628.51	23136.1	632.24	23386.52	638.16	25016.85	644.08	25388.88	646.89
25800.59	651.33	26433.44	665.22	26651.36	665.92	27735.62	665.92	28353.73	661.84
28620.14	661.84	29178.61	655.92	29409.86	652.48	29576.76	650.65	29712.97	645.26
29857.56	645.83	30143.61	652.86	30456.61	655.53	31524.93	672.83	32171.18	675.83
33112.88	708.81	33251.69	709.47	33851.98	687.83	33885.75	687.96	35436.17	727.88
36451.2	729.21	36643.31	732.77	36985.66	748.44	37025.99	749.33	37324.26	751.79
37646.91	762.95	37800.73	766.32	38554.09	79039231.11		793.94	39572.52	800

Manning's n Values			
Sta	n Val	Sta	n Val
0	.1516946.46	.1518257.66	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
16946.46	18257.66		5	5	5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507087.00	241851.40	1804456.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507087.00	241851.40	1804456.00
Q Total (cfs)	6730000.00	Flow (cfs)	2783887.00	686394.60	3259719.00
Top Width (ft)	36186.87	Top width (ft)	15578.31	1311.20	19297.37
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.85	2.84	1.81
Max Chl Dpth (ft)	192.22	Hydr. Depth (ft)	96.74	184.45	93.51
Conv. Total (cfs)	760159900.0	Conv. (cfs)	314442700.0	77528930.0	368188300.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	15591.56	1313.81	19302.62
Min Ch El (ft)	567.55	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.87	2.56	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	87993.67	16263.12	106082.50
C & E Loss (ft)	0.00	Cum SA (acres)	763.51	75.97	894.64

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275156.\*

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INPUT

Description:  
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	195.22	791.86	635.15	775.02	1338.13	761.13	1515.02	753.2
1797.53	746.26	1963.2	744.07	2309.65	744.07	2640.37	742.46	3528.63	723.07
3599.67	719.25	3689.94	715.93	3701.13	715.76	3900.6	716.79	4078.54	714.07
4219.98	711.21	4371.83	706.87	4743.03	697.85	5195.42	691.2	5532.09	689.06
5676.97	687.59	5834.61	681.07	5902.43	674.88	6261.71	673.52	6607.84	676.44
6747.47	678.14	6965.6	666.28	7130.58	660.35	7201.15	654.42	7249.73	654.42
7398.8	658.56	7614.41	668.62	7676.83	668.65	7805.14	671.09	8165.34	667.22
8212.82	670.14	8366.06	676.91	8656.6	663.99	8670.56	662.48	8841.74	650.88
8979.21	650.37	9231.26	661.3	9404.48	660.65	9585.96	648.12	9770.52	644.26
9913.49	633.66	9930.57	633.37	10019.47	621.51	10186.28	603.72	10243.11	603.72
10284.76	609.13	10410.43	637.66	10517.15	651.53	10901.61	646.46	11058.42	640.34
11113.76	635.54	11324.76	632.77	11574.96	637.63	11872.69	633.72	12502.34	627.99
13952.45	627.79	14191.12	623.72	14804.66	623.72	15276.67	629.65	15336.25	635.58
15627.76	631.31	15634.68	627.13	15740.43	625.25	15639.92	599.51	15690.25	591.86
17036.41	585.23	17339.81	582.76	17418.08	576.21	17541.26	567.55	18020.55	567.55
18144.32	571.72	18262.98	591.86	18349.26	608.95	18367.75	611.21	18599.67	628.36
19027.77	634.26	19451.23	635.27	19505.48	630.35	19617.58	630.35	19840.85	631.22
22181.29	628.47	23140.87	632.21	23391.26	638.14	25021.41	644.07	25393.4	646.88
25805.06	651.33	26437.84	665.23	26655.73	665.93	27739.88	665.93	28357.92	661.86
28624.3	661.86	29182.7	655.93	29413.93	652.49	29580.81	650.65	29717.01	645.25
29861.58	645.81	30147.6	652.85	30460.56	655.54	31528.77	672.77	32174.94	675.81
33116.54	708.73	33255.33	709.38	33855.55	687.78	33889.32	687.94	34539.57	727.79
36454.49	729.14	36646.57	732.71	36988.89	748.37	37029.21	749.26	37327.45	751.74
37650.06	762.93	37803.87	766.28	38557.13	790	39234.08	793.94	39575.45	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	16950.25	.15	18262.98	.15

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

16950.25	18262.98	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507094.00	242122.50	1804807.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507094.00	242122.50	1804807.00
Q Total (cfs)	6730000.00	Flow (cfs)	2782872.00	686990.80	3260137.00
Top width (ft)	36191.19	Top width (ft)	15581.82	1312.73	19296.64
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.85	2.84	1.81
Max chl Dpth (ft)	192.22	Hydr. Depth (ft)	96.72	184.44	93.53
Conv. Total (cfs)	760328100.0	Conv. (cfs)	314397600.0	77613440.0	368317100.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15595.08	1315.34	19301.88
Min Ch El (ft)	567.5	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.87	2.55	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	87820.68	16235.34	105875.40
C & E Loss (ft)	0.00	Cum SA (acres)	761.72	75.82	892.43

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275153.\*

INPUT

Description:  
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	195.26	791.86	635.3	775.01	1338.43	761.13	1515.36	753.19
1797.93	746.26	1963.64	744.06	2310.16	744.06	2640.96	742.45	3529.42	723.08
3600.47	719.26	3690.76	715.94	3701.96	715.77	3901.47	716.78	4079.46	714.06
4220.92	711.2	4372.81	706.86	4744.09	697.83	5196.58	691.18	5533.33	689.04
5678.24	687.57	5835.92	681.04	5903.75	674.84	6263.11	673.49	6609.32	676.41
6748.98	678.12	6967.16	666.24	7132.18	660.3	7202.76	654.36	7251.35	654.36
7400.46	658.51	7616.11	668.56	7678.55	668.61	7806.89	671.06	8167.17	667.23
8214.66	670.16	8367.93	676.96	8658.53	664.08	8672.5	662.56	8843.71	650.95
8981.22	650.44	9233.33	661.39	9406.59	660.75	9588.1	648.2	9772.71	644.34
9915.71	633.75	9932.79	633.46	10021.71	621.58	10188.56	603.76	10245.4	603.76
10287.06	609.18	10412.76	637.7	10519.5	651.58	10904.05	646.53	11060.89	640.4
11116.25	635.62	11327.3	632.84	11577.55	637.67	11875.35	633.76	12505.14	627.82
13955.57	627.82	14194.3	623.76	14807.97	623.76	15280.09	629.71	15339.68	635.64
15631.25	631.36	15638.17	627.19	15743.96	625.31	16397.59	599.54	16954.04	591.88
17040.34	585.24	17344.22	582.78	17422.62	576.21	17546	567.55	18025.53	567.55
18149.47	571.72	18268.3	591.88	18354.57	608.95	18373.05	611.21	18604.95	628.33
19033	634.22	19456.41	635.22	19510.43	630.32	19622.52	630.32	19845.77	631.17
22186.17	628.44	23145.64	632.18	23396	638.12	25025.97	644.06	25397.92	646.88
25809.53	651.32	26442.25	665.24	26660.11	665.94	27744.14	665.94	28362.11	661.88
28628.46	661.88	29186.8	655.94	29418	652.49	29584.87	650.65	29721.04	645.24
29865.61	645.83	30151.58	652.85	30464.52	655.53	31532.6	672.74	32178.7	675.79
33120.19	708.64	33258.97	709.29	33859.13	687.76	33892.89	687.92	34542.96	727.7
36457.77	729.07	36649.84	732.65	36992.11	748.33	37032.43	749.19	37330.63	751.69
37653.21	762.85	37807	766.24	38560.18	790	39237.05	793.95	39578.39	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	16954.04	.15	18268.3	.15

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

16954.04	18268.3	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507110.00	242391.40	1805167.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507110.00	242391.40	1805167.00
Q Total (cfs)	6730000.00	Flow (cfs)	2781867.00	687571.90	3260561.00
Top width (ft)	36195.51	Top width (ft)	15585.33	1314.26	19295.92

Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.85	2.84	1.81
Max Chl Dpth (ft)	192.22	Hydr. Depth (ft)	96.70	184.43	93.55
Conv. Total (cfs)	760501900.0	Conv. (cfs)	314355900.0	77696840.0	368449200.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15598.61	1316.87	19301.15
Min Ch El (ft)	567.55	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.87	2.55	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	87647.69	16207.53	105668.20
C & E Loss (ft)	0.00	Cum SA (acres)	759.93	75.66	890.21

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CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275150.\*

INPUT

Description:  
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	195.31	791.85	635.44	774.99	1338.73	761.13	1515.7	753.18
1798.33	746.25	1964.08	744.05	2310.68	744.05	2641.55	742.44	3530.21	723.1
3601.28	719.28	3691.59	715.95	3702.79	715.78	3902.34	716.77	4080.37	714.05
4221.87	711.18	4373.79	706.84	4745.15	697.81	5197.74	691.17	5534.57	689.02
5679.51	687.55	5837.22	681.01	5905.08	674.81	6264.51	673.45	6610.8	676.39
6750.49	678.1	6968.72	666.2	7133.77	660.25	7204.38	654.3	7252.97	654.3
7402.11	658.45	7617.82	668.51	7680.27	668.56	7808.64	671.04	8168.99	667.24
8216.49	670.17	8369.8	677.02	8660.47	664.17	8674.44	662.65	8845.69	651.02
8983.23	650.51	9235.39	661.49	9408.69	660.85	9590.25	648.28	9774.89	644.41
9917.93	633.84	9935.01	633.55	10023.96	621.65	10190.84	603.81	10247.69	603.8
10289.36	609.23	10415.09	637.75	10521.85	651.65	10906.49	646.59	11063.37	640.47
11118.74	635.69	11329.83	632.92	11580.14	637.72	11878	633.81	12507.94	627.85
13958.69	627.85	14197.47	623.81	14811.29	623.81	15283.51	629.75	15343.11	635.7
15634.75	631.41	15641.67	627.26	15747.48	625.37	16401.25	599.56	16957.84	591.9
17044.27	585.25	17348.63	582.81	17427.16	576.22	17550.73	567.55	18030.51	567.55
18154.62	571.71	18273.62	591.91	18359.88	608.95	18378.36	611.21	18610.23	628.29
19038.23	634.19	19461.6	635.18	191515.39	630.25	19277.46	630.25	19850.69	631.12
22191.04	628.42	23150.41	632.15	23400.75	638.12	25030.54	644.05	25402.44	646.87
25814.01	651.32	26446.65	665.25	26664.49	665.95	27748.4	665.95	28366.3	661.9
28632.62	661.9	29190.9	655.95	29422.07	652.49	29588.92	650.65	29725.08	645.22
29869.63	645.78	30155.57	652.84	30468.47	655.53	31536.43	672.72	32182.46	675.76
33123.85	708.55	33262.62	709.21	33862.7	687.74	33896.46	687.93	3446.36	727.61
36461.05	728.99	36653.1	732.58	36995.33	748.23	37035.65	749.12	37333.82	751.65
37656.36	762.81	37810.13	766.23	38563.23	7903	39240.03	793.96	39581.32	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.1516957	84	.1518273

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

16957.84	18273.62	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507124.00	242659.30	1805520.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507124.00	242659.30	1805520.00
Q Total (cfs)	6730000.00	Flow (cfs)	2780855.00	688151.60	3260994.00
Top Width (ft)	36199.54	Top width (ft)	15588.85	1315.78	19294.90
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.85	2.84	1.81
Max Chl Dpth (ft)	192.22	Hydr. Depth (ft)	96.68	184.42	93.57
Conv. Total (cfs)	760675600.0	Conv. (cfs)	314313300.0	77780110.0	368582200.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15602.14	1318.39	19300.13
Min Ch El (ft)	567.55	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.87	2.55	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	87474.70	16179.70	105461.00
C & E Loss (ft)	0.00	Cum SA (acres)	758.14	75.51	888.00

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275147.\*

INPUT

Description:  
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	195.35	791.85	635.58	774.98	1339.03	761.12	1516.04	753.17
1798.73	746.24	1964.52	744.04	2311.2	744.04	2642.14	742.42	3531	723.12
3602.08	719.3	3692.41	715.96	3703.61	715.79	3903.22	716.77	4081.28	714.04
4222.81	711.17	4374.77	706.82	4746.21	697.79	5198.9	691.15	5535.81	689
5680.78	687.54	5838.53	680.98	5906.4	674.77	6265.92	673.42	6612.28	676.37
6752	678.08	6970.28	666.16	7135.37	660.2	7205.99	654.24	7254.59	654.24
7403.77	658.4	7619.52	668.46	7681.98	668.51	7810.38	671.01	8170.82	667.24
8218.33	670.19	8371.67	677.08	8662.41	664.26	8676.38	662.74	8847.67	651.09
8985.24	650.59	9237.46	661.58	9410.8	660.94	9592.39	648.36	9777.08	644.49
9920.15	633.94	9937.24	633.64	10026.2	621.72	10193.12	603.84	10249.98	603.84
10291.66	609.28	10417.42	637.81	10524.21	651.72	10908.93	646.65	11065.84	640.54
11121.23	635.77	11332.37	632.99	11582.74	637.77	11880.66	633.84	12510.74	627.88
13961.82	627.88	14200.65	623.84	14814.6	623.84	15286.93	629.81	15346.54	635.76
15638.25	631.46	15645.17	627.32	15751	625.44	16404.92	599.59	16961.63	591.92
17048.2	585.26	17353.05	582.82	17431.7	576.23	17555.46	567.54	18035.48	567.54
18159.77	571.71	18278.93	591.92	18365.19	608.95	18383.66	611.19	18615.51	628.25
19043.46	634.15	19466.78	635.14	191520.34	630.2	21632.4	630.2	21855.6	631.07
22195.92	628.37	23155.19	632.12	23405.49	638.08	25035.1	644.04	25406.96	646.87
25818.48	651.32	26451.05	665.26	26668.87	665.96	27752.65	665.96	28370.49	661.92
28636.78	661.92	29194.99	655.96	29426.14	652.52	29592.97	650.64	29729.12	645.21
29873.65	645.77	30159.56	652.83	30472.42	655.52	31540.27	672.69	32186.22	675.74
33127.5	708.47	33266.26	709.12	33866.28	687.72	33900.03	687.88	3449.76	727.52
36464.34	728.92	36656.36	732.52	36998.56	748.16	37038.87	749.05	37337	751.6
37659.52	762.76	37813.27	766.16	38566.28	790	39243	793.96	39584.26	800

SS\_Rev3.rep  
 Manning's n Values num= 3  
 Sta n Val Sta n Val  
 0 .1516961.63 .1518278.93 .15  
 Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16961.6318278.93 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507133.00	242932.10	1805867.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507133.00	242932.10	1805867.00
Q Total (cfs)	6730000.00	Flow (cfs)	2779835.00	688760.90	3261405.00
Top width (ft)	36204.04	Top width (ft)	15592.55	1317.30	19294.19
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.84	2.84	1.81
Max Chl Dpth (ft)	192.23	Hydr. Depth (ft)	96.66	184.42	93.60
Conv. Total (cfs)	760842000.0	Conv. (cfs)	314266700.0	77866010.0	368709300.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15605.85	1319.92	19299.41
Min Ch El (ft)	567.54	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.87	2.55	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	87301.70	16151.83	105253.70
C & E Loss (ft)	0.00	Cum SA (acres)	756.35	75.36	885.78

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275145.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	195.39	791.84	635.72	774.97	1339.33	761.12	1516.38	753.17
1799.14	746.24	1964.96	744.03	2311.72	744.03	2642.73	742.41	3531.79	723.13
3602.89	719.31	3693.24	715.97	3704.44	715.8	3904.09	716.76	4082.2	714.03
4223.76	711.15	4375.75	706.81	4747.27	697.77	5200.07	691.14	5537.04	688.99
5682.05	687.52	5839.83	680.96	5907.72	674.73	6267.32	673.39	6613.76	676.34
6753.51	678.06	6971.84	666.12	7136.96	660.15	7207.6	654.18	7256.22	654.18
7405.42	658.35	7621.23	668.41	7683.7	668.47	7812.13	670.98	8172.65	667.25
8220.17	670.21	8373.55	677.13	8664.35	664.34	8678.32	662.83	8849.65	651.16
8987.25	650.66	9239.52	661.68	9412.9	661.04	9594.54	648.44	9779.27	644.56
9922.37	634.03	9939.46	633.73	10028.44	621.79	10195.4	603.88	10252.27	603.88
10293.96	609.32	10419.75	637.84	10526.56	651.79	10911.37	646.71	11068.32	640.61
11123.71	635.85	11334.9	633.06	11585.33	637.81	11883.32	633.88	12513.54	627.91
13964.94	627.91	14203.82	623.88	14817.91	623.88	15290.34	629.85	15349.97	635.82
15641.75	631.51	15648.67	627.38	15754.52	625.51	16408.59	599.61	16965.42	591.94
17052.13	585.28	17357.46	582.84	17436.23	576.24	17560.2	567.54	18040.46	567.54
18164.92	571.71	18284.25	591.94	18370.49	608.95	18388.97	611.19	18620.79	628.22
19048.7	634.12	19471.96	635.12	19525.29	630.15	19637.35	630.15	19860.52	631.03
22200.8	628.33	23159.96	632.09	23410.23	638.06	25039.66	644.03	25411.48	646.86
25822.96	651.31	26455.46	665.27	26673.25	665.97	27756.91	665.97	28374.67	661.94
28640.94	661.94	29199.09	655.97	29430.21	652.52	29597.02	650.64	29733.16	645.2
29877.67	645.75	30163.55	652.82	30476.38	655.51	31544.1	672.66	32189.99	675.72
33131.16	708.38	33269.9	709.04	33869.85	687.7	33903.6	687.86	34543.16	727.44
36467.62	728.85	36659.62	732.46	37001.78	748.09	37042.09	748.98	37340.19	751.55
37662.66	762.72	37816.4	766.12	38569.33	790	39245.97	793.97	39587.2	800

Manning's n Values num= 3  
 Sta n Val Sta n Val  
 0 .1516965.42 .1518284.25 .15  
 Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16965.4218284.25 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507149.00	243200.40	1806206.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507149.00	243200.40	1806206.00
Q Total (cfs)	6730000.00	Flow (cfs)	2778852.00	689341.40	3261807.00
Top width (ft)	36208.11	Top width (ft)	15596.03	1318.83	19293.25
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.84	2.83	1.81
Max Chl Dpth (ft)	192.23	Hydr. Depth (ft)	96.64	184.41	93.62
Conv. Total (cfs)	761011500.0	Conv. (cfs)	314225500.0	77948980.0	368836900.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15609.33	1321.45	19298.46
Min Ch El (ft)	567.54	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.87	2.55	0.83
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	87128.71	16123.93	105046.40
C & E Loss (ft)	0.00	Cum SA (acres)	754.56	75.21	883.57

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275142.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	195.44	791.84	635.86	774.96	1339.63	761.12	1516.71	753.16
1799.54	746.23	1965.4	744.02	2312.23	744.02	2643.32	742.4	3532.58	723.15
3603.69	719.33	3694.07	715.98	3705.27	715.81	3904.96	716.76	4083.11	714.02
4224.7	711.14	4376.73	706.79	4748.33	697.75	5201.23	691.12	5538.28	688.97
5683.32	687.5	5841.14	680.93	5909.04	674.7	6268.72	673.35	6615.23	676.32
6755.02	678.04	6973.4	666.08	7138.56	660.1	7209.21	654.12	7257.84	654.12
7407.08	658.29	7622.93	668.35	7685.42	668.42	7813.88	670.95	8174.47	667.26
8222.01	670.22	8375.42	677.19	8666.28	664.43	8680.26	662.92	8851.63	651.23
8989.26	650.73	9241.59	661.77	9415	661.14	9596.68	648.51	9781.45	644.64

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9924.58	634.12	9941.68	633.8210030.68	621.8610197.68	603.9210254.57
10296.26	609.3710422.08		637.8910528.91	651.8610913.81	646.7711070.79
11126.2	635.9211337.43		633.1311587.92	637.8611885.97	633.9212516.33
13968.06	627.94	14207	623.9214821.22	623.9215293.76	629.9
15645.24	631.5715652.17		627.4415758.04	625.5616412.26	599.6416969.21
17056.06	585.2917361.88		582.8517440.77	576.2517564.93	567.5418045.44
18170.07	571.718289.57		591.96	18375.8	608.9418394.27
19053.93	634.0819477.15		635.0621530.25	630.121642.29	630.121865.44
22205.68	628.2923164.73		632.0623414.98	638.0425044.22	644.02
25827.43	651.3126459.86		665.2926677.63	665.9827761.17	665.9828378.86
28645.1	661.9629203.19		655.9829434.28	652.5129601.07	650.6429737.19
29881.69	645.7430167.54		652.8230480.33	655.531547.94	672.6332193.75
33134.82	708.333273.54		708.9533873.43	687.6833907.17	687.8435456.55
36470.91	728.7836662.88		732.4	37005	748.0237045.31
37665.82	762.6737819.53		766.0838572.38	79039248.95	793.9839590.13

Manning's n Values					
num=	3				
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516969.21		.1518289.57		.15

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	16969.21	18289.57		5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1507164.00	243470.80	1806557.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507164.00	243470.80	1806557.00
Q Total (cfs)	6730000.00	Flow (cfs)	2777854.00	689932.10	3262215.00
Top width (ft)	36212.43	Top width (ft)	15599.54	1320.36	19292.53
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.84	2.83	1.81
Max Chl Dpth (ft)	192.23	Hydr. Depth (ft)	96.62	184.40	93.64
Conv. Total (cfs)	761182100.0	Conv. (cfs)	314183100.0	78033280.0	368965700.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15612.86	1322.98	19297.72
Min Ch El (ft)	567.54	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.87	2.55	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	86955.71	16096.00	104839.10
C & E Loss (ft)	0.00	Cum SA (acres)	752.77	75.06	881.35

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275139.\*

INPUT

Description:											
Station Elevation Data											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	195.48	791.83	636.01	774.95	1339.93	761.11	1517.05	753.15		
1799.94	746.22	1965.84	744.01	2312.75	744.01	2643.91	742.38	3533.37	723.17		
3604.5	719.34	3694.89	715.99	3706.1	715.82	3905.84	716.75	4084.02	714.01		
4225.65	711.12	4377.7	706.77	4749.4	697.73	5202.39	691.11	5539.52	688.95		
5684.59	687.48	5842.44	680.9	5910.36	674.66	6270.12	673.32	6616.71	676.3		
6756.53	678.02	6974.96	666.04	7140.15	660.05	7210.82	654.06	7259.46	654.06		
7408.73	658.24	7624.63	668.3	7687.14	668.38	7815.62	670.93	8176.3	667.26		
8223.84	670.24	8377.29	677.25	8668.22	664.52	8682.2	663.01	8853.61	651.31		
8991.27	650.8	9243.65	661.87	9417.11	661.23	9598.83	648.59	9783.64	644.71		
9926.8	634.21	9943.9	633.9110032.92	621.9310199.96	603.9610256.86	603.96					
10298.57	609.4210424.41	637.9310531.27	651.9310916.25	646.8311073.27	640.74						
11128.69	63611339.97	633.2	11590.5	637.9111888.63	633.9612519.13	627.97					
13971.18	627.9714210.17	623.9614824.54	623.9615297.18	629.9515356.84	635.94						
15648.74	631.6215655.67	627.5115761.57	625.6216415.93	599.6716973.01	591.98						
17059.99	585.317366.29	582.8717445.31	576.2517569.67	567.5418050.42	567.54						
18175.22	571.6918294.88	591.9818381.11	608.9418399.58	611.1818631.34	628.14						
19059.16	634.0519482.33	635.0221535.21	630.0521647.23	630.0521870.35	630.93						
22210.56	628.26	23169.5	632.0323419.72	638.0225048.78	644.0125420.52	646.85					
25831.9	651.3126464.26	665.326682.01	665.9927765.43	665.9928383.05	661.98						
28649.26	661.9829207.28	655.9929438.36	652.5129605.12	650.6429741.23	645.17						
29885.71	645.7330171.53	652.8130484.29	655.531551.77	672.632197.51	675.67						
33138.48	708.2133277.18	708.87	33877	687.6633910.74	687.8235459.95	727.26					
36474.19	728.7136666.14	732.3337008.23	747.9537048.53	748.8537346.56	751.46						
37668.96	762.6337822.66	766.0438575.43	79039251.92	793.9839593.07	800						

Manning's n Values					
num=	3				
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516973.01		.1518294.88		.15

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	16973.01	18294.88		5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1507178.00	243738.50	1806895.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507178.00	243738.50	1806895.00
Q Total (cfs)	6730000.00	Flow (cfs)	2776851.00	690518.40	3262631.00
Top width (ft)	36216.63	Top width (ft)	15603.25	1321.87	19291.51
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.84	2.83	1.81
Max Chl Dpth (ft)	192.23	Hydr. Depth (ft)	96.59	184.39	93.66
Conv. Total (cfs)	761348900.0	Conv. (cfs)	314138500.0	78116700.0	369093700.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15616.57	1324.50	19296.70
Min Ch El (ft)	567.54	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.87	2.54	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	86782.71	16068.03	104631.70
C & E Loss (ft)	0.00	Cum SA (acres)	750.98	74.91	879.14

CROSS SECTION

SS\_Rev3.rep

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275136.\*

INPUT

Table with 12 columns: Station, Elev, Data, num=, Elev, Sta, Elev, Sta, Elev, Sta, Elev. Contains stationing and elevation data for profile #PF 1.

Table with 5 columns: Manning's n, Values, num=, n Val, Sta, n Val. Contains Manning's n values for the profile.

Table with 6 columns: Bank Sta, Left, Right, Lengths, Left, Channel, Right, Coeff, Contr., Expan. Contains bank stationing and expansion data.

CROSS SECTION OUTPUT Profile #PF 1

Table with 6 columns: E.G. Elev (ft), Vel Head (ft), w.S. Elev (ft), Crit w.S. (ft), E.G. Slope (ft/ft), Q Total (cfs), Top width (ft), Vel Total (ft/s), Max Chl Dpth (ft), Conv. Total (cfs), Length wtd. (ft), Min Ch El (ft), Alpha, Frctn Loss (ft), C & E Loss (ft). Contains detailed cross-section hydraulic data.

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275133.\*

INPUT

Table with 12 columns: Station, Elev, Data, num=, Elev, Sta, Elev, Sta, Elev, Sta, Elev. Contains stationing and elevation data for profile #PF 1.

Table with 5 columns: Manning's n, Values, num=, n Val, Sta, n Val. Contains Manning's n values for the profile.

Table with 6 columns: Bank Sta, Left, Right, Lengths, Left, Channel, Right, Coeff, Contr., Expan. Contains bank stationing and expansion data.

CROSS SECTION OUTPUT Profile #PF 1

Table with 6 columns: E.G. Elev (ft), Vel Head (ft), w.S. Elev (ft), Crit w.S. (ft), Left OB, Channel, Right OB. Contains detailed cross-section hydraulic data.

E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507197.00	244275.60	1807617.00
Q Total (cfs)	6730000.00	Flow (cfs)	2774824.00	691678.10	3263498.00
Top Width (ft)	36225.24	Top Width (ft)	15610.25	1324.93	19290.07
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.84	2.83	1.81
Max Chl Dpth (ft)	192.23	Hydr. Depth (ft)	96.55	184.37	93.71
Conv. Total (cfs)	761692100.0	Conv. (cfs)	314050700.0	78283170.0	369358200.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15623.59	1327.56	19295.23
Min Ch El (ft)	567.54	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.87	2.54	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	86436.71	16012.02	104216.80
C & E Loss (ft)	0.00	Cum SA (acres)	747.40	74.60	874.71

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275130.\*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	195.61	791.82	636.43	774.91	1340.82	761.11	1518.07	753.13				
1801.15	746.21	1967.15	743.98	2314.3	743.98	2645.69	742.35	3535.74	723.22				
3606.91	719.39	3697.37	716.02	3708.58	715.85	3908.45	716.74	4086.76	713.98				
4228.48	711.08	4380.64	706.72	4752.58	697.67	5205.88	691.06	5543.23	688.89				
5688.4	687.42	5846.36	680.82	5914.32	674.55	6274.32	673.22	6621.15	676.23				
6761.06	677.96	6979.63	665.92	7144.94	659.9	7215.65	653.88	7264.33	653.88				
7413.7	658.08	7629.75	668.14	7692.29	668.24	7820.86	670.85	8181.78	667.28				
8229.36	670.29	8382.91	677.42	8674.03	664.79	8688.02	663.27	8859.54	651.52				
8997.3	651.02	9249.85	662.15	9423.42	661.52	9605.26	648.83	9790.2	644.94				
9933.46	634.48	9950.57	634.1810039.65	622.1410206.79	604.0810263.73	604.08							
10305.47	609.57	10431.4	638.0710538.33	652.1410923.57	647.0211080.69	640.95							
11136.15	636.2311347.57		633.4211598.28	638.0511896.6	634.0812527.52	628.06							
13980.55	628.06	14219.7	624.0814834.48	624.0815307.44	630.115367.13	636.12							
15659.23	631.7815666.16		627.715772.13	625.816426.93	599.7416984.39	592.04							
17071.79	585.3417379.53		582.9217458.92	576.2817583.87	567.5418065.36	567.54							
18190.68	571.6818310.83		592.0418397.03	608.9418415.49	611.1818647.18	628.04							
19074.85	633.9419497.88		634.8921550.07	629.921662.05	629.921885.11	630.78							
22225.2	628.1523183.82		631.9423433.95	637.9625062.47	643.9825434.08	646.84							
25845.33	651.326477.47		665.3326695.14	666.0227778.2	666.0228395.62	662.04							
28661.73	662.0429219.57		656.0229450.57	652.5229617.28	650.6329753.34	645.13							
29897.7	645.6830183.49		652.7930496.15	655.4731563.28	672.5132208.8	675.6							
33149.45	707.9533288.11		708.6133887.72	687.633921.45	687.6335470.14	727							
36484.04	728.4936675.93		732.1437017.9	747.7437058.19	748.6437356.12	751.31							
37678.41	762.4937832.06		765.9238584.57	79039260.84	79439601.87	800							

Manning's n	Values	num=	3
Sta	n Val	Sta	n Val
0	.1516984.39	.1518310.83	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16984.39	18310.83		5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
w.s. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1507212.00	244541.80	1807964.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507212.00	244541.80	1807964.00
Q Total (cfs)	6730000.00	Flow (cfs)	2773830.00	692253.70	3263917.00
Top Width (ft)	36229.33	Top Width (ft)	15613.77	1326.44	19289.12
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.84	2.83	1.81
Max Chl Dpth (ft)	192.23	Hydr. Depth (ft)	96.53	184.36	93.73
Conv. Total (cfs)	761863600.0	Conv. (cfs)	314089000.0	78365950.0	369488700.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15627.12	1329.07	19294.27
Min Ch El (ft)	567.54	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.86	2.54	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	86263.71	15983.96	104009.30
C & E Loss (ft)	0.00	Cum SA (acres)	745.60	74.45	872.50

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275127.\*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev
0	800	195.66	791.81	636.57	774.9	1341.12	761.1	1518.41	753.12
1801.55	746.2	1967.59	743.97	2314.82	743.97	2646.28	742.33	3536.52	723.24
3607.72	719.4	3698.19	716.03	3709.41	715.86	3909.33	716.73	4087.67	713.97
4229.42	711.06	4381.62	706.7	4753.64	697.65	5207.04	691.05	5544.47	688.88
5689.67	687.41	5847.67	680.79	5915.64	674.51	6275.72	673.19	6622.63	676.21
6762.57	677.94	6981.19	665.88	7146.54	659.85	7217.27	653.82	7265.95	653.82
7415.36	658.03	7631.45	668.09	7694.01	668.19	7822.61	670.82	8183.61	667.29
8231.2	670.31	8384.78	677.47	8675.97	664.88	8689.96	663.36	8861.52	651.59
8999.31	651.1	9251.92	662.25	9425.53	661.62	9607.41	648.91	9792.38	645.01
9935.68	634.57	9952.79	634.2710041.89	622.2110209.07	604.1210266.03	604.12			
10307.7	609.6210433.73		638.1210540.68	652.2110926.01	647.0811083.17	641.02			
11138.63	636.3111350.11		633.4911600.87	638.0911899.26	634.1212530.32	628.09			
13983.67	628.0914222.88		624.1214837.79	624.1215310.86	630.1515370.56	636.18			
15662.73	631.8315669.66		627.7615775.66	625.8616430.6	599.7716988.18	592.06			
17075.71	585.3517383.94		582.9417463.46	576.2917588.6	567.5418070.34	567.54			
18195.83	571.6818316.15		592.0618402.34	608.9418420.8	611.1718652.46	628			
19080.09	633.9119503.07		634.8521555.02	629.8521667.03	629.8521890.02	630.73			
22230.08	628.1123188.59		631.9123438.7	637.9425067.03	643.9725438.6	646.83			
25849.8	651.2928481.88		665.3426699.52	666.0327782.46	666.0328399.81	662.06			
28665.89	662.0629223.67		656.0329454.64	652.5329621.33	650.6329757.38	645.12			
29901.79	645.6730187.48		652.7830500.1	655.4731567.11	672.4832212.56	675.57			
33153.1	707.8633291.75		708.5333891.3	687.5833925.02	687.7435473.54	726.91			

36487.32 728.42 36679.2 732.0837021.12 747.6737061.41 748.5737359.31 751.27  
 37681.57 762.44 37835.2 765.8838587.62 79039263.81 794.01 39604.8 800

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Manning's n Values num= 3  
 Sta n Val Sta n Val  
 0 .1516988.18 .1518316.15 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16988.1818316.15 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507223.00	244810.60	1808318.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507223.00	244810.60	1808318.00
Q Total (cfs)	6730000.00	Flow (cfs)	2772812.00	692836.60	3264352.00
Top width (ft)	36233.76	Top width (ft)	15617.46	1327.97	19288.33
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.84	2.83	1.81
Max Chl Dpth (ft)	192.23	Hydr. Depth (ft)	96.51	184.35	93.75
Conv. Total (cfs)	762031900.0	Conv. (cfs)	313963000.0	78449260.0	369619600.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15630.83	1330.60	19293.47
Min Ch El (ft)	567.54	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.86	2.54	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	86090.70	15955.88	103801.70
C & E Loss (ft)	0.00	Cum SA (acres)	743.81	74.30	870.28

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275124.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	195.7	791.81	636.72	774.88	1341.42	761.1	1518.75	753.11		
1801.95	746.19	1968.03	743.96	2315.33	743.96	2646.87	742.32	3537.31	723.25		
3608.53	719.42	3699.02	716.04	3710.24	715.87	3910.2	716.73	4088.58	713.96		
4230.37	711.05	4382.59	706.69	4754.7	697.63	5208.21	691.03	5545.71	688.86		
5690.94	687.39	5848.97	680.77	5916.96	674.48	6277.12	673.15	6624.11	676.18		
6764.08	677.92	6982.75	665.84	7148.13	659.8	7218.88	653.76	7267.57	653.76		
7417.01	657.98	7633.15	668.03	7695.73	668.15	7824.36	670.79	8185.44	667.3		
8233.03	670.33	8386.65	677.53	8677.91	664.96	8691.9	663.45	8863.5	651.66		
9001.32	651.17	9253.98	662.34	9427.63	661.72	9609.55	648.98	9794.57	645.09		
9937.89	634.66	9955.01	634.36	10044.13	622.28	10211.35	604.16	10268.32	604.16		
10310.07	609.67	10436.06	638.17	10543.03	652.28	10928.45	647.14	11085.64	641.08		
11141.12	636.38	11352.64	633.56	11603.46	638.14	11901.91	634.16	12533.12	628.12		
13986.79	628.12	14226.05	624.16	14841.1	624.16	15314.27	630.2	15374	636.24		
15666.23	631.88	15673.16	627.82	15779.18	625.92	16434.27	599.79	16991.97	592.08		
17079.64	585.36	17388.35	582.96	17468	576.31	17593.34	567.54	18075.32	567.54		
18200.98	571.67	18321.47	592.08	18407.64	608.93	18426.11	611.17	18657.74	627.96		
19085.32	633.87	19508.25	634.81	21559.98	629.82	1671.94	629.82	1894.94	630.69		
22234.96	628.08	23193.36	631.88	23443.44	637.92	25071.59	643.96	25443.12	646.83		
23854.27	651.29	26486.28	665.36	26703.9	666.04	27786.72	666.04	28404	662.08		
28670.05	662.08	29227.77	656.04	29458.71	652.53	29625.38	650.63	29761.41	645.11		
29905.81	645.63	30191.47	652.78	30504.05	655.46	31570.94	672.45	32216.32	675.55		
33156.76	707.78	33295.39	708.44	33894.87	687.56	33928.59	687.72	35476.94	726.82		
36490.61	728.35	36682.46	732.02	37024.35	747.63	37064.63	748.5	37362.5	751.22		
37684.71	762.43	37838.33	765.84	38590.67	79039266.79		794.02	39607.74	800		

Manning's n Values num= 3  
 Sta n Val Sta n Val  
 0 .1516991.97 .1518321.47 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 16991.9718321.47 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507246.00	245080.20	1808653.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507246.00	245080.20	1808653.00
Q Total (cfs)	6730000.00	Flow (cfs)	2771844.00	693420.70	3264736.00
Top width (ft)	36237.85	Top width (ft)	15620.98	1329.50	19287.37
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.84	2.83	1.81
Max Chl Dpth (ft)	192.23	Hydr. Depth (ft)	96.49	184.34	93.77
Conv. Total (cfs)	762202900.0	Conv. (cfs)	313923800.0	78533020.0	369746100.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15634.36	1332.14	19292.50
Min Ch El (ft)	567.54	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.86	2.53	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	85917.70	15927.76	103594.20
C & E Loss (ft)	0.00	Cum SA (acres)	742.02	74.15	868.07

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275121.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	195.74	791.81	636.86	774.87	1341.72	761.1	1519.09	753.1
1802.35	746.19	1968.47	743.95	2315.85	743.95	2647.46	742.31	3538.1	723.27
3609.33	719.44	3699.85	716.05	3711.07	715.88	3911.07	716.72	4089.5	713.95
4231.31	711.03	4383.57	706.67	4755.76	697.61	5209.37	691.02	5546.95	688.84
5692.21	687.37	5850.28	680.74	5918.28	674.44	6278.53	673.12	6625.59	676.16
6765.59	677.9	6984.31	665.8	7149.73	659.75	7220.49	653.7	7269.2	653.7



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7418.67	657.92	7634.86	667.98	7697.44	668.1	7826.1	670.76	8187.26	667.3
8234.87	670.34	8388.52	677.59	8679.94	665.05	8693.84	663.54	8865.48	651.74
9003.33	651.24	9256.05	662.44	9429.74	661.81	9611.7	649.06	9796.76	645.16
9940.11	634.75	9957.24	634.45	10046.38	622.35	10213.63	604.21	10270.61	604.2
10312.38	609.72	10438.39	638.21	10545.39	652.35	10930.89	647.21	11088.12	641.15
11143.61	636.46	11355.17	633.64	11606.05	638.19	11904.57	634.21	12535.92	628.15
13989.92	628.15	14229.23	624.21	14844.41	624.21	15317.69	630.25	15377.43	636.3
15669.72	631.94	15676.66	627.88	15782.7	625.98	16437.94	599.82	16995.77	592.1
17083.58	585.37	17392.77	582.98	17472.54	576.31	17598.07	567.53	18080.29	567.53
18206.13	571.67	18326.79	592.11	18412.95	608.93	18431.41	611.17	18663.02	627.93
19090.55	633.84	19513.44	634.77	19564.93	629.75	19676.88	629.75	19899.86	630.64
22239.84	628.04	23198.13	631.85	23448.19	637.92	25076.15	643.95	25447.64	646.82
25858.75	651.29	26490.68	665.37	26708.28	666.05	27790.97	666.05	28408.18	662.1
28674.21	662.12	29231.86	656.05	29462.78	652.54	29629.44	650.63	29765.45	645.09
29909.83	645.64	30195.46	652.77	30508.01	655.45	31574.78	672.42	32220.08	675.52
33160.42	707.69	33299.03	708.36	33898.45	687.53	33932.16	687.73	3480.34	726.73
36493.89	728.28	36685.72	731.96	37027.57	747.53	37067.85	748.43	37365.68	751.17
37687.87	762.35	37841.46	765.83	38593.72	790	39269.76	794.02	39610.68	800

Manning's n Values

Sta	n	Val	Sta	n	Val
0	.15	16995.77	.15	18326.79	.15

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

16995.77	18326.79	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
w.s. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1507252.00	245352.90	1809012.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507252.00	245352.90	1809012.00
Q Total (cfs)	6730000.00	Flow (cfs)	2770817.00	694021.30	3265162.00
Top width (ft)	36242.17	Top width (ft)	15624.50	1331.02	19286.65
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.84	2.83	1.80
Max Chl Dpth (ft)	192.24	Hydr. Depth (ft)	96.47	184.33	93.80
Conv. Total (cfs)	762375100.0	Conv. (cfs)	313878400.0	78618800.0	369877900.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15637.89	1333.66	19291.77
Min Ch El (ft)	567.53	Shear (lb/sq ft)	0.47	0.90	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.86	2.53	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	85744.69	15899.61	103386.50
C & E Loss (ft)	0.00	Cum SA (acres)	740.23	73.99	865.86

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275118.\*

INPUT

Description: Station Elevation Data

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	195.79	791.8	637	774.86	1342.02	761.09
1802.76	746.18	1968.91	743.94	2316.37	743.94	2648.05	742.3
3610.14	719.45	3700.67	716.06	3711.9	715.89	3911.95	716.71
4232.26	711.02	4384.55	706.65	4756.82	697.59	5210.53	691
5693.48	687.35	5851.58	680.71	5919.6	674.4	6279.93	673.09
6767.1	677.88	6985.87	665.76	7151.32	659.7	7222.1	653.64
7420.32	657.87	7636.56	667.93	7699.16	668.06	7827.85	670.74
8236.71	670.36	8390.4	677.64	8681.78	665.14	8695.78	663.63
9005.33	651.31	9258.11	662.53	9431.84	661.91	9613.84	649.14
9942.33	634.84	9959.46	634.54	10048.62	622.42	10215.91	634.24
10314.68	609.77	10440.72	638.26	10547.74	652.42	10933.33	647.26
11146.09	636.54	11357.71	633.71	11608.64	638.23	11907.23	634.24
13993.04	628.18	14232.4	624.24	14847.73	624.24	15321.11	630.31
15673.22	631.99	15680.16	627.95	15786.22	626.04	16441.61	599.85
17087.51	585.38	17397.18	583.17	17477.08	576.32	17602.8	567.53
18211.29	571.66	18332.1	592.12	18418.26	608.93	18436.71	611.16
19095.78	633.81	19518.62	634.77	19569.89	629.72	19681.82	629.72
22444.71	628.23	23202.9	631.82	23452.93	637.88	25080.71	643.94
25863.22	651.28	26495.09	665.38	26712.66	666.06	27795.23	666.06
28678.37	662.12	29235.96	656.06	29466.85	652.54	29633.49	650.63
29913.85	645.63	30199.45	652.76	30511.96	655.44	31578.61	672.43
33164.07	707.63	33302.67	708.27	33902.02	687.51	33935.73	687.73
36497.18	728.21	36688.98	731.89	37030.8	747.46	37071.07	748.37
37691.02	762.31	37844.6	765.76	38596.77	790	39272.73	794.03

Manning's n Values

Sta	n	Val	Sta	n	Val
0	.15	16999.56	.15	18332.1	.15

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

16999.56	18332.1	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
w.s. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1507262.00	245620.80	1809379.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507262.00	245620.80	1809379.00
Q Total (cfs)	6730000.00	Flow (cfs)	2769780.00	694597.10	3265624.00
Top width (ft)	36246.40	Top width (ft)	15628.16	1332.54	19285.71
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.84	2.83	1.80
Max Chl Dpth (ft)	192.24	Hydr. Depth (ft)	96.45	184.33	93.82
Conv. Total (cfs)	762549900.0	Conv. (cfs)	313832800.0	78702060.0	370015000.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15641.56	1335.18	19290.82
Min Ch El (ft)	567.53	Shear (lb/sq ft)	0.47	0.89	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.86	2.53	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	85571.68	15871.44	103178.90
C & E Loss (ft)	0.00	Cum SA (acres)	738.43	73.84	863.64

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CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275115.\*

INPUT

Description:

Table with columns: Station, Elev, Sta, Elev, Sta, Elev, Sta, Elev, Sta, Elev. Contains stationing data from 1803.16 to 37694.17.

Manning's n Values table with columns: Sta, n, Val, Sta, n, Val. Values range from 0 to 0.1517003.35.

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan. Values: 17003.3518337.42, 5, 5, .1, .3

CROSS SECTION OUTPUT Profile #PF 1

Summary table for Profile #PF 1 with columns: E.G. Elev (ft), Vel Head (ft), W.S. Elev (ft), Crit W.S. (ft), E.G. Slope (ft/ft), Q Total (cfs), Top Width (ft), Vel Total (ft/s), Max Chl Dpth (ft), Conv. Total (cfs), Length Wtd. (ft), Min Ch El (ft), Alpha, Frctn Loss (ft), C & E Loss (ft). Includes values for Element, Left OB, Channel, and Right OB.

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275112.\*

INPUT

Description:

Table with columns: Station, Elev, Sta, Elev, Sta, Elev, Sta, Elev, Sta, Elev. Contains stationing data for profile 275112.\* from 1803.56 to 37697.32.

Manning's n Values table with columns: Sta, n, Val, Sta, n, Val. Values range from 0 to 0.1517007.14.

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan. Values: 17007.1418342.74, 5, 5, .1, .3

CROSS SECTION OUTPUT Profile #PF 1

Summary table for Profile #PF 1 with columns: E.G. Elev (ft), Element, Left OB, Channel, Right OB. Values: 759.83, Page 353

Vel Head (ft)	0.06	wt. n-val.	0.150	0.150
W.S. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507291.00	246157.70
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507291.00	246157.70
Q Total (cfs)	6730000.00	Flow (cfs)	2767824.00	695760.80
Top width (ft)	36254.96	Top width (ft)	15635.18	1335.60
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.84	2.83
Max Chl Dpth (ft)	192.24	Hydr. Depth (ft)	96.40	184.31
Conv. Total (cfs)	762883700.0	Conv. (cfs)	313748600.0	78868430.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15648.61	1338.24
Min Ch El (ft)	567.53	Shear (lb/sq ft)	0.47	0.89
Alpha	1.06	Stream Power (lb/ft s)	0.86	2.53
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	85225.66	15814.99
C & E Loss (ft)	0.00	Cum SA (acres)	734.84	73.54

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275109.\*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta Elev Sta Elev		
0 800 195.92 791.79 637.43 774.82 1342.92 761.09 1520.44 753.07		
1803.96 746.16 1970.23 743.91 2317.92 743.91 2649.82 742.26 3541.26 723.34		
3612.55 719.5 3703.15 716.09 3714.38 715.91 3914.56 716.7 4093.15 713.91		
4235.09 710.97 4387.49 706.6 4760.01 697.54 5214.02 690.96 5551.9 688.76		
5697.29 687.29 5855.5 680.63 5923.57 674.29 6284.13 672.99 6631.5 676.07		
6771.63 677.82 6990.54 665.64 7156.11 659.55 7226.93 653.46 7275.68 653.46		
7425.29 657.71 7641.67 667.77 7704.32 667.92 7833.09 670.65 8194.57 667.33		
8242.22 670.41 8396.01 677.82 8687.59 665.41 8701.6 663.89 8873.39 652.02		
9011.36 651.53 9264.31 662.82 9438.15 662.2 9620.28 649.38 9805.5 645.46		
9948.99 635.11 9966.12 634.8110055.35 622.6310222.75 604.3610279.78 604.36		
10321.58 609.9110447.71 638.4 10554.8 652.6310940.64 647.4511098.01 641.42		
11153.56 636.7711365.31 633.9211616.41 638.37 11915.2 634.3612547.11 628.27		
14002.4 628.2714241.93 624.3614857.67 624.3615331.37 630.4515391.15 636.54		
15683.71 632.1515690.65 628.1315796.79 626.2316452.61 599.9217010.94 592.18		
17099.3 585.4217410.42 583.0517490.69 576.3517617.01 567.5318100.21 567.53		
18226.74 571.6518348.05 592.1818434.18 608.9318452.63 611.1518684.14 627.78		
19111.47 633.719534.18 634.621584.75 629.5521696.65 629.5521919.52 630.44		
22259.35 627.8923217.22 631.7323467.16 637.82 25094.4 643.9125465.72 646.8		
25876.64 651.28 26508.3 665.42 26725.8 666.0927808.01 666.0928424.94 662.18		
28690.85 662.1829248.25 656.0929479.06 652.5529645.65 650.62 29781.6 645.04		
29925.92 645.5830211.41 652.7430523.82 655.4231590.12 672.3132235.13 675.43		
33175.04 707.3433313.59 708.0133912.74 687.4533946.45 687.6235493.93 726.38		
36507.03 727.9936698.77 731.737040.47 747.2537080.73 748.1637378.43 750.98		
37700.46 762.17 37854 765.6438605.91 79039281.65 794.0539622.41 800		

Manning's n Values

num=	3
Sta n Val Sta n Val	
0 .1517010.94 .1518348.05 .15	

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
17010.9418348.05	5 5 5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.77	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507296.00	246424.20	1810419.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507296.00	246424.20	1810419.00
Q Total (cfs)	6730000.00	Flow (cfs)	2766799.00	696333.20	3266868.00
Top width (ft)	36259.04	Top width (ft)	15638.71	1337.11	19283.22
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.84	2.83	1.80
Max Chl Dpth (ft)	192.24	Hydr. Depth (ft)	96.38	184.30	93.89
Conv. Total (cfs)	763056300.0	Conv. (cfs)	313703300.0	78951180.0	370401800.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15652.14	1339.76	19288.30
Min Ch El (ft)	567.53	Shear (lb/sq ft)	0.47	0.89	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.86	2.52	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	85052.64	15786.72	102555.60
C & E Loss (ft)	0.00	Cum SA (acres)	733.05	73.38	857.00

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275107.\*

INPUT

Description:

Station Elevation Data	num=	120
Sta Elev Sta Elev Sta Elev		
0 800 195.96 791.78 637.57 774.81 1343.22 761.08 1520.78 753.06		
1804.36 746.15 1970.67 743.9 2318.43 743.9 2650.41 742.24 3542.05 723.36		
3613.36 719.51 3703.97 716.1 3715.21 715.92 3915.44 716.69 4094.06 713.9		
4236.03 710.96 4388.46 706.59 4761.07 697.52 5215.18 690.95 5553.14 688.75		
5698.56 687.27 5856.81 680.6 5924.89 674.26 6285.53 672.95 6632.98 676.05		
6773.14 677.8 6992.1 665.6 7157.71 659.5 7228.55 653.4 7277.31 653.4		
7426.95 657.66 7643.38 667.72 7706.03 667.87 7834.83 670.63 8196.4 667.34		
8244.06 670.43 8397.88 677.87 8689.53 665.49 8703.54 663.98 8875.37 652.09		
9013.37 651.61 9266.38 662.91 9440.26 662.3 9622.42 649.45 9807.69 645.53		
9951.2 635.2 9968.35 634.910057.59 622.710225.03 604.410282.07 604.4		
10323.88 609.9610450.04 638.4510557.16 652.710943.08 647.5111100.49 641.49		
11156.04 636.8511367.84 634 11619 638.4211917.85 634.4 12549.9 628.3		
14005.53 628.314245.11 624.414860.98 624.415334.79 630.515394.59 636.6		
15687.21 632.215694.15 628.215800.31 626.2916456.28 599.9517014.73 592.2		
17103.23 585.4317414.83 583.0717495.23 576.3617621.74 567.5318105.19 567.53		
18231.89 571.6518353.37 592.218439.49 608.9218457.94 611.1518689.42 627.74		
19116.71 633.6619539.36 634.5621589.71 629.521701.59 629.521924.44 630.39		
22264.23 627.8623221.99 631.7 23471.9 637.825098.96 643.925470.24 646.8		
25881.12 651.27 26512.7 665.4326730.18 666.127812.26 666.128429.13 662.2		

Station	Elevation	Station	Elevation	Station	Elevation	Station	Elevation	Station	Elevation
28695.01	662.229252.35	656.129483.13	652.56 29649.7	650.6229785.63	645.03				
29929.94	645.57 30215.4	652.7330527.78	655.4131593.95	672.2832238.89	675.4				
33178.7	707.2633317.24	707.9333916.32	687.4333950.02	687.5935497.32	726.29				
36510.31	727.9236702.03	731.64 37043.7	747.1837083.95	748.0937381.61	750.93				
37703.62	762.1237857.13	765.638608.96	79039284.62	794.0639625.35	800				

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Manning's n	Val	Sta	num=	n Val	Sta	n Val
0	.1517014.73		3	.1518353.37		.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
17014.73	18353.37	5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

Parameter	Value	Element	Left OB	Channel	Right OB
E.G. Elev (ft)	759.82	wt. n-Val.	0.150	0.150	0.150
Vel Head (ft)	0.06	Reach Len. (ft)	5.00	5.00	5.00
w.S. Elev (ft)	759.77	Flow Area (sq ft)	1507303.00	246692.00	1810778.00
Crit w.S. (ft)		Area (sq ft)	1507303.00	246692.00	1810778.00
E.G. Slope (ft/ft)	0.000078	Flow (cfs)	2765775.00	696911.90	3267314.00
Q Total (cfs)	6730000.00	Top width (ft)	15642.40	1338.64	19282.49
Top width (ft)	36263.53	Avg. Vel. (ft/s)	1.83	2.83	1.80
Vel Total (ft/s)	1.89	Hydr. Depth (ft)	96.36	184.29	93.91
Max Chl Dpth (ft)	192.24	Conv. (cfs)	313656100.0	79034150.0	370533700.0
Conv. Total (cfs)	763223900.0	wetted Per. (ft)	15655.85	1341.29	19287.56
Length wtd. (ft)	5.00	Shear (lb/sq ft)	0.47	0.89	0.46
Min Ch El (ft)	567.53	Stream Power (lb/ft s)	0.86	2.52	0.82
Alpha	1.06	Cum Volume (acre-ft)	84879.63	15758.42	102347.80
Frctn Loss (ft)	0.00	Cum SA (acres)	731.25	73.23	854.79
C & E Loss (ft)	0.00				

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275104.\*

INPUT

Description:	Station	Elevation	Data	num=	Elev	Sta	Elev	Sta	Elev
	0	800	196.01	120	791.78	637.71	774.8	1343.52	761.08
	1804.77	746.15	1971.11		743.89	2318.95	743.89	2651	742.23
	3614.16	719.53	3704.8		716.11	3716.04	715.93	3916.31	716.69
	4236.98	710.94	4389.44		706.57	4762.13	697.5	5216.34	690.93
	5609.83	687.26	5858.11		680.58	5926.21	674.22	6286.93	672.92
	6774.65	677.78	6993.66		665.56	7159.3	659.45	7230.16	653.34
	7428.6	657.61	7645.08		667.66	7707.75	667.83	7836.58	670.6
	8245.9	670.45	8399.76		677.93	8691.46	665.58	8705.48	664.07
	9015.38	651.68	9268.44		663.01	9442.36	662.39	9624.57	649.53
	9953.42	635.29	9970.57		634.99	10059.83	622.77	10227.31	604.44
	10326.18	610.01	10452.37		638.49	10559.51	652.77	10945.52	647.57
	11158.53	636.92	11370.38		634.07	11621.59	638.47	11920.51	634.44
	14008.65	628.33	14248.28		624.44	14864.29	624.44	15338.2	630.55
	15690.71	632.25	15697.65		628.26	15803.83	626.35	16459.95	599.98
	17107.16	585.44	17419.25		583.08	17499.77	576.37	17626.47	567.53
	18237.04	571.64	18358.69		592.22	18444.79	608.92	18463.24	611.15
	19121.94	633.63	191544.54		634.52	1594.66	629.45	21706.53	629.45
	22269.11	627.82	23226.76		631.67	23476.65	637.78	25103.52	643.89
	25885.59	651.27	26517.1		665.44	26734.56	666.11	27816.52	666.11
	28699.16	662.22	29256.44		656.11	29487.2	652.56	29653.75	650.62
	29933.96	645.35	30219.39		652.73	30531.73	655.41	31597.78	672.23
	33182.36	707.17	33320.88		707.84	33919.89	687.41	33953.59	687.57
	36513.59	727.85	36705.29		731.58	37046.92	747.11	37087.16	748.02
	37706.77	762.08	37860.26		765.56	38612.01	790	39287.6	794.06

Manning's n	Val	Sta	num=	n Val	Sta	n Val
0	.1517018.52		3	.1518358.69		.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
17018.52	18358.69	5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

Parameter	Value	Element	Left OB	Channel	Right OB
E.G. Elev (ft)	759.82	wt. n-Val.	0.150	0.150	0.150
Vel Head (ft)	0.06	Reach Len. (ft)	5.00	5.00	5.00
w.S. Elev (ft)	759.77	Flow Area (sq ft)	1507313.00	246963.70	1811118.00
Crit w.S. (ft)		Area (sq ft)	1507313.00	246963.70	1811118.00
E.G. Slope (ft/ft)	0.000078	Flow (cfs)	2764780.00	697504.40	3267716.00
Q Total (cfs)	6730000.00	Top width (ft)	15645.88	1340.17	19281.53
Top width (ft)	36267.58	Avg. Vel. (ft/s)	1.83	2.82	1.80
Vel Total (ft/s)	1.89	Hydr. Depth (ft)	96.34	184.28	93.93
Max Chl Dpth (ft)	192.23	Conv. (cfs)	313613200.0	79118980.0	370662000.0
Conv. Total (cfs)	763394200.0	wetted Per. (ft)	15659.33	1342.82	19286.59
Length wtd. (ft)	5.00	Shear (lb/sq ft)	0.47	0.89	0.46
Min Ch El (ft)	567.53	Stream Power (lb/ft s)	0.86	2.52	0.82
Alpha	1.06	Cum Volume (acre-ft)	84706.61	15730.08	102139.90
Frctn Loss (ft)	0.00	Cum SA (acres)	729.46	73.08	852.58
C & E Loss (ft)	0.00				

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275101.\*

INPUT

Description:	Station	Elevation	Data	num=	Elev	Sta	Elev	Sta	Elev
	0	800	196.05	120	791.77	637.85	774.79	1343.82	761.08
	1805.17	746.14	1971.55		743.88	2319.47	743.88	2651.6	742.22
	3614.97	719.54	3705.63		716.12	3716.86	715.94	3917.18	716.68

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4237.92	710.93	4390.42	706.55	4763.19	697.48	5217.51	690.92	5555.61	688.71
5701.1	687.24	5859.42	680.55	5927.53	674.18	6288.33	672.89	6635.94	676
6776.16	677.76	6995.22	665.52	7160.9	659.4	7231.77	653.28	7280.55	653.28
7430.26	657.55	7646.78	667.61	7709.47	667.78	7838.33	670.57	8200.05	667.35
8247.74	670.46	8401.63	677.99	8693.4	665.67	8707.42	664.16	8879.33	652.24
9017.39	651.75	9270.51	663.1	9444.47	662.49	9626.71	649.61	9812.06	645.68
9955.64	635.38	9972.79	635.0810062	.07	622.8410229	.59	604.4810286	.66	604.48
10328.49	610.06	10454.7	638.5410561	.86	652.8410947	.96	647.6311105	.44	641.63
11161.02	63711372	.91	634.1411624	.18	638.5111923	.17	634.48	12555.5	628.36
14011.77	628.3614251	.46	624.48	14867.6	624.4815341	.62	630.615401	.45	636.72
15694.2	632.3115701	.15	628.3215807	.36	626.4116463	.62	60017022	.32	592.24
17111.09	585.4517423	.66	583.1	17504.3	576.3817631	.21	567.5318115	.15	567.53
18242.2	571.64	18364	592.24	18450.1	608.9218468	.55	611.1518699	.97	627.67
19127.17	633.5919549	.73	634.4721599	.62	629.421711	.48	629.421934	.28	630.3
22273.99	627.7823231	.53	631.6423481	.39	637.7625108	.08	643.8825479	.28	646.79
25890.07	651.2726521	.51	665.4526738	.94	666.1227820	.78	666.1228437	.51	662.24
28703.32	662.2429260	.54	656.1229491	.27	652.57	29657.8	650.6229793	.71	645
29937.98	645.5430223	.38	652.7230535	.68	655.431601	.62	672.2232246	.42	675.36
33186.02	707.0833324	.52	707.7633923	.46	687.3933957	.16	687.5535504	.12	726.12
36516.88	727.7836708	.56	731.5237050	.14	747.0437090	.38	747.9537387	.98	750.84
37709.92	762.0337863	.39	765.5238615	.06	79039290	.57	794.0739631	.22	800

Manning's n Values			
Sta	n Val	Sta	n Val
0	.1517022	.32	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	17022.32	18364		5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.76	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1507329.00	247228.70	1811467.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507329.00	247228.70	1811467.00
Q Total (cfs)	6730000.00	Flow (cfs)	2763797.00	698073.20	3268131.00
Top width (ft)	36271.82	Top width (ft)	15649.40	1341.68	19280.74
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.83	2.82	1.80
Max chl Dpth (ft)	192.23	Hydr. Depth (ft)	96.32	184.27	93.95
Conv. Total (cfs)	763563500.0	Conv. (cfs)	313521200.0	79201070.0	370791300.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15662.87	1344.33	19285.79
Min Ch El (ft)	567.53	Shear (lb/sq ft)	0.47	0.89	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.86	2.52	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	84533.59	15701.72	101932.00
C & E Loss (ft)	0.00	Cum SA (acres)	727.66	72.92	850.36

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275098.\*

INPUT

Description:									
Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	746.800	196.09	791.77	638	774.77	1344.32	761.08	1521.8	753.04
1805.57	746.14	1971.99	743.87	2319.98	743.87	2652.19	742.21	3544.42	723.41
3615.78	719.56	3706.45	716.13	3717.69	715.95	3918.05	716.68	4096.8	713.87
4238.87	710.91	4391.4	706.54	4764.25	697.46	5218.67	690.9	5556.85	688.69
5702.37	687.22	5860.72	680.52	5928.85	674.15	6289.74	672.86	6637.41	675.98
6777.67	677.74	6996.78	665.48	7162.49	659.35	7233.38	653.22	7282.17	653.22
7431.91	657.5	7648.49	667.56	7711.19	667.74	7840.07	670.55	8201.88	667.36
8249.57	670.48	8403.5	678.04	8695.34	665.76	8709.36	664.25	8881.31	652.31
9019.4	651.82	9272.57	663.2	9446.57	662.59	9628.86	649.69	9814.25	645.76
9957.86	635.47	9975.01	635.1710064	.31	622.9110231	.87	604.5210288	.95	604.52
10330.79	610.1110457	.03	638.5910564	.22	652.91	10950.4	647.6911107	.91	641.7
11163.5	637.0811375	.45	634.2111626	.77	638.5611925	.83	634.52	12558.3	628.39
14014.89	628.3914254	.63	624.5214870	.92	624.5215345	.04	630.6515404	.88	636.78
15697.7	632.3615704	.65	628.3815810	.88	626.4716467	.29	600.0317026	.11	592.26
17115.02	585.4617428	.07	583.1217508	.84	576.3917635	.94	567.5318120	.13	567.53
18247.35	571.6318369	.32	592.2618455	.41	608.9218473	.85	611.1418705	.25	627.63
19132.4	633.5619554	.91	634.4321604	.57	629.3521716	.42	629.3521939	.19	630.25
22278.87	627.75	23236.3	631.6123486	.13	637.7425112	.64	643.87	25483.8	646.78
25894.54	651.2626525	.91	665.4626743	.31	666.1327825	.04	666.1328441	.69	662.26
28707.48	662.2629264	.63	656.1329495	.34	652.5729661	.85	650.6229797	.75	644.99
29942	645.5330227	.37	652.7130539	.64	655.3931605	.45	672.1932250	.18	675.33
33189.67	707.33328	.16	707.6733927	.04	687.3733960	.73	687.5335507	.52	726.03
36520.16	727.7136711	.82	731.4537053	.37	746.9737093	.61	747.8837391	.17	750.79
37713.07	761.9937866	.53	765.4838618	.11	79039293	.54	794.0839634	.16	800

Manning's n Values			
Sta	n Val	Sta	n Val
0	.1517026	.11	.1518369

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	17026.11	18369.32		5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
w.s. Elev (ft)	759.76	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1507324.00	247498.40	1811825.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507324.00	247498.40	1811825.00
Q Total (cfs)	6730000.00	Flow (cfs)	2762753.00	698656.00	3268591.00
Top width (ft)	36275.90	Top width (ft)	15652.91	1343.21	19279.78
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.83	2.82	1.80
Max chl Dpth (ft)	192.23	Hydr. Depth (ft)	96.30	184.26	93.98
Conv. Total (cfs)	763733400.0	Conv. (cfs)	313522500.0	79284830.0	370926000.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15666.39	1345.87	19284.82
Min Ch El (ft)	567.53	Shear (lb/sq ft)	0.47	0.89	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.85	2.52	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	84360.58	15673.33	101724.10

C & E Loss (ft) 0.00 Cum SA (acres) SS\_Rev3.rep 725.86 72.77 848.15

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275095.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	196.14	791.76	638.14	774.76	1344.42	761.07	1522.14	753.03
1805.97	746.13	1972.43	743.86	2320.5	743.86	2652.78	742.19	3545.21	723.42
3616.58	719.58	3707.28	716.14	3718.52	715.96	3918.93	716.67	4097.71	713.86
4239.81	710.9	4392.38	706.52	4765.32	697.44	5219.83	690.89	5558.09	688.67
5703.65	687.2	5862.03	680.49	5930.17	674.11	6291.14	672.82	6638.89	675.96
6779.18	677.72	6998.34	665.44	7164.09	659.3	7234.99	653.16	7283.8	653.16
7433.57	657.45	7650.19	667.51	7712.9	667.69	7841.82	670.52	8203.71	667.37
8251.41	670.5	8405.37	678.1	8697.28	665.85	8711.3	664.33	8883.28	652.38
9021.41	651.9	9274.64	663.29	9448.68	662.68	9631	649.77	9816.43	645.83
9960.08	635.56	9977.24	635.2610066	56	622.9810234	15	604.5610291	24	604.56
10333.09	610.1610459	36	638.6310566	57	652.9810952	84	647.7611110	39	641.76
11165.99	637.1511377	98	634.2911629	36	638.6111928	48	634.56	12561.1	628.42
14018.02	628.4214257	81	624.5614874	23	624.5615348	46	630.715408	31	636.84
15701.2	632.4115708	15	628.45	15814.4	626.5316470	96	600.05	17029.9	592.28
17118.95	585.4817432	49	583.1417513	38	576.3917640	68	567.5218125	11	567.52
18252.5	571.6318374	64	592.2818460	72	608.9218479	16	611.1418710	53	627.6
19137.63	633.52	19560.1	634.3921609	52	629.321721	36	629.321944	11	630.2
22283.75	627.7123241	08	631.5823490	88	637.7225117	21	643.8625488	32	646.77
25899.02	651.2626530	31	665.4726747	69	666.1427829	29	666.1428445	88	662.28
28711.64	662.2829268	73	656.1429499	42	652.5729665	91	650.6229801	78	644.98
29946.02	745.5130231	36	652.7130543	59	655.3831609	29	672.1632253	94	675.31
33193.33	706.91	3331.8	707.5933930	61	687.35	33964.3	687.5135510	91	725.94
36523.45	727.6336715	08	731.3937056	59	746.937096	82	747.8237394	36	750.74
37716.22	761.9437869	66	765.4438621	16	79039296	52	794.0839637	09	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	17029.9	.15	18374.64	.15

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

Left	Right	Left	Channel	Right	Coeff	Contr.	Expan.
17029.918374.64		5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.76	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)	0.000078	Flow Area (sq ft)	1507347.00	247771.60	1812181.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507347.00	247771.60	1812181.00
Q Total (cfs)	6730000.00	Flow (cfs)	2761756.00	699250.80	3268994.00
Top Width (ft)	36280.39	Top Width (ft)	15656.61	1344.74	19279.04
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.83	2.82	1.80
Max Chl Dpth (ft)	192.24	Hydr. Depth (ft)	96.28	184.25	94.00
Conv. Total (cfs)	763908700.0	Conv. (cfs)	313481300.0	79370550.0	371056900.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	15670.09	1347.40	19284.07
Min Ch El (ft)	567.52	Shear (lb/sq ft)	0.47	0.89	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.85	2.51	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	84187.56	15644.90	101516.10
C & E Loss (ft)	0.00	Cum SA (acres)	724.07	72.61	845.94

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275092.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	196.18	791.76	638.28	774.75	1344.72	761.07	1522.48	753.03
1806.38	746.12	1972.87	743.85	2321.02	743.85	2653.37	742.18	3546	723.44
3617.39	719.59	3708.1	716.15	3719.35	715.97	3919.8	716.67	4098.62	713.85
4240.75	710.88	4393.36	706.5	4766.38	697.42	5220.99	690.87	5559.33	688.65
5704.92	687.18	5863.33	680.47	5931.49	674.07	6292.54	672.79	6640.37	675.93
6780.69	677.7	6999.9	665.4	7165.68	659.25	7236.6	653.1	7285.42	653.1
7435.22	657.39	7651.9	667.45	7714.62	667.64	7843.57	670.49	8205.54	667.37
8253.25	670.51	8407.24	678.16	8699.21	665.94	8713.24	664.42	8885.26	652.45
9023.42	651.97	9276.71	663.39	9450.78	662.78	9633.15	649.83	9818.62	645.91
9962.3	635.65	9979.46	635.35	10068.8	623.0510236	43	604.610293	53	604.6
10335.39	610.2110461	69	638.6810568	92	653.0510955	28	647.8211112	86	641.83
11168.48	627.2311380	51	634.3811631	95	638.6511931	14	634.612563	89	628.45
14021.14	628.4514260	98	624.614877	54	624.615351	88	630.7515411	75	636.9
15704.69	632.4615711	65	628.5115817	92	626.5916474	62	600.08	17033.7	592.3
17122.88	585.49	17436.9	583.1617517	92	576.417645	41	567.5218130	09	567.52
18257.65	571.6318379	96	592.318466	03	608.9118484	46	611.1418715	81	627.56
19142.86	633.4919565	28	634.3521614	48	629.25	21726.3	629.2521949	03	630.15
22288.63	627.6823245	85	631.5523495	62	637.725121	77	643.8525492	84	646.77
25903.49	651.2626534	72	665.4926752	07	666.1527833	55	666.1528450	07	662.3
28715.8	662.329274	83	656.1529503	49	652.5829669	96	650.6129805	82	644.96
29950.04	645.530235	35	652.730547	54	655.3831613	12	672.1332257	71	675.28
33196.98	706.8333335	44	707.533934	19	687.3333967	87	687.4935514	31	725.85
36526.73	727.5636718	34	731.3337059	82	746.8337100	04	747.7537397	54	750.69
37719.37	761.937872	79	765.438624	21	79039299	49	794.0939640	02	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	17033.7	.15	18379.96	.15

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

Left	Right	Left	Channel	Right	Coeff	Contr.	Expan.
17033.718379.96		5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

SS\_Rev3.rep

E.G. Elev (ft)	759.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.76	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507361.00	248038.40	1812516.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507361.00	248038.40	1812516.00
Q Total (cfs)	6730000.00	Flow (cfs)	2760780.00	699824.80	3269395.00
Top Width (ft)	36284.43	Top Width (ft)	15660.09	1346.26	19278.07
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.83	2.82	1.80
Max Chl Dpth (ft)	192.24	Hydr. Depth (ft)	96.25	184.24	94.02
Conv. Total (cfs)	764076700.0	Conv. (cfs)	313439500.0	79453170.0	371184000.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15673.59	1348.92	19283.09
Min Ch El (ft)	567.52	Shear (lb/sq ft)	0.47	0.89	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.85	2.51	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	84014.54	15616.45	101308.10
C & E Loss (ft)	0.00	Cum SA (acres)	722.27	72.46	843.72

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275089.\*

INPUT

Description:

Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	196.22	791.75	638.42	774.74	1345.02	761.07	1522.82	753.02
1806.78	746.12	1973.3	743.84	2321.54	743.84	2653.96	742.17	3546.79	723.46
3618.19	719.61	3708.93	716.16	3720.18	715.98	3920.67	716.66	4099.54	713.84
4241.7	710.87	4394.33	706.48	4767.44	697.4	5222.16	690.86	5360.56	688.64
5706.19	687.16	5864.64	680.44	5932.81	674.04	6293.94	672.76	6641.85	675.91
6782.2	677.68	7001.46	665.36	7167.28	659.2	7238.21	653.04	7287.04	653.04
7436.88	657.34	7653.6	667.4	7716.34	667.6	7845.31	670.46	8207.36	667.38
8255.09	670.53	8409.12	678.21	8701.15	666.03	8715.18	664.51	8887.24	652.52
9025.43	652.04	9278.77	663.48	9452.89	662.88	9635.29	649.92	9820.81	645.98
9964.51	635.75	9981.68	635.44	10071.04	623.12	10238.71	604.64	10295.82	604.64
10337.69	610.26	10464.01	638.73	10571.28	653.12	10957.72	647.88	11115.33	641.9
11170.96	637.31	11383.05	634.43	11634.54	638.7	11933.8	634.64	12566.69	628.48
14024.26	628.48	14264.16	624.64	14880.86	624.64	15355.3	630.81	15415.18	636.96
15708.19	632.52	15715.14	628.57	15821.45	626.65	16478.29	600.11	17037.49	592.32
17126.81	585.51	17441.31	583.17	17522.46	576.41	17650.14	567.52	18135.06	567.52
18262.8	571.62	18385.27	592.32	18471.33	608.91	18489.77	611.13	18721.09	627.52
19148.1	633.45	19570.46	634.31	21619.43	629.22	21731.24	629.22	21953.94	630.1
22293.51	627.64	23250.62	631.52	23500.37	637.68	25126.33	643.84	25497.36	646.76
25907.96	651.25	25639.12	665.52	26756.45	666.16	27837.81	666.16	28454.26	662.32
28719.96	662.32	29276.92	656.16	29507.56	652.58	29674.01	650.61	29809.86	644.95
29954.06	645.48	30239.34	652.69	30551.5	655.37	31616.96	672.11	32261.47	675.26
33200.64	706.74	33339.09	707.42	33937.76	687.31	33971.44	687.47	35517.71	725.76
36530.02	727.49	36721.61	731.26	37063.04	746.76	37103.26	747.68	37400.73	750.65
37722.52	761.85	37875.93	765.36	38627.26	790	39302.46	794.09	39642.96	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.1517037.49	.1518385.27	.15

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

17037.49	18385.27	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.76	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507365.00	248307.60	1812873.00
E.G. Slope (ft/ft)	0.000078	Area (sq ft)	1507365.00	248307.60	1812873.00
Q Total (cfs)	6730000.00	Flow (cfs)	2759763.00	700408.90	3269829.00
Top Width (ft)	36288.68	Top Width (ft)	15663.61	1347.78	19277.29
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)	1.83	2.82	1.80
Max Chl Dpth (ft)	192.24	Hydr. Depth (ft)	96.23	184.23	94.04
Conv. Total (cfs)	764246800.0	Conv. (cfs)	313393700.0	79537190.0	371315900.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	15677.12	1350.44	19282.30
Min Ch El (ft)	567.52	Shear (lb/sq ft)	0.47	0.89	0.46
Alpha	1.06	Stream Power (lb/ft s)	0.85	2.51	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	83841.52	15587.96	101100.00
C & E Loss (ft)	0.00	Cum SA (acres)	720.47	72.30	841.51

CROSS SECTION

RIVER: BRAZOS  
REACH: UPPER BRAZOS RS: 275086.\*

INPUT

Description:

Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev		
0	800	196.27	791.75	638.56	774.72	1345.32	761.06	1523.16	753.01
1807.18	746.11	1973.74	743.83	2322.05	743.83	2654.55	742.16	3547.58	723.47
3619	719.62	3709.75	716.17	3721.01	715.99	3921.55	716.66	4100.45	713.83
4242.64	710.85	4395.31	706.47	4768.5	697.38	5223.32	690.84	5561.8	688.62
5707.46	687.14	5865.95	680.41	5934.13	674	6295.34	672.72	6643.33	675.89
6783.71	677.66	7003.01	665.32	7168.87	659.15	7239.83	652.98	7288.66	652.98
7438.53	657.29	7655.3	667.35	7718.06	667.55	7847.06	670.44	8209.19	667.39
8256.92	670.55	8410.99	678.27	8703.09	666.11	8717.12	664.6	8889.22	652.59
9027.44	652.12	9280.84	663.58	9454.99	662.97	9637.44	650	9822.99	646.06
9966.73	635.84	9983.9	635.53	10073.28	623.19	10240.99	604.68	10298.12	604.68
10339.99	610.31	10466.34	638.77	10573.63	653.19	10960.16	647.94	11117.81	641.97
11173.45	637.38	11385.58	634.51	11637.13	638.75	11936.45	634.64	12569.49	628.51
14027.98	628.51	14267.33	624.68	14884.17	624.68	15358.71	630.85	15418.61	637.02
15711.69	632.57	15718.64	628.63	15824.97	626.11	16481.96	600.13	17041.28	592.34
17130.74	585.51	17445.73	583.19	17526.99	576.42	17654.88	567.52	18140.04	567.52
18267.95	571.62	18390.59	592.34	18476.64	608.91	18495.07	611.13	18726.37	627.49





SS_Rev3.rep									
0	800	196.36	791.74	638.85	774.7	1345.91	761.06	1523.83	752.99
1807.98	746.1	1974.62	743.81	2323.09	743.81	2655.73	742.13	3549.16	723.51
3620.61	719.65	3711.41	716.19	3722.66	716.01	3923.29	716.64	4102.27	713.81
4244.53	710.82	4397.27	706.43	4770.62	697.34	5225.64	690.81	5564.28	688.58
5710	687.11	5868.56	680.36	5936.77	673.93	6298.14	672.66	6646.29	675.84
6786.73	677.62	7006.13	665.24	7172.07	659.05	7243.05	652.86	7291.91	652.80
7441.85	657.18	7658.71	667.24	7721.49	667.46	7850.55	670.38	8212.84	667.4
8260.6	670.58	8414.73	678.38	8706.96	666.29	8721	664.78	8893.18	652.74
9031.46	652.26	9284.97	663.77	9459.2	663.17	9641.73	650.16	9827.37	646.2
9971.17	636.02	9988.35	635.7110077.77	623.3310245.54	604.76	10302.7	604.76	10302.7	604.76
10344.6	610.41	10471	638.8710578.34	653.3310965.04	648.0611122.76	642.1			
11178.42	637.5411390.65	634.6511642.31	638.8411941.77	634.7612575.08	628.57				
14033.63	628.5714273.69	624.7614890.79	624.7615365.55	630.9515425.47	637.14				
15718.68	632.6815725.64	628.7615832.01	626.83 16489.3	600.1817048.87	592.38				
17138.6	585.5317454.55	583.2317536.07	576.4417664.35	567.52 18150	567.52				
18278.26	571.6118401.22	592.3818487.25	608.9118505.68	611.1218736.93	627.42				
19163.79	633.3519586.02	634.18 21634.3	629.0521746.07	629.05 21968.7	629.96				
22308.14	627.5323264.94	631.43 23514.6	637.6225140.02	643.8125510.92	646.75				
25921.38	651.2426552.33	665.5326769.59	666.1927850.58	666.1928466.83	662.38				
28732.44	662.3829289.21	656.1929519.77	652.5929686.17	650.6129821.97	644.91				
29966.12	645.44 30251.3	652.6730563.36	655.3531628.46	672.0232272.75	675.19				
33211.61	706.4833350.01	707.1633948.48	687.2533982.15	687.41 35527.9	725.5				
36539.87	727.2836731.39	731.0837072.71	746.5537112.92	747.4737410.29	750.5				
37731.97	761.7137885.32	765.24 38636.4	79039311.38	794.1139651.77	800				

Manning's n Values		num=	3	
Sta	n Val	Sta	n Val	Sta
0	.1517048.87	.1518401.22	.15	

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	17048.87	18401.22		5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.76	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507401.00	249110.30	1813913.00
E.G. Slope (ft/ft)	0.000077	Area (sq ft)	1507401.00	249110.30	1813913.00
Q Total (cfs)	6730000.00	Flow (cfs)	2756790.00	702135.50	3271075.00
Top width (ft)	36301.54	Top width (ft)	15674.34	1352.35	19274.85
Vel Total (ft/s)	1.88	Avg. Vel. (ft/s)	1.83	2.82	1.80
Max Chl Dpth (ft)	192.24	Hydr. Depth (ft)	96.17	184.21	94.11
Conv. Total (cfs)	764751500.0	Conv. (cfs)	313262900.0	79785910.0	371702700.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	15687.89	1355.02	19279.83
Min ch El (ft)	567.52	Shear (lb/sq ft)	0.46	0.89	0.45
Alpha	1.06	Stream Power (lb/ft s)	0.85	2.51	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	83322.45	15502.32	100475.50
C & E Loss (ft)	0.00	Cum SA (acres)	715.08	71.84	834.87

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275077.\*

INPUT

Description:									
Station	Elevation	Data	num=	120					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	196.4	791.74	638.99	774.69	1346.21	761.06	1524.17	752.99
1808.39	746.09	1975.06	743.8	2323.6	743.8	2656.32	742.12	3549.95	723.53
3621.41	719.67	3712.23	716.2	3723.49	716.02	3924.17	716.64	4103.19	713.8
4245.48	710.81	4398.25	706.42	4771.68	697.32	5226.81	690.8	5565.52	688.56
5711.27	687.09	5869.86	680.33	5938.1	673.89	6299.54	672.62	6647.77	675.82
6788.24	677.6	7007.69	665.2	7173.66	659	7244.66	652.8	7293.53	652.8
7443.5	657.13	7660.42	667.19	7723.21	667.41	7852.3	670.36	8214.67	667.41
8262.44	670.6	8416.6	678.44	8708.9	666.38	8722.94	664.86	8895.16	652.81
9033.47	652.33	9287.03	663.86	9461.3	663.26	9643.87	650.24	9829.55	646.28
9973.39	636.11	9990.57	635.810080.01	623.410247.82	604.810304.99	604.8			604.8
10346.9	610.4510473.33	638.9110580.69	653.410967.48	648.1211125.23	642.17				
11180.91	637.6111393.19	634.72 11644.9	638.8911944.42	634.812577.88	628.6				
14036.75	628.614276.86	624.814894.11	624.815368.97	631.15428.9	637.2				
15722.18	632.7315729.14	628.8215835.54	626.8916492.97	600.2117052.66	592.4				
17142.53	585.5517458.96	583.2417540.61	576.4517669.08	567.5218154.98	567.52				
18283.41	571.6118406.54	592.418492.56	608.9118510.99	611.1218742.21	627.38				
19169.02	633.31 19591.2	634.1421639.25	62921751.01	62921973.61	629.91				
22313.02	627.4923269.71	631.423519.34	637.625144.58	643.825515.44	646.74				
25925.86	651.2426556.33	665.5426773.97	666.227854.84	666.228471.02	662.4				
28736.6	662.429293.31	656.229523.84	652.629690.22	650.61 29826	644.9				
29970.14	645.4330255.29	652.6630567.31	655.3431632.29	671.9932276.52	675.16				
33215.27	706.3933353.65	707.0833952.06	687.2333985.72	687.39 35531.3	725.41				
36543.15	727.236734.66	731.0137075.94	746.4837116.14	747.4737413.48	750.45				
37735.12	761.6737888.46	765.238639.45	79039314.36	794.12 39654.7	800				

Manning's n Values		num=	3	
Sta	n Val	Sta	n Val	Sta
0	.1517052.66	.1518406.54	.15	

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	17052.66	18406.54		5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.76	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507403.00	249377.90	1814282.00
E.G. Slope (ft/ft)	0.000077	Area (sq ft)	1507403.00	249377.90	1814282.00
Q Total (cfs)	6730000.00	Flow (cfs)	2755753.00	702703.50	3271544.00
Top width (ft)	36305.57	Top width (ft)	15677.82	1353.88	19273.88
Vel Total (ft/s)	1.88	Avg. Vel. (ft/s)	1.83	2.82	1.80
Max Chl Dpth (ft)	192.24	Hydr. Depth (ft)	96.15	184.20	94.13
Conv. Total (cfs)	764927100.0	Conv. (cfs)	313217000.0	79868790.0	371841400.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	15691.38	1356.55	19278.85

Min Ch El (ft)	567.52	Shear (lb/sq ft)	0.46	0.89	0.45
Alpha	1.06	Stream Power (lb/ft s)	0.85	2.50	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	83149.42	15473.71	100267.30
C & E Loss (ft)	0.00	Cum SA (acres)	713.28	71.68	832.66

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275074.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	196.44	791.73	639.13	774.67	1346.51	761.05	1524.51	752.98
1808.79	746.09	1975.5	743.79	2324.12	743.79	2656.91	742.11	3550.74	723.54
3622.22	719.69	3713.06	716.21	3724.32	716.03	3925.04	716.63	4104.1	713.79
4246.42	710.8	4399.23	706.4	4772.75	697.31	5227.97	690.78	5566.75	688.54
5712.54	687.07	5871.17	680.3	5939.42	673.86	6300.95	672.59	6649.24	675.79
6789.75	677.58	7009.25	665.16	7175.26	658.95	7246.27	652.74	7295.15	652.74
7445.16	657.07	7662.12	667.13	7724.93	667.37	7854.05	670.33	8216.5	667.41
8264.28	670.62	8418.48	678.5	8710.84	666.47	8724.88	664.95	8897.13	652.88
9035.47	652.41	9289.1	663.96	9463.41	663.36	9646.02	650.32	9831.74	646.35
9975.61	636.2	9992.79	635.8910082.25	623.47	10250.1	604.8410307.28	604.84		
10349.2	610.510475.66	638.9610583.04	653.4710969.92	648.1911127.71	642.24				
11183.4	637.6911395.72	634.7911647.49	638.9311947.08	634.8412580.68	628.63				
14039.87	628.6314280.04	624.8414897.42	624.8415372.39	631.0515432.34	637.26				
15725.68	632.7815732.64	628.8815839.06	626.9616496.63	600.2317056.45	592.42				
17146.46	585.5617463.38	583.2617545.14	576.4617673.81	567.5218159.96	567.52				
18288.56	571.618411.86	592.4218497.87	608.918516.29	611.1218747.49	627.34				
19174.25	633.2819596.38	634.121644.21	628.9521755.96	628.9521978.53	629.86				
22317.9	627.4623274.48	631.3723324.09	637.5825149.14	643.7925519.96	646.74				
25930.33	651.2426561.14	665.5626778.35	666.21	27859.1	666.21	28475.2	662.42		
28740.75	662.4229297.41	656.2129527.91	652.629694.27	650.629830.04	644.89				
29974.16	645.4130259.28	652.6630571.27	655.3331636.13	671.9632280.28	675.14				
33218.93	706.3133357.29	706.9933955.63	687.233989.29	687.373534.69	725.32				
36546.43	727.1336737.92	730.9537079.16	746.4137119.36	747.3337416.66	750.41				
37738.27	761.6237891.59	765.16	38642.5	79039317.33	794.1339657.64	800			

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.1517056.45	.1518411.86	.15

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

17056.4518411.86	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.76	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507411.00	249647.50	1814617.00
E.G. Slope (ft/ft)	0.000077	Area (sq ft)	1507411.00	249647.50	1814617.00
Q Total (cfs)	6730000.00	Flow (cfs)	2754760.00	703290.70	3271950.00
Top Width (ft)	36310.01	Top Width (ft)	15681.51	1355.41	19273.09
Vel Total (ft/s)	1.88	Avg. Vel. (ft/s)	1.83	2.82	1.80
Max Chl Dpth (ft)	192.24	Hydr. Depth (ft)	96.13	184.19	94.15
Conv. Total (cfs)	765089000.0	Conv. (cfs)	313170400.0	79952450.0	371966200.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15695.09	1358.08	19278.05
Min Ch El (ft)	567.52	Shear (lb/sq ft)	0.46	0.89	0.45
Alpha	1.06	Stream Power (lb/ft s)	0.85	2.50	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	82976.40	15445.07	100059.00
C & E Loss (ft)	0.00	Cum SA (acres)	711.48	71.53	830.45

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275072.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	196.49	791.73	639.27	774.66	1346.81	761.05	1524.85	752.97
1809.19	746.08	1975.94	743.78	2324.64	743.78	2657.5	742.09	3551.53	723.56
3623.02	719.7	3713.88	716.22	3725.15	716.04	3925.91	716.63	4105.01	713.78
4247.36	710.78	4400.2	706.38	4773.81	697.29	5229.13	690.77	5567.99	688.52
5713.81	687.05	5872.47	680.28	5940.74	673.82	6302.35	672.56	6650.72	675.77
6791.26	677.56	7010.81	665.12	7176.85	658.9	7247.88	652.68	7296.77	652.68
7446.81	657.02	7663.82	667.08	7726.65	667.32	7855.79	670.3	8218.33	667.42
8266.11	670.63	8420.35	678.55	8712.77	666.56	8726.82	665.04	8899.11	652.95
9037.48	652.48	9291.17	664.05	9465.51	663.46	9648.16	650.39	9833.92	646.43
9977.82	636.29	9995.01	635.9810084.49	623.5410252.38	604.8810309.58	604.88			
10351.5	610.5510477.99	639.01	10585.4	653.5410972.36	648.2511130.18	642.31			
11185.89	637.7711398.25	634.8611650.08	638.9811949.74	634.8812583.48	628.66				
14042.99	628.6614283.21	624.8814900.73	624.8815375.81	631.115435.77	637.32				
15729.17	632.8315736.14	628.9315842.58	627.02	16500.3	600.2617060.25	592.44			
17150.39	585.5717467.79	583.2817549.68	576.4717678.55	567.5218164.94	567.52				
18293.71	571.618417.17	592.4418503.18	608.9	18521.6	611.1218752.77	627.31			
19179.48	633.2419601.57	634.0621649.16	628.9	21760.9	628.921983.45	629.81			
22322.78	627.4223279.25	631.3423528.83	637.56	25153.7	643.7825524.48	646.73			
25934.81	651.2326565.54	665.5726782.72	666.2227863.36	666.2228479.39	662.44				
28744.91	662.44	29301.5	656.2229531.98	652.6129698.32	650.629834.08	644.87			
29978.18	645.430263.27	652.6530575.22	655.3231639.96	671.9332284.04	675.12				
33222.58	706.2233360.93	706.9933959.21	687.1833992.86	687.353538.09	725.24				
36549.72	727.0636741.18	730.8937082.38	746.3437122.58	747.2737419.85	750.36				
37741.42	761.5837894.72	765.1238645.55	790	39320.3	794.1339660.57	800			

Manning's n Values num= 3

Sta	n Val	Sta	n Val
0	.1517060.25	.1518417.17	.15

Bank Sta: Left Right Lengths: Left Channel Right SS\_Rev3.rep  
 17060.2518417.17 5 5 5 Coeff Contr. Expan.  
 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.76	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507424.00	249911.90	1814962.00
E.G. Slope (ft/ft)	0.000077	Area (sq ft)	1507424.00	249911.90	1814962.00
Q Total (cfs)	6730000.00	Flow (cfs)	2753776.00	703854.20	3272370.00
Top Width (ft)	36314.07	Top Width (ft)	15685.04	1356.92	19272.12
Vel Total (ft/s)	1.88	Avg. Vel. (ft/s)	1.83	2.82	1.80
Max Chl Dpth (ft)	192.24	Hydr. Depth (ft)	96.11	184.18	94.18
Conv. Total (cfs)	765259100.0	Conv. (cfs)	313128100.0	80034300.0	372096700.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15698.62	1359.59	19277.07
Min Ch El (ft)	567.52	Shear (lb/sq ft)	0.46	0.89	0.45
Alpha	1.06	Stream Power (lb/ft s)	0.85	2.50	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	82803.37	15416.40	99850.73
C & E Loss (ft)	0.00	Cum SA (acres)	709.68	71.37	828.24

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275069.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	196.53	791.72	639.42	774.65	1347.11	761.05	1525.19	752.96
1809.59	746.07	1976.38	743.77	2325.15	743.77	2658.09	742.08	3552.32	723.58
3623.83	719.72	3714.71	716.23	3725.98	716.05	3926.78	716.62	4105.92	713.77
4248.31	710.77	4401.18	706.37	4774.87	697.27	5230.29	690.75	5569.23	688.51
5715.08	687.03	5873.78	680.25	5942.06	673.78	6303.75	672.52	6652.2	675.75
6792.77	677.54	7012.37	665.08	7178.45	658.85	7249.49	652.62	7298.4	652.62
7448.47	656.97	7665.53	667.03	7728.37	667.28	7857.54	670.27	8220.15	667.43
8267.95	670.65	8422.22	678.61	8714.71	666.64	8728.76	665.13	8901.09	653.02
9039.49	652.55	9293.23	664.15	9467.62	663.55	9650.31	650.47	9836.11	646.5
9980.04	636.38	9997.24	636.07	10086.73	623.61	110254.66	604.92	10311.87	604.92
10353.8	610.61	10480.32	639.05	10587.75	653.61	10974.8	648.31	11132.66	642.38
11188.37	637.84	11400.79	634.93	11652.67	639.02	11952.39	634.92	12586.27	628.69
14046.12	628.69	14286.39	624.92	14904.05	624.92	15379.23	631.15	15439.2	637.38
15732.67	632.89	15739.63	629.01	15846.1	627.08	16503.97	600.28	17064.04	592.46
17154.32	585.58	17472.21	583.31	17554.22	576.48	17683.28	567.51	18169.92	567.51
18298.86	571.59	18422.49	592.46	18508.48	608.91	18526.91	611.11	18758.05	627.27
19184.72	633.21	19606.75	634.02	19654.12	628.85	19765.84	628.85	19988.36	629.76
22327.66	627.39	23284.02	631.31	23533.57	637.54	2425158.26	643.77	25529	646.73
25939.28	651.23	26569.94	665.58	26787.1	666.23	27867.62	666.23	28483.58	662.46
28749.07	662.46	29305.6	656.23	29536.05	652.61	29702.38	650.62	29838.11	644.86
29982.21	645.38	30267.26	652.64	30579.17	655.32	31643.8	671.9	3227.8	675.09
33226.24	706.13	33364.57	706.82	33962.78	687.16	33996.43	687.33	3541.49	725.15
36553	726.99	36744.44	730.82	37085.61	746.27	37125.8	747.23	37423.04	750.31
37744.57	761.53	37897.86	765.08	38648.6	79039	39323.27	794.14	39663.5	800

Manning's n Values num= 3  
 Sta n Val Sta n Val Sta n Val  
 0 .1517064.04 .1518422.49 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 17064.0418422.49 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.76	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507438.00	250187.50	1815310.00
E.G. Slope (ft/ft)	0.000077	Area (sq ft)	1507438.00	250187.50	1815310.00
Q Total (cfs)	6730000.00	Flow (cfs)	2752784.00	704458.10	3272758.00
Top Width (ft)	36318.37	Top Width (ft)	15688.55	1358.45	19271.37
Vel Total (ft/s)	1.88	Avg. Vel. (ft/s)	1.83	2.82	1.80
Max Chl Dpth (ft)	192.25	Hydr. Depth (ft)	96.09	184.17	94.20
Conv. Total (cfs)	765432400.0	Conv. (cfs)	313086200.0	80121110.0	372225100.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15702.14	1361.13	19276.32
Min Ch El (ft)	567.51	Shear (lb/sq ft)	0.46	0.89	0.45
Alpha	1.06	Stream Power (lb/ft s)	0.85	2.50	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	82630.34	15387.70	99642.38
C & E Loss (ft)	0.00	Cum SA (acres)	707.88	71.22	826.02

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275066.\*

INPUT

Description:  
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	196.57	791.72	639.56	774.64	1347.41	761.04	1525.53	752.95
1810	746.07	1976.82	743.76	2325.67	743.76	2658.69	742.07	3553.11	723.59
3624.64	719.73	3715.53	716.24	3726.8	716.06	3927.66	716.62	4106.84	713.76
4249.25	710.75	4402.16	706.35	4775.93	697.25	5231.46	690.74	5570.47	688.49
5716.35	687.01	5875.08	680.22	5943.38	673.75	6305.15	672.49	6653.68	675.73
6794.28	677.52	7013.92	665.04	7180.04	658.8	7251.11	652.56	7300.02	652.56
7450.12	656.92	7667.23	666.98	7730.08	667.23	7859.29	670.25	8221.98	667.43
8269.79	670.67	8424.09	678.67	8716.65	666.73	8730.71	665.22	8903.07	653.09
9041.5	652.62	9295.3	664.24	9469.72	663.65	9652.45	650.55	9838.3	646.58
9982.26	636.47	9999.46	636.16	10088.98	623.68	10256.94	604.96	10314.16	604.96
10356.1	610.65	10482.65	639.1	10590.1	653.68	10977.24	648.31	11135.13	642.45
11190.86	637.92	11403.32	635.01	11635.26	639.07	11955.05	634.96	12589.07	628.72
14049.24	628.72	14289.56	624.96	14907.36	624.96	15382.64	631.21	15442.63	637.44

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15736.17	632.9415743.13	629.0715849.62	627.1416507.64	600.3117067.83	592.48
17158.25	585.5917476.62	583.3217558.76	576.4917688.02	567.51	18174.9
18304.01	571.5918427.81	592.4818513.79	608.918532.21	611.1118763.33	627.23
19189.95	633.1719611.94	633.9721659.07	628.821770.78	628.821993.28	629.71
22332.54	627.3523288.79	631.2823538.32	637.5225162.82	643.7625533.52	646.72
25943.76	651.2326574.35	665.5926791.48	666.2427871.87	666.2428487.77	662.48
28753.23	662.48	29309.7	656.2429540.12	652.6229706.43	650.629842.15
29986.23	645.3730271.25	62.6430583.13	652.6430583.13	655.3131647.63	671.8732291.56
33229.9	706.0533368.21	706.7333966.36	687.14	34000	687.3135544.88
36556.29	726.92	36747.7	730.7637088.83	746.237129.02	747.1337426.22
37747.72	761.4837900.99	765.0438651.65	79039326.25	794.1539666.44	800

Manning's n Values	num=	3
Sta n Val Sta	n Val	Sta n Val
0 .1517067.83	.1518427.81	.15

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
17067.8318427.81	5 5 5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.76	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507438.00	250455.30	1815670.00
E.G. Slope (ft/ft)	0.000077	Area (sq ft)	1507438.00	250455.30	1815670.00
Q Total (cfs)	6730000.00	Flow (cfs)	2751751.00	705033.90	3273215.00
Top width (ft)	36322.85	Top width (ft)	15692.24	1359.98	19270.63
Vel Total (ft/s)	1.88	Avg. Vel. (ft/s)	1.83	2.82	1.80
Max Chl Dpth (ft)	192.25	Hydr. Depth (ft)	96.06	184.16	94.22
Conv. Total (cfs)	765598500.0	conv. (cfs)	313036600.0	80204000.0	372357800.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15705.85	1362.66	19275.57
Min Ch El (ft)	567.51	Shear (lb/sq ft)	0.46	0.89	0.45
Alpha	1.06	Stream Power (lb/ft s)	0.85	2.50	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	82457.30	15358.96	99433.99
C & E Loss (ft)	0.00	Cum SA (acres)	706.08	71.06	823.81

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275063.\*

INPUT

Description:	Station Elevation Data	num=	120
Sta Elev Sta	Elev Sta Elev Sta	Elev Sta Elev Sta	Elev Sta Elev
0 800 196.62	791.71 639.7	774.62 1347.71	761.04 1525.87
1810.4	746.06 1977.26	743.75 2326.19	742.05 3553.9
3625.44	719.75 3716.36	716.25 3727.63	716.61 4107.75
4250.2	710.74 4403.14	706.33 4776.99	697.23 5232.62
5717.62	686.99 5876.39	680.2 5944.7	673.71 6306.55
6795.79	677.5 7015.48	665 7181.64	658.75 7252.72
7451.78	656.86 7668.93	666.92 7731.8	667.19 7861.03
8271.63	670.69 8425.96	678.72 8718.58	666.82 8732.65
9043.51	652.7 9297.36	664.34 9471.83	663.75 9654.6
9984.48	636.5610001.68	636.2510091.22	623.7510259.22
10358.4	610.710484.98	639.1510592.46	653.7510979.68
11193.35	63811405.86	635.0811657.85	639.1211957.71
14052.36	628.7514292.74	62514910.67	62515386.06
15739.66	632.9815746.63	629.1415853.15	627.216511.31
17162.18	585.617481.03	583.3317563.29	576.517692.75
18309.17	571.5818433.12	592.5 18519.1	608.918537.52
19195.18	633.1419617.12	633.9321664.02	628.7521775.72
22337.42	627.3123293.57	631.2523543.06	637.525167.38
25948.23	651.2226578.75	665.626795.86	666.2527876.13
28757.39	662.529313.79	656.2529544.19	652.6229710.48
29990.25	645.3530275.23	652.6330587.08	655.331651.46
33233.55	705.9633371.86	706.6533969.93	687.1234003.57
36559.57	726.8536750.97	730.737092.05	746.1337132.24
37750.87	761.4437904.12	765 38654.7	79039329.22

Manning's n Values	num=	3
Sta n Val Sta	n Val	Sta n Val
0 .1517071.62	.1518433.12	.15

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
17071.6218433.12	5 5 5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.76	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1507448.00	250724.90	1816015.00
E.G. Slope (ft/ft)	0.000077	Area (sq ft)	1507448.00	250724.90	1816015.00
Q Total (cfs)	6730000.00	Flow (cfs)	2750756.00	705614.40	3273630.00
Top width (ft)	36326.83	Top width (ft)	15695.72	1361.50	19269.62
Vel Total (ft/s)	1.88	Avg. Vel. (ft/s)	1.82	2.81	1.80
Max Chl Dpth (ft)	192.25	Hydr. Depth (ft)	96.04	184.15	94.24
Conv. Total (cfs)	765771100.0	conv. (cfs)	312994000.0	80288140.0	372489000.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15709.33	1364.18	19274.54
Min Ch El (ft)	567.51	Shear (lb/sq ft)	0.46	0.89	0.45
Alpha	1.06	Stream Power (lb/ft s)	0.84	2.49	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	82284.27	15330.20	99225.56
C & E Loss (ft)	0.00	Cum SA (acres)	704.27	70.90	821.60

CROSS SECTION

RIVER: BRAZOS  
 REACH: UPPER BRAZOS RS: 275060.\*

INPUT

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Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	196.66	791.71	639.84	774.61	1348.01	761.04	1526.21	752.94			
1810.8	746.05	1977.7	743.74	2326.7	743.74	2659.87	742.04	3554.69	723.63			
3626.25	719.76	3717.19	716.26	3728.46	716.08	3929.4	716.61	4108.66	713.74			
4251.14	710.72	4404.12	706.32	4778.05	697.21	5233.78	690.71	5572.94	688.45			
5718.89	686.98	5877.7	680.17	5945.02	673.67	6307.95	672.42	6656.64	675.68			
6797.3	677.48	7017.04	664.96	7183.24	658.7	7254.33	652.44	7303.26	652.44			
7453.44	656.81	7670.64	666.87	7733.52	667.14	7862.78	670.19	8225.64	667.45			
8273.46	670.7	8427.84	678.78	8720.52	666.91	8734.59	665.4	8907.03	653.24			
9045.52	652.77	9299.43	664.43	9473.93	663.84	9656.74	650.71	9842.67	646.73			
9986.7	636.65	10003.9	636.3410093.46		623.82	10261.5	605.0410318.75		605.04			
10360.71	610.7510487.31		639.1910594.81		653.8210982.12		648.4911140.08		642.58			
11195.83	638.0711408.39		635.1511660.44		639.1611960.36		635.0412594.67		628.78			
14055.48	628.7814295.92		625.0414913.98		625.0415389.48		631.3 15449.5		637.56			
15743.16	633.0515750.13		629.215856.67		627.2616514.98		600.3617075.42		592.52			
17166.11	585.6217485.45		583.3517567.83		576.5117697.48		567.5118184.85		567.51			
18314.32	571.5818438.44		592.5218524.41		608.918542.82		611.118773.89		627.16			
19200.41	633.119622.31		633.8921668.98		628.721780.66		628.722003.12		629.62			
22342.3	627.2823298.34		631.22 23547.8		637.4825171.95		643.7425542.56		646.71			
25952.7	651.2226583.15		665.6126800.24		666.2627880.39		666.2628496.15		662.52			
28761.55	662.5229317.89		656.2629548.26		652.6229714.53		650.629850.22		644.82			
29994.27	645.3430279.22		652.6230591.04		655.29 31655.3		671.8132299.09		675.02			
33237.21	705.87 33375.5		706.56 33973.5		687.134007.14		687.2735551.68		724.88			
36562.85	726.7836754.23		730.6437095.28		746.0637135.46		746.9937432.59		750.17			
37754.02	761.3937907.26		764.9638657.74		790 39332.2		794.1639672.31		800			

Manning's n Values

Sta	n Val	Sta	n Val
0	.1517075.42	.1518438.44	.15

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

17075.4218438.44	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.76	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1507463.00	250989.00	1816377.00
E.G. Slope (ft/ft)	0.000077	Area (sq ft)	1507463.00	250989.00	1816377.00
Q Total (cfs)	6730000.00	Flow (cfs)	2749766.00	706169.00	3274065.00
Top width (ft)	36331.13	Top width (ft)	15699.24	1363.02	19268.87
Vel Total (ft/s)	1.88	Avg. Vel. (ft/s)	1.82	2.81	1.80
Max Chl Dpth (ft)	192.25	Hydr. Depth (ft)	96.02	184.14	94.26
Conv. total (cfs)	765944100.0	conv. (cfs)	312952100.0	80369390.0	372622700.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15712.87	1365.70	19273.78
Min Ch El (ft)	567.51	Shear (lb/sq ft)	0.46	0.89	0.45
Alpha	1.06	Stream Power (lb/ft s)	0.84	2.49	0.82
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	82111.24	15301.40	99017.09
C & E Loss (ft)	0.00	Cum SA (acres)	702.47	70.75	819.39

CROSS SECTION

RIVER: BRAZOS REACH: UPPER BRAZOS RS: 275057.\*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	196.71	791.7	639.99	774.6	1348.31	761.04	1526.55	752.93			
1811.2	746.05	1978.14	743.73	2327.22	743.73	2660.46	742.03	3555.48	723.64			
3627.05	719.78	3718.01	716.27	3729.29	716.09	3930.27	716.6	4109.58	713.73			
4252.09	710.71	4405.1	706.3	4779.11	697.19	5234.94	690.69	5574.18	688.43			
5720.16	686.96	5879	680.14	5947.34	673.64	6309.35	672.39	6658.12	675.66			
6798.81	677.46	7018.6	664.92	7184.83	658.65	7255.94	652.38	7304.89	652.38			
7455.09	656.76	7672.34	666.82	7735.24	667.09	7864.53	670.16	8227.46	667.45			
8275.3	670.72	8429.71	678.84	8722.46	667.87	8736.53	665.48	8909.01	653.31			
9047.53	652.84	9301.49	664.53	9476.03	663.94	9658.89	650.79	9844.86	646.8			
9988.92	636.7410006.12		636.43 10095.7		623.8910263.78		605.0810321.04		605.08			
10363.01	610.810489.64		639.2410597.16		653.8910984.55		648.5611142.56		642.65			
11198.32	638.1511410.92		635.2211663.03		639.2111963.02		635.0812597.46		628.81			
14058.6	628.8114299.09		625.08 14917.3		625.08 15392.9		631.3515452.93		637.62			
15746.66	633.115753.63		629.2615860.19		627.3216518.65		600.3917079.21		592.54			
17170.04	585.6317489.86		583.3717572.37		576.5217702.22		567.5118189.83		567.51			
18319.47	571.5818443.76		592.5418529.71		608.8918548.13		611.118779.17		627.12			
19205.64	633.0719627.49		633.8521673.93		628.6521785.61		628.6522008.03		629.57			
22347.18	627.2423303.11		631.1923552.55		637.4625176.51		643.7325547.08		646.71			
25957.18	651.2226587.56		665.6326804.62		666.2727884.65		666.2728500.34		662.54			
28765.71	662.5429321.99		656.2729552.33		652.6329718.58		650.5929854.26		644.81			
29998.29	645.3330283.21		652.6130594.99		655.2931659.13		671.7932302.85		675			
33240.87	705.793379.14		706.4833977.08		687.0834010.71		687.2535555.07		724.8			
36566.14	726.736757.49		730.57 37098.5		745.9937138.68		746.9237435.78		750.12			
37757.17	761.3537910.39		764.9238660.79		79039335.17		794.1739675.25		800			

Manning's n Values

Sta	n Val	Sta	n Val
0	.1517079.21	.1518443.76	.15

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

17079.2118443.76	5	5	5	.1	.3
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CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.76	Reach Len. (ft)	5.00	5.00	5.00
Crit w.s. (ft)		Flow Area (sq ft)	1507467.00	251256.70	1816693.00
E.G. Slope (ft/ft)	0.000077	Area (sq ft)	1507467.00	251256.70	1816693.00
Q Total (cfs)	6730000.00	Flow (cfs)	2748801.00	706750.80	3274449.00
Top width (ft)	36335.18	Top width (ft)	15702.75	1364.55	19267.88
Vel Total (ft/s)	1.88	Avg. Vel. (ft/s)	1.82	2.81	1.80

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