

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	215733.70	100 YEAR	7539.99	948.10		0.03
VerdeRiver	VerdeRiver	215733.70	ENCRCH	6471.12	605.45		0.04
VerdeRiver	VerdeRiver	215402.30	100 YEAR	7220.49	1009.70	0.04	0.03
VerdeRiver	VerdeRiver	215402.30	ENCRCH	6190.22	588.30	0.04	0.04
VerdeRiver	VerdeRiver	215200.50	100 YEAR	7377.19	1031.13	0.04	0.03
VerdeRiver	VerdeRiver	215200.50	ENCRCH	6539.56	566.74	0.04	0.04
VerdeRiver	VerdeRiver	214932.70	100 YEAR	8216.50	1073.94	0.04	0.03
VerdeRiver	VerdeRiver	214932.70	ENCRCH	7778.96	611.52	0.04	0.04
VerdeRiver	VerdeRiver	214756.60	100 YEAR	8938.75	1090.53	0.04	0.03
VerdeRiver	VerdeRiver	214756.60	ENCRCH	7949.79	642.64	0.04	0.04
VerdeRiver	VerdeRiver	214555.90	100 YEAR	9590.75	1087.41	0.04	0.03
VerdeRiver	VerdeRiver	214555.90	ENCRCH	9002.11	716.44	0.04	0.04
VerdeRiver	VerdeRiver	214282.20	100 YEAR	10283.03	1120.15	0.04	0.03
VerdeRiver	VerdeRiver	214282.20	ENCRCH	9904.19	789.24	0.04	0.04
VerdeRiver	VerdeRiver	213816.50	100 YEAR	9405.26	901.62	0.04	0.03
VerdeRiver	VerdeRiver	213816.50	ENCRCH	9064.81	664.09	0.04	0.04
VerdeRiver	VerdeRiver	213550.30	100 YEAR	9348.83	1100.68		0.03
VerdeRiver	VerdeRiver	213550.30	ENCRCH	8029.76	553.02		0.04
VerdeRiver	VerdeRiver	213311.60	100 YEAR	8848.57	1175.80		0.03
VerdeRiver	VerdeRiver	213311.60	ENCRCH	8148.82	569.85		0.04
VerdeRiver	VerdeRiver	213216.90	100 YEAR	10078.78	1176.49	0.04	0.03
VerdeRiver	VerdeRiver	213216.90	ENCRCH	9620.47	645.12	0.04	0.04
VerdeRiver	VerdeRiver	213018.70	100 YEAR	9767.95	1196.06	0.04	0.03
VerdeRiver	VerdeRiver	213018.70	ENCRCH	9218.03	662.35	0.04	0.04
VerdeRiver	VerdeRiver	212907.70	100 YEAR	11658.34	1096.29		0.04
VerdeRiver	VerdeRiver	212907.70	ENCRCH	9937.49	695.40		0.04
VerdeRiver	VerdeRiver	212693.10	100 YEAR	14584.40	1296.89		0.04
VerdeRiver	VerdeRiver	212693.10	ENCRCH	12533.70	873.73		0.04
VerdeRiver	VerdeRiver	212373.00	100 YEAR	14508.70	1231.06		0.05
VerdeRiver	VerdeRiver	212373.00	ENCRCH	11867.63	825.48		0.04
VerdeRiver	VerdeRiver	212059.60	100 YEAR	14715.06	1220.92	0.04	0.05
VerdeRiver	VerdeRiver	212059.60	ENCRCH	12005.29	856.63	0.04	0.05
VerdeRiver	VerdeRiver	211625.40	100 YEAR	14683.64	988.52		0.04
VerdeRiver	VerdeRiver	211625.40	ENCRCH	12946.28	726.24		0.04
VerdeRiver	VerdeRiver	211260.90	100 YEAR	16062.73	1050.47		0.04
VerdeRiver	VerdeRiver	211260.90	ENCRCH	13970.18	776.85		0.04
VerdeRiver	VerdeRiver	210937.60	100 YEAR	16447.52	990.17		0.04
VerdeRiver	VerdeRiver	210937.60	ENCRCH	14005.25	765.29		0.04

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100-YEAR = Floodplain
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River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	210682.20	100 YEAR	17077.45	939.89		0.05
VerdeRiver	VerdeRiver	210682.20	ENCRCH	15003.77	744.36		0.04
VerdeRiver	VerdeRiver	210461.10	100 YEAR	15698.33	827.04	0.04	0.05
VerdeRiver	VerdeRiver	210461.10	ENCRCH	14524.35	676.40	0.04	0.05
VerdeRiver	VerdeRiver	210220.70	100 YEAR	13930.19	766.07	0.04	0.06
VerdeRiver	VerdeRiver	210220.70	ENCRCH	13061.50	631.00	0.04	0.06
VerdeRiver	VerdeRiver	209708.90	100 YEAR	11470.09	705.07	0.05	0.06
VerdeRiver	VerdeRiver	209708.90	ENCRCH	10776.77	546.06	0.05	0.06
VerdeRiver	VerdeRiver	209381.00	100 YEAR	10607.37	672.40	0.05	0.05
VerdeRiver	VerdeRiver	209381.00	ENCRCH	10047.57	507.89	0.05	0.05
VerdeRiver	VerdeRiver	209280.20	100 YEAR	11092.58	769.98	0.04	0.05
VerdeRiver	VerdeRiver	209280.20	ENCRCH	10029.31	526.05	0.04	0.04
VerdeRiver	VerdeRiver	209160.30	100 YEAR	9979.20	559.47	0.04	0.05
VerdeRiver	VerdeRiver	209160.30	ENCRCH	9569.27	469.30	0.04	0.05
VerdeRiver	VerdeRiver	208988.00	100 YEAR	7950.97	445.63	0.04	0.04
VerdeRiver	VerdeRiver	208988.00	ENCRCH	7547.28	351.77	0.04	0.04
VerdeRiver	VerdeRiver	208688.60	100 YEAR	5339.15	322.90	0.04	0.04
VerdeRiver	VerdeRiver	208688.60	ENCRCH	5131.59	250.41	0.04	0.04
VerdeRiver	VerdeRiver	208309.50	100 YEAR	5512.26	345.65	0.04	0.03
VerdeRiver	VerdeRiver	208309.50	ENCRCH	5258.19	249.13	0.04	0.03
VerdeRiver	VerdeRiver	207958.10	100 YEAR	8557.58	567.49	0.04	0.04
VerdeRiver	VerdeRiver	207958.10	ENCRCH	7647.20	401.56	0.04	0.04
VerdeRiver	VerdeRiver	207669.90	100 YEAR	9662.36	617.18	0.04	0.04
VerdeRiver	VerdeRiver	207669.90	ENCRCH	8998.31	487.08	0.04	0.04
VerdeRiver	VerdeRiver	207146.10	100 YEAR	8992.93	646.28		0.05
VerdeRiver	VerdeRiver	207146.10	ENCRCH	8519.83	532.04		0.05
VerdeRiver	VerdeRiver	206771.90	100 YEAR	8200.03	626.36	0.06	0.07
VerdeRiver	VerdeRiver	206771.90	ENCRCH	8040.32	550.01	0.06	0.07
VerdeRiver	VerdeRiver	206302.00	100 YEAR	7766.66	672.46	0.05	0.06
VerdeRiver	VerdeRiver	206302.00	ENCRCH	7504.21	581.91	0.05	0.06
VerdeRiver	VerdeRiver	205955.00	100 YEAR	11452.61	915.34	0.04	0.05
VerdeRiver	VerdeRiver	205955.00	ENCRCH	10169.33	722.73	0.04	0.04
VerdeRiver	VerdeRiver	205669.80	100 YEAR	12473.83	929.67	0.04	0.05
VerdeRiver	VerdeRiver	205669.80	ENCRCH	11078.28	749.19	0.04	0.04
VerdeRiver	VerdeRiver	205417.70	100 YEAR	10083.25	782.09	0.04	0.04
VerdeRiver	VerdeRiver	205417.70	ENCRCH	9068.28	585.97	0.04	0.04
VerdeRiver	VerdeRiver	205293.10	100 YEAR	10201.06	775.78		0.04
VerdeRiver	VerdeRiver	205293.10	ENCRCH	9124.25	564.65		0.04

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100-YEAR = Floodplain
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River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	205271.60	100 YEAR	13068.48	783.94	0.04	0.04
VerdeRiver	VerdeRiver	205271.60	ENCRCH	11991.96	566.83	0.04	0.04
VerdeRiver	VerdeRiver	205260.00	100 YEAR	13403.88	725.67		0.04
VerdeRiver	VerdeRiver	205260.00	ENCRCH	12109.27	548.16		0.03
VerdeRiver	VerdeRiver	205196.20	100 YEAR	12771.93	795.59		0.03
VerdeRiver	VerdeRiver	205196.20	ENCRCH	11192.73	515.90		0.04
VerdeRiver	VerdeRiver	204992.70	100 YEAR	11965.01	730.44		0.04
VerdeRiver	VerdeRiver	204992.70	ENCRCH	10198.23	466.00		0.04
VerdeRiver	VerdeRiver	204907.80	100 YEAR	11300.47	662.39		0.03
VerdeRiver	VerdeRiver	204907.80	ENCRCH	10084.68	454.47		0.03
VerdeRiver	VerdeRiver	204737.10	100 YEAR	10597.25	612.89	0.04	0.04
VerdeRiver	VerdeRiver	204737.10	ENCRCH	9352.22	422.56	0.04	0.04
VerdeRiver	VerdeRiver	204470.30	100 YEAR	10288.19	589.29	0.04	0.04
VerdeRiver	VerdeRiver	204470.30	ENCRCH	8726.07	408.72	0.04	0.04
VerdeRiver	VerdeRiver	204145.50	100 YEAR	9814.13	607.61	0.04	0.04
VerdeRiver	VerdeRiver	204145.50	ENCRCH	9029.02	465.67	0.04	0.04
VerdeRiver	VerdeRiver	203977.90	100 YEAR	8983.53	548.83	0.05	0.05
VerdeRiver	VerdeRiver	203977.90	ENCRCH	8622.54	417.94	0.05	0.06
VerdeRiver	VerdeRiver	203286.40	100 YEAR	6075.71	447.98	0.04	0.03
VerdeRiver	VerdeRiver	203286.40	ENCRCH	5532.75	343.93	0.04	0.03
VerdeRiver	VerdeRiver	202962.70	100 YEAR	7223.93	474.48		0.04
VerdeRiver	VerdeRiver	202962.70	ENCRCH	6496.15	365.25		0.04
VerdeRiver	VerdeRiver	202662.90	100 YEAR	8883.91	625.83		0.04
VerdeRiver	VerdeRiver	202662.90	ENCRCH	7355.54	424.92		0.04
VerdeRiver	VerdeRiver	202217.80	100 YEAR	11557.21	786.28		0.04
VerdeRiver	VerdeRiver	202217.80	ENCRCH	9756.75	569.95		0.04
VerdeRiver	VerdeRiver	201702.80	100 YEAR	10684.07	646.90		0.04
VerdeRiver	VerdeRiver	201702.80	ENCRCH	9297.82	515.34		0.04
VerdeRiver	VerdeRiver	201256.80	100 YEAR	3990.91	302.85	0.04	0.03
VerdeRiver	VerdeRiver	201256.80	ENCRCH	3955.59	232.86	0.04	0.04
VerdeRiver	VerdeRiver	200951.40	100 YEAR	6068.89	445.93	0.04	0.04
VerdeRiver	VerdeRiver	200951.40	ENCRCH	5356.06	311.63	0.04	0.04
VerdeRiver	VerdeRiver	200688.90	100 YEAR	6676.11	450.80	0.04	0.03
VerdeRiver	VerdeRiver	200688.90	ENCRCH	6215.73	351.25	0.04	0.04
VerdeRiver	VerdeRiver	200496.20	100 YEAR	6173.79	425.61	0.04	0.03
VerdeRiver	VerdeRiver	200496.20	ENCRCH	5743.53	324.53	0.04	0.04
VerdeRiver	VerdeRiver	200440.00	100 YEAR	6032.11	535.68	0.04	0.03
VerdeRiver	VerdeRiver	200440.00	ENCRCH	5655.83	326.40	0.04	0.04

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River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	200335.90	100 YEAR	6458.05	580.04	0.04	0.03
VerdeRiver	VerdeRiver	200335.90	ENCRCH	6211.15	344.53	0.04	0.03
VerdeRiver	VerdeRiver	200285.60	100 YEAR	6370.69	565.66	0.04	0.03
VerdeRiver	VerdeRiver	200285.60	ENCRCH	6035.83	333.45	0.04	0.03
VerdeRiver	VerdeRiver	200259.20	100 YEAR	5907.89	447.19		0.03
VerdeRiver	VerdeRiver	200259.20	ENCRCH	5691.71	316.75		0.03
VerdeRiver	VerdeRiver	200194.50	100 YEAR	5835.45	618.03		0.03
VerdeRiver	VerdeRiver	200194.50	ENCRCH	5307.16	290.91		0.03
VerdeRiver	VerdeRiver	200026.40	100 YEAR	6119.26	741.54	0.04	0.03
VerdeRiver	VerdeRiver	200026.40	ENCRCH	5524.47	325.38	0.04	0.04
VerdeRiver	VerdeRiver	199812.50	100 YEAR	7103.45	713.80	0.04	0.03
VerdeRiver	VerdeRiver	199812.50	ENCRCH	6328.20	386.78	0.04	0.04
VerdeRiver	VerdeRiver	199737.40	100 YEAR	9039.30	726.34	0.04	0.04
VerdeRiver	VerdeRiver	199737.40	ENCRCH	6840.72	422.35	0.04	0.04
VerdeRiver	VerdeRiver	199492.70	100 YEAR	9318.42	661.49	0.04	0.04
VerdeRiver	VerdeRiver	199492.70	ENCRCH	8405.72	500.93	0.04	0.04
VerdeRiver	VerdeRiver	199347.50	100 YEAR	9596.80	660.48	0.04	0.05
VerdeRiver	VerdeRiver	199347.50	ENCRCH	8840.75	493.27	0.04	0.05
VerdeRiver	VerdeRiver	199262.40	100 YEAR	8333.60	701.55		0.04
VerdeRiver	VerdeRiver	199262.40	ENCRCH	8141.34	449.74		0.04
VerdeRiver	VerdeRiver	199209.10	100 YEAR	7835.73	480.67		0.02
VerdeRiver	VerdeRiver	199209.10	ENCRCH	8192.56	483.74		0.02
VerdeRiver	VerdeRiver	1.9 Tuzigoot Bridge		Bridge			
VerdeRiver	VerdeRiver	199171.00	100 YEAR	7357.19	452.04	0.05	0.05
VerdeRiver	VerdeRiver	199171.00	ENCRCH	7764.99	455.02	0.05	0.05
VerdeRiver	VerdeRiver	199132.70	100 YEAR	7487.12	707.47	0.04	0.05
VerdeRiver	VerdeRiver	199132.70	ENCRCH	7338.68	422.56	0.04	0.05
VerdeRiver	VerdeRiver	198827.70	100 YEAR	5397.30	629.03		0.04
VerdeRiver	VerdeRiver	198827.70	ENCRCH	5048.81	396.33		0.04
VerdeRiver	VerdeRiver	198344.90	100 YEAR	6787.36	701.94		0.03
VerdeRiver	VerdeRiver	198344.90	ENCRCH	5925.21	498.77		0.03
VerdeRiver	VerdeRiver	198157.90	100 YEAR	5490.35	678.38		0.03
VerdeRiver	VerdeRiver	198157.90	ENCRCH	5091.83	474.15		0.03
VerdeRiver	VerdeRiver	198007.60	100 YEAR	5809.74	714.48	0.04	0.03
VerdeRiver	VerdeRiver	198007.60	ENCRCH	5564.12	482.85	0.04	0.03
VerdeRiver	VerdeRiver	197896.70	100 YEAR	7142.98	841.50		0.03
VerdeRiver	VerdeRiver	197896.70	ENCRCH	6767.03	605.41		0.04
VerdeRiver	VerdeRiver	197762.10	100 YEAR	8455.87	823.94		0.03

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River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	197762.10	ENCRCH	7942.36	595.91		0.03
VerdeRiver	VerdeRiver	197600.70	100 YEAR	8540.74	795.00		0.03
VerdeRiver	VerdeRiver	197600.70	ENCRCH	8160.51	676.50		0.03
VerdeRiver	VerdeRiver	197124.20	100 YEAR	9664.62	819.77		0.03
VerdeRiver	VerdeRiver	197124.20	ENCRCH	9035.24	690.26		0.03
VerdeRiver	VerdeRiver	196627.70	100 YEAR	10072.88	758.90		0.04
VerdeRiver	VerdeRiver	196627.70	ENCRCH	9557.21	649.51		0.04
VerdeRiver	VerdeRiver	196449.80	100 YEAR	11404.35	749.92		0.04
VerdeRiver	VerdeRiver	196449.80	ENCRCH	10763.40	621.94		0.04
VerdeRiver	VerdeRiver	196359.50	100 YEAR	10816.41	713.14		0.04
VerdeRiver	VerdeRiver	196359.50	ENCRCH	10079.07	584.38		0.04
VerdeRiver	VerdeRiver	196207.60	100 YEAR	9677.83	647.08		0.04
VerdeRiver	VerdeRiver	196207.60	ENCRCH	9015.94	533.17		0.04
VerdeRiver	VerdeRiver	195784.90	100 YEAR	8993.82	519.85	0.04	0.04
VerdeRiver	VerdeRiver	195784.90	ENCRCH	8152.41	407.55	0.04	0.04
VerdeRiver	VerdeRiver	195713.10	100 YEAR	10119.56	563.12	0.04	0.04
VerdeRiver	VerdeRiver	195713.10	ENCRCH	9174.18	439.91	0.04	0.04
VerdeRiver	VerdeRiver	195577.40	100 YEAR	9545.98	571.10		0.03
VerdeRiver	VerdeRiver	195577.40	ENCRCH	8496.75	413.05		0.04
VerdeRiver	VerdeRiver	195394.10	100 YEAR	9130.12	535.50	0.04	0.03
VerdeRiver	VerdeRiver	195394.10	ENCRCH	8530.05	432.39	0.04	0.04
VerdeRiver	VerdeRiver	195329.00	100 YEAR	8479.72	496.61		0.03
VerdeRiver	VerdeRiver	195329.00	ENCRCH	7886.45	406.64		0.03
VerdeRiver	VerdeRiver	195216.90	100 YEAR	7943.61	451.25	0.04	0.03
VerdeRiver	VerdeRiver	195216.90	ENCRCH	7606.38	390.95	0.04	0.04
VerdeRiver	VerdeRiver	194895.30	100 YEAR	7407.15	402.80		0.03
VerdeRiver	VerdeRiver	194895.30	ENCRCH	7156.57	360.78		0.03
VerdeRiver	VerdeRiver	194743.30	100 YEAR	3931.02	317.47		0.03
VerdeRiver	VerdeRiver	194743.30	ENCRCH	3706.20	286.30		0.03
VerdeRiver	VerdeRiver	194591.10	100 YEAR	4172.20	355.03		0.03
VerdeRiver	VerdeRiver	194591.10	ENCRCH	4172.20	355.03		0.03
VerdeRiver	VerdeRiver	194482.10	100 YEAR	5285.52	769.86		0.03
VerdeRiver	VerdeRiver	194482.10	ENCRCH	4477.61	431.45		0.03
VerdeRiver	VerdeRiver	194310.20	100 YEAR	5804.68	961.78		0.03
VerdeRiver	VerdeRiver	194310.20	ENCRCH	4848.88	500.20		0.03
VerdeRiver	VerdeRiver	194146.50	100 YEAR	6935.84	1170.43	0.04	0.03
VerdeRiver	VerdeRiver	194146.50	ENCRCH	6015.00	661.67	0.04	0.03
VerdeRiver	VerdeRiver	193829.00	100 YEAR	8577.46	1759.00		0.03

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River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	193829.00	ENCRCH	7644.00	864.61		0.03
VerdeRiver	VerdeRiver	193519.90	100 YEAR	11314.99	1878.15		0.03
VerdeRiver	VerdeRiver	193519.90	ENCRCH	10568.35	1108.16		0.03
VerdeRiver	VerdeRiver	193320.80	100 YEAR	13651.58	1999.06		0.03
VerdeRiver	VerdeRiver	193320.80	ENCRCH	12800.88	1240.92		0.03
VerdeRiver	VerdeRiver	193204.90	100 YEAR	15120.90	2097.12		0.03
VerdeRiver	VerdeRiver	193204.90	ENCRCH	14271.88	1301.62		0.03
VerdeRiver	VerdeRiver	193044.70	100 YEAR	16004.29	1967.71	0.04	0.03
VerdeRiver	VerdeRiver	193044.70	ENCRCH	14963.02	1330.83	0.04	0.03
VerdeRiver	VerdeRiver	192841.20	100 YEAR	13047.98	1771.83	0.04	0.03
VerdeRiver	VerdeRiver	192841.20	ENCRCH	12584.48	1197.00	0.04	0.04
VerdeRiver	VerdeRiver	192638.50	100 YEAR	11662.01	1682.44	0.05	0.04
VerdeRiver	VerdeRiver	192638.50	ENCRCH	11141.08	1094.24	0.05	0.04
VerdeRiver	VerdeRiver	192228.10	100 YEAR	9751.87	1658.36		0.03
VerdeRiver	VerdeRiver	192228.10	ENCRCH	9429.20	995.68		0.03
VerdeRiver	VerdeRiver	191712.20	100 YEAR	8279.64	1687.18		0.04
VerdeRiver	VerdeRiver	191712.20	ENCRCH	7644.35	1038.50		0.04
VerdeRiver	VerdeRiver	191221.50	100 YEAR	9594.77	1887.89		0.06
VerdeRiver	VerdeRiver	191221.50	ENCRCH	9261.31	1058.80		0.06
VerdeRiver	VerdeRiver	190854.00	100 YEAR	11161.80	1882.01	0.06	0.06
VerdeRiver	VerdeRiver	190854.00	ENCRCH	9300.89	895.67	0.06	0.06
VerdeRiver	VerdeRiver	190456.80	100 YEAR	12252.88	1876.35		0.04
VerdeRiver	VerdeRiver	190456.80	ENCRCH	10332.68	822.87		0.04
VerdeRiver	VerdeRiver	190196.00	100 YEAR	10606.43	2080.22	0.05	0.05
VerdeRiver	VerdeRiver	190196.00	ENCRCH	8966.41	729.38	0.05	0.05
VerdeRiver	VerdeRiver	190026.70	100 YEAR	10678.30	2315.33	0.05	0.05
VerdeRiver	VerdeRiver	190026.70	ENCRCH	9159.97	756.27	0.05	0.05
VerdeRiver	VerdeRiver	189713.10	100 YEAR	10783.65	2376.40		0.05
VerdeRiver	VerdeRiver	189713.10	ENCRCH	9455.74	709.34		0.04
VerdeRiver	VerdeRiver	189400.60	100 YEAR	6511.55	1965.03	0.06	0.05
VerdeRiver	VerdeRiver	189400.60	ENCRCH	6193.98	512.54	0.06	0.06
VerdeRiver	VerdeRiver	188898.00	100 YEAR	7528.15	1119.58		0.04
VerdeRiver	VerdeRiver	188898.00	ENCRCH	6953.44	635.23		0.04
VerdeRiver	VerdeRiver	188716.10	100 YEAR	9205.91	1358.16		0.04
VerdeRiver	VerdeRiver	188716.10	ENCRCH	7917.28	768.44		0.04
VerdeRiver	VerdeRiver	188425.90	100 YEAR	10648.57	1499.67		0.04
VerdeRiver	VerdeRiver	188425.90	ENCRCH	9120.96	816.38		0.04
VerdeRiver	VerdeRiver	188220.20	100 YEAR	11496.23	1469.78		0.04

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	188220.20	ENCRCH	10186.16	883.95		0.04
VerdeRiver	VerdeRiver	187819.60	100 YEAR	11724.82	1409.28		0.04
VerdeRiver	VerdeRiver	187819.60	ENCRCH	10518.40	848.77		0.04
VerdeRiver	VerdeRiver	187395.50	100 YEAR	12703.39	1542.07		0.05
VerdeRiver	VerdeRiver	187395.50	ENCRCH	11961.40	983.98		0.05
VerdeRiver	VerdeRiver	187237.80	100 YEAR	13684.54	1639.93		0.07
VerdeRiver	VerdeRiver	187237.80	ENCRCH	12575.98	984.06		0.07
VerdeRiver	VerdeRiver	186861.10	100 YEAR	12365.77	1620.89		0.08
VerdeRiver	VerdeRiver	186861.10	ENCRCH	11101.34	868.31		0.09
VerdeRiver	VerdeRiver	186227.30	100 YEAR	10648.22	1570.14		0.05
VerdeRiver	VerdeRiver	186227.30	ENCRCH	8940.15	875.82		0.05
VerdeRiver	VerdeRiver	185714.80	100 YEAR	14015.80	1953.00		0.06
VerdeRiver	VerdeRiver	185714.80	ENCRCH	11770.13	930.21		0.05
VerdeRiver	VerdeRiver	185496.60	100 YEAR	14000.58	2013.60		0.06
VerdeRiver	VerdeRiver	185496.60	ENCRCH	11715.05	891.57		0.06
VerdeRiver	VerdeRiver	185207.20	100 YEAR	13231.82	1927.07		0.06
VerdeRiver	VerdeRiver	185207.20	ENCRCH	11390.27	796.62		0.06
VerdeRiver	VerdeRiver	184998.10	100 YEAR	10529.31	1839.06		0.07
VerdeRiver	VerdeRiver	184998.10	ENCRCH	9738.78	706.90		0.07
VerdeRiver	VerdeRiver	184780.80	100 YEAR	8537.26	1841.72		0.06
VerdeRiver	VerdeRiver	184780.80	ENCRCH	8478.54	645.41		0.06
VerdeRiver	VerdeRiver	184726.00	100 YEAR	7887.79	1137.33		0.04
VerdeRiver	VerdeRiver	184726.00	ENCRCH	7353.36	538.98		0.06
VerdeRiver	VerdeRiver	8.9 10th Street Brid		Bridge			
VerdeRiver	VerdeRiver	184665.60	100 YEAR	7585.34	1051.21		0.01
VerdeRiver	VerdeRiver	184665.60	ENCRCH	7176.69	533.97		0.02
VerdeRiver	VerdeRiver	184587.60	100 YEAR	9416.50	2215.95		0.03
VerdeRiver	VerdeRiver	184587.60	ENCRCH	8401.93	784.96		0.04
VerdeRiver	VerdeRiver	184392.10	100 YEAR	8682.78	2274.08		0.03
VerdeRiver	VerdeRiver	184392.10	ENCRCH	8289.59	836.93		0.04
VerdeRiver	VerdeRiver	183971.00	100 YEAR	11074.97	2554.36	0.05	0.04
VerdeRiver	VerdeRiver	183971.00	ENCRCH	9060.85	1012.46	0.05	0.05
VerdeRiver	VerdeRiver	183580.70	100 YEAR	11995.54	2461.58	0.06	0.04
VerdeRiver	VerdeRiver	183580.70	ENCRCH	9798.69	1128.98	0.06	0.05
VerdeRiver	VerdeRiver	183075.70	100 YEAR	10553.88	1469.28		0.03
VerdeRiver	VerdeRiver	183075.70	ENCRCH	10491.89	1255.56		0.04
VerdeRiver	VerdeRiver	182895.60	100 YEAR	12171.68	1968.43	0.04	0.03
VerdeRiver	VerdeRiver	182895.60	ENCRCH	11406.94	1279.16	0.04	0.04

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	182680.60	100 YEAR	12094.63	1775.66		0.03
VerdeRiver	VerdeRiver	182680.60	ENCRCH	11271.29	1284.15		0.04
VerdeRiver	VerdeRiver	182334.80	100 YEAR	12763.75	1797.02		0.04
VerdeRiver	VerdeRiver	182334.80	ENCRCH	11922.02	1346.18		0.04
VerdeRiver	VerdeRiver	182045.00	100 YEAR	12329.89	1768.95	0.07	0.05
VerdeRiver	VerdeRiver	182045.00	ENCRCH	12534.38	1390.85	0.07	0.05
VerdeRiver	VerdeRiver	181636.10	100 YEAR	14115.30	1664.12		0.04
VerdeRiver	VerdeRiver	181636.10	ENCRCH	13373.24	1263.93		0.04
VerdeRiver	VerdeRiver	181306.30	100 YEAR	14272.43	1566.25		0.04
VerdeRiver	VerdeRiver	181306.30	ENCRCH	13013.69	1153.50		0.04
VerdeRiver	VerdeRiver	180948.10	100 YEAR	13808.60	1528.74		0.04
VerdeRiver	VerdeRiver	180948.10	ENCRCH	12406.24	1025.31		0.04
VerdeRiver	VerdeRiver	180398.10	100 YEAR	10694.04	1420.21	0.07	0.05
VerdeRiver	VerdeRiver	180398.10	ENCRCH	9343.67	879.68	0.07	0.05
VerdeRiver	VerdeRiver	180027.50	100 YEAR	10845.37	1498.05	0.05	0.05
VerdeRiver	VerdeRiver	180027.50	ENCRCH	9406.15	876.32	0.05	0.05
VerdeRiver	VerdeRiver	179752.40	100 YEAR	12326.06	1824.51	0.04	0.03
VerdeRiver	VerdeRiver	179752.40	ENCRCH	10957.18	927.75	0.04	0.04
VerdeRiver	VerdeRiver	179573.90	100 YEAR	12139.36	2039.37	0.04	0.04
VerdeRiver	VerdeRiver	179573.90	ENCRCH	10575.03	943.39	0.04	0.04
VerdeRiver	VerdeRiver	179214.80	100 YEAR	13343.02	2414.50	0.04	0.04
VerdeRiver	VerdeRiver	179214.80	ENCRCH	11702.32	1369.38	0.04	0.04
VerdeRiver	VerdeRiver	178723.60	100 YEAR	14215.08	3030.00	0.05	0.05
VerdeRiver	VerdeRiver	178723.60	ENCRCH	12388.27	1794.54	0.05	0.05
VerdeRiver	VerdeRiver	178301.10	100 YEAR	16604.94	2830.77		0.04
VerdeRiver	VerdeRiver	178301.10	ENCRCH	14221.00	1933.47		0.05
VerdeRiver	VerdeRiver	178027.00	100 YEAR	18889.79	2912.64		0.05
VerdeRiver	VerdeRiver	178027.00	ENCRCH	16251.53	1956.65		0.05
VerdeRiver	VerdeRiver	177719.30	100 YEAR	18868.95	2702.20	0.06	0.04
VerdeRiver	VerdeRiver	177719.30	ENCRCH	16529.92	1970.88	0.06	0.04
VerdeRiver	VerdeRiver	177479.60	100 YEAR	20909.27	2758.15	0.06	0.04
VerdeRiver	VerdeRiver	177479.60	ENCRCH	19044.15	2102.50	0.06	0.05
VerdeRiver	VerdeRiver	177251.70	100 YEAR	20702.13	2688.22	0.06	0.04
VerdeRiver	VerdeRiver	177251.70	ENCRCH	20083.11	2155.99	0.06	0.05
VerdeRiver	VerdeRiver	177033.70	100 YEAR	19247.78	2639.90		0.04
VerdeRiver	VerdeRiver	177033.70	ENCRCH	18717.81	2109.55		0.04
VerdeRiver	VerdeRiver	176656.40	100 YEAR	18119.56	2524.91		0.04
VerdeRiver	VerdeRiver	176656.40	ENCRCH	17352.38	1977.12		0.04

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	176188.50	100 YEAR	18391.11	2472.58	0.09	0.05
VerdeRiver	VerdeRiver	176188.50	ENCRCH	17535.94	1886.85	0.09	0.06
VerdeRiver	VerdeRiver	175819.80	100 YEAR	19296.14	2478.74	0.09	0.05
VerdeRiver	VerdeRiver	175819.80	ENCRCH	18287.08	1833.41	0.09	0.06
VerdeRiver	VerdeRiver	175431.50	100 YEAR	19285.48	2400.61	0.09	0.06
VerdeRiver	VerdeRiver	175431.50	ENCRCH	18158.99	1726.29	0.09	0.07
VerdeRiver	VerdeRiver	175114.70	100 YEAR	19116.10	2446.41	0.09	0.07
VerdeRiver	VerdeRiver	175114.70	ENCRCH	17515.88	1590.86	0.09	0.07
VerdeRiver	VerdeRiver	174875.00	100 YEAR	19083.84	2459.25	0.09	0.07
VerdeRiver	VerdeRiver	174875.00	ENCRCH	17255.45	1551.80	0.09	0.07
VerdeRiver	VerdeRiver	174637.40	100 YEAR	19766.23	2470.25	0.08	0.06
VerdeRiver	VerdeRiver	174637.40	ENCRCH	17522.30	1483.24	0.08	0.07
VerdeRiver	VerdeRiver	174339.10	100 YEAR	19630.00	2346.74		0.06
VerdeRiver	VerdeRiver	174339.10	ENCRCH	17558.33	1496.54		0.07
VerdeRiver	VerdeRiver	173999.70	100 YEAR	20584.88	2367.15		0.06
VerdeRiver	VerdeRiver	173999.70	ENCRCH	18424.99	1555.69		0.07
VerdeRiver	VerdeRiver	173767.80	100 YEAR	19054.91	2198.04		0.05
VerdeRiver	VerdeRiver	173767.80	ENCRCH	17067.03	1396.80		0.06
VerdeRiver	VerdeRiver	173617.90	100 YEAR	18336.73	2093.85		0.05
VerdeRiver	VerdeRiver	173617.90	ENCRCH	16272.71	1267.35		0.06
VerdeRiver	VerdeRiver	173222.40	100 YEAR	16081.18	1706.95		0.04
VerdeRiver	VerdeRiver	173222.40	ENCRCH	13866.35	1042.29		0.04
VerdeRiver	VerdeRiver	172845.80	100 YEAR	14261.50	1421.19	0.07	0.06
VerdeRiver	VerdeRiver	172845.80	ENCRCH	12922.78	1058.09	0.07	0.06
VerdeRiver	VerdeRiver	172704.30	100 YEAR	13994.29	1455.32		0.05
VerdeRiver	VerdeRiver	172704.30	ENCRCH	12568.36	1050.83		0.05
VerdeRiver	VerdeRiver	172590.20	100 YEAR	15455.37	1504.46	0.06	0.05
VerdeRiver	VerdeRiver	172590.20	ENCRCH	13663.46	1086.35	0.06	0.06
VerdeRiver	VerdeRiver	172457.00	100 YEAR	15866.21	1504.21		0.05
VerdeRiver	VerdeRiver	172457.00	ENCRCH	14012.61	1054.88		0.05
VerdeRiver	VerdeRiver	172314.10	100 YEAR	15720.23	1488.64	0.08	0.06
VerdeRiver	VerdeRiver	172314.10	ENCRCH	13872.77	1040.12	0.08	0.06
VerdeRiver	VerdeRiver	172083.60	100 YEAR	15890.57	1507.11	0.08	0.06
VerdeRiver	VerdeRiver	172083.60	ENCRCH	14894.42	1017.50	0.08	0.06
VerdeRiver	VerdeRiver	171976.10	100 YEAR	14871.14	1423.10		0.06
VerdeRiver	VerdeRiver	171976.10	ENCRCH	15226.17	1004.33		0.06
VerdeRiver	VerdeRiver	171926.90	100 YEAR	14184.58	957.43		0.06
VerdeRiver	VerdeRiver	171926.90	ENCRCH	14737.63	959.92		0.06

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	.8 Mingus Avenue Br		Bridge			
VerdeRiver	VerdeRiver	171861.30	100 YEAR	13543.92	952.55		0.07
VerdeRiver	VerdeRiver	171861.30	ENCRCH	14149.94	956.15		0.07
VerdeRiver	VerdeRiver	171809.20	100 YEAR	13907.22	1607.57	0.08	0.08
VerdeRiver	VerdeRiver	171809.20	ENCRCH	14380.64	943.52	0.08	0.08
VerdeRiver	VerdeRiver	171477.80	100 YEAR	14278.68	1341.22		0.07
VerdeRiver	VerdeRiver	171477.80	ENCRCH	13822.01	917.99		0.07
VerdeRiver	VerdeRiver	171139.90	100 YEAR	16456.32	1781.31	0.08	0.05
VerdeRiver	VerdeRiver	171139.90	ENCRCH	15283.27	1006.08	0.08	0.06
VerdeRiver	VerdeRiver	170700.40	100 YEAR	13589.73	1627.08		0.04
VerdeRiver	VerdeRiver	170700.40	ENCRCH	12669.10	1038.32		0.05
VerdeRiver	VerdeRiver	170282.70	100 YEAR	15654.77	1588.44	0.07	0.04
VerdeRiver	VerdeRiver	170282.70	ENCRCH	14473.80	1207.78	0.07	0.04
VerdeRiver	VerdeRiver	170025.80	100 YEAR	15328.14	1566.74	0.07	0.04
VerdeRiver	VerdeRiver	170025.80	ENCRCH	14259.93	1202.07	0.07	0.05
VerdeRiver	VerdeRiver	169724.40	100 YEAR	14796.77	1813.89		0.04
VerdeRiver	VerdeRiver	169724.40	ENCRCH	13433.14	1171.18		0.05
VerdeRiver	VerdeRiver	169497.80	100 YEAR	14361.02	1698.49	0.07	0.05
VerdeRiver	VerdeRiver	169497.80	ENCRCH	12060.18	1118.27	0.07	0.05
VerdeRiver	VerdeRiver	169364.70	100 YEAR	14228.07	1666.47	0.07	0.05
VerdeRiver	VerdeRiver	169364.70	ENCRCH	12008.49	1089.74	0.07	0.05
VerdeRiver	VerdeRiver	169012.70	100 YEAR	13053.36	1677.85		0.04
VerdeRiver	VerdeRiver	169012.70	ENCRCH	11260.04	1053.75		0.04
VerdeRiver	VerdeRiver	168514.20	100 YEAR	14930.75	1769.50		0.04
VerdeRiver	VerdeRiver	168514.20	ENCRCH	13427.91	1179.51		0.04
VerdeRiver	VerdeRiver	167965.50	100 YEAR	19083.61	1753.65		0.04
VerdeRiver	VerdeRiver	167965.50	ENCRCH	16766.45	1236.66		0.04
VerdeRiver	VerdeRiver	167586.10	100 YEAR	21020.30	1841.65		0.04
VerdeRiver	VerdeRiver	167586.10	ENCRCH	18183.44	1393.68		0.04
VerdeRiver	VerdeRiver	167135.40	100 YEAR	25885.69	2155.82	0.05	0.04
VerdeRiver	VerdeRiver	167135.40	ENCRCH	20603.63	1363.92	0.05	0.04
VerdeRiver	VerdeRiver	166993.90	100 YEAR	27233.91	2200.88		0.04
VerdeRiver	VerdeRiver	166993.90	ENCRCH	21784.84	1404.50		0.04
VerdeRiver	VerdeRiver	166910.00	100 YEAR	25419.95	2064.87	0.07	0.04
VerdeRiver	VerdeRiver	166910.00	ENCRCH	21583.72	1390.05	0.07	0.04
VerdeRiver	VerdeRiver	166769.30	100 YEAR	23818.64	2020.29	0.08	0.04
VerdeRiver	VerdeRiver	166769.30	ENCRCH	20288.12	1316.18	0.08	0.04

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	166551.40	100 YEAR	22439.73	1857.90	0.08	0.04
VerdeRiver	VerdeRiver	166551.40	ENCRCH	19108.17	1262.54	0.08	0.04
VerdeRiver	VerdeRiver	166254.00	100 YEAR	23970.34	1928.23	0.06	0.04
VerdeRiver	VerdeRiver	166254.00	ENCRCH	20684.69	1299.50	0.06	0.04
VerdeRiver	VerdeRiver	166090.30	100 YEAR	21481.19	1797.65	0.06	0.04
VerdeRiver	VerdeRiver	166090.30	ENCRCH	18461.97	1179.66	0.06	0.04
VerdeRiver	VerdeRiver	165688.10	100 YEAR	20604.35	1694.22	0.06	0.03
VerdeRiver	VerdeRiver	165688.10	ENCRCH	17506.66	1049.17	0.06	0.04
VerdeRiver	VerdeRiver	165304.90	100 YEAR	20006.67	1545.74	0.08	0.04
VerdeRiver	VerdeRiver	165304.90	ENCRCH	16930.48	983.02	0.08	0.04
VerdeRiver	VerdeRiver	165072.90	100 YEAR	16508.55	1556.76		0.04
VerdeRiver	VerdeRiver	165072.90	ENCRCH	15324.46	839.95		0.04
VerdeRiver	VerdeRiver	164876.10	100 YEAR	14865.18	1585.89	0.09	0.05
VerdeRiver	VerdeRiver	164876.10	ENCRCH	14905.00	767.54	0.09	0.06
VerdeRiver	VerdeRiver	164596.60	100 YEAR	15642.35	1642.37	0.08	0.05
VerdeRiver	VerdeRiver	164596.60	ENCRCH	14244.37	730.51	0.08	0.05
VerdeRiver	VerdeRiver	164284.50	100 YEAR	14189.64	1612.06	0.08	0.05
VerdeRiver	VerdeRiver	164284.50	ENCRCH	13362.23	668.34	0.08	0.05
VerdeRiver	VerdeRiver	164104.80	100 YEAR	12347.95	1692.27	0.08	0.05
VerdeRiver	VerdeRiver	164104.80	ENCRCH	11053.75	555.82	0.08	0.05
VerdeRiver	VerdeRiver	164013.50	100 YEAR	10047.59	1645.18	0.08	0.05
VerdeRiver	VerdeRiver	164013.50	ENCRCH	9627.75	491.44	0.08	0.05
VerdeRiver	VerdeRiver	163963.80	100 YEAR	9348.58	1388.22	0.08	0.05
VerdeRiver	VerdeRiver	163963.80	ENCRCH	9097.04	429.40	0.08	0.05
VerdeRiver	VerdeRiver	3.8 SR-89A Bridge		Bridge			
VerdeRiver	VerdeRiver	163863.10	100 YEAR	8782.17	990.08	0.07	0.08
VerdeRiver	VerdeRiver	163863.10	ENCRCH	9008.88	428.46	0.07	0.08
VerdeRiver	VerdeRiver	163761.90	100 YEAR	10054.03	1349.65	0.09	0.07
VerdeRiver	VerdeRiver	163761.90	ENCRCH	10065.67	535.36	0.09	0.08
VerdeRiver	VerdeRiver	163517.70	100 YEAR	14767.91	1405.57		0.06
VerdeRiver	VerdeRiver	163517.70	ENCRCH	14312.12	832.63		0.07
VerdeRiver	VerdeRiver	163153.70	100 YEAR	15328.58	1557.19		0.05
VerdeRiver	VerdeRiver	163153.70	ENCRCH	13617.05	823.30		0.07
VerdeRiver	VerdeRiver	162862.30	100 YEAR	16646.03	1771.99		0.05
VerdeRiver	VerdeRiver	162862.30	ENCRCH	13675.96	827.81		0.07
VerdeRiver	VerdeRiver	162612.40	100 YEAR	20999.17	2899.19	0.09	0.06
VerdeRiver	VerdeRiver	162612.40	ENCRCH	14592.09	908.73	0.09	0.09
VerdeRiver	VerdeRiver	162461.40	100 YEAR	18177.98	2796.75	0.09	0.04

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	162461.40	ENCRCH	13353.94	890.20	0.09	0.05
VerdeRiver	VerdeRiver	162127.60	100 YEAR	14518.07	2647.23	0.08	0.05
VerdeRiver	VerdeRiver	162127.60	ENCRCH	11009.34	852.72	0.08	0.08
VerdeRiver	VerdeRiver	161836.40	100 YEAR	12793.03	2402.02		0.05
VerdeRiver	VerdeRiver	161836.40	ENCRCH	9812.07	722.73		0.07
VerdeRiver	VerdeRiver	161522.10	100 YEAR	10007.03	1894.44		0.04
VerdeRiver	VerdeRiver	161522.10	ENCRCH	8988.03	797.76		0.06
VerdeRiver	VerdeRiver	161224.50	100 YEAR	10986.07	2051.70		0.03
VerdeRiver	VerdeRiver	161224.50	ENCRCH	9395.19	848.86		0.04
VerdeRiver	VerdeRiver	160908.30	100 YEAR	13989.46	2307.04		0.04
VerdeRiver	VerdeRiver	160908.30	ENCRCH	12101.70	931.44		0.05
VerdeRiver	VerdeRiver	160459.30	100 YEAR	17114.09	2488.67	0.05	0.03
VerdeRiver	VerdeRiver	160459.30	ENCRCH	13846.72	1100.92	0.05	0.04
VerdeRiver	VerdeRiver	159973.60	100 YEAR	11600.91	1794.48		0.03
VerdeRiver	VerdeRiver	159973.60	ENCRCH	9890.20	1012.30		0.04
VerdeRiver	VerdeRiver	159397.70	100 YEAR	13269.30	1969.44	0.06	0.04
VerdeRiver	VerdeRiver	159397.70	ENCRCH	10907.85	1112.48	0.06	0.04
VerdeRiver	VerdeRiver	158907.70	100 YEAR	15132.57	2255.69	0.07	0.04
VerdeRiver	VerdeRiver	158907.70	ENCRCH	12415.90	1293.86	0.07	0.05
VerdeRiver	VerdeRiver	158626.40	100 YEAR	15933.93	2318.66	0.07	0.05
VerdeRiver	VerdeRiver	158626.40	ENCRCH	13668.98	1331.26	0.07	0.05
VerdeRiver	VerdeRiver	158282.90	100 YEAR	17575.56	2313.38	0.07	0.05
VerdeRiver	VerdeRiver	158282.90	ENCRCH	15596.98	1370.15	0.07	0.05
VerdeRiver	VerdeRiver	158099.40	100 YEAR	17800.04	2356.02	0.07	0.05
VerdeRiver	VerdeRiver	158099.40	ENCRCH	15618.92	1336.95	0.07	0.05
VerdeRiver	VerdeRiver	157813.60	100 YEAR	20679.86	2406.67		0.05
VerdeRiver	VerdeRiver	157813.60	ENCRCH	17411.46	1359.04		0.05
VerdeRiver	VerdeRiver	157544.10	100 YEAR	21409.35	2381.95	0.08	0.05
VerdeRiver	VerdeRiver	157544.10	ENCRCH	17655.78	1416.65	0.08	0.06
VerdeRiver	VerdeRiver	157273.60	100 YEAR	23149.36	2494.52		0.05
VerdeRiver	VerdeRiver	157273.60	ENCRCH	18378.83	1405.18		0.05
VerdeRiver	VerdeRiver	156869.90	100 YEAR	26216.16	2293.81	0.08	0.07
VerdeRiver	VerdeRiver	156869.90	ENCRCH	21886.50	1507.12	0.08	0.07
VerdeRiver	VerdeRiver	156552.20	100 YEAR	23648.94	2088.56		0.04
VerdeRiver	VerdeRiver	156552.20	ENCRCH	23256.55	1602.66		0.05
VerdeRiver	VerdeRiver	156163.30	100 YEAR	23528.57	1833.65		0.04
VerdeRiver	VerdeRiver	156163.30	ENCRCH	23480.40	1448.48		0.05
VerdeRiver	VerdeRiver	155788.90	100 YEAR	27787.02	2089.38		0.05

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	155788.90	ENCRCH	24832.23	1492.12		0.05
VerdeRiver	VerdeRiver	155408.30	100 YEAR	28895.74	2091.78	0.06	0.06
VerdeRiver	VerdeRiver	155408.30	ENCRCH	25972.62	1479.51	0.06	0.07
VerdeRiver	VerdeRiver	155086.40	100 YEAR	27300.24	1838.47	0.05	0.06
VerdeRiver	VerdeRiver	155086.40	ENCRCH	26101.95	1486.64	0.05	0.06
VerdeRiver	VerdeRiver	154699.90	100 YEAR	21679.11	1318.13		0.05
VerdeRiver	VerdeRiver	154699.90	ENCRCH	19586.98	995.75		0.05
VerdeRiver	VerdeRiver	154379.40	100 YEAR	19098.76	1158.25	0.05	0.05
VerdeRiver	VerdeRiver	154379.40	ENCRCH	17617.68	858.24	0.05	0.05
VerdeRiver	VerdeRiver	154042.90	100 YEAR	17525.46	1136.67		0.06
VerdeRiver	VerdeRiver	154042.90	ENCRCH	15006.38	752.11		0.06
VerdeRiver	VerdeRiver	153751.30	100 YEAR	16961.68	1110.33		0.06
VerdeRiver	VerdeRiver	153751.30	ENCRCH	14975.39	744.29		0.06
VerdeRiver	VerdeRiver	153501.20	100 YEAR	15655.83	1124.49		0.07
VerdeRiver	VerdeRiver	153501.20	ENCRCH	14104.33	745.51		0.07
VerdeRiver	VerdeRiver	153121.40	100 YEAR	16188.16	1144.65		0.07
VerdeRiver	VerdeRiver	153121.40	ENCRCH	14978.29	849.61		0.07
VerdeRiver	VerdeRiver	153008.00	100 YEAR	17260.57	1194.10	0.09	0.08
VerdeRiver	VerdeRiver	153008.00	ENCRCH	16243.92	912.83	0.09	0.08
VerdeRiver	VerdeRiver	152780.70	100 YEAR	17480.73	1144.78	0.08	0.08
VerdeRiver	VerdeRiver	152780.70	ENCRCH	16382.12	875.41	0.08	0.08
VerdeRiver	VerdeRiver	152401.70	100 YEAR	19360.44	1181.18	0.08	0.08
VerdeRiver	VerdeRiver	152401.70	ENCRCH	18644.22	954.69	0.08	0.08
VerdeRiver	VerdeRiver	152083.80	100 YEAR	18759.68	1092.46		0.07
VerdeRiver	VerdeRiver	152083.80	ENCRCH	18171.20	886.33		0.07
VerdeRiver	VerdeRiver	151853.00	100 YEAR	16697.18	1062.23	0.08	0.07
VerdeRiver	VerdeRiver	151853.00	ENCRCH	15904.70	800.38	0.08	0.07
VerdeRiver	VerdeRiver	151621.70	100 YEAR	15355.26	1050.56	0.07	0.06
VerdeRiver	VerdeRiver	151621.70	ENCRCH	14448.74	798.19	0.07	0.06
VerdeRiver	VerdeRiver	151537.50	100 YEAR	15334.06	1085.79	0.06	0.05
VerdeRiver	VerdeRiver	151537.50	ENCRCH	14538.29	801.67	0.07	0.06
VerdeRiver	VerdeRiver	151375.50	100 YEAR	14312.53	1083.98	0.08	0.05
VerdeRiver	VerdeRiver	151375.50	ENCRCH	13804.03	787.05	0.08	0.06
VerdeRiver	VerdeRiver	151189.10	100 YEAR	12725.65	991.76	0.06	0.05
VerdeRiver	VerdeRiver	151189.10	ENCRCH	12492.21	757.65	0.06	0.05
VerdeRiver	VerdeRiver	151046.80	100 YEAR	12712.53	942.34	0.06	0.05
VerdeRiver	VerdeRiver	151046.80	ENCRCH	12625.29	738.98	0.06	0.05
VerdeRiver	VerdeRiver	150952.80	100 YEAR	12049.57	917.68	0.04	0.04

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	150952.80	ENCRCH	11752.76	728.48	0.04	0.04
VerdeRiver	VerdeRiver	150789.70	100 YEAR	11511.11	867.04	0.06	0.04
VerdeRiver	VerdeRiver	150789.70	ENCRCH	11579.93	710.05	0.06	0.05
VerdeRiver	VerdeRiver	150684.30	100 YEAR	11535.60	850.58	0.06	0.04
VerdeRiver	VerdeRiver	150684.30	ENCRCH	11540.74	687.36	0.07	0.05
VerdeRiver	VerdeRiver	150516.10	100 YEAR	11807.96	861.01	0.08	0.05
VerdeRiver	VerdeRiver	150516.10	ENCRCH	11775.17	677.05	0.08	0.06
VerdeRiver	VerdeRiver	150373.60	100 YEAR	12684.99	868.66	0.08	0.06
VerdeRiver	VerdeRiver	150373.60	ENCRCH	12493.37	656.53	0.08	0.06
VerdeRiver	VerdeRiver	150191.00	100 YEAR	12688.86	877.82	0.08	0.06
VerdeRiver	VerdeRiver	150191.00	ENCRCH	12061.72	606.47	0.08	0.07
VerdeRiver	VerdeRiver	150047.30	100 YEAR	12345.12	780.20	0.08	0.07
VerdeRiver	VerdeRiver	150047.30	ENCRCH	11626.50	542.68	0.08	0.08
VerdeRiver	VerdeRiver	149842.60	100 YEAR	11067.52	677.93	0.07	0.07
VerdeRiver	VerdeRiver	149842.60	ENCRCH	10432.42	480.67	0.08	0.07
VerdeRiver	VerdeRiver	149579.90	100 YEAR	10650.51	634.48		0.06
VerdeRiver	VerdeRiver	149579.90	ENCRCH	9904.55	452.10		0.07
VerdeRiver	VerdeRiver	149271.00	100 YEAR	12430.49	924.54	0.07	0.07
VerdeRiver	VerdeRiver	149271.00	ENCRCH	11119.03	518.27	0.07	0.08
VerdeRiver	VerdeRiver	149076.30	100 YEAR	13683.25	964.58	0.09	0.07
VerdeRiver	VerdeRiver	149076.30	ENCRCH	12627.02	567.65	0.09	0.08
VerdeRiver	VerdeRiver	148850.50	100 YEAR	14344.88	965.00	0.08	0.07
VerdeRiver	VerdeRiver	148850.50	ENCRCH	13023.81	590.08	0.08	0.08
VerdeRiver	VerdeRiver	148688.00	100 YEAR	14398.83	956.38	0.08	0.08
VerdeRiver	VerdeRiver	148688.00	ENCRCH	12956.77	582.40	0.08	0.08
VerdeRiver	VerdeRiver	148497.80	100 YEAR	14111.81	969.91		0.07
VerdeRiver	VerdeRiver	148497.80	ENCRCH	12421.66	541.76		0.08
VerdeRiver	VerdeRiver	148348.40	100 YEAR	13139.65	969.24	0.08	0.07
VerdeRiver	VerdeRiver	148348.40	ENCRCH	11494.88	515.07	0.08	0.08
VerdeRiver	VerdeRiver	148164.90	100 YEAR	12489.89	950.40	0.07	0.07
VerdeRiver	VerdeRiver	148164.90	ENCRCH	10871.05	502.95	0.08	0.08
VerdeRiver	VerdeRiver	147992.80	100 YEAR	12588.56	1005.74	0.09	0.07
VerdeRiver	VerdeRiver	147992.80	ENCRCH	10940.36	514.17	0.09	0.09
VerdeRiver	VerdeRiver	147687.00	100 YEAR	12033.83	968.43	0.07	0.07
VerdeRiver	VerdeRiver	147687.00	ENCRCH	10905.84	529.56	0.08	0.09
VerdeRiver	VerdeRiver	147355.20	100 YEAR	11917.92	940.95	0.08	0.07
VerdeRiver	VerdeRiver	147355.20	ENCRCH	10902.96	602.38	0.08	0.08
VerdeRiver	VerdeRiver	147176.80	100 YEAR	14441.69	1136.15	0.08	0.07

Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	147176.80	ENCRCH	13225.92	735.38	0.08	0.08
VerdeRiver	VerdeRiver	146910.00	100 YEAR	17885.53	1316.47	0.09	0.08
VerdeRiver	VerdeRiver	146910.00	ENCRCH	17012.76	879.63	0.09	0.09
VerdeRiver	VerdeRiver	146620.80	100 YEAR	17922.90	1429.21	0.09	0.07
VerdeRiver	VerdeRiver	146620.80	ENCRCH	16792.63	920.41	0.08	0.09
VerdeRiver	VerdeRiver	146224.00	100 YEAR	20816.27	1747.35	0.09	0.07
VerdeRiver	VerdeRiver	146224.00	ENCRCH	18505.36	1034.47	0.09	0.08
VerdeRiver	VerdeRiver	145805.50	100 YEAR	22864.56	1905.68		0.07
VerdeRiver	VerdeRiver	145805.50	ENCRCH	21321.14	1296.26		0.08
VerdeRiver	VerdeRiver	145366.80	100 YEAR	28500.37	2334.72		0.06
VerdeRiver	VerdeRiver	145366.80	ENCRCH	27487.38	1687.81		0.07
VerdeRiver	VerdeRiver	144879.70	100 YEAR	32310.26	2437.89	0.09	0.05
VerdeRiver	VerdeRiver	144879.70	ENCRCH	31357.62	1768.78	0.09	0.06
VerdeRiver	VerdeRiver	144451.10	100 YEAR	30753.55	2360.62		0.04
VerdeRiver	VerdeRiver	144451.10	ENCRCH	29959.85	1750.31		0.05
VerdeRiver	VerdeRiver	143838.80	100 YEAR	23181.33	1957.87	0.08	0.05
VerdeRiver	VerdeRiver	143838.80	ENCRCH	21542.61	1338.95	0.08	0.05
VerdeRiver	VerdeRiver	143308.60	100 YEAR	15084.84	1532.04	0.08	0.05
VerdeRiver	VerdeRiver	143308.60	ENCRCH	13813.07	956.80	0.08	0.05
VerdeRiver	VerdeRiver	142829.70	100 YEAR	10326.18	1107.72	0.05	0.03
VerdeRiver	VerdeRiver	142829.70	ENCRCH	9833.06	664.97	0.05	0.04
VerdeRiver	VerdeRiver	142580.50	100 YEAR	11610.42	1152.88	0.07	0.05
VerdeRiver	VerdeRiver	142580.50	ENCRCH	10951.21	697.68	0.07	0.06
VerdeRiver	VerdeRiver	142084.30	100 YEAR	17167.79	1403.34		0.04
VerdeRiver	VerdeRiver	142084.30	ENCRCH	15821.56	922.74		0.04
VerdeRiver	VerdeRiver	141806.50	100 YEAR	20644.67	1724.07		0.05
VerdeRiver	VerdeRiver	141806.50	ENCRCH	19079.07	1134.81		0.05
VerdeRiver	VerdeRiver	141334.70	100 YEAR	17829.18	1534.37	0.08	0.06
VerdeRiver	VerdeRiver	141334.70	ENCRCH	16534.35	956.12	0.08	0.07
VerdeRiver	VerdeRiver	140949.40	100 YEAR	13736.19	1407.25	0.06	0.05
VerdeRiver	VerdeRiver	140949.40	ENCRCH	12498.77	820.70	0.07	0.06
VerdeRiver	VerdeRiver	140677.00	100 YEAR	13946.93	1419.39	0.08	0.05
VerdeRiver	VerdeRiver	140677.00	ENCRCH	12404.52	793.57	0.08	0.06
VerdeRiver	VerdeRiver	140351.60	100 YEAR	12434.99	1375.32	0.07	0.05
VerdeRiver	VerdeRiver	140351.60	ENCRCH	11346.57	804.92	0.07	0.06
VerdeRiver	VerdeRiver	139944.80	100 YEAR	13274.98	1474.80	0.08	0.06
VerdeRiver	VerdeRiver	139944.80	ENCRCH	11531.02	855.76	0.08	0.06
VerdeRiver	VerdeRiver	139687.90	100 YEAR	12550.16	1242.96		0.05

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	139687.90	ENCRCH	11251.54	849.77		0.05
VerdeRiver	VerdeRiver	139462.10	100 YEAR	13278.47	1144.80		0.05
VerdeRiver	VerdeRiver	139462.10	ENCRCH	12165.16	844.45		0.05
VerdeRiver	VerdeRiver	139147.20	100 YEAR	12328.93	1060.70	0.08	0.06
VerdeRiver	VerdeRiver	139147.20	ENCRCH	11738.27	799.87	0.08	0.06
VerdeRiver	VerdeRiver	138761.70	100 YEAR	8907.66	908.09		0.04
VerdeRiver	VerdeRiver	138761.70	ENCRCH	8311.98	659.38		0.05
VerdeRiver	VerdeRiver	138308.60	100 YEAR	10143.06	941.14	0.06	0.05
VerdeRiver	VerdeRiver	138308.60	ENCRCH	9605.94	712.90	0.06	0.06
VerdeRiver	VerdeRiver	137790.10	100 YEAR	12049.94	1403.01		0.05
VerdeRiver	VerdeRiver	137790.10	ENCRCH	11443.72	835.27		0.05
VerdeRiver	VerdeRiver	137444.70	100 YEAR	12032.35	1301.39	0.08	0.06
VerdeRiver	VerdeRiver	137444.70	ENCRCH	11427.17	842.04	0.08	0.06
VerdeRiver	VerdeRiver	137074.50	100 YEAR	13289.73	1358.64		0.06
VerdeRiver	VerdeRiver	137074.50	ENCRCH	12532.98	961.54		0.06
VerdeRiver	VerdeRiver	136726.70	100 YEAR	14048.37	1152.85	0.09	0.06
VerdeRiver	VerdeRiver	136726.70	ENCRCH	13530.05	922.39	0.09	0.06
VerdeRiver	VerdeRiver	136266.00	100 YEAR	13701.90	987.52		0.06
VerdeRiver	VerdeRiver	136266.00	ENCRCH	13236.87	857.24		0.06
VerdeRiver	VerdeRiver	136128.80	100 YEAR	13755.67	974.73		0.06
VerdeRiver	VerdeRiver	136128.80	ENCRCH	13288.87	846.65		0.06
VerdeRiver	VerdeRiver	135723.30	100 YEAR	13620.80	889.15	0.08	0.06
VerdeRiver	VerdeRiver	135723.30	ENCRCH	13463.76	776.49	0.08	0.06
VerdeRiver	VerdeRiver	135392.10	100 YEAR	13488.41	908.01	0.06	0.06
VerdeRiver	VerdeRiver	135392.10	ENCRCH	13144.65	719.87	0.06	0.06
VerdeRiver	VerdeRiver	134908.80	100 YEAR	11646.55	715.78	0.05	0.06
VerdeRiver	VerdeRiver	134908.80	ENCRCH	11330.29	578.25	0.05	0.06
VerdeRiver	VerdeRiver	134589.80	100 YEAR	11128.21	679.81	0.07	0.06
VerdeRiver	VerdeRiver	134589.80	ENCRCH	10690.33	533.42	0.07	0.07
VerdeRiver	VerdeRiver	134154.70	100 YEAR	8758.50	622.04	0.05	0.05
VerdeRiver	VerdeRiver	134154.70	ENCRCH	8002.07	424.76	0.05	0.05
VerdeRiver	VerdeRiver	133830.90	100 YEAR	8968.78	586.85		0.06
VerdeRiver	VerdeRiver	133830.90	ENCRCH	8284.79	420.37		0.06
VerdeRiver	VerdeRiver	133488.00	100 YEAR	8984.03	574.81	0.07	0.06
VerdeRiver	VerdeRiver	133488.00	ENCRCH	8465.71	404.35	0.07	0.07
VerdeRiver	VerdeRiver	132939.50	100 YEAR	10009.28	655.86		0.06
VerdeRiver	VerdeRiver	132939.50	ENCRCH	9325.76	461.35		0.06
VerdeRiver	VerdeRiver	132395.70	100 YEAR	12969.08	935.25		0.06

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	132395.70	ENCRCH	12376.52	758.09		0.06
VerdeRiver	VerdeRiver	131998.10	100 YEAR	14145.21	1103.26	0.07	0.07
VerdeRiver	VerdeRiver	131998.10	ENCRCH	13524.30	831.69	0.07	0.08
VerdeRiver	VerdeRiver	131574.60	100 YEAR	14318.29	1178.52	0.05	0.06
VerdeRiver	VerdeRiver	131574.60	ENCRCH	14111.41	899.97	0.06	0.07
VerdeRiver	VerdeRiver	131246.90	100 YEAR	16712.51	1281.16	0.07	0.06
VerdeRiver	VerdeRiver	131246.90	ENCRCH	16242.29	970.41	0.07	0.07
VerdeRiver	VerdeRiver	130968.30	100 YEAR	16928.53	1311.06	0.08	0.07
VerdeRiver	VerdeRiver	130968.30	ENCRCH	16476.36	996.27	0.08	0.07
VerdeRiver	VerdeRiver	130605.60	100 YEAR	14894.48	1232.62	0.06	0.06
VerdeRiver	VerdeRiver	130605.60	ENCRCH	14365.68	901.78	0.07	0.06
VerdeRiver	VerdeRiver	130095.00	100 YEAR	12497.32	976.04	0.05	0.04
VerdeRiver	VerdeRiver	130095.00	ENCRCH	11947.45	677.18	0.05	0.05
VerdeRiver	VerdeRiver	129896.30	100 YEAR	9992.61	798.81	0.04	0.04
VerdeRiver	VerdeRiver	129896.30	ENCRCH	9422.41	528.71	0.05	0.04
VerdeRiver	VerdeRiver	129604.00	100 YEAR	7532.60	673.22	0.06	0.04
VerdeRiver	VerdeRiver	129604.00	ENCRCH	7242.09	435.54	0.06	0.05
VerdeRiver	VerdeRiver	129448.50	100 YEAR	7888.29	626.47	0.06	0.05
VerdeRiver	VerdeRiver	129448.50	ENCRCH	7619.81	409.68	0.06	0.06
VerdeRiver	VerdeRiver	129030.60	100 YEAR	13334.50	918.77		0.04
VerdeRiver	VerdeRiver	129030.60	ENCRCH	12332.70	574.14		0.04
VerdeRiver	VerdeRiver	128835.70	100 YEAR	12407.48	828.11	0.05	0.05
VerdeRiver	VerdeRiver	128835.70	ENCRCH	11470.49	538.40	0.05	0.06
VerdeRiver	VerdeRiver	128432.70	100 YEAR	10095.21	739.03	0.06	0.06
VerdeRiver	VerdeRiver	128432.70	ENCRCH	9068.48	456.68	0.06	0.07
VerdeRiver	VerdeRiver	128053.00	100 YEAR	8592.45	749.93		0.04
VerdeRiver	VerdeRiver	128053.00	ENCRCH	7801.95	399.14		0.05
VerdeRiver	VerdeRiver	127728.30	100 YEAR	8539.42	746.25		0.04
VerdeRiver	VerdeRiver	127728.30	ENCRCH	7175.09	303.30		0.06
VerdeRiver	VerdeRiver	127289.70	100 YEAR	7177.73	611.17		0.04
VerdeRiver	VerdeRiver	127289.70	ENCRCH	6247.80	286.66		0.05
VerdeRiver	VerdeRiver	126997.50	100 YEAR	8080.94	601.62	0.06	0.05
VerdeRiver	VerdeRiver	126997.50	ENCRCH	7212.12	331.87	0.06	0.06
VerdeRiver	VerdeRiver	126797.80	100 YEAR	7158.79	534.47		0.04
VerdeRiver	VerdeRiver	126797.80	ENCRCH	6975.37	341.92		0.05
VerdeRiver	VerdeRiver	126186.90	100 YEAR	15090.65	1072.25		0.04
VerdeRiver	VerdeRiver	126186.90	ENCRCH	12800.32	662.03		0.04
VerdeRiver	VerdeRiver	125844.50	100 YEAR	15438.08	985.45		0.04

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	125844.50	ENCRCH	14376.26	786.43		0.04
VerdeRiver	VerdeRiver	125673.90	100 YEAR	17541.98	1098.18		0.05
VerdeRiver	VerdeRiver	125673.90	ENCRCH	16054.18	856.34		0.05
VerdeRiver	VerdeRiver	125491.70	100 YEAR	17711.30	1081.75		0.06
VerdeRiver	VerdeRiver	125491.70	ENCRCH	16781.78	925.84		0.06
VerdeRiver	VerdeRiver	125272.90	100 YEAR	19201.71	1120.66	0.07	0.07
VerdeRiver	VerdeRiver	125272.90	ENCRCH	19056.88	1022.07	0.07	0.07
VerdeRiver	VerdeRiver	125050.20	100 YEAR	17212.65	907.93		0.07
VerdeRiver	VerdeRiver	125050.20	ENCRCH	17291.08	834.73		0.07
VerdeRiver	VerdeRiver	124817.50	100 YEAR	15682.11	850.19		0.07
VerdeRiver	VerdeRiver	124817.50	ENCRCH	15796.75	781.95		0.07
VerdeRiver	VerdeRiver	124451.40	100 YEAR	12728.05	712.03		0.05
VerdeRiver	VerdeRiver	124451.40	ENCRCH	12605.01	655.06		0.05
VerdeRiver	VerdeRiver	123955.60	100 YEAR	9669.80	574.46		0.05
VerdeRiver	VerdeRiver	123955.60	ENCRCH	9626.45	512.24		0.05
VerdeRiver	VerdeRiver	123458.20	100 YEAR	9361.78	550.31		0.04
VerdeRiver	VerdeRiver	123458.20	ENCRCH	8419.45	422.45		0.04
VerdeRiver	VerdeRiver	122970.90	100 YEAR	9428.19	601.56		0.04
VerdeRiver	VerdeRiver	122970.90	ENCRCH	8697.17	465.12		0.04
VerdeRiver	VerdeRiver	122469.20	100 YEAR	10530.34	655.20		0.04
VerdeRiver	VerdeRiver	122469.20	ENCRCH	9734.98	521.27		0.04
VerdeRiver	VerdeRiver	122023.10	100 YEAR	12102.23	726.26		0.05
VerdeRiver	VerdeRiver	122023.10	ENCRCH	11789.91	604.04		0.05
VerdeRiver	VerdeRiver	121420.10	100 YEAR	11603.17	689.43		0.04
VerdeRiver	VerdeRiver	121420.10	ENCRCH	10807.91	524.37		0.05
VerdeRiver	VerdeRiver	120975.90	100 YEAR	11391.02	675.70		0.04
VerdeRiver	VerdeRiver	120975.90	ENCRCH	10693.51	513.71		0.05
VerdeRiver	VerdeRiver	120683.50	100 YEAR	12233.86	702.93		0.04
VerdeRiver	VerdeRiver	120683.50	ENCRCH	11361.95	547.90		0.04
VerdeRiver	VerdeRiver	120492.40	100 YEAR	11933.77	680.78		0.04
VerdeRiver	VerdeRiver	120492.40	ENCRCH	12010.19	593.97		0.04
VerdeRiver	VerdeRiver	120129.70	100 YEAR	11239.34	660.11	0.08	0.05
VerdeRiver	VerdeRiver	120129.70	ENCRCH	10280.28	521.58	0.08	0.05
VerdeRiver	VerdeRiver	119644.50	100 YEAR	12131.49	722.31		0.04
VerdeRiver	VerdeRiver	119644.50	ENCRCH	10798.59	501.88		0.04
VerdeRiver	VerdeRiver	119433.10	100 YEAR	12737.66	724.07		0.04
VerdeRiver	VerdeRiver	119433.10	ENCRCH	11559.80	529.60		0.05
VerdeRiver	VerdeRiver	119182.90	100 YEAR	12597.07	733.35		0.05

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	119182.90	ENCRCH	11689.85	579.97		0.05
VerdeRiver	VerdeRiver	118746.10	100 YEAR	13717.79	745.68		0.05
VerdeRiver	VerdeRiver	118746.10	ENCRCH	13153.55	625.63		0.05
VerdeRiver	VerdeRiver	118663.00	100 YEAR	13948.15	727.62	0.07	0.06
VerdeRiver	VerdeRiver	118663.00	ENCRCH	13038.73	606.26	0.07	0.06
VerdeRiver	VerdeRiver	118530.10	100 YEAR	12159.82	696.05	0.07	0.06
VerdeRiver	VerdeRiver	118530.10	ENCRCH	11386.49	547.21	0.07	0.06
VerdeRiver	VerdeRiver	118122.80	100 YEAR	11054.59	663.40	0.06	0.05
VerdeRiver	VerdeRiver	118122.80	ENCRCH	10788.66	566.00	0.06	0.06
VerdeRiver	VerdeRiver	117662.90	100 YEAR	10776.85	665.14	0.04	0.04
VerdeRiver	VerdeRiver	117662.90	ENCRCH	10508.69	557.85	0.04	0.05
VerdeRiver	VerdeRiver	117305.50	100 YEAR	11061.55	613.09	0.04	0.04
VerdeRiver	VerdeRiver	117305.50	ENCRCH	11100.46	553.38	0.04	0.04
VerdeRiver	VerdeRiver	116637.40	100 YEAR	10623.58	598.81		0.04
VerdeRiver	VerdeRiver	116637.40	ENCRCH	9950.84	460.44		0.04
VerdeRiver	VerdeRiver	116451.90	100 YEAR	10582.75	595.32		0.04
VerdeRiver	VerdeRiver	116451.90	ENCRCH	10107.89	483.01		0.04
VerdeRiver	VerdeRiver	116237.10	100 YEAR	10118.33	589.29		0.04
VerdeRiver	VerdeRiver	116237.10	ENCRCH	9907.59	493.27		0.04
VerdeRiver	VerdeRiver	116039.10	100 YEAR	9208.18	548.71	0.05	0.05
VerdeRiver	VerdeRiver	116039.10	ENCRCH	9014.93	457.21	0.05	0.05
VerdeRiver	VerdeRiver	115878.10	100 YEAR	9471.45	578.14	0.04	0.04
VerdeRiver	VerdeRiver	115878.10	ENCRCH	8550.03	436.84	0.04	0.04
VerdeRiver	VerdeRiver	115739.40	100 YEAR	9484.03	589.19		0.05
VerdeRiver	VerdeRiver	115739.40	ENCRCH	9205.62	462.31		0.05
VerdeRiver	VerdeRiver	115512.70	100 YEAR	9701.05	603.45		0.05
VerdeRiver	VerdeRiver	115512.70	ENCRCH	9125.06	464.93		0.06
VerdeRiver	VerdeRiver	115155.80	100 YEAR	9855.53	655.48	0.07	0.06
VerdeRiver	VerdeRiver	115155.80	ENCRCH	8870.29	464.08	0.07	0.06
VerdeRiver	VerdeRiver	114664.00	100 YEAR	11800.46	874.28		0.05
VerdeRiver	VerdeRiver	114664.00	ENCRCH	10794.66	663.86		0.05
VerdeRiver	VerdeRiver	114154.40	100 YEAR	14396.70	1047.89		0.05
VerdeRiver	VerdeRiver	114154.40	ENCRCH	12853.65	793.59		0.04
VerdeRiver	VerdeRiver	113665.70	100 YEAR	17597.52	1198.09		0.05
VerdeRiver	VerdeRiver	113665.70	ENCRCH	15780.41	869.67		0.05
VerdeRiver	VerdeRiver	113289.00	100 YEAR	16746.31	1148.01	0.06	0.05
VerdeRiver	VerdeRiver	113289.00	ENCRCH	15726.54	843.84	0.06	0.05
VerdeRiver	VerdeRiver	112995.30	100 YEAR	18170.02	1426.00		0.04

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	112995.30	ENCRCH	16700.11	1051.77		0.04
VerdeRiver	VerdeRiver	112657.80	100 YEAR	18061.71	1500.99		0.04
VerdeRiver	VerdeRiver	112657.80	ENCRCH	17307.98	1234.31		0.04
VerdeRiver	VerdeRiver	112227.40	100 YEAR	19546.13	1558.05		0.04
VerdeRiver	VerdeRiver	112227.40	ENCRCH	18996.79	1362.35		0.04
VerdeRiver	VerdeRiver	111773.50	100 YEAR	22668.80	1636.95		0.05
VerdeRiver	VerdeRiver	111773.50	ENCRCH	21636.91	1392.27		0.05
VerdeRiver	VerdeRiver	111488.90	100 YEAR	22119.55	1519.38	0.07	0.05
VerdeRiver	VerdeRiver	111488.90	ENCRCH	21448.04	1349.84	0.07	0.05
VerdeRiver	VerdeRiver	110804.60	100 YEAR	20950.94	1325.09		0.04
VerdeRiver	VerdeRiver	110804.60	ENCRCH	20218.87	1169.81		0.05
VerdeRiver	VerdeRiver	110292.70	100 YEAR	21477.01	1180.07		0.06
VerdeRiver	VerdeRiver	110292.70	ENCRCH	20434.53	1009.52		0.06
VerdeRiver	VerdeRiver	109943.00	100 YEAR	19218.42	1001.72		0.06
VerdeRiver	VerdeRiver	109943.00	ENCRCH	18465.08	859.73		0.06
VerdeRiver	VerdeRiver	109434.60	100 YEAR	12634.21	944.70	0.04	0.04
VerdeRiver	VerdeRiver	109434.60	ENCRCH	11747.64	513.48	0.04	0.05
VerdeRiver	VerdeRiver	109045.90	100 YEAR	10991.27	1002.90		0.05
VerdeRiver	VerdeRiver	109045.90	ENCRCH	9532.90	527.10		0.06
VerdeRiver	VerdeRiver	108804.40	100 YEAR	9941.01	1001.34		0.04
VerdeRiver	VerdeRiver	108804.40	ENCRCH	8712.81	458.75		0.05
VerdeRiver	VerdeRiver	108481.10	100 YEAR	11803.29	1183.66	0.06	0.04
VerdeRiver	VerdeRiver	108481.10	ENCRCH	10842.37	559.99	0.06	0.06
VerdeRiver	VerdeRiver	108023.10	100 YEAR	13292.93	1727.32	0.07	0.05
VerdeRiver	VerdeRiver	108023.10	ENCRCH	11696.69	884.48	0.07	0.07
VerdeRiver	VerdeRiver	107570.80	100 YEAR	15062.04	2255.48	0.09	0.05
VerdeRiver	VerdeRiver	107570.80	ENCRCH	13834.62	1213.36	0.09	0.06
VerdeRiver	VerdeRiver	107126.10	100 YEAR	17206.68	2754.61	0.08	0.04
VerdeRiver	VerdeRiver	107126.10	ENCRCH	15646.59	1373.73	0.08	0.05
VerdeRiver	VerdeRiver	106734.80	100 YEAR	21308.12	2795.59		0.05
VerdeRiver	VerdeRiver	106734.80	ENCRCH	18874.37	1674.90		0.05
VerdeRiver	VerdeRiver	106408.70	100 YEAR	23593.63	2819.22		0.05
VerdeRiver	VerdeRiver	106408.70	ENCRCH	20765.59	1787.35		0.06
VerdeRiver	VerdeRiver	106165.10	100 YEAR	24579.71	2796.37		0.05
VerdeRiver	VerdeRiver	106165.10	ENCRCH	21096.42	1771.69		0.06
VerdeRiver	VerdeRiver	105745.90	100 YEAR	20306.10	2526.62	0.09	0.05
VerdeRiver	VerdeRiver	105745.90	ENCRCH	18794.70	1713.20	0.09	0.06
VerdeRiver	VerdeRiver	105259.50	100 YEAR	20724.91	2491.17	0.09	0.05

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	105259.50	ENCRCH	19041.12	1679.19	0.09	0.05
VerdeRiver	VerdeRiver	104770.00	100 YEAR	20898.21	2451.57	0.09	0.05
VerdeRiver	VerdeRiver	104770.00	ENCRCH	19166.27	1608.04	0.09	0.06
VerdeRiver	VerdeRiver	104541.80	100 YEAR	18961.15	2333.82	0.09	0.05
VerdeRiver	VerdeRiver	104541.80	ENCRCH	17555.68	1528.31	0.09	0.05
VerdeRiver	VerdeRiver	104265.50	100 YEAR	17148.41	2268.90		0.04
VerdeRiver	VerdeRiver	104265.50	ENCRCH	15940.94	1449.25		0.05
VerdeRiver	VerdeRiver	103882.00	100 YEAR	16231.74	2217.20	0.07	0.05
VerdeRiver	VerdeRiver	103882.00	ENCRCH	14433.19	1337.66	0.07	0.05
VerdeRiver	VerdeRiver	103230.20	100 YEAR	15796.85	2359.51	0.06	0.04
VerdeRiver	VerdeRiver	103230.20	ENCRCH	13555.30	1253.11	0.06	0.04
VerdeRiver	VerdeRiver	102919.30	100 YEAR	16927.40	2375.55	0.07	0.04
VerdeRiver	VerdeRiver	102919.30	ENCRCH	15307.25	1344.28	0.07	0.04
VerdeRiver	VerdeRiver	102691.70	100 YEAR	15709.18	1920.06	0.07	0.04
VerdeRiver	VerdeRiver	102691.70	ENCRCH	14425.11	1216.98	0.07	0.05
VerdeRiver	VerdeRiver	102339.40	100 YEAR	13696.80	1677.77		0.04
VerdeRiver	VerdeRiver	102339.40	ENCRCH	12234.11	1115.55		0.05
VerdeRiver	VerdeRiver	101861.00	100 YEAR	15092.76	1622.43	0.08	0.05
VerdeRiver	VerdeRiver	101861.00	ENCRCH	14015.27	1127.57	0.08	0.06
VerdeRiver	VerdeRiver	101583.70	100 YEAR	14059.00	1648.13	0.08	0.06
VerdeRiver	VerdeRiver	101583.70	ENCRCH	13424.15	1011.96	0.08	0.07
VerdeRiver	VerdeRiver	101094.70	100 YEAR	13516.29	1463.34		0.06
VerdeRiver	VerdeRiver	101094.70	ENCRCH	12480.04	1149.92		0.06
VerdeRiver	VerdeRiver	100867.90	100 YEAR	13557.89	1658.03		0.06
VerdeRiver	VerdeRiver	100867.90	ENCRCH	12319.23	1242.86		0.06
VerdeRiver	VerdeRiver	100701.40	100 YEAR	15678.77	1960.70		0.05
VerdeRiver	VerdeRiver	100701.40	ENCRCH	14325.93	1423.82		0.06
VerdeRiver	VerdeRiver	100374.50	100 YEAR	16936.74	2333.63	0.07	0.05
VerdeRiver	VerdeRiver	100374.50	ENCRCH	14810.45	1677.07	0.07	0.05
VerdeRiver	VerdeRiver	100062.30	100 YEAR	16411.47	2158.64	0.06	0.04
VerdeRiver	VerdeRiver	100062.30	ENCRCH	15351.31	1673.49	0.06	0.05
VerdeRiver	VerdeRiver	99816.95	100 YEAR	16862.60	2151.74		0.04
VerdeRiver	VerdeRiver	99816.95	ENCRCH	15540.46	1575.25		0.04
VerdeRiver	VerdeRiver	99535.32	100 YEAR	17291.55	2214.58		0.04
VerdeRiver	VerdeRiver	99535.32	ENCRCH	15226.86	1437.83		0.05
VerdeRiver	VerdeRiver	99120.59	100 YEAR	16422.63	2089.05		0.03
VerdeRiver	VerdeRiver	99120.59	ENCRCH	14846.44	1492.16		0.04
VerdeRiver	VerdeRiver	98803.39	100 YEAR	14789.22	1881.54	0.06	0.03

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	98803.39	ENCRCH	13817.33	1423.30	0.06	0.04
VerdeRiver	VerdeRiver	98497.57	100 YEAR	15386.06	1843.41		0.03
VerdeRiver	VerdeRiver	98497.57	ENCRCH	14410.75	1424.93		0.04
VerdeRiver	VerdeRiver	98236.61	100 YEAR	15456.26	1730.06		0.04
VerdeRiver	VerdeRiver	98236.61	ENCRCH	14500.27	1433.20		0.04
VerdeRiver	VerdeRiver	97936.94	100 YEAR	16237.65	1828.86	0.07	0.04
VerdeRiver	VerdeRiver	97936.94	ENCRCH	15365.28	1553.00	0.07	0.04
VerdeRiver	VerdeRiver	97495.43	100 YEAR	17262.04	1890.61		0.04
VerdeRiver	VerdeRiver	97495.43	ENCRCH	15729.30	1516.85		0.04
VerdeRiver	VerdeRiver	97290.14	100 YEAR	13426.68	1598.12		0.04
VerdeRiver	VerdeRiver	97290.14	ENCRCH	14343.05	1415.65		0.04
VerdeRiver	VerdeRiver	97097.54	100 YEAR	15860.97	1752.80	0.06	0.04
VerdeRiver	VerdeRiver	97097.54	ENCRCH	14934.16	1379.83	0.06	0.04
VerdeRiver	VerdeRiver	96632.78	100 YEAR	17201.49	1814.00	0.07	0.05
VerdeRiver	VerdeRiver	96632.78	ENCRCH	16519.04	1522.85	0.07	0.05
VerdeRiver	VerdeRiver	96285.73	100 YEAR	16948.56	1676.73	0.06	0.04
VerdeRiver	VerdeRiver	96285.73	ENCRCH	16271.57	1437.04	0.06	0.05
VerdeRiver	VerdeRiver	96021.03	100 YEAR	15911.99	1490.93	0.05	0.04
VerdeRiver	VerdeRiver	96021.03	ENCRCH	15215.22	1268.98	0.05	0.05
VerdeRiver	VerdeRiver	95717.03	100 YEAR	16180.22	1406.67	0.05	0.04
VerdeRiver	VerdeRiver	95717.03	ENCRCH	15507.88	1235.65	0.05	0.04
VerdeRiver	VerdeRiver	95237.35	100 YEAR	15027.88	1292.46	0.04	0.04
VerdeRiver	VerdeRiver	95237.35	ENCRCH	13745.32	1055.13	0.04	0.04
VerdeRiver	VerdeRiver	94807.49	100 YEAR	15188.22	1625.10	0.04	0.04
VerdeRiver	VerdeRiver	94807.49	ENCRCH	13768.03	895.67	0.04	0.04
VerdeRiver	VerdeRiver	94387.85	100 YEAR	11759.88	799.87	0.04	0.04
VerdeRiver	VerdeRiver	94387.85	ENCRCH	11822.62	721.03	0.04	0.04
VerdeRiver	VerdeRiver	93760.39	100 YEAR	16715.14	2180.45	0.05	0.04
VerdeRiver	VerdeRiver	93760.39	ENCRCH	14352.24	1167.40	0.05	0.04
VerdeRiver	VerdeRiver	93334.21	100 YEAR	14580.48	2263.90	0.05	0.04
VerdeRiver	VerdeRiver	93334.21	ENCRCH	13115.72	1248.77	0.05	0.04
VerdeRiver	VerdeRiver	92800.42	100 YEAR	16498.86	2781.79		0.03
VerdeRiver	VerdeRiver	92800.42	ENCRCH	14392.11	1269.44		0.04
VerdeRiver	VerdeRiver	92178.41	100 YEAR	20167.10	3137.08	0.05	0.03
VerdeRiver	VerdeRiver	92178.41	ENCRCH	15989.55	1277.14	0.05	0.04
VerdeRiver	VerdeRiver	91688.68	100 YEAR	20827.42	3239.99		0.04
VerdeRiver	VerdeRiver	91688.68	ENCRCH	16831.52	1372.15		0.05
VerdeRiver	VerdeRiver	91018.15	100 YEAR	19973.97	2964.79	0.06	0.04

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	91018.15	ENCRCH	17312.45	1415.78	0.06	0.05
VerdeRiver	VerdeRiver	90216.51	100 YEAR	17912.13	2787.03	0.05	0.04
VerdeRiver	VerdeRiver	90216.51	ENCRCH	16509.34	1393.56	0.05	0.05
VerdeRiver	VerdeRiver	89638.64	100 YEAR	16901.10	2670.97	0.05	0.04
VerdeRiver	VerdeRiver	89638.64	ENCRCH	15403.07	1321.22	0.05	0.05
VerdeRiver	VerdeRiver	89049.18	100 YEAR	15547.98	2050.14	0.05	0.04
VerdeRiver	VerdeRiver	89049.18	ENCRCH	15197.62	1342.22	0.05	0.05
VerdeRiver	VerdeRiver	88665.22	100 YEAR	16946.79	2195.07	0.08	0.04
VerdeRiver	VerdeRiver	88665.22	ENCRCH	14499.90	1255.06	0.08	0.05
VerdeRiver	VerdeRiver	88480.68	100 YEAR	16720.94	2115.13	0.08	0.04
VerdeRiver	VerdeRiver	88480.68	ENCRCH	14888.55	1254.80	0.08	0.05
VerdeRiver	VerdeRiver	87968.87	100 YEAR	12977.54	1823.66		0.04
VerdeRiver	VerdeRiver	87968.87	ENCRCH	11764.37	1012.53		0.04
VerdeRiver	VerdeRiver	87650.89	100 YEAR	13937.35	1804.86	0.09	0.05
VerdeRiver	VerdeRiver	87650.89	ENCRCH	13120.15	978.64	0.09	0.06
VerdeRiver	VerdeRiver	87424.81	100 YEAR	10673.37	1247.46		0.05
VerdeRiver	VerdeRiver	87424.81	ENCRCH	10107.11	798.48		0.06
VerdeRiver	VerdeRiver	87171.39	100 YEAR	11795.62	1309.44	0.05	0.04
VerdeRiver	VerdeRiver	87171.39	ENCRCH	10743.58	760.49	0.05	0.04
VerdeRiver	VerdeRiver	86692.29	100 YEAR	14414.99	1610.12	0.04	0.03
VerdeRiver	VerdeRiver	86692.29	ENCRCH	12927.21	906.94	0.04	0.04
VerdeRiver	VerdeRiver	86307.67	100 YEAR	16966.17	1847.53	0.04	0.04
VerdeRiver	VerdeRiver	86307.67	ENCRCH	15054.41	1068.89	0.04	0.04
VerdeRiver	VerdeRiver	85944.17	100 YEAR	18301.83	2035.29		0.04
VerdeRiver	VerdeRiver	85944.17	ENCRCH	16367.86	1227.79		0.04
VerdeRiver	VerdeRiver	85477.47	100 YEAR	21674.84	2617.49		0.04
VerdeRiver	VerdeRiver	85477.47	ENCRCH	19606.95	1534.43		0.04
VerdeRiver	VerdeRiver	84927.79	100 YEAR	23242.57	2628.00		0.04
VerdeRiver	VerdeRiver	84927.79	ENCRCH	20020.00	1556.36		0.04
VerdeRiver	VerdeRiver	84524.18	100 YEAR	23682.30	2559.85	0.04	0.04
VerdeRiver	VerdeRiver	84524.18	ENCRCH	20647.69	1500.87	0.04	0.04
VerdeRiver	VerdeRiver	84053.85	100 YEAR	22772.46	2430.15	0.04	0.03
VerdeRiver	VerdeRiver	84053.85	ENCRCH	20236.45	1394.75	0.04	0.04
VerdeRiver	VerdeRiver	83513.39	100 YEAR	16739.73	2069.72		0.04
VerdeRiver	VerdeRiver	83513.39	ENCRCH	14341.46	1015.26		0.04
VerdeRiver	VerdeRiver	83090.53	100 YEAR	14023.81	1804.15	0.05	0.04
VerdeRiver	VerdeRiver	83090.53	ENCRCH	12398.85	807.33	0.06	0.05
VerdeRiver	VerdeRiver	82836.90	100 YEAR	13563.67	1686.97	0.06	0.04

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	82836.90	ENCRCH	11665.32	661.06	0.06	0.05
VerdeRiver	VerdeRiver	82230.19	100 YEAR	10397.78	1253.51	0.06	0.03
VerdeRiver	VerdeRiver	82230.19	ENCRCH	8904.13	467.45	0.06	0.05
VerdeRiver	VerdeRiver	81903.41	100 YEAR	10973.91	1184.70	0.06	0.04
VerdeRiver	VerdeRiver	81903.41	ENCRCH	9665.49	497.85	0.06	0.05
VerdeRiver	VerdeRiver	81483.22	100 YEAR	12935.37	1191.87	0.06	0.04
VerdeRiver	VerdeRiver	81483.22	ENCRCH	11589.80	675.26	0.06	0.05
VerdeRiver	VerdeRiver	80989.89	100 YEAR	15510.48	1576.55	0.05	0.04
VerdeRiver	VerdeRiver	80989.89	ENCRCH	13655.04	898.94	0.05	0.05
VerdeRiver	VerdeRiver	80572.25	100 YEAR	15231.08	1589.76	0.07	0.04
VerdeRiver	VerdeRiver	80572.25	ENCRCH	13360.62	981.50	0.07	0.05
VerdeRiver	VerdeRiver	80312.63	100 YEAR	15676.45	1486.56	0.08	0.05
VerdeRiver	VerdeRiver	80312.63	ENCRCH	13572.14	1003.75	0.08	0.05
VerdeRiver	VerdeRiver	80077.81	100 YEAR	16258.62	1588.80	0.09	0.06
VerdeRiver	VerdeRiver	80077.81	ENCRCH	14108.64	1109.93	0.09	0.06
VerdeRiver	VerdeRiver	79725.40	100 YEAR	17160.00	1880.63	0.06	0.05
VerdeRiver	VerdeRiver	79725.40	ENCRCH	14626.39	1145.43	0.06	0.05
VerdeRiver	VerdeRiver	79630.17	100 YEAR	17445.40	1622.29	0.05	0.05
VerdeRiver	VerdeRiver	79630.17	ENCRCH	14868.85	1173.11	0.05	0.05
VerdeRiver	VerdeRiver	79080.61	100 YEAR	19104.98	2276.10	0.05	0.04
VerdeRiver	VerdeRiver	79080.61	ENCRCH	17003.85	1523.79	0.05	0.04
VerdeRiver	VerdeRiver	78813.14	100 YEAR	19452.20	2232.19	0.05	0.04
VerdeRiver	VerdeRiver	78813.14	ENCRCH	18258.22	1744.67	0.05	0.04
VerdeRiver	VerdeRiver	78431.57	100 YEAR	21178.21	2506.21	0.07	0.04
VerdeRiver	VerdeRiver	78431.57	ENCRCH	20533.32	2212.99	0.07	0.05
VerdeRiver	VerdeRiver	78126.85	100 YEAR	23973.36	2733.92	0.06	0.05
VerdeRiver	VerdeRiver	78126.85	ENCRCH	23304.43	2514.97	0.06	0.05
VerdeRiver	VerdeRiver	77692.00	100 YEAR	29970.82	3282.92		0.05
VerdeRiver	VerdeRiver	77692.00	ENCRCH	29970.82	3282.92		0.05
VerdeRiver	VerdeRiver	71.89 17A		Lat Struct			
VerdeRiver	VerdeRiver	77324.42	100 YEAR	32808.80	3152.39		0.05
VerdeRiver	VerdeRiver	77324.42	ENCRCH	32808.80	3152.39		0.05
VerdeRiver	VerdeRiver	74.29 17B		Lat Struct			
VerdeRiver	VerdeRiver	76863.45	100 YEAR	35266.59	3002.69	0.08	0.05
VerdeRiver	VerdeRiver	76863.45	ENCRCH	35266.59	3002.69	0.08	0.05
VerdeRiver	VerdeRiver	73.29 17C		Lat Struct			
VerdeRiver	VerdeRiver	76405.17	100 YEAR	37041.42	2525.17		0.04

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	76405.17	ENCRCH	37041.42	2525.17		0.04
VerdeRiver	VerdeRiver	75.00 17D		Lat Struct			
VerdeRiver	VerdeRiver	75904.10	100 YEAR	38924.45	2394.51		0.04
VerdeRiver	VerdeRiver	75904.10	ENCRCH	38924.45	2394.51		0.04
VerdeRiver	VerdeRiver	74.00 17E		Lat Struct			
VerdeRiver	VerdeRiver	75464.65	100 YEAR	36953.64	2155.36		0.05
VerdeRiver	VerdeRiver	75464.65	ENCRCH	36953.64	2155.36		0.05
VerdeRiver	VerdeRiver	74.54 17F		Lat Struct			
VerdeRiver	VerdeRiver	75058.61	100 YEAR	32753.41	1740.69	0.05	0.04
VerdeRiver	VerdeRiver	75058.61	ENCRCH	32753.41	1740.69	0.05	0.04
VerdeRiver	VerdeRiver	73.50 17G		Lat Struct			
VerdeRiver	VerdeRiver	74724.05	100 YEAR	31094.36	1738.27	0.05	0.05
VerdeRiver	VerdeRiver	74724.05	ENCRCH	31094.36	1738.27	0.05	0.05
VerdeRiver	VerdeRiver	73.95 17H		Lat Struct			
VerdeRiver	VerdeRiver	74321.89	100 YEAR	30596.82	1781.09	0.05	0.05
VerdeRiver	VerdeRiver	74321.89	ENCRCH	30596.82	1781.09	0.05	0.05
VerdeRiver	VerdeRiver	72.78 17I		Lat Struct			
VerdeRiver	VerdeRiver	74037.09	100 YEAR	31944.86	2734.58	0.05	0.04
VerdeRiver	VerdeRiver	74037.09	ENCRCH	31944.86	2734.58	0.05	0.04
VerdeRiver	VerdeRiver	73.99 17J		Lat Struct			
VerdeRiver	VerdeRiver	73895.66	100 YEAR	26789.65	2553.01		0.03
VerdeRiver	VerdeRiver	73895.66	ENCRCH	26789.65	2553.01		0.03
VerdeRiver	VerdeRiver	73807.95	100 YEAR	18198.25	2133.50		0.02
VerdeRiver	VerdeRiver	73807.95	ENCRCH	18198.25	2133.50		0.02
VerdeRiver	VerdeRiver	73.00 I-17 SB Bridge		Bridge			
VerdeRiver	VerdeRiver	73734.02	100 YEAR	14119.35	1888.26		0.02
VerdeRiver	VerdeRiver	73734.02	ENCRCH	14119.35	1888.26		0.02
VerdeRiver	VerdeRiver	73713.32	100 YEAR	16412.93	2229.07		0.02
VerdeRiver	VerdeRiver	73713.32	ENCRCH	16412.93	2229.07		0.02
VerdeRiver	VerdeRiver	73687.03	100 YEAR	15840.55	2106.44		0.02
VerdeRiver	VerdeRiver	73687.03	ENCRCH	15840.55	2106.44		0.02
VerdeRiver	VerdeRiver	73666.80	100 YEAR	12962.28	1139.75		0.02
VerdeRiver	VerdeRiver	73666.80	ENCRCH	12962.28	1139.75		0.02
VerdeRiver	VerdeRiver	73.60 I-17 NB Bridge		Bridge			
VerdeRiver	VerdeRiver	73612.59	100 YEAR	7628.93	473.89		0.04

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	73612.59	ENCRCH	7807.99	475.56		0.04
VerdeRiver	VerdeRiver	73607.03	100 YEAR	8200.62	503.10		0.03
VerdeRiver	VerdeRiver	73607.03	ENCRCH	8388.66	504.34		0.03
VerdeRiver	VerdeRiver	73506.46	100 YEAR	11851.18	2465.65	0.08	0.06
VerdeRiver	VerdeRiver	73506.46	ENCRCH	12313.75	2558.01	0.08	0.06
VerdeRiver	VerdeRiver	73469.10	100 YEAR	14498.52	2515.22	0.08	0.06
VerdeRiver	VerdeRiver	73469.10	ENCRCH	15092.11	2666.04	0.08	0.06
VerdeRiver	VerdeRiver	73403.62	100 YEAR	15594.42	2728.57	0.08	0.05
VerdeRiver	VerdeRiver	73403.62	ENCRCH	16335.66	2790.00	0.08	0.05
VerdeRiver	VerdeRiver	73020.80	100 YEAR	19078.88	2225.48	0.08	0.05
VerdeRiver	VerdeRiver	73020.80	ENCRCH	19580.95	1952.24	0.08	0.05
VerdeRiver	VerdeRiver	72672.32	100 YEAR	19872.13	2001.20	0.06	0.05
VerdeRiver	VerdeRiver	72672.32	ENCRCH	19806.08	1669.60	0.06	0.05
VerdeRiver	VerdeRiver	72233.34	100 YEAR	21705.58	2182.54	0.04	0.05
VerdeRiver	VerdeRiver	72233.34	ENCRCH	21443.61	1632.79	0.04	0.05
VerdeRiver	VerdeRiver	71764.40	100 YEAR	26352.86	2392.46	0.05	0.05
VerdeRiver	VerdeRiver	71764.40	ENCRCH	26210.32	1838.15	0.05	0.06
VerdeRiver	VerdeRiver	71258.49	100 YEAR	27791.83	2473.99	0.05	0.05
VerdeRiver	VerdeRiver	71258.49	ENCRCH	26603.75	1734.50	0.05	0.06
VerdeRiver	VerdeRiver	70768.67	100 YEAR	28033.53	2489.13		0.04
VerdeRiver	VerdeRiver	70768.67	ENCRCH	25756.11	1879.33		0.05
VerdeRiver	VerdeRiver	70302.70	100 YEAR	30716.40	2308.19	0.07	0.07
VerdeRiver	VerdeRiver	70302.70	ENCRCH	28672.10	1930.56	0.07	0.07
VerdeRiver	VerdeRiver	70004.64	100 YEAR	30493.66	2306.84		0.06
VerdeRiver	VerdeRiver	70004.64	ENCRCH	27947.74	1849.89		0.06
VerdeRiver	VerdeRiver	69698.53	100 YEAR	28524.52	2221.66	0.08	0.07
VerdeRiver	VerdeRiver	69698.53	ENCRCH	27006.98	1822.11	0.08	0.08
VerdeRiver	VerdeRiver	68860.00	100 YEAR	25107.65	1778.92	0.08	0.07
VerdeRiver	VerdeRiver	68860.00	ENCRCH	24790.54	1460.06	0.08	0.08
VerdeRiver	VerdeRiver	68577.15	100 YEAR	24106.26	1763.67	0.06	0.07
VerdeRiver	VerdeRiver	68577.15	ENCRCH	23158.00	1264.98	0.06	0.07
VerdeRiver	VerdeRiver	68269.69	100 YEAR	24853.08	1824.00	0.07	0.07
VerdeRiver	VerdeRiver	68269.69	ENCRCH	23665.52	1314.78	0.07	0.08
VerdeRiver	VerdeRiver	67663.42	100 YEAR	30296.85	2074.61	0.07	0.08
VerdeRiver	VerdeRiver	67663.42	ENCRCH	27621.79	1523.95	0.07	0.08
VerdeRiver	VerdeRiver	67221.95	100 YEAR	31784.38	2222.57		0.07
VerdeRiver	VerdeRiver	67221.95	ENCRCH	28632.04	1589.72		0.08
VerdeRiver	VerdeRiver	66955.95	100 YEAR	31380.35	2175.18		0.08

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	66955.95	ENCRCH	28708.66	1660.87		0.08
VerdeRiver	VerdeRiver	66297.05	100 YEAR	30388.25	2568.62	0.07	0.07
VerdeRiver	VerdeRiver	66297.05	ENCRCH	28785.07	1735.19	0.07	0.08
VerdeRiver	VerdeRiver	65938.19	100 YEAR	23855.92	2738.85	0.07	0.05
VerdeRiver	VerdeRiver	65938.19	ENCRCH	23828.45	1807.61	0.07	0.06
VerdeRiver	VerdeRiver	65486.80	100 YEAR	26886.96	3044.86	0.08	0.05
VerdeRiver	VerdeRiver	65486.80	ENCRCH	25623.37	2191.60	0.08	0.06
VerdeRiver	VerdeRiver	64841.44	100 YEAR	28383.26	3410.68	0.06	0.05
VerdeRiver	VerdeRiver	64841.44	ENCRCH	25878.21	2485.43	0.06	0.05
VerdeRiver	VerdeRiver	64228.18	100 YEAR	29156.76	3328.82	0.09	0.05
VerdeRiver	VerdeRiver	64228.18	ENCRCH	30157.54	2859.41	0.09	0.05
VerdeRiver	VerdeRiver	63741.35	100 YEAR	27634.85	3538.32	0.09	0.04
VerdeRiver	VerdeRiver	63741.35	ENCRCH	29356.31	2969.08	0.09	0.05
VerdeRiver	VerdeRiver	63674.71	100 YEAR	28353.30	4142.29		0.04
VerdeRiver	VerdeRiver	63674.71	ENCRCH	29210.77	3149.02		0.04
VerdeRiver	VerdeRiver	63569.02	100 YEAR	30551.34	4338.23		0.04
VerdeRiver	VerdeRiver	63569.02	ENCRCH	30150.93	3404.76		0.04
VerdeRiver	VerdeRiver	63409.23	100 YEAR	34797.64	4567.30		0.04
VerdeRiver	VerdeRiver	63409.23	ENCRCH	33503.95	3686.05		0.04
VerdeRiver	VerdeRiver	63336.84	100 YEAR	21048.47	3533.80		0.03
VerdeRiver	VerdeRiver	63336.84	ENCRCH	19607.40	3431.19		0.03
VerdeRiver	VerdeRiver	63311.31 Black Bridge		Bridge			
VerdeRiver	VerdeRiver	63277.32	100 YEAR	11940.53	2607.07	0.08	0.03
VerdeRiver	VerdeRiver	63277.32	ENCRCH	12889.24	2677.26	0.08	0.03
VerdeRiver	VerdeRiver	63202.94	100 YEAR	24612.96	4067.68		0.05
VerdeRiver	VerdeRiver	63202.94	ENCRCH	23868.10	3526.62		0.05
VerdeRiver	VerdeRiver	62213.77	100 YEAR	19800.96	2839.67	0.06	0.03
VerdeRiver	VerdeRiver	62213.77	ENCRCH	19987.39	2122.25	0.06	0.04
VerdeRiver	VerdeRiver	61511.35	100 YEAR	23290.37	2636.33		0.04
VerdeRiver	VerdeRiver	61511.35	ENCRCH	21439.12	1815.45		0.04
VerdeRiver	VerdeRiver	61017.64	100 YEAR	22785.19	2329.69	0.06	0.04
VerdeRiver	VerdeRiver	61017.64	ENCRCH	21090.19	1628.40	0.06	0.05
VerdeRiver	VerdeRiver	60487.82	100 YEAR	20058.23	2127.86	0.04	0.03
VerdeRiver	VerdeRiver	60487.82	ENCRCH	19138.31	1557.57	0.05	0.04
VerdeRiver	VerdeRiver	59949.97	100 YEAR	22527.22	2218.60	0.04	0.04
VerdeRiver	VerdeRiver	59949.97	ENCRCH	20818.90	1602.79	0.04	0.04
VerdeRiver	VerdeRiver	59695.28	100 YEAR	24857.95	2377.31	0.06	0.04
VerdeRiver	VerdeRiver	59695.28	ENCRCH	21618.44	1600.59	0.06	0.04

Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	59473.20	100 YEAR	27483.79	2537.55	0.06	0.05
VerdeRiver	VerdeRiver	59473.20	ENCRCH	23431.93	1704.36	0.06	0.05
VerdeRiver	VerdeRiver	59160.50	100 YEAR	30125.69	2537.69	0.05	0.04
VerdeRiver	VerdeRiver	59160.50	ENCRCH	27319.43	1836.33	0.05	0.04
VerdeRiver	VerdeRiver	58859.59	100 YEAR	30157.54	2443.36		0.03
VerdeRiver	VerdeRiver	58859.59	ENCRCH	27329.79	1802.43		0.03
VerdeRiver	VerdeRiver	58499.82	100 YEAR	31220.97	2423.26	0.04	0.03
VerdeRiver	VerdeRiver	58499.82	ENCRCH	28826.79	1834.96	0.04	0.03
VerdeRiver	VerdeRiver	58279.70	100 YEAR	28067.27	2285.88		0.03
VerdeRiver	VerdeRiver	58279.70	ENCRCH	25426.54	1691.64		0.03
VerdeRiver	VerdeRiver	57785.39	100 YEAR	21095.63	1953.92	0.04	0.04
VerdeRiver	VerdeRiver	57785.39	ENCRCH	18465.26	1370.40	0.04	0.04
VerdeRiver	VerdeRiver	57353.37	100 YEAR	13709.10	1576.42	0.04	0.03
VerdeRiver	VerdeRiver	57353.37	ENCRCH	12384.31	1095.23	0.04	0.03
VerdeRiver	VerdeRiver	56860.00	100 YEAR	13589.06	1089.96	0.04	0.04
VerdeRiver	VerdeRiver	56860.00	ENCRCH	12748.71	792.25	0.04	0.05
VerdeRiver	VerdeRiver	56388.94	100 YEAR	15189.79	849.24	0.04	0.07
VerdeRiver	VerdeRiver	56388.94	ENCRCH	14202.48	686.33	0.04	0.07
VerdeRiver	VerdeRiver	55891.60	100 YEAR	17428.50	993.78	0.06	0.07
VerdeRiver	VerdeRiver	55891.60	ENCRCH	16676.55	789.64	0.06	0.08
VerdeRiver	VerdeRiver	55402.60	100 YEAR	17344.20	1158.42	0.06	0.07
VerdeRiver	VerdeRiver	55402.60	ENCRCH	16186.82	810.89	0.06	0.07
VerdeRiver	VerdeRiver	55033.88	100 YEAR	16157.76	1276.52	0.04	0.06
VerdeRiver	VerdeRiver	55033.88	ENCRCH	14669.82	806.09	0.04	0.06
VerdeRiver	VerdeRiver	54842.93	100 YEAR	17130.35	1424.48	0.05	0.06
VerdeRiver	VerdeRiver	54842.93	ENCRCH	15492.58	873.57	0.05	0.07
VerdeRiver	VerdeRiver	54432.96	100 YEAR	24189.01	1900.22		0.06
VerdeRiver	VerdeRiver	54432.96	ENCRCH	22129.26	1342.17		0.06
VerdeRiver	VerdeRiver	54076.29	100 YEAR	25482.02	2376.66		0.05
VerdeRiver	VerdeRiver	54076.29	ENCRCH	23014.00	1458.04		0.06
VerdeRiver	VerdeRiver	53733.41	100 YEAR	25250.15	2274.25	0.08	0.05
VerdeRiver	VerdeRiver	53733.41	ENCRCH	23885.59	1483.10	0.08	0.07
VerdeRiver	VerdeRiver	53223.54	100 YEAR	24645.70	2088.92	0.07	0.05
VerdeRiver	VerdeRiver	53223.54	ENCRCH	23327.94	1485.08	0.07	0.06
VerdeRiver	VerdeRiver	52724.35	100 YEAR	25152.21	2216.19		0.05
VerdeRiver	VerdeRiver	52724.35	ENCRCH	23657.86	1509.26		0.05
VerdeRiver	VerdeRiver	52443.73	100 YEAR	25203.79	2319.07		0.04
VerdeRiver	VerdeRiver	52443.73	ENCRCH	22604.30	1464.97		0.05

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	52059.18	100 YEAR	26245.97	2142.54		0.05
VerdeRiver	VerdeRiver	52059.18	ENCRCH	23655.90	1473.84		0.05
VerdeRiver	VerdeRiver	51727.17	100 YEAR	26402.66	2037.21		0.05
VerdeRiver	VerdeRiver	51727.17	ENCRCH	24159.63	1499.90		0.05
VerdeRiver	VerdeRiver	51436.45	100 YEAR	26407.50	1904.59		0.05
VerdeRiver	VerdeRiver	51436.45	ENCRCH	23997.59	1350.40		0.05
VerdeRiver	VerdeRiver	51026.23	100 YEAR	20812.44	1910.22	0.09	0.07
VerdeRiver	VerdeRiver	51026.23	ENCRCH	18294.63	1114.63	0.09	0.08
VerdeRiver	VerdeRiver	50978.61	100 YEAR	17309.17	1706.43	0.09	0.06
VerdeRiver	VerdeRiver	50978.61	ENCRCH	13574.78	637.89	0.09	0.08
VerdeRiver	VerdeRiver	46 SR-260 Bridge		Bridge			
VerdeRiver	VerdeRiver	50866.96	100 YEAR	12498.53	618.59		0.06
VerdeRiver	VerdeRiver	50866.96	ENCRCH	12845.13	593.44		0.06
VerdeRiver	VerdeRiver	50819.41	100 YEAR	15037.47	1261.12		0.05
VerdeRiver	VerdeRiver	50819.41	ENCRCH	14979.09	798.30		0.06
VerdeRiver	VerdeRiver	50395.21	100 YEAR	20361.90	1451.22		0.06
VerdeRiver	VerdeRiver	50395.21	ENCRCH	18430.10	1004.55		0.06
VerdeRiver	VerdeRiver	50008.70	100 YEAR	20690.37	1637.01		0.05
VerdeRiver	VerdeRiver	50008.70	ENCRCH	19612.28	1060.46		0.06
VerdeRiver	VerdeRiver	49540.32	100 YEAR	19287.39	1802.68	0.09	0.06
VerdeRiver	VerdeRiver	49540.32	ENCRCH	17250.52	1062.99	0.09	0.07
VerdeRiver	VerdeRiver	49183.14	100 YEAR	18448.70	1898.12		0.05
VerdeRiver	VerdeRiver	49183.14	ENCRCH	17986.78	1096.99		0.07
VerdeRiver	VerdeRiver	48826.27	100 YEAR	18046.92	1960.08	0.08	0.05
VerdeRiver	VerdeRiver	48826.27	ENCRCH	16679.39	1034.61	0.08	0.07
VerdeRiver	VerdeRiver	48322.08	100 YEAR	16780.84	1749.37	0.05	0.04
VerdeRiver	VerdeRiver	48322.08	ENCRCH	15325.79	974.24	0.05	0.05
VerdeRiver	VerdeRiver	47828.98	100 YEAR	13773.52	1228.75	0.04	0.03
VerdeRiver	VerdeRiver	47828.98	ENCRCH	12678.28	866.20	0.04	0.04
VerdeRiver	VerdeRiver	47444.35	100 YEAR	15788.62	1296.06		0.04
VerdeRiver	VerdeRiver	47444.35	ENCRCH	14721.03	925.58		0.04
VerdeRiver	VerdeRiver	47085.07	100 YEAR	16109.04	1340.93	0.08	0.05
VerdeRiver	VerdeRiver	47085.07	ENCRCH	14921.49	894.60	0.08	0.06
VerdeRiver	VerdeRiver	46480.89	100 YEAR	15534.03	1379.91	0.07	0.05
VerdeRiver	VerdeRiver	46480.89	ENCRCH	14798.45	896.35	0.07	0.06
VerdeRiver	VerdeRiver	45731.89	100 YEAR	16813.03	2143.53	0.05	0.04
VerdeRiver	VerdeRiver	45731.89	ENCRCH	15828.34	1209.83	0.05	0.04

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	45248.06	100 YEAR	17090.99	2679.54		0.03
VerdeRiver	VerdeRiver	45248.06	ENCRCH	15926.54	1462.20		0.03
VerdeRiver	VerdeRiver	44764.16	100 YEAR	17345.58	3060.69	0.07	0.03
VerdeRiver	VerdeRiver	44764.16	ENCRCH	15841.46	1574.40	0.07	0.04
VerdeRiver	VerdeRiver	44420.16	100 YEAR	18507.01	3422.78	0.08	0.03
VerdeRiver	VerdeRiver	44420.16	ENCRCH	17425.33	1784.20	0.08	0.04
VerdeRiver	VerdeRiver	44209.12	100 YEAR	18659.43	3813.51		0.03
VerdeRiver	VerdeRiver	44209.12	ENCRCH	16270.27	1818.28		0.04
VerdeRiver	VerdeRiver	42547.56	100 YEAR	19660.50	4631.36		0.03
VerdeRiver	VerdeRiver	42547.56	ENCRCH	16544.33	2139.84		0.04
VerdeRiver	VerdeRiver	42013.95	100 YEAR	18796.60	4859.24		0.03
VerdeRiver	VerdeRiver	42013.95	ENCRCH	16700.73	2072.44		0.04
VerdeRiver	VerdeRiver	41583.91	100 YEAR	22388.06	4900.26	0.06	0.04
VerdeRiver	VerdeRiver	41583.91	ENCRCH	18231.02	1838.52	0.07	0.04
VerdeRiver	VerdeRiver	41226.21	100 YEAR	21820.63	4707.08	0.07	0.04
VerdeRiver	VerdeRiver	41226.21	ENCRCH	17880.69	1749.07	0.07	0.05
VerdeRiver	VerdeRiver	40741.45	100 YEAR	21738.91	4499.81		0.04
VerdeRiver	VerdeRiver	40741.45	ENCRCH	18138.10	1792.68		0.04
VerdeRiver	VerdeRiver	40235.74	100 YEAR	19452.74	3472.88		0.04
VerdeRiver	VerdeRiver	40235.74	ENCRCH	19191.16	1792.02		0.05
VerdeRiver	VerdeRiver	39694.69	100 YEAR	21722.29	3619.00	0.06	0.04
VerdeRiver	VerdeRiver	39694.69	ENCRCH	20748.25	1891.11	0.06	0.05
VerdeRiver	VerdeRiver	39294.37	100 YEAR	20406.22	3368.05		0.04
VerdeRiver	VerdeRiver	39294.37	ENCRCH	19676.96	1778.08		0.04
VerdeRiver	VerdeRiver	38740.89	100 YEAR	21336.42	3234.17	0.08	0.05
VerdeRiver	VerdeRiver	38740.89	ENCRCH	20187.79	1680.73	0.08	0.05
VerdeRiver	VerdeRiver	38252.30	100 YEAR	20114.70	2951.04		0.05
VerdeRiver	VerdeRiver	38252.30	ENCRCH	18776.54	1496.34		0.05
VerdeRiver	VerdeRiver	37990.47	100 YEAR	22012.96	2983.80		0.05
VerdeRiver	VerdeRiver	37990.47	ENCRCH	18154.28	1362.01		0.05
VerdeRiver	VerdeRiver	37655.05	100 YEAR	20625.66	2492.83		0.04
VerdeRiver	VerdeRiver	37655.05	ENCRCH	16326.32	1216.69		0.04
VerdeRiver	VerdeRiver	37270.13	100 YEAR	18160.48	1667.39	0.05	0.04
VerdeRiver	VerdeRiver	37270.13	ENCRCH	16033.00	1169.77	0.05	0.04
VerdeRiver	VerdeRiver	36909.16	100 YEAR	17243.84	1455.22		0.04
VerdeRiver	VerdeRiver	36909.16	ENCRCH	15736.77	1093.98		0.04
VerdeRiver	VerdeRiver	36666.93	100 YEAR	17075.01	1510.80		0.03
VerdeRiver	VerdeRiver	36666.93	ENCRCH	15351.17	1091.37		0.03

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	36220.29	100 YEAR	18524.23	1481.45		0.04
VerdeRiver	VerdeRiver	36220.29	ENCRCH	15094.37	975.40		0.04
VerdeRiver	VerdeRiver	35818.15	100 YEAR	16193.20	1292.40	0.09	0.05
VerdeRiver	VerdeRiver	35818.15	ENCRCH	14769.01	932.81	0.09	0.06
VerdeRiver	VerdeRiver	35340.37	100 YEAR	15626.28	1207.85		0.04
VerdeRiver	VerdeRiver	35340.37	ENCRCH	14315.00	863.41		0.05
VerdeRiver	VerdeRiver	35018.50	100 YEAR	16339.66	1397.04		0.05
VerdeRiver	VerdeRiver	35018.50	ENCRCH	15227.44	892.10		0.06
VerdeRiver	VerdeRiver	34640.28	100 YEAR	15014.79	1401.86		0.03
VerdeRiver	VerdeRiver	34640.28	ENCRCH	13474.34	792.79		0.04
VerdeRiver	VerdeRiver	34314.01	100 YEAR	15172.98	1549.46		0.03
VerdeRiver	VerdeRiver	34314.01	ENCRCH	13677.97	863.31		0.04
VerdeRiver	VerdeRiver	34064.00	100 YEAR	16387.38	1541.15		0.04
VerdeRiver	VerdeRiver	34064.00	ENCRCH	14961.48	914.67		0.05
VerdeRiver	VerdeRiver	33621.80	100 YEAR	18742.93	1940.88	0.06	0.04
VerdeRiver	VerdeRiver	33621.80	ENCRCH	17302.57	1088.79	0.06	0.05
VerdeRiver	VerdeRiver	33266.89	100 YEAR	17764.25	1688.41	0.05	0.04
VerdeRiver	VerdeRiver	33266.89	ENCRCH	16465.85	1059.36	0.05	0.04
VerdeRiver	VerdeRiver	32966.35	100 YEAR	19128.52	1687.21	0.05	0.04
VerdeRiver	VerdeRiver	32966.35	ENCRCH	18123.27	1297.12	0.06	0.05
VerdeRiver	VerdeRiver	32647.61	100 YEAR	21179.03	1663.24	0.06	0.04
VerdeRiver	VerdeRiver	32647.61	ENCRCH	19981.27	1321.58	0.06	0.05
VerdeRiver	VerdeRiver	32287.80	100 YEAR	21995.28	1746.28	0.07	0.05
VerdeRiver	VerdeRiver	32287.80	ENCRCH	20859.69	1366.22	0.07	0.05
VerdeRiver	VerdeRiver	31895.43	100 YEAR	23047.08	1836.41	0.06	0.04
VerdeRiver	VerdeRiver	31895.43	ENCRCH	21512.19	1449.38	0.06	0.05
VerdeRiver	VerdeRiver	31531.97	100 YEAR	23450.59	2176.83	0.08	0.05
VerdeRiver	VerdeRiver	31531.97	ENCRCH	22188.56	1563.66	0.08	0.05
VerdeRiver	VerdeRiver	31217.33	100 YEAR	22036.47	1966.36	0.06	0.05
VerdeRiver	VerdeRiver	31217.33	ENCRCH	20521.89	1429.84	0.06	0.05
VerdeRiver	VerdeRiver	30825.11	100 YEAR	22239.84	2080.27		0.05
VerdeRiver	VerdeRiver	30825.11	ENCRCH	21027.17	1484.15		0.06
VerdeRiver	VerdeRiver	30589.85	100 YEAR	21896.42	2088.50		0.05
VerdeRiver	VerdeRiver	30589.85	ENCRCH	20068.39	1392.17		0.05
VerdeRiver	VerdeRiver	30248.94	100 YEAR	23314.78	2236.46		0.03
VerdeRiver	VerdeRiver	30248.94	ENCRCH	21529.13	1508.12		0.04
VerdeRiver	VerdeRiver	29831.25	100 YEAR	22651.59	2264.83	0.05	0.04
VerdeRiver	VerdeRiver	29831.25	ENCRCH	20912.02	1492.20	0.05	0.05

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	28931.14	100 YEAR	21518.17	2457.79	0.07	0.05
VerdeRiver	VerdeRiver	28931.14	ENCRCH	19719.86	1575.47	0.07	0.05
VerdeRiver	VerdeRiver	28414.06	100 YEAR	19819.08	2410.13	0.06	0.05
VerdeRiver	VerdeRiver	28414.06	ENCRCH	18639.16	1534.35	0.07	0.06
VerdeRiver	VerdeRiver	28054.16	100 YEAR	18805.12	2284.30	0.07	0.04
VerdeRiver	VerdeRiver	28054.16	ENCRCH	16807.46	1442.00	0.07	0.05
VerdeRiver	VerdeRiver	27603.03	100 YEAR	17499.40	2136.66	0.08	0.04
VerdeRiver	VerdeRiver	27603.03	ENCRCH	15370.01	1237.30	0.08	0.05
VerdeRiver	VerdeRiver	27244.60	100 YEAR	15897.58	1897.72	0.09	0.05
VerdeRiver	VerdeRiver	27244.60	ENCRCH	14154.50	1089.43	0.09	0.06
VerdeRiver	VerdeRiver	26902.70	100 YEAR	15170.37	1727.52		0.05
VerdeRiver	VerdeRiver	26902.70	ENCRCH	13919.64	1065.27		0.06
VerdeRiver	VerdeRiver	26588.77	100 YEAR	13191.23	1328.79	0.09	0.06
VerdeRiver	VerdeRiver	26588.77	ENCRCH	13156.76	950.90	0.09	0.07
VerdeRiver	VerdeRiver	26336.00	100 YEAR	16037.57	2985.42	0.08	0.04
VerdeRiver	VerdeRiver	26336.00	ENCRCH	13377.08	847.18	0.08	0.07
VerdeRiver	VerdeRiver	25933.97	100 YEAR	16304.39	2477.89		0.03
VerdeRiver	VerdeRiver	25933.97	ENCRCH	14328.98	910.93		0.04
VerdeRiver	VerdeRiver	25614.47	100 YEAR	17897.76	2768.03	0.08	0.05
VerdeRiver	VerdeRiver	25614.47	ENCRCH	15408.08	1072.69	0.08	0.07
VerdeRiver	VerdeRiver	25233.13	100 YEAR	19704.87	3007.17		0.04
VerdeRiver	VerdeRiver	25233.13	ENCRCH	16782.23	1296.52		0.06
VerdeRiver	VerdeRiver	24840.10	100 YEAR	20251.68	3076.10	0.06	0.04
VerdeRiver	VerdeRiver	24840.10	ENCRCH	17792.48	1407.32	0.06	0.06
VerdeRiver	VerdeRiver	24557.45	100 YEAR	21121.76	3067.16	0.06	0.05
VerdeRiver	VerdeRiver	24557.45	ENCRCH	18825.68	1553.68	0.06	0.06
VerdeRiver	VerdeRiver	24201.12	100 YEAR	20991.10	2939.77		0.04
VerdeRiver	VerdeRiver	24201.12	ENCRCH	20302.99	1762.87		0.05
VerdeRiver	VerdeRiver	23758.81	100 YEAR	25315.77	3322.98		0.04
VerdeRiver	VerdeRiver	23758.81	ENCRCH	20983.24	1980.95		0.05
VerdeRiver	VerdeRiver	23338.44	100 YEAR	23598.65	3746.71	0.09	0.05
VerdeRiver	VerdeRiver	23338.44	ENCRCH	20468.26	2217.11	0.09	0.05
VerdeRiver	VerdeRiver	22957.25	100 YEAR	26223.43	3955.17	0.08	0.05
VerdeRiver	VerdeRiver	22957.25	ENCRCH	22776.62	2320.17	0.08	0.06
VerdeRiver	VerdeRiver	22671.91	100 YEAR	25052.01	3644.19	0.08	0.05
VerdeRiver	VerdeRiver	22671.91	ENCRCH	22388.65	2436.23	0.08	0.05
VerdeRiver	VerdeRiver	22322.48	100 YEAR	27688.83	3351.49	0.09	0.06
VerdeRiver	VerdeRiver	22322.48	ENCRCH	26437.71	2468.04	0.09	0.06

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	22131.87	100 YEAR	28718.24	3210.42		0.05
VerdeRiver	VerdeRiver	22131.87	ENCRCH	27822.01	2413.56		0.05
VerdeRiver	VerdeRiver	21941.61	100 YEAR	25187.42	3032.79	0.09	0.06
VerdeRiver	VerdeRiver	21941.61	ENCRCH	24924.42	2283.01	0.09	0.06
VerdeRiver	VerdeRiver	21673.52	100 YEAR	24701.95	2790.30	0.07	0.06
VerdeRiver	VerdeRiver	21673.52	ENCRCH	24480.55	2164.97	0.07	0.06
VerdeRiver	VerdeRiver	21196.46	100 YEAR	21488.92	2546.17	0.06	0.05
VerdeRiver	VerdeRiver	21196.46	ENCRCH	21077.93	1913.01	0.06	0.05
VerdeRiver	VerdeRiver	20712.48	100 YEAR	22951.58	2171.30	0.05	0.05
VerdeRiver	VerdeRiver	20712.48	ENCRCH	22021.59	1524.82	0.05	0.05
VerdeRiver	VerdeRiver	20293.12	100 YEAR	16222.58	1558.01	0.05	0.04
VerdeRiver	VerdeRiver	20293.12	ENCRCH	15288.98	1025.07	0.05	0.05
VerdeRiver	VerdeRiver	19947.81	100 YEAR	16012.69	1491.02	0.05	0.05
VerdeRiver	VerdeRiver	19947.81	ENCRCH	14518.59	877.70	0.05	0.05
VerdeRiver	VerdeRiver	19326.83	100 YEAR	14142.87	2307.65	0.08	0.05
VerdeRiver	VerdeRiver	19326.83	ENCRCH	13109.77	915.35	0.08	0.06
VerdeRiver	VerdeRiver	19010.64	100 YEAR	20756.06	2616.06		0.04
VerdeRiver	VerdeRiver	19010.64	ENCRCH	14846.45	941.94		0.05
VerdeRiver	VerdeRiver	18510.23	100 YEAR	18301.46	2957.94		0.03
VerdeRiver	VerdeRiver	18510.23	ENCRCH	14600.84	1018.01		0.04
VerdeRiver	VerdeRiver	17921.08	100 YEAR	16654.20	3436.28		0.03
VerdeRiver	VerdeRiver	17921.08	ENCRCH	13455.76	1043.35		0.04
VerdeRiver	VerdeRiver	17404.51	100 YEAR	12960.16	3280.36		0.02
VerdeRiver	VerdeRiver	17404.51	ENCRCH	12400.80	1147.05		0.03
VerdeRiver	VerdeRiver	17000.26	100 YEAR	16249.35	4472.89		0.02
VerdeRiver	VerdeRiver	17000.26	ENCRCH	13731.19	1347.31		0.03
VerdeRiver	VerdeRiver	16626.20	100 YEAR	18503.06	4438.10		0.03
VerdeRiver	VerdeRiver	16626.20	ENCRCH	15035.04	1582.61		0.03
VerdeRiver	VerdeRiver	16245.61	100 YEAR	18603.05	4270.19		0.03
VerdeRiver	VerdeRiver	16245.61	ENCRCH	15635.08	1882.10		0.03
VerdeRiver	VerdeRiver	15768.70	100 YEAR	22478.09	3918.87	0.05	0.03
VerdeRiver	VerdeRiver	15768.70	ENCRCH	18353.73	2175.05	0.05	0.04
VerdeRiver	VerdeRiver	15292.91	100 YEAR	23944.07	3303.44		0.03
VerdeRiver	VerdeRiver	15292.91	ENCRCH	20468.70	2340.07		0.03
VerdeRiver	VerdeRiver	15003.00	100 YEAR	24463.31	3162.43		0.03
VerdeRiver	VerdeRiver	15003.00	ENCRCH	21754.03	2426.48		0.03
VerdeRiver	VerdeRiver	14663.14	100 YEAR	25056.59	3209.89	0.04	0.03
VerdeRiver	VerdeRiver	14663.14	ENCRCH	23506.35	2481.61	0.04	0.03

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	14237.27	100 YEAR	26536.30	3193.57	0.05	0.04
VerdeRiver	VerdeRiver	14237.27	ENCRCH	24864.48	2599.50	0.05	0.04
VerdeRiver	VerdeRiver	13749.83	100 YEAR	25879.48	3124.08	0.05	0.04
VerdeRiver	VerdeRiver	13749.83	ENCRCH	24279.15	2554.67	0.05	0.04
VerdeRiver	VerdeRiver	13295.00	100 YEAR	25319.13	3067.00	0.05	0.04
VerdeRiver	VerdeRiver	13295.00	ENCRCH	23384.87	2493.80	0.06	0.04
VerdeRiver	VerdeRiver	12889.37	100 YEAR	24189.36	2816.12		0.04
VerdeRiver	VerdeRiver	12889.37	ENCRCH	22559.85	2300.74		0.04
VerdeRiver	VerdeRiver	12561.79	100 YEAR	26298.79	2806.48	0.07	0.05
VerdeRiver	VerdeRiver	12561.79	ENCRCH	25130.86	2285.12	0.07	0.05
VerdeRiver	VerdeRiver	12272.02	100 YEAR	24435.74	2544.04	0.05	0.04
VerdeRiver	VerdeRiver	12272.02	ENCRCH	23071.20	2037.50	0.05	0.05
VerdeRiver	VerdeRiver	11811.99	100 YEAR	23108.64	2288.10	0.06	0.05
VerdeRiver	VerdeRiver	11811.99	ENCRCH	21845.26	1837.29	0.06	0.05
VerdeRiver	VerdeRiver	11489.68	100 YEAR	23260.15	2249.28	0.06	0.05
VerdeRiver	VerdeRiver	11489.68	ENCRCH	21892.64	1679.44	0.06	0.05
VerdeRiver	VerdeRiver	11094.83	100 YEAR	22296.75	1983.77	0.05	0.04
VerdeRiver	VerdeRiver	11094.83	ENCRCH	21376.01	1620.12	0.05	0.05
VerdeRiver	VerdeRiver	10703.42	100 YEAR	21711.29	1876.42	0.08	0.06
VerdeRiver	VerdeRiver	10703.42	ENCRCH	20803.68	1535.86	0.08	0.06
VerdeRiver	VerdeRiver	10155.36	100 YEAR	20814.08	1874.33		0.05
VerdeRiver	VerdeRiver	10155.36	ENCRCH	19085.13	1208.90		0.06
VerdeRiver	VerdeRiver	9759.63	100 YEAR	20099.15	1751.11		0.05
VerdeRiver	VerdeRiver	9759.63	ENCRCH	18492.85	1188.45		0.06
VerdeRiver	VerdeRiver	9353.37	100 YEAR	19031.47	1789.55	0.07	0.05
VerdeRiver	VerdeRiver	9353.37	ENCRCH	17779.01	1146.44	0.07	0.06
VerdeRiver	VerdeRiver	8918.82	100 YEAR	23536.54	2137.97	0.07	0.05
VerdeRiver	VerdeRiver	8918.82	ENCRCH	21468.46	1430.98	0.07	0.05
VerdeRiver	VerdeRiver	8440.84	100 YEAR	29662.40	2595.84		0.04
VerdeRiver	VerdeRiver	8440.84	ENCRCH	27102.63	1678.76		0.05
VerdeRiver	VerdeRiver	7931.42	100 YEAR	34321.60	3039.65		0.04
VerdeRiver	VerdeRiver	7931.42	ENCRCH	31067.52	2008.60		0.04
VerdeRiver	VerdeRiver	7573.39	100 YEAR	37278.93	3301.06		0.04
VerdeRiver	VerdeRiver	7573.39	ENCRCH	33860.23	2177.90		0.04
VerdeRiver	VerdeRiver	7163.09	100 YEAR	39492.18	3398.25	0.05	0.04
VerdeRiver	VerdeRiver	7163.09	ENCRCH	33934.02	2161.81	0.05	0.04
VerdeRiver	VerdeRiver	6668.65	100 YEAR	32051.39	3092.18		0.04
VerdeRiver	VerdeRiver	6668.65	ENCRCH	29932.45	1996.27		0.05

**Table E.5.3.1
HEC-RAS OUTPUT
Manning's n Value**

100-YEAR = Floodplain
ENCRCH = Floodway

River	Reach	River Sta	Profile #	Flow Area (sq ft)	Top Width (ft)	Mann Comp	Mann Wtd Total
VerdeRiver	VerdeRiver	6235.18	100 YEAR	27550.18	2643.75		0.03
VerdeRiver	VerdeRiver	6235.18	ENCRCH	25517.23	1834.70		0.04
VerdeRiver	VerdeRiver	5779.03	100 YEAR	23075.98	2389.05	0.07	0.04
VerdeRiver	VerdeRiver	5779.03	ENCRCH	21280.45	1700.97	0.07	0.05
VerdeRiver	VerdeRiver	5275.38	100 YEAR	19977.94	2091.67	0.06	0.04
VerdeRiver	VerdeRiver	5275.38	ENCRCH	19012.70	1538.39	0.06	0.04
VerdeRiver	VerdeRiver	4896.46	100 YEAR	11466.70	972.84	0.05	0.03
VerdeRiver	VerdeRiver	4896.46	ENCRCH	12052.40	1062.72	0.05	0.03
VerdeRiver	VerdeRiver	4403.22	100 YEAR	13995.80	1118.49	0.06	0.05
VerdeRiver	VerdeRiver	4403.22	ENCRCH	14706.34	1072.80	0.06	0.05
VerdeRiver	VerdeRiver	3908.16	100 YEAR	16172.40	1389.79	0.06	0.05
VerdeRiver	VerdeRiver	3908.16	ENCRCH	15899.52	937.80	0.07	0.05
VerdeRiver	VerdeRiver	3574.73	100 YEAR	17303.64	1806.47		0.04
VerdeRiver	VerdeRiver	3574.73	ENCRCH	16851.85	906.69		0.04
VerdeRiver	VerdeRiver	3079.99	100 YEAR	18257.09	1601.11	0.06	0.05
VerdeRiver	VerdeRiver	3079.99	ENCRCH	17691.35	854.12	0.06	0.05
VerdeRiver	VerdeRiver	2604.07	100 YEAR	22020.07	1786.39	0.06	0.05
VerdeRiver	VerdeRiver	2604.07	ENCRCH	21292.32	1050.31	0.06	0.05
VerdeRiver	VerdeRiver	2218.25	100 YEAR	22827.76	1810.11	0.07	0.05
VerdeRiver	VerdeRiver	2218.25	ENCRCH	21994.97	1082.29	0.07	0.06
VerdeRiver	VerdeRiver	1692.83	100 YEAR	23716.09	1851.59		0.04
VerdeRiver	VerdeRiver	1692.83	ENCRCH	22747.74	1079.38		0.05
VerdeRiver	VerdeRiver	1254.99	100 YEAR	19130.39	1715.97	0.05	0.05
VerdeRiver	VerdeRiver	1254.99	ENCRCH	19030.19	917.04	0.06	0.05
VerdeRiver	VerdeRiver	906.25	100 YEAR	17722.22	1567.48	0.05	0.04
VerdeRiver	VerdeRiver	906.25	ENCRCH	16833.02	793.41	0.05	0.05
VerdeRiver	VerdeRiver	671.51	100 YEAR	15638.60	1424.20	0.06	0.05
VerdeRiver	VerdeRiver	671.51	ENCRCH	14914.25	666.35	0.06	0.06
VerdeRiver	VerdeRiver	454.95	100 YEAR	11597.26	941.27	0.06	0.05
VerdeRiver	VerdeRiver	454.95	ENCRCH	11552.46	501.34	0.06	0.05
VerdeRiver	VerdeRiver	339.02	100 YEAR	13779.26	1009.77	0.07	0.05
VerdeRiver	VerdeRiver	339.02	ENCRCH	13172.59	526.37	0.07	0.06
VerdeRiver	VerdeRiver	125.25	100 YEAR	11943.57	559.53	0.07	0.07
VerdeRiver	VerdeRiver	125.25	ENCRCH	11737.72	421.65	0.07	0.07
VerdeRiver	VerdeRiver	2.86	100 YEAR	11833.92	587.94	0.08	0.07
VerdeRiver	VerdeRiver	2.86	ENCRCH	11481.41	426.96	0.08	0.07