

SS_Rev3.rep

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275915.*

INPUT

Description:

Station Elevation Data		num=	120										
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	183.86	793.05	598.2	778.23	1260.28	761.85	1426.87	755.24				
1692.94	747.9	1848.98	746.67	2175.27	746.67	2486.75	745.77	3323.33	718.64				
3390.23	715.19	3475.25	713.33	3485.79	713.23	3673.66	718.19	3841.25	716.67				
3974.46	715.06	4117.48	711.26	4467.07	702.86	4893.14	695.06	5210.23	693.86				
5346.68	692.44	5495.15	688.13	5559.02	684.38	5897.4	682.16	6223.39	682.38				
6354.9	683.34	6560.34	676.68	6715.72	673.35	6782.18	670.02	6827.93	670.02				
6968.33	672.34	7171.4	682.38	7230.19	680.57	7351.03	678.18	7690.27	665.45				
7734.99	665.69	7879.31	662.16	8152.95	640.99	8166.1	639.47	8327.32	632.27				
8456.8	631.44	8694.18	636.57	8857.32	635.52	9028.24	627.76	9202.06	624.86				
9336.72	610.14	9352.8	609.97	9436.53	603.31	9593.63	593.32	9647.15	593.32				
9686.38	596.36	9804.75	625.53	9905.25	633.31	10267.35	630.48	10415.03	622.65				
10467.16	615.57	10665.88	614.02	10901.52	625.51	11181.93	623.32	11774.95	619.99				
13140.68	619.99	13365.47	613.32	13943.31	613.32	14387.86	616.65	14443.97	619.98				
14718.52	617.58	14725.04	610.85	14824.64	609.44	15440.11	592.81	15964.07	586.66				
16014.56	582.18	16192.36	578.14	16238.24	573.77	16310.42	567.83	16726.01	567.83				
16804.91	572.82	16880.56	586.66	16969.35	609.47	16988.37	611.97	17227.03	637.85				
17667.57	643.36	18103.34	646.11	18217.28	643.35	18332.64	643.35	20562.4	643.84				
20912.73	637.91	21900.2	640.01	22157.86	643.34	23835.38	646.67	24218.18	648.25				
24641.8	652.18	25292.98	662.18	25517.2	663.33	26632.85	663.33	27268.85	656.66				
27542.97	656.66	28117.6	653.33	28355.55	651.42	28527.28	651.06	28667.43	648.6				
28816.21	649.52	29110.53	654.68	29432.59	657.53	29531.84	680.33	31196.79	682.03				
32165.74	731.21	32308.58	731.57	32926.24	693.14	32960.98	693.23	34556.29	750.68				
35600.7	747.75	35798.36	749.06	36150.62	766.62	36192.12	767.12	36499.02	764.13				
36831.02	774.78	36989.29	776.68	37764.44	7903	38461.06	792.21	38812.36	800				

Manning's n Values		num=	3								
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1515964	07	.1516880	56	.15						
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.				
15964.07	16880.56	5	5	5	.1	.3					

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498870.00	171293.30	1713911.00
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1498870.00	171293.30	1713911.00
Q Total (cfs)	6730000.00	Flow (cfs)	3034827.00	517893.30	3177281.00
Top width (ft)	34705.30	Top width (ft)	14654.04	916.49	19134.77
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.02	3.02	1.85
Max Chl Dpth (ft)	192.05	Hydr. Depth (ft)	102.28	186.90	89.57
Conv. Total (cfs)	719717100.0	Conv. (cfs)	324549300.0	55384350.0	339783500.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14667.13	918.60	19143.56
Min Ch El (ft)	567.83	Shear (lb/sq ft)	0.56	1.02	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.13	3.08	0.91
Frctn Loss (ft)	0.00	Cum volume (acre-ft)	132699.10	22408.60	158369.00
C & E Loss (ft)	0.00	Cum SA (acres)	1212.91	109.08	1467.24

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275912.*

INPUT

Description:

Station Elevation Data		num=	120										
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	183.91	793.04	598.34	778.21	1260.58	761.85	1427.21	755.23				
1693.35	747.89	1849.42	746.66	2175.79	746.66	2487.34	745.75	3324.12	718.65				
3391.04	715.21	3476.08	713.34	3486.62	713.24	3674.53	718.19	3842.16	716.66				
3975.4	715.05	4118.45	711.25	4468.13	702.84	4894.31	695.04	5211.47	693.84				
5347.95	692.42	5496.45	688.11	5560.35	684.35	5898.8	682.12	6224.87	682.36				
6356.41	683.32	6561.9	676.64	6717.31	673.3	6783.79	669.96	6829.55	669.96				
6969.99	672.29	7173.1	682.32	7231.9	680.52	7352.78	678.15	7692.1	665.45				
7736.83	665.71	7881.19	662.21	8154.89	641.08	8168.04	639.56	8329.29	632.34				
8458.81	631.51	8696.24	636.67	8859.43	635.62	9030.38	627.84	9204.25	624.93				
9338.93	610.23	9355.02	610.06	9438.77	603.38	9595.91	593.36	9649.44	593.36				
9688.68	596.41	9807.08	625.58	9907.6	633.38	10269.79	630.54	10417.51	622.72				
10469.64	615.65	10668.41	614.09	10904.11	625.56	11184.58	623.36	11777.75	620.02				
13143.81	620.02	13368.64	613.36	13946.62	613.36	14391.28	616.7	14447.4	620.04				
14722.02	617.63	14728.54	610.91	14828.16	609.51	15443.77	592.84	15967.86	586.68				
16018.49	582.19	16196.78	578.16	16242.77	573.78	16315.16	567.83	16730.99	567.83				
16810.06	572.81	16885.88	586.68	16974.66	609.41	16993.68	611.97	17232.31	637.81				
17672.81	643.33	18108.52	646.07	18222.24	643.32	18337.58	643.32	20567.32	643.79				
20917.61	637.88	21904.97	639.98	22162.61	643.32	23839.95	646.66	24222.7	648.25				
24646.28	652.17	25297.38	662.19	25521.58	663.34	26637.11	663.34	27273.04	656.68				
27547.13	656.68	28121.7	653.34	28359.62	651.42	28531.33	651.06	28671.47	648.59				
28820.23	649.51	29114.52	654.67	29436.55	657.49	29535.67	680.33	31200.55	682.01				
32169.4	731.12	32312.22	731.49	32929.81	693.12	32964.55	693.21	34559.68	750.59				
35603.98	747.68	35801.62	749.06	36153.85	766.53	36195.34	767.05	36502.21	764.08				
36834.16	774.74	36992.42	776.64	37767.49	7903	38464.03	792.22	38815.29	800				

Manning's n Values		num=	3								
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1515967	86	.1516885	88	.15						
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.				
15967.86	16885.88	5	5	5	.1	.3					

CROSS SECTION OUTPUT Profile #PF 1

Page 195

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498928.00	171570.00	1714245.00
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1498928.00	171570.00	1714245.00
Q Total (cfs)	6730000.00	Flow (cfs)	3033791.00	518585.00	3177624.00
Top Width (ft)	34709.62	Top Width (ft)	14657.58	918.02	19134.01
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.02	3.02	1.85
Max Chl Dpth (ft)	192.05	Hydr. Depth (ft)	102.26	186.89	89.59
Conv. Coef. (cfs)	719892900.0	Corr. Coef	324517800.0	55471870.0	339903300.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14670.66	920.13	19142.79
Min Ch El (ft)	567.83	Shear (lb/sq ft)	0.56	1.02	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.13	3.08	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	132527.10	22388.93	158172.20
C & E Loss (ft)	0.00	Cum SA (acres)	1211.22	108.97	1465.05

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275909.*

Station	Elevation	num= 120											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	183.95	793.04	2598.4	778.2	1260.87	761.85	1427.55	755.23				
1693.75	747.89	1849.86	746.65	2176.3	746.65	2486.87	745.74	3324.91	718.67				
3391.84	715.22	3476.91	713.35	3487.45	713.25	3675.4	718.18	3843.08	716.66				
3976.35	715.03	4119.43	711.23	4469.2	702.82	4895.47	695.03	5212.71	693.82				
5391.22	692.4	5497.76	688.08	5561.67	684.31	5900.2	686.09	6245.55	682.34				
6353.04	672.4	6533.46	671.11	6821.11	665.25	6785.41	669.9	6831.18	669.9				
6947.64	672.4	7171.81	682.27	7233.62	680.48	7354.53	678.12	7693.93	665.46				
7738.66	665.73	7883.06	662.27	8156.82	641.16	8169.98	639.64	8331.27	632.42				
8440.61	631.58	8698.31	636.76	8861.53	635.71	9032.53	627.92	9206.44	625.01				
9341.15	610.32	9357.25	610.15	9441.01	603.45	9598.19	593.4	9651.74	593.4				
9690.98	596.46	9809.41	625.62	9909.96	633.45	10272.23	630.61	10419.98	622.79				
10472.13	615.73	10670.95	614.16	10906.7	625.61	11118.24	623.41	11780.54	620.01				
13146.93	620.05	13371.82	613.4	13949.94	613.4	14394.7	616.75	14450.83	620.15				
14725.52	617.68	14732.04	610.98	14831.69	609.57	151447.47	592.81	15971.66	586.7				
16022.42	582.21	16261.01	578.18	1816247.31	573.79	16319.89	567.83	167375.96	567.83				
16815.21	572.81	16891.2	586.71	16979.96	609.41	16998.98	611.96	17237.25	637.78				
17678.04	643.29	18113.71	646.03	182027.19	643.25	2520342.52	643.25	25072.59	643.74				
20922.2	637.84	20909.74	637.84	2255167.39	643.25	2520342.52	643.25	25072.59	643.74				
25072.59	637.84	25530.79	637.84	25530.79	643.25	2520342.52	643.25	25072.59	643.74				
27555.29	655.72	28125.19	653.35	3528263.66	651.28	38253.38	651.06	382675.51	656.58				
28824.25	649.49	29218.11	654.66	29440.5	657.48	30935.59	680.27	31204.31	681.98				
32173.06	731.03	332315.86	731.43	332933.39	693.13	32968.12	693.19	343563.08	750.5				
35607.26	747.43	35804.89	748.93	336157.07	766.48	383619.56	766.98	383650.59	764.04				
36837.31	774.69	369395.55	776.63	37770.54	7903846.07	01	792.23	38818.23	800.0				

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15971.66	16891.2		5	5	5		.1	.3

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.88	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1498973.00	171842.70	1714605.00
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1498973.00	171842.70	1714605.00
Q Total (cfs)	6370000.00	Flow (cfs)	3032716.00	519259.10	3178025.00
Top Width (ft)	34713.93	Top Width (ft)	14661.07	919.54	19133.33
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.02	3.02	1.85
Max Chl Dpth (ft)	192.05	Hydr. Depth (ft)	102.24	186.88	89.61
Conv. Total (cfs)	720701400.0	Wetted Per. (ft)	14674.33	921.65	19142.09
Length wtd. (ft)	5.00	Shear (lb/sq ft)	0.56	1.02	0.49
Min Ch El (ft)	567.83	Stream Power (lb/ft s)	1.13	3.07	0.91
Alpha	1.06	Cum Volume (acre-ft)	132355.00	22369.22	157975.40
Frctn Loss (ft)	0.00	Cum SA (acres)	1209.54	108.87	1462.85
C & E Loss (ft)	0.00				

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275906.☆

[illegible]

SS_Rev3.rep
 20927.37 637.821914.51 639.9222172.09 643.2823849.07 646.6424231.74 648.23
 24655.23 652.1725306.19 662.2125530.34 663.3626645.62 663.3627281.41 656.72
 27555.45 656.7228129.89 653.3628367.76 651.4128539.43 651.0628679.54 648.56
 28828.27 649.48 29122.5 654.6529444.45 657.4730543.34 680.2431208.07 681.96
 32176.71 730.95 32319.5 731.3232936.96 693.0832971.69 693.1734566.48 750.42
 35610.55 747.5435808.15 748.8736160.29 766.4136201.78 766.9236508.58 763.99
 36840.46 774.6536998.68 776.5637773.59 79038469.98 792.2338821.16 800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515975.45 .1516896.51 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15975.4516896.51 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1499022.00	172117.60	1714927.00
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1499022.00	172117.60	1714927.00
Q Total (cfs)	6730000.00	Flow (cfs)	3031671.00	519952.40	3178376.00
Top width (ft)	34718.41	Top width (ft)	14664.78	921.06	19132.57
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.02	3.02	1.85
Max Chl Dpth (ft)	192.04	Hydr. Depth (ft)	102.22	186.87	89.63
Conv. Total (cfs)	720236900.0	Conv. (cfs)	324446000.0	55644710.0	340146100.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14677.85	923.17	19141.31
Min Ch El (ft)	567.83	Shear (lb/sq ft)	0.56	1.02	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.13	3.07	0.91
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	132183.00	22349.48	157778.60
C & E Loss (ft)	0.00	Cum SA (acres)	1207.86	108.76	1460.66

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275903.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	184.04	793.03	598.77	778.18	1261.47	761.84	1428.23	755.21		
1694.55	747.88	1850.74	746.63	2177.34	746.63	2489.11	745.72	3326.49	718.7		
3393.46	715.26	3478.56	713.37	3489.11	713.27	3677.15	718.17	3844.9	716.63		
3978.23	715	4121.39	711.2	4471.32	702.78	4897.79	695	5215.18	693.78		
5351.76	692.37	5500.37	688.03	5564.31	684.24	5903	682.02	6229.31	682.29		
6360.94	683.26	6566.57	676.52	6722.1	673.15	6788.63	669.78	6834.42	669.78		
6974.95	672.13	7178.21	682.16	7237.06	680.38	7358.02	678.07	7697.58	665.47		
7742.34	665.76	7886.8	662.38	8160.7	641.34	8173.86	639.82	8335.23	632.56		
8464.83	631.73	8702.44	636.95	8865.74	635.91	9036.82	628.07	9210.81	625.16		
9345.59	610.5	9361.69	610.33	9445.5	603.59	9602.75	593.48	9656.32	593.48		
9695.59	596.55	9814.06	625.72	9914.66	633.59	10277.11	630.72	10424.93	622.92		
10477.1	615.88	10676.02	614.31	110911.88	625.71	11192.55	623.48	11786.14	620.11		
13153.17	620.11	113378.17	613.48	13956.56	613.48	14401.54	616.85	14457.7	620.22		
14732.51	617.79	14739.03	611.11	14838.73	609.69	15454.78	592.91	15979.24	586.74		
16030.29	582.23	16210.02	578.21	16256.39	573.81	16329.36	567.83	16745.92	567.83		
16825.52	572.81	16901.83	586.74	16990.58	609.41	17009.59	611.96	17248.15	637.7		
17688.5	643.22	18124.07	645.94	20237.1	643.15	20352.41	643.15	20582.07	643.64		
20932.25	637.77	21919.28	639.89	22176.84	643.26	23853.63	646.63	24236.26	648.23		
24659.7	652.16	25310.59	662.23	25534.71	663.37	26649.88	663.37	27285.6	656.74		
27559.61	656.74	28133.99	653.37	28371.83	651.41	28543.49	651.06	28683.58	648.55		
28832.29	649.47	29126.49	654.65	29448.41	657.47	30547.17	680.21	31211.83	681.94		
32180.37	730.86	32323.14	731.23	32940.54	693.06	32975.27	693.15	34569.88	750.33		
35613.83	747.47	35811.41	748.81	36163.52	766.34	36205	766.85	36511.77	763.94		
36843.61	774.63	37001.82	776.52	37776.64	790384	472.95	792.24	38824.09	800		

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1515979.24 .1516901.83 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 15979.2416901.83 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1499075.00	172394.50	1715269.00
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1499075.00	172394.50	1715269.00
Q Total (cfs)	6730000.00	Flow (cfs)	3030620.00	520644.00	3178737.00
Top width (ft)	34722.73	Top width (ft)	14668.33	922.59	19131.82
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.02	3.02	1.85
Max Chl Dpth (ft)	192.04	Hydr. Depth (ft)	102.20	186.86	89.66
Conv. Total (cfs)	720413400.0	Conv. (cfs)	324412900.0	55732380.0	340268200.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14681.38	924.70	19140.54
Min Ch El (ft)	567.83	Shear (lb/sq ft)	0.56	1.02	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.12	3.07	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	132010.90	22329.71	157581.80
C & E Loss (ft)	0.00	Cum SA (acres)	1206.18	108.66	1458.46

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275900.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	184.08	793.03	598.91	778.16	1261.77	761.84	1428.57	755.2		

SS_Rev3.rep											
1694.96	747.87	1851.18	746.62	2177.85	746.62	2489.7	745.7	3327.28	718.72		
3394.26	715.27	3479.38	713.38	3489.94	713.28	3678.02	718.17	3845.81	716.62		
3979.18	714.99	4122.37	711.18	4472.38	702.76	4898.96	694.98	5216.42	693.76		
5353.03	682.35	5501.68	688.55	5565.63	684.2	5904.41	681.99	6230.78	682.27		
6362.45	683.24	6568.13	676.48	6723.69	673.1	6790.24	669.72	6836.04	669.72		
6976.61	672.08	7179.92	682.11	7238.77	680.34	7359.77	678.04	7699.41	665.48		
7744.18	665.78	7888.67	662.44	8162.63	641.43	8175.8	639.91	8337.21	632.63		
8466.84	631.8	8704.5	637.05	8867.84	636	9038.96	628.15	9212.99	625.23		
9347.81	610.59	9363.91	610.42	9447.74	603.66	9605.03	593.52	9658.61	593.52		
9697.89	596.6	9816.39	625.76	9917.02	633.66	10279.54	630.78	10427.4	622.99		
10479.59	615.96	10678.55	614.38	10914.47	625.75	11195.21	623.52	11788.94	620.14		
13156.29	620.14	13381.35	613.52	13959.88	613.52	14404.95	616.91	14461.13	620.28		
14736.01	617.84	14742.53	611.16	14842.25	609.75	15458.45	592.94	15983.03	586.76		
16034.21	582.24	16214.43	578.23	16260.92	573.82	16334.09	567.83	16750.9	567.83		
16830.67	572.81	16907.15	586.76	16995.89	609.4	17014.9	611.95	17253.43	637.67		
17693.73	643.19	18129.26	645.92	18242.05	643.12	18357.35	643.12	18586.99	643.6		
20937.12	637.73	21924.05	639.86	22181.58	643.24	23858.19	646.62	24240.78	648.22		
24664.18	652.16	25314.99	662.24	25539.1	663.38	26654.14	663.38	27289.79	656.76		
27563.77	656.76	28138.08	653.38	28375.9	651.42	28547.54	651.06	28687.62	648.54		
28836.31	649.45	29130.47	654.64	29452.36	657.46	30551.01	680.18	31215.6	681.91		
32184.03	730.78	32326.78	721.15	32944.11	693.04	32978.84	693.13	34573.27	750.24		
35617.11	747.39	35814.67	748.75	36166.74	766.27	36208.22	766.78	36514.95	763.89		
36846.77	774.53	37004.95	776.48	37779.69	7903	38475.93	792.25	38827.03	800		
Manning's n Values											
Sta	n Val	Sta	num=	3	Sta	n Val	Sta	n Val	Sta	n Val	Sta
0	.1515983.03			.1516907.15		.15					
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.											
15983.03	16907.15	5	5	5	.1	.3					
CROSS SECTION OUTPUT Profile #PF 1											
E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB						
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150						
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00						
Crit W.S. (ft)		Flow Area (sq ft)	1499126.00	172670.40	1715614.00						
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1499126.00	172670.40	1715614.00						
Q Total (cfs)	6730000.00	Flow (cfs)	3029563.00	521330.00	3179108.00						
Top width (ft)	34727.04	Top width (ft)	14671.87	924.12	19131.06						
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.02	3.02	1.85						
Max Chl Dpth (ft)	192.04	Hydr. Depth (ft)	102.18	186.85	89.68						
Conv. Total (cfs)	720590500.0	Conv. (cfs)	324379500.0	55819530.0	340391500.0						
Length wtd. (ft)	5.00	wetted Per. (ft)	14684.91	926.24	19139.77						
Min Ch El (ft)	567.83	Shear (lb/sq ft)	0.56	1.02	0.49						
Alpha	1.06	Stream Power (lb/ft s)	1.12	3.07	0.90						
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	131838.80	22309.90	157384.80						
C & E Loss (ft)	0.00	Cum SA (acres)	1204.49	108.55	1456.26						
CROSS SECTION											
RIVER: BRAZOS											
REACH: UPPER BRAZOS RS: 275897.*											
INPUT											
Description:											
Station Elevation Data num= 120											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	184.12	793.02	599.05	778.15	1262.07	761.84	1428.91	755.19		
1695.36	747.86	1851.62	746.61	2178.37	746.61	2490.3	745.69	3328.07	718.74		
3395.07	715.29	3480.21	713.39	3490.76	713.29	3678.9	718.16	3846.73	716.61		
3980.12	714.98	4123.35	711.16	4473.44	702.74	4900.12	694.97	5217.66	693.75		
5354.3	692.33	5502.98	687.97	5566.95	684.16	5905.81	681.96	6232.26	682.25		
6363.96	683.22	6569.69	676.44	6725.29	673.05	6791.85	669.66	6837.67	669.66		
6978.26	672.03	7181.62	682.06	7240.49	680.29	7361.51	678.01	7701.24	665.49		
7746.02	665.8	7890.55	662.5	8164.57	641.52	8177.74	640	8339.19	632.7		
8468.85	631.88	8706.57	637.14	8869.95	636.1	9041.11	628.23	9215.18	625.3		
9350.03	610.68	9366.13	610.51	9449.98	603.73	9607.31	593.56	9660.91	593.56		
9700.19	596.65	9818.72	625.81	9919.37	633.73	10281.98	630.85	10429.88	623.06		
10482.08	616.03	10681.08	614.45	10917.06	625.79	11197.87	623.56	11791.73	620.17		
13159.42	620.17	13384.52	613.56	13963.19	613.56	14408.37	616.95	14464.56	620.34		
14739.5	617.84	14746.03	611.23	14845.78	609.81	15462.12	592.97	15986.83	586.78		
16038.15	582.25	16218.84	578.25	16265.46	573.83	16338.83	567.83	16755.88	567.83		
16835.82	572.79	16912.46	586.78	17001.19	609.4	17020.2	611.95	17258.71	637.63		
17698.96	643.15	18134.44	645.86	20247.01	643.05	20362.29	643.05	20591.9	643.55		
20942	637.69	21928.83	639.83	22186.32	643.22	23862.76	646.61	24245.3	648.22		
24668.65	652.16	25319.4	662.25	25543.47	663.39	26658.4	663.39	27293.98	656.78		
27567.93	656.78	28142.18	653.39	28379.97	651.42	28551.59	651.05	28691.65	648.52		
28840.33	649.44	29134.46	654.63	29456.31	657.45	30554.84	680.15	31219.36	681.89		
32187.69	730.69	32330.42	731.06	32947.68	693.02	32982.41	693.13	34576.67	750.15		
35620.4	747.32	35817.94	748.68	36169.96	766.23	36211.44	766.71	36518.14	763.85		
36849.91	774.51	37008.09	776.44	37782.73	790	38478.9	792.25	38829.96	800		
Manning's n Values											
Sta	n Val	Sta	num=	3	Sta	n Val	Sta	n Val	Sta	n Val	Sta
0	.1515986.83			.1516912.46		.15					
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.											
15986.83	16912.46	5	5	5	.1	.3					
CROSS SECTION OUTPUT Profile #PF 1											
E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB						
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150						
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00						
Crit W.S. (ft)		Flow Area (sq ft)	1499166.00	172943.50	1715965.00						
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1499166.00	172943.50	1715965.00						
Q Total (cfs)	6730000.00	Flow (cfs)	3028482.00	522010.90	3179507.00						
Top width (ft)	34731.43	Top width (ft)	14675.42	925.63	19130.38						
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.02	3.02	1.85						
Max Chl Dpth (ft)	192.04	Hydr. Depth (ft)	102.15	186.84	89.70						
Conv. Total (cfs)	720763300.0	Conv. (cfs)	324341600.0	55905840.0	340515900.0						
Length wtd. (ft)	5.00	wetted Per. (ft)	14688.46	927.75	19139.07						
Min Ch El (ft)	567.83	Shear (lb/sq ft)	0.56	1.01	0.49						

Alpha	1.06	Stream Power (lb/ft s)	1.12	3.06	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	131666.70	22290.06	157187.90
C & E Loss (ft)	0.00	Cum SA (acres)	1202.81	108.45	1454.07

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275894.*

INPUT

Description:

[illegible]

Manning's	n values		num=	3	
Sta	n val	Sta	n val	Sta	n val
0	.1515990.62		.1516917.78		.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	15990.6216	917.78		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1499220.00	173218.80	1716312.00
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1499220.00	173218.80	1716312.00
Q Total (cfs)	6730000.00	Flow (cfs)	3027422.00	522694.20	3179884.00
Total Width (ft)	34735.85	Total width (ft)	14679.06	927.16	19129.63
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.02	3.02	1.85
Max Ch. Depth (ft)	102.04	Hydr. Depth (ft)	10.13	186.83	89.72
Conv. Total (cfs)	720940300.0	Conv. (cfs)	324307700.0	55992760.0	340639800.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14692.09	929.28	19138.31
Min Ch El (ft)	567.83	Shear (lb/sq ft)	0.56	1.01	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.12	3.06	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	131494.70	22270.20	156990.90
C & E Loss (ft)	0.00	Cum SA (acres)	1201.12	108.34	1451.87

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275892.*

INPUT

Description:

[illegible]

Manning's	n	Values	num=	3	
Sta	n	Val	Sta	n	Val
0	.1515994	.41	.15	16923.1	.15

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
Page 199								

15994.41 16923.1	5	5	5	SS_Rev3.rep	.1	.3
CROSS SECTION OUTPUT Profile #PF 1						
E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB	
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150	
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00	
Crit W.S. (ft)		Flow Area (sq ft)	1499270.00	173500.90	1716628.00	
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1499270.00	173500.90	1716628.00	
Q Total (cfs)	6730000.00	Flow (cfs)	3026392.00	523414.60	3180194.00	
Top width (ft)	34740.17	Top width (ft)	14682.61	928.69	19128.87	
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.02	3.02	1.85	
Max Chl Dpth (ft)	192.05	Hydr. Depth (ft)	102.11	186.82	89.74	
Conv. Total (cfs)	721110000.0	Conv. (cfs)	324273600.0	56083140.0	340753300.0	
Length Wtd. (ft)	5.00	wetted Per. (ft)	14695.62	930.81	19137.53	
Min Ch El (ft)	567.82	Shear (lb/sq ft)	0.55	1.01	0.49	
Alpha	1.06	Stream Power (lb/ft s)	1.12	3.06	0.90	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	131322.60	22250.30	156793.90	
C & E Loss (ft)	0.00	Cum SA (acres)	1199.44	108.23	1449.68	

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275889.*

INPUT

Description:		num=	120
Station	Elevation Data	Sta	Elev
0	800 184.26	793.01	599.48
1696.57	747.84 1852.93	746.58	2179.92
3397.48	715.33 3482.69	713.42	3493.25
3982.96	714.93 4126.28	711.11	4476.63
5358.11	692.27 5506.9	687.89	5570.91
6368.49	683.16 6574.37	676.32	6730.08
6983.23	671.87 7186.73	681.9	7245.65
7751.53	665.85 7896.16	662.67	8170.38
8474.88	632.09 8712.77	637.43	8876.26
9356.68	610.95 9372.8	610.78	9456.71
9707.09	596.8 9825.71	625.95	9926.43
10489.54	616.2610688.69	614.6710924.83	
13168.78	620.2613394.05	613.6813973.13	
14750	618.0514756.53	611.4114856.34	
16049.94	582.2916232.08	578.316279.08	
16851.28	572.7816928.41	586.8417017.12	
17714.66	643.0518149.99	645.7420261.87	
20956.64	637.5921943.14	639.7422200.56	
24682.07	652.1525332.61	662.2825556.61	
27580.4	656.8428154.47	653.4228392.18	
28852.39	649.3929146.43	654.6129468.18	
32198.65	730.4332341.35	730.8132958.41	
35630.25	747.1135827.72	748.4936179.64	
36859.37	774.3737017.48	776.3237791.88	
		79038487.82	
		792.2738838.77	

Manning's n Values		num=	3
Sta	n Val	Sta	n Val
0	.1515998.21	.1516928.41	.15
Bank Sta: Left	Right	Lengths: Left	Channel
15998.2116928.41		5	5
			5
		Coeff	Contr.
		.1	.3
		Expan.	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1499328.00	173773.20	1716976.00
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1499328.00	173773.20	1716976.00
Q Total (cfs)	6730000.00	Flow (cfs)	3025352.00	524087.50	3180561.00
Top width (ft)	34744.55	Top width (ft)	14686.16	930.20	19128.20
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)	2.02	3.02	1.85
Max Chl Dpth (ft)	192.05	Hydr. Depth (ft)	102.09	186.81	89.76
Conv. Total (cfs)	721288300.0	Conv. (cfs)	324242300.0	56169120.0	340876800.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	14699.17	932.32	19136.84
Min Ch El (ft)	567.82	Shear (lb/sq ft)	0.55	1.01	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.12	3.06	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	131150.50	22230.37	156596.80
C & E Loss (ft)	0.00	Cum SA (acres)	1197.75	108.13	1447.48

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275886.*

INPUT

Description:		num=	120
Station	Elevation Data	Sta	Elev
0	800 184.3	793	599.62
1696.97	747.84 1853.37	746.57	2180.44
3398.29	715.35 3483.51	713.43	3494.08
3983.9	714.92 4127.26	711.09	4477.69
5359.38	692.26 5508.2	687.86	5572.23
6370	683.14 6575.93	676.28	6731.67
6984.89	671.81 7188.44	681.85	7247.36
7753.37	665.86 7898.03	662.72	8172.32
8476.89	632.17 8714.83	637.52	8878.37
9358.9	611.04 9375.02	610.87	9458.95
9709.4	596.85 9828.04	626	9928.78
10492.03	616.3410691.22	614.7410927.42	
13171.91	620.2913397.22	613.7213976.44	
14753.49	618.1114760.02	611.4814859.86	
		610.0515476.79	
		593.07	16002

SS_Rev3.rep									
16053.87	582.3	16236.5	578.3216283.61	573.8616357.76	567.82	16775.8	567.82		
16856.43	572.7816933.73		586.8617022.42	609.3917041.42	611.9417279.82		637.49		
17719.89	643.0118155.18		645.6920266.83	642.8520382.06	642.8520611.57		643.35		
20961.52	637.5521947.91		639.71 22205.3	643.14 23881	646.5724263.38		648.2		
24686.55	652.1425337.01		662.325560.99	663.4326675.43	663.4327310.74		656.86		
27584.56	656.8628158.57		653.4328396.25	651.44 28567.8	651.05 28707.8		648.47		
28856.42	649.3829150.42		654.6129472.13	657.4230570.18	680.0431234.41		681.79		
32202.31	730.3432344.99		730.7232961.98	692.9332996.69	693.0234590.26		749.8		
35633.53	747.0435830.98		748.4336182.86	765.9236224.32	766.4336530.88		763.65		
36862.52	774.3337020.62		776.2837794.93	79038490.79	792.28 38841.7		800		
Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.15	16002	.1516933.73		.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
1600216933.73 5 5 .1 .3									
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1499371.00	174048.90	1717327.00				
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1499371.00	174048.90	1717327.00				
Q Total (cfs)	6730000.00	Flow (cfs)	3024274.00	524771.30	3180955.00				
Top width (ft)	34748.87	Top width (ft)	14689.70	931.73	19127.44				
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.02	3.02	1.85				
Max chl Dpth (ft)	192.05	Hydr. Depth (ft)	102.07	186.80	89.78				
Conv. Total (cfs)	721464100.0	Conv. (cfs)	324205800.0	56256120.0	341002200.0				
Length wtd. (ft)	5.00	wetted Per. (ft)	14702.71	933.85	19136.07				
Min Ch El (ft)	567.82	Shear (lb/sq ft)	0.55	1.01	0.49				
Alpha	1.06	Stream Power (lb/ft s)	1.12	3.05	0.90				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	130978.40	22210.40	156399.70				
C & E Loss (ft)	0.00	Cum SA (acres)	1196.07	108.02	1445.28				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275883.*

INPUT

Description:									
Station	Elevation	Data	num=	120					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	184.34	793	599.76	778.09	1263.57	761.82	1430.6	755.15
1697.37	747.83	1853.81	746.56	2180.96	746.56	2493.25	745.63	3332.02	718.82
3399.09	715.37	3484.34	713.44	3494.9	713.34	3683.26	718.14	3851.29	716.56
3984.84	714.9	4128.24	711.08	4478.75	702.64	4905.93	694.89	5223.85	693.65
5360.65	692.24	5509.51	687.84	5573.55	683.98	5912.81	681.79	6239.66	682.13
6371.51	683.12	6577.49	676.24	6733.27	672.8	6799.91	669.36	6845.78	669.36
6986.54	671.76	7190.14	681.79	7249.08	680.06	7370.25	677.88	7710.37	665.52
7755.2	665.88	7899.91	662.78	8174.26	641.96	8187.44	640.44	8349.08	633.06
8478.9	632.24	8716.9	637.62	8880.47	636.58	9051.83	628.62	9226.11	625.68
9361.12	611.13	9377.24	610.96	9461.19	604.08	9618.71	593.76	9672.37	593.76
9711.7	596.9	9830.37	626.04	9931.14	634.0810294.18		631.1510442.25		623.4
10494.51	616.42	10693.75	614.8110930.01		626.0311211.15		623.7611805.72		620.32
13175.03	620.32	13400.4	613.7613979.75		613.7614425.46		617.214481.72		620.64
14756.99	618.16	14763.52	611.5414863.39		610.1115480.46		593.0916005.79		586.88
16057.8	582.31	16240.91	578.3416288.15		573.87 16362.5		567.8216780.78		567.82
16861.58	572.77	16939.05	586.8817027.73		609.3917046.73		611.94 17285.1		637.45
17725.12	642.98	18160.36	645.6520271.78		642.8 20387		642.820616.49		643.3
20966.4	637.51	21952.69	639.6822210.04		643.1223885.56		646.56 24267.9		648.19
24691.02	652.14	25341.41	662.3125565.37		663.4426679.69		663.4427314.92		656.88
27588.72	656.88	28162.66	653.4428400.32		651.4428371.85		651.0528711.84		648.46
28860.44	648.37	29154.41	654.629476.08		657.4130574.01		680.0131238.17		681.77
32205.97	730.26	32348.63	730.6432965.55		692.9133000.26		69334593.65		749.71
35636.82	746.96	35834.25	748.3736186.09		765.8536227.54		766.3736534.07		763.61
36865.66	774.28	37023.75	776.2437797.98		79038493.77		792.2938844.64		800

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516005.79		.1516939.05		.15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16005.7916939.05 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1499423.00	174325.30	1717668.00				
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1499423.00	174325.30	1717668.00				
Q Total (cfs)	6730000.00	Flow (cfs)	3023215.00	525460.00	3181325.00				
Top width (ft)	34753.38	Top width (ft)	14693.42	933.26	19126.70				
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.02	3.01	1.85				
Max chl Dpth (ft)	192.05	Hydr. Depth (ft)	102.05	186.79	89.80				
Conv. Total (cfs)	721637600.0	Conv. (cfs)	324170200.0	56343490.0	341123800.0				
Length wtd. (ft)	5.00	wetted Per. (ft)	14706.42	935.39	19135.32				
Min Ch El (ft)	567.82	Shear (lb/sq ft)	0.55	1.01	0.49				
Alpha	1.06	Stream Power (lb/ft s)	1.12	3.05	0.90				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	130806.30	22190.41	156202.60				
C & E Loss (ft)	0.00	Cum SA (acres)	1194.38	107.91	1443.09				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275880.*

INPUT

Description:

Station Elevation Data										SS_Rev3.rep									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	184.39	792.99	599.9	778.08	1263.87	761.82	1430.94	755.15										
1697.77	747.83	1854.25	746.55	2181.47	746.55	2493.84	745.61	3332.81	718.86										
3399.9	715.38	3485.16	713.45	3495.73	713.35	3684.13	718.13	3852.2	716.55										
3985.79	714.89	4129.22	711.06	4479.81	702.63	4907.09	694.88	5225.09	693.64										
5361.92	692.22	5510.82	687.81	5574.87	683.95	5914.21	681.76	6241.14	682.11										
6373.02	683.1	6579.04	676.2	6734.86	672.75	6801.52	669.3	6847.4	669.3										
6988.2	671.71	7191.84	681.74	7250.8	680.02	7371.99	677.85	7712.2	665.53										
7757.04	665.9	7901.78	662.84	8176.19	642.05	8189.38	640.53	8351.06	633.13										
8480.91	632.31	8718.96	637.71	8882.58	636.68	9053.98	628.7	9228.3	625.75										
9363.34	611.22	9379.47	611.05	9463.44	604.15	9620.99	593.8	9674.66	593.8										
9714	596.95	9832.7	626.09	9933.49	634.15	10296.62	631.21	10444.73	623.47										
10497	616.49	10696.29	614.88	10932.6	626.07	11213.81	623.81	11808.52	620.35										
13178.15	620.35	13403.58	613.81	13983.07	613.81	14428.88	617.25	14485.15	620.7										
14760.49	618.21	14767.02	611.61	14866.91	610.17	15484.13	593.12	16009.58	586.9										
16061.73	582.32	16245.32	578.36	16292.69	573.88	16367.23	567.82	16785.76	567.82										
16866.73	572.77	16944.37	586.91	17033.04	609.39	17052.04	611.93	17290.38	637.41										
17730.35	642.94	18165.55	645.61	20276.74	642.75	20391.94	642.75	20621.41	643.26										
20971.28	637.48	21957.46	639.65	22214.79	643.12	23890.12	646.55	24272.42	648.19										
24695.49	652.14	25345.82	662.32	25569.75	663.45	26683.94	663.45	27319.11	656.9										
27592.88	656.92	28166.76	653.45	28404.39	651.45	28575.9	651.04	28715.87	648.45										
28864.46	649.35	29158.4	654.59	29480.04	657.41	30577.85	679.98	31241.93	681.74										
32209.62	730.17	32352.27	730.55	32969.13	692.89	33003.83	692.98	34597.05	749.62										
35640.1	746.89	35837.51	748.31	36189.31	765.78	36230.75	766.33	36537.26	763.56										
36868.82	774.23	37026.88	776.23	37801.03	79038	496.74	792.29	38847.57	800										

Manning's n Values					num= 3				
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516009.58		.1516944.37						

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
16009.58	16944.37		5	5	5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1499462.00	174600.50	1718007.00
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1499462.00	174600.50	1718007.00
Q Total (cfs)	6730000.00	Flow (cfs)	3022154.00	526144.90	3181701.00
Top Width (ft)	34757.62	Top Width (ft)	14696.89	934.79	19125.94
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.02	3.01	1.85
Max Chl Dpth (ft)	192.05	Hydr. Depth (ft)	102.03	186.78	89.83
Conv. Total (cfs)	721809100.0	Conv. (cfs)	324133500.0	56430340.0	341245200.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14709.87	936.92	19134.54
Min Ch El (ft)	567.82	Shear (lb/sq ft)	0.55	1.01	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.12	3.05	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	130634.10	22170.38	156005.40
C & E Loss (ft)	0.00	Cum SA (acres)	1192.69	107.81	1440.89

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275877.*

INPUT

Description:									
Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	184.43	792.99	600.05	778.07	1264.17	761.82	1431.28	755.14
1698.17	747.82	1854.69	746.54	2181.99	746.54	2494.43	745.61	3333.59	718.86
3400.71	715.4	3485.99	713.46	3496.56	713.36	3685	718.12	3853.12	716.54
3986.73	714.87	4130.19	711.04	4480.87	702.61	4908.26	694.86	5226.32	693.62
5363.19	692.2	5512.12	687.78	5576.2	683.91	5915.62	681.72	6242.61	682.09
6374.53	683.08	6580.6	676.16	6736.46	672.7	6803.13	669.24	6849.02	669.24
6989.85	671.66	7193.55	681.69	7252.52	679.97	7373.74	677.82	7714.03	665.54
7758.88	665.92	7903.65	662.89	8178.13	642.14	8191.32	640.62	8353.04	633.2
8482.92	632.38	8721.03	637.81	8884.68	636.78	9056.12	628.78	9230.49	625.83
9365.55	611.31	9381.69	611.14	9465.68	604.22	9623.27	593.84	9676.95	593.84
9716.3	597	9835.03	626.14	9935.84	634.22	10299.06	631.28	10447.2	623.54
10499.49	616.57	10698.82	614.96	10935.2	626.12	11216.46	623.84	11811.32	620.38
13181.27	620.38	13406.75	613.84	13986.38	613.84	14432.3	617.31	14488.58	620.76
14763.98	618.26	14770.52	611.67	14870.43	610.23	15487.8	593.15	16013.38	586.92
16065.66	582.33	16249.74	578.37	16297.23	573.89	16371.96	567.82	16790.73	567.82
16871.88	572.76	16949.68	586.92	17038.35	609.39	17057.34	611.93	17295.66	637.38
17735.58	642.91	18170.73	645.57	20281.69	642.72	20396.88	642.72	20626.32	643.21
20976.16	637.44	21962.23	639.62	22219.53	643.08	23894.69	646.54	24276.94	648.18
24699.97	652.13	25350.22	662.33	25574.13	663.46	26688.2	663.46	27323.3	656.92
27597.04	656.92	28170.86	653.46	28408.46	651.45	28579.96	651.04	28719.91	648.43
28868.48	649.34	29162.38	654.58	29483.99	657.43	30581.68	679.95	31245.69	681.72
32213.28	730.08	32355.91	730.46	32972.7	692.87	33007.4	692.96	34600.45	749.54
35643.38	746.82	35840.77	748.24	36192.54	765.71	36233.98	766.23	36540.44	763.51
36871.96	774.19	37030.02	776.16	37804.08	79038	499.71	792.33	38850.51	800

Manning's n Values					num= 3				
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516013.38		.1516949.68						

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
16013.38	16949.68		5	5	5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1499508.00	174874.60	1718344.00
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1499508.00	174874.60	1718344.00
Q Total (cfs)	6730000.00	Flow (cfs)	3021106.00	526829.90	3182064.00
Top Width (ft)	34762.01	Top Width (ft)	14709.44	936.30	19125.27
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.01	3.01	1.85
Max Chl Dpth (ft)	192.05	Hydr. Depth (ft)	102.00	186.77	89.85

Page 202

Conv. Total (cfs)	721980400.0	Conv. (cfs)	SS_Rev3.rep	324098000.0	56517220.0	341365200.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	14713.41	938.43	19133.86	
Min Ch El (ft)	567.82	Shear (lb/sq ft)	0.55	1.01	0.49	
Alpha	1.06	Stream Power (lb/ft s)	1.11	3.05	0.90	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	130462.00	22150.33	155808.20	
C & E Loss (ft)	0.00	Cum SA (acres)	1191.01	107.70	1438.70	

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275874.*

INPUT

Description:

Station	Elev	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	184.47	792.98	600.19	778.05	1264.47	761.81	1431.62	755.13			
1698.58	747.81	1855.13	746.53	2182.51	746.53	2495.02	745.59	3334.38	718.87			
3401.51	715.41	3486.81	713.47	3497.39	713.37	3685.88	718.12	3854.03	716.53			
3987.68	714.86	4131.17	711.03	4481.93	702.59	4909.42	694.85	5227.56	693.6			
5364.46	692.18	5513.43	687.75	5577.52	683.87	5917.02	681.69	6244.09	682.06			
6376.04	683.06	6582.16	676.12	6738.06	672.65	6804.74	669.18	6850.64	669.18			
6991.51	671.6	7195.25	681.64	7254.24	679.93	7375.49	677.79	7715.85	665.54			
7760.72	665.93	7905.52	662.95	8180.07	642.23	8193.26	640.71	8355.01	633.27			
8484.93	632.46	8723.1	637.9	8886.78	636.87	9058.27	628.86	9232.67	625.9			
9367.77	611.4	9383.91	611.23	9467.92	604.29	9625.55	593.88	9679.24	593.88			
9718.6	597.04	9837.36	626.18	9938.2	634.29	10301.5	631.34	10449.68	623.6			
10501.97	616.65	10701.36	615.03	10937.79	626.17	11219.12	623.88	11814.11	620.41			
13184.39	620.41	13409.93	613.88	13989.69	613.88	14435.72	617.35	14492.01	620.82			
14767.48	618.32	14774.02	611.73	14873.95	610.31	15491.46	593.17	16017.17	586.94			
16069.59	582.35	16254.15	578.39	16301.77	573.9	16376.7	567.82	16795.71	567.82			
16877.03	572.76	16955	586.94	17043.65	609.39	17062.64	611.93	17300.94	637.34			
17740.82	642.87	18175.92	645.53	20286.64	642.65	20401.83	642.65	20631.24	643.16			
20981.04	637.4	21967	639.59	22224.28	643.06	23899.25	646.53	24281.46	648.18			
24704.44	652.13	25354.62	662.34	25578.51	663.47	26692.46	663.47	27327.49	656.94			
27601.2	656.94	282174.95	653.47	28412.54	651.45	28584.01	651.04	28723.95	648.42			
28872.5	649.32	29166.37	654.58	29487.95	657.39	30585.52	679.92	31249.46	681.7			
32216.94	73032	3359.56	730.38	32976.28	692.85	33010.97	692.94	34603.85	749.45			
35646.67	746.75	35844.04	748.18	36195.76	765.64	36237.2	766.16	36543.63	763.46			
36875.12	774.14	37033.15	776.12	37807.12	79038	3502.68	792.31	338853.45	800			

Manning's n	Values	num=	3
Sta	n Val	Sta	n Val
0	.1516017.17	.15	16955

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16017.17	16955	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1499561.00	175148.90	1718679.00
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1499561.00	175148.90	1718679.00
Q Total (cfs)	6730000.00	Flow (cfs)	3020062.00	527510.10	3182428.00
Top width (ft)	34766.51	Top width (ft)	14704.15	937.83	19124.53
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.01	3.01	1.85
Max Chl Dpth (ft)	192.05	Hydr. Depth (ft)	101.98	186.76	89.87
Conv. Total (cfs)	722150800.0	Conv. (cfs)	324062500.0	56603550.0	341484900.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	14717.13	939.96	19133.10
Min Ch El (ft)	567.82	Shear (lb/sq ft)	0.55	1.01	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.11	3.04	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	130289.90	22130.24	155610.90
C & E Loss (ft)	0.00	Cum SA (acres)	1189.32	107.59	1436.50

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275871.*

INPUT

Description:

Station	Elev	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev
0	800	184.52	792.98	600.33	778.04	1264.77	761.81	1431.96	755.12	
1698.98	747.81	1855.57	746.52	2183.02	746.52	2495.61	745.58	3335.17	718.89	
3402.32	715.43	3487.64	713.48	3498.22	713.38	3686.75	718.11	3854.94	716.52	
3988.62	714.84	4132.15	711.01	4482.99	702.57	4910.58	694.83	5228.8	693.58	
5365.73	692.16	5514.73	687.73	5578.84	683.84	5918.42	681.66	6245.57	682.04	
6377.55	683.04	6583.72	676.08	6739.65	672.6	6806.35	669.12	6852.27	669.12	
6993.17	671.55	7196.96	681.58	7255.95	679.88	7377.23	677.77	7717.68	665.55	
7762.56	665.95	7907.4	663.01	8182.01	642.31	8195.2	640.8	8356.99	633.35	
8486.94	632.53	8725.16	638	8888.89	636.97	9060.41	628.93	9234.86	625.98	
9369.99	611.49	9386.13	611.32	9470.16	604.36	9627.83	593.92	9681.53	593.92	
9720.9	597.09	9839.69	626.23	9940.55	634.36	10303.94	631.41	10452.15	623.67	
10504.46	616.73	10703.89	615.11	10940.38	626.21	11221.78	623.92	11816.91	620.44	
13187.52	620.44	13413.1	613.92	13993	613.92	14439.14	617.41	14495.45	620.88	
14770.98	618.37	14777.52	611.79	14877.48	610.36	15495.13	593.21	16020.96	586.96	
16073.52	582.36	16258.56	578.41	16306.3	573.91	16381.43	567.82	16800.69	567.82	
16882.18	572.75	16960.32	586.96	17048.96	609.39	17067.95	611.93	17306.22	637.3	
17746.05	642.84	18181.1	645.49	20291.6	642.62	20406.77	642.62	20636.16	643.11	
20985.92	637.37	21971.77	639.56	22229.02	643.04	23903.81	646.52	24285.98	648.17	
24708.92	652.13	25359.03	662.35	25582.88	663.48	26696.72	663.48	27331.68	656.96	
27605.36	656.96	282179.05	653.48	28416.61	651.46	28588.06	651.04	28727.98	648.41	
28876.52	649.31	29170.36	654.57	29491.9	657.38	30589.35	679.89	31253.22	681.67	
32220.6	729.91	32363.2	730.29	32979.85	692.83	33014.54	692.92	34607.24	749.36	
35649.95	746.68	35847.3	748.12	36198.98	765.57	36240.41	766.09	36546.82	763.42	
36878.27	774.13	37036.28	776.08	37810.18	79038	3505.66	792.31	338856.38	800	

Manning's n	Values	num=	3
Sta	n Val	Sta	n Val
0	.1516017.17	.15	16955

INPUT											
Description:											
Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	184.6	792.97	600.62	778.02	1265.37	761.81	1432.64	755.11		
1699.78	747.79	1856.45	746.5	2184.06	746.5	2496.79	745.55	3336.75	718.93		
3403.93	715.46	3489.29	713.5	3499.87	713.4	3688.5	718.1	3856.77	716.5		
3900.51	714.81	4134.11	710.98	4485.12	702.53	4912.91	694.8	5231.28	693.54		
5368.27	692.12	5517.34	687.67	5581.48	683.76	5921.22	681.59	6248.53	681.99		
6380.57	683	6586.84	676	6742.84	672.5	6809.58	669	6855.51	669		
6996.48	671.44	7200.36	681.48	7259.39	679.79	7380.73	677.71	7721.33	665.56		
7766.23	665.98	7911.14	663.12	8185.88	642.49	8199.08	640.97	8360.95	633.49		
8490.95	632.68	8729.29	638.19	8893.1	637.16	9064.7	629.09	9239.23	626.13		
9374.43	611.67	9390.58	611.5	9474.65	604.5	9632.38	594	9686.12	594		
9725.51	597.19	9844.35	626.32	9945.26	634.5	10308.82	631.52	10457.1	623.81		

Page 204

10509.43	616.8810708.96	615.2410945.56	626.3111227.09	SS_Rev3.rep	620.5
13193.76	620.513419.45	61413999.63	61414445.98	62411822.51	621
14777.97	618.4814784.51	611.9214884.52	610.4815502.47	617.514502.31	587
16081.38	582.3816267.39	578.4416315.38	573.93 16390.9	593.2516028.55	567.82
16892.49	572.7516970.95	58717059.57	609.3817078.56	611.9217316.78	637.23
17756.51	642.7718191.47	645.420301.51	642.520416.65	642.520645.99	643.01
20995.67	637.321981.32	639.522238.51	64323912.93	646.524295.02	648.16
24717.87	652.1225367.83	662.3825591.64	663.526705.23	663.527340.06	657
27613.68	65728187.24	653.528424.75	651.4728596.16	651.0428736.06	648.38
28884.56	649.2829178.34	654.56 29499.8	657.3730597.02	679.8331260.74	681.63
32227.91	729.7432370.48	730.12 32987	692.7933021.68	692.8834614.04	749.18
35656.52	746.5335853.82	747.9936205.43	765.4336246.86	765.9536553.19	763.32
36884.57	774.0137042.55	77637816.27	790 38511.6	792.3338862.25	800

Manning's n Values	num=	3			
Sta n Val Sta	n Val	Sta	n Val		
0 .1516028.55	.1516970.95	.15			
Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.		
16028.5516970.95	5 5	.1	.3		

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1499707.00	175973.70	1719708.00
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1499707.00	175973.70	1719708.00
Q Total (cfs)	6730000.00	Flow (cfs)	3016915.00	529553.50	3183532.00
Top width (ft)	34779.47	Top width (ft)	14714.71	942.40	19122.36
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.01	3.01	1.85
Max Chl Dpth (ft)	192.05	Hydr. Depth (ft)	101.92	186.73	89.93
Conv. Total (cfs)	722676800.0	Conv. (cfs)	323960500.0	56864190.0	341852100.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14727.67	944.53	19130.88
Min Ch El (ft)	567.82	Shear (lb/sq ft)	0.55	1.01	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.11	3.04	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	129773.50	22069.78	155018.90
C & E Loss (ft)	0.00	Cum SA (acres)	1184.25	107.27	1429.92

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275862.*

INPUT

Description:	num=	120			
Station Elevation Data	Sta Elev Sta	Elev Sta	Elev Sta	Elev	
0 800 184.65	792.97 600.76	778 1265.67	761.8 1432.98	755.1	
1700.19 747.79 1856.89	746.49 2184.57	746.49 2497.39	745.54 3337.54	718.94	
3404.73 715.47 3490.12	713.51 3500.7	713.41 3689.37	718.1 3857.68	716.49	
3991.45 714.8 4135.09	710.96 4486.18	702.51 4914.07	694.79 5232.51	693.52	
5369.54 692.11 5518.65	687.64 5582.8	683.73 5922.62	681.56 6250.01	681.97	
6382.08 682.98 6588.4	675.96 6744.44	672.45 6811.19	668.94 6857.13	668.94	
6998.13 671.39 7202.07	681.42 7261.11	679.74 7382.47	677.69 7723.16	665.57	
7768.07 666 7913.01	663.18 8187.82	642.58 8201.02	641.06 8362.93	633.56	
8492.96 632.75 8731.36	638.28 8895.2	637.26 9066.85	629.17 9241.42	626.2	
9376.65 611.76 9392.8	611.59 9476.89	604.57 9634.66	594.04 9688.41	594.04	
9727.81 597.24 9846.68	626.37 9947.61	634.5710311.26	631.5810459.57	623.88	
10511.92 616.9610711.49	615.3210948.15	626.3511229.75	624.0411825.31	620.53	
13196.88 620.5313422.63	614.0414002.94	614.0414449.39	617.5514505.74	621.06	
14781.47 618.5314788.01	611.9814888.04	610.5415506.14	593.2716032.34	587.02	
16085.31 582.39 16271.8	578.4616319.92	573.9416395.63	567.8116815.63	567.81	
16897.64 572.7416976.27	587.0217064.88	609.3817083.87	611.9217322.06	637.19	
17761.74 642.7318196.65	645.3620306.46	642.45 20421.6	642.4520650.91	642.96	
21000.55 637.2621986.09	639.4722243.25	642.98 23917.5	646.4924299.54	648.16	
24722.34 652.1225372.24	662.3925596.02	663.5126709.49	663.5127344.25	657.02	
27617.83 657.0228191.34	653.5128428.82	651.4728600.21	651.03 28740.1	648.37	
28888.58 649.2729182.33	654.5529503.76	657.3630600.86	679.8 31264.5	681.6	
32231.57 729.6532374.12	730.0432990.57	692.7733025.25	692.8634617.43	749.1	
35659.8 746.4635857.09	747.9336208.66	765.3636250.07	765.8836556.38	763.27	
36887.72 773.9637045.68	775.9637819.32	79038514.58	792.3338865.18	800	

Manning's n Values	num=	3			
Sta n Val Sta	n Val	Sta	n Val		
0 .1516032.34	.1516976.27	.15			
Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.		
16032.3416976.27	5 5	.1	.3		

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1499752.00	176255.00	1720045.00
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1499752.00	176255.00	1720045.00
Q Total (cfs)	6730000.00	Flow (cfs)	3015839.00	530264.50	3183897.00
Top width (ft)	34783.98	Top width (ft)	14718.43	943.93	19121.62
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.01	3.01	1.85
Max Chl Dpth (ft)	192.06	Hydr. Depth (ft)	101.90	186.72	89.95
Conv. Total (cfs)	722849000.0	Conv. (cfs)	323922100.0	56954100.0	341972700.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14731.38	946.07	19130.13
Min Ch El (ft)	567.81	Shear (lb/sq ft)	0.55	1.01	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.11	3.03	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	129601.40	22049.57	154821.50
C & E Loss (ft)	0.00	Cum SA (acres)	1182.56	107.16	1427.72

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275859.*

Page 206

Top width (ft)	34792.70	Top width (ft)	14725.53	946.97	19120.21
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.01	3.01	1.85
Max Chl Dpth (ft)	192.06	Hydr. Depth (ft)	101.85	186.70	89.99
Conv. Total (cfs)	723190300.0	Conv. (cfs)	323852700.0	57126490.0	342211100.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14738.45	949.11	19128.68
Min Ch El (ft)	567.81	Shear (lb/sq ft)	0.55	1.01	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.11	3.03	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	129257.00	22009.04	154426.50
C & E Loss (ft)	0.00	Cum SA (acres)	1179.18	106.94	1423.33

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275854.*

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
0	800	184.78	792.95	601.18	777.97	1266.56	761.79	1433.99	755.08		
1701.39	747.77	1858.21	746.46	2186.12	746.46	2499.16	745.5	3339.91	718.99		
3407.15	715.52	3492.59	713.54	3503.19	713.44	3691.99	718.08	3860.42	716.46		
3994.29	714.75	4138.02	710.91	4489.36	702.45	4917.56	694.75	5236.23	693.47		
5373.35	692.05	5522.57	687.56	5586.76	683.62	5926.83	681.46	6254.44	681.9		
6386.61	682.92	6593.07	675.84	6749.22	672.3	6816.02	668.76	6862	668.76		
7003.1	671.23	7207.18	681.27	7266.26	679.6	7387.71	677.6	7728.64	665.59		
7773.58	666.05	7918.63	663.35	8193.63	642.85	8206.84	641.33	8368.86	633.77		
8498.99	632.97	8737.56	638.57	8901.52	637.55	9073.28	629.4	9247.98	626.42		
9383.3	612.04	9399.47	611.86	9483.61	604.78	9641.5	594.16	9695.29	594.16		
9734.71	597.39	9853.67	626.51	9954.67	634.78	10318.58	631.77	10467	624.08		
10519.28	617.19	10719.1	615.53	10955.92	626.49	11237.72	624.16	11833.7	620.62		
13206.25	620.62	13432.16	614.16	14012.88	614.16	14459.65	617.71	14516.04	621.24		
14791.96	618.69	14798.51	612.17	14898.61	610.72	15517.14	593.35	16043.72	587.08		
16097.1	582.43	16285.04	578.52	16333.53	573.97	16409.84	567.81	16830.57	567.81		
16913.09	572.73	16992.22	587.08	17080.8	609.38	17099.78	611.91	17337.9	637.08		
17777.44	642.63	18212.21	645.23	20321.33	642.32	20436.42	642.32	20665.66	642.82		
21015.19	637.15	22000.4	639.38	22257.48	642.92	23931.18	646.46	24313.1	648.14		
24735.76	652.11	25385.45	662.42	25609.16	663.54	26722.26	663.54	27356.81	657.08		
27630.31	657.08	28203.63	653.54	28441.03	651.48	28612.37	651.03	28752.21	648.33		
28900.64	649.22	29194.29	654.53	29515.62	657.34	30612.36	679.72	31275.79	681.53		
32242.54	729.39	32385.04	729.78	33001.3	692.71	33035.96	692.83	34627.62	748.83		
35669.66	746.25	35866.87	747.74	36218.33	765.15	36259.73	765.68	36565.93	763.13		
36897.17	773.82	37055.08	775.84	37828.47	790	38523.5	792.35	38873.99	800		

Manning's	n Values		num=	3	
Sta	n val	Sta	n val	Sta	n val
0	.1516043.72		.1516992.22		.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
16043.72	16992.22	5	5	5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1499894.00	177077.30	1721070.00
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1499894.00	177077.30	1721070.00
Q Total (cfs)	6730000.00	Flow (cfs)	3012689.00	532295.30	3185016.00
Top width (ft)	34797.14	Top Width (ft)	14729.18	948.50	19119.46
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.01	3.01	1.85
Max Chl Dpth (ft)	192.06	Hydr. Depth (ft)	101.83	186.69	90.02
Conv. Total (cfs)	723368600.0	Conv. (cfs)	323816400.0	57213330.0	342338800.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14742.09	950.64	19127.92
Min Ch El (ft)	567.81	Shear (lb/sq ft)	0.55	1.01	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.10	3.03	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	129084.90	21988.73	154229.00
C & E Loss (ft)	0.00	Cum SA (acres)	1177.49	106.83	1421.14

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275851.*

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
0	800	184.82	792.95	601.33	777.95	1266.86	761.79	1434.33	755.07		
1701.79	747.76	1858.64	746.45	2186.64	746.45	2499.75	745.49	3340.7	719.01		
3407.95	715.54	3493.42	713.55	3504.01	713.45	3692.86	718.08	3861.33	716.45		
3995.23	714.74	4139	710.89	4490.42	702.43	4918.72	694.73	5237.47	693.45		
5374.62	692.03	5523.87	687.54	5588.08	683.58	5928.23	681.43	6255.92	681.88		
6388.12	682.9	6594.63	675.8	6750.82	672.25	6817.63	668.7	6863.62	668.7		
7004.75	671.18	7208.88	681.21	7267.98	679.56	7389.46	677.58	7730.47	665.6		
7775.42	666.07	7920.5	663.4	8195.57	642.93	8208.78	641.41	8370.84	633.85		
8501	633.04	8739.62	638.66	8903.62	637.65	9075.43	629.48	9250.16	626.5		
9385.52	612.13	9401.69	611.95	9485.86	604.85	9643.78	594.2	9697.58	594.2		
9737.01	597.44	9856	626.56	9957.03	634.85	10321.02	631.83	10469.47	624.15		
10521.87	617.26	10721.63	615.61	10958.51	626.54	11240.38	624.2	11836.5	620.65		
13209.37	620.65	13435.33	614.2	14016.2	614.21	14463.07	617.75	14519.47	621.3		
14795.46	618.74	14802.01	612.23	14902.13	610.78	15520.81	593.38	16047.51	587.1		
16101.03	582.44	16289.46	578.53	16338.07	573.98	16414.57	567.81	16835.54	567.81		
16918.25	572.72	16997.54	587.11	17086.11	609.37	17105.09	611.91	17343.18	637.05		
17782.67	642.59	18217.39	645.19	20326.28	642.25	20441.36	642.25	20670.58	642.77		
21020.07	637.11	22005.18	639.35	22262.23	642.92	23935.74	646.45	24317.62	648.14		
24740.23	652.12	25389.85	662.44	25613.54	663.55	26726.52	663.55	27361	657.1		
27634.47	657.12	28207.72	653.55	28445.1	651.49	28616.42	651.03	28756.24	648.32		
28904.66	649.21	29198.28	654.52	29519.57	657.33	30616.19	679.69	31279.55	681.51		
32246.2	729.31	32388.69	729.73	33004.87	692.69	33039.53	692.78	34631.02	748.74		
35672.94	746.18	35870.13	747.68	36221.55	765.08	36262.95	765.61	36569.12	763.08		
36900.32	773.78	37058.21	775.83	37831.52	790	38526.47	792.36	38876.93	800		

SS_Rev3.rep

Manning's n Values num= 3
Sta n Val Sta n Val
0 .1516047.51 .1516997.54 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
16047.5116997.54 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1499937.00	177354.30	1721401.00
E.G. Slope (ft/ft)	0.000087	Area (sq ft)	1499937.00	177354.30	1721401.00
Q Total (cfs)	6730000.00	Flow (cfs)	3011641.00	532986.40	3185373.00
Top width (ft)	34801.46	Top width (ft)	14732.71	950.03	19118.71
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.01	3.01	1.85
Max Chl Dpth (ft)	192.06	Hydr. Depth (ft)	101.81	186.68	90.04
Conv. Total (cfs)	72353900.0	Conv. (cfs)	32378000.0	57301110.0	342457900.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14745.63	952.17	19127.15
Min Ch El (ft)	567.81	Shear (lb/sq ft)	0.55	1.01	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.10	3.02	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	128912.70	21968.39	154031.40
C & E Loss (ft)	0.00	Cum SA (acres)	1175.80	106.72	1418.94

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275848.*

INPUT

Description:
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	184.87	792.94	601.47	777.94	1267.16	761.79	1434.67	755.06
1702.2	747.76	1859.08	746.44	2187.16	746.44	2500.34	745.47	3341.49	719.03
3408.76	715.55	3494.24	713.56	3504.84	713.46	3693.73	718.07	3862.24	716.44
3996.18	714.72	4139.98	710.87	4491.48	702.41	4919.88	694.72	5238.7	693.43
5375.9	692.01	5525.18	687.51	5589.4	683.54	5929.63	681.39	6257.4	681.86
6389.63	682.88	6596.19	675.76	6752.42	672.2	6819.25	668.64	6865.25	668.64
7006.41	671.13	7210.59	681.16	7269.7	679.51	7391.2	677.55	7732.3	665.6
7777.26	666.09	7922.37	663.46	8197.5	643.02	8210.72	641.5	8372.82	633.92
8503.01	633.11	8741.69	638.76	8905.72	637.74	9077.57	629.56	9252.35	626.57
9387.74	612.22	9403.91	612.04	9488.1	604.92	9646.06	594.24	9699.87	594.24
9739.31	597.49	9858.33	626.6	9959.38	634.92	10323.46	631.89	10471.95	624.22
10524.36	617.34	10724.17	615.68	10961.1	626.59	11243.03	624.24	11839.29	620.68
13212.49	620.68	13438.51	614.24	14019.51	614.24	14466.49	617.8	14522.9	621.36
14798.95	618.79	14805.51	612.29	14905.65	610.84	15524.48	593.41	16051.31	587.12
16104.96	582.45	16293.87	578.55	16342.61	573.98	16419.3	567.81	16840.32	567.81
16923.4	572.72	17002.85	587.12	17091.42	609.37	17110.39	611.91	17348.46	637.01
17787.9	642.56	18222.57	645.15	20331.24	642.2	20446.3	642.22	20675.49	642.72
21024.95	637.08	22009.95	639.32	2266.97	642.88	23940.3	646.44	24322.14	648.13
24744.71	652.12	25394.25	662.45	25617.92	663.56	26730.78	663.56	27365.19	657.12
27638.63	657.12	28211.82	653.56	28449.17	651.49	28620.47	651.03	28760.28	648.3
28908.69	649.19	29202.27	654.51	29523.53	657.32	30620.03	679.66	31283.31	681.48
32249.85	729.22	32392.33	729.61	33008.45	692.66	33043.11	692.76	34634.42	748.66
35676.22	746.13	35873.39	747.61	36224.78	765.01	36266.17	765.54	36572.3	763.04
36903.47	773.73	37061.34	775.76	37834.57	79038	529.44	792.37	38879.86	800

Manning's n Values num= 3
Sta n Val Sta n Val
0 .1516051.31 .1517002.85 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
16051.3117002.85 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1499994.00	177626.80	1721751.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1499994.00	177626.80	1721751.00
Q Total (cfs)	6730000.00	Flow (cfs)	3010607.00	533654.90	3185739.00
Top width (ft)	34805.86	Top width (ft)	14736.26	951.54	19118.05
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.01	3.00	1.85
Max Chl Dpth (ft)	192.06	Hydr. Depth (ft)	101.79	186.67	90.06
Conv. Total (cfs)	723718000.0	Conv. (cfs)	323748900.0	57387170.0	342581900.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14749.16	953.68	19126.48
Min Ch El (ft)	567.81	Shear (lb/sq ft)	0.55	1.01	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.10	3.02	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	128740.50	21948.02	153833.80
C & E Loss (ft)	0.00	Cum SA (acres)	1174.11	106.61	1416.75

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275845.*

INPUT

Description:
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	184.91	792.94	601.61	777.93	1267.46	761.79	1435.01	755.05
1702.6	747.75	1859.52	746.43	2187.67	746.43	2500.93	745.46	3342.28	719.04
3409.57	715.57	3495.07	713.57	3505.67	713.47	3694.61	718.06	3863.16	716.43
3997.12	714.71	4140.96	710.86	4492.35	702.39	4921.04	694.7	5239.94	693.41
5377.17	691.99	5526.48	687.48	5590.72	683.51	5931.03	681.36	6258.88	681.83
6391.14	682.86	6597.75	675.72	6754.01	672.15	6820.86	668.58	6866.87	668.58
7008.07	671.07	7212.29	681.11	7271.41	679.47	7392.95	677.52	7734.12	665.61
7779.1	666.1	7924.24	663.52	8199.44	643.11	8212.66	641.59	8374.8	633.99

Page 208

SS_Rev3.rep									
8505.02	633.19	8743.75	638.85	8907.83	637.84	9079.72	629.64	9254.54	626.65
9389.96	612.31	9406.13	612.13	9490.34	604.99	9648.34	594.28	9702.16	594.28
9741.62	597.54	9860.66	626.65	9961.73	634.99	10325.89	631.95	10474.42	624.28
10526.84	617.42	10726.7	615.75	10963.69	626.63	11245.69	624.28	11474.42	620.71
13215.62	620.71	13441.68	614.28	14023.82	614.28	14469.91	617.85	14526.33	621.42
14802.45	618.85	14809	612.35	14909.18	610.91	15528.15	593.43	16055.1	587.14
16108.89	582.46	16298.28	578.57	16347.14	573.99	16424.04	567.81	16845.5	567.81
16928.55	572.72	17008.17	587.14	17096.73	609.37	17115.7	611.91	17353.74	636.97
17793.13	642.52	18227.76	645.11	18336.19	642.15	18451.25	642.15	18680.41	642.67
21029.83	637.04	22014.72	639.29	22271.71	642.86	23944.87	646.43	24326.66	648.12
24749.18	652.12	25398.66	662.46	25622.29	663.57	26735.04	663.57	27369.38	657.14
27642.79	657.14	28215.92	653.57	28453.24	651.52	28624.53	651.03	28764.32	648.29
28912.71	649.18	29206.26	654.51	29527.48	657.32	30623.86	679.63	31287.08	681.46
32253.51	729.13	33295.97	729.53	33012.02	692.64	33046.68	692.74	34637.82	748.57
35679.51	746.03	35876.66	747.55	36228	764.94	36269.39	765.47	36575.49	762.99
36906.62	773.69	37064.48	775.72	37837.61	79038	532.41	792.37	38882.8	800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .15 16055.1 .15 17008.17 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16055.117008.17 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1500041.00	177902.10	1722083.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500041.00	177902.10	1722083.00
Q Total (cfs)	6730000.00	Flow (cfs)	3009570.00	534336.00	3186094.00
Top Width (ft)	34810.18	Top Width (ft)	14739.80	953.07	19117.31
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.01	3.00	1.85
Max Chl Dpth (ft)	192.06	Hydr. Depth (ft)	101.77	186.65	90.10
Conv. Total (cfs)	723889200.0	Conv. (cfs)	323714000.0	57474000.0	342701200.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14752.71	956.75	19124.96
Min Ch El (ft)	567.81	Shear (lb/sq ft)	0.55	1.00	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.10	3.02	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	128568.40	21927.62	153636.10
C & E Loss (ft)	0.00	Cum SA (acres)	1172.42	106.50	1414.56

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275842.*

INPUT

Description:
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	184.95	792.93	601.75	777.92	1267.76	761.78	1435.35	755.04
1703	747.74	1859.96	746.42	2188.19	746.42	2501.52	745.45	3343.07	719.06
3410.37	715.58	3495.9	713.58	3506.5	713.48	3695.48	718.06	3864.07	716.42
3998.06	714.69	4141.93	710.84	4493.61	702.37	4922.21	694.69	5241.18	693.4
5378.44	691.98	5527.79	687.45	5592.04	683.47	5932.43	681.33	6260.36	681.81
6392.65	682.84	6599.31	675.68	6755.61	672.1	6822.47	668.52	6868.49	668.52
7009.72	671.02	7213.99	681.05	7273.13	679.42	7394.7	677.49	7735.95	665.62
7780.93	666.12	7926.12	663.57	8201.38	643.2	8214.6	641.68	8376.78	634.06
8507.03	633.26	8745.82	638.95	8909.93	637.94	9081.86	629.72	9256.72	626.72
9392.18	612.4	9408.36	612.22	9492.58	605.06	9650.62	594.32	9704.46	594.32
9743.92	597.58	9862.99	626.7	9964.09	635.06	10328.33	632.01	10476.9	624.35
10529.33	617.49	10729.23	615.82	10966.28	626.68	11248.35	624.32	11844.89	620.74
13218.74	620.74	13444.86	614.32	14026.13	614.32	14473.32	617.94	1529.76	621.48
14805.95	618.9	14812.5	612.42	14912.7	610.96	15531.82	593.45	16058.89	587.16
16112.82	582.48	16302.69	578.59	16351.68	574.16	16428.77	567.81	16850.48	567.81
16933.7	572.71	171013.49	587.16	17102.03	609.37	17121	611.91	17359.02	636.94
17798.36	642.49	18232.94	645.07	20341.15	642.12	20456.19	642.12	20685.33	642.62
21034.71	637.22	2019.49	639.26	22276.46	642.84	23949.43	646.42	24331.18	648.12
24753.66	652.09	25403.06	662.47	25626.67	663.58	26739.29	663.58	27373.57	657.16
27646.95	657.16	28220.01	653.58	28457.31	651.52	28628.58	651.02	28768.35	648.28
28916.73	649.17	29210.25	654.52	29531.44	657.31	30627.7	679.63	31290.84	681.43
32257.17	729.05	33299.61	729.44	33015.59	692.62	33050.25	692.72	34641.21	748.48
35682.79	745.96	35879.92	747.49	36231.22	764.87	36272.61	765.43	36578.68	762.94
36909.77	773.64	37067.61	775.68	37840.66	79038	535.39	792.38	38885.73	800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .15 16058.89 .15 17013.49 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16058.8917013.49 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.87	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1500087.00	178177.00	1722429.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500087.00	178177.00	1722429.00
Q Total (cfs)	6730000.00	Flow (cfs)	3008503.00	535012.90	3186484.00
Top Width (ft)	34814.69	Top Width (ft)	14743.52	954.60	19116.57
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.01	3.00	1.85
Max Chl Dpth (ft)	192.06	Hydr. Depth (ft)	101.75	186.65	90.10
Conv. Total (cfs)	724061700.0	Conv. (cfs)	323676300.0	57560530.0	342824800.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14756.41	956.75	19124.96
Min Ch El (ft)	567.81	Shear (lb/sq ft)	0.55	1.00	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.10	3.02	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	128396.20	21907.18	153438.50
C & E Loss (ft)	0.00	Cum SA (acres)	1170.73	106.40	1412.36

CROSS SECTION

SS_Rev3.rep

RIVER: BRAZOS
REACH: UPPER BRAZOS

RS: 275839.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	185.04	792.92	602.04	777.89	1268.36	761.78	1436.03	755.03		
1703.4	747.74	1860.4	746.4	2189.23	746.4	2502.7	745.42	3344.65	719.1		
3411.18	715.6	3496.72	713.6	3508.16	713.5	3697.22	718.05	3865.89	716.4		
3999.01	714.66	4143.89	710.81	4495.73	702.34	4924.53	694.66	5243.65	693.36		
5379.71	691.96	5529.09	687.4	5594.69	683.4	5935.23	681.26	6263.32	681.77		
6394.16	682.82	6600.87	675.6	6758.8	672.6	6825.69	668.4	6871.73	668.4		
7011.38	670.97	7215.7	680.95	7276.57	679.33	7398.19	677.44	7739.61	665.63		
7782.77	666.14	7927.99	663.69	8205.25	643.38	8218.48	641.86	8380.74	634.2		
8509.04	633.33	8747.88	639.04	8912.04	638.03	9084.01	629.8	9258.91	626.8		
9394.39	612.49	9410.58	612.31	9494.83	605.13	9652.9	594.36	9706.75	594.36		
9746.22	597.63	9865.32	626.74	9966.44	635.1310330.77		632.0810479.37		624.42		
10531.82	617.5710731.77		615.8910968.87		626.73	11251	624.3611847.69		620.77		
13221.86	620.7713448.03		614.3614029.45		614.3614476.74		617.95	14533.2	621.54		
14809.45	618.95	14816	612.4814916.22		611.0215535.49		593.4816062.69		587.18		
16116.75	582.4916307.11		578.616356.22		574.0116433.51		567.8116855.46		567.81		
16938.85	572.71	17018.8	587.1817107.34		609.3717126.31		611.8917364.29		636.9		
17803.59	642.4518238.13		645.03	20346.1	642.0520461.13		642.0520690.24		642.58		
21039.59	636.9722024.26		639.23	22281.2	642.8223953.99		646.41	24335.7	648.11		
24758.13	652.0925407.46		662.4825631.05		663.5926743.55		663.5927377.76		657.18		
27651.11	657.1828224.11		653.5928461.38		651.528632.63		651.0228772.39		648.27		
28920.75	649.1529214.24		654.4929535.39		657.330631.53		679.57	31294.6	681.41		
32260.82	728.9632403.25		729.3533019.17		692.633053.82		692.734644.61		748.39		
35686.07	745.8935883.18		747.4336234.45		764.836275.83		765.3436581.86		762.89		
36912.92	773.5937070.75		775.6437843.71		79038538.36		792.3938888.66		800		

Manning's n	Values	num=	3	Sta	n Val	Sta	n Val
0	.1516062.69	.15	17018.8	.15			

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16062.69	17018.8	5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1500124.00	178449.70	1722772.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500124.00	178449.70	1722772.00
Q Total (cfs)	6730000.00	Flow (cfs)	3007443.00	535687.90	3186869.00
Top width (ft)	34818.95	Top Width (ft)	14747.00	956.11	19115.84
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.00	3.00	1.85
Max Chl Dpth (ft)	192.05	Hydr. Depth (ft)	101.72	186.64	90.12
Conv. Total (cfs)	724233200.0	Conv. (cfs)	323638900.0	57646800.0	342947400.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14759.88	958.26	19124.22
Min Ch El (ft)	567.81	Shear (lb/sq ft)	0.55	1.00	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.10	3.01	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	128224.00	21886.71	153240.70
C & E Loss (ft)	0.00	Cum SA (acres)	1169.03	106.29	1410.17

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS

RS: 275836.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	185.04	792.92	602.04	777.89	1268.36	761.78	1436.03	755.03		
1703.81	747.73	1860.84	746.4	2189.23	746.4	2502.7	745.42	3344.65	719.1		
3411.98	715.61	3497.55	713.6	3508.16	713.5	3697.22	718.05	3865.89	716.4		
3999.95	714.66	4143.89	710.81	4495.73	702.34	4924.53	694.66	5243.65	693.36		
5380.98	691.94	5530.4	687.4	5594.69	683.4	5935.23	681.26	6263.32	681.77		
6395.67	682.8	6602.42	675.6	6758.8	672.6	6825.69	668.4	6871.73	668.4		
7013.03	670.91	7217.4	680.95	7276.57	679.33	7398.19	677.44	7739.61	665.63		
7784.61	666.15	7929.86	663.69	8205.25	643.38	8218.48	641.86	8380.74	634.2		
8311.05	633.4	8749.95	639.14	8914.14	638.13	9086.15	629.87	9261.09	626.87		
9396.61	612.58	9412.8	612.4	9497.07	605.2	9655.18	594.4	9709.04	594.4		
9748.52	597.68	9867.64	626.79	9968.79	635.210333.21		632.1410481.85		624.49		
10534.3	617.65	10734.3	615.9710971.46		626.7711253.66		624.411850.48		620.8		
13224.98	620.813451.21		614.414032.76		614.414480.16		61814536.63		621.6		
14812.94	619	14819.5	612.5414919.74		611.0915539.16		593.5116066.48		587.2		
16120.68	582.516311.52		578.6216360.76		574.0216438.24		567.816860.44		567.8		
16944	572.717024.12		587.217112.65		609.3617131.61		611.8917369.57		636.86		
17808.83	642.4218243.31		644.9820351.05		64220466.07		64220695.16		642.53		
21044.46	636.9322029.04		639.222285.95		642.823958.55		646.424340.22		648.11		
24762.61	652.0925411.87		662.525635.43		663.626747.81		663.627381.95		657.2		
27655.27	657.228228.21		653.628465.46		651.5128636.68		651.0228776.43		648.25		
28924.77	649.1429218.23		654.4929539.34		657.2930635.36		679.5431298.36		681.39		
32264.48	728.8732406.89		729.2733022.74		692.5833057.39		692.6834648.01		748.3		
35689.36	745.8235886.45		747.3636237.67		764.7336279.05		765.2736585.05		762.84		
36916.07	773.5537073.88		775.637846.76		79038541.34		792.39	38891.6	800		

Manning's n	Values	num=	3	Sta	n Val	Sta	n Val
0	.1516066.48	.151	7024.12	.15			

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16066.4817024.12		5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00

Crit W.S. (ft)		Flow Area (sq ft)	1500165.00	178730.40	1723116.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500165.00	178730.40	1723116.00
Q Total (cfs)	6730000.00	Flow (cfs)	3006373.00	536391.70	3187236.00
Top Width (ft)	34823.34	Top Width (ft)	14750.54	957.64	19115.17
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.00	3.00	1.85
Max Chl Dpth (ft)	192.06	Hydr. Depth (ft)	101.70	186.64	90.14
Conv. Total (cfs)	724408400.0	Conv. (cfs)	323602000.0	57736500.0	343069900.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	14763.41	959.79	19123.53
Min Ch El (ft)	567.80	Shear (lb/sq ft)	0.55	1.00	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.10	3.01	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	128051.80	21866.21	153043.00
C & E Loss (ft)	0.00	Cum SA (acres)	1167.34	106.18	1407.97

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275833.*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev
0	800	185.09	792.92	602.18	777.88	1268.66	761.78	1436.37	755.02	
1704.21	747.72	1861.28	746.39	2189.74	746.39	2503.29	745.41	3345.44	719.11	
3412.79	715.63	3498.37	713.61	3508.98	713.51	3698.1	718.04	3866.81	716.39	
4000.9	714.65	4144.87	710.79	4496.79	702.32	4925.7	694.64	5244.89	693.34	
5382.25	691.92	5531.71	687.37	5596.01	683.36	5936.63	681.23	6264.79	681.74	
6397.17	682.78	6603.98	675.56	6760.39	671.95	6827.3	668.34	6873.36	668.34	
7014.69	670.86	7219.11	680.89	7278.29	679.28	7399.94	677.41	7741.43	665.64	
7786.45	666.17	7931.73	663.74	8207.19	643.46	8220.42	641.95	8382.71	634.28	
8513.06	633.48	8752.02	639.23	8915.25	638.23	9088.3	629.95	9283.28	626.95	
9398.83	612.67	9415.02	612.49	9499.31	605.27	9657.46	594.44	9711.33	594.44	
9750.82	597.73	9869.97	626.84	9971.15	635.27	10335.65	632.21	10484.32	624.56	
10536.79	617.72	10736.84	616.04	10974.05	626.82	11256.32	624.44	11853.28	620.83	
13228.11	620.83	13454.39	614.44	14036.07	614.44	14483.58	618.05	14540.06	621.66	
14816.44	619.06	14823	612.61	14923.27	611.15	151542.82	593.53	16070.27	587.22	
16124.61	582.51	16315.93	578.64	16365.3	574.03	16442.97	567.81	16865.42	567.8	
16949.15	572.71	17029.44	587.22	17117.96	609.36	17136.92	611.89	17374.85	636.83	
17814.06	642.38	18248.49	644.94	20356.01	641.95	20471.02	641.95	20700.08	642.48	
21049.34	636.92	2033.81	639.17	22290.69	642.78	23963.11	646.39	24344.74	648.1	
24767.08	652.08	25416.27	662.51	25639.81	663.61	26752.07	663.61	27386.13	657.22	
27659.42	657.22	28232.3	653.61	28469.53	651.51	28640.74	651.02	28780.46	648.24	
28928.79	649.12	29222.21	654.48	29543.3	657.29	30639.2	679.51	31302.12	681.36	
32268.14	728.79	32410.54	729.18	33026.32	692.56	33060.96	692.66	34651.41	748.22	
35692.64	745.75	35889.71	747.33	36240.89	764.66	36282.27	765.23	36588.23	762.8	
36919.22	773.53	37077.01	775.56	37849.81	79038	38544.31	792.43	38894.54	800	

Manning's n Values

Sta	n Val	Sta	num=	3	Sta	n Val
0	.1516070.27	.1517029.44	.1517029.44	.15		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16070.27	17029.44	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1500221.00	179005.80	1723443.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500221.00	179005.80	1723443.00
Q Total (cfs)	6730000.00	Flow (cfs)	3005362.00	537069.80	3187569.00
Top Width (ft)	34827.68	Top Width (ft)	14754.07	959.17	19114.43
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.00	3.00	1.85
Max Chl Dpth (ft)	192.06	Hydr. Depth (ft)	101.68	186.63	90.16
Conv. Total (cfs)	724581300.0	Conv. (cfs)	323570400.0	57823290.0	343187600.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	14766.95	961.32	19122.78
Min Ch El (ft)	567.80	Shear (lb/sq ft)	0.55	1.00	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.10	3.01	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	127879.60	21845.68	152845.10
C & E Loss (ft)	0.00	Cum SA (acres)	1165.65	106.07	1405.78

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275830.*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev
0	800	185.13	792.92	602.32	777.87	1268.96	761.77	1436.71	755.01	
1704.61	747.72	1861.72	746.38	2190.26	746.38	2503.88	745.4	3346.23	719.13	
3413.59	715.65	3499.2	713.62	3509.81	713.52	3698.97	718.04	3867.72	716.38	
4001.84	714.63	4145.85	710.77	4497.85	702.3	4926.86	694.63	5246.13	693.32	
5383.52	691.9	5533.01	687.35	5597.33	683.32	5938.03	681.19	6266.27	681.72	
6398.68	682.76	6605.54	675.52	6761.99	671.9	6828.91	668.28	6874.98	668.28	
7016.34	670.81	7220.81	680.84	7280	679.24	7401.68	677.39	7743.26	665.64	
7788.28	666.19	7933.6	663.8	8209.12	643.55	8222.36	642.03	8384.69	634.35	
8515.07	633.55	8754.08	639.33	8918.35	638.32	9090.44	630.03	9265.47	627.02	
9401.05	612.76	9417.24	612.58	9501.55	605.34	9659.74	594.48	9713.62	594.48	
9753.12	597.78	9872.3	626.88	9973.5	635.34	10338.09	632.26	10486.79	624.62	
10539.28	617.81	10739.37	616.11	10976.64	626.87	11258.97	624.48	11856.08	620.86	
13231.23	620.86	13457.56	614.48	14039.38	614.48	14487	618.11	14543.49	621.72	
14819.94	619.11	14826.5	612.67	14926.79	611.21	151546.49	593.56	16074.07	587.24	
16128.54	582.52	16320.35	578.66	16369.83	574.04	16447.71	567.8	16870.4	567.8	
16954.31	572.71	17034.75	587.24	17123.26	609.36	17142.22	611.88	17380.13	636.79	
17819.29	642.35	18253.68	644.92	20360.96	641.92	20475.96	641.9	20705	642.43	
21054.22	636.86	22038.58	639.14	22295.43	642.76	23967.67	646.38	24349.26	648.1	
24771.55	652.08	25420.67	662.52	25644.19	663.62	26756.33	663.62	27390.32	657.24	
27663.58	657.24	28236.4	653.62	28473.6	651.52	28644.79	651.02	28784.5	648.23	
28932.81	649.11	29226.2	654.47	29547.25	657.28	30643.03	679.48	31305.89	681.34	

SS_Rev3.rep
 32271.79 728.732414.18 729.133029.89 692.5433064.53 692.64 34654.8 748.13
 35695.93 745.6835892.97 747.2436244.12 764.5936285.49 765.1336591.42 762.75
 36922.37 773.4637080.14 775.5237852.86 79038547.28 792.4138897.47 800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516074.07 .1517034.75 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16074.0717034.75 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1500264.00	179277.40	1723779.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500264.00	179277.40	1723779.00
Q Total (cfs)	6730000.00	Flow (cfs)	3004309.00	537741.10	3187950.00
Top width (ft)	34832.19	Top width (ft)	14757.80	960.68	19113.71
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.00	3.00	1.85
Max Chl Dpth (ft)	192.06	Hydr. Depth (ft)	101.66	186.62	90.19
Conv. Total (cfs)	724748300.0	Conv. (cfs)	323531600.0	57908910.0	343307800.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14770.66	962.83	19122.04
Min Ch El (ft)	567.80	Shear (lb/sq ft)	0.55	1.00	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.09	3.01	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	127707.40	21825.12	152647.30
C & E Loss (ft)	0.00	Cum SA (acres)	1163.95	105.96	1403.58

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275827.*

INPUT

Description:

Station Elevation Data	num= 120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev								
0 800 185.17		792.91	602.46	777.86	1269.26	761.77	1437.04	755.01
1705.01 747.71 1862.16		746.37	2190.78	746.37	2504.48	745.39	3347.02	719.15
3414.4 715.66 3500.02		713.63	3510.64	713.53	3699.84	718.03	3868.63	716.37
4002.79 714.62 4146.83		710.76	4498.91	702.28	4928.02	694.61	5247.37	693.3
5384.79 691.88 5534.32		687.32	5598.65	683.29	5939.44	681.16	6267.75	681.7
6400.19 682.74 6607.1		675.48	6763.58	671.85	6830.53	668.22	6876.6	668.22
7018 670.75 7222.51		680.79	7281.72	679.19	7403.43	677.36	7745.09	665.65
7790.12 666.21 7935.48		663.86	8211.06	643.64	8224.3	642.12	8386.67	634.42
8517.08 633.62 8756.15		639.42	8920.46	638.42	9092.59	630.11	9267.65	627.1
9403.27 612.85 9419.47		612.67	9503.79	605.41	9662.02	594.52	9715.92	594.52
9755.42 597.83 9874.63		626.93	9975.85	635.41	10340.53	632.32	10489.27	624.69
10541.76 617.88 10741.9		616.18	10979.23	626.91	11261.63	624.52	11858.88	620.89
13234.35 620.89 13460.74		614.52	14042.7	614.52	14490.42	618.15	15456.92	621.78
14823.43 619.16 14830		612.73	14930.31	611.22	15550.16	593.58	16077.86	587.26
16132.47 582.53 16324.76		578.68	16374.37	574.05	16452.44	567.81	16875.38	567.8
16959.46 572.69 17040.07		587.26	17128.57	609.36	17147.53	611.88	17385.41	636.76
17824.52 642.31 18258.86		644.86	20365.92	641.85	20480.9	641.85	20709.91	642.38
21059.1 636.82 22043.35		639.11	22300.18	642.74	23972.23	646.37	24353.78	648.09
24776.03 652.08 25425.08		662.53	25648.57	663.63	26760.58	663.63	27394.51	657.26
27667.74 657.26 28240.5		653.63	28477.67	651.52	28648.84	651.02	28788.54	648.21
28936.83 649.09 29230.19		654.47	29551.21	657.27	30646.87	679.45	31309.65	681.31
32275.45 728.61 32417.82		729.01	33033.47	692.52	33068.1	692.62	34658.2	748.04
35699.21 745.63 35896.23		747.17	36247.34	764.52	36288.71	765.06	36594.61	762.7
36925.52 773.41 37083.28		775.48	37855.91	79038	38550.25	792.41	38900.41	800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516077.86 .1517040.07 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16077.8617040.07 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1500310.00	179553.30	1724141.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500310.00	179553.30	1724141.00
Q Total (cfs)	6730000.00	Flow (cfs)	3003239.00	538415.20	3188346.00
Top width (ft)	34836.51	Top width (ft)	14761.27	962.21	19113.03
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.00	3.00	1.85
Max Chl Dpth (ft)	192.06	Hydr. Depth (ft)	101.64	186.61	90.21
Conv. Total (cfs)	724930000.0	Conv. (cfs)	323497500.0	57996040.0	343436400.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14774.12	964.37	19121.34
Min Ch El (ft)	567.80	Shear (lb/sq ft)	0.55	1.00	0.49
Alpha	1.06	Stream Power (lb/ft s)	1.09	3.00	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	127535.20	21804.53	152449.40
C & E Loss (ft)	0.00	Cum SA (acres)	1162.26	105.85	1401.39

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275824.*

INPUT

Description:

Station Elevation Data	num= 120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev								
0 800 185.22		792.91	602.61	777.84	1269.56	761.77	1437.38	755
1705.41 747.71 1862.6		746.36	2191.29	746.36	2505.07	745.37	3347.81	719.16
3415.2 715.68 3500.85		713.64	3511.47	713.54	3700.72	718.03	3869.54	716.36
4003.73 714.6 4147.8		710.74	4499.98	702.26	4929.18	694.6 5248.61	693.28	
5386.06 691.86 5535.62		687.29	5599.97	683.25	5940.84	681.13	6269.23	681.67

SS_Rev3.rep											
6401.7	682.72	6608.66	675.44	6765.18	671.8	6832.14	668.16	6878.22	668.16		
7019.66	670.7	7224.22	680.74	7283.44	679.15	7405.18	677.33	7746.91	665.66		
7791.96	666.22	7937.35	663.91	8213	643.73	8226.24	642.21	8388.65	634.49		
8519.08	633.7	8758.21	639.52	8922.36	638.52	9094.73	630.19	9269.84	627.17		
9405.49	612.94	9421.69	612.76	9506.04	605.48	9664.3	594.56	9718.21	594.56		
9757.73	597.88	9876.96	626.98	9978.21	635.48	101342.97	632.38	10491.74	624.76		
10544.25	617.95	10744.44	616.25	10981.82	626.96	11264.29	624.56	11861.67	620.92		
13237.47	620.92	13463.91	614.56	14046.01	614.56	14493.83	618.21	14550.36	621.84		
14826.93	619.21	14833.49	612.79	14933.83	611.33	15553.83	593.61	16081.65	587.28		
16136.4	582.55	16329.17	578.69	16378.91	574.06	16457.18	567.81	16880.36	567.8		
16964.61	572.69	17045.39	587.28	17133.88	609.36	17152.83	611.88	17390.69	636.72		
17829.75	642.28	18264.05	644.82	20370.87	641.82	20485.84	641.82	20714.83	642.33		
21063.98	636.79	22048.12	639.08	22304.92	642.72	23976.8	646.36	24358.3	648.09		
24780.5	652.07	25429.48	662.54	25652.95	663.64	26764.84	663.64	27398.7	657.28		
27671.9	657.28	28244.59	653.64	28481.74	651.53	28652.89	651.01	28792.57	648.2		
28940.85	649.08	29234.18	654.46	29555.16	657.26	30650.7	679.43	31313.41	681.29		
32279.11	728.53	32421.46	728.93	33037.04	692.53	33071.67	692.6	34661.6	747.95		
35702.49	745.53	35899.5	747.11	36250.57	764.45	36291.93	764.99	36597.8	762.65		
36928.67	773.37	37086.41	775.44	37858.96	790.38	38553.23	792.42	38903.34	800		
Manning's n Values											
Sta	n Val	Sta	num=	3	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516081.65		.1517045.39		.15						
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.				
16081.65	17045.39	5	5	5	.1	.3					
CROSS SECTION OUTPUT Profile #PF 1											
E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB						
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150						
W.S. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00						
Crit W.S. (ft)		Flow Area (sq ft)	1500359.00	179828.40	1724461.00						
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500359.00	179828.40	1724461.00						
Q Total (cfs)	6730000.00	Flow (cfs)	3002230.00	539095.50	3188675.00						
Top width (ft)	34840.86	Top width (ft)	14764.81	963.74	19112.30						
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.00	3.00	1.85						
Max Chl Dpth (ft)	192.06	Hydr. Depth (ft)	101.62	186.59	90.23						
Conv. Total (cfs)	725097700.0	Conv. (cfs)	323463600.0	58082740.0	343551300.0						
Length wtd. (ft)	5.00	wetted Per. (ft)	14777.66	965.90	19120.60						
Min Ch El (ft)	567.80	Shear (lb/sq ft)	0.55	1.00	0.49						
Alpha	1.06	Stream Power (lb/ft s)	1.09	3.00	0.90						
Frctn Loss (ft)	0.00	Cum volume (acre-ft)	127363.00	21783.90	152251.50						
C & E Loss (ft)	0.00	Cum SA (acres)	1160.57	105.73	1399.20						
CROSS SECTION											
RIVER: BRAZOS											
REACH: UPPER BRAZOS RS: 275821.*											
INPUT											
Description:											
Station Elevation Data											
Sta	Elev	Sta	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	185.26	792.9	602.75	777.83	1269.86	761.76	1437.72	754.99		
1705.82	747.7	1863.04	746.35	2191.81	746.35	2505.66	745.36	3348.6	719.18		
3416.01	715.69	3501.68	713.65	3512.3	713.54	3701.59	718.02	3870.46	716.35		
4004.68	714.59	4148.78	710.72	4501.04	702.24	4930.35	694.58	5249.84	693.27		
5387.33	691.84	5536.93	687.26	5601.29	683.21	5942.24	681.09	6270.71	681.65		
6403.21	682.7	6610.22	675.4	6766.78	671.75	6833.75	668.1	6879.85	668.1		
7021.31	670.65	7225.92	680.68	7285.16	679.1	7406.92	677.3	7748.74	665.67		
7793.8	666.24	7939.22	663.97	8214.94	643.82	8228.18	642.3	8390.63	634.56		
8521.09	633.77	8760.28	639.61	8924.67	638.61	9096.88	630.27	9272.03	627.25		
9407.7	613.03	9423.91	612.85	9508.28	605.55	9666.58	594.6	9720.5	594.6		
9760.03	597.93	9879.29	627.02	9980.56	635.55	10345.41	632.44	10494.22	624.83		
10546.74	618.03	10746.97	616.33	10984.41	627.01	11266.94	624.61	11864.47	620.95		
13240.59	620.95	13467.09	614.61	14049.32	614.61	14497.25	618.25	14553.79	621.9		
14830.43	619.27	14836.99	612.86	14937.35	611.39	15557.5	593.64	16085.45	587.3		
16140.33	582.56	16333.59	578.71	16383.45	574.07	16461.91	567.81	16885.34	567.8		
16969.76	572.68	17050.71	587.31	17139.19	609.36	17158.14	611.87	17395.97	636.68		
17834.98	642.24	18269.23	644.78	20375.83	641.75	20490.78	641.75	20719.75	642.28		
21068.86	636.75	22052.89	639.05	22309.66	642.72	23981.36	646.35	24362.82	648.08		
24784.97	652.07	25433.88	662.55	25657.33	663.65	26769.1	663.65	27402.89	657.3		
27676.06	657.28	28248.69	653.65	28485.81	651.53	28656.94	651.01	28796.61	648.19		
28944.87	649.07	29238.17	654.45	29559.11	657.26	30654.54	679.43	31317.17	681.27		
32282.76	728.44	32425.1	728.84	33040.62	692.48	33075.24	692.58	34665	747.86		
35705.78	745.46	35902.76	747.05	36253.79	764.38	36295.15	764.92	36600.98	762.61		
36931.82	773.32	37089.54	775.4	37862	790	38556.2	792.43	38906.27	800		
Manning's n Values											
Sta	n Val	Sta	num=	3	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516085.45		.1517050.71		.15						
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.				
16085.45	17050.71	5	5	5	.1	.3					
CROSS SECTION OUTPUT Profile #PF 1											
E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB						
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150						
W.S. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00						
Crit W.S. (ft)		Flow Area (sq ft)	1500405.00	180102.50	1724802.00						
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500405.00	180102.50	1724802.00						
Q Total (cfs)	6730000.00	Flow (cfs)	3001171.00	539771.30	3189058.00						
Top width (ft)	34845.37	Top width (ft)	14768.54	965.26	19111.57						
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.00	3.00	1.85						
Max Chl Dpth (ft)	192.06	Hydr. Depth (ft)	101.59	186.58	90.25						
Conv. Total (cfs)	725268700.0	Conv. (cfs)	323425800.0	58169270.0	343673700.0						
Length wtd. (ft)	5.00	wetted Per. (ft)	14781.38	967.42	19119.85						
Min Ch El (ft)	567.80	Shear (lb/sq ft)	0.55	1.00	0.48						
Alpha	1.06	Stream Power (lb/ft s)	1.09	3.00	0.90						
Frctn Loss (ft)	0.00	Cum volume (acre-ft)	127190.80	21763.24	152053.50						
C & E Loss (ft)	0.00	Cum SA (acres)	1158.87	105.62	1397.00						

SS_Rev3.rep

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275819.*

INPUT

Description:

Station Elevation Data				num= 120			
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	185.3	792.9	602.89	777.82	1270.16	761.76
1706.22	747.69	1863.48	746.34	2192.33	746.34	2506.25	745.35
3416.82	715.71	3502.5	713.66	3513.13	713.55	3702.46	718.02
4005.62	714.58	4149.76	710.71	4502.1	702.22	4931.51	694.57
5388.6	691.83	5538.23	687.24	5602.61	683.18	5943.64	681.06
6404.72	682.68	6611.78	675.36	6768.37	671.7	6835.36	668.04
7022.97	670.59	7227.63	680.63	7286.87	679.05	7408.67	677.28
7795.64	666.26	7941.09	664.03	8216.87	643.91	8230.12	642.39
8523.1	633.84	8762.34	639.71	8926.77	638.71	9099.02	630.34
9409.92	613.12	9426.13	612.94	9510.52	605.62	9668.85	594.64
9762.33	597.98	9881.62	627.07	9982.91	635.62	10347.85	632.51
10549.23	618.11	10749.51	616.4	10987	627.05	11269.6	624.64
13243.72	620.98	13470.26	614.64	14052.64	614.64	14500.67	618.31
14833.92	619.32	14840.49	612.92	14940.88	611.45	15561.17	593.66
16144.26	582.57	16338	578.73	16387.99	574.08	16466.64	567.81
16974.91	572.68	17056.02	587.32	17144.49	609.35	17163.45	611.87
17840.21	642.21	18274.42	644.73	20380.78	641.72	20495.73	641.72
21073.74	636.71	22057.67	639.02	22314.41	642.68	23985.92	646.34
24789.45	652.07	25438.29	662.57	25661.71	663.66	26773.36	663.66
27680.22	657.32	28252.79	653.66	28489.88	651.53	28661	651.01
28948.89	649.05	29242.16	654.44	29563.06	657.25	30658.37	679.37
32286.42	728.35	32428.74	728.76	33044.19	692.46	33078.81	692.56
35709.06	745.39	35906.02	746.99	36257.02	764.31	36298.37	764.85
36934.97	773.27	37092.68	775.36	37865.05	79038	559.17	792.44

Manning's n Values				num= 3			
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.15	16089.24	.15	17056.02	.15		

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16089.24	17056.02		5		5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1500442.00	180375.50	1725140.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500442.00	180375.50	1725140.00
Q Total (cfs)	673000.00	Flow (cfs)	3000119.00	540443.40	3189437.00
Top width (ft)	34849.71	Top Width (ft)	14772.07	966.78	19110.86
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	2.00	3.00	1.85
Max Ch Dpth (ft)	192.06	Hydr. Depth (ft)	101.57	186.57	90.27
Conv. Total (cfs)	725437600.0	conv. (cfs)	323387700.0	58255270.0	343794600.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14784.90	968.94	19119.12
Min Ch El (ft)	567.80	Shear (lb/sq ft)	0.55	1.00	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.09	3.00	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	127018.50	21742.55	151855.50
C & E Loss (ft)	0.00	Cum SA (acres)	1157.18	105.51	1394.81

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275816.*

INPUT

Description:

Station Elevation Data				num= 120			
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	185.35	792.89	603.03	777.81	1270.46	761.76
1706.62	747.69	1863.92	746.33	2192.84	746.33	2506.84	745.33
3417.62	715.72	3503.33	713.67	3513.95	713.56	3703.33	718.01
4006.56	714.56	4150.74	710.69	4503.16	702.2	4932.67	694.55
5389.87	691.81	5539.54	687.21	5603.93	683.14	5945.04	681.03
6406.23	682.66	6613.34	675.32	6769.97	671.65	6836.97	667.98
7024.62	670.54	7229.33	680.58	7288.59	679.01	7410.42	677.25
7797.47	666.27	7942.96	664.08	8218.81	644	8232.07	642.48
8525.11	633.91	8764.41	639.8	8928.87	638.81	9101.17	630.42
9412.14	613.21	9428.35	613.03	9512.76	605.69	9671.13	594.68
9764.63	598.03	9883.95	627.12	9985.27	635.69	10350.29	632.57
10551.71	618.18	10752.04	616.47	10989.59	627.11	11272.26	624.68
13246.84	621.01	13473.44	614.68	14055.95	614.68	14504.09	618.35
14837.42	619.37	14843.99	612.98	14944.4	611.51	15564.83	593.69
16148.19	582.58	16342.41	578.75	16392.52	574.09	16471.38	567.81
16980.06	572.67	17061.34	587.34	17149.8	609.35	17168.75	611.87
17845.45	642.17	18279.6	644.69	20385.74	641.65	20500.67	641.65
21078.62	636.68	22062.44	638.99	22319.15	642.66	23990.48	646.33
24793.92	652.06	25442.69	662.58	25666.09	663.67	26777.62	663.67
27684.38	657.34	28256.88	653.67	28493.95	651.54	28665.05	651.01
28952.91	649.04	29246.15	654.44	29567.02	657.24	30662.21	679.34
32290.08	728.27	32432.38	728.67	33047.77	692.44	33082.38	692.54
35712.34	745.32	35909.28	746.92	36260.24	764.24	36301.59	764.79
36938.12	773.23	37095.81	775.32	37868.1	79038	562.15	792.44

Manning's n Values				num= 3			
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.15	16093.03	.15	17061.34	.15		

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16093.03	17061.34		5		5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

Page 215 of 1616

SS_Rev3.rep
 24802.87 652.06 25451.5 662.625674.84 663.6926786.13 663.6927419.64 657.38
 27692.7 657.3828265.08 653.6928502.09 651.5528673.15 651.0128812.76 648.14
 28960.95 649.0129254.12 654.4229574.93 657.2330669.87 679.2831332.22 681.17
 32297.39 728.132439.67 728.533054.91 692.433089.52 692.534678.59 747.51
 35718.91 745.17 35915.8 746.836266.69 764.136308.03 764.6536613.73 762.42
 36944.42 773.1437102.07 775.24 37874.2 79038568.09 792.4538918.02 800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516100.62 .1517071.97 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16100.6217071.97 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1500585.00	181204.10	1726157.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500585.00	181204.10	1726157.00
Q Total (cfs)	6730000.00	Flow (cfs)	2996991.00	542489.50	3190520.00
Top Width (ft)	34862.89	Top Width (ft)	14782.80	971.35	19108.73
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	2.00	2.99	1.85
Max Chl Dpth (ft)	192.07	Hydr. Depth (ft)	101.51	186.55	90.33
Conv. Total (cfs)	725959200.0	Conv. (cfs)	323282800.0	58517860.0	344158600.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	14795.62	973.52	19116.95
Min Ch El (ft)	567.79	Shear (lb/sq ft)	0.54	1.00	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.09	2.99	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	126501.80	21680.30	151261.30
C & E Loss (ft)	0.00	Cum SA (acres)	1152.09	105.18	1388.23

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275807.*

INPUT

Description:
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	185.48	792.88	603.46	777.77	1271.35	761.75	1439.42	754.95
1707.83	747.67	1865.23	746.3	2194.39	746.3	2508.61	745.3	3352.55	719.27
3420.04	715.77	3505.8	713.7	3516.44	713.59	3705.95	717.99	3875.02	716.3
4009.4	714.52	4153.67	710.64	4506.34	702.14	4936.16	694.51	5256.03	693.17
5393.68	691.75	5543.46	687.13	5607.89	683.03	5949.24	680.93	6278.1	681.54
6410.76	682.6	6618.01	675.2	6774.75	671.5	6841.81	667.8	6887.96	667.8
7029.59	670.38	7234.44	680.42	7293.75	678.87	7415.66	677.17	7757.88	665.7
7802.99	666.33	7948.58	664.25	8224.62	644.26	8237.89	642.74	8400.52	634.92
8531.14	634.13	8770.61	640.09	8935.19	639.1	9107.6	630.66	9282.96	627.62
9418.8	613.48	9435.02	613.3	9519.49	605.9	9677.97	594.8	9731.96	594.8
9771.54	598.17	9890.94	627.26	9992.33	635.91	10357.61	632.75	10506.59	625.17
10559.17	618.41	110759.64	616.69	10997.36	627.24	11280.23	624.81	11878.46	621.1
13256.21	621.11	13482.97	614.81	14065.89	614.81	14514.35	618.51	14570.95	622.2
14847.91	619.53	14854.49	613.17	14954.97	611.69	15575.84	593.76	16104.41	587.4
16159.98	582.62	16355.65	578.81	16406.14	574.12	16485.58	567.79	16910.23	567.79
16995.52	572.66	17077.29	587.41	17165.72	609.35	17184.67	611.86	17422.37	636.5
17861.14	642.07	18295.15	644.57	20400.6	641.52	20515.49	641.52	20744.33	642.04
21093.26	636.57	22076.75	638.92	2333.38	642.62	24004.17	646.32	24385.42	648.06
24807.35	652.05	25455.9	662.61	25679.22	663.72	26790.39	663.72	27423.83	657.4
27696.86	657.42	28269.17	653.72	28506.16	651.55	28677.21	651.28	28816.79	648.12
28964.97	648.99	29258.11	654.42	29578.88	657.22	30673.71	679.25	31335.98	681.15
32301.05	728.01	32443.31	728.42	33058.49	692.38	33093.09	692.48	34681.98	747.42
35722.2	745.13	35919.07	746.73	36269.91	764.03	36311.25	764.58	36616.91	762.37
36947.57	773.09	37105.21	775.23	37877.25	790385	371.07	792.46	38920.95	800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516104.41 .1517077.29 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16104.4117077.29 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1500628.00	181478.30	1726503.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500628.00	181478.30	1726503.00
Q Total (cfs)	6730000.00	Flow (cfs)	2995941.00	543159.20	3190900.00
Top Width (ft)	34867.28	Top Width (ft)	14786.35	972.88	19108.05
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	2.00	2.99	1.85
Max Chl Dpth (ft)	192.07	Hydr. Depth (ft)	101.49	186.54	90.35
Conv. Total (cfs)	726132700.0	Conv. (cfs)	323246800.0	58604110.0	344281800.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	14799.16	975.05	19116.26
Min Ch El (ft)	567.79	Shear (lb/sq ft)	0.54	1.00	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.09	2.99	0.90
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	126329.60	21659.48	151063.20
C & E Loss (ft)	0.00	Cum SA (acres)	1150.39	105.07	1386.04

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275804.*

INPUT

Description:
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	185.52	792.87	603.6	777.76	1271.65	761.75	1439.76	754.94
1708.23	747.66	1865.67	746.29	2194.91	746.29	2509.2	745.28	3353.34	719.28

SS_Rev3.rep									
3420.84	715.79	3506.63	713.71	3517.27	713.6	3706.83	717.99	3875.93	716.29
4010.34	714.5	4154.65	710.62	4507.41	702.12	4937.32	694.49	5257.27	693.16
5394.95	691.73	5544.76	687.1	5609.22	682.99	5950.65	680.89	6279.58	681.51
6412.27	682.58	6619.57	675.16	6776.35	671.45	6843.42	667.74	6889.58	667.74
7031.25	670.33	7236.15	680.37	7295.46	678.83	7417.4	677.14	7759.71	665.71
7804.82	666.34	7950.45	664.31	8226.56	644.35	8239.83	642.83	8402.5	634.99
8533.15	634.2	8772.67	640.18	8937.29	639.19	9109.75	630.74	9285.14	627.69
9421.01	613.57	9437.24	613.39	9521.73	605.97	9680.25	594.84	9734.25	594.84
9773.84	598.22	9893.27	627.3	9994.68	635.97	10360.05	632.81	10509.07	625.24
10561.66	618.49	10762.18	616.76	10999.95	627.28	11282.88	624.84	11881.26	621.13
13259.33	621.13	13486.14	614.84	14069.2	614.84	14517.76	618.55	14574.38	622.26
14851.41	619.58	14857.98	613.23	14958.49	611.75	15579.51	593.79	16108.2	587.42
16163.91	582.63	16360.07	578.82	16410.67	574.12	16490.31	567.79	16915.21	567.79
17000.67	572.66	17082.61	587.42	17171.03	609.35	17189.97	611.86	17427.65	636.46
17866.37	642.03	18300.34	644.53	20405.55	641.45	20520.44	641.45	20749.25	641.99
21098.13	636.53	22081.53	638.87	22338.13	642.58	24008.73	646.29	24389.94	648.05
24811.82	652.05	25460.3	662.62	25683.6	663.71	26794.65	663.71	27428.02	657.42
27701.01	657.42	28273.27	653.71	28510.23	651.56	28681.26	651.56	28820.83	648.11
28968.99	648.98	29262.1	654.41	29582.83	657.21	30677.54	679.22	31339.75	681.12
32304.71	727.92	32446.95	728.33	33062.06	692.36	33096.66	692.46	34685.38	747.33
35725.48	745.03	35922.33	746.67	36273.14	763.96	36314.46	764.51	36620.1	762.32
36950.72	773.05	37108.34	775.16	37880.3	790.38	38574.04	792.47	38923.89	800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .15 16108.2 .1517082.61 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16108.217082.61 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1500689.00	181753.80	1726856.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500689.00	181753.80	1726856.00
Q Total (cfs)	6730000.00	Flow (cfs)	2994910.00	543827.40	3191263.00
Top width (ft)	34871.63	Top width (ft)	14789.89	974.41	19107.34
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	2.00	2.99	1.85
Max Chl Dpth (ft)	192.07	Hydr. Depth (ft)	101.47	186.53	90.38
Conv. Total (cfs)	726316400.0	Conv. (cfs)	323217200.0	58691050.0	344408100.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14802.69	976.58	19115.52
Min Ch El (ft)	567.79	Shear (lb/sq ft)	0.54	1.00	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.08	2.98	0.89
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	126157.30	21638.64	150865.00
C & E Loss (ft)	0.00	Cum SA (acres)	1148.69	104.96	1383.84

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275801.*

INPUT

Description:

Station Elevation Data num= 120									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	185.57	792.87	603.74	777.74	1271.95	761.74	1440.1	754.93
1708.63	747.66	1866.11	746.28	2195.43	746.28	2509.79	745.27	3354.12	719.3
3421.65	715.8	3507.46	713.72	3518.09	713.61	3707.7	717.98	3876.85	716.28
4011.29	714.49	4155.63	710.6	4508.47	702.11	4938.48	694.48	5258.51	693.14
5396.22	691.71	5546.07	687.07	5610.54	682.96	5952.05	680.86	6281.06	681.49
6413.78	682.56	6621.13	675.12	6777.95	671.4	6845.03	667.68	6891.2	667.68
7032.9	670.28	7237.85	680.31	7297.18	678.78	7419.15	677.11	7761.53	665.71
7806.66	666.36	7952.33	664.37	8228.5	644.44	8241.77	642.92	8404.48	635.06
8535.16	634.28	8774.74	640.28	8939.4	639.29	9111.89	630.81	9287.33	627.77
9423.23	613.66	9439.47	613.48	9523.97	606.04	9682.53	594.88	9736.35	594.88
9776.14	598.27	9895.6	627.35	9997.03	636.04	10362.49	632.87	10511.54	625.3
10564.15	618.57	10764.71	616.83	11002.54	627.33	11285.54	624.88	11884.06	621.16
13262.45	621.16	13489.32	614.88	14072.51	614.88	14521.18	618.61	14577.81	622.32
14854.91	619.64	14861.48	613.29	14962.01	611.82	15583.18	593.82	16112	587.44
16167.84	582.64	16364.48	578.84	16415.21	574.13	16495.05	567.79	16920.19	567.79
17005.82	572.65	17087.92	587.44	17176.34	609.34	17195.28	611.85	17432.93	636.43
17871.6	642	18305.52	644.48	20410.51	641.42	20525.38	641.42	20754.17	641.95
21103.01	636.5	22086.3	638.84	22342.87	642.56	24013.29	646.28	24394.46	648.05
24816.29	652.05	25464.71	662.64	25687.98	663.72	26798.9	663.72	27432.21	657.44
27705.17	657.44	28277.37	653.72	28514.3	651.56	28685.31	651.56	28824.87	648.1
28973.02	648.97	29266.09	654.42	29586.79	657.23	30681.38	679.19	31343.51	681.1
32308.36	727.84	32450.59	728.25	33065.64	692.34	33100.23	692.43	34688.78	747.25
35728.76	744.96	35925.59	746.61	36276.36	763.89	36317.68	764.44	36623.29	762.27
36953.87	773.37	37111.47	775.12	37883.35	790.38	38577.01	792.47	38926.82	800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .15 16112 .1517087.92 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 1611217087.92 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1500717.00	182026.10	1727180.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500717.00	182026.10	1727180.00
Q Total (cfs)	6730000.00	Flow (cfs)	2993850.00	544504.60	3191646.00
Top width (ft)	34876.15	Top width (ft)	14793.61	975.92	19106.62
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	1.99	2.99	1.85
Max Chl Dpth (ft)	192.07	Hydr. Depth (ft)	101.44	186.52	90.40
Conv. Total (cfs)	726474500.0	Conv. (cfs)	323173200.0	58776930.0	344524400.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14806.42	978.09	19114.79
Min Ch El (ft)	567.79	Shear (lb/sq ft)	0.54	1.00	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.08	2.98	0.89

Page 217

Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	125985.10	21617.76	150666.70
C & E Loss (ft)	0.00	Cum SA (acres)	1146.99	104.84	1381.65

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275798.*

INPUT

Description:

Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	185.61	792.87	603.88	777.73	1272.25	761.74	1440.43	754.93		
1709.03	747.65	1866.55	746.27	2195.94	746.27	2510.38	745.26	3354.91	719.32		
3422.45	715.82	3508.28	713.73	3518.92	713.62	3708.57	717.98	3877.76	716.12		
4012.23	714.47	4156.61	710.59	4509.53	702.09	4939.65	694.46	5259.59	693.12		
5397.48	691.7	5547.37	687.05	5611.86	682.92	5953.45	680.83	6215.54	681.4		
6415.29	670.22	7235.55	671.55	6846.64	671.55	6846.64	667.02	6892.82	667.62		
7033.56	670.22	7235.55	680.26	7298.9	678.73	7420.9	677.09	7763.36	665.72		
7808.5	666.38	7754.2	664.42	8230.43	644.53	8243.71	643.01	8406.46	635.13		
8537.17	634.35	8776.64	640.37	8941.5	639.39	9114.04	630.89	9289.52	627.84		
9425.45	618.75	9441.69	613.57	9526.21	606.11	9684.81	594.92	9738.84	594.92		
9778.44	593.32	9897.93	627.4	9999.39	636.1	110364.81	632.94	101514.01	625.37		
10566.63	618.61	104767.25	616.91	11005.13	627.38	11288.2	624.92	11886.85	621.19		
13265.57	621.19	1913492.49	614.92	9214075.83	614.92	14524.6	618.65	14581.24	622.38		
14858.4	519.69	6914864.98	613.36	14965.53	611.88	1586.85	593.84	16115.79	587.46		
16171.77	582.65	16368.89	578.85	16149.57	574.14	16499.78	567.79	16925.17	567.79		
17010.97	572.65	19103.74	587.46	17181.64	564.32	2000.58	511.83	2088.81	636.09		
21010.88	572.65	19103.74	638.12	122347.62	642.54	35201.75	646.27	20795.08	641.9		
21107.98	638.12	122347.62	638.12	122347.62	642.54	35201.75	646.27	20795.08	641.9		
24820.77	652.04	25469.11	662.65	25692.36	663.73	26280.16	663.73	27436.4	657.46		
27709.33	657.46	28281.46	653.73	28251.38	651.56	28689.36	651.56	28829.8	648.09		
28977.04	648.09	29270.08	654.42	29590.74	657.23	30685.21	679.16	31347.27	681.08		
32312.02	722.75	32454.23	728.16	33069.21	692.31	33103.8	692.41	34692.18	747.16		
35732.05	744.89	35928.86	746.54	36279.59	763.82	36320.9	764.37	36626.47	762.23		
36957.02	772.93	37114.61	775.08	37886.39		79038579.98		792.48	800		

[illegible]

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1500757.00	182302.20	1727531.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500757.00	182302.20	1727531.00
Q Total (cfs)	6730000.00	Flow (cfs)	2992790.00	545180.90	3192029.90
Top Width (ft)	34880.48	Top width (ft)	14797.08	977.45	19105.95
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	1.99	2.99	1.85
Max Chl Dpth (ft)	192.07	Hydr. Depth (ft)	101.42	186.31	0.42
Conv. Coef (cfs)	72660800.0	Wetted Per. (ft)	323137200.0	58864210.0	344649300.0
Length wtd. (ft)	5.00	Shear (lb/sq ft)	14809.87	979.62	19114.11
Min Ch El (ft)	567.79	Stream Power (lb/ft s)	0.54	1.00	0.48
Alpha	1.06	Cum Volume (acre-ft)	1.08	2.98	0.89
Frcn Loss (ft)	0.00	Cum SA (acres)	125812.80	21596.85	150468.50
C & E Loss (ft)	0.00		1145.30	104.73	1379.46

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275795.*

INPUT

Description:

Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	185.65	792.86	604.03	777.72	1272.55	761.74	1440.77	754.92		
1709.44	747.64	1866.99	746.26	6196.46	746.26	2510.97	745.25	3355.7	719.33		
3423.26	715.83	3509.11	713.74	3519.75	713.63	3709.44	717.97	3878.67	716.22		
4013.17	714.46	4157.59	710.57	4510.59	702.07	4940.81	694.45	5260.99	693.1		
5398.76	691.68	5548.68	687.02	5613.18	682.88	5954.85	680.79	6284.02	681.44		
6416.8	682.52	6624.25	675.04	6761.14	671.3	6848.25	667.56	6894.45	667.56		
7036.34	670.17	7241.26	680.21	7300.62	678.69	7422.64	677.06	7765.19	665.73		
8353.18	663.62	8757.87	640.7	894.61	638.98	9116.18	630.97	9291.7	627.92		
9427.67	613.85	9443.91	613.66	9528.46	606.18	9687.09	594.96	9741.13	594.96		
9870.74	598.37	9900.26	627.44	10001.74	636.18	10367.37	633.0154		625.44		
10569.12	618.72	10769.78	616.98	11007.72	627.42	11290.85	624.96	11889.65	621.22		
13268.69	621.22	13495.67	614.96	14100.74	614.96	1528.02	618.74	1548.67	622.44		
14861.9	619.74	14868.48	613.42	14969.05	611.94	15590.51	593.87	16119.58	587.48		
16175.75	582.66	16137.33	578.87	161424.29	574.15	151650.52	567.79	169390.15	567.79		
17016.12	572.64	17098.56	587.48	17186.95	609.34	17205.89	611.85	17443.48	636.35		
17882.07	641.93	18135.89	644.42	2040.42	641.32	2035.55	641.3	20764	641.85		
24112.7	636.42	22095.84	638.78	22652.36	642.52	22402.41	646.26	24403	648.04		
28825.24	652.04	27343.51	652.66	26399.66	653.74	26800.42	663.74	27278.59	657.48		
31198.49	652.66	31282.45	651.42	2825.45	651.57	27869.93	651.57	28869.93	648.07		
28981.06	648.94	29274.74	654.39	29594.7	657.19	30689.04	679.14	31351.03	681.05		
32315.68	727.66	32457.87	728.07	33072.79	692.29	33310.37	692.29	33465.97	747.07		
35735.33	744.82	35932.12	746.48	38628.82	763.75	36324.12	764.33	36629.66	762.18		
36960.17	772.93	37117.74	775.04	37889.45	79038.52	96	792.49	38932.69	800		

Manning's	n	values	num=	3				
Sta	n	Sta	n	Val	Sta	n	Val	
0	.15	16119.58	.15	17098.56	.15			
Bank	Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff
	16119.58	17098.56		5	5	5		Contr.
								Expan.
								.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.s. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00
Crit W.s. (ft)		Flow Area (sq ft)	1500805.00	182577.80	1727868.00
E.G. Slope (ft/ft)		Area (sq ft)	1500805.00	182577.80	1727868.00
Q Total (cfs)	6730000.00	Flow (cfs)	2991759.00	545855.30	3192386.00
Top width (ft)	34884.82	Top width (ft)	14800.62	978.98	19105.22
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	2.95	2.85	2.85
Max Ch Depth (ft)	192.07	Hydr. Depth (ft)	101.40	186.50	90.44
Conv. Total (cfs)	726824700.0	Conv. (cfs)	323103100.0	58951120.0	344770500.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14813.40	981.15	19113.37
Min Ch El (ft)	567.79	Shear (lb/sq ft)	0.54	1.00	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.08	2.98	0.89
Frcn Loss (ft)	0.00	Cum volume (acre-ft)	125640.60	21575.91	150270.10
C & E Loss (ft)	0.00	Cum SA (acres)	1143.60	104.62	1377.26

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275792.*

Description:

Station Elevation Data			num=			120			
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	185.7	792.86	604.17	777.71	1272.85	761.74	1441.11	754.91
1709.84	747.64	1867.43	746.25	2196.98	746.25	2511.57	745.23	3356.49	719.35
3424.06	715.85	3509.93	713.75	3520.58	713.64	3710.32	717.47	3879.58	716.34
4014.12	714.44	4158.56	710.55	4511.63	702.05	4481.97	694.43	5262.75	693.08
5408.00	691.66	6449.38	686.09	6782.73	682.85	5956.25	680.76	6585.5	681.42
6418.31	691.66	6525.81	675	6782.73	678.55	6849.86	667.5	6896.07	667.5
7037.87	670.12	7242.96	680.15	7302.34	678.64	7424.39	677.03	7767.01	667.73
7812.18	666.41	7957.94	664.54	8234.31	644.7	8247.59	643.18	8410.41	635.28
8541.19	634.5	8780.94	640.56	8945.71	639.58	9118.33	631.05	9293.89	627.99
9429.89	613.94	9446.13	613.75	9530.7	606.25	9689.37	595	9743.42	595
9783.04	598.42	9902.59	627.49	10004.09	636.25	10369.81	633.06	10518.96	625.51
10571.61	618.10	10772.31	617.05	10110.31	627.47	11293.51	625.18	11892.45	621.25
13271.82	621.25	13498.84	615	14082.45	615	15133.44	618.75	15458.11	622.5
14865.4	619.81	14871.98	618.18	14972.58	612	15594.18	593.89	16123.38	587.5
16179.63	582.67	161377.92	578.89	1891428.83	574.16	161650.59	567.79	161935.12	567.79
17021.28	572.64	17103.88	587.51	17519.26	646.34	17213.21	646.83	17267.92	641.32
20871.67	638.72	2221.07	638.72	2221.07	642.54	2020.21	641.52	20768.92	641.32
21111.65	638.72	92210.61	638.72	723.1	642.54	2026.97	646.25	242048.02	648.03
24829.71	652.04	25477.92	662.67	6275071.12	663.75	726811.68	663.75	727444.78	657.5
27717.65	657.52	52828.96	653.75	528526.52	651.57	528697.46	651	528832.98	648.06
28985.08	648.92	529278.06	654.38	289598.65	657.18	30691.98	679.11	31354.79	681.03
32319.33	727.58	32461.51	727.93	33076.36	692.27	333110.95	692.37	334698.97	746.98
35738.32	744.74	343593.38	746.42	36286.04	763.68	363632.37	764.24	369632.84	762.13
36963.32	772.86	37120.87	775	37892.49	790	38585.93	792	438393.62	800

Manning's	n Values		num=	3	
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516123.38		.1517103.88		.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16123.3817	103.88		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1500856.00	182851.00	1728205.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500856.00	182851.00	1728205.00
Q Total (cfs)	6730000.00	Flow (cfs)	2990737.00	546521.40	3192742.00
Top width (ft)	34889.18	Top width (ft)	14804.17	980.50	19104.51
Vel total (ft/s)	1.97	Avg. Vel. (ft/s)	1.99	2.99	1.85
Max Ch. Dpth (ft)	192.07	Hydr. Depth (ft)	101.38	186.49	90.46
Conv. Top (ft)	726998200.0	Corr. (cfs)	323069900.0	59037160.0	344891200.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14816.95	982.68	19112.64
Min ch El (ft)	567.79	Shear (lb/sq ft)	0.16	1.00	0.89
Alpha	1.06	Stream Power (lb/ft s)	1.08	2.98	0.48
Frcn Loss (ft)	0.00	Cum Volume (acre-ft)	125468.30	21554.94	150071.80
C & E Loss (ft)	0.00	Cum SA (acres)	1141.90	104.51	1375.07

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275789.*

Description:

[illegible]

Page 219

Page 220 of 1616

SS_Rev3.rep									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	185.83	792.84	604.6	777.67	1273.75	761.73	1442.13	754.89
1711.05	747.62	1868.75	746.22	2198.53	746.22	2513.34	745.19	3358.86	719.4
3426.48	715.9	3512.41	713.78	3523.06	713.67	3712.94	717.95	3882.32	716.22
4016.95	714.4	4161.5	710.5	4514.83	701.99	4945.46	694.39	5265.94	693.03
5403.84	691.6	5553.9	686.91	5618.46	682.74	5960.45	680.66	6289.93	681.35
6422.84	682.44	6630.48	674.88	6787.52	671.1	6854.7	667.32	6900.94	667.32
7042.83	669.96	7248.07	680	7307.49	678.5	7429.63	676.95	7772.5	665.75
7817.69	666.46	7963.56	664.71	8240.12	644.97	8253.41	643.45	8416.35	635.49
8547.21	634.71	8787.13	640.85	8952.02	639.87	9124.76	631.28	9300.45	628.22
9436.54	614.21	9452.8	614.02	9537.42	606.46	9696.21	595.12	9750.3	595.12
9789.95	598.57	9909.58	627.6310011.16		636.4610377.12		633.2410526.39		625.71
10579.07	619.0310779.92		617.2611018.08		627.6111301.48		625.1211900.84		621.34
13281.18	621.3413508.37		615.1214092.39		615.1214541.69		618.9	14598.4	622.68
14875.89	619.9514882.47		613.6714983.14		612.1815605.19		593.9716134.75		587.56
16191.42	582.7116390.96		578.9416442.44		574.1916523.45		567.7816950.06		567.78
17036.73	572.6317119.83		587.5617208.18		609.3317227.11		611.84	17464.6	636.21
17902.99	641.7918336.62		644.2320440.24		641.1205555.03		641.120783.67		641.65
21132.29	636.2822114.93		638.6622371.33		642.4424040.66		646.2224421.58		648.01
24843.14	652.0325491.13		662.7125714.25		663.7826824.45		663.7827457.34		657.56
27730.13	657.5628301.95		653.7828538.73		651.5828709.62		650.9928849.09		648.02
28997.14	648.8829290.02		654.3629610.51		657.1630704.38		679.0231366.08		680.96
32330.3	727.3232472.44		727.7333087.08		692.2133121.66		692.3134709.16		746.72
35748.46	744.5335945.17		746.2336295.71		763.47	36337	764.03	36642.4	761.99
36972.77	772.7337130.27		774.8837901.64		79038594.85		792.5138944.43		800

Manning's n Values		num= 3	
Sta	n Val	Sta	n Val
0	.1516134.75	.1517119.83	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
16134.75	17119.83		5		5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1500988.00	183679.00	1729223.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1500988.00	183679.00	1729223.00
Q Total (cfs)	6730000.00	Flow (cfs)	2987605.00	548555.30	3193840.00
Top width (ft)	34902.38	Top width (ft)	14814.88	985.08	19102.41
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	1.99	2.99	1.85
Max Chl Dpth (ft)	192.08	Hydr. Depth (ft)	101.32	186.46	90.52
Conv. Total (cfs)	727516600.0	Conv. (cfs)	322961700.0	59299120.0	345255800.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14827.64	987.26	19110.49
Min Ch El (ft)	567.78	Shear (lb/sq ft)	0.54	0.99	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.08	2.97	0.89
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	124951.40	21491.83	149476.50
C & E Loss (ft)	0.00	Cum SA (acres)	1136.80	104.17	1368.49

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275781.*

INPUT

Description:									
Station Elevation Data		num= 120							
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	185.87	792.84	604.74	777.66	1274.05	761.73	1442.47	754.88
1711.45	747.61	1869.19	746.21	2199.04	746.21	2513.93	745.18	3359.65	719.42
3427.29	715.91	3513.24	713.79	3523.89	713.68	3713.81	717.95	3883.23	716.21
4017.9	714.38	4162.48	710.49	4515.9	701.97	4946.62	694.37	5267.18	693.01
5405.11	691.58	5555.21	686.88	5619.78	682.7	5961.86	680.63	6291.41	681.33
6424.35	682.42	6632.04	674.84	6789.12	671.05	6856.31	667.26	6902.56	667.26
7044.49	669.91	7249.78	679.94	7309.21	678.46	7431.38	676.92	7774.32	665.76
7819.53	666.48	7965.43	664.77	8242.06	645.06	8255.35	643.54	8418.33	635.56
8549.22	634.79	8789.2	640.94	8954.13	639.97	9126.91	631.36	9302.64	628.29
9438.76	614.3	9455.02	614.11	9539.67	606.53	9698.49	595.16	9752.59	595.16
9792.25	598.62	9911.91	627.6810013.51		636.5310379.56		633.3110528.86		625.78
10581.56	619.1110782.45		617.3411020.67		627.6611304.14		625.1611903.64		621.37
13284.3	621.3713511.55		615.16	14095.7	615.1614545.11		618.9514601.83		622.74
14879.39	620.0114885.97		613.7314986.67		612.2415608.86		59416138.55		587.58
16195.35	582.7216395.37		578.9616446.98		574.216528.19		567.7816955.04		567.78
17041.88	572.6217125.14		587.5817213.49		609.3317232.41		611.8317469.88		636.17
17908.22	641.7518341.81		644.1920445.19		641.0520559.97		641.0520788.59		641.61
21137.17	636.24	22119.7	638.6322376.08		642.4224045.22		646.21	24426.1	648.01
24847.61	652.0325495.53		662.7225718.63		663.7926828.71		663.7927461.53		657.58
27734.29	657.5828306.04		653.79	28542.8	651.5928713.67		650.9928853.13		648.01
29001.16	648.8729294.01		654.3529614.46		657.1530708.22		678.9931369.84		680.93
32333.96	727.2332476.08		727.6533090.66		692.1933125.23		692.2934712.56		746.63
35751.75	744.4635948.43		746.1736298.93		763.3936340.22		763.9636645.59		761.94
36975.92	772.6837133.41		774.8437904.69		79038597.82		792.5238947.36		800

Manning's n Values		num= 3	
Sta	n Val	Sta	n Val
0	.1516138.55	.1517125.14	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
16138.55	17125.14		5		5		.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.86	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501020.00	183951.00	1729570.00
E.G. Slope (ft/ft)	0.000086	Area (sq ft)	1501020.00	183951.00	1729570.00
Q Total (cfs)	6730000.00	Flow (cfs)	2986546.00	549222.20	3194232.00
Top width (ft)	34906.88	Top width (ft)	14818.43	986.59	19101.86
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	1.99	2.99	1.85
Max Chl Dpth (ft)	192.08	Hydr. Depth (ft)	101.29	186.45	90.54
Conv. Total (cfs)	727684600.0	Conv. (cfs)	322921800.0	59384920.0	345377900.0

Page 221

SS_Rev3.rep

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16146.1317135.78 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (ft)	759.92	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)	759.86	Flow Area (sq ft)	1501117.00	184499.60	1730245.00
Crit W.S. (ft)		Area (sq ft)	1501117.00	184499.60	1730245.00
E.G. Slope (ft/ft)	0.000085	Flow (cfs)	2984485.00	550558.00	3194957.00
Q Total (cfs)	6730000.00	Top Width (ft)	14825.68	989.65	19100.48
Top Width (ft)	34915.81	Avg. Vel. (ft/s)	1.99	2.98	1.85
Vel Total (ft/s)	1.97	Hydr. Depth (ft)	101.25	186.43	90.59
Max Chl Dpth (ft)	192.08	Conv. (cfs)	322851500.0	59557500.0	345619600.0
Conv. Total (cfs)	728028600.0	wetted Per. (ft)	14838.42	991.84	19108.52
Length wtd. (ft)	5.00	Shear (lb/sq ft)	0.54	0.99	0.48
Min Ch El (ft)	567.78	Stream Power (lb/ft s)	1.07	2.96	0.89
Alpha	1.06	Cum Volume (acre-ft)	124434.50	21428.44	148880.90
Frctn Loss (ft)	0.00	Cum SA (acres)	1131.70	103.83	1361.91
C & E Loss (ft)	0.00				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275772.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186	792.82	605.16	777.62	1274.95	761.72	1443.49	754.86				
1712.65	747.59	1870.51	746.18	2200.6	746.18	2515.7	745.14	3362.02	719.47				
3429.7	715.96	3515.71	713.82	3526.38	713.71	3716.43	717.93	3885.97	716.18				
4020.73	714.34	4165.41	710.44	4519.08	701.91	4950.11	694.33	5270.89	692.95				
5408.92	691.53	5559.12	686.8	5623.74	682.59	5966.06	680.53	6295.85	681.26				
6428.88	682.36	6636.72	674.72	6793.9	670.9	6861.14	667.08	6907.42	667.08				
7049.46	669.75	7254.89	679.78	7314.36	678.32	7436.62	676.84	7779.8	665.78				
7825.04	666.53	7971.05	664.94	8247.87	645.32	8261.17	643.8	8424.26	635.78				
8555.25	635.01	8795.4	641.23	8960.44	640.26	9133.34	631.6	9309.2	628.51				
9445.42	614.57	9461.69	614.38	9546.39	606.74	9705.33	595.28	9759.47	595.28				
9799.15	598.76	9918.9	627.8110020.57		636.7410386.88		633.4910536.29		625.98				
10589.02	619.3410790.05		617.5511028.44		627.811312.11		625.2811912.03		621.46				
13293.67	621.4613521.07		615.2814105.64		615.2814555.37		619.114612.13		622.92				
14889.88	620.1614896.47		613.9214997.23		612.4215619.86		594.0716149.93		587.64				
16207.14	582.7616408.61		579.0116460.59		574.2316542.39		567.7816969.98		567.78				
17057.34	572.6117141.09		587.6417229.41		609.3317248.33		611.8217485.72		636.06				
17923.92	641.6518357.36		644.0720460.06		640.9	20574.8	640.920803.34		641.46				
21151.8	636.1322134.02		638.5422390.31		642.3624058.91		646.1824439.66		647.99				
24861.04	652.0225508.74		662.7525731.77		663.8226841.48		663.82	27474.1	657.64				
27746.76	657.6428318.33		653.8228555.01		651.628725.83		650.9928865.24		647.97				
29013.22	648.8229305.98		654.3329626.32		657.1330719.72		678.931381.13		680.86				
32344.93	726.97	32487	727.3933101.38		692.1333135.94		692.2334722.75		746.37				
35761.6	744.2435958.22		745.98	36308.6	763.1836349.88		763.7636655.15		761.8				
36985.38	772.54	37142.8	774.7237913.83		79038606.75		792.5438956.17		800				

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516149.93 .1517141.09 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16149.9317141.09 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (ft)	759.92	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)	759.86	Flow Area (sq ft)	150111.00	184772.00	1730585.00
Crit W.S. (ft)		Area (sq ft)	1501161.00	184772.00	1730585.00
E.G. Slope (ft/ft)	0.000085	Flow (cfs)	2983454.00	551221.90	3195324.00
Q Total (cfs)	6730000.00	Top Width (ft)	14829.16	991.16	19099.78
Top Width (ft)	34920.10	Avg. Vel. (ft/s)	1.99	2.98	1.85
Vel Total (ft/s)	1.97	Hydr. Depth (ft)	101.23	186.42	90.61
Max Chl Dpth (ft)	192.08	Conv. (cfs)	322816900.0	59643540.0	345741800.0
Conv. Total (cfs)	728202200.0	wetted Per. (ft)	14841.90	993.35	19107.80
Length wtd. (ft)	5.00	Shear (lb/sq ft)	0.54	0.99	0.48
Min Ch El (ft)	567.78	Stream Power (lb/ft s)	1.07	2.96	0.89
Alpha	1.06	Cum Volume (acre-ft)	124262.20	21407.24	148682.30
Frctn Loss (ft)	0.00	Cum SA (acres)	1129.99	103.72	1359.72
C & E Loss (ft)	0.00				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275769.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186.05	792.82	605.31	777.61	1275.25	761.71	1443.82	754.85				
1713.06	747.59	1870.95	746.17	2201.11	746.17	2516.29	745.13	3362.81	719.49				
3430.51	715.97	3516.54	713.83	3527.2	713.72	3717.3	717.92	3886.89	716.17				
4021.67	714.32	4166.39	710.42	4520.14	701.89	4951.27	694.31	5272.13	692.93				
5410.19	691.51	5560.43	686.77	5625.06	682.56	5967.46	680.5	6297.32	681.24				
6430.39	682.34	6638.28	674.68	6795.5	670.85	6862.75	667.02	6909.05	667.02				
7051.11	669.69	7256.59	679.73	7316.08	678.28	7438.36	676.81	7781.63	665.79				
7826.88	666.55	7972.92	664.99	8249.8	645.41	8263.11	643.89	8426.24	635.85				
8557.26	635.08	8797.46	641.32	8962.54	640.35	9135.49	631.68	9311.38	628.59				
9447.63	614.66	9463.91	614.47	9548.63	606.81	9707.6	595.32	9761.76	595.32				
9801.45	598.81	9921.22	627.8610022.92		636.8110389.32		633.5510538.76		626.05				
10591.5	619.4110792.59		617.6211031.03		627.8411314.77		625.3211914.83		621.49				

Page 223

SS_Rev3.rep									
13296.79	621.4913524.25	615.3214108.96	615.3214558.79	619.1514615.56	622.98				
14893.38	620.2214899.97	613.9815000.76	612.4815623.53	594.116153.72	587.66				
16211.07	582.7716413.03	579.0316465.13	574.2416547.12	567.7816974.96	567.78				
17062.49	572.6117146.41	587.6617234.72	609.3217253.63	611.82	17491	636.03			
17929.15	641.6118362.55	644.0320465.01	640.8520579.74	640.8520808.26	641.41				
21156.68	636.122138.79	638.5122395.05	642.3424063.47	646.1724444.19	647.99				
24865.51	652.0125513.14	662.7725736.15	663.8326845.74	663.8327478.29	657.66				
27750.92	657.6628322.43	653.8328559.08	651.6128729.88	650.9828869.27	647.96				
29017.24	648.8129309.97	654.3329630.28	657.1230723.55	678.8731384.89	680.84				
32348.59	726.8832490.64	727.3133104.95	692.1133139.51	692.2134726.15	746.28				
35764.89	744.1735961.48	745.9236311.83	763.11	36353.1	763.6936658.33	761.75			
36988.52	772.537145.94	774.6837916.88	79038609.72	792.5538959.11	800				

Manning's n values		num= 3				
Sta	n Val	Sta	n Val	Sta	n Val	
0	.1516153.72		.1517146.41		.15	
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
16153.72	17146.41	5	5	5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501205.00	185046.50	1730913.00
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501205.00	185046.50	1730913.00
Q Total (cfs)	6730000.00	Flow (cfs)	2982422.00	551894.50	3195684.00
Top width (ft)	34924.64	Top width (ft)	14832.88	992.69	19099.07
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	1.99	2.98	1.85
Max Chl Dpth (ft)	192.07	Hydr. Depth (ft)	101.21	186.41	90.63
Conv. Total (cfs)	728368300.0	Conv. (cfs)	322778800.0	59729940.0	345859600.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14845.62	994.88	19107.08
Min Ch El (ft)	567.78	Shear (lb/sq ft)	0.54	0.99	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.07	2.98	0.89
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	124089.90	21386.02	148483.60
C & E Loss (ft)	0.00	Cum SA (acres)	1128.29	103.60	1357.53

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275766.*

INPUT

Description:		num= 120			
Station	Elevation Data	Sta	Elev	Sta	Elev
0	800	186.09	792.82	605.45	777.6
1713.46	747.58	1871.38	746.16	2201.63	746.16
3431.31	715.99	3517.36	713.84	3528.03	713.73
4022.62	714.31	4167.37	710.4	4521.2	701.87
5411.46	69.49	5561.73	686.75	5626.39	682.52
6431.9	682.32	6639.83	674.64	6797.09	670.8
7052.77	669.64	7258.3	679.68	7317.8	678.23
7828.72	666.56	7974.79	665.05	8251.74	645.5
8559.27	635.15	8799.53	641.42	8964.65	640.45
9449.85	614.75	9466.13	614.56	9550.88	606.88
9803.76	598.86	9923.55	627.91	10025.28	636.88
10593.99	619.49	10795.12	617.71	11033.62	627.89
13299.92	621.52	13527.42	615.36	14112.27	615.36
14896.87	620.27	14903.47	614.04	15004.28	612.54
16215	582.78	16417.44	579.05	16469.67	574.25
17067.64	572.61	17151.73	587.68	17240.03	609.32
17934.38	641.58	18367.73	643.98	20469.96	640.82
21161.56	636.06	22143.56	638.48	22399.8	642.32
24869.98	652.01	25517.55	662.78	25740.53	663.84
27755.08	657.66	28326.53	653.84	28563.15	651.61
29021.26	648.81	29313.96	654.33	29634.23	657.12
32352.24	726.88	32494.29	727.31	33108.53	692.09
35768.17	744.17	35964.74	745.92	36315.05	763.04
36991.67	772.45	37149.07	774.64	37919.93	79038612.69

Manning's n values		num= 3				
Sta	n val	Sta	n val	Sta	n val	
0	.1516157.51		.1517151.73		.15	
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
16157.51	17151.73	5	5	5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501248.00	185321.90	1731277.00
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501248.00	185321.90	1731277.00
Q Total (cfs)	6730000.00	Flow (cfs)	2981353.00	552559.40	3196087.00
Top width (ft)	34929.02	Top width (ft)	14836.41	994.22	19098.39
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	1.99	2.98	1.85
Max Chl Dpth (ft)	192.07	Hydr. Depth (ft)	101.19	186.40	90.65
Conv. Total (cfs)	728549100.0	Conv. (cfs)	322743300.0	59816740.0	345989100.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14849.14	996.41	19106.38
Min Ch El (ft)	567.78	Shear (lb/sq ft)	0.54	0.99	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.07	2.95	0.89
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	123917.60	21364.76	148284.90
C & E Loss (ft)	0.00	Cum SA (acres)	1126.59	103.49	1355.34

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275763.*

SS_Rev3.rep

INPUT

Description:

Station Elevation Data		num=	120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186.13	792.81	605.59	777.58	1275.85	761.71	1444.5	754.83		
1713.86	747.57	1871.82	746.15	2202.15	746.15	2517.47	745.11	3364.39	719.52		
3432.12	716	3518.19	713.85	3528.86	713.74	3719.05	717.91	3888.71	716.15		
4023.56	714.29	4168.35	710.39	4522.26	701.85	4953.6	694.29	5274.6	692.9		
5412.73	691.47	5563.04	686.72	5627.71	682.48	5970.26	680.43	6300.28	681.19		
6433.41	682.3	6641.39	674.6	6798.69	670.75	6865.98	666.9	6912.29	666.9		
7054.42	669.59	7260	679.62	7319.51	678.18	7441.86	676.76	7785.29	665.8		
7830.55	666.58	7976.66	665.11	8253.68	645.59	8266.99	644.07	8430.2	635.99		
8561.28	635.22	8801.59	641.52	8966.75	640.55	9139.78	631.83	9315.75	628.74		
9452.07	614.84	9468.35	614.65	9553.12	606.95	9712.16	595.4	9766.34	595.4		
9806.06	598.91	9925.88	627.95	10027.63	636.95	10394.2	633.67	10543.71	626.19		
10596.48	619.57	10797.66	617.77	11036.21	627.94	11320.08	625.41	11920.43	621.55		
13303.04	621.55	13530.6	615.41	14115.58	615.41	14565.62	619.25	14622.42	623.1		
14900.37	620.32	14906.97	614.11	15007.8	612.61	15630.87	594.15	16161.3	587.7		
16218.93	582.79	16421.85	579.07	16474.21	574.26	16556.59	567.78	16984.91	567.78		
17072.79	572.61	17157.04	587.71	17245.33	609.32	17264.25	611.82	17501.56	635.95		
17939.61	641.54	18372.92	643.94	20474.92	640.75	20589.62	640.75	20818.09	641.31		
21166.44	636.02	22148.33	638.45	22404.54	642.32	24072.59	646.15	24453.22	647.98		
24874.46	652.01	25521.95	662.79	25744.91	663.85	26854.26	663.85	27486.66	657.7		
27759.24	657.72	28330.62	653.85	28567.22	651.61	28737.98	650.98	28877.35	647.93		
29025.29	648.78	29317.94	654.31	29638.19	657.11	30731.22	678.82	31392.42	680.79		
32355.9	726.71	32497.93	727.14	33112.1	692.07	33146.65	692.17	34732.94	746.1		
35771.45	744.03	35968	745.79	36318.27	762.97	36359.54	763.55	36664.71	761.65		
36994.82	772.41	37152.2	774.63	37922.98	790386	15.66	792.56	38964.98	800		

Manning's n Values

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	16161.3	.15	17157.04	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16161.3	17157.04		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501281.00	185594.30	1731603.00
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501281.00	185594.30	1731603.00
Q Total (cfs)	6730000.00	Flow (cfs)	2980321.00	553226.70	3196452.00
Top width (ft)	34933.38	Top width (ft)	14839.95	995.74	19097.70
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	1.99	2.98	1.85
Max Chl Dpth (ft)	192.07	Hydr. Depth (ft)	101.16	186.39	90.67
Conv. Total (cfs)	728712800.0	Conv. (cfs)	322704000.0	59902430.0	346106300.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14852.67	997.93	19105.67
Min Ch El (ft)	567.78	Shear (lb/sq ft)	0.54	0.99	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.07	2.95	0.89
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	123745.30	21343.47	148086.20
C & E Loss (ft)	0.00	Cum SA (acres)	1124.89	103.37	1353.14

CROSS SECTION

RIVER: BRAZOS

REACH: UPPER BRAZOS

RS: 275760.*

INPUT

Description:

Station Elevation Data		num=	120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186.18	792.81	605.73	777.57	1276.15	761.71	1444.84	754.82		
1714.26	747.57	1872.26	746.14	2202.66	746.14	2518.06	745.09	3365.18	719.54		
3432.93	716.02	3519.02	713.86	3529.69	713.75	3719.92	717.91	3889.62	716.14		
4024.51	714.28	4169.33	710.37	4523.33	701.84	4954.76	694.27	5275.84	692.88		
5414.01	691.45	5564.35	686.69	5629.03	682.45	5971.66	680.4	6301.76	681.17		
6434.92	682.28	6642.95	674.5	6800.28	670.7	6867.59	666.84	6913.91	666.84		
7056.08	669.53	7261.7	679.57	7321.23	678.14	7443.6	676.73	7787.11	665.81		
7832.39	666.6	7978.53	665.16	8255.62	645.68	8268.93	644.16	8432.18	636.06		
8563.29	635.3	8803.66	641.61	8968.86	640.64	9141.92	631.91	9317.94	628.81		
9454.29	614.93	9470.58	614.74	9555.36	607.02	9714.44	595.44	9768.63	595.44		
9808.36	598.96	9928.21	628100	29.98	637.02	10396.64	633.74	10546.18	626.26		
10598.96	619.64	10800.19	617.84	11038.8	627.98	11322.74	625.44	11923.22	621.58		
13306.16	621.58	13533.78	615.44	14118.89	615.44	14569.04	619.31	14625.86	623.16		
14903.87	620.38	14910.46	614.17	15011.32	612.67	15634.54	594.18	16165.1	587.72		
16222.86	582.81	16426.27	579.08	16478.74	574.26	16561.32	567.78	16989.89	567.78		
17077.94	572.59	17162.36	587.72	17250.64	609.32	17269.55	611.81	17506.84	635.92		
17944.85	641.51	18378.1	643.92	20479.88	640.72	20594.57	640.72	20823.01	641.27		
21171.32	635.99	22153.1	638.42	22409.29	642.28	24077.15	646.14	24457.74	647.97		
24878.93	652255	2526.35	662.82	25749.29	663.86	26858.51	663.86	27490.85	657.72		
27763.4	657.72	28334.72	653.86	28571.29	651.62	28742.04	650.98	28881.38	647.92		
29029.3	648.77	29321.93	654.32	29642.14	657.13	30735.06	678.79	31396.18	680.76		
32359.56	726.63	32501.57	727.05	33115.68	692.05	33150.22	692.15	34736.34	746.01		
35774.74	743.96	35971.27	745.73	36321.5	762.93	36362.76	763.48	36667.89	761.61		
36997.97	772.36	37155.34	774.56	37926.03	790386	18.64	792.57	38967.91	800		

Manning's n Values

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	16165.1	.15	17162.36	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16165.1	17162.36		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501321.00	185869.90	1731940.00
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501321.00	185869.90	1731940.00
Q Total (cfs)	6730000.00	Flow (cfs)	2979279.00	553903.10	3196818.00
Top width (ft)	34937.74	Top width (ft)	14843.49	997.26	19096.99

Page 225

Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	2.98	1.85
Max Chl Dpth (ft)	192.07	Hydr. Depth (ft)	101.14	186.38
Conv. Total (cfs)	728884000.0	Conv. (cfs)	322667000.0	59989770.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14856.21	999.45
Min Ch El (ft)	567.78	Shear (lb/sq ft)	0.54	0.99
Alpha	1.06	Stream Power (lb/ft s)	1.07	2.95
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	123573.00	21322.16
C & E Loss (ft)	0.00	Cum SA (acres)	1123.18	103.26
				1350.95

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275757.*

INPUT

Description:
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186.22	792.8	605.87	777.56	1276.45	761.7	1445.18	754.82
1714.67	747.56	1872.7	746.13	2203.18	746.13	2518.66	745.08	3365.97	719.56
3433.73	716.04	3519.84	713.87	3530.52	713.76	3720.79	717.9	3890.54	716.13
4025.45	714.26	4170.3	710.35	4524.39	701.82	4955.92	694.26	5277.08	692.86
5415.28	691.43	5565.65	686.67	5630.35	682.41	5973.06	680.36	6303.24	681.15
6436.43	682.26	6644.51	674.52	6801.88	670.65	6869.2	666.78	6915.54	666.78
7057.74	669.48	7263.41	679.52	7322.95	678.09	7445.35	676.7	7788.94	665.82
7834.23	666.62	7980.41	665.22	8257.55	645.76	8270.87	644.25	8434.16	636.14
8565.3	635.37	8805.72	641.71	8970.96	640.74	9144.07	631.99	9320.13	628.89
9456.51	615.02	9472.8	614.83	9557.6	607.09	9716.72	595.48	9770.93	595.48
9810.66	599.01	9930.54	628.05	10032.34	637.09	10399.08	633.81	10548.66	626.32
10601.45	619.72	10802.72	617.91	11041.39	628.03	11325.39	625.48	11926.02	621.61
13309.28	621.61	13536.95	615.48	14122.21	615.48	14572.46	619.35	14629.29	623.22
14907.36	620.43	14913.96	614.23	15014.84	612.73	15638.21	594.21	16168.89	587.74
16226.79	582.82	16430.68	579.11	16483.28	574.27	16566.06	567.77	16994.87	567.77
17083.1	572.59	17167.68	587.74	17255.95	609.32	17274.86	611.81	17512.12	635.88
17950.08	641.47	18383.28	643.86	20484.83	640.65	20599.51	640.65	20827.92	641.22
21176.2	635.95	22157.88	638.39	22414.03	642.26	24081.71	646.13	24462.27	647.97
24883.4	65225530.76		662.81	25753.66	663.87	26862.77	663.87	27495.04	657.74
27767.56	657.74	28338.81	653.87	28785.37	651.62	28746.09	650.98	28885.42	647.91
29033.33	648.75	29325.92	654.32	29646.09	657.09	30738.89	678.76	31399.94	680.74
32363.21	726.54	32505.21	726.96	33119.25	692.03	33153.79	692.13	34739.73	745.93
35778.02	743.89	35974.53	745.66	36324.72	762.83	36365.98	763.41	36671.08	761.56
37001.12	772.31	37158.47	774.52	37929.08	79038621.61		792.57	38970.84	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516168.89	.1517167.68	.15		

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16168.89 17167.68 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501363.00	186148.30	1732272.00
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501363.00	186148.30	1732272.00
Q Total (cfs)	6730000.00	Flow (cfs)	2978237.00	554590.90	3197172.00
Top Width (ft)	34942.25	Top Width (ft)	14847.14	998.79	19096.32
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	1.98	2.98	1.85
Max Chl Dpth (ft)	192.08	Hydr. Depth (ft)	101.12	186.37	90.71
Conv. Total (cfs)	729053400.0	Conv. (cfs)	322629100.0	60078220.0	346346100.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14859.85	1000.99	19104.26
Min Ch El (ft)	567.77	Shear (lb/sq ft)	0.54	0.99	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.07	2.95	0.89
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	123400.60	21300.80	147688.60
C & E Loss (ft)	0.00	Cum SA (acres)	1121.48	103.14	1348.76

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275754.*

INPUT

Description:
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186.26	792.8	606.02	777.55	1276.74	761.7	1445.52	754.81
1715.07	747.55	1873.14	746.12	2203.7	746.12	2519.25	745.07	3366.76	719.57
3434.54	716.05	3520.67	713.88	3531.35	713.77	3721.66	717.9	3891.45	716.12
4026.39	714.25	4171.28	710.33	4525.45	701.8	4957.09	694.24	5278.32	692.84
5416.55	691.42	5566.96	686.64	5631.67	682.37	5974.47	680.33	6304.72	681.12
6437.94	682.24	6646.07	674.48	6803.48	670.6	6870.81	666.72	6917.16	666.72
7059.39	669.43	7265.11	679.47	7324.67	678.05	7447.1	676.68	7790.77	665.82
7836.07	666.63	7982.28	665.28	8259.49	645.85	8272.81	644.33	8436.13	636.21
8567.31	635.44	8807.79	641.8	8973.07	640.84	9146.21	632.07	9322.31	628.96
9458.73	615.11	9475.02	614.92	9559.84	607.16	9719	595.52	9773.22	595.52
9812.96	599.06	9932.87	628.09	10034.69	637.16	10401.52	633.86	10551.13	626.39
10603.94	619.81	10805.26	617.99	11043.98	628.08	11328.05	625.52	11928.82	621.64
13312.4	621.64	13540.13	615.52	14125.52	615.52	14575.88	619.41	14632.72	623.28
14910.86	620.48	14917.46	614.31	15018.37	612.79	15641.87	594.23	16172.68	587.76
16230.72	582.83	16435.09	579.12	16487.82	574.28	16570.79	567.77	16999.85	567.77
17088.25	572.59	17173	587.76	17261.25	609.32	17280.16	611.81	17517.4	635.84
17955.31	641.44	18388.47	643.82	20489.78	640.62	20604.45	640.62	20832.84	641.17
21181.08	635.92	22162.65	638.36	22418.77	642.24	24086.28	646.12	24466.79	647.96
24887.88	65225535.16		662.82	25758.04	663.88	26867.03	663.88	27499.23	657.76
27771.72	657.76	28342.91	653.88	28579.44	651.63	28750.14	650.98	28889.46	647.89
29037.35	648.74	29329.91	654.29	29650.05	657.08	30742.72	678.73	31403.7	680.72
32366.87	726.45	32508.85	726.88	33122.82	692.01	33157.36	692.11	34743.13	745.84
35781.3	743.81	35977.79	745.63	36327.95	762.76	36369.2	763.34	36674.27	761.51
37004.27	772.27	37161.6	774.48	37932.12	79038624.58		792.58	38973.78	800

Manning's n Values						SS_Rev3.rep					
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516172.68	.15	17173	.15							
Bank Sta: Left	Right	Lengths: Left	Channel	Right		Coeff Contr.	Expan.				
16172.68	17173	5	5	5		.1	.3				
CROSS SECTION OUTPUT Profile #PF 1											
E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB						
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150						
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00						
Crit W.S. (ft)		Flow Area (sq ft)	1501405.00	186422.80	1732609.00						
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501405.00	186422.80	1732609.00						
Q Total (cfs)	6730000.00	Flow (cfs)	2977205.00	555257.10	3197538.00						
Top width (ft)	34946.62	Top width (ft)	14850.68	1000.32	19095.62						
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	1.98	2.98	1.85						
Max Chl Dpth (ft)	192.08	Hydr. Depth (ft)	101.10	186.36	90.73						
Conv. Total (cfs)	729225200.0	Conv. (cfs)	322593200.0	60164550.0	346467300.0						
Length wtd. (ft)	5.00	Wetted Per. (ft)	14863.39	1002.52	19103.55						
Min Ch El (ft)	567.77	Shear (lb/sq ft)	0.54	0.99	0.48						
Alpha	1.06	Stream Power (lb/ft s)	1.07	2.95	0.89						
Frctn Loss (ft)	0.00	Cum volume (acre-ft)	123228.30	21279.42	147489.70						
C & E Loss (ft)	0.00	Cum SA (acres)	1119.77	103.03	1346.57						

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275751.*

INPUT						Description:					
Station	Elevation	Data	num=	120		Station	Elevation	Data	num=	120	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186.31	792.79	606.16	777.54	1277.04	761.7	1445.86	754.8		
1715.47	747.55	1873.58	746.11	2204.21	746.11	2519.84	745.05	3367.55	719.59		
3435.34	716.07	3521.49	713.89	3532.17	713.78	3722.54	717.89	3892.36	716.11		
4027.34	714.23	4172.26	710.32	4526.51	701.78	4958.25	694.23	5279.55	692.82		
5417.82	691.4	5568.26	686.61	5632.99	682.34	5975.87	680.3	6306.2	681.1		
6439.45	682.22	6647.63	674.44	6805.07	670.55	6872.42	666.66	6918.78	666.66		
7061.05	669.38	7266.82	679.41	7326.39	678	7448.84	676.65	7792.59	665.83		
7837.91	666.65	7984.15	665.33	8261.43	645.94	8274.75	644.42	8438.11	636.28		
8569.32	635.52	8809.86	641.9	8975.17	640.93	9148.36	632.15	9324.5	629.04		
9460.95	615.2	9477.24	615.01	9562.09	607.23	9721.28	595.56	9775.51	595.56		
9815.26	599.11	9935.2	628.14	10037.04	637.23	10403.96	633.92	10553.61	626.46		
10606.43	619.87	10807.79	618.06	11046.57	628.12	11330.71	625.56	11931.62	621.67		
13315.53	621.67	13543.3	615.56	14128.83	615.56	14579.3	619.45	14636.15	623.34		
14914.36	620.53	14920.96	614.36	15021.89	612.85	15645.54	594.25	16176.48	587.78		
16234.66	582.84	16439.51	579.14	16492.36	574.29	16575.53	567.77	17004.83	567.77		
17093.4	572.58	17178.31	587.78	17266.56	609.31	17285.47	611.81	17522.68	635.81		
17960.54	641.41	18393.65	643.78	20494.74	640.55	20609.39	640.55	20837.76	641.12		
21185.96	635.88	22167.42	638.33	22423.32	642.22	24090.84	646.11	24471.3	647.96		
24892.35	651.99	25339.56	662.84	25762.42	663.89	26871.29	663.89	27503.42	657.78		
27775.88	657.78	28347.01	653.89	28583.51	651.63	28754.19	650.97	28893.49	647.88		
29041.37	648.72	29333.9	654.28	29654	657.08	30746.56	678.73	31407.46	680.69		
32370.53	726.37	32512.49	726.79	33126.4	691.99	33160.93	692.09	34746.53	745.75		
35784.59	743.74	35981.05	745.54	36331.17	762.69	36372.42	763.27	36677.45	761.46		
37007.43	772.22	37164.73	774.44	37935.18	79038627.55		792.59	38976.71	800		

Manning's n Values						SS_Rev3.rep					
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516176.48	.15	17178.31	.15							
Bank Sta: Left	Right	Lengths: Left	Channel	Right		Coeff Contr.	Expan.				
16176.48	17178.31	5	5	5		.1	.3				

CROSS SECTION OUTPUT Profile #PF 1											
E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB						
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150						
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00						
Crit W.S. (ft)		Flow Area (sq ft)	1501453.00	186694.30	1732953.00						
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501453.00	186694.30	1732953.00						
Q Total (cfs)	6730000.00	Flow (cfs)	2976177.00	555913.70	3197909.00						
Top width (ft)	34950.98	Top width (ft)	14854.23	1001.83	19094.92						
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	1.98	2.98	1.85						
Max Chl Dpth (ft)	192.08	Hydr. Depth (ft)	101.08	186.35	90.75						
Conv. Total (cfs)	729399600.0	Conv. (cfs)	322559000.0	60250100.0	346590400.0						
Length wtd. (ft)	5.00	Wetted Per. (ft)	14866.92	1004.03	19102.84						
Min Ch El (ft)	567.77	Shear (lb/sq ft)	0.54	0.99	0.48						
Alpha	1.06	Stream Power (lb/ft s)	1.06	2.94	0.89						
Frctn Loss (ft)	0.00	Cum volume (acre-ft)	123056.00	21258.01	147290.80						
C & E Loss (ft)	0.00	Cum SA (acres)	1118.07	102.91	1344.38						

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275749.*

INPUT						Description:					
Station	Elevation	Data	num=	120		Station	Elevation	Data	num=	120	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186.35	792.79	606.3	777.52	1277.34	761.69	1446.2	754.79		
1715.87	747.54	1874.02	746.1	2204.73	746.1	2520.43	745.04	3368.34	719.61		
3436.15	716.08	3522.32	713.9	3533	713.79	3723.41	717.89	3893.27	716.1		
4028.28	714.22	4173.24	710.3	4527.57	701.76	4959.41	694.21	5280.79	692.8		
5419.09	691.38	5569.57	686.58	5634.31	682.3	5977.27	680.26	6307.67	681.08		
6440.96	682.2	6649.19	674.4	6806.67	670.5	6874.03	666.6	6920.4	666.6		
7062.7	669.32	7268.52	679.36	7328.1	677.95	7450.59	676.62	7794.42	665.84		
7839.74	666.67	7986.02	665.39	8263.36	646.03	8276.69	644.51	8440.09	636.35		
8571.33	635.59	8811.92	641.99	8977.28	641.03	9150.5	632.22	9326.69	629.11		

SS_Rev3.rep									
9463.16	615.29	9479.46	615.1	9564.33	607.3	9723.56	595.6	9777.8	595.6
9817.56	599.16	9937.53	628.19	10039.4	637.3	10406.4	633.9810556	0.8	626.53
10608.91	619.9510810	33	618.1311049	16	628.1711333	36	625.611934	42	621.7
13318.65	621.713546	48	615.614132	15	615.614582	72	619.514639	58	623.4
14917.85	620.5914924	46	614.4215025	41	612.9115649	21	594.2816180	27	587.8
16238.58	582.8516443	92	579.1616496	89	574.316580	26	567.7717009	81	567.77
17098.55	572.5817183	63	587.817271	87	609.3117290	77	611.817527	96	635.77
17965.77	641.3718398	84	643.7320499	69	640.520614	34	640.520842	68	641.07
21190.84	635.8422172	19	638.322428	26	642.2	24095.4	646.124475	82	647.95
24896.83	651.9925543	97	662.85	25766.8	663.926875	54	663.927507	61	657.8
27780.03	657.8	28351.1	653.928587	58	651.6328758	25	650.9728897	53	647.87
29045.39	648.7129337	89	654.2829657	96	657.0730750	39	678.6731411	23	680.67
32374.19	726.2832516	13	726.7133129	97	691.96	33164.5	692.0734749	93	745.66
35787.87	743.6735984	32	745.4836334	39	762.6236375	64	763.2136680	64	761.42
37010.57	772.1837167	87	774.437938	22	79038630	53	792.5938979	65	800
Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516180	27	.1517183	63	.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
16180.27	17183.63	5	5	5	.1	.3			
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.92	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1501497.00	186969.00	1733305.00				
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501497.00	186969.00	1733305.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2975115.00	556577.70	3198308.00				
Top width (ft)	34955.52	Top width (ft)	14857.94	1003.36	19094.22				
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	1.98	2.98	1.85				
Max Chl Dpth (ft)	192.08	Hydr. Depth (ft)	101.06	186.34	90.78				
Conv. Total (cfs)	729574300.0	Conv. (cfs)	322521100.0	60336520.0	346716700.0				
Length wtd. (ft)	5.00	wetted Per. (ft)	14870.64	1005.56	19102.11				
Min Ch El (ft)	567.77	Shear (lb/sq ft)	0.54	0.99	0.48				
Alpha	1.06	Stream Power (lb/ft s)	1.06	2.94	0.89				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	122883.60	21236.56	147091.90				
C & E Loss (ft)	0.00	Cum SA (acres)	1116.36	102.80	1342.19				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275746.*

INPUT
 Description:

Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186.4	792.78	606.44	777.51	1277.64	761.69	1446.54	754.79
1716.27	747.54	1874.46	746.09	2205.25	746.09	2521.02	745.03	3369.13	719.62
3436.95	716.1	3523.14	713.91	3533.83	713.8	3724.28	717.88	3894.19	716.09
4029.23	714.2	4174.22	710.28	4528.63	701.74	4960.57	694.2	5282.03	692.79
5420.36	691.36	5570.87	686.56	5635.63	682.26	5978.67	680.23	6309.15	681.06
6442.47	682.18	6650.75	674.36	6808.26	670.45	6875.65	666.54	6922.03	666.54
7064.36	669.27	7270.22	679.31	7329.82	677.91	7452.33	676.6	7796.25	665.84
7841.58	666.68	7987.9	665.45	8265.3	646.12	8278.63	644.6	8442.07	636.42
8573.34	635.66	8813.99	642.09	8979.38	641.13	9152.65	632.3	9328.87	629.19
9465.38	615.38	9481.69	615.19	9566.57	607.37	9725.84	595.64	9780.1	595.64
9819.87	599.21	9939.86	628.2310041	75	637.3710408	84	634.0410558	56	626.6
10611.4	620.0310812	86	618.211051	75	628.2211336	02	625.6411937	21	621.73
13321.77	621.7313549	65	615.6414135	46	615.6414586	13	619.5514643	02	623.46
14921.35	620.6414927	96	614.4815028	93	612.9715652	88	594.3116184	06	587.82
16242.52	582.8616448	33	579.1716501	43	574.3116584	99	567.7717014	79	567.77
17103.7	572.5717188	95	587.8217277	18	609.3117296	08	611.817533	23	635.73
17971	641.3318404	02	643.6920504	65	640.4520619	28	640.4520847	59	641.02
21195.71	635.8122176	96	638.27	22433	642.1824099	96	646.0924480	35	647.95
24901.3	651.9925548	37	662.8625771	18	663.91	26879.8	663.9127511	79	657.82
27784.19	657.82	28355.2	653.9128591	65	651.64	28762.3	650.9728901	57	647.85
29049.41	648.6929341	88	654.2729661	91	657.0630754	23	678.6431414	99	680.64
32377.84	726.1932519	78	726.6233133	55	691.9433168	07	692.0534753	32	745.57
35791.16	743.635987	58	745.4136337	62	762.5536378	86	763.1436683	82	761.37
37013.73	772.13	37171	774.3637941	27	790	38633.5	792.638982	59	800

Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516184	06	.1517188	95	.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
16184.06	17188.95	5	5	5	.1	.3			

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1501528.00	187245.10	1733654.00				
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501528.00	187245.10	1733654.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2974051.00	557251.20	3198699.00				
Top width (ft)	34959.85	Top width (ft)	14861.41	1004.89	19093.55				
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	1.98	2.98	1.85				
Max Chl Dpth (ft)	192.08	Hydr. Depth (ft)	101.04	186.33	90.80				
Conv. Total (cfs)	729746900.0	Conv. (cfs)	322482000.0	60423820.0	346841100.0				
Length wtd. (ft)	5.00	wetted Per. (ft)	14874.11	1007.09	19101.44				
Min Ch El (ft)	567.77	Shear (lb/sq ft)	0.54	0.99	0.48				
Alpha	1.06	Stream Power (lb/ft s)	1.06	2.94	0.89				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	122711.30	21215.09	146892.90				
C & E Loss (ft)	0.00	Cum SA (acres)	1114.66	102.68	1339.99				

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275743.*

INPUT

Description:

[illegible]

Manning's n values

```
num=          3
n val      Sta      n val
.1517194.26      .15
```

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16187.8617	194.26		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501581.00	187515.70	1733977.00
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501581.00	187515.70	1733977.00
Q Total (cfs)	673000.00	Flow (cfs)	2973065.00	557906.40	3199029.00
Total Width (ft)	34964.21	Total width (ft)	14864.95	1006.40	19092.86
Vel total (ft/s)	1.97	Avp. Vel. (ft/s)	1.98	2.98	1.84
Max Chl Dpth (ft)	192.08	Hydr. Depth (ft)	101.01	186.32	90.82
Conv. Total (cfs)	729956400.0	Wetted Per (ft)	322450000.0	60508920.0	346957400.0
Length Wtd. (ft)	5.00	Shear (lb/sq ft)	14877.64	1008.60	19100.73
Min Ch El (ft)	567.77	Stream Power (lb/ft s)	0.77	0.94	0.48
Alpha	1.06	Cum Volume (acre-ft)	1.06	2.99	0.89
Frctn Loss (ft)	0.00	Cum SA (acres)	122538.90	21193.58	146693.90
C & E Loss (ft)	0.00		1112.95	102.57	1337.80

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275740.*

INPUT

Description:

[illegible]

Manning's n Values

```
num=          3
n Val      Sta      n Val
.1517199.58      .15
```

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16191.6517	199.58		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501615.00	187789.50	1734310.00

E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501615.00	187789.50	1734310.00
Q Total (cfs)	6730000.00	Flow (cfs)	2972027.00	558572.00	3199402.00
Top Width (ft)	34968.58	Top Width (ft)	14868.49	1007.93	19092.17
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	1.98	2.97	1.84
Max Chl Dpth (ft)	192.08	Hydr. Depth (ft)	100.99	186.31	90.84
Conv. Total (cfs)	730082900.0	Conv. (cfs)	322410900.0	60594930.0	347077000.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14881.18	1010.14	19100.02
Min Ch El (ft)	567.77	Shear (lb/sq ft)	0.54	0.99	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.06	2.93	0.89
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	122366.50	21172.04	146494.80
C & E Loss (ft)	0.00	Cum SA (acres)	1111.24	102.45	1335.61

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275737.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186.53	792.77	606.87	777.47	1278.54	761.68	1447.55	754.76		
1717.48	747.52	1875.78	746.06	2206.8	746.06	2522.79	744.99	3371.5	719.67		
3439.37	716.14	3525.62	713.94	3536.32	713.83	3726.9	717.86	3896.92	716.06		
4032.06	714.16	4177.15	710.23	4531.82	701.68	4964.06	694.15	5285.74	692.73		
5424.17	691.3	5574.79	686.48	5639.59	682.15	5982.87	680.13	6313.59	680.99		
6447	682.12	6655.42	674.24	6813.05	670.3	6880.48	666.36	6926.89	666.36		
7069.33	669.11	7275.33	679.15	7334.97	677.77	7457.57	676.51	7801.73	665.86		
7847.09	666.74	7993.51	665.62	8271.11	646.38	8284.45	644.87	8448.01	636.64		
8579.36	635.88	8820.18	642.37	8985.69	641.42	9159.09	632.54	9335.43	629.41		
9472.04	615.66	9488.35	615.46	9573.3	607.58	9732.68	595.76	9786.97	595.76		
9826.77	599.35	9946.85	628.37	10048.81	637.58	10416.16	634.23	10565.98	626.8		
10618.86	620.26	10820.46	618.42	11059.52	628.36	11343.99	625.76	11945.61	621.82		
13331.14	621.82	13559.18	615.76	14145.4	615.76	14596.39	619.71	14653.31	623.64		
14931.84	620.81	14938.45	614.67	15039.5	613.15	15663.88	594.38	16195.44	587.88		
16254.31	582.91	16461.57	579.23	16515.05	574.34	16599.2	567.77	17029.73	567.77		
17119.16	572.56	17204.9	587.88	17293.1	609.31	17311.99	611.79	17549.07	635.62		
17986.7	641.23	18419.57	643.57	20519.51	640.3	20634.1	640.32	20862.34	640.88		
21210.35	635.72	21219.28	638.18	22447.24	642.12	24113.65	646.06	24493.91	647.93		
24914.72	651.98	25561.58	662.89	25784.32	663.94	26892.58	663.94	27524.36	657.88		
27796.67	657.88	28367.49	653.94	28603.86	651.65	28774.45	650.97	28913.68	647.81		
29061.47	648.65	29353.84	654.25	29673.77	657.04	30765.73	678.55	31426.28	680.57		
32388.81	725.93	32530.7	726.37	33144.27	691.88	33178.78	691.99	34763.52	745.31		
35801.01	743.38	35997.36	745.22	36347.29	762.34	36388.52	762.93	36693.38	761.22		
37023.18	771.99	37180.4	774.24	37950.42	79038	38642.42	792.62	38991.39	800		

Manning's n	Values	num=	3
Sta	n Val	Sta	n Val
0	.1516195.44	.15	17204.9

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16195.44	17204.9	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501666.00	188063.90	1734660.00
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501666.00	188063.90	1734660.00
Q Total (cfs)	6730000.00	Flow (cfs)	2970984.00	559232.40	3199784.00
Top Width (ft)	34973.15	Top Width (ft)	14872.20	1009.46	19091.49
Vel Total (ft/s)	1.97	Avg. Vel. (ft/s)	1.98	2.97	1.84
Max chl Dpth (ft)	19.08	Hydr. Depth (ft)	100.97	186.30	90.86
Conv. Total (cfs)	730259200.0	Conv. (cfs)	322375700.0	60681220.0	347202300.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14884.89	1011.67	19099.33
Min Ch El (ft)	567.77	Shear (lb/sq ft)	0.53	0.99	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.06	2.93	0.89
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	122194.20	21150.47	146295.80
C & E Loss (ft)	0.00	Cum SA (acres)	1109.54	102.34	1333.42

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275734.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186.57	792.76	607.01	777.46	1278.84	761.68	1447.89	754.75		
1717.88	747.51	1876.22	746.05	2207.31	746.05	2523.38	744.98	3372.29	719.69		
3440.17	716.16	3526.45	713.95	3537.14	713.84	3727.77	717.86	3897.84	716.05		
4033	714.15	4178.13	710.22	4532.88	701.66	4965.22	694.14	5286.98	692.71		
5425.44	691.29	5576.1	686.45	5640.91	682.12	5984.27	680.1	6315.07	680.96		
6448.51	682.1	6656.98	674.2	6814.65	670.25	6882.09	666.3	6928.51	666.3		
7070.98	669.06	7277.04	679.1	7336.69	677.73	7459.32	676.49	7803.56	665.87		
7848.93	666.75	7995.38	665.67	8273.05	646.47	8286.39	644.95	8449.98	636.71		
8581.37	635.95	8822.25	642.47	8987.8	641.51	9161.23	632.62	9337.62	629.48		
9474.25	615.75	9490.58	615.55	9575.54	607.65	9734.96	595.8	9789.26	595.8		
9829.07	599.4	9949.18	628.42	10051.16	637.65	10418.59	634.29	10568.46	626.87		
10621.35	620.33	10823	618.49	11062.11	628.41	11346.65	625.8	11948.4	621.85		
13334.26	621.85	13562.36	615.81	14148.71	615.81	14599.81	619.75	14656.74	623.7		
14935.34	620.81	14941.95	614.73	15043.02	613.21	15667.55	594.41	16199.24	587.9		
16258.24	582.91	16465.98	579.24	16519.58	574.35	16603.93	567.77	17034.71	567.77		
17124.31	572.56	17210.21	587.91	17298.41	609.3	17317.3	611.79	17554.35	635.59		
17991.93	641.19	18424.76	643.52	20524.47	640.25	20639.05	640.25	20867.26	640.83		
21215.23	635.66	21296.05	638.15	22451.98	642.12	24118.21	646.05	24498.43	647.93		
24919.2	651.97	25565.98	662.91	25788.7	663.95	26896.83	663.95	27528.55	657.9		
27800.83	657.92	28371.59	653.95	28607.93	651.66	28778.51	650.96	28917.71	647.8		
29065.49	648.64	29357.83	654.24	29677.72	657.03	30769.57	678.53	31430.04	680.55		
32392.47	725.85	32534.34	726.28	33147.84	691.86	33182.36	691.97	34766.91	745.22		

SS_Rev3.rep
 35804.29 743.3136000.63 745.1636350.52 762.2736391.73 762.8636696.57 761.18
 37026.32 771.9537183.53 774.237953.47 79038645.39 792.6338994.32 800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516199.24 .1517210.21 .15
 Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16199.2417210.21 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501701.00	188336.10	1735001.00
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501701.00	188336.10	1735001.00
Q Total (cfs)	6730000.00	Flow (cfs)	2969941.00	559894.30	3200165.00
Top width (ft)	34977.52	Top width (ft)	14875.75	1010.97	19090.81
Vel total (ft/s)	1.96	Avg. vel. (ft/s)	1.98	2.97	1.84
Max Chl Dpth (ft)	192.08	Hydr. Depth (ft)	100.95	186.29	90.88
Conv. Total (cfs)	730428700.0	Conv. (cfs)	322337300.0	60767140.0	347324300.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14888.43	1013.18	19098.63
Min Ch El (ft)	567.77	Shear (lb/sq ft)	0.53	0.99	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.06	2.93	0.89
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	122021.80	21128.87	146096.60
C & E Loss (ft)	0.00	Cum SA (acres)	1107.83	102.22	1331.23

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275731.*

INPUT

Description:
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186.61	792.76	607.15	777.45	1279.14	761.68	1448.23	754.75
1718.29	747.5	1876.66	746.04	2207.83	746.04	2523.97	744.97	3373.08	719.71
3440.98	716.18	3527.27	713.96	3537.97	713.85	3728.65	717.85	3898.75	716.04
4033.95	714.13	4179.11	710.2	4533.94	701.64	4966.39	694.12	5288.22	692.69
5426.71	691.27	5577.4	686.42	5642.24	682.08	5985.68	680.06	6316.55	680.94
6450.02	682.08	6658.54	674.16	6816.24	670.2	6883.7	666.24	6930.14	666.24
7072.64	669	7278.74	679.04	7338.41	677.68	7461.07	676.46	7805.38	665.88
7850.77	666.77	7997.26	665.73	8274.98	646.56	8288.33	645.04	8451.96	636.78
8583.38	636.03	8824.32	642.56	8989.9	641.61	9163.38	632.69	9339.8	629.56
9476.47	615.84	9492.8	615.64	9577.78	607.72	9737.24	595.84	9791.56	595.84
9831.37	599.45	9951.51	628.47	10053.52	637.72	10421.03	634.35	10570.93	626.94
10623.83	620.41	10825.53	618.56	11064.7	628.45	11349.3	625.84	11951.2	621.88
13337.38	621.88	13565.53	615.84	14152.02	615.84	14603.23	619.81	14660.17	623.76
14938.84	620.91	14945.45	614.81	15046.54	613.27	15671.22	594.43	16203.03	587.92
16262.17	582.92	16470.4	579.26	161524.12	574.36	16608.66	567.76	17039.68	567.76
17129.46	572.55	17215.53	587.92	17303.71	609.3	17322.6	611.78	17559.63	635.55
17997.16	641.16	18429.94	643.48	20529.42	640.22	20643.99	640.22	20872.18	640.78
12220.11	635.63	22200.82	638.12	22456.72	642.08	24122.77	646.04	24502.95	647.92
24923.67	651.97	25570.39	662.92	25793.08	663.96	26901.09	663.96	27532.74	657.92
27804.99	657.92	28375.68	653.96	28612	651.66	28782.56	650.96	28921.75	647.79
29069.51	648.62	29361.82	654.23	29681.68	657.02	30773.4	678.5	31433.8	680.52
32396.13	725.76	32537.98	726.23	33151.42	691.84	33185.93	691.95	34770.31	745.13
35807.57	743.24	36003.89	745.13	36353.74	762.23	36394.95	762.79	36699.75	761.13
37029.48	771.93	37186.66	774.16	37956.52	790386	48.37	792.63	38997.26	800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516203.03 .1517215.53 .15
 Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16203.0317215.53 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501749.00	188615.90	1735345.00
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501749.00	188615.90	1735345.00
Q Total (cfs)	6730000.00	Flow (cfs)	2968907.00	560578.50	3200515.00
Top width (ft)	34981.82	Top width (ft)	14879.21	1012.50	19090.11
Vel total (ft/s)	1.96	Avg. vel. (ft/s)	1.98	2.97	1.84
Max Chl Dpth (ft)	192.09	Hydr. Depth (ft)	100.93	186.29	90.90
Conv. Total (cfs)	730608500.0	Conv. (cfs)	322304400.0	60856380.0	347447700.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14891.89	1014.71	19097.92
Min Ch El (ft)	567.76	Shear (lb/sq ft)	0.53	0.98	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.06	2.93	0.89
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	121849.40	21107.23	145897.50
C & E Loss (ft)	0.00	Cum SA (acres)	1106.12	102.11	1329.04

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275728.*

INPUT

Description:
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186.66	792.76	607.3	777.44	1279.44	761.68	1448.57	754.74
1718.69	747.5	1877.1	746.03	2208.35	746.03	2524.56	744.95	3373.86	719.73
3441.79	716.19	3528.1	713.97	3538.8	713.86	3729.52	717.85	3899.66	716.03
4034.89	714.12	4180.09	710.18	4535	701.62	4967.55	694.11	5289.46	692.68
5427.98	691.25	5578.71	686.39	5643.56	682.04	5987.08	680.03	6318.03	680.92
6451.53	682.06	6660.1	674.12	6817.84	670.15	6885.31	666.18	6931.76	666.18

SS_Rev3.rep											
7074.29	668.95	7280.45	678.99	7340.13	677.63	7462.81	676.43	7807.21	665.88		
7852.61	666.79	7999.13	665.79	8276.32	646.65	8290.27	645.13	8453.94	636.85		
8385.39	636.1	8826.38	642.66	8992.01	641.71	9165.52	632.77	9341.99	629.63		
9478.69	615.93	9495.02	615.73	9580.02	607.79	9739.52	595.88	9793.85	595.88		
9833.67	599.5	9953.84	628.51	10055.87	637.79	10423.47	634.41	10573.4	627		
10626.32	620.49	10828.07	618.63	11067.29	628.51	11351.96	625.88	11954	621.91		
13340.5	621.91	13568.71	615.88	14155.34	615.88	14606.65	619.85	14663.61	623.82		
14942.33	620.96	14948.95	614.86	15050.07	613.34	15674.89	594.46	16206.82	587.94		
16266.1	582.93	16474.81	579.28	16528.66	574.37	16613.4	567.76	17044.66	567.76		
17134.61	572.55	17220.85	587.94	17309.02	609.31	17327.91	611.78	17564.91	635.51		
18002.39	641.12	18435.12	643.44	20534.38	640.15	20648.93	640.15	20877.1	640.73		
21224.99	635.59	22205.59	638.09	22461.47	642.06	24127.33	646.03	24507.46	647.91		
24928.14	651.97	25574.79	662.93	25797.46	663.97	26905.35	663.97	27536.93	657.94		
27809.15	657.94	28379.78	653.97	28616.07	651.66	28786.61	650.96	28925.79	647.78		
29073.53	648.61	29365.81	654.23	29685.63	657.02	30777.23	678.47	31437.56	680.5		
32399.78	725.67	32541.62	726.11	33154.99	691.82	33189.5	691.93	33477.71	745.05		
35810.86	743.17	36007.15	745.04	36356.96	762.13	36398.18	762.72	36702.94	761.08		
37032.62	771.86	37189.8	774.12	37959.57	79038	651.34	792.64	39000.2	800		

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516206.82 .1517220.85 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16206.8217220.85 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501781.00	188890.10	1735668.00
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501781.00	188890.10	1735668.00
Q Total (cfs)	6730000.00	Flow (cfs)	2967879.00	561246.90	3200874.00
Top width (ft)	34986.19	Top width (ft)	14882.75	1014.03	19089.41
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.98	2.97	1.84
Max Chl Dpth (ft)	192.09	Hydr. Depth (ft)	100.91	186.28	90.92
Conv. Total (cfs)	730771800.0	Conv. (cfs)	322264800.0	60942550.0	347564400.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14895.42	1016.24	19097.21
Min Ch El (ft)	567.76	Shear (lb/sq ft)	0.53	0.98	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.06	2.92	0.89
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	121677.10	21085.57	145698.30
C & E Loss (ft)	0.00	Cum SA (acres)	1104.41	101.99	1326.85

CROSS SECTION

RIVER: BRAZOS

REACH: UPPER BRAZOS

RS: 275725.*

INPUT

Description:

Station Elevation Data	num= 120										
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev											
0 800 186.7	792.75	607.44	777.42	1279.74	761.67	1448.91	754.73				
1719.09	747.49	1877.54	746.02	2208.86	746.02	2525.16	744.94	3374.65	719.74		
3442.59	716.21	3528.92	713.98	3539.63	713.87	3730.39	717.84	3900.57	716.02		
4035.84	714.1	4181.07	710.17	4536.06	701.6	4968.71	694.09	5290.7	692.66		
5429.25	691.23	5580.01	686.37	5644.88	682.01	5988.48	680	6319.5	680.9		
6453.04	682.04	6661.66	674.08	6819.43	670.1	6886.93	666.12	6933.38	666.12		
7075.95	668.9	7282.15	678.94	7341.85	677.59	7464.56	676.4	7809.04	665.89		
7854.45	666.8	8001	665.84	8278.86	646.74	8292.21	645.22	8455.92	636.92		
8587.4	636.17	8828.45	642.75	8994.11	641.8	9167.67	632.85	9344.18	629.71		
9480.91	616.02	9497.24	615.82	9582.27	607.86	9741.8	595.92	9796.14	595.92		
9835.98	599.55	9956.17	628.56	10058.22	637.86	10425.91	634.47	10575.88	627.07		
10628.81	620.56	10830.6	618.71	11069.88	628.54	11354.62	625.92	11956.8	621.94		
13343.63	621.94	13571.88	615.92	14158.65	615.92	14610.06	619.91	14667.04	623.88		
14945.83	621.01	14952.45	614.92	15053.59	613.41	15678.56	594.49	16210.61	587.96		
16270.03	582.94	16479.22	579.3	16533.2	574.38	16618.13	567.76	17049.64	567.76		
17139.76	572.54	17226.17	587.96	17314.33	609.31	17333.21	611.78	17570.19	635.48		
18007.62	641.09	18440.31	643.42	20539.33	640.12	20653.87	640.12	20882.01	640.68		
21229.87	635.55	22210.36	638.06	22466.21	642.04	24131.89	646.02	24511.99	647.91		
24932.62	651.96	25579.19	662.94	25801.83	663.98	26909.61	663.98	27541.12	657.96		
27813.3	657.96	28383.88	653.98	28620.14	651.67	28790.66	650.96	28929.83	647.76		
29077.55	648.59	29369.8	654.22	29689.58	657.01	30781.07	678.44	31441.32	680.48		
32403.44	725.59	32545.27	726.03	33158.57	691.83	33193.07	691.91	33477.11	744.96		
35814.14	743.13	36010.41	744.97	36360.19	762.06	36401.39	762.66	36706.13	761.03		
37035.78	771.81	37192.93	774.08	37962.61	79038	654.32	792.65	39003.13	800		

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516210.61 .1517226.17 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16210.6117226.17 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501824.00	189165.10	1736003.00
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501824.00	189165.10	1736003.00
Q Total (cfs)	6730000.00	Flow (cfs)	2966844.00	561915.20	3201241.00
Top width (ft)	34990.77	Top width (ft)	14886.46	1015.56	19088.75
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.98	2.97	1.84
Max Chl Dpth (ft)	192.09	Hydr. Depth (ft)	100.89	186.27	90.94
Conv. Total (cfs)	730940200.0	Conv. (cfs)	322226700.0	61029190.0	347684300.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14899.13	1017.78	19096.53
Min Ch El (ft)	567.76	Shear (lb/sq ft)	0.53	0.98	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.05	2.92	0.89
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	121504.70	21063.87	145499.00
C & E Loss (ft)	0.00	Cum SA (acres)	1102.71	101.87	1324.65

SS_Rev3.rep

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275722.*

INPUT

Description:										
Station	Elevation	Data	num=	120						
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta
0	800	186.75	792.75	607.58	777.41	1280.04	761.67	1449.25	754.72	
1719.49	747.48	1877.97	746.01	2209.38	746.01	2525.75	744.93	3375.44	719.76	
3443.4	716.22	3529.75	713.39	3540.46	713.88	3731.27	717.84	3901.49	716.01	
4036.78	714.09	4182.04	710.15	4537.12	701.58	4969.87	694.08	5291.93	692.64	
5430.52	691.21	5581.32	686.34	5646.2	681.97	5989.88	679.96	6320.98	680.67	
6454.55	682.02	6663.21	674.04	6821.03	670.50	6888.54	666.06	6935	666.06	
7077.6	668.85	7283.85	678.88	7343.56	677.54	7466.31	676.38	7810.87	665.9	
7856.28	666.82	8002.87	665.9	8280.8	646.83	8294.15	645.31	8457.9	636.99	
8589.41	636.24	8830.51	642.85	8996.22	641.9	9169.87	632.93	9346.6	636.99	
9483.13	616.11	9499.46	615.91	9584.51	607.93	9744.08	595.96	9799.43	595.96	
9838.28	620.64	10083.33	618.78	101072.47	637.93	103428.35	634.54	105075.35	627.14	
10401.29	620.64	10183.33	618.78	101072.47	628.951357.27		625.961959.59		621.97	
13346.75	621.07	131735.07	615.96	161416.96	615.96	161461.38	619.95	16470.47	623.94	
14943.35	621.06	14955.95	614.98	15057.11	613.46	15682.23	594.51	16124.41	587.98	
16273.96	582.96	161483.64	579.31	162537.74	574.39	161662.87	567.76	171054.62	567.76	
17144.91	572.54	17231.48	587.98	17319.63	609.31	17338.52	611.77	17175.57	635.44	
18012.86	641.05	14844.49	643.36	162054.4.29	640.05	205658.81	640.05	205886.93	640.63	
21234.75	635.52	22225.14	638.03	22470.96	642.02	24136.45	646.01	24516.51	647.9	
24937.09	651.96	25583.86	662.95	25806.21	663.92	26919.83	667.99	27545.3	657.98	
27817.46	657.98	28387.97	653.92	28864.21	651.67	28728.94.71	650.96	28693.86	647.75	
29081.57	648.58	292373.79	654.21	2126993.54	657	30784.9	678.41	31445.09	680.45	
32407.1	725.53	548.91	725.94	33162.14	691.78	33196.64	691.89	34780.5	744.87	
35817.43	743.03	36013.68	744.94	31363.63	761.93	36654.04.61	762.93	369370.91	760.99	
37038.93	771.73	37196.07	774.93	37965.66	79038629.27		792.63	39006.07	800	

Manning's n values		num= 3					
Sta	n val	Sta	n val	Sta	n val		
0	.1516214.41		.1517231.48		.15		
Bank	Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
	16214.	4117231.48	5	5	5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501865.00	189434.40	1736355.00
E.G. Slope (ft/ft)	0.000885	Area (sq ft)	1501865.00	189434.40	1736355.00
Q Total (cfs)	6730000.00	Flow (cfs)	2965804.00	562558.10	3201638.00
Top Width (ft)	34995.14	Top width (ft)	14890.00	1017.07	19088.07
Vel Total (ft/s)	1.96	Avp. Vel. (ft/s)	1.97	2.97	1.84
Max Chl Dpth (ft)	192.09	Hydr. Depth (ft)	100.86	186.26	0.97
Conv. Total (cfs)	731114100.0	Wetted Per. (ft)	322190300.0	1113540.0	347810200.0
Length Wd. (ft)	5.00	Shear (lb/sq ft)	14902.67	1019.29	19095.83
Min Ch El (ft)	567.76	Stream Power (lb/ft s)	1.05	2.92	0.89
Alpha	1.06	Cum Volume (acre-ft)	121332.30	21042.14	145299.70
Frctn Loss (ft)	0.00	Cum SA (acres)	1101.00	101.76	1322.46
C & E Loss (ft)	0.00				

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275719.*

INPUT

Description:										
Station	Elevation Data		num=	120						
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta
0	800	186.79	792.74	607.72	777.4	1280.34	761.67	1449.59	754.71	
1719.89	747.48	1878.41	746	2209.9	746	2526.34	744.91	3376.23	719.78	
3444.2	716.24	3530.58	714	3541.28	713.88	3732.14	717.83	3902.4	716	
4037.73	714.07	4183.02	710.13	4538.18	701.57	4971.04	694.06	5293.17	692.62	
5431.79	691.09	5582.62	686.31	5647.52	681.93	5991.28	679.93	6322.46	680.85	
6456.06	682	6664.77	674	6822.62	670	6890.15	666	6936.63	666	
7079.26	668.79	7285.56	678.83	7345.28	677.5	7468.05	676.35	7812.69	665.9	
7858.12	666.84	8004.74	665.96	8282.74	646.92	8296.09	645.4	8459.58	637.07	
8591.42	636.32	8832.58	642.94	8998.32	642	9171.96	633.01	9348.55	629.86	
9485.35	616.2	9501.69	616	9586.75	608	9746.35	596	9800.72	596	
9840.58	599.65	9960.83	628.65	101062.93	63810430.79	634	610580.82	627.21		
10633.78	620.72	101083.67	618.81	10175.05	628	6411359.39	6261962.39	622		
13349.87	621	133578.23	615	135068.3	613	14616.9	616	14675.9	612	
14552.83	620.72	145935.93	615	151068.3	613	15685.9	594.54	16218.2	588	
16277.89	582.57	161488.05	579.33	161642.27	574.4	16627.6	567.76	17059.6	567.46	
17920.07	572.93	17236.8	548	17324.94	509	291734.83	611.77	17580.75	635.41	
18018.09	641.02	181450.68	643.32	202549.24	64020663.76	64020891.82	64020891.82	640	59	
21239.63	635.48	22219.91	638	22475.7	64224141.02	64624521.03	64624521.03	647.9		
24941.57	651.96	25588	662.96	265810.59	66626918.92	66627549.49	66627549.49	658		
27821.62	658	28392.07	654	28628.28	651.68	28798.77	650.96	28937.9	647.74	
29085.59	648.57	29377.58	654.21	212697.91	656.93	300788.74	678.38	31448.85	680.43	
32410.75	725.41	323552.55	725.86	33165.71	691.76	33200.21	691.87	34783.9	744.78	
35820.71	742.95	36106.94	744.85	36366.64	761.92	38640.73	762.52	36712.5	760.94	
37042.08	771.72	37199.2	774	37396.81	79038660.27		792.66	39009	800	

Manning's n values	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
	0	.15	16218.2		.15	17236.8		.15

Bank	Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
		16218.2	17236.8		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft) 759.91 Element Left OB Channel Right OB
Page 233

Vel Head (ft)	0.06	wt. n-val.	SS_Rev3.rep	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	0.150	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501901.00	189710.90	1736686.00	
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501901.00	189710.90	1736686.00	
Q Total (cfs)	6730000.00	Flow (cfs)	2964773.00	563232.90	3201995.00	
Top Width (ft)	34999.52	Top Width (ft)	14893.54	1018.60	19087.38	
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.97	2.97	1.84	
Max Chl Dpth (ft)	192.09	Hydr. Depth (ft)	100.84	186.25	90.99	
Conv. Total (cfs)	731282700.0	Conv. (cfs)	322152600.0	61200960.0	347929200.0	
Length Wtd. (ft)	5.00	wetted Per. (ft)	14906.20	1020.82	19095.13	
Min Ch El (ft)	567.76	Shear (lb/sq ft)	0.53	0.98	0.48	
Alpha	1.06	Stream Power (lb/ft s)	1.05	2.92	0.89	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	121159.90	21020.38	145100.40	
C & E Loss (ft)	0.00	Cum SA (acres)	1099.29	101.64	1320.27	

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275716.*

INPUT
 Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186.83	792.74	607.86	777.39	1280.64	761.66	1449.93	754.71				
1720.3	747.47	1878.85	745.99	2210.42	745.99	2526.93	744.9	3377.02	719.79				
3445.01	716.25	3531.4	714.01	3542.11	713.89	3733.01	717.83	3903.31	715.99				
4038.67	714.06	4184	710.11	4539.25	701.55	4972.2	694.05	5294.41	692.6				
5433.06	691.17	5583.93	686.29	5648.84	681.9	5992.68	679.9	6323.94	680.83				
6457.57	681.98	6666.33	673.96	6824.22	669.95	6891.76	665.94	6938.25	665.94				
7080.92	668.74	7287.26	678.78	7347	677.45	7469.8	676.32	7814.52	665.91				
7859.96	666.86	8006.62	666.01	8284.67	647	8298.03	645.49	8461.86	637.14				
8593.43	636.39	8834.64	643.04	9000.43	642.09	9174.1	633.09	9350.74	629.93				
9487.57	616.29	9503.91	616.09	9588.99	608.07	9748.63	596.04	9803.02	596.04				
9842.88	599.7	9963.16	628.71	10065.28	638.07	10433.23	634.66	10583.3	627.28				
10636.27	620.8	10838.2	618.92	11077.65	628.68	11362.59	626.04	11965.19	622.03				
13352.99	622.03	13581.41	616.04	14168.59	616.04	14620.32	620.05	14677.33	624.06				
14956.32	621.17	14962.94	615.11	15064.16	613.58	15689.56	594.56	16122.19	588.02				
16281.82	582.98	16492.46	579.35	16546.81	574.41	16632.33	567.76	17064.58	567.76				
17155.22	572.53	17242.12	588.02	17330.25	609.29	17349.13	611.77	17586.03	635.37				
18023.32	640.98	18455.86	643.27	20554.19	639.95	20668.7	639.95	20896.76	640.54				
21244.51	635.44	22224.68	637.97	22480.44	641.98	24145.58	645.99	24525.54	647.89				
24946.04	651.95	25592.4	662.98	25814.97	664.01	26922.38	664.01	27553.68	658.02				
27825.78	658.02	28396.17	654.01	28632.35	651.68	28802.82	650.96	28941.94	647.72				
29089.62	648.55	29381.76	654.22	29701.45	656.98	30792.57	678.35	31452.61	680.41				
32414.41	725.33	32556.19	725.77	33169.29	691.74	33203.78	691.85	34787.3	744.69				
35823.99	742.88	36020.2	744.78	36369.86	761.85	36411.05	762.45	36715.69	760.89				
37045.23	771.67	37202.33	773.96	37971.76	79038663.23		792.67	39011.93	800				

Manning's n values		num=		3	
Sta	n val	Sta	n val	Sta	n val
0	.1516221.99		.1517242.12		.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
16221.99	17242.12	5	5	5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501946.00	189985.30	1737047.00
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501946.00	189985.30	1737047.00
Q Total (cfs)	6730000.00	Flow (cfs)	2963711.00	563890.30	3202398.00
Top Width (ft)	35004.02	Top Width (ft)	14897.19	1020.13	19086.71
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.97	2.97	1.84
Max Chl Dpth (ft)	192.09	Hydr. Depth (ft)	100.82	186.24	91.01
Conv. Total (cfs)	731461400.0	Conv. (cfs)	322115900.0	61287360.0	348058000.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	14909.84	1022.35	19094.44
Min Ch El (ft)	567.76	Shear (lb/sq ft)	0.53	0.98	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.05	2.91	0.89
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	120987.50	20998.59	144901.00
C & E Loss (ft)	0.00	Cum SA (acres)	1097.58	101.52	1318.08

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275714.*

INPUT
 Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186.88	792.73	608.01	777.37	1280.94	761.66	1450.27	754.7				
1720.7	747.47	1879.29	745.98	2210.93	745.98	2527.52	744.89	3377.81	719.81				
3445.81	716.27	3532.23	714.02	3542.94	713.9	3733.88	717.82	3904.23	715.98				
4039.61	714.04	4184.98	710.1	4540.31	701.53	4973.36	694.03	5295.65	692.58				
5434.33	691.15	5585.24	686.25	5650.16	681.86	5994.08	679.86	6325.42	680.8				
6459.08	681.96	6667.89	673.92	6825.81	669.9	6893.37	665.88	6939.87	665.88				
7082.57	668.69	7288.97	678.72	7348.72	677.4	7471.55	676.3	7816.35	665.92				
7861.8	666.87	8008.49	666.07	8286.61	647.09	8299.97	645.57	8463.83	637.21				
8595.44	636.46	8836.71	643.13	9002.53	642.19	9176.25	633.16	9352.92	630.01				
9489.78	616.38	9506.13	616.18	9591.23	608.14	9750.91	596.08	9805.31	596.08				
9845.18	599.75	9965.49	628.75	10067.64	638.14	10435.67	634.72	10585.78	627.34				
10638.76	620.87	10840.74	618.99	11080.24	628.73	11365.24	626.08	11967.99	622.06				
13356.11	622.06	13584.58	616.08	14171.9	616.08	14623.74	620.11	14680.77	624.12				
14959.82	621.22	14966.44	615.17	15067.68	613.64	15693.23	594.59	16122.59	588.04				
16285.75	582.99	16496.88	579.37	16551.35	574.41	16637.07	567.76	17069.56	567.76				
17160.37	572.53	17247.43	588.04	17335.56	609.29	17354.44	611.77	17591.31	635.33				
18028.55	640.95	18461.05	643.23	20559.15	639.92	20673.64	639.92	20901.68	640.49				
21249.38	635.41	22229.45	637.94	22485.19	641.96	24150.14	645.98	24530.07	647.89				
24950.52	651.95	25596.81	662.99	25819.35	664.02	26926.64	664.02	27557.87	658.04				

SS_Rev3.rep
 27829.94 658.0428400.26 654.0228636.43 651.6928806.87 650.9528945.97 647.71
 29093.64 648.5429385.75 654.19 29705.4 656.9830796.41 678.3231456.37 680.38
 32418.07 725.2432559.83 725.6833172.86 691.7233207.35 691.82 34790.7 744.61
 35827.28 742.8136023.46 744.7236373.09 761.7836414.27 762.3836718.87 760.84
 37048.38 771.6337205.46 773.9237974.81 79038666.21 792.6739014.87 800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516225.79 .1517247.43 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16225.7917247.43 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1501991.00	190255.80	1737376.00
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1501991.00	190255.80	1737376.00
Q Total (cfs)	6730000.00	Flow (cfs)	2962708.00	564542.20	3202750.00
Top width (ft)	35008.40	Top width (ft)	14900.73	1021.64	19086.03
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.97	2.97	1.84
Max Chl Dpth (ft)	192.09	Hydr. Depth (ft)	100.80	186.23	91.03
Conv. Total (cfs)	731630100.0	conv. (cfs)	322081200.0	61372370.0	348176600.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14913.38	1023.86	19093.75
Min Ch El (ft)	567.76	Shear (lb/sq ft)	0.53	0.98	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.05	2.91	0.89
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	120815.10	20976.77	144701.60
C & E Loss (ft)	0.00	Cum SA (acres)	1095.87	101.40	1315.89

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275711.*

INPUT

Description:
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186.92	792.73	608.15	777.36	1281.24	761.66	1450.61	754.69
1721.1	747.46	1879.73	745.97	2211.45	745.97	2528.11	744.88	3378.6	719.83
3446.62	716.29	3533.05	714.03	3543.77	713.91	3734.76	717.82	3905.14	715.97
4040.56	714.03	4185.96	710.08	4541.37	701.51	4974.52	694.02	5296.89	692.57
5435.6	691.14	5586.54	686.23	5651.48	681.82	5995.48	679.83	6326.9	680.78
6460.59	681.94	6669.45	673.88	6827.41	669.85	6894.98	665.82	6941.49	665.82
7084.23	668.63	7290.67	678.67	7350.44	677.36	7473.29	676.27	7818.17	665.92
7863.63	666.89	8010.36	666.13	8288.55	647.18	8301.91	645.66	8465.81	637.28
8597.45	636.53	8838.78	643.23	9004.63	642.29	9178.39	633.24	9355.11	630.08
9492	616.47	9508.35	616.27	9593.48	608.21	9753.19	596.12	9807.6	596.12
9847.48	599.8	9967.82	628.79	10069.99	638.21	110438.11	634.78	10588.25	627.41
10641.24	620.95	10843.27	619.07	11082.83	628.78	11367.9	626.12	121970.78	622.09
13359.24	622.09	13587.76	616.12	14175.21	616.12	14627.16	620.15	14684.2	624.18
14963.32	621.27	14969.94	615.23	15071.2	613.7	15696.9	594.61	16229.58	588.06
16289.68	583.16	501.29	579.39	1655.89	574.42	16641.8	567.76	17074.54	567.76
17165.52	572.52	17252.75	588.06	17340.87	609.29	17359.74	611.76	17596.59	635.3
18033.78	640.91	18466.23	643.19	20564.1	639.85	20678.58	639.85	20906.6	640.44
21254.26	635.37	22234.22	637.91	22489.93	641.94	24154.7	645.97	24534.59	647.88
24954.99	651.95	25601.21	66325	2823.73	664.03	26930.9	664.03	27562.06	658.06
27834.1	658.06	28404.36	654.03	28640.5	651.69	28810.92	650.95	28950.01	647.7
29097.66	648.52	29389.74	654.18	29709.35	656.97	30800.24	678.29	31460.13	680.36
32421.72	725.16	32563.47	725.63	33176.44	691.73	33210.92	691.83	34794.09	744.52
35830.56	742.74	36026.73	744.66	36376.31	761.71	36417.49	762.31	36722.06	760.8
37051.53	771.58	37208.6	773.88	37977.86	79038	3669.18	792.68	39017.8	800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516229.58 .1517252.75 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16229.5817252.75 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.85	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1502024.00	190530.70	1737713.00
E.G. Slope (ft/ft)	0.000085	Area (sq ft)	1502024.00	190530.70	1737713.00
Q Total (cfs)	6730000.00	Flow (cfs)	2961667.00	565207.90	3203125.00
Top width (ft)	35012.77	Top width (ft)	14904.26	1023.17	19085.34
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.97	2.97	1.84
Max Chl Dpth (ft)	192.09	Hydr. Depth (ft)	100.78	186.22	91.05
Conv. Total (cfs)	731799000.0	conv. (cfs)	322042300.0	61458920.0	348297700.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14916.91	1025.40	19093.04
Min Ch El (ft)	567.76	Shear (lb/sq ft)	0.53	0.98	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.05	2.91	0.89
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	120642.70	20954.91	144502.20
C & E Loss (ft)	0.00	Cum SA (acres)	1094.16	101.29	1313.70

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275708.*

INPUT

Description:
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	186.96	792.72	608.29	777.35	1281.54	761.66	1450.94	754.68
1721.5	747.45	1880.17	745.96	2211.97	745.96	2528.7	744.86	3379.39	719.85
3447.42	716.3	3533.88	714.04	3544.6	713.92	3735.63	717.81	3906.05	715.96

Page 236 of 1616

C & E Loss (ft) 0.00 Cum SA (acres) SS_Rev3.rep 1090.74 101.05 1309.32

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275702.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	187.05	792.71	608.57	777.33	1282.13	761.65	1451.62	754.67		
1722.31	747.44	1881.05	745.94	2213	745.94	2529.88	744.84	3380.97	719.88		
3449.04	716.33	3535.53	714.06	3546.25	713.94	3737.38	717.8	3907.88	715.94		
4043.39	713.98	4188.89	710.03	4544.55	701.45	4978.01	693.97	5300.6	692.51		
5439.41	691.08	5590.46	686.15	5655.44	681.72	5999.69	679.73	6331.33	680.71		
6465.12	681.88	6674.13	673.76	6832.2	669.7	6899.82	665.64	6946.36	665.64		
7089.19	668.47	7295.78	678.51	7355.59	677.22	7478.53	676.19	7823.66	665.95		
7869.15	666.94	8015.98	666.3	8294.36	647.45	8307.73	645.93	8471.75	637.5		
8603.47	636.75	8844.97	643.51	9010.95	642.58	9184.83	633.48	9361.67	630.31		
9498.66	616.74	9515.02	616.54	9600.2	608.42	9760.03	596.24	9814.48	596.24		
9854.39	599.94	9974.8	628.9310077	0.05	638.4210445	0.43	634.9710595	0.68	627.62		
10648.7	621.1810850	0.87	619.28	11090.6	628.9211375	0.87	626.2411979	0.18	622.18		
13368.6	622.1813597	0.29	616.2414185	0.15	616.2414637	0.41	620.314694	0.49	624.36		
14973.81	621.4314980	0.44	615.4215081	0.77	613.8815707	0.91	594.6916240	0.96	588.12		
16301.47	583.0416514	0.53	579.44	16569.5	574.45	16656	567.7517089	0.47	567.75		
17180.97	572.51	17268.7	588.1217356	0.79	609.2817375	0.66	611.7517612	0.42	635.19		
18049.48	640.8118481	0.78	643.0720578	0.97	639.720693	0.41	639.720921	0.35	640.3		
21268.9	635.2622448	0.54	637.8222504	0.16	641.8624168	0.38	645.9424548	0.15	647.87		
24968.41	651.9425614	0.42	663.0325836	0.87	664.0626943	0.67	664.0627574	0.63	658.12		
27846.58	658.1228416	0.65	654.0628652	0.71	651.728823	0.08	650.9528962	0.12	647.66		
29109.72	648.4829401	0.71	654.1629721	0.21	656.9530811	0.74	678.2131471	0.42	680.29		
32432.7	724.9	32574.4	725.3433187	0.16	691.6333221	0.63	691.7434804	0.29	744.25		
35840.41	742.5336036	0.51	744.4736385	0.98	761.536427	0.15	762.1136731	0.62	760.65		
37060.98	771.45	37218	773.76	37987	790	38678.1	792.739026	0.61	800		

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516240.96 .15 17268.7 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16240.96 17268.7 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1502144.00	191354.90	1738721.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502144.00	191354.90	1738721.00
Q Total (cfs)	6730000.00	Flow (cfs)	2958577.00	567206.10	3204217.00
Top width (ft)	35026.05	Top width (ft)	14914.99	1027.74	19083.31
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.97	2.96	1.84
Max Chl Dpth (ft)	192.09	Hydr. Depth (ft)	100.71	186.19	91.11
Conv. Total (cfs)	732309400.0	Conv. (cfs)	321930700.0	61719210.0	348659500.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14927.63	1029.97	19090.97
Min Ch El (ft)	567.75	Shear (lb/sq ft)	0.53	0.98	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.05	2.90	0.88
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	120125.40	20889.16	143903.60
C & E Loss (ft)	0.00	Cum SA (acres)	1089.02	100.93	1307.13

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275699.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev
0	800	187.09	792.71	608.72	777.31	1282.43	761.65	1451.96	754.66
1722.71	747.43	1881.49	745.93	2213.52	745.93	2530.47	744.83	3381.76	719.9
3449.84	716.35	3536.36	714.07	3547.08	713.95	3738.25	717.79	3908.79	715.93
4044.34	713.97	4189.87	710.01	4545.61	701.43	4979.17	693.96	5301.84	692.49
5440.68	691.06	5591.76	686.12	5656.76	681.68	6001.09	679.7	6332.81	680.69
6466.63	681.86	6675.68	673.72	6833.79	669.65	6901.43	665.58	6947.98	665.58
7090.85	668.42	7297.49	678.46	7357.31	677.18	7480.28	676.16	7825.48	665.95
7870.99	666.96	8017.85	666.35	8296.29	647.53	8309.67	646.02	8473.73	637.57
8605.48	636.83	8847.04	643.61	9013.05	642.67	9186.97	633.55	9363.85	630.38
9500.88	616.83	9517.24	616.63	9602.44	608.49	9762.31	596.28	9816.77	596.28
9856.69	599.99	9977.13	628.9810079	0.41	638.4910447	0.87	635.0310598	0.15	627.68
10651.19	621.2610853	0.41	619.3611093	0.19	628.9611378	0.53	626.2811981	0.98	622.21
13371.73	622.2113600	0.46	616.2814188	0.46	616.2814640	0.83	620.3514697	0.92	624.42
14977.3	621.4814983	0.93	615.4815085	0.29	613.9415711	0.58	594.7216244	0.75	588.14
16305.4	583.0516518	0.94	579.4616574	0.04	574.4616660	0.74	567.7517094	0.45	567.75
17186.13	572.5117274	0.02	588.1417362	0.09	609.2817380	0.96	611.75	17617.7	635.15
18054.71	640.7718486	0.97	643.0220583	0.92	639.6520698	0.35	639.6520926	0.27	640.25
21273.78	635.2322253	0.31	637.7922508	0.91	641.8624172	0.95	645.9324552	0.67	647.86
24972.88	651.9325618	0.82	663.0525841	0.24	664.0726947	0.93	664.0727578	0.81	658.14
27850.74	658.1428420	0.75	654.0728656	0.78	651.7128827	0.13	650.9528966	0.16	647.65
29113.74	648.47	29405.7	654.1629725	0.17	656.9430815	0.58	678.1831475	0.18	680.26
32436.35	724.8132578	0.04	725.2633190	0.73	691.61	33225.2	691.7234807	0.68	744.17
35843.7	742.4536039	0.78	744.41	36389.2	761.4336430	0.37	762.04	36734.8	760.61
37064.13	771.437221	0.13	773.7237990	0.05	79038681	0.07	792.7139029	0.55	800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516244.75 .1517274.02 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16244.7517274.02 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

SS_Rev3.rep

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1502183.00	191628.90	1739066.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502183.00	191628.90	1739066.00
Q Total (cfs)	6730000.00	Flow (cfs)	2957539.00	567862.80	3204599.00
Top width (ft)	35030.42	Top width (ft)	14918.53	1029.27	19082.63
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.97	2.96	1.84
Max Chl Dpth (ft)	192.09	Hydr. Depth (ft)	100.69	186.18	91.13
Conv. Total (cfs)	732482800.0	Conv. (cfs)	321893900.0	61805310.0	348783600.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14931.16	1031.50	19090.27
Min Ch El (ft)	567.75	Shear (lb/sq ft)	0.53	0.98	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.04	2.90	0.88
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	119953.00	20867.18	143704.00
C & E Loss (ft)	0.00	Cum SA (acres)	1087.31	100.82	1304.94

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275696.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	187.14	792.71	608.86	777.3	1282.73	761.64	1452.3	754.65		
1723.11	747.43	1881.93	745.92	2214.03	745.92	2531.06	744.81	3382.55	719.91		
3450.65	716.36	3537.18	714.08	3547.91	713.96	3739.12	717.79	3909.7	715.92		
4045.28	713.95	4190.85	710	4546.68	701.41	4980.34	693.94	5303.08	692.47		
5441.95	691.04	5593.07	686.1	5658.08	681.64	6002.49	679.66	6334.29	680.67		
6468.14	681.84	6677.24	673.68	6835.39	669.6	6903.04	665.52	6949.6	665.52		
7092.5	668.37	7299.19	678.41	7359.02	677.13	7482.03	676.13	7827.31	665.96		
7872.82	666.98	8019.72	666.41	8298.23	647.62	8311.62	646.1	8475.71	637.64		
8607.49	636.9	8849.1	643.7	9015.16	642.77	9189.12	633.63	9366.04	630.45		
9503.09	616.92	9519.46	616.72	9604.69	608.56	9764.59	596.32	9819.06	596.32		
9858.99	600.04	9979.46	629.0310081.76		638.5610450.31		635.0910600.62		627.75		
10653.68	621.3310855.94		619.4311095.79		629.0111381.18		626.3211984.77		622.24		
13374.85	622.2413603.64		616.3214191.78		616.3214644.25		620.414701.36		624.48		
14980.8	621.5414987.43		615.5515088.81		61415715.24		594.7416248.54		588.16		
16309.33	583.0616523.36		579.4816578.58		574.4716665.47		567.7517099.43		567.75		
17191.28	572.517279.34		588.16	17367.4	609.2817386.27		611.7517622.98		635.11		
18059.94	640.7418492.15		642.9820588.88		639.620703.29		639.620931.18		640.2		
21278.66	635.192258.08		637.7622513.65		641.8424177.51		645.9224557.19		647.86		
24977.36	651.9325623.23		663.0625845.62		664.0826952.19		664.08	27583	658.16		
27854.89	658.1628424.84		654.0828660.85		651.7128831.18		650.9428970.19		647.63		
29117.76	648.4529409.68		654.1529729.12		656.9330819.41		678.1531478.95		680.24		
32440.01	724.7232581.68		725.1733194.31		691.5933228.77		691.734811.08		744.08		
35846.98	742.3836043.04		744.3436392.43		761.3636433.59		761.9736737.99		760.56		
37067.28	771.3537224.26		773.68	37993.1	79038684.05		792.7139032.48		800		

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516248.54 .1517279.34 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16248.5417279.34 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1502234.00	191903.60	1739413.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502234.00	191903.60	1739413.00
Q Total (cfs)	6730000.00	Flow (cfs)	2956509.00	568520.80	3204971.00
Top width (ft)	35035.00	Top width (ft)	14922.24	1030.80	19081.96
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.97	2.96	1.84
Max Chl Dpth (ft)	192.09	Hydr. Depth (ft)	100.67	186.17	91.15
Conv. Total (cfs)	732658500.0	Conv. (cfs)	321859000.0	61891770.0	348907700.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14934.87	1033.03	19089.60
Min Ch El (ft)	567.75	Shear (lb/sq ft)	0.53	0.98	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.04	2.90	0.88
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	119780.60	20845.17	143504.40
C & E Loss (ft)	0.00	Cum SA (acres)	1085.60	100.70	1302.75

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275693.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	187.18	792.7	609	777.29	1283.03	761.64	1452.64	754.64		
1723.52	747.42	1882.37	745.91	2214.55	745.91	2531.65	744.8	3383.34	719.93		
3451.45	716.38	3538.01	714.09	3548.74	713.97	3739.99	717.78	3910.61	715.91		
4046.23	713.94	4191.83	709.98	4547.74	701.39	4981.5	693.93	5304.31	692.45		
5443.22	691.02	5594.38	686.07	5659.41	681.61	6003.89	679.63	6335.77	680.64		
6469.65	681.82	6678.8	673.64	6836.98	669.55	6904.65	665.46	6951.23	665.46		
7094.16	668.32	7300.89	678.35	7360.74	677.08	7483.77	676.11	7829.14	665.97		
7874.66	666.99	8021.59	666.47	8300.17	647.71	8313.55	646.19	8477.68	637.71		
8609.5	636.97	8851.17	643.8	9017.26	642.87	9191.26	633.71	9368.23	630.53		
9505.31	617.01	9521.69	616.81	9606.93	608.63	9766.87	596.36	9821.35	596.36		
9861.29	600.09	9981.79	629.0710084.11		638.6310452.75		635.15	10603.1	627.82		
10656.17	621.4110858.48		619.511098.38		629.0511383.84		626.3611987.57		622.27		
13377.97	622.2713606.81		616.3614195.09		616.3614647.67		620.4514704.79		624.54		
14984.3	621.5914990.93		615.6115092.33		614.0615718.91		594.7716252.34		588.18		
16313.26	583.0716527.77		579.4916583.11		574.4816670.21		567.7517104.41		567.75		
17196.43	572.517284.65		588.1817372.71		609.2817391.57		611.7517628.26		635.08		

Page 238

18065.17	640.718497.34	642.9420593.83	639.5520708.23	639.55 20936.1	640.15
21283.54	635.1522262.85	637.7322518.39	641.8224182.07	645.9124561.71	647.85
24981.83	651.9325627.63	663.07 25850	664.0926956.44	664.0927587.19	658.18
27859.05	658.1828428.94	654.0928664.92	651.7128835.23	650.9428974.23	647.62
29121.78	648.4429413.67	654.1429733.08	656.9230823.25	678.1231482.71	680.21
32443.67	724.6432585.32	725.0933197.88	691.5733232.34	691.6834814.48	743.99
35850.27	742.31 36046.3	744.2836395.65	761.2936436.81	761.936741.18	760.51
37070.43	771.3137227.39	773.6437996.15	79038687.02	792.7239035.41	800

SS_Rev3.rep

Manning's n Values	num=	3
Sta n Val Sta n Val	n Val	Sta n Val
0 .1516252.34	.1517284.65	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16252.34	17284.65	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1502269.00	192175.40	1739757.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502269.00	192175.40	1739757.00
Q Total (cfs)	6730000.00	Flow (cfs)	2955467.00	569175.60	3205357.00
Top Width (ft)	35039.38	Top Width (ft)	14925.78	1032.31	19081.29
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.97	2.96	1.84
Max Chl Dpth (ft)	192.09	Hydr. Depth (ft)	100.65	186.16	91.18
Conv. Total (cfs)	732829200.0	Conv. (cfs)	321820600.0	61977480.0	349031100.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14938.41	1034.55	19088.91
Min Ch El (ft)	567.75	Shear (lb/sq ft)	0.53	0.98	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.04	2.90	0.88
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	119608.20	20823.13	143304.70
C & E Loss (ft)	0.00	Cum SA (acres)	1083.89	100.58	1300.56

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275690.*

INPUT

Description:

Station Elevation Data			num= 120						
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	187.23	792.7	609.14	777.28	1283.33	761.64	1452.98	754.64
1723.92	747.42	1882.81	745.9	2215.07	745.9	2532.25	744.79	3384.13	719.95
3452.26	716.39	3538.83	714.1	3549.57	713.98	3740.87	717.78	3911.53	715.9
4047.17	713.92	4192.81	709.96	4548.8	701.37	4982.66	693.91	5305.55	692.44
5444.49	691.01	5595.68	686.04	5660.73	681.57	6005.29	679.6	6337.25	680.62
6471.16	681.8	6680.36	673.6	6838.58	669.5	6906.26	665.4	6952.85	665.4
7095.82	668.26	7302.6	678.3	7362.46	677.04	7485.52	676.08	7830.96	665.97
7876.5	667.01	8023.46	666.52	8302.11	647.8	8315.5	646.28	8479.66	637.78
8611.51	637.04	8853.24	643.89	9019.37	642.96	9193.41	633.79	9370.41	630.6
9507.53	617.1	9523.91	616.9	9609.17	608.7	9769.15	596.4	9823.65	596.4
9863.59	600.14	9984.12	629.12	101086.47	638.7	110455.19	635.21	110605.57	627.89
10658.65	621.49	10861.01	619.57	111100.96	629.1	11386.5	626.41	11990.37	622.3
13381.09	622.31	13609.99	616.4	14198.4	616.41	14651.09	620.51	14708.22	624.6
14987.8	621.64	14994.43	615.67	15095.86	614.13	151722.58	594.79	16256.13	588.2
16317.19	583.09	16532.18	579.51	16587.65	574.49	16674.94	567.75	17109.39	567.75
17201.58	572.49	17289.97	588.21	17378.02	609.28	17396.88	611.74	17633.54	635.04
18070.4	640.67	181502.52	642.92	19058.79	639.52	1920713.18	639.52	1920941.02	640.1
21288.42	635.12	22267.63	637.72	22523.14	641.82	22466.63	645.92	224566.23	647.85
24986.31	651.92	25632.03	663.08	25854.38	664.1	26960.7	664.12	27591.38	658.2
27863.21	658.22	28435.04	654.12	28668.99	651.72	28839.29	650.94	28978.27	647.61
29125.8	648.42	29417.66	654.14	29737.03	656.92	303827.08	678.09	31486.47	680.19
32447.32	724.55	32588.96	72533201.46	691.55	33235.91	691.66	34817.87	743.9	
35853.55	742.24	36049.56	744.22	36398.88	761.22	36440.03	761.83	36744.36	760.46
37073.58	771.26	37230.53	773.6	37999.2	79038689.99	792.73	39038.35	800	

Manning's n Values	num=	3
Sta n Val Sta n Val	n Val	Sta n Val
0 .1516256.13	.1517289.97	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16256.13	17289.97	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1502306.00	192448.80	1740085.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502306.00	192448.80	1740085.00
Q Total (cfs)	6730000.00	Flow (cfs)	2954458.00	569833.00	3205709.00
Top Width (ft)	35043.70	Top Width (ft)	14929.25	1033.84	19080.62
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.97	2.96	1.84
Max Chl Dpth (ft)	192.09	Hydr. Depth (ft)	100.63	186.15	91.20
Conv. Total (cfs)	732996400.0	Conv. (cfs)	321784100.0	62063230.0	349149100.0
Length wtd. (ft)	5.00	wetted Per. (ft)	14941.87	1036.08	19088.22
Min Ch El (ft)	567.75	Shear (lb/sq ft)	0.53	0.98	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.04	2.89	0.88
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	119435.70	20801.05	143105.00
C & E Loss (ft)	0.00	Cum SA (acres)	1082.17	100.46	1298.37

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275687.*

INPUT

Description:

Station	Elevation	Data	num=	120																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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SS_Rev3.rep									
0	800	187.27	792.69	609.29	777.26	1283.63	761.64	1453.32	754.63
1724.32	747.41	1883.25	745.89	2215.58	745.89	2532.84	744.77	3384.92	719.96
3453.06	716.41	3539.66	714.11	3550.39	713.99	3741.74	717.77	3912.44	715.89
4048.11	713.91	4193.78	709.95	4549.86	701.35	4983.83	693.9	5306.79	692.42
5445.76	690.99	5596.99	686.01	5662.05	681.53	6006.69	679.57	6338.73	680.6
6472.67	681.78	6681.92	673.56	6840.18	669.45	6907.87	665.34	6954.47	665.34
7097.47	668.21	7304.3	678.25	7364.18	676.99	7487.27	676.05	7832.79	665.98
7878.34	667.03	8025.34	666.58	8304.04	647.89	8317.44	646.37	8481.64	637.85
8613.52	637.12	8855.3	643.99	9021.47	643.06	9195.55	633.87	9372.6	630.68
9509.75	617.19	9526.13	616.99	9611.41	608.77	9771.43	596.44	9825.94	596.44
9865.89	600.19	9986.45	629.1710088.82		638.7710457.63		635.2710608.05		627.96
10661.14	621.5610863.54		619.6411103.56		629.1511389.16		626.4411993.17		622.33
13384.21	622.3313613.17		616.4414201.72		616.44 14654.5		620.5514711.65		624.66
14991.29	621.714997.93		615.7415099.38		614.1915726.25		594.8216259.92		588.22
16321.12	583.1 16536.6		579.5316592.19		574.516679.67		567.7517114.37		567.75
17206.73	572.4917295.29		588.2217383.32		609.2717402.18		611.7417638.82		635
18075.63	640.6318507.71		642.8620603.74		639.4520718.12		639.4520945.94		640.05
21293.3	635.08 22272.4		637.6722527.88		641.7824191.19		645.8924570.75		647.84
24990.78	651.9225636.44		663.0925858.76		664.1126964.96		664.1127595.57		658.22
27867.37	658.2228437.13		654.1128673.06		651.7228843.34		650.94 28982.3		647.6
29129.82	648.4129421.65		654.1329740.98		656.9130830.92		678.0631490.23		680.17
32450.98	724.46 32592.6		724.9233205.03		691.5333239.48		691.6434821.27		743.81
35856.83	742.1736052.82		744.16 36402.1		761.1536443.25		761.7636747.55		760.41
37076.73	771.2237233.66		773.5638002.15		79038692.96		792.7339041.29		800
Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516259.92		.1517295.29						
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
16259.92	17295.29	5	5	5	.1	.3			
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1502340.00	192722.20	1740429.00				
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502340.00	192722.20	1740429.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2953416.00	570488.40	3206096.00				
Top width (ft)	35048.08	Top width (ft)	14932.78	1035.37	19079.93				
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.97	2.96	1.84				
Max chl Dpth (ft)	192.09	Hydr. Depth (ft)	100.61	186.14	91.22				
Conv. Total (cfs)	733167300.0	Conv. (cfs)	321745600.0	62149100.0	349272600.0				
Length wtd. (ft)	5.00	wetted Per. (ft)	14945.40	1037.61	19087.52				
Min Ch El (ft)	567.75	Shear (lb/sq ft)	0.53	0.98	0.48				
Alpha	1.06	Stream Power (lb/ft s)	1.04	2.89	0.88				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	119263.30	20778.95	142905.30				
C & E Loss (ft)	0.00	Cum SA (acres)	1080.46	100.34	1296.18				
CROSS SECTION									
RIVER: BRAZOS									
REACH: UPPER BRAZOS RS: 275684.*									
INPUT									
Description:									
Station Elevation Data num= 120									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	187.31	792.69	609.43	777.25	1283.93	761.63	1453.66	754.62
1724.72	747.4 1883.69		745.88 2216.1		745.88 2533.43		744.76 3385.71		719.98
3453.87	716.43 3540.48		714.12 3551.22		714 3742.61		717.77 3913.35		715.88
4049.06	713.89 4194.76		709.93 4550.92		701.33 4984.99		693.88 5308.03		692.4
5447.03	690.97 5598.29		685.99 5663.37		681.5 6008.09		679.53 6340.21		680.58
6474.18	681.76 6683.48		673.52 6841.77		669.4 6909.48		665.28 6956.09		665.28
7099.13	668.16 7306		678.2 7365.9		676.95 7489.01		676.02 7834.62		665.99
7880.17	667.04 8027.21		666.64 8305.98		647.98 8319.38		646.46 8483.62		637.92
8615.53	637.19 8857.37		644.08 9023.57		643.16 9197.7		633.95 9374.79		630.75
9511.97	617.28 9528.35		617.08 9613.66		608.84 9773.71		596.48 9828.23		596.48
9868.2	600.24 9988.78		629.2110091.17		638.8410460.07		635.3310610.52		628.02
10663.63	621.6410866.08		619.7211106.15		629.1911391.81		626.4811995.96		622.36
13387.34	622.3613616.34		616.4814205.03		616.4814657.92		620.614715.08		624.72
14994.79	621.7515001.43		615.8 15102.9		614.2515729.92		594.8516263.72		588.24
16325.05	583.1116541.01		579.5516596.73		574.5116684.41		567.7517119.35		567.75
17211.88	572.48 17300.6		588.2417388.63		609.2717407.49		611.74 17644.1		634.97
18080.87	640.618512.89		642.8220608.69		639.420723.06		639.420950.85		640
21298.18	635.0422277.17		637.6422532.62		641.7624195.76		645.8824575.27		647.84
24995.26	651.9225640.84		663.1125863.14		664.1226969.22		664.1227599.76		658.24
27871.53	658.2428441.23		654.1228677.13		651.7328847.39		650.9428986.34		647.58
29133.84	648.3929425.64		654.1229744.94		656.930834.75		678.0331493.99		680.14
32454.64	724.3832596.24		724.8333208.61		691.5133243.05		691.6234824.67		743.73
35860.12	742.136056.09		744.0936405.32		761.0836446.47		761.6936750.73		760.37
37079.88	771.1737236.79		773.52 38005.3		79038695.94		792.7439044.22		800
Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516263.72		.15 17300.6		.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
16263.72	17300.6	5	5	5	.1	.3			
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.91	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1502381.00	192993.40	1740755.00				
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502381.00	192993.40	1740755.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2952401.00	571143.80	3206455.00				
Top width (ft)	35052.66	Top width (ft)	14936.50	1036.88	19079.28				
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.97	2.96	1.84				
Max chl Dpth (ft)	192.09	Hydr. Depth (ft)	100.58	186.13	91.24				
Conv. Total (cfs)	733331300.0	Conv. (cfs)	321707000.0	62234410.0	349389900.0				
Length wtd. (ft)	5.00	wetted Per. (ft)	14949.12	1039.12	19086.85				
Page 240									

Min ch El (ft)	567.75	Shear (lb/sq ft)	0.53	0.98	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.04	2.89	0.88
Frctn Loss	0.00	Cum Volume (acre-ft)	119090.80	20756.81	142705.50
C & E Loss (ft)	0.00	Cum SA (acres)	1078.74	100.22	1293.99

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275681.*

INPUT

Description:

[illegible]

Manning's	n	Values	num=	3	
Sta	n val	Sta	n val	Sta	n val
0	.1516267	.51	.1517305	.92	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16267.5117305.92			5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1502420.00	193268.60	1741113.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502420.00	193268.60	1741113.00
Q Total (cfs)	6730000.00	Flow (cfs)	2951346.00	571801.10	3206853.00
Top Width (ft)	35057.05	Top Width (ft)	14940.03	1038.41	19078.60
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.96	2.99	1.84
Max Ch Depth (ft)	192.09	Hydr. Depth (ft)	10.56	186.12	91.26
Conv. Totl. (cfs)	733509700.0	Conv. (cfs)	321670300.0	6231200.0	349518200.0
Length Wtd. (ft)	5.00	Wetted Per (ft)	14952.65	1040.65	19086.16
Min Ch El (ft)	567.75	Shear (lb/sq ft)	0.53	0.98	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.04	2.89	0.88
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	118918.40	20734.64	142505.60
C & E Loss (ft)	0.00	Cum SA (acres)	1077.03	100.10	1291.80

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275678.*

INPUT

Description:

Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	187.4	792.68	609.71	777.23	1284.53	761.63	1454.33	750.6		
1725.53	747.39	1884.56	745.86	2217.13	745.86	2534.61	744.74	3387.29	724.02		
3455.48	716.46	3542.14	714.14	3552.88	714.02	3744.36	717.76	3915.18	715.86		
4050.95	713.86	4196.72	709.9	4553.04	701.3	4987.31	693.85	5310.5	692.36		
5449.58	690.93	5600.9	685.93	5664.96	681.42	6010.9	679.47	6343.16	680.53		
6477.2	681.72	6686.6	678.43	6844.96	669.3	6620.9	665.16	6899.29	660.33		
7183.8	678.02	7300.9	674.02	7363.33	668.8	7499.12	665.8	7833.27	666		
7889.85	668.08	8030.95	666.5	8309.85	648.5	8323.26	646.64	8487.58	638.07		
8619.55	637.34	8861.5	637.34	9027.78	648.35	9201.99	634.1	9379.16	630.9		
9516.4	617.47	9532.8	617.26	9618.14	608.98	9778.27	596.56	9832.81	596.56		
9872.80	600.34	9993.44	629.31	10109.88	638.98	10464.95	635.46	10615.47	628.16		
10668.6	622.1	7910871.65	619.81	861111.11	629.29	1397.13	626.51	5621001.56	622.42		
13393.58	622.41	133622.19	616.51	164211.65	616.51	164664.76	620.74	1721.95	624.84		
15001.78	621.85	15008.42	615.92	15109.95	614.37	15737.25	594.9	16271.3	588.28		
16332.91	583.13	131654.94	579.58	16605.8	574.53	16693.88	567.74	17129.31	567.74		
17222.19	572.48	17311.24	588.28	181739.25	609.27	17418.1	611.73	17654.66	634.89		
18091.33	640.4	5318523.26	642.73	20618.6	639.32	20732.95	639.32	20960.69	639.91		
21307.93	634.97	2286.71	637.58	282254.11	641.72	224204.88	645.84	8624584.41	647.83		
25004.2	651.91	12649.65	663.13	23871.9	661.42	26977.7	664.14	28894.42	658.28		
27879.88	645.84	2828.27	642.88	2828.27	651.72	28885.49	650.33	325894.62	647.56		
29141.88	648.37	279433.62	654.11	129752.84	656.8	893084.42	677.97	13501.52	680.09		
32461.95	724.23	25603.53	724.66	323215.75	691.47	33250.2	691.58	348381.46	743.55		
35866.68	741.95	36062.61	743.97	364011.77	760.94	36452.91	761.56	36757.11	760.27		
37086.18	771.08	37243.06	773.43	37438011.39	7903870.91	792.75	3795050.09		800		

Manning's		n Values		num=		3	
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.15	16271.3		.15	17311.24		.15

Bank Sta: Left Right Lengths: Left Channel Right SS_Rev3.rep
16271.317311.24 5 5 Coeff Contr. Expan.
.1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1502450.00	193547.50	1741449.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502450.00	193547.50	1741449.00
Q Total (cfs)	6730000.00	Flow (cfs)	2950297.00	572482.70	3207220.00
Top Width (ft)	35061.43	Top Width (ft)	14943.57	1039.94	19077.92
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.96	2.96	1.84
Max Chl Dpth (ft)	192.10	Hydr. Depth (ft)	100.54	186.11	91.28
Conv. Total (cfs)	733679300.0	Conv. (cfs)	321630300.0	62409910.0	349639100.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14956.17	1042.19	19085.47
Min Ch El (ft)	567.74	Shear (lb/sq ft)	0.53	0.98	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.04	2.88	0.88
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	118745.90	20712.44	142305.80
C & E Loss (ft)	0.00	Cum SA (acres)	1075.31	99.99	1289.61

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275676.*

INPUT

Description:

Station	Elevation	Data	num=	120
Sta	Elev	Sta	Elev	Sta
0	800	187.44	792.67	609.85
1725.93	747.38	1885	745.85	2217.65
3456.28	716.47	3542.96	714.15	3553.71
4051.89	713.85	4197.7	709.88	4554.1
5450.85	690.91	5602.21	685.9	5667.33
6478.71	681.7	6688.15	673.4	6846.56
7104.09	668	7311.12	678.04	7371.05
7885.69	667.09	8032.83	666.81	8311.79
8621.56	637.41	8863.56	644.37	9029.89
9518.62	617.56	9535.02	617.35	9620.38
9875.1	600.38	9995.77	629.3510098.23	639.0510467.38
10671.09	621.8710873.68		619.9311113.92	629.3311399.78
13396.7	622.4513625.87		616.614214.97	616.614668.18
15005.28	621.9115011.92		615.9915113.47	614.4315740.92
16336.84	583.1416554.25		579.616610.34	574.5416698.61
17227.34	572.4717316.55		588.317404.55	609.27 17423.4
18096.56	640.4918528.44		642.6920623.56	639.2520737.89
21312.81	634.9422291.48		637.5522546.86	641.724209.44
25008.68	651.9125654.05		663.1425876.28	664.1526981.99
27884.01	658.328453.52		654.1528689.34	651.7428859.55
29145.9	648.3529437.61		654.1 29756.8	656.8830846.25
32465.61	724.1232607.17		724.5733219.33	691.4533253.77
35869.97	741.8836065.88		743.9 36415	760.8736456.12
37089.33	771.0337246.19		773.438014.45	79038704.86
				792.7639053.02

Manning's n Values num= 3
Sta n Val Sta n Val
0 .1516275.09 .1517316.55 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
16275.0917316.55 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1502498.00	193820.40	1741788.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502498.00	193820.40	1741788.00
Q Total (cfs)	6730000.00	Flow (cfs)	2949295.00	573133.50	3207571.00
Top Width (ft)	35065.77	Top Width (ft)	14947.04	1041.46	19077.28
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.96	2.96	1.84
Max Chl Dpth (ft)	192.10	Hydr. Depth (ft)	100.52	186.10	91.30
Conv. Total (cfs)	733854100.0	Conv. (cfs)	321597700.0	62495750.0	349760700.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14959.64	1043.71	19084.81
Min Ch El (ft)	567.74	Shear (lb/sq ft)	0.53	0.98	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.04	2.88	0.88
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	118573.50	20690.21	142105.80
C & E Loss (ft)	0.00	Cum SA (acres)	1073.60	99.87	1287.42

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275673.*

INPUT

Description:

Station	Elevation	Data	num=	120
Sta	Elev	Sta	Elev	Sta
0	800	187.49	792.67	610
1726.33	747.38	1885.44	745.84	2218.17
3457.09	716.49	3543.79	714.16	3554.54
4052.84	713.83	4198.68	709.86	4555.17
5452.12	690.89	5603.51	685.88	5668.65
6480.22	681.68	6689.71	673.36	6848.15
7105.75	667.94	7312.82	677.98	7372.77
7887.53	667.11	8034.7	666.86	8313.73
8623.57	637.48	8865.63	644.46	9031.99
9520.84	617.65	9537.24	617.44	9622.62
9877.4	600.43	9998.1	629.410100.59	639.1210469.82
10673.57	621.9510876.21		62011116.51	629.3811402.44
13399.83	622.4813629.04		616.6414218.28	616.64 14671.6
				620.814728.81

SS_Rev3.rep									
15008.78	621.9615015.42	616.0515116.99	614.4915744.59	594.9516278.89	588.32				
16340.77	583.1616558.66	579.6216614.88	574.5516703.34	567.7417139.26	567.74				
17232.49	572.4717321.87	588.3217409.86	609.2717428.71	611.7217665.22	634.82				
18101.79	640.4618533.62	642.6520628.51	639.220742.83	639.220970.52	639.81				
21317.69	634.922296.26	637.52 22551.6	641.68 24214	645.8424593.35	647.81				
25013.15	651.925658.45	663.1525880.65	664.1626986.25	664.1627616.51	658.32				
27888.17	658.3228457.62	654.1628693.41	651.74 28863.6	650.9329002.49	647.53				
29149.93	648.3429441.59	654.0929760.75	656.8730850.09	677.9231509.04	680.05				
32469.27	724.032610.81	724.49 33222.9	691.4333257.34	691.5434838.26	743.37				
35873.25	741.8136069.14	743.8436418.22	760.836459.35	761.4236763.48	760.18				
37092.48	770.9937249.32	773.3638017.49	79038707.83	792.7739055.96	800				
Manning's n values									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.1516278.89		.1517321.87		.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
	16278.8917321.87		5 5 5		.1 .3				
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1502543.00	194090.60	1742125.00				
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502543.00	194090.60	1742125.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2948276.00	573777.40	3207947.00				
Top Width (ft)	35070.34	Top width (ft)	14950.76	1042.98	19076.60				
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.96	2.96	1.84				
Max chl Dpth (ft)	192.10	Hydr. Depth (ft)	100.50	186.09	91.32				
Conv. Total (cfs)	734022500.0	Conv. (cfs)	321560300.0	62580310.0	349881900.0				
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14963.36	1045.23	19084.12				
Min Ch El (ft)	567.74	Shear (lb/sq ft)	0.53	0.97	0.48				
Alpha	1.06	Stream Power (lb/ft s)	1.03	2.88	0.88				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	118401.00	20667.95	141905.90				
C & E Loss (ft)	0.00	Cum SA (acres)	1071.88	99.75	1285.23				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275670.*

INPUT

Description:									
Station	Elevation	Data	num=	120					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	187.53	792.66	610.14	777.19	1285.43	761.62	1455.35	754.58
1726.73	747.37	1885.88	745.83	2218.68	745.83	2536.38	744.7	3389.66	720.07
3457.9	716.5	3544.61	714.17	3555.36	714.05	3746.98	717.74	3917.92	715.83
4053.78	713.82	4199.65	709.84	4556.23	701.24	4990.8	693.81	5314.22	692.31
5453.39	690.87	5604.82	685.85	5669.97	681.31	6015.1	679.37	6347.6	680.46
6481.73	681.66	6691.27	673.32	6849.75	669.15	6917.54	664.98	6964.21	664.98
7107.41	667.89	7314.52	677.93	7374.49	676.72	7497.75	675.89	7843.75	666.02
7889.36	667.13	8036.57	666.92	8315.67	648.42	8329.08	646.9	8493.51	638.28
8625.58	637.55	8867.7	644.56	9034.1	643.64	9208.42	634.34	9385.72	631.13
9523.06	617.74	9539.46	617.53	9624.87	609.19	9785.1	596.68	9839.69	596.68
9879.7	600.48	10000.43	629.45	10102.94	639.19	101472.26	635.64	10622.9	628.36
10676.06	622.02	10878.75	620.08	11119.1	629.43	11405.1	626.68	12009.95	622.51
13402.95	622.51	13632.22	616.68	14221.59	616.68	14675.01	620.85	14732.24	625.02
15012.28	622.01	15018.92	616.11	15120.51	614.55	151748.26	594.98	16282.68	588.34
16344.7	583.17	1716563.08	579.64	16619.42	574.55	16708.08	567.74	17144.24	567.74
17237.64	572.46	17327.19	588.34	17415.17	609.26	17434.02	611.72	17670.5	634.79
18107.02	640.42	18538.81	642.61	20633.47	639.15	20747.77	639.15	20975.44	639.76
21322.57	634.86	22301.03	637.49	22556.34	641.66	24218.56	645.83	24597.87	647.81
25017.63	651.92	5662.86	663.16	25885.03	664.17	26990.51	664.17	27620.7	658.34
27892.33	658.34	28461.71	654.17	28697.49	651.75	28867.65	650.93	29006.53	647.52
29153.95	648.32	29445.58	654.09	29764.71	656.86	30853.92	677.89	31512.8	680.02
32472.92	723.95	32614.45	724.43	3226.48	691.41	33260.91	691.52	34841.65	743.28
35876.54	741.74	36072.4	743.78	36421.45	760.73	36462.57	761.35	36766.67	760.13
37095.63	770.94	37252.46	773.32	38020.54	790	38710.8	792.77	39058.89	800

Manning's n values									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.1516282.68		.1517327.19		.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
	16282.6817327.19		5 5 5		.1 .3				

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1502566.00	194365.80	1742464.00				
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502566.00	194365.80	1742464.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2947222.00	574442.00	3208337.00				
Top Width (ft)	35074.73	Top width (ft)	14954.29	1044.51	19075.93				
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.96	2.96	1.84				
Max chl Dpth (ft)	192.10	Hydr. Depth (ft)	100.48	186.08	91.34				
Conv. Total (cfs)	734188900.0	Conv. (cfs)	321518200.0	62667010.0	350003700.0				
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14966.89	1046.76	19083.44				
Min Ch El (ft)	567.74	Shear (lb/sq ft)	0.53	0.97	0.48				
Alpha	1.06	Stream Power (lb/ft s)	1.03	2.88	0.88				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	118228.50	20645.65	141705.90				
C & E Loss (ft)	0.00	Cum SA (acres)	1070.17	99.63	1283.04				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275667.*

INPUT

SS_Rev3.rep

Description:									
Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	187.58	792.66	610.28	777.18	1285.73	761.62	1455.69	754.57
1727.14	747.37	1886.32	745.82	2219.2	745.82	2536.97	744.69	3390.45	720.08
3458.7	716.52	3545.44	714.18	3556.19	714.06	3747.85	717.73	3918.83	715.82
4054.72	713.8	4200.63	709.83	4557.29	701.22	4991.96	693.8	5315.45	692.29
5454.66	690.86	5606.13	685.82	5671.29	681.28	6016.5	679.33	6349.08	680.44
6483.24	681.64	6692.83	673.28	6851.34	669.1	6919.15	664.92	6965.83	664.92
7109.06	667.84	7316.23	677.88	7376.2	676.67	7499.49	675.86	7845.58	666.03
7891.2	667.15	8038.44	666.98	8317.6	648.51	8331.02	646.99	8495.49	638.35
8627.59	637.63	8869.76	644.65	9036.2	643.74	9210.57	634.42	9387.9	631.2
9525.28	617.83	9541.69	617.62	9627.11	609.26	9787.38	596.72	9841.98	596.72
9882	600.5310002	76	629.4910105	29	639.26	10474.7	635.710625	37	628.43
10678.55	622.110881	28	620.1511121	69	629.4711407	75	626.7212012	75	622.54
13406.07	622.5413635	39	616.7214224	91	616.7214678	43	620.914735	67	625.08
15015.77	622.0715022	42	616.1715124	04	614.6115751	93	59516286	47	588.36
16348.63	583.1816567	49	579.6516623	96	574.5616712	81	567.7417149	22	567.74
17242.79	572.4617332	51	588.3617420	47	609.2617439	32	611.7217675	78	634.75
18112.25	640.3918543	99	642.5720638	42	639.120752	71	639.120980	36	639.71
21327.45	634.83	22305.8	637.4622561	09	641.6424223	12	645.8224602	39	647.8
25022.1	651.925667	26	663.1825889	41	664.1826994	76	664.1827624	89	658.36
27896.48	658.3628465	81	654.1828701	56	651.75	28871.7	650.9329010	56	647.51
29157.97	648.3129449	57	654.0829768	66	656.8630857	76	677.8631516	57	680
32476.58	723.8632618	09	724.3233230	05	691.3933264	48	691.534845	05	743.2
35879.82	741.6736075	66	743.7236424	67	760.6636465	79	761.2836769	85	760.08
37098.78	770.937255	59	773.2838023	59	79038713	78	792.7839061	83	800

Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516286	47	.1517332	51	.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
16286.47	17332.51	5	5	5	.1	.3			

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1502605.00	194640.80	1742772.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502605.00	194640.80	1742772.00
Q Total (cfs)	6730000.00	Flow (cfs)	2946238.00	575110.00	3208652.00
Top width (ft)	35079.12	Top width (ft)	14957.82	1046.04	19075.26
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.96	2.95	1.84
Max Chl Dpth (ft)	192.10	Hydr. Depth (ft)	100.46	186.07	91.36
Conv. Total (cfs)	734350300.0	Conv. (cfs)	321481500.0	62753670.0	350115100.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	14970.42	1048.29	19082.75
Min Ch El (ft)	567.74	Shear (lb/sq ft)	0.53	0.97	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.03	2.88	0.88
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	118056.00	20623.33	141505.90
C & E Loss (ft)	0.00	Cum SA (acres)	1068.45	99.51	1280.85

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275664.*

INPUT

Description:									
Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	187.62	792.66	610.42	777.17	1286.03	761.61	1456.03	754.57
1727.54	747.36	1886.76	745.81	2219.72	745.81	2537.56	744.67	3391.24	720.1
3459.51	716.53	3546.26	714.19	3557.02	714.07	3748.72	717.73	3919.74	715.81
4055.67	713.79	4201.61	709.81	4558.35	701.2	4993.13	693.78	5316.69	692.27
5455.93	690.84	5607.43	685.8	5672.61	681.24	6017.9	679.3	6350.56	680.42
6484.75	681.62	6694.39	673.24	6852.94	669.05	6920.77	664.86	6967.45	664.86
7110.72	667.78	7317.93	677.83	7377.92	676.63	7501.24	675.83	7847.41	666.03
7893.04	667.16	8040.31	667.03	8319.54	648.6	8332.96	647.08	8497.47	638.43
8629.6	637.7	8871.83	644.75	9038.31	643.83	9212.71	634.49	9390.09	631.28
9527.5	617.92	9543.91	617.71	9629.35	609.33	9789.66	596.76	9844.28	596.76
9884.31	600.5810005	09	629.5410107	65	639.3310477	14	635.7610627	84	628.5
10681.03	622.1810883	82	620.2211124	28	629.5211410	41	626.7612015	55	622.57
13409.19	622.5713638	57	616.7614228	22	616.7614681	85	620.9514739	11	625.14
15019.27	622.1215025	92	616.2415127	56	614.67	15755.6	595.0316290	27	588.38
16352.56	583.19	16571.9	579.6716628	49	574.5716717	55	567.74	17154.2	567.74
17247.95	572.4517337	82	588.3817425	78	609.2617444	62	611.7217681	06	634.71
18117.49	640.3518549	18	642.5220643	38	639.0520757	66	639.0520985	27	639.66
21332.33	634.7922310	57	637.4322565	83	641.6224227	69	645.8124606	91	647.8
25026.57	651.8925671	66	663.1925893	79	664.1926999	02	664.1927629	08	658.38
27900.64	658.38	28469.9	654.1928705	63	651.7628875	76	650.93	29014.6	647.49
29161.99	648.2929453	56	654.0729772	61	656.8530861	59	677.8331520	33	679.97
32480.24	723.7732621	73	724.2333233	63	691.3733268	05	691.4834848	45	743.11
35883.1	741.5936078	92	743.6536427	89	760.59	36469	761.2136773	04	760.03
37101.93	770.8537258	73	773.2438026	64	79038716	75	792.7939064	77	800

Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516290	27	.1517337	82	.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
16290.27	171337.82	5	5	5	.1	.3			

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1502648.00	194912.00	1743152.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502648.00	194912.00	1743152.00
Q Total (cfs)	6730000.00	Flow (cfs)	2945161.00	575747.80	3209092.00
Top width (ft)	35083.63	Top width (ft)	14961.48	1047.55	19074.60
Vel Total (ft/s)	1.96	Avg. Vel. (ft/s)	1.96	2.95	1.84

Page 244

Page 245 of 1616

SS_Rev3.rep									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.1516297	.85	.1517348	.46	.15				
Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16297.85	17348.46		5	5	5	.1	.3	
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.90		Element	Left OB	Channel	Right OB			
Vel Head (ft)	0.06		Wt. n-Val.	0.150	0.150	0.150			
W.S. Elev (ft)	759.84		Reach Len.	5.00	5.00	5.00			
Crit W.S. (ft)			Flow Area (sq ft)	1502714.00	195459.00	1743814.00			
E.G. Slope (ft/ft)	0.000084		Area (sq ft)	1502714.00	195459.00	1743814.00			
Q Total (cfs)	6730000.00		Flow (cfs)	2943118.00	577059.60	3209823.00			
Top width (ft)	35092.41		Top width (ft)	14968.54	1050.61	19073.27			
Vel Total (ft/s)	1.96		Avg. Vel. (ft/s)	1.96	2.95	1.84			
Max Chl Dpth (ft)	192.10		Hydr. Depth (ft)	100.39	186.04	91.43			
Conv. Total (cfs)	734866800.0		conv. (cfs)	321367000.0	63010680.0	350489200.0			
Length wtd. (ft)	5.00		Wetted Per. (ft)	14981.13	1052.87	19080.71			
Min Ch El (ft)	567.74		Shear (lb/sq ft)	0.53	0.97	0.48			
Alpha	1.06		Stream Power (lb/ft s)	1.03	2.87	0.88			
Frctn Loss (ft)	0.00		Cum Volume (acre-ft)	117538.60	20556.16	140905.60			
C & E Loss (ft)	0.00		Cum SA (acres)	1063.30	99.15	1274.28			

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275655.*

INPUT
Description:

Station	Elevation	num= 120											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	187.75	792.64	610.85	777.13	1286.93	761.61	1457.05	754.54				
1728.74	747.34	1888.08	745.78	2221.27	745.78	2539.34	744.64	3393.61	720.15				
3461.92	716.58	3548.74	714.22	3559.51	714.1	3751.34	717.71	3922.48	715.75				
4058.5	713.74	4204.54	709.76	4561.53	701.14	4996.61	693.74	5320.41	692.21				
5459.74	690.78	5611.35	685.71	5676.58	681.13	6022.11	679.2	6354.99	680.35				
6489.28	681.56	6699.06	673.12	6857.73	668.9	6925.6	664.68	6972.32	664.68				
7115.68	667.63	7323.04	677.67	7383.08	676.17	7506.48	675.75	7852.39	675.75				
7698.55	667.63	7845.09	664.86	8335.38	664.86	8335.38	664.86	850.41	638.64				
8633.62	632.72	8849.02	616.03	9044.62	614.82	9219.15	634.73	9396.65	631.5				
9534.15	618.19	9550.58	617.98	9636.08	609.54	9796.5	596.88	9851.15	596.88				
9891.21	600.73	10102.08	629.68	10114.71	639.54	10484.46	635.95	10563.27	628.7				
10688.5	622.41	101891.42	620.44	11132.02	629.68	11418.38	626.88	12023.94	622.62				
13418.56	622.66	13648.1	616.88	14238.16	616.88	14692.11	621.1	14749.4	625.36				
15029.76	622.28	151036.41	616.42	151538.12	614.86	15766.6	595.11	16301.65	588.44				
16364.35	583.23	163585.14	579.12	16642.11	574.61	16731.75	567.74	17169.14	567.74				
17263.4	572.44	17353.77	588.44	17441.71	609.26	17460.54	611.71	17696.89	634.6				
18133.18	640.25	151864.73	642.42	120658.24	638.92	12072.48	638.92	12100.02	639.52				
21346.97	634.68	122324.89	637.34	124250.96	641.56	124241.37	645.78	124260.47	647.78				
25040	651.88	125684.88	663.22	125906.93	664.22	125811.79	651.72	128881.79	658.44				
27395.49	658.44	128049.85	654.05	129374.84	656.83	130288.77	650.92	129262.71	647.45				
29175.05	646.25	125946.53	654.05	129374.84	656.83	130288.77	650.92	130373.09	650.92				
32491.21	723.51	132632.66	723.98	132324.43	691.83	132278.76	691.42	134858.64	742.84				
35892.95	741.38	1386088.71	743.46	136347.57	760.38	136478.66	761.01	136782.6	759.89				
37111.38	770.72	137268.12	773.12	138035.79	79038725.67		792.81	139073.57	800				

Manning's n values		num=	3	
Sta	n val	Sta	n val	Sta n val
0	.1516301.65		.1517353.77	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff Contr.	Expan.
	16301.6517	353.77		5	5	5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB
Vel Head (ft/s)	0.06	Vel. n=Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1502762.00	195729.50	1744166.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502762.00	195729.50	1744166.00
Q Total (cfs)	6730000.00	Flow (cfs)	2942101.00	577699.60	3210200.00
Top Width (ft)	35096.82	Top Width (ft)	14972.08	1052.12	19072.63
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.96	2.95	1.84
Max Chl Dpth (ft)	192.10	Hydr. Depth (ft)	100.37	186.03	91.45
Conv. Total (cfs)	73504380.0	Conv. (cfs)	32133330.0	63095760.0	350614800.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	14984.68	1054.38	19080.06
Min Chl El	567.74	Shear (lb/ft)	0.52	0.57	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.03	2.87	0.88
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	117366.10	20533.71	140705.40
C & F Loss (ft)	0.00	Cum SA (acres)	1061.58	99.02	1272.09

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275652.*

INPUT
Description:

Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	187.79	792.64	610.99	775.12	1287.23	761.6	1457.39	754.53		
1729.15	747.33	1888.52	745.77	2221.79	745.77	2539.93	744.62	3394.4	720.17		
3462.73	716.6	3549.57	714.23	3560.33	714.11	3752.21	717.71	3923.39	715.77		
4059.45	713.73	4205.52	709.74	4562.6	701.12	4997.78	693.72	5321.64	692.2		
5461.01	690.76	5612.65	685.69	5677.9	681.09	6023.51	679.17	6356.47	680.32		
6490.79	681.54	6700.62	673.08	6859.32	668.85	6927.21	664.62	6973.94	664.62		
7117.34	667.57	7324.75	677.61	7384.79	676.44	7508.23	675.72	7854.72	666.06		
7900.39	667.23	8047.8	667.26	8327.29	648.95	8340.72	647.43	8505.38	638.71		
8637.63	637.99	8880.09	645.13	9046.72	644.22	9221.29	634.81	9398.84	631.57		
9536.37	618.28	9552.8	618.07	9638.32	609.61	9798.78	596.92	9853.44	596.93		

SS_Rev3.rep									
9893.51	600.7810014.41	629.7310117.06	639.61 10486.9	636.0110637.74	628.77				
10690.98	622.4810893.95	620.5111134.64	629.7111421.04	626.9212026.74	622.69				
13421.68	622.6913651.27	616.9214241.47	616.9214695.53	621.1514752.83	625.38				
15033.26	622.3315039.91	616.4915141.65	614.9215770.27	595.1316305.44	588.46				
16368.28	583.2416589.56	579.7416646.64	574.6116736.48	567.7317174.12	567.73				
17268.55	572.4417359.09	588.4617447.01	609.2517465.85	611.717702.17	634.57				
18138.41	640.2118569.91	642.36 20663.2	638.8520777.42	638.8521004.94	639.47				
21351.85	634.6522329.66	637.3122584.81	641.5424245.93	645.7724624.99	647.78				
25044.47	651.8825689.28	663.2325911.31	664.2327016.05	664.2327645.83	658.46				
27917.28	658.4628486.29	654.2328721.91	651.7728891.96	650.9229030.75	647.44				
29178.07	648.2429469.52	654.0429788.43	656.8230876.93	677.7131535.38	679.88				
32494.86	723.43 32636.3	723.8933247.93	691.2833282.33	691.434862.04	742.76				
35896.24	741.3136091.97	743.436440.79	760.3136481.88	760.9436785.79	759.84				
37114.53	770.6737271.26	773.0838038.84	79038728.64	792.81 39076.5	800				
Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.1516305.44		.1517359.09		.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
16305.4417359.09		5	5	5		.1		.3	
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1502801.00	196008.30	1744484.00				
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502801.00	196008.30	1744484.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2941085.00	578381.10	3210534.00				
Top width (ft)	35101.39	Top width (ft)	14975.79	1053.65	19071.95				
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.96	2.95	1.84				
Max chl Dpth (ft)	192.11	Hydr. Depth (ft)	100.35	186.03	91.47				
Conv. Total (cfs)	735209000.0	Conv. (cfs)	321294500.0	63184390.0	350730100.0				
Length wtd. (ft)	5.00	wetted Per. (ft)	14988.38	1055.91	19079.37				
Min Ch El (ft)	567.73	Shear (lb/sq ft)	0.52	0.97	0.48				
Alpha	1.06	Stream Power (lb/ft s)	1.03	2.87	0.88				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	117193.60	20511.23	140505.20				
C & E Loss (ft)	0.00	Cum SA (acres)	1059.86	98.90	1269.90				

CROSS SECTION

RIVER: BRAZOS

REACH: UPPER BRAZOS

RS: 275649.*

INPUT

Description:

Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800 187.84	792.63	611.13	777.1	1287.52	761.6	1457.72	754.53	
1729.55	747.33 1888.96	745.76	2222.3	745.76	2540.52	744.61	3395.18	720.19	
3463.53	716.61 3550.39	714.24	3561.16	714.12	3753.09	717.7	3924.3	715.76	
4060.39	713.72 4206.5	709.73	4563.66	701.1	4998.94	693.71	5322.88	692.18	
5462.28	690.74 5613.96	685.66	5679.22	681.06	6024.91	679.13	6357.95	680.3	
6492.3	681.52 6702.18	673.04	6860.92	668.8	6928.82	664.56	6975.56	664.56	
7118.99	667.52 7326.45	677.56	7386.51	676.4	7509.97	675.7	7856.55	666.07	
7902.23	667.25 8049.67	667.32	8329.23	649.04	8342.66	647.52	8507.36	638.78	
8639.64	638.06 8882.16	645.22	9048.83	644.32	9223.44	634.89	9401.02	631.65	
9538.59	618.37 9555.02	618.16	9640.56	609.68	9801.06	596.96	9855.74	596.96	
9895.81	600.8310016.74	629.7710119.41	639.6810489.34	636.0710637.74	628.77				
10693.47	622.5610893.95	620.5811137.23	629.7511423.69	626.9612026.74	622.69				
13424.8	622.7213654.45	616.9614244.78	616.9614698.94	621.214756.27	625.44				
15036.75	622.3815043.41	616.5315145.17	614.9815773.94	595.1616305.44	588.46				
16372.21	583.2516593.97	579.7616651.18	574.6216741.22	567.73 17179.1	567.73				
17273.7	572.4317364.41	588.4817447.01	609.2517471.15	611.717707.45	634.53				
18143.64	640.18 18575.1	642.3220668.15	638.820782.37	638.821009.86	639.47				
21356.72	634.6122334.43	637.2822589.55	641.5224250.49	645.7624629.51	647.78				
25048.95	651.8825693.68	663.2525915.69	664.2427020.31	664.2427650.02	658.46				
27921.44	658.4828490.39	654.2428725.98	651.7828896.02	650.9229034.78	647.43				
29182.09	648.22 29473.5	654.0429792.38	656.8130880.76	677.6831539.14	679.85				
32498.52	723.3432639.94	723.81 33251.5	691.26 33285.9	691.3834865.43	742.67				
35899.52	741.2436095.23	743.3436444.02	760.24 36485.1	760.8736788.97	759.79				
37117.68	770.6237274.39	773.0438041.88	79038731.62	792.8239079.44	800				
Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.1516309.23		.1517364.41		.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
16309.2317364.41		5	5	5		.1		.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1502826.00	196282.60	1744824.00				
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502826.00	196282.60	1744824.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2940043.00	579038.70	3210918.00				
Top width (ft)	35120.41	Top width (ft)	14979.27	1055.18	19085.96				
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.96	2.95	1.84				
Max chl Dpth (ft)	192.11	Hydr. Depth (ft)	100.33	186.02	91.42				
Conv. Total (cfs)	735376200.0	Conv. (cfs)	321253800.0	63270620.0	350851800.0				
Length wtd. (ft)	5.00	wetted Per. (ft)	14991.85	1057.44	19093.37				
Min Ch El (ft)	567.73	Shear (lb/sq ft)	0.52	0.97	0.48				
Alpha	1.06	Stream Power (lb/ft s)	1.03	2.86	0.88				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	117021.10	20488.71	140304.90				
C & E Loss (ft)	0.00	Cum SA (acres)	1058.14	98.78	1267.71				

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RS: 275646.*

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num= 120
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E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1502871.00	196552.50	1745184.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502871.00	196552.50	1745184.00
Q Total (cfs)	6730000.00	Flow (cfs)	2939011.00	579672.90	3211316.00
Top width (ft)	35137.83	Top width (ft)	14982.81	1056.69	19098.33
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.96	2.95	1.84
Max Chl Dpth (ft)	192.11	Hydr. Depth (ft)	100.31	186.01	8.38
Conv. Total (cfs)	735554900.0	Wetted Per. (ft)	321219000.0	63355320.0	350980600.0
Length Wtd. (ft)	5.00	Shear (lb/sq ft)	14995.39	1058.96	19105.72
Min Ch El (ft)	567.73	Stream Power (lb/ft s)	0.52	0.97	0.48
Alpha	1.06	Cum Volume (acre-ft)	1.02	2.86	0.88
Frctn Loss (ft)	0.00	Cum SA (acres)	116848.60	20466.17	140104.60
C & E Loss (ft)	0.00		1056.42	98.66	1265.52

RS: 275643.*

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num= 120
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E.G. Elev (ft) 759.90 Element Left OB Channel Right OB
Page 248

		SS_Rev3.rep			
Vel Head (ft)	0.06	Wt. n-val.	0.150	0.150	0.150
W.S. Elev. (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1502905.00	196826.60	1745514.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502905.00	196826.60	1745514.00
Q Total (cfs)	673000.00	Flow (cfs)	2937985.00	580332.30	3211683.00
Top Width (ft)	35159.01	Top Width (ft)	14986.52	1058.22	19114.27
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.95	1.84
Max Chl Dpth (ft)	192.11	Hydr. depth (ft)	100.28	186.00	91.32
Conv. Total (cfs)	7357188.00	Wetted Per CF (ft)	321178400.0	63441510.0	351098900.0
Length Wd. (ft)	5.00	Wetted Per CF (ft)	14999.11	1060.49	19121.65
Min Chl El (ft)	567.73	Shear (lb/sq ft)	0.52	0.97	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.02	2.86	0.88
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	116676.10	20443.59	139904.30
C & E Loss (ft)	0.00	Cum SA (acres)	1054.70	98.54	1263.33

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275641.*

INPUT

Description:			Station Elevation Data			num=	120			
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	
0	800	187.97	792.62	611.56	777.07	1288.42	761.59	1458.74	754.5	
1730.76	747.31	1890.28	745.73	2223.85	745.73	2542.29	744.57	3397.55	720.24	
3465.95	716.66	3552.87	714.27	3563.65	714.15	3755.71	717.69	3927.04	715.73	
4063.22	713.67	4209.48	709.68	4566.84	701.04	5002.43	693.66	5326.6	692.12	
5466.09	690.69	5617.88	685.58	5683.18	680.95	6029.11	679.03	6362.38	680.23	
6496.83	681.46	6706.86	672.92	6865.71	668.65	6933.66	664.38	6980.43	664.38	
7123.96	667.36	7331.56	677.4	7391.66	676.26	7515.21	675.61	7862.03	666.09	
7907.74	667.3	8055.29	667.49	8335.04	649.3	8348.48	647.79	8513.3	639	
8645.67	638.28	8888.35	645.51	9055.14	644.61	9229.87	635.12	9407.58	631.87	
9545.24	618.64	9561.69	618.43	9647.29	609.89	9807.9	597.08	9862.61	597.08	
9902.72	600.97	100123.73	629.91	101126.47	639.89	10496.66	636.26	1064.64	629.04	
10300.73	622.79	10904.09	620.8	11145	629.89	11143.61	627.08	12037.93	625.62	
14740.17	622.81	15305.91	616.47	161425.74	615.16	14709.2	621.35	14766.56	625.62	
15045.15	622.81	15305.91	616.47	161425.74	615.16	14709.2	621.35	14766.56	625.62	
16384	572.58	16607.21	579.81	16664.8	574.65	16755.42	567.73	17194.03	567.73	
17289.16	572.42	17380.36	588.54	171468.74	609.25	17487.07	611.69	17723.29	634.42	
18159.34	640.07	18590.65	642.19	1920683.01	638.65	202797.19	638.65	21024.61	639.28	
21371.36	634.52	22348.35	637.19	22603.78	641.46	24264.18	645.73	24264.07	647.76	
25062.37	651.87	25706.89	663.28	25928.82	664.27	27033.08	664.27	272662.59	658.54	
27933.92	658.54	28250.58	668.25	272873.18	651.79	28980.17	650.91	29046.89	647.39	
29194.15	648.18	289485.47	654.02	298084.22	656.79	30892.27	677.63	31550.43	679.78	
32509.49	723.08	323650.87	723.53	32362.22	691.23	3296.61	691.32	34875.62	742.4	
35909.38	741.02	36105.02	743.15	353645.3	760.03	363494.76	760.66	363988.53	759.65	
37127.13	770.49	37283.79	772.92	38051.03	79038740.54		792.84	39078.85	800	

Manning's	n Values		num=	3			
Sta	n Val	Sta	n Val	Sta	n Val		
0	.1516320.61		.1517380.36		.15		

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16320.61	17380.36		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Vel. n-val.	0.150	0.150	0.150
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1502948.00	197101.30	1745856.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502948.00	197101.30	1745856.00
Q Total (cfs)	6730000.00	Flow (cfs)	2936972.00	580986.40	3212042.00
Top Width (ft)	35180.61	Top Width (ft)	14990.05	1059.75	19130.81
Vel Total (ft/s)	1.95	Avq. Vel. (ft/s)	1.95	2.95	1.84
Max Chl Dpth (ft)	192.11	Hydr. Depth (ft)	100.26	185.99	91.26
Conv. Total (cfs)	735892400.0	Conv. (cfs)	321143400.0	63528010.0	351221000.0
Length wtd. (ft)	5.00	Wetted Per (ft)	15001.63	1062.02	1911.18
Max Chl El (ft)	567.73	Shear (lb/sq ft)	0.52	0.97	0.48
Alpha	1.06	Stream Power (lb/ft s)	1.02	2.86	0.88
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	116503.60	20420.98	139703.90
C & E Loss (ft)	0.00	Cum SA (acres)	1052.98	98.42	1261.13

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275638.*

INPUT

Description:											
Station			Elevation Data			num= 120					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
1731.16	0	800	188.01	792.61	611.7	777.05	1288.72	761.59	1459.08	754.49	
3466.76	716.68	3553.7	745.72	2224.37	745.72	2542.88	744.56	3398.34	720.25		
4064.17	713.66	4210.47	714.28	3564.47	714.16	3756.58	717.68	3927.95	715.72		
5467.36	690.67	5619.18	709.66	4567.9	701.03	5003.59	693.65	5327.83	692.1		
6498.34	681.44	6708.42	685.55	5684.5	680.91	6030.51	679	6363.86	680.21		
7125.62	667.31	7333.27	672.88	6867.3	668.6	6935.27	664.32	6982.05	664.32		
7909.58	667.32	8057.16	677.35	7393.38	676.21	7516.96	675.59	7863.85	666.1		
8647.68	638.35	8890.42	667.55	8336.97	649.39	8350.42	647.87	8515.28	639.07		
9547.46	618.73	9563.91	645.6	9057.25	644.7	9232.02	635.2	9409.77	631.95		
9905.02	618.73	9563.91	618.52	9649.53	609.96	9810.18	597.12	9864.9	597.12		
10703.42	622.87	10966.62	629.96	10128.83	639.96	10499.1	636.32	10650.12	629.11		
13437.29	622.84	13090.67	620.87	11147.59	629.94	11434.32	627.12	12120.04	622.84		
15050.74	622.84	13090.67	617.12	124258.04	617.12	124712.62	621.41	14769.99	625.68		
16387.93	582.59	15057.41	616.81	15519.26	515.22	15788.61	595.26	16324.4	588.56		
	583.31	31661.61	579.83	81669.33	674.66	16760.15	567.73	17191.99	567.73		

SS_Rev3.rep									
17294.31	572.4217385.68	588.5617473.55	609.2417492.37	611.6917728.57	634.38				
18164.57	640.0418595.84	642.1520687.97	638.620802.13	638.621029.53	639.23				
21376.24	634.4622353.52	637.1622608.53	641.4424268.74	645.7224647.59	647.75				
25066.84	651.8725711.29	663.29 25933.2	664.2827037.34	664.2827666.78	658.56				
27938.07	658.5628506.77	654.2828742.26	651.7928912.22	650.9129050.93	647.38				
29198.17	648.1729489.46	654.01 29808.2	656.78 30896.1	677.5731554.19	679.76				
32513.15	722.9932654.51	723.46 33265.8	691.1833300.18	691.334879.02	742.32				
35912.66	740.9536108.29	743.0936456.91	759.9636497.98	760.5936801.71	759.6				
37130.28	770.4437286.92	772.8838054.08	79038743.51	792.8539091.18	800				
Manning's n values									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.15 16324.4		.1517385.68		.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
	16324.417385.68		5 5 5		.1 .3				
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.84	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1502978.00	197373.30	1746189.00				
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1502978.00	197373.30	1746189.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2935953.00	581634.60	3212413.00				
Top width (ft)	35202.84	Top width (ft)	14993.58	1061.28	19147.99				
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.95	1.84				
Max Chl Dpth (ft)	192.11	Hydr. Depth (ft)	100.24	185.98	91.19				
Conv. Total (cfs)	736056500.0	Conv. (cfs)	321103600.0	63613060.0	351339800.0				
Length wtd. (ft)	5.00	Wetted Per. (ft)	15006.15	1063.55	19155.33				
Min Ch El (ft)	567.73	Shear (lb/sq ft)	0.52	0.97	0.48				
Alpha	1.06	Stream Power (lb/ft s)	1.02	2.85	0.88				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	116331.10	20398.34	139503.50				
C & E Loss (ft)	0.00	Cum SA (acres)	1051.26	98.30	1258.93				

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275635.*

INPUT

Description:									
Station	Elevation	Data	num=	120					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800 188.06	792.61	611.84	777.04	1289.02	761.59	1459.42	754.49	
1731.56	747.3 1891.15	745.71	2224.89	745.71	2543.47	744.55	3399.13	720.27	
3467.56	716.69 3554.52	714.29	3565.3	714.17	3757.45	717.67	3928.87	715.71	
4065.11	713.64 4211.39	709.64	4568.96	701.01	5004.75	693.63	5329.07	692.09	
5468.63	690.65 4620.49	685.32	5685.82	680.87	6031.92	678.97	6366.34	680.19	
6499.85	681.42 5709.98	672.84	6868.9	668.55	6936.88	664.26	6983.67	664.26	
7127.27	667.25 7334.97	677.3	7395.1	676.17	7518.7	675.56	7865.68	666.1	
7911.42	667.33 8059.03	667.6	8338.91	649.48	8352.36	647.96	8517.25	639.14	
8649.69	638.43 8892.48	645.7	9059.35	644.8	9234.16	635.28	9411.95	632.02	
9549.68	618.82 9566.13	618.61	9651.77	610.03	9812.46	597.16	9867.2	597.16	
9907.32	601.0710028.38	630.0110131.18	640.0310501.54	636.3810652.59	629.18				
10705.9	622.9510909.16	620.9411150.18	629.9911436.98	627.1612043.52	622.87				
13440.41	622.8713670.33	617.1614261.35	617.1614716.04	621.4514773.42	625.74				
15054.24	622.65 15060.9	616.8615162.78	615.2815792.28	595.28 16328.2	588.58				
16391.86	583.3116616.04	579.8516673.87	574.6716764.89	567.7317203.99	567.73				
17299.46	572.4117390.99	588.5817478.86	609.2417497.68	611.6917733.85	634.35				
18169.8	64018601.02	642.1120692.92	638.5520807.08	638.5521034.44	639.18				
21381.12	634.4322358.29	637.1322613.27	641.42 24273.3	645.7124652.11	647.75				
25071.31	651.86 25715.7	663.325937.58	664.29 27041.6	664.2927670.97	658.58				
27942.23	658.5828510.87	654.2928746.33	651.828916.28	650.9129054.97	647.36				
29202.19	648.1529493.45	65429812.15	656.7730899.93	677.5431557.95	679.74				
32516.8	722.9132658.15	723.3833269.37	691.1633303.75	691.2834882.42	742.23				
35915.94	740.8836111.55	743.0236460.13	759.88 36501.2	760.53 36804.9	759.56				
37133.43	770.437290.05	772.8438057.13	79038746.48	792.8539094.11	800				

Manning's n values									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.15 16328.2		.1517390.99		.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
	16328.217390.99		5 5 5		.1 .3				

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1503015.00	197644.00	1746529.00				
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1503015.00	197644.00	1746529.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2934953.00	582280.30	3212767.00				
Top width (ft)	35222.45	Top width (ft)	14997.06	1062.79	19162.60				
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.95	1.84				
Max Chl Dpth (ft)	192.10	Hydr. Depth (ft)	100.22	185.97	91.14				
Conv. Total (cfs)	736223400.0	Conv. (cfs)	321067100.0	63698120.0	351458200.0				
Length wtd. (ft)	5.00	Wetted Per. (ft)	15009.64	1065.06	19169.94				
Min Ch El (ft)	567.73	Shear (lb/sq ft)	0.52	0.97	0.48				
Alpha	1.06	Stream Power (lb/ft s)	1.02	2.85	0.87				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	116158.60	20375.67	139303.00				
C & E Loss (ft)	0.00	Cum SA (acres)	1049.54	98.17	1256.74				

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275632.*

SS_Rev3.rep

INPUT Description: Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	188.1	792.6	611.99	777.03	1289.32	761.58	1459.76	754.48
1731.96	747.29	1891.59	745.7	2225.4	745.7	2544.06	744.53	3399.92	720.29
3468.37	716.71	3555.35	714.3	3566.13	714.18	3758.32	717.67	3929.78	715.7
4066.06	713.63	4212.37	709.63	4570.03	700.99	5005.91	693.62	5330.31	692.07
5469.9	690.63	5621.79	685.5	5687.14	680.84	6033.32	678.93	6366.82	680.16
6501.36	681.4	6711.53	672.8	6870.49	668.5	6938.49	664.2	6985.29	664.2
7128.93	667.2	7336.68	677.24	7396.82	676.12	7520.45	675.53	7867.51	666.11
7913.26	667.35	8060.91	667.66	8340.85	649.57	8354.3	648.05	8519.23	639.21
8651.7	638.5	8894.55	645.79	9061.46	644.9	9236.31	635.36	9414.14	632.1
9551.9	618.91	9568.35	618.7	9654.01	610.1	9814.74	597.2	9869.49	597.2
9909.62	601.1210030.71	630.0510133.53	621.0111152.77	640.110503.98	636.4410655.07	629.25	627.212046.32	622.9	625.8
10708.39	623.0210911.69	617.214264.66	616.93	15166.3	615.3415795.95	595.3116331.99	588.6	567.73	567.73
13443.54	622.9	13673.5	579.8716678.41	574.6816769.62	567.7317208.97	567.73	611.6817739.13	634.31	639.13
15057.74	622.7	15064.4	588.617484.16	609.2417502.98	638.520812.02	638.521039.36	647.74	658.6	647.35
16395.79	583.3216620.45	642.0720697.88	637.122618.01	641.424277.87	645.724656.63	647.74	658.6	647.35	647.35
17304.61	572.4117396.31	663.3225941.96	654.3	28750.4	651.828920.33	650.91	29059	647.35	647.35
18175.03	639.97	18606.2	654	29816.1	656.7730903.77	677.5131561.71	679.71	742.14	759.51
21386	634.392369.06	723.2933272.95	742.9636463.36	759.8136504.42	760.4636808.09	759.51	800	759.51	800
25075.79	651.86	25720.1	664.327045.86	664.327045.86	664.327045.86	664.327045.86	664.327045.86	664.327045.86	664.327045.86
27946.39	658.628514.97	654.3	28750.4	651.828920.33	650.91	29059	647.35	647.35	647.35
29206.21	648.1429497.44	654	29816.1	656.7730903.77	677.5131561.71	679.71	742.14	759.51	800
32520.46	722.8232661.79	723.2933272.95	742.9636463.36	759.8136504.42	760.4636808.09	759.51	800	759.51	800
35919.23	740.8136114.81	772.838060.18	79038749.46	792.8639097.05	800				
37136.58	770.3537293.19								

Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516331.99	.1517396.31	.15						
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.		
16331.9917396.31		5	5	5	.1	.3			

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1503053.00	197917.30	1746871.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1503053.00	197917.30	1746871.00
Q Total (cfs)	6730000.00	Flow (cfs)	2933979.00	582941.20	3213081.00
Top Width (ft)	35247.23	Top Width (ft)	15000.77	1064.32	19182.14
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.95	1.84
Max Chl Dpth (ft)	192.10	Hydr. Depth (ft)	100.20	185.96	91.07
Conv. Total (cfs)	736378400.0	Conv. (cfs)	321028000.0	63783850.0	351566600.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15013.34	1066.59	19189.46
Min Ch El (ft)	567.73	Shear (lb/sq ft)	0.52	0.97	0.47
Alpha	1.06	Stream Power (lb/ft s)	1.02	2.85	0.87
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	115986.00	20352.97	139102.50
C & E Loss (ft)	0.00	Cum SA (acres)	1047.82	98.05	1254.54

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275629.*

INPUT Description: Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	188.14	792.6	612.13	777.02	1289.62	761.58	1460.1	754.47
1732.36	747.28	1892.03	745.69	2225.92	745.69	2544.65	744.52	3400.71	720.31
3469.17	716.72	3556.17	714.31	3566.96	714.19	3759.2	717.66	3930.69	715.69
4067	713.61	4213.35	709.61	4571.09	700.97	5007.08	693.6	5331.55	692.05
5471.17	690.63	5623.1	685.47	5688.46	680.8	6034.72	678.9	6368.3	680.14
6502.87	681.38	6713.09	672.76	6872.09	668.45	6940.1	664.14	6986.92	664.14
7130.58	667.15	7338.38	677.19	7398.54	676.08	7522.2	675.51	7869.34	666.12
7915.09	667.37	8062.78	667.72	8342.79	649.66	8356.24	648.14	8521.21	639.28
8653.71	638.57	8896.62	645.89	9063.56	644.99	9238.45	635.43	9416.33	632.17
9554.12	619	9570.58	618.79	9656.25	610.17	9817.02	597.24	9871.78	597.24
9911.92	601.1710033.04	630.110135.89	640.1710506.42	636.510657.54	629.32	627.2412049.12	622.93	625.86	625.86
10710.88	623.110914.23	621.0911155.36	617.2414267.97	617.2414722.87	621.5514780.29	625.86	595.3416335.78	588.62	567.73
13446.66	622.9313676.68	616.9915169.83	615.415799.62	574.6916774.35	567.7317213.95	634.27	611.6817744.41	634.27	639.08
15061.23	622.75	15067.9	579.8816682.95	609.2417508.29	611.6817744.41	634.27	638.4521044.28	639.08	647.74
16399.72	583.3316624.86	642.0220702.83	638.4520816.96	638.4520816.96	638.4521044.28	639.08	645.6924661.15	647.74	658.62
17309.76	572.417401.63	588.6217489.47	609.2417508.29	611.6817744.41	634.27	639.08	645.6924661.15	647.74	658.62
18180.26	639.9318611.39	642.0220702.83	638.4520816.96	638.4521044.28	639.08	647.74	645.6924661.15	647.74	658.62
21390.88	634.3522367.83	637.0722622.76	641.3824282.43	664.3127050.12	664.3127050.12	647.34	650.9129063.04	647.34	679.69
25080.26	651.86	25724.5	663.3325946.34	664.3127050.12	664.3127050.12	647.34	650.9129063.04	647.34	679.69
27950.55	658.6228519.06	654.3128754.47	651.8128924.38	656.76	30907.6	677.4831565.47	691.2434889.21	742.05	759.46
29210.24	648.1229501.42	653.9929820.06	656.76	30907.6	677.4831565.47	691.2434889.21	742.05	759.46	800
32524.12	722.7332665.43	723.2133276.52	691.1233310.89	759.7436507.64	760.3936811.27	759.46	800		
35922.51	740.7436118.07	742.936466.58	79038752.43	792.8739099.98					
37139.73	770.337296.32	772.7638063.23							

Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516335.78	.1517401.63	.15						
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.		
16335.7817401.63		5	5	5	.1	.3			

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1503085.00	198192.90	1747229.00

Page 251

SS_Rev3.rep
 25089.21 651.8525733.31 663.35 25955.1 664.3327058.63 664.3327687.72 658.66
 27958.87 658.6628527.26 654.3328762.62 651.8228932.48 650.929071.12 647.31
 29218.28 648.1 29509.4 653.9729827.96 656.7430915.27 677.42 31573 679.64
 32531.43 722.5632672.71 723.0433283.67 691.0833318.04 691.1934896.01 741.88
 35929.07 740.59 36124.6 742.7736473.03 759.636514.08 760.2536817.64 759.37
 37146.03 770.2137302.59 772.6838069.32 79038758.38 792.8839105.86 800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516343.37 .1517412.26 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16343.3717412.26 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1503159.00	198741.70	1747933.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1503159.00	198741.70	1747933.00
Q Total (cfs)	6730000.00	Flow (cfs)	2931309.00	584993.30	3213698.00
Top width (ft)	35329.50	Top width (ft)	15011.30	1068.89	19249.31
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.94	1.84
Max Chl Dpth (ft)	192.11	Hydr. Depth (ft)	100.14	185.93	90.80
Conv. Total (cfs)	736790900.0	Conv. (cfs)	320915500.0	64044240.0	351831100.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15023.88	1071.17	19256.59
Min Ch El (ft)	567.72	Shear (lb/sq ft)	0.52	0.97	0.47
Alpha	1.06	Stream Power (lb/ft s)	1.02	2.84	0.87
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	115468.40	20284.68	138500.80
C & E Loss (ft)	0.00	Cum SA (acres)	1042.65	97.69	1247.92

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275620.*

INPUT

Description:

Station	Elevation	Data	num= 120
Sta Elev	Sta Elev	Sta Elev	Sta Elev
0 800 188.27	792.59 612.55	776.98 1290.52	761.57 1461.11
1733.57 747.26 1893.35	745.66 2227.47	745.66 2546.43	744.48 3403.08
3471.59 716.77 3558.65	714.34 3569.44	714.22 3761.82	717.65 3933.43
4069.83 713.57 4216.28	709.56 4574.27	700.91 5010.56	693.56 5335.26
5474.98 690.56 5627.02	685.39 5692.43	680.69 6038.92	678.8 6372.74
6507.4 681.32 6717.77	672.64 6876.87	668.3 6944.94	663.96 6991.78
7135.55 666.99 7343.49	677.03 7403.69	675.94 7527.44	675.42 7874.82
7920.61 667.42 8068.4	667.89 8348.6	649.92 8362.06	648.41 8527.15
8659.74 638.79 8902.81	646.17 9069.87	645.28 9244.89	635.67 9422.89
9560.77 619.28 9577.24	619.06 9662.98	610.38 9823.85	597.36 9878.66
9918.83 601.3210040.03	630.2410142.95	640.3810513.74	636.6910664.96
10718.34 623.3310921.83	621.311163.13	630.2211450.26	627.3612057.51
13456.02 623.02 13686.2	617.3614277.91	617.3614733.13	621.714790.58
15071.73 622.91 15078.4	617.1815180.39	615.5915810.62	595.4116347.16
16411.51 583.37 16638.1	579.9416696.56	574.7116788.56	567.7217228.89
17325.22 572.3917417.58	588.6817505.39	609.2317524.21	611.6717760.25
18195.96 639.8318626.94	641.9 20717.7	638.320831.79	638.321059.03
21405.52 634.2522382.15	636.9822636.99	641.3224296.11	645.6624674.71
25093.69 651.8525737.71	663.3625959.48	664.3427062.89	664.3427691.91
27963.03 658.6828531.35	654.3428766.69	651.8228936.54	650.929075.15
29222.3 648.0829513.39	653.9729831.92	656.7430919.11	677.3931576.76
32535.09 722.4832676.36	722.9533287.24	691.0633321.61	691.1734899.41
35932.36 740.5236127.86	742.7136476.25	759.53 36517.3	760.1836820.83
37149.18 770.2137305.72	772.6438072.37	79038761.35	792.8839108.79

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516347.16 .1517417.58 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16347.1617417.58 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1503193.00	199014.30	1748263.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1503193.00	199014.30	1748263.00
Q Total (cfs)	6730000.00	Flow (cfs)	2930443.00	585674.30	3213883.00
Top width (ft)	35359.72	Top width (ft)	15015.02	1070.42	19274.28
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.94	1.84
Max Chl Dpth (ft)	192.11	Hydr. Depth (ft)	100.11	185.92	90.70
Conv. Total (cfs)	736914900.0	Conv. (cfs)	320874800.0	64129590.0	351910600.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15027.59	1072.70	19281.55
Min Ch El (ft)	567.72	Shear (lb/sq ft)	0.52	0.97	0.47
Alpha	1.06	Stream Power (lb/ft s)	1.02	2.84	0.87
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	115295.90	20261.85	138300.10
C & E Loss (ft)	0.00	Cum SA (acres)	1040.93	97.56	1245.71

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275617.*

INPUT

Description:

Station Elevation Data										SS_Rev3.rep									
Sta		Elev		Sta		Elev		Sta		Elev		Sta		Elev		Sta		Elev	
0		800		188.32		792.58		612.7		776.97		1290.82		761.57		1461.45		754.44	
1733.97	747.26	1893.79	745.65	2227.99	745.65	2547.02	744.47	3403.87	720.37	3472.4	716.78	3559.48	714.35	3570.27	714.22	3762.69	717.64	3934.34	715.65
4070.78	713.54	4217.26	709.54	4575.33	700.89	5011.73	693.54	5336.5	691.97	5476.25	690.54	5628.32	685.36	5693.75	680.65	6040.32	678.77	6374.21	680.05
6508.91	681.3	6719.33	672.6	6878.47	668.25	6946.55	663.9	6993.41	663.9	7137.21	666.94	7345.19	676.98	7405.41	675.89	7529.18	675.4	7876.64	666.14
7922.44	667.44	8070.27	667.94	8350.53	650.01	8364	648.49	8529.13	639.57	8661.75	638.86	8904.88	646.27	9071.98	645.38	9247.03	635.75	9425.07	632.47
9562.99	619.37	9579.46	619.15	9665.22	610.45	9826.13	597.4	9880.95	597.4	9921.13	601.37	10042.36	630.29	10145.3	640.45	10516.17	636.75	10667.44	629.59
10720.83	623.41	10924.36	621.37	11165.72	630.27	11452.92	627.41	12060.31	623.05	13459.15	623.05	13689.38	617.41	14281.22	617.41	14736.55	621.75	14794.02	626.1
15075.22	622.96	15081.9	617.24	15183.91	615.65	15814.29	595.44	16350.96	588.7	16415.44	583.38	16642.52	579.96	16701.1	574.72	16793.29	567.72	17233.87	567.72
17330.37	572.39	17422.89	588.7	17510.7	609.23	17529.51	611.67	17765.53	634.13	18201.19	639.79	18632.12	641.86	20722.65	638.25	20836.73	638.25	21063.95	638.83
21410.39	634.21	22386.92	636.95	22641.73	641.32	24300.67	645.65	24679.23	647.71	25098.16	651.84	25742.12	663.37	25963.86	664.35	27067.15	664.35	27696.1	658.7
27967.19	658.72	28535.45	654.35	28770.76	651.82	28940.59	650.92	29079.19	647.29	29266.32	648.07	29517.38	653.96	29835.87	656.73	30922.94	677.36	31580.52	679.59
32538.75	722.39	32680	722.87	33290.82	691.04	33325.18	691.15	34902.8	741.7	35935.64	740.45	36131.12	742.65	36479.48	759.46	36520.52	760.11	36824.02	759.27
37152.33	770.12	37308.85	772.63	38075.42	79038764.32		792.89	39111.73	800										

Manning's n Values										num= 3									
Sta		n Val		Sta		n Val		Sta		n Val		Sta		n Val		Sta		n Val	
0		.1516350.96		.1517422.89		.15													

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16350.96	17422.89		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1503233.00	199284.00	1748629.00				
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1503233.00	199284.00	1748629.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2929561.00	586335.30	3214104.00				
Top width (ft)	35390.78	Top width (ft)	15018.56	1071.93	19300.29				
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.94	1.84				
Max Chl Dpth (ft)	192.11	Hydr. Depth (ft)	100.09	185.91	90.60				
Conv. Total (cfs)	737054300.0	Conv. (cfs)	320838800.0	64214110.0	352001400.0				
Length wtd. (ft)	5.00	Wetted Per. (ft)	15031.12	1074.21	19307.54				
Min Ch El (ft)	567.72	Shear (lb/sq ft)	0.52	0.97	0.47				
Alpha	1.06	Stream Power (lb/ft s)	1.01	2.84	0.87				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	115123.30	20238.99	138099.40				
C & E Loss (ft)	0.00	Cum SA (acres)	1039.20	97.44	1243.49				

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275614.*

INPUT

Description:

Station Elevation Data										num= 120									
Sta		Elev		Sta		Elev		Sta		Elev		Sta		Elev		Sta		Elev	
0		800		188.36		792.58		612.84		776.96		1291.12		761.57		1461.79		754.43	
1734.38	747.25	1894.23	745.64	2228.5	745.64	2547.61	744.46	3404.66	720.39	3473.2	716.8	3560.3	714.36	3571.1	714.23	3763.56	717.64	3935.26	715.64
4071.72	713.54	4218.24	709.52	4576.39	700.87	5012.89	693.53	5337.74	691.96	5477.52	690.52	5629.63	685.33	5695.07	680.62	6041.72	678.73	6375.69	680.03
6510.42	681.28	6720.89	672.56	6880.07	668.2	6948.16	663.84	6995.03	663.84	7138.86	666.88	7346.9	676.93	7407.12	675.85	7530.93	675.37	7878.47	666.15
7924.28	667.45	8072.14	668.83	8352.47	650.1	8365.94	648.58	8531.1	639.64	8663.75	638.94	8906.94	646.37	9074.08	645.48	9249.18	635.83	9427.26	632.54
9565.21	619.46	9581.69	619.24	9667.46	610.52	9828.41	597.44	9883.24	597.44	9923.43	601.42	10044.69	630.33	10147.66	640.52	10518.61	636.81	10669.91	629.66
10723.31	623.48	10926.9	621.45	11168.31	630.31	11455.58	627.44	12063.11	623.08	13462.27	623.08	13692.55	617.44	14284.54	617.44	14739.97	621.81	14797.45	626.16
15078.72	623.02	15085.39	617.31	15187.44	615.71	15817.96	595.47	16354.75	588.72	16419.37	583.39	16646.93	579.97	16705.64	574.73	16798.02	567.72	17238.84	567.72
17335.52	572.38	17428.21	588.72	17516.01	609.23	17534.82	611.67	17770.81	634.09	18206.42	639.76	18637.31	641.81	20727.61	638.22	20841.67	638.22	21068.86	638.84
21415.27	634.17	22391.69	636.92	22646.48	641.28	24305.23	645.64	24683.75	647.71	25102.63	651.84	25746.52	663.39	25968.23	664.36	27071.4	664.36	27700.29	658.72
27971.35	658.72	28539.54	654.36	28774.83	651.83	28944.64	650.92	29083.23	647.27	29230.34	648.05	29521.37	653.95	29839.83	656.73	30926.77	677.33	31584.29	679.57
32542.4	722.32	32683.64	722.87	33294.39	691.02	33328.75	691.13	34906.2	741.61	35938.93	740.38	36134.38	742.58	36482.7	759.39	36523.74	760.04	36827.2	759.22
37155.48	770.08	37311.98	772.56	38078.47	79038767.29		792.93	39114.66	800										

Manning's n Values										num= 3									
Sta		n Val		Sta		n Val		Sta		n Val		Sta		n Val		Sta		n Val	
0		.1516354.75		.1517428.21		.15													

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16354.75	17428.21		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1503258.00	199559.50	1748994.00				
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1503258.00	199559.50	1748994.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2928644.00	587020.60	3214336.00				
Top width (ft)	35422.89	Top width (ft)	15022.08	1073.46	19327.35				

Page 254

SS_Rev3.rep

Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.94	1.84
Max Chl Dpth (ft)	192.11	Hydr. Depth (ft)	100.07	185.90	90.49
Conv. Total (cfs)	737190000.0	conv. (cfs)	320797400.0	64301000.0	352091600.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15034.66	1075.75	19334.59
Min Ch El (ft)	567.72	Shear (lb/sq ft)	0.52	0.97	0.47
Alpha	1.06	Stream Power (lb/ft s)	1.01	2.84	0.87
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	114950.80	20216.10	137898.70
C & E Loss (ft)	0.00	Cum SA (acres)	1037.48	97.32	1241.28

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275611.*

INPUT

Description:
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	188.41	792.57	612.98	776.94	1291.42	761.56	1462.13	754.42
1734.78	747.25	1894.67	745.63	2229.02	745.63	2548.2	744.44	3405.45	720.41
3474.01	716.82	3561.13	714.37	3571.93	714.24	3764.43	717.63	3936.17	715.63
4072.67	713.52	4219.22	709.51	4577.46	700.85	5014.05	693.51	5338.98	691.94
5478.79	690.55	5630.93	685.31	5696.39	680.58	6043.12	678.7	6377.17	680
6511.93	681.26	6722.45	672.52	6881.66	668.15	6949.77	663.78	6996.65	663.78
7140.52	666.83	7348.6	676.87	7408.84	675.8	7532.68	675.34	7880.3	666.16
7926.12	667.47	8074.01	668.06	8354.41	650.19	8367.88	648.67	8533.08	639.71
8665.76	639.01	8909.01	646.46	9076.19	645.57	9251.32	635.9	9429.45	632.62
9567.43	619.55	9583.91	619.33	9669.71	610.59	9830.69	597.48	9885.53	597.48
9925.73	601.47	10047.02	630.38	10150.01	640.59	10521.05	636.87	10672.39	629.73
10725.39	623.11	113695.73	621.52	11170.9	630.36	11458.23	627.48	12065.91	623.11
13465.39	623.11	13695.73	617.48	14287.85	617.48	14745.38	621.85	14800.88	626.22
15082.22	623.07	15088.89	617.36	15190.96	615.77	15821.63	595.49	16358.54	588.74
16423.3	583.41	16651.34	579.99	16710.17	574.74	16802.76	567.72	17243.82	567.72
17340.67	572.38	17433.53	588.74	17521.31	609.23	17540.12	611.66	17776.09	634.06
18211.65	639.72	18642.49	641.77	20732.56	638.15	20846.61	638.15	21073.78	638.79
21420.15	634.14	22396.46	636.89	22651.22	641.26	24309.8	645.63	24688.27	647.7
25107.11	651.84	25750.92	663.42	25972.61	664.37	27075.66	664.37	27704.48	658.74
27975.51	658.74	28543.64	654.37	28778.9	651.83	28948.69	650.92	29087.26	647.26
29234.36	648.04	29525.36	653.95	29843.78	656.71	30930.61	677.33	31588.05	679.54
32546.06	722.22	32687.28	722.73	3297.96	691.33	3332.32	691.11	34909.6	741.52
35942.21	740.31	36137.64	742.52	36485.93	759.32	36526.96	759.98	36830.39	759.18
37158.63	770.03	37315.12	772.52	38081.52	790.38	38770.27	792.91	39117.59	800

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516358.54	.1517433.53	.15		

Bank Sta: Left 16358.5417433.53 Lengths: Left Channel 5 Right 5 Coeff Contr. .1 Expan. .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1503304.00	199832.20	1749341.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1503304.00	199832.20	1749341.00
Q Total (cfs)	6730000.00	Flow (cfs)	2927757.00	587690.10	3214553.00
Top width (ft)	35451.80	Top width (ft)	15025.79	1074.99	19351.02
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.94	1.84
Max Chl Dpth (ft)	192.11	Hydr. Depth (ft)	100.05	185.89	90.40
Conv. Total (cfs)	737329500.0	conv. (cfs)	320761000.0	64386520.0	352182000.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15038.36	1077.28	19358.24
Min Ch El (ft)	567.72	Shear (lb/sq ft)	0.52	0.96	0.47
Alpha	1.06	Stream Power (lb/ft s)	1.01	2.84	0.86
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	114778.20	20193.18	137697.90
C & E Loss (ft)	0.00	Cum SA (acres)	1035.75	97.19	1239.06

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275608.*

INPUT

Description:
 Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	188.45	792.57	613.12	776.93	1291.72	761.56	1462.47	754.42
1735.18	747.24	1895.11	745.62	2229.54	745.62	2548.79	744.43	3406.24	720.42
3474.81	716.83	3561.95	714.38	3572.76	714.25	3765.31	717.63	3937.08	715.62
4073.61	713.51	4220.2	709.49	4578.52	700.83	5015.21	693.5	5340.21	691.92
5480.06	690.48	5632.24	685.28	5697.71	680.55	6044.53	678.67	6378.65	679.98
6513.44	681.24	6724	672.48	6883.26	668.1	6951.38	663.72	6998.27	663.72
7142.17	666.78	7350.31	676.82	7410.56	675.76	7534.42	675.31	7882.13	666.16
7927.96	667.49	8075.88	668.11	8356.34	650.28	8369.82	648.76	8535.06	639.79
8667.77	639.08	8911.08	646.56	9078.29	645.67	9253.47	635.98	9431.63	632.69
9569.64	619.64	9586.13	619.42	9671.95	610.66	9832.97	597.52	9887.83	597.52
9928.03	601.51	10049.35	630.43	10152.36	640.66	10523.49	636.93	10674.86	629.79
10728.29	623.64	10931.97	621.59	11173.49	630.41	11460.89	627.52	12068.7	623.14
13468.51	623.14	13698.91	617.52	14291.16	617.52	14746.8	621.91	14804.31	626.28
15085.71	623.12	15092.39	617.43	15194.48	615.83	15825.3	595.52	16362.33	588.76
16427.23	583.41	16655.75	580.01	16714.71	574.75	16807.49	567.72	17248.8	567.72
17345.82	572.37	17438.85	588.76	17526.62	609.23	17545.43	611.66	17781.37	634.02
18216.88	639.69	18647.68	641.73	20737.51	638.12	20851.55	638.12	21078.7	638.74
21425.03	634.12	22401.24	636.86	22655.96	641.24	24314.36	645.62	24692.79	647.7
25111.58	651.83	25755.34	663.41	25976.99	664.38	27079.92	664.38	27708.67	658.76
27979.66	658.76	28547.74	654.38	28782.97	651.84	28952.74	650.9	29091.3	647.25
29238.38	648.02	29529.35	653.94	29847.73	656.71	30934.44	677.28	31591.81	679.52

SS_Rev3.rep
 32549.72 722.1332690.92 722.6133301.54 690.9833335.89 691.09 34913 741.44
 35945.5 740.2336140.91 742.4636489.15 759.2536530.18 759.9136833.58 759.13
 37161.79 769.9837318.25 772.4838084.57 79038773.24 792.9139120.53 800

Manning's n values num= 3
 Sta n Val Sta n Val Sta n Val
 0 .1516362.33 .1517438.85 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16362.3317438.85 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1503333.00	200106.20	1749679.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1503333.00	200106.20	1749679.00
Q Total (cfs)	6730000.00	Flow (cfs)	2926893.00	588373.30	3214734.00
Top width (ft)	35486.11	Top width (ft)	15029.26	1076.52	19380.33
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.94	1.84
Max Chl Dpth (ft)	192.11	Hydr. Depth (ft)	100.03	185.88	90.28
Conv. Total (cfs)	737457900.0	Conv. (cfs)	320722100.0	64472590.0	352263100.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15041.83	1078.81	19387.54
Min Ch El (ft)	567.72	Shear (lb/sq ft)	0.52	0.96	0.47
Alpha	1.06	Stream Power (lb/ft s)	1.01	2.84	0.86
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	114605.70	20170.22	137497.10
C & E Loss (ft)	0.00	Cum SA (acres)	1034.03	97.07	1236.83

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275606.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	188.49	792.56	613.27	776.92	1292.02	761.56	1462.81	754.41
1735.58	747.23	1895.55	745.61	2230.06	745.61	2549.38	744.42	3407.03	720.44
3475.62	716.85	3562.78	714.39	3573.58	714.26	3766.18	717.62	3937.99	715.61
4074.53	713.49	4221.18	709.47	4579.58	700.81	5016.38	693.48	5341.45	691.9
5481.33	690.46	5633.54	685.25	5699.03	680.51	6045.93	678.64	6380.13	679.96
6514.95	681.22	6725.56	672.44	6884.85	668.05	6952.99	663.66	6999.9	663.66
7143.83	666.72	7352.01	676.77	7412.28	675.71	7536.17	675.29	7883.95	666.17
7929.8	667.51	8077.76	668.17	8358.28	650.37	8371.76	648.85	8537.04	639.86
8669.78	639.16	8913.14	646.65	9080.4	645.77	9255.61	636.06	9433.82	632.77
9571.86	619.73	9588.35	619.51	9674.19	610.73	9835.25	597.56	9890.12	597.56
9930.33	601.56	10051.68	630.47	10154.72	640.73	10525.93	636.99	10677.34	629.86
10730.77	623.71	10934.5	621.66	11176.08	630.45	11463.54	627.56	12071.5	623.17
13471.63	623.17	13702.08	617.56	14294.48	617.56	14750.22	621.95	14807.74	626.34
15089.21	623.17	15095.89	617.49	15198	615.89	15828.97	595.54	16366.13	588.78
16431.16	583.42	16660.17	580.03	16719.25	574.76	16812.23	567.72	17253.78	567.72
17350.98	572.37	17444.16	588.78	17531.93	609.23	17550.73	611.66	17786.64	633.98
18222.12	639.65	18652.86	641.69	20742.47	638.05	20856.5	638.05	21083.62	638.69
21429.91	634.06	22406.01	636.83	22660.71	641.22	24318.92	645.61	24697.31	647.69
25116.05	651.83	25759.73	663.42	25981.37	664.39	27084.18	664.39	27712.85	658.78
27983.82	658.78	28551.84	654.39	28787.04	651.84	28956.8	650.89	29095.34	647.23
29242.4	648.01	29533.33	653.93	29851.69	656.73	30938.28	677.25	31595.57	679.5
32553.37	722.04	32694.56	722.53	33305.11	690.95	33339.46	691.07	34916.39	741.35
35948.78	740.16	36144.17	742.39	36492.38	759.18	36533.4	759.84	36836.77	759.08
37164.93	769.94	37321.39	772.44	38087.62	79038	776.21	792.92	39123.46	800

Manning's n values num= 3
 Sta n Val Sta n Val Sta n Val
 0 .1516366.13 .1517444.16 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16366.1317444.16 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1503376.00	200375.80	1750051.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1503376.00	200375.80	1750051.00
Q Total (cfs)	6730000.00	Flow (cfs)	2926012.00	589032.10	3214956.00
Top width (ft)	35521.79	Top width (ft)	15032.80	1078.03	19410.95
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.94	1.84
Max Chl Dpth (ft)	192.11	Hydr. Depth (ft)	100.01	185.87	90.16
Conv. Total (cfs)	737598800.0	Conv. (cfs)	320686900.0	64557110.0	352354800.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15045.36	1080.32	19418.15
Min Ch El (ft)	567.72	Shear (lb/sq ft)	0.52	0.96	0.47
Alpha	1.06	Stream Power (lb/ft s)	1.01	2.83	0.86
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	114433.10	20147.24	137296.30
C & E Loss (ft)	0.00	Cum SA (acres)	1032.30	96.95	1234.61

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275603.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	188.54	792.56	613.41	776.91	1292.32	761.56	1463.15	754.4

SS_Rev3.rep									
1735.98	747.23	1895.99	745.6	2230.57	745.6	2549.97	744.41	3407.82	720.46
3476.42	716.86	3563.6	714.4	3574.41	714.27	3767.05	717.61	3938.91	715.6
4075.5	713.48	4222.15	709.46	4580.64	700.79	5017.54	693.47	5342.69	691.88
5482.6	690.45	5634.85	685.23	5700.35	680.47	6047.33	678.6	6381.61	679.94
6516.46	681.2	6727.12	672.4	6886.45	668	6954.6	663.6	7001.52	663.6
7145.48	666.67	7353.71	676.71	7414	675.66	7537.92	675.26	7885.78	666.18
7931.63	667.52	8079.63	668.23	8360.22	650.45	8373.7	648.94	8539.02	639.93
8671.79	639.23	8915.21	646.75	9082.5	645.86	9257.76	636.14	9436	632.84
9574.08	619.82	9590.57	619.6	9676.43	610.8	9837.53	597.6	9892.41	597.6
9932.64	601.6110054.01	630.5210157.07	640.810528.37	637.0610679.81	629.93				
10733.26	623.7910937.04	621.7411178.67	630.5	11466.2	627.6	12074.3	623.2		
13474.76	623.213705.26	617.614297.79	617.614753.64	62214811.17	626.4				
15092.71	623.2315099.39	617.5515201.53	615.9515832.64	595.5716369.92	588.8				
16435.09	583.4416664.58	580.0416723.79	574.7716816.96	567.7217258.76	567.72				
17356.13	572.3717449.48	588.817537.24	609.2217556.04	611.6517791.92	633.95				
18227.35	639.6218658.05	641.6520747.42	63820861.44	63821088.53	638.64				
21434.79	634.0322410.78	636.822665.45	641.224323.48	645.624701.83	647.69				
25120.53	651.8325764.13	663.4325985.75	664.427088.44	664.427717.04	658.8				
27987.98	658.828555.93	654.428791.11	651.8428960.85	650.8929099.37	647.22				
29246.42	64829537.32	653.9329855.64	656.6930942.11	677.2231599.33	679.47				
32557.03	721.96	32698.2	722.4433308.69	690.9333343.03	691.0534919.79	741.26			
35952.06	740.0936147.43	742.33	36495.6	759.1136536.62	759.7736839.95	759.03			
37168.09	769.8937324.52	772.438090.66	79038779.19	792.92	39126.4	800			
Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516369.92	.1517449.48	.15						
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
16369.92	17449.48	5	5	5	.1	.3			
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1503396.00	200648.70	1750400.00				
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1503396.00	200648.70	1750400.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2940595.00	592831.60	3196573.00				
Top Width (ft)	35530.53	Top Width (ft)	15036.33	1079.56	19414.64				
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.96	2.95	1.83				
Max Chl Dpth (ft)	192.11	Hydr. Depth (ft)	99.98	185.86	90.16				
Conv. Total (cfs)	733842600.0	Conv. (cfs)	320644000.0	64642660.0	348555900.0				
Length wtd. (ft)	5.00	Wetted Per. (ft)	15048.90	1081.85	19421.83				
Min Ch El (ft)	567.72	Shear (lb/sq ft)	0.52	0.97	0.47				
Alpha	1.06	Stream Power (lb/ft s)	1.03	2.88	0.86				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	114260.60	20124.22	137095.40				
C & E Loss (ft)	0.00	Cum SA (acres)	1030.58	96.82	1232.38				
CROSS SECTION									
RIVER: BRAZOS									
REACH: UPPER BRAZOS RS: 275600.*									
INPUT									
Description:									
Station Elevation Data num= 120									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	188.58	792.55	613.55	776.89	1292.61	761.55	1463.49	754.39
1736.39	747.22	1896.43	745.59	2231.09	745.59	2550.56	744.39	3408.61	720.48
3477.23	716.88	3564.43	714.41	3575.24	714.28	3767.93	717.61	3939.82	715.59
4076.44	713.46	4223.13	709.44	4581.7	700.78	5018.7	693.45	5343.93	691.86
5483.87	690.43	5636.16	685.2	5701.67	680.44	6048.73	678.57	6383.09	679.91
6517.97	681.18	6728.68	672.36	6888.04	667.95	6956.22	663.54	7003.14	663.54
7147.14	666.62	7355.42	676.66	7415.71	675.62	7539.66	675.23	7887.61	666.18
7933.47	667.54	8081.5	668.28	8362.16	650.54	8375.64	649.02	8541	640
8673.8	639.3	8917.27	646.84	9084.6	645.96	9259.9	636.22	9438.19	632.92
9576.3	619.91	9592.8	619.69	9678.68	610.87	9839.81	597.64	9894.7	597.64
9934.94	601.6610056.34	630.5710159.42	640.8710530.81	637.1210682.29	630				
10735.75	623.8710939.57	621.8111181.26	630.5511468.86	627.64	12077.1	623.23			
13477.88	623.2313708.43	617.64	14301.1	617.6414757.06	622.0514814.61	626.46			
15096.2	623.2815102.89	617.6115205.05	616.01	15836.3	595.5916373.71	588.82			
16439.03	583.4516668.99	580.0616728.33	574.7816821.69	567.7117263.74	567.71				
17361.28	572.36	17454.8	588.8217542.54	609.2217561.34	611.65	17797.2	633.91		
18232.58	639.5818663.23	641.6120752.38	637.9520866.38	637.9521093.45	638.6				
21439.67	633.9922415.55	636.77	22670.2	641.1824328.04	645.5924706.35	647.68			
25125	651.8225768.54	663.4525990.13	664.4127092.69	664.4127721.23	658.82				
27992.14	658.8228560.03	654.4128795.18	651.85	28964.9	650.8929103.41	647.21			
29250.44	647.9829541.31	653.92	29859.6	656.6830945.95	677.19	31603.1	679.45		
32560.69	721.8732701.84	722.3633312.26	690.91	33346.6	691.0334923.19	741.17			
35955.35	740.02	36150.7	742.2736498.82	759.0436539.84	759.736843.14	758.98			
37171.23	769.8537327.65	772.3638093.71	79038782.16	792.9339129.34	800				
Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516373.71	.15	17454.8	.15					
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
16373.71	17454.8	5	5	5	.1	.3			
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1503438.00	200927.90	1750762.00				
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1503438.00	200927.90	1750762.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2939531.00	593501.00	3196969.00				
Top Width (ft)	35535.12	Top Width (ft)	15040.04	1081.09	19413.98				
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.96	2.95	1.83				
Max Chl Dpth (ft)	192.12	Hydr. Depth (ft)	99.96	185.86	90.18				
Conv. Total (cfs)	734022100.0	Conv. (cfs)	320606300.0	64731480.0	348684300.0				
Length wtd. (ft)	5.00	Wetted Per. (ft)	15052.61	1083.39	19421.15				
Min Ch El (ft)	567.71	Shear (lb/sq ft)	0.52	0.97	0.47				

Page 258 of 1616

16381.317465.43	5	5	5	SS_Rev3.rep	.1	.3
CROSS SECTION OUTPUT Profile #PF 1						
E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB	
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150	
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00	
Crit W.S. (ft)		Flow Area (sq ft)	1503502.00	201471.00	1751478.00	
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1503502.00	201471.00	1751478.00	
Q Total (cfs)	6730000.00	Flow (cfs)	2937424.00	594779.20	3197797.00	
Top width (ft)	35543.59	Top width (ft)	15047.05	1084.13	19412.41	
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.95	1.83	
Max Chl Dpth (ft)	192.12	Hydr. Depth (ft)	99.92	185.84	90.22	
Conv. Total (cfs)	734372400.0	Conv. (cfs)	320529500.0	64901840.0	348941100.0	
Length wtd. (ft)	5.00	wetted Per. (ft)	15059.61	1086.43	19419.54	
Min Ch El (ft)	567.71	Shear (lb/sq ft)	0.52	0.97	0.47	
Alpha	1.06	Stream Power (lb/ft s)	1.02	2.87	0.86	
Frctn Loss (ft)	0.00	Cum volume (acre-ft)	113742.80	20054.99	136492.40	
C & E Loss (ft)	0.00	Cum SA (acres)	1025.40	96.45	1225.69	

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275591.*

INPUT Description:									
Station Elevation Data num= 120									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	188.71	792.54	613.98	776.86	1293.51	761.54	1464.51	754.37
1737.59	747.2	1897.74	745.56	2232.64	745.56	2552.33	744.36	3410.98	720.53
3479.64	716.92	3566.91	714.44	3577.73	714.31	3770.54	717.59	3942.56	715.56
4079.28	713.42	4226.07	709.39	4584.88	700.72	5022.19	693.41	5347.64	691.81
5487.69	690.37	5640.07	685.12	5705.63	680.33	6052.93	678.47	6387.52	679.84
6522.5	681.12	6733.36	672.24	6892.83	667.8	6961.05	663.36	7008.01	663.36
7152.11	666.46	7360.53	676.5	7420.87	675.48	7544.9	675.15	7893.09	666.2
7938.98	667.59	8087.12	668.45	8367.97	650.81	8381.46	649.29	8546.93	640.21
8679.83	639.52	8923.47	647.13	9090.92	646.25	9266.34	636.45	9444.75	633.14
9582.96	620.18	9599.46	619.96	9685.4	611.08	9846.65	597.76	9901.58	597.76
9941.84	601.81	10063.33	630.71	10166.48	641.08	10538.13	637.31	10689.71	630.2
10743.21	624.11	10947.17	622.02	11189.03	630.69	11476.83	627.76	12085.49	623.32
13487.25	623.32	13717.96	617.76	14311.04	617.76	14767.31	622.2	14824.9	626.64
15106.7	623.44	15113.38	617.81	15215.61	616.19	15847.31	595.67	16385.09	588.88
16450.81	583.48	16682.23	580.12	16741.94	574.81	16835.9	567.71	17278.68	567.71
17376.73	572.35	17470.75	588.88	17558.47	609.22	17577.26	611.64	17813.04	633.8
18248.27	639.48	18678.78	641.48	18767.24	637.82	18881.21	637.8	21108.2	638.45
21454.31	633.88	22429.87	636.68	22684.43	641.12	24341.73	645.56	24719.91	647.67
25138.43	651.81	25781.75	663.48	26003.27	664.44	27105.47	664.44	27733.8	658.88
28004.62	658.88	28572.32	654.44	28807.39	651.86	28977.06	650.89	29115.52	647.17
29262.5	647.94	29553.28	653.92	29871.46	656.63	30957.45	677.13	31614.38	679.38
32571.66	721.61	32712.77	722.13	3322.98	690.85	33357.31	690.97	34933.38	740.91
35965.2	739.83	36160.48	742.08	36508.5	758.83	36549.5	759.5	36852.7	758.84
37180.68	769.71	37337.05	772.24	38102.86	79038	3791.08	792.95	39138.14	800

Manning's n Values num= 3									
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516385.09	.1517470.75	.15						
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
16385.09	17470.75	5	5	5	.1	.3			

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB	
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150	
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00	
Crit W.S. (ft)		Flow Area (sq ft)	1503538.00	201743.90	1751840.00	
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1503538.00	201743.90	1751840.00	
Q Total (cfs)	6730000.00	Flow (cfs)	2936363.00	595421.90	3198215.00	
Top width (ft)	35548.19	Top width (ft)	15050.76	1085.66	19411.77	
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.95	1.83	
Max Chl Dpth (ft)	192.12	Hydr. Depth (ft)	99.90	185.83	90.25	
Conv. Total (cfs)	734546100.0	Conv. (cfs)	320489500.0	64987350.0	349069300.0	
Length wtd. (ft)	5.00	wetted Per. (ft)	15063.33	1087.96	19418.89	
Min Ch El (ft)	567.71	Shear (lb/sq ft)	0.52	0.97	0.47	
Alpha	1.06	Stream Power (lb/ft s)	1.02	2.87	0.86	
Frctn Loss (ft)	0.00	Cum volume (acre-ft)	113570.30	20031.85	136291.40	
C & E Loss (ft)	0.00	Cum SA (acres)	1023.67	96.33	1223.47	

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275588.*

INPUT Description:									
Station Elevation Data num= 120									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	188.75	792.54	614.12	776.84	1293.81	761.54	1464.84	754.36
1738	747.2	1898.18	745.55	2233.16	745.55	2552.92	744.34	3411.77	720.54
3480.45	716.94	3567.73	714.45	3578.55	714.32	3771.42	717.59	3943.47	715.55
4080.22	713.4	4227.05	709.37	4585.95	700.7	5023.35	693.39	5348.88	691.79
5488.96	690.35	5641.38	685.09	5706.95	680.29	6054.33	678.44	6389	679.82
6524.01	681.1	6734.92	672.2	6894.43	667.75	6962.66	663.3	7009.63	663.3
7153.76	666.41	7362.23	676.45	7422.59	675.43	7546.65	675.12	7894.92	666.21
7940.82	667.61	8088.99	668.51	8369.91	650.9	8383.4	649.38	8548.91	640.29
8681.84	639.59	8925.48	647.22	9093.02	646.35	9268.48	636.53	9446.94	633.22
9585.17	620.27	9601.69	620.05	9687.64	611.15	9848.93	597.8	9903.87	597.8
9944.14	601.86	10065.66	630.75	10168.84	641.15	10540.57	637.36	10692.18	630.27
10745.7	624.17	10949.71	622.11	11191.62	630.73	11479.49	627.81	12088.29	623.35
13490.37	623.35	13721.13	617.81	14314.35	617.81	14770.73	622.25	14828.33	626.7
15110.19	623.49	15116.88	617.86	15219.14	616.25	15850.98	595.71	16388.88	588.9

SS_Rev3.rep									
16454.75	583.516686.65	580.1316746.48	574.8216840.63	567.7117283.65	567.71				
17381.88	572.3417476.06	588.917563.77	609.2117582.56	611.6417818.32	633.76				
18253.51	639.4418683.97	641.44 20772.2	637.7520886.15	637.7521113.12	638.4				
21459.19	633.8522434.64	636.6522689.17	641.124346.29	645.5524724.43	647.66				
25142.9	651.8125786.15	663.4926007.64	664.4527109.72	664.4527737.99	658.9				
28008.78	658.928576.41	654.4528811.46	651.8728981.11	650.8829119.56	647.16				
29266.53	647.9229557.27	653.8929875.41	656.6530961.28	677.0731618.14	679.35				
32575.31	721.5232716.41	722.0133326.56	690.8333360.88	690.9534936.78	740.82				
35968.48	739.7336163.75	742.0236511.72	758.7636552.71	759.4336855.88	758.79				
37183.84	769.6637340.18	772.238105.91	79038794.05	792.9639141.07	800				
Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.1516388.88	.1517476.06	.15						
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.			
16388.8817476.06		5	5	5	.1	.3			
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1503577.00	202015.60	1752212.00				
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1503577.00	202015.60	1752212.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2935311.00	596057.30	3198631.00				
Top width (ft)	35552.60	Top width (ft)	15054.29	1087.18	19411.13				
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.95	1.83				
Max Chl Dpth (ft)	192.12	Hydr. Depth (ft)	99.88	185.82	90.27				
Conv. Total (cfs)	734726600.0	Conv. (cfs)	320453400.0	65072680.0	349200500.0				
Length wtd. (ft)	5.00	Wetted Per. (ft)	15066.85	1089.48	19418.24				
Min Ch El (ft)	567.71	Shear (lb/sq ft)	0.52	0.97	0.47				
Alpha	1.06	Stream Power (lb/ft s)	1.02	2.87	0.86				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	113397.70	20008.68	136090.30				
C & E Loss (ft)	0.00	Cum SA (acres)	1021.94	96.20	1221.24				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275585.*

INPUT

Description:									
Station	Elevation	Data	num=	120					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	188.8	792.53	614.26	776.83	1294.11	761.54	1465.18	754.35
1738.4	747.19	1898.62	745.54	2233.67	745.54	2553.52	744.33	3412.56	720.56
3481.26	716.96	3568.56	714.46	3579.38	714.33	3772.29	717.58	3944.38	715.54
4081.16	713.39	4228.02	709.36	4587.01	700.68	5024.52	693.38	5350.12	691.77
5490.23	690.33	5642.68	685.06	5708.28	680.25	6055.74	678.4	6390.48	679.8
6525.52	681.08	6736.47	672.16	6896.02	667.7	6964.27	663.24	7011.25	663.24
7155.42	666.35	7363.94	676.4	7424.3	675.39	7548.4	675.1	7896.74	666.22
7942.66	667.62	8090.86	668.57	8371.84	650.98	8385.34	649.47	8550.89	640.36
8683.85	639.67	8927.6	647.32	9095.13	646.44	9270.63	636.61	9449.12	633.29
9587.39	620.36	9603.91	620.14	9689.89	611.22	9851.21	597.84	9906.16	597.84
9946.45	601.91	10067.99	630.81	10171.19	641.22	10543.01	637.43	10694.66	630.34
10748.18	624.25	10952.24	622.17	11194.21	630.78	11482.14	627.84	12091.08	623.38
13493.49	623.38	13724.31	617.84	14317.67	617.84	14774.15	622.31	14831.77	626.76
15113.69	623.54	15120.38	617.93	15222.66	616.31	15854.65	595.72	16392.68	588.92
16458.68	583.51	16691.06	580.15	16751.02	574.83	16845.36	567.71	17288.63	567.71
17387.04	572.34	17481.38	588.92	17569.08	609.21	17587.87	611.64	17823.6	633.73
18258.74	639.41	18689.15	641.42	20777.15	637.72	20891.09	637.72	21118.04	638.35
21464.06	633.81	22439.41	636.62	22693.91	641.08	24350.85	645.54	24728.95	647.66
25147.37	651.81	25790.55	663.52	26012.03	664.46	27113.98	664.46	27742.18	658.92
28012.94	658.92	28580.51	654.46	28815.54	651.87	28985.16	650.88	29123.59	647.14
29270.54	647.91	29561.26	653.88	29879.36	656.65	30965.12	677.04	31621.91	679.33
32578.97	721.44	32720.05	721.93	33330.13	690.81	33364.45	690.93	34940.17	740.73
35971.77	739.66	36167.01	741.95	36514.95	758.69	36555.93	759.36	36859.07	758.75
37186.98	769.62	37343.32	772.16	38108.96	79038797.03		792.96	39144.01	800

Manning's n Values									
Sta	n Val	Sta	n Val	Sta	n Val				
0	.1516392.68	.1517481.38	.15						
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.			
16392.6817481.38		5	5	5	.1	.3			

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1503608.00	202287.00	1752553.00				
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1503608.00	202287.00	1752553.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2934271.00	596697.50	3199031.00				
Top width (ft)	35556.72	Top width (ft)	15057.83	1088.70	19410.19				
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.95	1.83				
Max Chl Dpth (ft)	192.12	Hydr. Depth (ft)	99.86	185.81	90.29				
Conv. Total (cfs)	734897700.0	Conv. (cfs)	320414500.0	65157740.0	349325500.0				
Length wtd. (ft)	5.00	Wetted Per. (ft)	15070.38	1091.01	19417.29				
Min Ch El (ft)	567.71	Shear (lb/sq ft)	0.52	0.97	0.47				
Alpha	1.06	Stream Power (lb/ft s)	1.02	2.86	0.86				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	113225.10	19985.47	135889.10				
C & E Loss (ft)	0.00	Cum SA (acres)	1020.22	96.08	1219.01				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275582.*

INPUT

Description:

Station Elevation Data										SS_Rev3.rep									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	188.84	745.53	2234.19	745.53	2554.11	744.32	3413.35	720.58	761.54	1465.52	754.35							
1738.8	747.18	1899.06	714.47	3580.21	714.34	3773.16	717.58	3945.3	715.53										
3482.06	716.97	3569.38	709.34	4588.07	700.66	5025.68	693.36	5351.35	691.75										
4082.11	713.37	4229	685.03	5709.6	680.22	6057.14	678.37	6391.96	679.78										
5491.5	690.32	5643.99	672.12	6897.62	667.65	6965.88	663.18	7012.87	663.18										
6527.03	681.06	6738.03	676.34	7426.02	675.34	7550.14	675.07	7898.57	666.23										
7157.07	666.3	7365.64	668.62	8373.78	651.07	8387.28	649.56	8552.87	640.43										
7944.5	667.64	8092.73	647.41	9097.23	646.54	9272.77	636.69	9451.31	633.37										
8685.86	639.74	8929.67	620.23	9692.13	611.29	9853.49	597.88	9908.46	597.88										
9589.61	620.45	9606.13	630.8510173.54		641.2910545.45		637.4910697.13		630.41										
9948.75	601.9610070.32		622.24	11196.8	630.83	11484.8	627.8812093.88		623.41										
10750.67	624.3310954.77		617.8814320.98		617.8814777.57		622.35	14835.2	626.82										
13496.61	623.4113727.49		617.9915226.18		616.3815858.32		595.7516396.47		588.94										
15117.19	623.615123.88		580.1716755.55		574.83	16850.1	567.7117293.61		567.71										
16462.61	583.5216695.47		588.9417574.39		609.2117593.17		611.6317828.88		633.69										
17392.19	572.34	17486.7	641.3620782.11		637.6520896.03		637.6521122.95		638.31										
18263.97	639.3718694.34		636.5922698.66		641.0624355.41		645.5324733.47		647.65										
21468.94	633.7722444.18		663.52	26016.4	664.4727118.24		664.4727746.37		658.94										
25151.85	651.825794.96		654.4728819.61		651.8728989.21		650.8829127.63		647.13										
28017.09	658.9428584.61		653.8829883.32		656.6430968.95		677.0131625.67		679.3										
29274.57	647.929565.24		721.8433333.71		690.7933368.02		690.9134943.57		740.64										
32582.63	721.3532723.69		741.8936518.17		758.6236559.15		759.2936862.25		758.7										
35975.05	739.5936170.27		772.1238112.01		790	38800	792.9739146.95		800										
37190.14	769.5737346.45																		

Manning's n Values					num= 3				
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516396.47		.15	17486.7					

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16396.47	17486.7	5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1503631.00	202560.10	1752925.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1503631.00	202560.10	1752925.00
Q Total (cfs)	6730000.00	Flow (cfs)	2933192.00	597339.70	3199469.00
Top width (ft)	35561.07	Top width (ft)	15061.30	1090.23	19409.55
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.95	1.83
Max Chl Dpth (ft)	192.12	Hydr. Depth (ft)	99.83	185.80	90.31
Conv. Total (cfs)	735073600.0	Conv. (cfs)	320373200.0	65243480.0	349456900.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	15073.86	1092.53	19416.63
Min Ch El (ft)	567.71	Shear (lb/sq ft)	0.52	0.97	0.47
Alpha	1.06	Stream Power (lb/ft s)	1.02	2.86	0.86
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	113052.50	19962.24	135687.90
C & E Loss (ft)	0.00	Cum SA (acres)	1018.49	95.95	1216.78

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275579.*

INPUT

Description:									
Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	188.89	792.52	614.54	776.81	1294.71	761.53	1465.86	754.34
1739.2	747.18	1899.5	745.52	2234.71	745.52	2554.7	744.3	3414.14	720.6
3482.87	716.99	3570.21	714.48	3581.04	714.35	3774.04	717.57	3946.21	715.52
4083.05	713.36	4229.98	709.32	4589.13	700.64	5026.84	693.35	5352.59	691.73
5492.77	690.3	5645.29	685.01	5710.92	680.18	6058.54	678.34	6393.44	679.75
6528.54	681.04	6739.59	672.08	6899.21	667.6	6967.5	663.12	7014.5	663.12
7158.73	666.25	7367.35	676.29	7427.74	675.3	7531.89	675.04	7900.4	666.23
7946.34	667.6	8094.6	668.68	8375.72	651.16	8389.22	649.64	8554.85	640.5
8687.87	639.81	8931.73	647.51	9099.33	646.64	9274.92	636.77	9453.5	633.44
9591.83	620.54	9608.35	620.32	9694.37	611.36	9855.77	597.92	9910.75	597.92
9951.05	602.0110072.65		630.89	10175.9	641.3610547.89		637.5510699.61		630.47
10753.16	624.410957.31		622.3111199.39		630.8711487.46		627.9212096.68		623.44
13499.73	623.4413730.66		617.9214324.29		617.9214780.99		622.414838.63		626.88
15120.68	623.6515127.38		618.05	15229.7	616.4415861.98		595.7716400.26		588.96
16466.54	583.5316699.89		580.1916760.09		574.8416854.83		567.7117298.59		567.71
17397.34	572.3317492.02		588.96	17579.7	609.2117598.48		611.6317834.16		633.65
18269.2	639.3418699.52		641.3120787.06		637.620900.98		637.621127.87		638.26
21473.82	633.7422448.96		636.56	22703.4	641.0424359.97		645.5224737.99		647.65
25156.32	651.825799.36		663.5326020.78		664.48	27122.5	664.4827750.55		658.96
28021.25	658.96	28588.7	654.4828823.68		651.8828993.27		650.8829131.67		647.12
29278.59	647.8829569.23		653.8729887.27		656.6330972.79		676.9931629.43		679.28
32586.29	721.2632727.33		721.7633337.28		690.7733371.59		690.8934946.97		740.56
35978.33	739.5236173.53		741.8336521.39		758.5536562.37		759.2236865.44		758.65
37193.29	769.5337349.58		772.0838115.05		79038802.97		792.9839149.88		800

Manning's n Values					num= 3				
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516400.26		.1517492.02		.15				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16400.2617492.02		5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1503675.00	202834.00	1753264.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1503675.00	202834.00	1753264.00
Q Total (cfs)	6730000.00	Flow (cfs)	2932176.00	597988.30	3199836.00
Top width (ft)	35565.66	Top width (ft)	15065.00	1091.76	19408.88
Vel Total (ft/s)	1.95	Avg. Vel. (ft/s)	1.95	2.95	1.83
Max Chl Dpth (ft)	192.12	Hydr. Depth (ft)	99.81	185.79	90.33

Page 261

Conv. Total (cfs)	735243600.0	Conv. (cfs)	SS_Rev3.rep	320336400.0	65329440.0	349577900.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15077.56	1094.07	19415.94	
Min Ch El (ft)	567.71	Shear (lb/sq ft)	0.52	0.97	0.47	
Alpha	1.06	Stream Power (lb/ft s)	1.02	2.86	0.86	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	112879.90	19938.97	135486.70	
C & E Loss (ft)	0.00	Cum SA (acres)	1016.76	95.83	1214.55	

CROSS SECTION

RIVER: BRAZOS

REACH: UPPER BRAZOS

RS: 275576.*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	188.93	792.52	614.69	776.8	1295.01	761.53	1466.2	754.33			
1739.6	747.17	1899.94	745.51	2235.22	745.51	2555.29	744.29	3414.92	720.61			
3483.67	717	3571.04	714.49	3581.87	714.36	3774.91	717.57	3947.12	715.51			
4084	713.34	4230.96	709.3	4590.19	700.62	5028	693.34	5353.83	691.72			
5494.04	690.28	5646.6	684.98	5712.24	680.14	6059.94	678.3	6394.92	679.73			
6530.05	681.02	6741.15	672.04	6900.81	667.55	6969.11	663.06	7016.12	663.06			
7160.39	666.19	7369.05	676.24	7429.46	675.25	7553.64	675.02	7902.22	666.24			
7948.17	667.68	8096.48	668.74	8377.65	651.25	8391.16	649.73	8556.83	640.57			
8689.88	639.88	8933.8	647.6	9101.44	646.73	9277.06	636.84	9455.68	633.52			
9594.05	620.63	9610.57	620.41	9696.61	611.43	9858.05	597.96	9913.04	597.96			
9953.35	602.05	10074.98	630.94	10178.25	641.43	10550.33	637.61	10702.08	630.54			
10755.64	624.48	10959.84	622.38	11201.98	630.92	11490.11	627.96	12099.48	623.47			
13502.86	623.47	13733.84	617.96	14327.61	617.96	14784.41	622.45	14842.06	626.94			
15124.18	623.71	15130.88	618.11	15233.23	616.51	15865.65	595.81	16404.06	588.98			
16470.47	583.54	16704.3	580.21	16764.63	574.85	16859.57	567.71	17130.57	567.71			
17402.49	572.33	17497.33	588.98	17585	609.21	17603.79	611.63	17839.44	633.62			
18274.43	639.3	18704.7	641.27	20792.01	637.55	20905.92	637.55	21132.79	638.21			
21478.7	633.72	2453.73	636.53	22708.15	641.02	24364.54	645.51	24742.51	647.64			
25160.79	651.82	25803.76	663.54	26025.16	664.49	27126.76	664.49	27754.74	658.98			
28025.41	658.98	28592.8	654.49	28827.75	651.88	28997.32	650.88	29135.71	647.11			
29282.61	647.87	29573.22	653.86	29891.22	656.62	30976.62	676.96	31633.19	679.26			
32589.94	721.18	32730.98	721.67	33340.86	690.75	33375.16	690.87	34950.37	740.47			
35981.62	739.45	36176.79	741.77	36524.62	758.48	36565.59	759.15	36868.62	758.6			
37196.44	769.48	37352.71	772.04	38118.11	7903	38805.95	792.98	39152.82	800			

Manning's n Values

Sta	n Val	Sta	n Val	Sta	n Val
0	.1516404.06	.1517497.33	.15		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16404.06	17497.33	5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1503712.00	203104.60	1753623.00
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1503712.00	203104.60	1753623.00
Q Total (cfs)	6730000.00	Flow (cfs)	2931140.00	598624.80	3200236.00
Top width (ft)	35570.05	Top width (ft)	15068.54	1093.27	19408.24
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.95	2.95	1.82
Max Chl Dpth (ft)	192.12	Hydr. Depth (ft)	99.79	185.78	90.35
Conv. Total (cfs)	735418900.0	Conv. (cfs)	320299500.0	65414560.0	349704800.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15081.10	1095.58	19415.29
Min Ch El (ft)	567.71	Shear (lb/sq ft)	0.52	0.97	0.47
Alpha	1.06	Stream Power (lb/ft s)	1.02	2.86	0.86
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	112707.30	19915.68	135285.40
C & E Loss (ft)	0.00	Cum SA (acres)	1015.03	95.70	1212.33

CROSS SECTION

RIVER: BRAZOS

REACH: UPPER BRAZOS

RS: 275573.*

INPUT

Description:

Station	Elevation	Data	num=	120	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	188.97	792.51	614.83	776.78	1295.31	761.53	1466.54	754.32			
1740.01	747.16	1900.38	745.5	2235.74	745.5	2555.88	744.28	3415.71	720.63			
3484.48	717.02	3571.86	714.5	3582.69	714.37	3775.78	717.56	3948.03	715.5			
4084.94	713.33	4231.94	709.29	4591.25	700.6	5029.17	693.32	5355.07	691.7			
5495.31	690.26	5647.91	684.95	5713.56	680.11	6061.34	678.27	6396.39	679.71			
6531.56	681	6742.71	672	6902.4	667.5	6970.72	663	7017.74	663			
7162.04	666.14	7370.75	676.18	7431.18	675.21	7555.38	674.99	7904.05	666.25			
7950.01	667.69	8098.35	668.79	8379.59	651.34	8393.1	649.82	8558.8	640.64			
8691.88	639.96	8935.86	647.7	9103.54	646.83	9279.21	636.92	9457.87	633.59			
9596.27	620.72	9612.8	620.5	9698.85	611.5	9860.33	598	9915.33	598			
9955.65	602.11	10077.31	630.99	10180.6	641.51	10552.77	637.67	10704.56	630.61			
10758.13	624.56	10962.38	622.46	11204.57	630.97	11492.77	628.12	1202.28	623.5			
13505.98	623.51	13737.01	618.14	14330.92	618.14	14787.83	622.51	14845.49	627			
15127.68	623.75	15134.38	618.18	15236.75	616.56	15869.32	595.83	16407.85	589			
16474.4	583.55	16708.71	580.22	16769.17	574.86	16864.3	567.71	171308.55	567.71			
17407.64	572.32	17502.65	589.17	17590.31	609.21	17609.09	611.62	17844.72	633.58			
18279.66	639.27	18709.89	641.23	20796.97	637.52	20910.86	637.5	21137.7	638.16			
21483.58	633.67	22458.5	636.52	22712.89	641	24369.1	645.52	24747.03	647.64			
25165.27	651.79	25808.17	663.52	26029.54	664.52	27131.01	664.52	27758.93	659			
28029.57	659	28596.9	654.52	28831.82	651.89	29001.37	650.88	29139.74	647.09			
29286.63	647.85	29577.21	653.86	29895.18	656.62	30980.46	676.93	31636.96	679.23			
32593.6	721.09	32734.62	721.59	33344.43	690.73	33378.73	690.83	34953.76	740.38			
35984.9	739.38	36180.05	741.73	36527.84	758.41	36568.81	759.08	36871.81	758.56			
37199.59	769.44	37355.85	772.38	38121.15	7903	38808.92	792.99	39155.75	800			

Manning's n Values

Sta	n Val	Sta	n Val	Sta	n Val
-----	-------	-----	-------	-----	-------

0		.1516407.85	.1517502.65	.15	SS_Rev3.rep		
Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff Contr.	Expan.
	16407.85	17502.65		5	5	.1	.3
CROSS SECTION OUTPUT Profile #PF 1							
E.G. Elev (ft)	759.89		Element	Left OB	Channel	Right OB	
Vel Head (ft)	0.06		wt. n-val.	0.150	0.150	0.150	
W.S. Elev (ft)	759.83		Reach Len. (ft)	5.00	5.00	5.00	
Crit W.S. (ft)			Flow Area (sq ft)	1503734.00	203378.50	1753979.00	
E.G. Slope (ft/ft)	0.000084		Area (sq ft)	1503734.00	203378.50	1753979.00	
Q Total (cfs)	6730000.00		Flow (cfs)	2930064.00	599269.80	3200666.00	
Top width (ft)	35574.16		Top width (ft)	15072.07	1094.80	19407.29	
Vel Total (ft/s)	1.94		Avg. Vel. (ft/s)	1.95	2.95	1.82	
Max Chl Dpth (ft)	192.12		Hydr. Depth (ft)	99.77	185.77	90.38	
Conv. Total (cfs)	735592700.0		Conv. (cfs)	320257600.0	65500510.0	349834600.0	
Length wtd. (ft)	5.00		Wetted Per. (ft)	15084.62	1097.11	19414.33	
Min Ch El (ft)	567.71		Shear (lb/sq ft)	0.52	0.97	0.47	
Alpha	1.06		Stream Power (lb/ft s)	1.02	2.85	0.86	
Frctn Loss (ft)	0.00		Cum Volume (acre-ft)	112534.70	19892.35	135084.10	
C & E Loss (ft)	0.00		Cum SA (acres)	1013.30	95.57	1210.10	

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275571.*

INPUT

Description:		Station Elevation Data		num= 120	
Sta	Elev	Sta	Elev	Sta	Elev
0	800	189.02	792.51	614.97	776.77
1740.41	747.16	1900.82	745.49	2236.26	745.49
3485.28	717.03	3572.69	714.51	3583.52	714.38
4085.89	713.32	4232.92	709.27	4592.31	700.58
5496.58	690.24	5649.21	684.93	5714.88	680.07
6533.07	680.98	6744.27	671.96	6904	667.45
7163.7	666.09	7372.46	676.13	7432.89	675.16
7951.85	667.71	8100.22	668.85	8381.53	651.43
8693.89	640.03	8937.93	647.79	9105.65	646.93
9598.48	620.81	9615.02	620.59	9701.1	611.57
9957.95	602.15	10079.64	631.03	10182.96	641.57
10760.62	624.64	10964.91	622.53	11207.16	631.01
13509.1	623.53	13740.19	618.04	14334.23	618.04
15131.17	623.81	15137.87	618.24	15240.27	616.62
16478.33	583.57	16713.13	580.24	16773.71	574.87
17412.79	572.32	17507.97	589.02	17595.62	609.21
18284.89	639.23	18715.07	641.19	1920801.92	637.45
21488.46	633.63	22463.27	636.47	22717.63	640.98
25169.74	651.79	25812.57	663.56	26033.92	664.51
28033.73	659.02	28860.99	654.51	28835.89	651.89
29290.65	647.84	29581.2	653.85	29899.13	656.61
32597.26	721.01	32738.26	721.5	33348	690.71
35988.18	739.33	36183.32	741.64	36531.07	758.34
37202.73	769.39	37358.98	771.96	38124.2	79038811.89

Manning's n Values		num= 3	
Sta	n Val	Sta	n Val
0	.1516411.64	.1517507.97	.15

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff Contr.	Expan.
	16411.64	17507.97		5	5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.89		Element	Left OB	Channel	Right OB	
Vel Head (ft)	0.06		wt. n-val.	0.150	0.150	0.150	
W.S. Elev (ft)	759.83		Reach Len. (ft)	5.00	5.00	5.00	
Crit W.S. (ft)			Flow Area (sq ft)	1503768.00	203654.80	1754347.00	
E.G. Slope (ft/ft)	0.000084		Area (sq ft)	1503768.00	203654.80	1754347.00	
Q Total (cfs)	6730000.00		Flow (cfs)	2929001.00	599922.70	3201077.00	
Top width (ft)	35578.57		Top width (ft)	15075.59	1096.33	19406.65	
Vel Total (ft/s)	1.94		Avg. Vel. (ft/s)	1.95	2.95	1.82	
Max Chl Dpth (ft)	192.13		Hydr. Depth (ft)	99.75	185.76	90.40	
Conv. Total (cfs)	735772500.0		Conv. (cfs)	320219600.0	65587900.0	349964900.0	
Length wtd. (ft)	5.00		Wetted Per. (ft)	15088.15	1098.64	19413.67	
Min Ch El (ft)	567.70		Shear (lb/sq ft)	0.52	0.97	0.47	
Alpha	1.06		Stream Power (lb/ft s)	1.01	2.85	0.86	
Frctn Loss (ft)	0.00		Cum Volume (acre-ft)	112362.10	19868.99	134882.80	
C & E Loss (ft)	0.00		Cum SA (acres)	1011.57	95.45	1207.87	

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275568.*

INPUT

Description:		Station Elevation Data		num= 120	
Sta	Elev	Sta	Elev	Sta	Elev
0	800	189.06	792.5	615.11	776.76
1740.81	747.15	1901.26	745.48	2236.77	745.48
3486.09	717.05	3573.51	714.52	3584.35	714.39
4086.83	713.3	4233.89	709.25	4593.38	700.56
5497.85	690.22	5650.52	684.9	5716.2	680.03
6534.38	680.96	6745.83	671.92	6905.6	667.4
7165.35	666.04	7374.16	676.08	7434.61	675.11
7953.69	667.73	8102.09	668.91	8383.46	651.52
8695.9	640.1	8940	647.89	9107.75	647.02
9600.7	620.9	9617.24	620.68	9703.34	611.64
9960.25	602.21	10081.97	631.08	10185.31	641.64

SS_Rev3.rep									
10763.1	624.7110967.45	622.611209.75	631.0611498.08	628.0812107.87	623.56				
13512.22	623.5613743.36	618.0814337.54	618.0814794.66	622.614852.36	627.12				
15134.67	623.8615141.37	618.315243.79	616.6815876.66	595.8816415.44	589.04				
16482.26	583.5816717.54	580.2616778.24	574.8816873.77	567.717318.51	567.7				
17417.95	572.3117513.28	589.0417600.93	609.2 17619.7	611.6217855.28	633.51				
18290.12	639.1918720.26	641.1520806.88	637.420920.74	637.421147.54	638.06				
21493.34	633.5922468.04	636.4422722.38	640.9624378.22	645.4824756.07	647.63				
25174.22	651.7925816.97	663.57 26038.3	664.5227139.53	664.5227767.31	659.04				
28037.89	659.0428605.09	654.5228839.96	651.8929009.47	650.8729147.81	647.07				
29294.67	647.8229585.19	653.8429903.09	656.630988.12	676.8731644.48	679.18				
32600.91	720.92 32741.9	721.4233351.58	690.6933385.88	690.8134960.56	740.2				
35991.47	739.2336186.58	741.5836534.29	758.2736575.25	758.9536878.18	758.46				
37205.89	769.3437362.11	771.9238127.25	79038814.86	79339161.62	800				
Manning's n values									
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516415.44	.1517513.28	.15						
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
16415.4417513.28 5 5 5 .1 .3									
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.83	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1503813.00	203925.00	1754714.00				
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1503813.00	203925.00	1754714.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2927960.00	600552.50	3201487.00				
Top width (ft)	35583.11	Top width (ft)	15079.25	1097.84	19406.01				
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.95	2.94	1.82				
Max Chl Dpth (ft)	192.12	Hydr. Depth (ft)	99.73	185.75	90.42				
Conv. Total (cfs)	735951300.0	Conv. (cfs)	320183700.0	65672720.0	350094900.0				
Length wtd. (ft)	5.00	wetted Per. (ft)	15091.82	1100.16	19413.02				
Min Ch El (ft)	567.70	Shear (lb/sq ft)	0.52	0.97	0.47				
Alpha	1.06	Stream Power (lb/ft s)	1.01	2.85	0.86				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	112189.50	19845.59	134681.40				
C & E Loss (ft)	0.00	Cum SA (acres)	1009.84	95.32	1205.64				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275565.*

INPUT

Description: Station Elevation Data									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	189.1	792.5	615.26	776.75	1296.21	761.52	1467.56	754.3
1741.21	747.14	1901.7	745.47	2237.29	745.47	2557.65	744.24	3418.08	720.68
3486.89	717.07	3574.34	714.53	3585.18	714.4	3778.4	717.54	3950.77	715.47
4087.77	713.29	4234.87	709.24	4594.44	700.54	5032.65	693.28	5358.78	691.64
5499.12	690.2	5651.82	684.87	5717.52	680	6065.54	678.17	6400.83	679.64
6536.09	680.94	6747.39	671.88	6907.19	667.35	6975.55	662.82	7022.61	662.82
7167.01	665.98	7375.86	676.03	7436.33	675.07	7560.62	674.91	7909.53	666.27
7955.52	667.74	8103.96	668.96	8385.4	651.6	8398.92	650.09	8564.74	640.86
8697.91	640.18	8942.06	647.98	9109.86	647.12	9285.64	637.16	9464.43	633.81
9602.92	620.99	9619.46	620.77	9705.58	611.71	9867.16	598.12	9922.21	598.12
9962.55	602.25	10084.29	631.13	10187.66	641.71	10560.08	637.86	10711.98	630.81
10765.59	624.79	10969.98	622.67	11212.34	631.11	11500.74	628.12	12110.67	623.59
131515.34	623.59	13746.54	618.12	14340.86	618.12	14798.08	622.65	14855.79	627.18
15138.17	623.91	15144.87	618.37	15247.31	616.74	15880.33	595.91	16419.23	589.06
16486.19	583.59	16721.95	580.28	16782.78	574.89	16878.5	567.71	17323.49	567.7
17423.1	572.31	17518.6	589.06	17606.23	609.21	17625.01	611.62	17860.55	633.47
18295.36	639.16	18725.44	641.11	180811.83	637.35	20925.69	637.35	21152.45	638.01
21498.22	633.56	22472.81	636.41	22727.12	640.94	24382.78	645.47	24760.59	647.62
25178.69	651.78	25821.38	663.59	26042.68	664.53	27143.79	664.53	27771.5	659.06
28042.05	659.06	28609.19	654.53	28844.03	651.92	29013.53	650.87	29151.85	647.05
29298.69	647.81	29589.18	653.83	29907.04	656.59	30991.96	676.84	31648.24	679.16
32604.57	720.83	32745.54	721.33	33355.15	690.67	33389.45	690.79	34963.95	740.12
35994.75	739.16	36189.84	741.51	36537.51	758.23	36578.47	758.83	36881.37	758.41
37209.04	769.33	37365.25	771.88	38130.3	790388	17.84	793.01	39164.55	800

Manning's n values									
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.1516419.23	.15	17518.6	.15					
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
16419.23 17518.6 5 5 5 .1 .3									

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.82	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1503842.00	204197.50	1755060.00				
E.G. Slope (ft/ft)	0.000084	Area (sq ft)	1503842.00	204197.50	1755060.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2926928.00	601194.60	3201878.00				
Top width (ft)	35587.48	Top width (ft)	15082.78	1099.37	19405.33				
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.95	2.94	1.82				
Max Chl Dpth (ft)	192.12	Hydr. Depth (ft)	99.71	185.74	90.44				
Conv. Total (cfs)	736120600.0	Conv. (cfs)	320144400.0	65758050.0	350218200.0				
Length wtd. (ft)	5.00	wetted Per. (ft)	15095.33	1101.69	19412.32				
Min Ch El (ft)	567.70	Shear (lb/sq ft)	0.52	0.97	0.47				
Alpha	1.06	Stream Power (lb/ft s)	1.01	2.85	0.86				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	112016.90	19822.17	134479.90				
C & E Loss (ft)	0.00	Cum SA (acres)	1008.11	95.20	1203.42				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275562.*

INPUT		Description:											
Station	Elevation	Data	num= 120										
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	189.15	792.5	615.4	775.73	1296.51	761.52	1467.9	754.29				
1741.02	747.14	1902.14	745.46	2237.81	745.46	2558.24	744.23	3418.87	720.7				
3488.77	717.08	3575.16	714.54	3586.01	714.41	3779.27	717.54	3951.68	715.46				
4080.72	713.27	4235.85	709.22	4595.5	700.52	5033.82	693.26	5360.02	691.62				
5100.39	680.12	5653.13	684.84	5718.84	679.96	6066.37	678.14	6402.31	675.61				
6337.66	665.93	6748.44	661.74	6908.79	666.3	6977.16	662.76	7024.23	662.76				
7189.66	660.93	7557.57	675.92	7438.05	675.02	7562.97	674.88	7911.36	666.27				
7957.36	667.76	8105.84	669.02	8387.34	651.69	8400.87	650.18	8566.72	640.93				
8699.92	640.25	8944.13	648.08	9111.96	647.22	9287.79	637.24	9466.61	633.89				
9605.14	621.08	9621.69	620.86	9707.82	611.78	9869.44	598.16	9924.5	598.16				
9964.86	602.31	10068.62	631.17	10190.02	641.78	10562.52	637.92	10710.74	630.88				
10768.08	624.87	107972.51	622.75	11214.93	631.15	11503.4	628.16	12113.47	623.62				
13518.47	623.62	13749.71	618.16	14344.17	618.16	14801.5	622.71	14859.22	627.24				
15141.67	623.97	151148.37	618.43	15250.84	616.8	15884	595.93	16423.02	589.08				
16490.12	583.61	16726.37	580.29	16787.32	574.91	16883.24	567.71	17328.47	567.7				
17428.25	572.31	171523.92	589.08	18761.54	609.21	17630.31	611.61	17865.83	633.44				
18300.59	639.12	18730.62	641.06	18818.79	637.32	19093.63	637.32	19093.63	637.32				
21503.1	633.52	22247.59	636.38	222731.87	640.92	224387.34	645.46	2475.11	647.62				
25188.17	651.78	28282.78	663.62	262047.06	664.54	2427148.04	664.54	272775.69	659.08				
28046.21	659.08	28613.28	654.54	28848.1	651.92	9017.58	650.87	29155.89	647.04				
29302.71	647.82	29593.16	653.83	29919.09	656.59	30995.79	676.81	31652	679.14				
32608.23	720.75	32749.18	721.25	33358.73	690.63	33393.02	690.77	34967.35	740.03				
35998.04	739.09	363193.11	741.45	365450.74	758.13	363851.69	758.81	368684.56	758.37				
37212.19	769.25	37368.38	771.84	383133.35		79038820.81	793.02	39167.49	800				

CROSS SECTION OUTPUT Profile #PF 1

CROSS SECTION

INPUT			Description:			Station Elevation Data			num= 120		
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	189.19	792.49	615.54	776.72	1296.81	761.51	1468.23	754.28		
1742.02	747.13	1902.58	745.45	2238.32	745.45	2558.83	744.22	3419.66	720.71		
3488.51	717.1	3575.99	714.55	3586.84	710.42	3780.15	717.53	3952.6	715.45		
4089.66	713.26	4236.83	709.2	4596.56	704.51	5034.98	693.25	5361.26	691.61		
5501.66	690.17	5654.43	684.82	5720.18	679.92	5968.35	678.1	6403.79	679.59		
6539.11	680.9	6750.53	671.8	6838.16	664.25	6938.78	662.7	7025.85	662.8		
7170.32	668.2	7275.27	675.92	7439.76	674.98	7564.12	674.85	7913.19	666.28		
7959.2	667.78	8106.71	669.08	8389.28	651.78	8402.81	650.26	8568.7	641		
8701.93	640.32	8946.19	648.17	9114.07	647.31	9289.94	637.31	9468.8	633.96		
9607.36	621.18	9623.91	620.95	9710.06	611.85	9871.72	598.2	9926.79	598.2		
9967.16	602.35	10088.93	631.2	12019.02	641.85	15056.64	637.98	10716.93	630.95		
10770.56	624.94	10975.05	622.82	121127.52	631.21	1506.05	628.21	12116.26	623.65		
13521.59	623.65	13752.89	618.21	24347.48	618.21	2480.92	622.75	14862.65	627.3		
15145.16	624.02	15151.87	618.49	25254.36	616.86	18615887.66	595.95	196426.81	589.1		
16494.05	583.61	161730.78	580.31	116791.86	574.91	161688.77	567.71	17333.45	567.7		
17433.4	572.31	17529.23	589.17	17616.85	609.21	17635.62	611.61	17871.11	633.4		
18305.82	639.09	18373.81	641.02	20282.174	637.2	2520935.57	637.25	12162.29	637.92		
21507.98	633.48	24822.84	636.35	22736.61	640.94	92491.91	645.45	27967.63	647.61		
22507.64	651.78	25830.18	663.62	126051.44	664.55	27152.3	664.55	32779.88	659.03		
28055.77	639.88	2877.38	663.52	25885.17	651.91	92021.63	650.87	29159.93	647.3		
29306.73	647.78	29597.15	653.82	292994.95	656.58	30999.63	676.78	31655.77	679.11		
32611.88	720.66	32752.82	721.16	33362.3	690.63	33396.59	690.73	34907.75	739.94		
36001.32	739.02	36196.37	741.39	39654.96	758.06	36584.91	758.74	363887.74	758.32		
37215.34	769.21	373731.51	771.8	38136.4	79038823.79		793.02	39107.43	800		

CROSS SECTION OUTPUT Profile #PF 1

Page 265 of 1616

Top width (ft)	35596.18	Top width (ft)	SS_Rev3.rep	15090.02	1102.42	19403.74
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)		1.94	2.94	1.82
Max Chl Dpth (ft)	192.12	Hydr. Depth (ft)		99.66	185.72	90.49
Conv. Total (cfs)	736471400.0	Conv. (cfs)		320064400.0	65929490.0	350477500.0
Length wtd. (ft)	5.00	Wetted Per. (ft)		15102.58	1104.74	19410.71
Min Ch El (ft)	567.70	Shear (lb/sq ft)		0.52	0.97	0.47
Alpha	1.06	Stream Power (lb/ft s)		1.01	2.84	0.86
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)		111671.60	19775.23	134077.00
C & E Loss (ft)	0.00	Cum SA (acres)		1004.64	94.94	1198.96

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275556.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	189.24	792.49	615.68	776.71	1297.11	761.51	1468.57	754.27		
1742.42	747.13	1903.02	745.44	2238.84	745.44	2559.42	744.2	3420.45	720.73		
3489.31	717.11	3576.82	714.56	3587.66	714.43	3781.02	717.53	3953.51	715.44		
4090.61	713.24	4237.81	709.19	4597.62	700.49	5036.14	693.23	5362.5	691.59		
5502.93	690.15	5655.74	684.79	5721.48	679.89	6069.75	678.07	6405.27	679.57		
6540.62	680.88	6752.06	671.76	6911.98	667.2	6980.39	662.64	7027.47	662.64		
7171.98	665.82	7380.98	675.87	7441.48	674.93	7565.86	674.82	7915.02	666.29		
7961.04	667.8	8109.58	669.13	8391.21	651.87	8404.75	650.35	8570.68	641.07		
8703.94	640.39	8948.26	648.27	9116.17	647.41	9292.08	637.39	9470.99	634.04		
9609.58	621.27	9626.13	621.04	9712.31	611.92	9874	598.24	9929.08	598.24		
9969.46	602.41	10091.28	611.27	10194.72	641.92	10567.4	638.04	10719.4	631.02		
10773.05	625.02	10977.58	622.89	11220.11	631.24	11508.71	628.24	12119.06	623.68		
13524.71	623.68	13756.07	618.24	14350.8	618.24	14808.34	622.81	14866.08	627.36		
15148.66	624.07	15155.37	618.55	15257.88	616.92	15891.33	595.98	16430.61	589.12		
16497.98	583.62	16735.19	580.33	16796.39	574.92	16892.7	567.71	17338.42	567.7		
17438.55	572.31	17534.55	589.12	17622.15	609.21	17640.92	611.61	17876.39	633.36		
18311.05	639.05	18740.99	640.98	20826.7	637.22	20940.51	637.22	1167.21	637.87		
21512.86	633.45	22487.13	636.32	22741.35	640.88	24396.47	645.44	24774.15	647.6		
25192.11	651.77	25834.59	663.62	26055.81	664.56	27156.56	664.56	27784.06	659.12		
28054.53	659.12	28621.48	654.56	28856.24	651.91	29025.68	650.87	29163.96	647.02		
29310.75	647.77	29601.14	653.81	29918.9	656.57	31003.46	676.75	31659.53	679.09		
32615.54	720.57	32756.46	721.07	33365.88	690.63	3400.16	690.73	34974.14	739.85		
36004.61	738.95	36199.63	741.33	36547.18	757.99	36588.13	758.67	36890.93	758.27		
37218.49	769.16	37374.64	771.76	38139.45	790.38	38826.76	793.03	39173.36	800		

Manning's n	Values	num=	3	n Val	Sta	n Val
0	.1516430.61	.1516430.61	.1517534.55	.15		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16430.61	17534.55	5	5	5	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.89	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.82	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1503939.00	205014.50	1756149.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1503939.00	205014.50	1756149.00
Q Total (cfs)	6730000.00	Flow (cfs)	2923752.00	603105.40	3203143.00
Top width (ft)	35600.59	Top width (ft)	15093.55	1103.94	19403.10
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.94	2.94	1.82
Max chl dpth (ft)	192.12	Hydr. Depth (ft)	99.66	185.71	90.51
Conv. Total (cfs)	736648700.0	Conv. (cfs)	320026500.0	66014380.0	350607900.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	15106.11	1106.27	19410.04
Min Ch El (ft)	567.70	Shear (lb/sq ft)	0.52	0.97	0.47
Alpha	1.06	Stream Power (lb/ft s)	1.01	2.84	0.86
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	111499.00	19751.71	133875.40
C & E Loss (ft)	0.00	Cum SA (acres)	1002.91	94.82	1196.73

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275553.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	189.28	792.48	615.82	776.7	1297.41	761.51	1468.91	754.27		
1742.82	747.12	1903.45	745.43	2239.36	745.43	2560.01	744.19	3421.24	720.75		
3490.12	717.13	3577.64	714.57	3588.49	714.44	3781.89	717.52	3954.42	715.43		
4091.55	713.23	4238.79	709.17	4598.68	700.47	5037.3	693.22	5363.73	691.57		
5504.2	690.13	5657.05	684.76	5722.8	679.85	6071.15	678.04	6406.74	679.55		
6542.12	680.86	6753.62	671.72	6913.57	667.15	6982	662.58	7029.1	662.58		
7173.63	665.77	7382.68	675.81	7443.2	674.88	7567.61	674.8	7916.84	666.29		
7962.88	667.81	8111.45	669.19	8393.15	651.96	8406.69	650.44	8572.65	641.14		
8705.95	640.47	8950.32	648.36	9118.28	647.51	9294.23	637.47	9473.17	634.11		
9611.79	621.36	9628.35	621.13	9714.55	611.99	9876.28	598.28	9931.38	598.28		
9971.76	602.45	10093.61	631.31	10197.08	641.99	10569.84	638.11	10721.88	631.09		
10775.54	625.11	10980.12	622.96	11222.7	631.29	11511.37	628.28	12121.86	623.71		
13527.83	623.71	13759.24	618.28	14354.11	618.28	14811.75	622.85	14869.52	627.42		
15152.16	624.12	15158.87	618.62	15261.4	616.98	15895	596.01	16434.4	589.14		
16501.91	583.64	16739.61	580.35	16800.93	574.93	16897.44	567.7	17343.4	567.7		
17443.71	572.29	17539.87	589.14	17627.46	609.19	17646.23	611.61	17881.67	633.33		
18316.08	639.02	18746.18	640.94	20831.65	637.15	20945.46	637.15	21172.12	637.82		
21517.73	633.41	22491.9	636.29	22746.1	640.86	24401.03	645.43	24778.67	647.6		
25196.59	651.77	25838.99	663.63	26060.19	664.57	27160.82	664.57	27788.25	659.14		
28058.68	659.14	28625.57	654.57	28860.31	651.92	29029.73	650.87	29168	647		
29314.77	647.75	29605.13	653.81	29922.86	656.56	31007.29	676.72	31663.29	679.07		
32619.2	720.49	32760.11	720.99	33369.45	690.58	33403.73	690.71	34977.54	739.76		
36007.89	738.87	36202.89	741.26	36550.41	757.92	36591.35	758.63	36894.12	758.22		
37221.64	769.12	37377.78	771.72	38142.5	790.38	38829.73	793.04	39176.3	800		

SS_Rev3.rep

Manning's n Values num= 3
Sta n Val Sta n Val
0 .15 16434.4 .1517539.87 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
16434.417539.87 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

Element	Left OB	Channel	Right OB
E.G. Elev (ft)	759.88		
Vel Head (ft)	0.06		
W.S. Elev (ft)	759.82		
Crit W.S. (ft)			
E.G. Slope (ft/ft)	0.000083		
Q Total (cfs)	6730000.00		
Top width (ft)	35604.91		
Vel Total (ft/s)	1.94		
Max Chl Dpth (ft)	192.12		
Conv. Total (cfs)	736819900.0		
Length wtd. (ft)	5.00		
Min Ch El (ft)	567.70		
Alpha	1.06		
Frctn Loss (ft)	0.00		
C & E Loss (ft)	0.00		
Element			
wt. n-Val.	0.150	0.150	0.150
Reach Len. (ft)	5.00	5.00	5.00
Flow Area (sq ft)	1503964.00	205286.00	1756504.00
Area (sq ft)	1503964.00	205286.00	1756504.00
Flow (cfs)	2922705.00	603740.40	3203555.00
Top width (ft)	15097.02	1105.47	19402.41
Avg. Vel. (ft/s)	1.94	2.94	1.82
Hydr. Depth (ft)	99.62	185.70	90.53
Conv. (cfs)	319986200.0	66099240.0	350734400.0
wetted Per. (ft)	15109.57	1107.80	19409.34
Shear (lb/sq ft)	0.52	0.97	0.47
Stream Power (lb/ft s)	1.01	2.84	0.86
Cum Volume (acre-ft)	111326.40	19728.16	133673.80
Cum SA (acres)	1001.18	94.69	1194.51

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275550.*

INPUT

Description:

Station	Elevation	Data	num=	120
Sta	Elev	Sta	Elev	Sta
0	800	189.32	792.48	615.97
1743.22	747.11	1903.89	745.42	2239.88
3490.92	717.14	3578.47	714.58	3589.32
4092.5	713.21	4239.76	709.15	4599.74
5505.47	690.11	5658.35	684.74	5724.12
6543.64	680.84	6755.18	671.68	6915.17
7175.29	665.72	7384.38	675.76	7444.92
7964.71	667.83	8113.33	669.25	8395.09
8707.96	640.54	8952.39	648.46	9120.38
9614.01	621.45	9630.57	621.22	9716.79
9974.06	602.51	10095.94	631.36	10199.43
10778.03	625.17	10982.65	623.03	11225.29
13530.96	623.74	13762.42	618.32	14357.42
15153.65	624.18	15162.36	618.68	15264.93
16505.84	583.65	16744.02	580.36	16805.47
17448.86	572.29	17545.19	589.16	17632.77
18321.52	638.98	18751.36	640.92	18836.61
21522.61	633.37	22496.67	636.26	22750.84
25201.06	651.77	25843.39	663.64	26064.57
28062.84	659.16	28629.67	654.58	28864.38
29318.79	647.74	29609.12	653.82	29926.81
32622.85	720.43	32763.75	720.93	33373.02
36011.17	738.83	36206.16	741.23	36553.63
37224.79	769.07	37380.91	771.68	38145.54
			790	38832.7
			793	0439179.23

Manning's n Values num= 3
Sta n Val Sta n Val
0 .1516438.19 .1517545.19 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
16438.1917545.19 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

Element	Left OB	Channel	Right OB
E.G. Elev (ft)	759.88		
Vel Head (ft)	0.06		
W.S. Elev (ft)	759.82		
Crit W.S. (ft)			
E.G. Slope (ft/ft)	0.000083		
Q Total (cfs)	6730000.00		
Top width (ft)	35609.30		
Vel Total (ft/s)	1.94		
Max Chl Dpth (ft)	192.12		
Conv. Total (cfs)	737000000.0		
Length wtd. (ft)	5.00		
Min Ch El (ft)	567.70		
Alpha	1.06		
Frctn Loss (ft)	0.00		
C & E Loss (ft)	0.00		
Element			
wt. n-Val.	0.150	0.150	0.150
Reach Len. (ft)	5.00	5.00	5.00
Flow Area (sq ft)	1504000.00	205560.10	1756873.00
Area (sq ft)	1504000.00	205560.10	1756873.00
Flow (cfs)	2921653.00	604379.90	3203968.00
Top width (ft)	15100.55	1107.00	19401.76
Avg. Vel. (ft/s)	1.94	2.94	1.82
Hydr. Depth (ft)	99.60	185.69	90.55
Conv. (cfs)	319949200.0	66185430.0	350865400.0
wetted Per. (ft)	15113.11	1109.33	19408.67
Shear (lb/sq ft)	0.52	0.96	0.47
Stream Power (lb/ft s)	1.01	2.84	0.86
Cum Volume (acre-ft)	111153.70	19704.58	133472.20
Cum SA (acres)	999.44	94.56	1192.28

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275547.*

INPUT

Description:

Station	Elevation	Data	num=	120
Sta	Elev	Sta	Elev	Sta
0	800	189.37	792.47	616.11
1743.63	747.11	1904.33	745.41	2240.39
3491.73	717.16	3579.29	714.59	3590.15
4093.44	713.2	4240.74	709.14	4600.8
5506.74	690.09	5659.66	684.71	5725.45
6545.15	680.82	6756.74	671.64	6916.77
7176.94	665.66	7386.09	675.71	7446.64
7966.55	667.85	8115.2	669.3	8397.02
			652.14	8410.57
			650.62	8576.61

Page 267

SS_Rev3.rep									
8709.97	640.61	8954.46	648.55	9122.48	647.7	9298.52	637.63	9477.55	634.26
9616.23	621.54	9632.8	621.31	9719.03	612.13	9880.84	598.36	9935.96	598.36
9976.36	602.55	10098.27	631.41	10201.78	642.13	10574.72	638.22	10726.83	631.22
10780.51	625.25	10985.18	623.11	11227.88	631.38	11516.68	628.36	12127.46	623.77
13534.08	623.77	13765.59	618.36	14360.73	618.36	14818.59	622.95	14876.38	627.54
15159.15	624.23	15165.86	618.74	15268.45	617.11	15902.34	596.06	16441.99	589.18
16509.77	583.66	16748.43	580.38	16810.01	574.95	16906.91	567.71	17353.36	567.7
17454.01	572.29	17550.5	589.18	17638.08	609.19	17656.84	611.61	17892.23	633.25
18326.75	638.95	18756.54	640.86	20841.56	637.05	20955.34	637.05	21181.96	637.72
21527.49	633.34	22501.45	636.23	22755.58	640.82	24410.15	645.41	24787.71	647.59
25205.54	651.76	25847.8	663.66	26068.95	664.59	27169.33	664.59	27796.63	659.18
28067	659.18	28633.77	654.59	28868.46	651.92	29037.84	650.86	29176.07	646.98
29322.81	647.72	29613.11	653.79	29930.76	656.53	31014.96	676.67	31670.81	679.02
32626.51	720.31	32767.39	720.82	33376.6	690.54	33410.87	690.67	34984.34	739.59
36014.46	738.73	36209.42	741.14	36556.86	757.78	36597.79	758.46	36900.49	758.13
37227.94	769.02	37384.04	771.64	38148.59	790.38	38835.68	793.05	39182.16	800
Manning's n Values									
Sta	n Val	Sta	num=	3	Sta	n Val	Sta	n Val	Sta
0	.1516441.99		.15	17550.5		.15			
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.		
16441.99	17550.5	5	5	5	.1	.3			
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.88	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.82	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1504032.00	205829.00	1757201.00				
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504032.00	205829.00	1757201.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2920630.00	605014.30	3204356.00				
Top width (ft)	35613.65	Top width (ft)	15104.28	1108.51	19400.86				
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.94	2.94	1.82				
Max Ch Dpth (ft)	192.12	Hydr. Depth (ft)	99.58	185.68	90.57				
Conv. Total (cfs)	737163200.0	Conv. (cfs)	319908000.0	66269580.0	350985600.0				
Length wtd. (ft)	5.00	Wetted Per. (ft)	15116.83	1110.84	19407.77				
Min Ch El (ft)	567.70	Shear (lb/sq ft)	0.52	0.96	0.47				
Alpha	1.06	Stream Power (lb/ft s)	1.01	2.83	0.86				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	110981.10	19680.97	133270.50				
C & E Loss (ft)	0.00	Cum SA (acres)	997.71	94.44	1190.05				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275544.*

INPUT

Description:									
Station Elevation Data									
Sta	Elev	Sta	num=	120	Sta	Elev	Sta	Elev	Sta
0	800	189.41	792.47	616.25	776.66	1298.3	761.5	1469.93	754.24
1744.03	747.1	1904.77	745.4	2240.91	745.4	2561.79	744.15	3423.61	720.8
3492.53	717.17	3580.12	714.6	3590.98	714.47	3784.51	717.51	3957.16	715.4
4094.39	713.18	4241.72	709.12	4601.87	700.41	5040.79	693.17	5367.45	691.51
5508.01	690.07	5660.96	684.68	5726.77	679.74	6075.35	677.94	6411.18	679.48
6546.65	680.8	6758.3	671.6	6918.36	667	6986.83	662.4	7033.96	662.4
7178.6	665.61	7387.79	675.66	7448.35	674.75	7572.85	674.72	7922.32	666.31
7968.39	667.86	8117.07	669.36	8398.96	652.22	8412.51	650.71	8578.59	641.36
8711.98	640.68	8956.52	648.65	9124.59	647.8	9300.66	637.71	9479.73	634.34
9618.45	621.63	9635.02	621.4	9721.28	612.2	9883.12	598.4	9938.25	598.4
9978.67	602.6	10100.6	631.45	10204.14	642.21	10577.16	638.29	10729.3	631.29
10783	625.33	10987.72	623.18	11230.47	631.43	11519.34	628.41	12130.25	623.8
13537.2	623.81	13768.77	618.41	14364.05	618.41	14822.01	623.14	14879.81	627.6
15162.65	624.28	15169.36	618.81	15271.97	617.17	15906.01	596.08	16445.78	589.2
16513.7	583.67	16752.85	580.41	16814.55	574.96	16911.64	567.69	17353.34	567.69
17459.16	572.31	17555.82	589.21	17643.98	609.19	17662.14	611.59	17897.51	633.22
18331.98	638.91	18761.73	640.81	20846.52	637.20	20960.28	637.21	21186.87	637.67
21532.37	633.32	2506.22	636.22	2760.33	640.82	4414.71	645.42	4792.23	647.58
25210.01	651.76	25852.2	663.67	26073.33	664.62	27173.59	664.62	27800.82	659.2
28071.16	659.22	28637.86	654.62	28872.53	651.93	29041.89	650.86	29180.11	646.96
29326.84	647.71	29617.1	653.79	29934.72	656.54	31018.8	676.64	31674.58	678.99
32630.17	720.23	32771.03	720.73	33380.17	690.52	33414.44	690.65	34987.73	739.5
36017.74	738.66	36362.12	741.07	36560.08	757.71	36601.01	758.43	36903.68	758.08
37231.09	768.98	37387.18	771.63	38151.64	790.38	38838.65	793.06	39185.1	800

Manning's n Values									
Sta	n Val	Sta	num=	3	Sta	n Val	Sta	n Val	Sta
0	.1516445.78		.1517555.82		.15				
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.		
16445.78	17555.82	5	5	5	.1	.3			

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.88	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.82	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1504063.00	206108.00	1757578.00				
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504063.00	206108.00	1757578.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2919549.00	605672.60	3204779.00				
Top width (ft)	35618.01	Top width (ft)	15107.80	1110.04	19400.17				
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.94	2.94	1.82				
Max Ch Dpth (ft)	192.13	Hydr. Depth (ft)	99.56	185.68	90.60				
Conv. Total (cfs)	737347100.0	Conv. (cfs)	319869400.0	66358240.0	351119500.0				
Length wtd. (ft)	5.00	Wetted Per. (ft)	15120.36	1112.37	19407.06				
Min Ch El (ft)	567.69	Shear (lb/sq ft)	0.52	0.96	0.47				
Alpha	1.06	Stream Power (lb/ft s)	1.00	2.83	0.86				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	110808.50	19657.33	133068.80				
C & E Loss (ft)	0.00	Cum SA (acres)	995.98	94.31	1187.83				

CROSS SECTION

Page 269 of 1616

Crit W.S. (ft)		Flow Area (sq ft)	1504123.00	206650.90	1758298.00
E.G. Slope (ft/ft)		Area (sq ft)	1504123.00	206650.90	1758298.00
Q Total (cfs)		Flow (cfs)	2917446.00	606941.80	3205613.00
Top width (ft)		Top width (ft)	15114.99	1113.08	19398.83
Vel total (ft/s)		Avg. Vel. (ft/s)	1.94	2.94	1.82
Max Ch. Dpth (ft)		Hydr. Depth (ft)	9.51	185.66	90.64
Total Conv. (cfs)		Conv. (cfs)	319789000.0	66528500.0	351375700.0
Length wtd. (ft)		Wetted Per. (ft)	15127.55	1115.42	19405.69
Min Ch El (ft)		Shear (lb/sq ft)	0.52	0.96	0.47
Alpha		Stream Power (lb/ft s)	1.00	2.83	0.86
Frctn Loss (ft)		Cum volume (acre-ft)	110463.20	19609.95	132665.20
C & E Loss (ft)		Cum SA (acres)	992.51	94.05	1183.37

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275536.*

INPUT

Description:

Station Elevation Data			num= 120						
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	189.54	792.45	616.68	776.62	1299.2	761.49	1470.95	754.22
1745.24	747.08	1906.09	745.37	2242.46	745.37	2563.56	744.11	3425.98	720.85
3494.95	717.22	3582.6	714.63	3593.46	714.5	3787.13	717.49	3959.9	715.33
4097.22	713.14	4244.65	709.07	4605.05	700.35	5044.28	693.13	5371.16	691.46
5511.82	690.02	5664.88	684.6	5730.73	679.63	6079.56	677.84	6015.62	679.41
6551.18	680.74	6762.97	671.48	6923.15	666.85	6991.67	662.2	7438.63	662.2
7181.56	673.92	7392.55	665.55	7432.51	662.43	7578.09	663.73	7707.81	666.33
7973.9	667.92	8122.69	669.53	8400.77	652.49	8418.33	650.97	8584.53	641.57
8718	640.9	8962.72	648.93	9130.9	648.09	9307.1	637.94	9486.29	634.56
9625.1	621.9	9641.68	621.67	9728	612.41	9889.96	598.52	9945.13	598.52
9985.57	602.7	7410107.59	631.59	10211.2	642.4	110584.48	638.47	10736.73	631.49
10790.46	625.56	610995.32	623.39	5211238.24	631.57	511527.31	628.52	5212138.65	623.89
13546.57	623.89	13778.29	618.52	14373.99	618.52	14832.27	623.15	14890.11	627.87
15173.14	624.44	15179.86	618.99	15282.54	617.35	15917.01	596.16	1616457.16	589.26
16525.49	583.71	16766.09	580.51	16828.16	574.98	16925.84	567.69	1697373.28	567.69
17474.61	572.81	171571.77	589.26	2617659.31	609.18	26798.06	611.59	197139.15	633.17
18347.67	638.27	187177.28	640.69	20861.38	639.85	20793.11	636.85	21521.62	637.57
20022.01	651.52	21010.53	656.72	22061.68	656.72	22061.68	656.72	22061.68	656.72
55223.43	651.52	55866.41	663.72	62086.04	664.33	627186.37	664.33	627813.38	659.26
28083.64	659.26	82650.65	654.63	238884.74	651.94	292054.04	650.86	292192.22	646.93
29338.9	647.97	262926.09	653.76	299944.96	656.52	31030.3	676.55	31685.86	678.92
32641.14	719.97	32781.95	720.48	33390.89	690.46	33245.15	690.58	34997.93	739.23
36027.59	738.44	363222.47	740.89	36569.75	757.53	38610.67	758.19	396913.21	757.94
37240.54	768.84	37396.58	771.48	383160.79	79038847.57		793.08	393193.91	800

Manning's	n	Values		num=	3	
Sta	n	val	Sta	n	val	Sta
0		.1516457	.16		.1517571	.77
						.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16457.16	17571.77		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.82	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1504163.00	2069233.00	1758655.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504163.00	2069233.00	1758655.00
Q Total (cfs)	6730000.00	Flow (cfs)	2916412.00	607570.50	3206018.00
Top width (ft)	35631.05	Top width (ft)	15118.51	1114.61	19397.92
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.94	2.94	1.82
Max Chl Dpth (ft)	192.13	Hydr. Depth (ft)	99.49	185.65	90.66
Conv. Total (cfs)	737873500.0	Conv. (cfs)	319753800.0	66613690.0	351506000.0
Length Wtd (ft)	5.00	Wetted Per.	15131.07	1116.95	19404.77
Min ch Etl (ft)	567.69	Shear (lb/sq ft)	0.52	0.96	0.47
Alpha	1.06	Stream Power (lb/ft s)	1.00	2.83	0.86
Frcn Loss (ft)	0.00	Cum volume (acre-ft)	110290.50	19586.21	132463.30
C & E Loss (ft)	0.00	Cum SA (acres)	990.77	93.93	1181.15

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275533.*

INPUT

Description:

[illegible]

SS_Rev3.rep
 32644.79 719.88 32785.6 720.3933394.47 690.4433428.72 690.5635001.32 739.15
 36030.88 738.3736225.73 740.8236572.98 757.4336613.89 758.1236916.42 757.89
 37243.69 768.837399.71 771.4438163.84 79038850.54 793.0839196.84 800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516460.95 .1517577.09 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16460.9517577.09 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.82	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1504190.00	207196.60	1759005.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504190.00	207196.60	1759005.00
Q Total (cfs)	6730000.00	Flow (cfs)	2915371.00	608212.60	3206416.00
Top width (ft)	35635.40	Top width (ft)	15122.04	1116.14	19397.22
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.94	2.94	1.82
Max Chl Dpth (ft)	192.13	Hydr. Depth (ft)	99.47	185.64	90.68
Conv. Total (cfs)	738044000.0	Conv. (cfs)	319713600.0	66699500.0	351631000.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	15134.60	1118.48	19404.06
Min Ch El (ft)	567.69	Shear (lb/sq ft)	0.52	0.96	0.47
Alpha	1.06	Stream Power (lb/ft s)	1.00	2.82	0.86
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	110117.90	19562.45	132261.50
C & E Loss (ft)	0.00	Cum SA (acres)	989.04	93.80	1178.92

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275530.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	189.63	792.44	616.96	776.6	1299.8	761.49	1471.62	754.2		
1746.04	747.07	1906.97	745.35	2243.49	745.35	2564.74	744.09	3427.56	720.88		
3496.56	717.25	3584.25	714.65	3595.12	714.52	3788.87	717.48	3961.72	715.35		
4099.11	713.11	4246.61	709.03	4607.17	700.31	5046.6	693.1	5373.64	691.42		
5514.36	689.98	5667.49	684.55	5733.37	679.56	6082.36	677.77	6418.57	679.36		
6554.2	680.7	6766.09	671.4	6926.34	666.75	6994.89	662.1	7042.07	662.1		
7186.88	665.35	7396.31	675.39	7456.94	674.52	7581.58	674.58	7931.46	666.35		
7977.58	667.95	8126.43	669.64	8408.65	652.67	8422.21	651.15	8588.48	641.72		
8722.02	641.05	8966.85	649.12	9135.11	648.28	9311.39	638.1	9490.66	634.71		
9629.54	622.08	9646.13	621.85	9732.49	612.55	9894.52	598.6	9949.71	598.6		
9990.17	602.84	10112.25	631.69	10215.91	642.55	10589.36	638.59	10741.67	631.63		
10795.43	625.71	111000.39	623.54	11243.42	631.66	11532.62	628.61	12144.24	623.95		
13552.81	623.95	13784.65	618.61	14380.61	618.6	14839.1	623.25	14896.97	627.9		
15180.13	624.55	15186.85	619.12	15289.58	617.47	15924.35	596.21	16464.74	589.3		
16533.35	583.73	16774.91	580.49	16837.23	575.16	16935.31	567.69	17383.23	567.69		
17484.92	572.26	17582.4	589.31	17669.92	609.18	17688.67	611.58	17923.91	633.03		
18358.13	638.74	18787.65	640.61	20871.29	636.75	20984.99	636.75	21211.46	637.43		
21556.77	633.12	22530.08	636.05	22784.05	640.72	24437.52	645.35	24814.83	647.56		
25232.38	651.74	25874.22	663.73	26095.22	664.65	27194.88	664.65	27821.76	659.3		
28091.96	659.32	28658.35	654.65	28892.88	651.95	29062.15	650.85	29200.29	646.9		
29346.94	647.64	29637.04	653.75	29954.48	656.53	30137.97	676.49	31693.39	678.87		
32648.45	719.79	32789.24	720.31	33398.04	690.42	33432.29	690.54	35004.72	739.06		
36034.16	738.33	36228.99	740.76	36576.2	757.36	36617.11	758.05	36919.61	757.84		
37246.84	768.75	37402.84	771.43	38166.89	79038853.52		793.09	39199.77	800		

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516464.74 .15 17582.4 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16464.74 17582.4 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.82	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1504224.00	207467.00	1759370.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504224.00	207467.00	1759370.00
Q Total (cfs)	6730000.00	Flow (cfs)	2914330.00	608838.50	3206832.00
Top width (ft)	35639.80	Top width (ft)	15125.37	1117.66	19396.58
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.94	2.93	1.82
Max Chl Dpth (ft)	192.13	Hydr. Depth (ft)	99.45	185.63	90.71
Conv. Total (cfs)	738220500.0	Conv. (cfs)	319675800.0	66784120.0	351760600.0
Length wtd. (ft)	5.00	Wetted Per. (ft)	15138.13	1120.00	19403.40
Min Ch El (ft)	567.69	Shear (lb/sq ft)	0.52	0.96	0.47
Alpha	1.06	Stream Power (lb/ft s)	1.00	2.82	0.86
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	109945.20	19538.65	132059.50
C & E Loss (ft)	0.00	Cum SA (acres)	987.30	93.67	1176.69

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275527.*

INPUT

Description:

Station	Elevation	Data	num=	120	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	189.67	792.44	617.1	776.59	1300.1	761.48	1471.96	754.2		
1746.44	747.06	1907.41	745.34	2244.01	745.34	2565.33	744.08	3428.35	720.9		
3497.37	717.27	3585.07	714.66	3595.95	714.53	3789.75	717.47	3962.64	715.34		
4100.05	713.09	4247.59	709.02	4608.23	700.29	5047.77	693.08	5374.88	691.4		
5515.63	689.96	5668.8	684.52	5734.69	679.52	6083.76	677.74	6420.05	679.34		

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6555.71	680.68	6767.65	671.36	6927.93	666.7	6996.5	662.04	7043.7	662.04
7188.53	665.29	7398.02	675.34	7458.66	674.47	7583.33	674.55	7933.29	666.35
7979.42	667.97	8128.3	669.7	8410.58	652.75	8424.15	651.24	8590.46	641.79
8724.03	641.12	8968.92	649.22	9137.22	648.38	9313.53	638.18	9492.85	634.78
9631.76	622.17	9668.35	621.94	9734.73	612.62	9896.8	598.64	9952	598.64
9992.47	602.89	10114.58	631.73	10218.26	642.62	10591.8	638.65	10744.15	631.7
10797.92	625.79	11002.92	623.61	11246.01	631.71	11535.28	628.64	12147.04	623.98
13555.93	623.98	13787.82	618.64	14383.92	618.64	14842.52	623.3	14900.4	627.96
15183.63	624.61	15190.35	619.18	15293.1	617.53	15928.02	596.24	16468.54	589.32
16537.28	583.74	16779.33	580.51	16841.77	575.01	16940.04	567.69	17388.21	567.69
17490.07	572.26	17587.72	589.32	17675.23	609.18	17693.97	611.58	17929.19	633
18363.37	638.71	17872.84	640.56	20876.24	636.72	20989.93	636.72	21216.38	637.38
21561.65	633.08	22534.85	636.02	22788.79	640.68	24442.08	645.34	24819.35	647.55
25236.86	651.74	25878.62	663.74	26099.6	664.66	27199.14	664.66	27825.95	659.32
28096.12	659.32	28662.44	654.66	28896.95	651.95	29066.2	650.85	29204.33	646.89
29350.96	647.62	29641.03	653.74	29958.44	656.5	31041.8	676.46	31697.15	678.85
32652.11	719.71	32792.88	720.22	33401.62	690.43	3435.86	690.52	35008.12	738.97
36037.44	738.23	36232.25	740.73	36579.43	757.29	36620.32	757.98	36922.79	757.79
37249.99	768.73	37405.98	771.36	38169.93	793.13	38856.49	793.13	39202.71	800
Manning's n Values									
Sta	n Val	Sta	num=	3	n Val	Sta	n Val	Sta	n Val
0	.1516468.54		.1517587.72		.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
16468.54	17587.72	5	5	5	.1	.3			
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.88	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.82	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1504255.00	207737.80	1759734.00				
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504255.00	207737.80	1759734.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2913275.00	609467.30	3207259.00				
Top width (ft)	35644.33	Top width (ft)	15129.23	1119.18	19395.92				
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.94	2.93	1.82				
Max Chl Dpth (ft)	192.13	Hydr. Depth (ft)	99.43	185.62	90.73				
Conv. Total (cfs)	738394400.0	Conv. (cfs)	319635300.0	66868820.0	351890300.0				
Length wtd. (ft)	5.00	wetted Per. (ft)	15141.79	1121.53	19402.73				
Min ch El (ft)	567.69	Shear (lb/sq ft)	0.52	0.96	0.47				
Alpha	1.06	Stream Power (lb/ft s)	1.00	2.82	0.86				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	109772.50	19514.82	131857.60				
C & E Loss (ft)	0.00	Cum SA (acres)	985.56	93.54	1174.47				

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275524.*

INPUT

Description: Station Elevation Data									
Sta	Elev	Sta	num=	120	Sta	Elev	Sta	Elev	Sta
0	800	189.72	792.44	617.24	776.57	1300.4	761.48	1472.3	754.19
1746.84	747.06	1907.85	745.33	2244.53	745.33	2565.92	744.06	3429.14	720.92
3498.17	717.28	3585.9	714.67	3596.77	714.54	3790.62	717.47	3963.55	715.33
4101	713.08	4248.57	709	4609.3	700.27	5048.93	693.07	5376.11	691.38
5516.9	689.94	5670.1	684.49	5736.01	679.49	6085.16	677.7	6421.53	679.32
6557.22	680.66	6769.21	671.32	6929.53	666.65	6998.11	661.98	7045.32	661.98
7190.19	665.24	7399.72	675.28	7460.38	674.43	7585.07	674.52	7935.11	666.36
7981.25	667.98	8130.17	669.76	8412.52	652.84	8426.09	651.33	8592.44	641.86
8726.04	641.19	8970.98	649.31	9139.32	648.47	9315.68	638.25	9495.04	634.86
9633.98	622.26	9650.57	622.03	9736.97	612.69	9899.08	598.68	9954.3	598.68
9994.78	602.94	10116.91	631.78	10220.61	642.69	10594.24	638.72	10746.62	631.77
10800.41	625.86	11005.46	623.68	11248.6	631.76	11537.94	628.68	12149.84	624.01
13559.06	624.01	13791	618.68	14387.24	618.68	14845.94	623.35	14903.83	628.02
15187.13	624.65	15193.85	619.24	15296.63	617.59	15931.69	596.26	16472.33	589.34
16541.21	583.71	16783.74	580.52	16846.31	575.02	16944.78	567.69	17393.19	567.69
17495.22	572.25	17593.04	589.34	17680.54	609.18	17699.28	611.57	17934.47	632.96
18368.6	638.67	18798.02	640.52	20881.2	636.65	20994.88	636.65	21221.29	637.33
21566.53	633.05	22539.62	635.99	22793.54	640.66	24446.65	645.33	24823.87	647.55
25241.33	651.74	25883.02	663.75	26103.98	664.67	27203.4	664.67	27830.14	659.34
28100.27	659.34	28666.54	654.67	28901.02	651.96	29070.25	650.85	29208.37	646.87
29354.98	647.62	29645.02	653.74	29962.39	656.49	31045.64	676.43	31700.91	678.83
32655.77	719.62	32796.52	720.23	33405.19	690.38	3439.43	690.53	35011.52	738.88
36040.73	738.16	36235.52	740.63	36582.65	757.22	36623.54	757.92	36925.98	757.75
37253.14	768.66	37409.11	771.32	38172.98	793.13	38859.46	793.13	39205.64	800
Manning's n Values									
Sta	n Val	Sta	num=	3	n Val	Sta	n Val	Sta	n Val
0	.1516472.33		.1517593.04		.15				
Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.									
16472.33	17593.04	5	5	5	.1	.3			
CROSS SECTION OUTPUT Profile #PF 1									
E.G. Elev (ft)	759.88	Element	Left OB	Channel	Right OB				
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150				
W.S. Elev (ft)	759.82	Reach Len. (ft)	5.00	5.00	5.00				
Crit W.S. (ft)		Flow Area (sq ft)	1504291.00	208011.90	1760078.00				
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504291.00	208011.90	1760078.00				
Q Total (cfs)	6730000.00	Flow (cfs)	2912246.00	610108.70	3207646.00				
Top width (ft)	35648.43	Top width (ft)	15132.75	1120.71	19394.97				
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.94	2.93	1.82				
Max Chl Dpth (ft)	192.13	Hydr. Depth (ft)	99.41	185.61	90.75				
Conv. Total (cfs)	738570000.0	Conv. (cfs)	319598500.0	66955120.0	352016500.0				
Length wtd. (ft)	5.00	wetted Per. (ft)	15145.32	1123.05	19401.77				
Min ch El (ft)	567.69	Shear (lb/sq ft)	0.51	0.96	0.47				
Alpha	1.06	Stream Power (lb/ft s)	1.00	2.82	0.86				
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	109599.90	19490.96	131655.50				
C & E Loss (ft)	0.00	Cum SA (acres)	983.83	93.41	1172.24				

SS_Rev3.rep

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275521.*

INPUT

Description:

[illegible]

Manning's	n	Values	num=	3	
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516476	.12	.1517598	.36	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16476	1217598		36					
				5		5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.82	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1504319.00	208284.30	1760450.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504319.00	208284.30	1760450.00
Q Total (cfs)	6730000.00	Flow (cfs)	2911184.00	61738.50	3208077.00
Top width (ft)	35652.83	Top width (ft)	15136.28	1122.24	19394.31
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.94	2.93	1.82
Max Chl Dpth (ft)	192.13	Hydr. Depth (ft)	99.38	185.60	90.77
Conv. Total (cfs)	738747500.0	Wetted Per (ft)	319558700.0	67040350.0	352148400.0
Length Wtd. (ft)	5.00	Shear (lb/sq ft)	15148.84	1124.59	19401.09
Min ch El (ft)	567.69	Stream Power (lb/ft s)	0.51	0.96	0.46
Alpha	1.06	Cum Volume (acre-ft)	1.00	2.81	0.87
Frctn Loss (ft)	0.00	Cum SA (acres)	109427.20	19467.06	131453.50
C & E Loss (ft)	0.00		982.09	93.28	1170.01

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275518.*

INPUT

INFO1
Description:

Station Elevation Data			num= 120								
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	189.8	792.43	617.53	776.55	1301	761.48	1472.98	754.17		
1747.65	747.04	1908.73	745.31	2245.56	745.31	2567.1	744.04	3430.72	720.95		
3499.78	717.31	3587.55	714.69	3598.43	714.55	3792.36	717.46	3965.37	715.31		
4102.88	713.05	4250.52	708.97	4611.42	700.24	5051.26	693.04	5378.59	691.35		
5519.44	689.9	5672.71	684.44	5738.65	679.41	6087.96	677.64	6424.49	679.27		
6560.24	680.62	6772.32	671.24	6932.72	666.55	7001.34	661.86	7048.56	661.86		
7193.5	665.13	7403.13	675.18	7463.81	674.33	7588.57	674.47	7938.77	666.38		
7084.93	668.02	8133.92	669.87	8464.8	653.02	8429.97	638.41	9499.41	635.01		
8211.3	641.34	8875.11	621.99	9143.53	612.83	9303.63	598.76	9588.88	598.76		
9633.41	624.4	9655.02	622.1	9741.45	612.83	10105.92	638.84	10175.57	631.9		
9999.38	603.04	10121.57	631.87	10225.32	631.85	11543.25	628.76	12155.43	624.07		
10805.38	626.02	10110.53	623.81	11253.78	631.85	11543.25	628.76	12155.43	624.07		
13565.3	624.07	13797.35	618.76	16139.86	618.76	16145.82	623.45	14910.7	628.14		
15194.12	624.76	15200.85	619.37	151303.67	617.71	151939.02	596.32	161479.92	589.38		
16549.47	583.78	16792.56	580.56	167855.39	575.04	16954.25	567.68	17403.15	567.68		
17505.52	572.24	17603.67	589.38	17691.15	609.17	17709.89	631.57	17945.03	632.89		
18379.06	638.61	18808.39	640.44	20899.11	636.55	22100.76	636.55	22123.13	637.24		
21576.28	632.98	22549.16	635.93	23280.02	640.62	24244.57	645.31	24283.91	647.54		
22520.28	632.98	23589.13	663.77	22112.72	664.69	27211.91	664.69	27838.52	659.38		
28188.58	659.38	282676.73	634.69	28801.16	651.97	29078.36	650.83	29291.21	646.85		
29363.02	653.02	29653	656.47	29970.39	656.47	31053.31	676.38	331708.44	678.78		
30604.29	738.02	32803.8	719.93	32803.82	690.34	343344.57	690.46	343508.31	738.71		
36047.29	738.02	32642.04	740.51	36589.1	757.83	38662.98	757.83	39212.55	757.65		
73259.44	768.23	737415.38	771.24	738179.08	7903865.41		793.12	739231.52	800		

Manning's	n Values		num=	3			
Sta	n Val	Sta	n Val	Sta	n Val		
0	.1516479.92		.1517603.67		.15		

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16479.92	17603.67		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

Page 274 of 1616

SS_Rev3.rep
 25259.22 651.7325900.64 663.8 26121.5 664.7127220.43 664.7127846.89 659.42
 28116.91 659.4228682.92 654.71 28917.3 651.9729086.46 650.8429224.52 646.82
 29371.06 647.5529660.97 653.7129978.21 656.4631060.98 676.3231715.96 678.73
 32670.39 719.2832811.09 719.7933419.49 690.333453.71 690.4235025.11 738.53
 36053.86 737.8736248.57 740.3836595.55 756.9436636.42 757.6436938.72 757.56
 37265.74 768.4837421.64 771.1638185.18 79038871.36 793.1339217.39 800

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .15 16487.5 .1517614.31 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16487.517614.31 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.82	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1504399.00	209103.30	1761494.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504399.00	209103.30	1761494.00
Q Total (cfs)	6730000.00	Flow (cfs)	2908055.00	612658.80	3209287.00
Top Width (ft)	35665.79	Top Width (ft)	15146.99	1126.81	19391.99
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.93	2.93	1.82
Max Chl Dpth (ft)	192.14	Hydr. Depth (ft)	99.32	185.57	90.84
Conv. Total (cfs)	739259600.0	conv. (cfs)	319436400.0	67297750.0	352525400.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15159.56	1129.17	19398.73
Min Ch El (ft)	567.68	Shear (lb/sq ft)	0.51	0.96	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.99	2.81	0.86
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	108909.20	19395.20	130847.10
C & E Loss (ft)	0.00	Cum SA (acres)	976.88	92.90	1163.34

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275509.*

INPUT
Description:

Station	Elevation	Data	num=	120
Sta	Elev	Sta	Elev	Sta
0	800	189.93	792.41	617.96
1748.86	747.02	1910.04	745.28	2247.11
3502.2	717.36	3590.03	714.72	3600.92
4105.72	713	4253.46	708.92	4614.6
5523.26	689.85	5676.63	684.36	5742.62
6564.77	680.56	6777	671.12	6937.51
7198.47	664.97	7408.24	675.02	7468.97
7990.44	668.07	8139.53	670.04	8422.21
8736.09	641.56	8981.31	649.79	9149.84
9645.07	622.71	9661.68	622.48	9748.18
10006.28	603.18	10128.56	632.01	10232.38
10812.84	626.25	11018.13	624.04	11261.55
13574.67	624.16	13806.88	618.88	14403.8
15204.61	624.92	15211.34	619.55	15314.24
16560.86	583.81	16805.8	580.61	16869
17520.98	572.23	17619.62	589.44	17707.07
18394.76	638.49	18823.94	640.31	20905.97
21590.92	632.87	22563.48	635.84	22817.25
25263.7	651.72	25905.04	663.81	26125.88
28121.07	659.44	28687.02	654.72	28921.38
29375.08	647.54	29664.96	653.72	29982.16
32674.05	719.19	32814.73	719.71	33423.06
36057.14	737.83	36251.83	740.32	36598.77
37268.89	768.43	37424.77	771.12	38188.23

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .15 16491.3 .1517619.62 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16491.317619.62 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.82	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1504437.00	209373.00	1761870.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504437.00	209373.00	1761870.00
Q Total (cfs)	6730000.00	Flow (cfs)	2907010.00	613278.90	3209711.00
Top Width (ft)	35670.20	Top Width (ft)	15150.52	1128.32	19391.35
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.93	2.93	1.82
Max Chl Dpth (ft)	192.14	Hydr. Depth (ft)	99.30	185.56	90.86
Conv. Total (cfs)	739441500.0	conv. (cfs)	319400300.0	67382460.0	352658800.0
Length Wtd. (ft)	5.00	wetted Per. (ft)	15163.10	1130.67	19398.08
Min Ch El (ft)	567.68	Shear (lb/sq ft)	0.51	0.96	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.99	2.81	0.86
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	108736.50	19371.18	130644.90
C & E Loss (ft)	0.00	Cum SA (acres)	975.14	92.77	1161.11

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275506.*

INPUT

Station	Elevation	Data	num=	120
Sta	Elev	Sta	Elev	Sta
0	800	189.98	792.41	618.1
1749.26	747.02	1910.48	745.27	2247.63
			745.27	2569.47
			743.99	3433.88

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3503	717.38	3590.85	714.73	3601.74	714.59	3795.86	717.44	3969.02	715.27		
4106.66	712.99	4254.44	708.9	4615.66	700.16	5055.91	692.98	5383.54	691.27		
5524.53	689.83	5677.94	684.33	5743.94	679.27	6093.57	677.51	6430.4	679.18		
6566.28	680.54	6778.56	671.08	6939.1	666.35	7007.78	661.62	7055.05	661.62		
7200.12	664.92	7409.94	674.97	7470.69	674.15	7595.55	674.36	7946.08	666.4		
7992.28	668.09	8141.41	670.1	8424.14	653.37	8437.73	651.86	8604.31	642.29		
8738.1	641.63	8983.38	649.88	9151.95	649.05	9328.55	638.72	9508.16	635.31		
9647.29	622.8	9663.91	622.57	9750.42	613.11	9912.75	598.92	9968.05	598.92		
10008.58	603.2310130.89		632.0610234.73		643.1110608.88		639.0910761.47		632.17		
10815.33	626.3211020.66		624.1211264.15		632.0411553.88		628.9212166.62		624.19		
13577.79	624.1913810.05		618.9214407.11		618.9214866.45		623.6514924.43		628.38		
15208.11	624.9715214.84		619.6215317.76		617.96	15953.7	596.4216495.09		589.46		
16564.79	583.8216810.22		580.6316873.54		575.0816973.18		567.6817423.07		567.68		
17526.13	572.2317624.94		589.4617712.38		609.1717731.11		611.5617966.14		632.74		
18399.99	638.4618829.12		640.2720910.93		636.3521024.53		636.35	21250.8	637.04		
21595.8	632.8322568.25		635.81	22822	640.5424474.02		645.2724850.99		647.52		
25268.17	651.7225909.44		663.8226130.26		664.7327228.94		664.7327855.27		659.46		
28125.23	659.4628691.12		654.7328925.45		651.9829094.57		650.8429232.59		646.8		
29379.1	647.5229668.95		653.6929986.12		656.4431068.64		676.2631723.48		678.68		
32677.71	719.132818.37		719.6233426.64		690.2533460.86		690.38	35031.9	738.35		
36060.43	737.7336255.09		740.26	36602	756.836642.86		757.5	36945.1	757.46		
37272.04	768.3837427.91		771.0838191.28		790	38877.3	793.1439223.25		800		

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516495.09 .1517624.94 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16495.0917624.94 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.82	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1504457.00	209645.20	1762238.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504457.00	209645.20	1762238.00
Q Total (cfs)	6730000.00	Flow (cfs)	2905929.00	613911.80	3210159.00
Top width (ft)	35674.77	Top width (ft)	15154.23	1129.85	19390.70
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.93	2.93	1.82
Max Chl Dpth (ft)	192.14	Hydr. Depth (ft)	99.28	185.55	90.88
Conv. Total (cfs)	739612500.0	Conv. (cfs)	319355400.0	67467580.0	352789500.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15166.80	1132.21	19397.41
Min Ch El (ft)	567.68	Shear (lb/sq ft)	0.51	0.96	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.99	2.80	0.86
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	108563.80	19347.13	130442.60
C & E Loss (ft)	0.00	Cum SA (acres)	973.40	92.64	1158.88

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275503.*

INPUT

Description:

num= 120											
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	190.02	792.4	618.24	776.49	1302.5	761.46	1474.68	754.13		
1749.66	747.01	1910.92	745.26	2248.14	745.26	2570.06	743.97	3434.67	721.04		
3503.81	717.39	3591.68	714.74	3602.57	714.6	3796.73	717.43	3969.94	715.26		
4107.61	712.97	4255.42	708.88	4616.73	700.14	5057.07	692.96	5384.78	691.26		
5525.8	689.81	5679.24	684.3	5745.26	679.23	6094.97	677.47	6431.88	679.16		
6567.79	680.52	6780.12	671.04	6940.7	666.3	7009.39	661.56	7056.68	661.56		
7201.78	664.87	7411.65	674.91	7472.4	674.11	7597.3	674.33	7947.9	666.41		
7994.12	668.1	8143.28	670.16	8426.08	653.46	8439.67	651.95	8606.29	642.36		
8740.11	641.7	8985.44	649.98	9154.05	649.15	9330.69	638.8	9510.34	635.38		
9649.51	622.89	9666.13	622.66	9752.66	613.18	9915.03	598.96	9970.34	598.96		
10010.89	603.2810133.22		632.1110237.09		643.1810611.31		639.1510763.95		632.24		
10817.82	626.4	11023.2	624.1811266.74		632.0811556.53		628.9612169.42		624.22		
12580.91	624.2213813.23		618.9614410.43		618.9614869.87		623.714927.86		628.44		
15211.61	625.0215218.34		619.6815321.28		618.0215957.37		596.4416498.88		589.48		
16568.72	583.8416814.63		580.6516878.08		575.0916977.92		567.6817428.05		567.68		
17531.28	572.2217630.26		589.4817717.69		609.1617736.42		611.5517971.42		632.71		
18405.22	638.4218834.31		640.2320915.88		636.321029.47		636.321255.71		636.99		
21600.68	632.7922573.02		635.7822826.74		640.5224478.58		645.2624855.51		647.51		
25272.65	651.7225913.85		663.8326134.64		664.74	27233.2	664.7427859.46		659.48		
28129.39	659.4828695.21		654.7428929.52		651.9929098.62		650.8429236.62		646.78		
29383.12	647.5129672.94		653.6929990.07		656.4431072.48		676.2331727.25		678.66		
32681.37	719.0232822.01		719.5433430.21		690.2333464.43		690.36	35035.3	738.27		
36063.71	737.6636258.35		740.1936605.22		756.7336646.08		757.4336948.28		757.41		
37275.19	768.3437431.04		771.0438194.32		79038880.27		793.1539226.19		800		

Manning's n Values num= 3
 Sta n Val Sta n Val
 0 .1516498.88 .1517630.26 .15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 16498.8817630.26 5 5 5 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.82	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1504502.00	209916.50	1762572.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504502.00	209916.50	1762572.00
Q Total (cfs)	6730000.00	Flow (cfs)	2904949.00	614539.80	3210511.00
Top width (ft)	35679.10	Top width (ft)	15157.75	1131.38	19389.97
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.93	2.93	1.82
Max Chl Dpth (ft)	192.14	Hydr. Depth (ft)	99.26	185.54	90.90
Conv. Total (cfs)	739783900.0	Conv. (cfs)	319321600.0	67552240.0	352910000.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15170.33	1133.74	19396.67
Min Ch El (ft)	567.68	Shear (lb/sq ft)	0.51	0.96	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.99	2.80	0.86

Page 276

Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	108391.10	19323.05	130240.30
C & E Loss (ft)	0.00	Cum SA (acres)	971.66	92.51	1156.66

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275500.*

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
0	800	190.07	792.4	618.38	776.47	1302.8	761.46	1475.01	754.13		
1750.06	747.01	1911.36	745.25	2248.66	745.25	2570.65	743.96	3435.45	721.06		
3504.62	717.41	3592.5	714.75	3603.4	714.61	3797.6	717.43	3970.85	715.25		
4108.55	712.96	4256.39	708.87	4617.79	700.12	5058.23	692.95	5386.02	691.24		
5527.07	689.79	5680.55	684.27	5746.58	679.19	6096.37	677.44	6433.36	679.13		
6569.3	680.5	6781.68	671	6942.3	666.25	7011	661.5	7058.3	661.5		
7203.43	664.82	7413.35	674.86	7474.12	674.06	7599.05	674.31	7949.73	666.42		
7995.96	668.12	8145.15	670.21	8428.02	653.55	8441.61	652.03	8608.27	642.43		
8742.12	641.78	8987.51	650.07	9156.16	649.25	9332.84	638.88	9512.53	635.46		
9651.72	622.99	9668.35	622.75	9754.91	613.25	9917.31	599	9972.63	599		
10013.19	603.33	10135.55	632.15	10239.44	643.25	10613.75	639.21	10766.42	632.31		
10820.3	626.48	11025.73	624.26	11269.33	632.13	11559.19	62912172.22	624.25			
13584.03	624.25	13816.4	61914413.74		61914873.29		623.75	14931.29	628.5		
15215.1	625.07	15221.84	619.74	15324.8	618.08	15961.03	596.47	16502.68	589.5		
16572.65	583.85	16819.04	580.67	16882.61	575.11	16982.65	567.68	17433.03	567.68		
17536.43	572.22	17635.57	589.51	17722.99	609.16	17741.72	611.55	17976.7	632.67		
18410.45	638.39	18839.49	640.19	19020.83	636.25	19103.41	636.25	191260.63	636.95		
21605.56	632.76	22577.79	635.75	22831.49	640.52	24483.14	645.25	24860.03	647.5		
25277.12	651.71	25918.25	663.84	26139.02	664.75	27237.46	664.75	27863.65	659.5		
28133.54	659.52	28699.31	654.75	28933.59	651.99	29102.67	650.84	29240.66	646.77		
29387.14	647.52	29676.93	653.68	29994.02	656.43	31076.31	676.23	31731.01	678.63		
32685.02	718.93	32825.65	719.45	33433.79	690.21	33468	690.34	35038.7	738.18		
36067	737.59	36261.61	740.13	36608.44	756.66	36649.3	757.37	36951.47	757.36		
37278.34	768.29	37434.17	77138	197.38	79038883.25		793.16	39229.12	800		

Manning's n Values	num=	3
Sta n Val Sta	n Val n Val	
0 .1516502.68	.1517635.57	.15

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
16502.6817635.57	5 5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	759.82	Reach Len. (ft)	5.00	5.00	5.00
Crit W.S. (ft)		Flow Area (sq ft)	1504518.00	210185.40	1762936.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504518.00	210185.40	1762936.00
Q Total (cfs)	6730000.00	Flow (cfs)	2903887.00	615162.90	3210950.00
Top width (ft)	35683.45	Top width (ft)	15161.23	1132.89	19389.32
Vel Total (ft/s)	1.94	Avg. Vel. (ft/s)	1.93	2.93	1.82
Max Ch Depth (ft)	192.14	Hydr. Depth (ft)	99.23	185.53	90.92
Conv. Total (cfs)	739954400.0	Conv. (cfs)	319278500.0	67636330.0	353039600.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15173.81	1135.25	19396.00
Min Ch El (ft)	567.68	Shear (lb/sq ft)	0.51	0.96	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.99	2.80	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	108218.40	19298.94	130038.00
C & E Loss (ft)	0.00	Cum SA (acres)	969.92	92.38	1154.43

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275498.*

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
0	800	190.11	792.39	618.52	776.46	1303.1	761.46	1475.35	754.12		
1750.46	747	1911.8	745.24	2249.18	745.24	2571.24	743.95	3436.24	721.07		
3505.42	717.42	3593.33	714.76	3604.23	714.62	3798.48	717.42	3971.76	715.24		
4109.49	712.94	4257.37	708.85	4618.85	700.1	5059.39	692.93	5387.25	691.22		
5528.34	689.77	5681.85	684.25	5747.9	679.16	6097.77	677.41	6434.84	679.11		
6570.81	680.48	6783.24	670.96	6943.89	666.2	7012.62	661.44	7059.92	661.44		
7205.09	664.76	7415.05	674.81	7475.84	674.01	7600.79	674.28	7951.56	666.42		
7997.79	668.14	8147.02	670.27	8429.96	653.64	8443.55	652.12	8610.25	642.5		
8744.13	641.85	8989.57	650.17	9158.26	649.34	9334.98	638.96	9514.71	635.53		
9653.94	623.08	9670.57	622.84	9757.15	613.32	9919.59	599.04	9974.93	599.04		
10015.49	603.38	10137.88	632.21	10241.79	643.32	10616.19	639.27	10768.9	632.38		
10822.79	626.55	11028.27	624.33	11271.92	632.18	11561.85	629.04	12175.02	624.28		
13587.16	624.28	13819.58	619.04	14417.05	619.04	14876.71	623.81	14934.72	628.56		
15218.6	625.13	15225.34	619.81	15328.33	618.14	15964.7	596.51	16506.47	589.52		
16576.58	583.86	16823.46	580.68	16887.35	575.11	16987.38	567.68	17438	567.68		
17541.98	572.21	17640.89	589.52	17728.3	609.16	17747.03	611.55	17981.98	632.63		
18415.68	638.35	18844.68	640.15	190925.79	636.22	191039.35	636.22	191265.55	636.9		
21610.44	632.72	22582.57	635.72	22836.23	640.48	24487.7	645.24	24864.55	647.5		
25281.6	651.71	25922.65	663.86	26143.39	664.76	27241.72	664.76	27867.84	659.52		
28137.71	659.52	28703.41	654.76	28937.66	65229106.72		650.84	29244.7	646.76		
29391.17	647.48	29680.92	653.67	29997.98	656.42	31080.15	676.17	31734.77	678.61		
32688.68	718.84	32829.29	719.37	33437.36	690.19	33471.57	690.32	35042.09	738.09		
36070.28	737.51	36264.88	740.07	36611.67	756.59	36652.52	757.33	36954.66	757.32		
37281.49	768.25	37437.3	770.96	38200.42	79038886.22		793.16	39232.06	800		

Manning's n Values	num=	3
Sta n Val Sta	n Val n Val	
0 .1516506.47	.1517640.89	.15

Bank Sta: Left Right	Lengths: Left Channel Right	Coeff Contr.	Expan.
16506.4717640.89	5 5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.88	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)	1504551.00	210459.70	1763294.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504551.00	210459.70	1763294.00
Q Total (cfs)	6730000.00	Flow (cfs)	2902839.00	615798.10	3211363.00
Top Width (ft)	35687.55	Top Width (ft)	15164.76	1134.42	19388.37
Vel Total (ft/s)	1.93	Avg. Vel. (ft/s)	1.93	2.93	1.82
Max Ch. Depth (ft)	192.13	Hydr. Depth (ft)	99.11	185.52	90.95
Conv. Total (cfs)	740134300.0	Conv. (cfs)	319240800.0	67722620.0	353170800.0
Length Wtd. (ft)	5.00	Wetted Per. (ft)	1517.34	1136.78	19395.04
Min Ch El (ft)	567.68	Shear (lb/sq ft)	0.51	0.96	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.99	2.80	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	108045.70	19274.80	129835.60
C & E Loss (ft)	0.00	Cum SA (acres)	968.18	92.25	1152.21

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275495.*

INPUT

Description:												
Station Elevation Data			num= 120									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta
1750.87	716.99	1910.24	745.23	2249.69	745.23	2571.83	743.94	3437.03	721.09			
3316.23	717.44	3359.16	745.23	3605.06	745.23	3605.06	745.23	3605.06	745.23			
33116.44	718.33	3252.43	708.83	3252.43	708.83	3252.43	708.83	3252.43	708.83			
5529.61	689.76	5683.16	684.22	5749.22	679.12	6099.17	677.37	6436.32	679.09			
6752.32	680.46	6784.79	670.92	6945.49	666.15	7014.23	666.15	7014.23	666.15			
7206.74	664.71	7416.76	674.76	7477.56	673.97	7602.54	674.25	7953.39	666.43			
7999.63	668.15	8148.9	670.33	8431.89	653.73	8445.49	652.21	8612.22	642.58			
8746.14	641.92	8991.64	650.26	9160.37	649.44	9337.13	639.04	9516.9	635.61			
9656.16	623.17	9672.8	622.93	9759.39	613.39	9921.87	599.08	9977.22	599.08			
10017.9	606.43	10140.2	632.25	10140.2	634.39	10616.83	639.33	11077.31	632.45			
10585.28	626.93	1130.8	624.41	11274.51	632.22	11274.51	629.08	11307.81	624.41			
11596.28	626.11	11382.75	619.08	10814.40	619.08	10814.40	619.08	10814.40	619.08			
15222.1	625.18	15228.84	619.87	15331.85	618.21	15968.37	596.52	16510.26	589.54			
16580.51	583.87	161682.87	580.71	16189.69	575.11	161992.12	567.68	14742.98	567.68			
17546.74	572.21	17646.21	589.54	171733.61	609.16	171752.33	611.54	17987.26	632.6			
18420.91	638.32	211884.89	640.12	20930.74	636.15	21044.3	636.15	21280.46	636.85			
21615.32	632.69	22587.34	635.69	228840.97	640.46	24249.26	645.23	24869.07	647.49			
25286.07	651.72	125927.06	663.87	82164.17	664.77	77224.95	664.77	72781.87	659.54			
26191.66	659.54	28707.5	647.72	28894.73	65229110.77		650.83	30248.74	646.74			
32935.19	671.8	62384.93	671.8	62384.93	656.41	30817.64	676.41	31738.53	678.59			
32844.34	718.1	63283.93	719.28	34340.94	690.17	173345.74	690.35	35045.49	738			
36073.56	737.43	436268.14	740.01	336164.89	756.52	336655.74	757.23	336957.84	757.23			
37284.64	768.23	37440.44	770.92	93280.17	790.38	9889.2	793.17	39235	800			

Manning's n Values		num= 3	
Sta	n val	Sta	n val
0	.1516510.26		
		.1517646.21	.15

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	16510.2617	646.21		5	5	5		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.88	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)	1504581.00	210732.80	1763653.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504581.00	210732.80	1763653.00
Q Total (cfs)	6730000.00	Flow (cfs)	2901788.00	616432.80	3211780.00
Top Width (ft)	35692.13	Top width (ft)	15168.47	1135.95	19387.70
Vel Total (ft/s)	1.93	Avq. Vel. (ft/s)	1.93	2.93	1.82
Max Chl Dpth (ft)	192.13	Hydr. Depth (ft)	99.19	185.51	90.97
Conv. Total (cfs)	740306400.0	Wetted Per (ft)	319199400.0	67808200.0	353298800.0
Length Wtd. (ft)	5.00	Shear (lb/sq ft)	15181.05	1138.32	19394.35
Min Ch El (ft)	567.68	Stream Power (lb/ft s)	0.99	2.79	0.87
Alpha	1.06	Cum Volume (acre-ft)	107873.00	19250.62	129633.20
Frcn Loss (ft)	0.00	Cum SA (acres)	966.44	92.12	1149.98
C & E Loss (ft)	0.00				

CROSS SECTION

RIVER: BRAZOS
REACH: UPPER BRAZOS RS: 275492.*

INPUT

Description:			Station Elevation Data			num= 120			
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	800	190.2	792.39	618.81	776.44	1303.69	761.45	1476.03	754.11
1751.27	746.99	1912.68	745.22	2250.21	745.22	2572.42	743.92	3437.82	721.11
3507.03	717.46	3594.98	714.78	3605.88	714.64	3800.22	717.41	3973.59	715.22
4111.38	712.91	4259.33	708.81	4620.97	700.06	5061.72	692.9	5389.73	691.18
5530.88	689.74	5684.46	684.19	5750.54	679.08	6100.57	677.34	6437.8	679.07
6573.83	680.44	6786.35	670.88	6947.08	666.1	7015.84	661.32	7063.16	661.32
7208.4	664.66	7418.46	674.7	7479.28	673.92	7604.29	674.22	7955.21	666.44
8003.47	668.17	8150.77	670.38	8433.83	653.82	8447.43	652.3	8614.2	642.65
8748.14	642	8993.7	650.36	9162.47	649.54	9339.27	639.12	9519.09	635.68
9658.38	623.26	9675.02	623.02	9761.63	613.46	9924.15	599.32	9973.51	599.12
10020.76	626.7	71110.33	632.29	10246.45	643.46	10621.07	639.39	10733.84	632.51
10822.9	626.7	71110.33	632.29	10246.45	643.46	10621.07	639.39	10733.84	632.51
1525.6	624.34	381382.93	619.12	1214442.38	619.12	124883.54	623.91	149491.58	628.68
15925.6	625.23	15232.34	619.93	933335.37	618.26	15972.04	596.55	156154.05	589.56
16584.44	583.88	16832.29	580.72	161896.23	575.12	161996.85	567.67	17447.96	567.67

SS_Rev3.rep					
17551.89	572.2117651.53	589.5617738.92	609.1617757.64	611.5417992.54	632.56
18426.14	638.2818855.04	640.06 20935.7	636.121049.24	636.121275.38	636.8
21620.2	632.652592.11	635.6622845.72	640.4424496.82	645.2224873.59	647.49
25290.54	651.725931.46	663.8826152.15	664.7827250.23	664.7827876.21	659.56
28146.02	659.56 28711.6	654.78 28945.8	65229114.83	650.8329252.77	646.73
29399.21	647.4529688.89	653.6630005.88	656.4131087.82	676.1131742.29	678.56
32695.99	718.6732836.57	719.233444.51	690.1533478.71	690.2835048.89	737.91
36076.85	737.37 36271.4	739.9436618.11	756.4536658.96	757.1636961.03	757.22
37287.79	768.1637443.57	770.8838206.52	79038892.17	793.1839237.93	800

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516514.05		.1517651.53		.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16514.05	17651.53	5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.88	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)	1504611.00	211009.70	1764022.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504611.00	211009.70	1764022.00
Q Total (cfs)	6730000.00	Flow (cfs)	2900724.00	617079.60	3212197.00
Top width (ft)	35696.45	Top width (ft)	15172.00	1137.48	19386.97
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)	99.17	185.51	90.99
Conv. Total (cfs)	740487600.0	Conv. (cfs)	319160500.0	67895950.0	353431200.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15184.57	1139.85	19393.62
Min Ch El (ft)	567.67	Shear (lb/sq ft)	0.51	0.95	0.47
Alpha	1.06	Stream Power (lb/ft s)	0.99	2.79	0.85
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	107700.30	19226.42	129430.70
C & E Loss (ft)	0.00	Cum SA (acres)	964.70	91.99	1147.76

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275489.*

INPUT

Description:					
Station	Elevation	Data	num=	120	
Sta	Elev	Sta	Elev	Sta	Elev
0	800	190.24	792.38	618.95	776.43
1751.67	746.98	1913.12	745.21	2250.73	745.21
3507.84	717.47	3595.81	714.79	3606.71	714.65
4112.33	712.9	4260.31	708.8	4622.03	700.04
5532.15	689.72	5685.77	684.16	5751.86	679.05
6575.34	680.42	6787.91	670.84	6948.68	666.05
7210.06	664.6	7420.17	674.65	7480.99	673.88
8003.31	668.19	8152.64	670.44	8435.77	653.9
8750.15	642.07	8995.77	650.45	9164.57	649.63
9660.6	623.35	9677.24	623.11	9763.88	613.53
10022.39	603.5310144.86		632.3410248.85		643.5310623.51
10830.25	626.7911035.87		624.5511279.69		632.3211569.82
13596.52	624.37	13829.1	619.1614426.99		619.1614886.96
15229.09	625.2915235.83		619.9915338.89		618.3215975.71
16588.37	583.89	16836.7	580.7416900.77		575.1317001.59
17557.04	572.217656.84		589.5817744.22		609.1517762.94
18431.38	638.2518860.23		640.0220940.65		636.0521054.18
21625.07	632.6122596.88		635.6322850.46		640.4224501.38
25295.02	651.725935.86		663.8926156.53		664.7927254.49
28150.18	659.58	28715.7	654.7928949.87		652.0129118.88
29403.23	647.4429692.88		653.6530009.84		656.431091.65
32699.55	718.5832840.21		719.1133448.09		690.1333482.28
36080.13	737.336274.66		739.8836621.34		756.3836662.18
37290.94	768.11	37446.7	770.8438209.57		79038895.14

Manning's n Values					
Sta	n Val	Sta	n Val	Sta	n Val
0	.1516517.85		.1517656.84		.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
16517.85	17656.84	5	5	5	.1		.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	759.88	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)	1504648.00	211279.30	1764370.00
E.G. Slope (ft/ft)	0.000083	Area (sq ft)	1504648.00	211279.30	1764370.00
Q Total (cfs)	6730000.00	Flow (cfs)	2899719.00	617703.30	3212579.00
Top width (ft)	35700.84	Top width (ft)	15175.53	1138.99	19386.32
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)	99.15	185.50	91.01
Conv. Total (cfs)	740659800.0	Conv. (cfs)	319124100.0	67980380.0	353555400.0
Length wtd. (ft)	5.00	wetted Per. (ft)	15188.12	1141.36	19392.95
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)	107527.60	19202.18	129228.20
C & E Loss (ft)	0.00	Cum SA (acres)	962.95	91.86	1145.53

CROSS SECTION

RIVER: BRAZOS
 REACH: UPPER BRAZOS RS: 275486.*

INPUT

Description:	
Station	Elevation
num=	120