The Floodway Encroachment Standard:
Minimizing Cumulative Adverse Impacts

Appendix B

ASFPM completed an assessment of the impacts of establishing regulatory floodways based on the one-foot surcharge criterion. The assessment evaluated impact on: 1) the physical characteristics of the floodway (floodway width, water velocity and area inundated), 2) damages to development in the floodplain and 3) floodplain natural resources.

For this assessment, the engineering modeling and floodway mapping for eight river segments in six states were analyzed to determine the cumulative impacts of establishing regulatory floodways based on the one-foot surcharge criterion. The streams were chosen based on the availability of updated HEC-RAS[1] models, with the goal of including streams of different sizes and gradients from various U.S. regions. Table 1 is a summary of the characteristics of the streams selected for this assessment. This appendix includes the output from the HEC-RAS models analyzed for this assessment. A summary of the results is provided in Table 2 in the main report.

Streams selected for case studies

River System	Drainage Area (Sq Mi)	Discharge (CFS)	Stream Gradient (Ft/Mi)	Reach Length (Mi)	Number of Cross-Sections
Pine Creek (WI)	15.1	2,284	6.9	1.98	46
Patterson Creek (WA)	21.6	820	4.2	9.18	74
Stevens Branch (VT)	66.8	14,790	23.6	15.6	199
Sugar River (WI)	46.6	2,335	1.4	3.85	29
Four Mile Creek (NC)	18.8	4,750	8.3	4.55	60
Cypress Creek 100 (TX)	110.2	27,258	2.7	7.06	35
Cypress Creek 172 (TX)	7.9	2,585	9.3	4.48	25
Plum Creek (CO)	319	38,720	37.6	6.79	65

Table 1 – Study Reach Characteristics.

[1] HEC-RAS is an engineering modeling package developed by the U.S. Army Corps of Engineers. The letters stand for Hydrologic Engineering Center – River Analysis System.

PINE CREEK

Reach	River Sta	Profile	Q Total (cfs)	W.S. Elev (ft)	Area (sq ft)	Vel Total (ft/s)	Prof Delta (ft)	Volume (acre-ft)	Top Wdth Act (ft)	Act Topwidth Dec. (%)
downstream	182.0797	Q100	2284	855.43	5085.41	0.52			942.66	
downstream	182.0797	Q100	2284	855.43	1566.02	1.46	0		214.9	69%
downstream	382.4613	Q100	2284	855.44	3256.28	0.7		50.4	536.89	
downstream	382.4613	Q100	2284	855.44	1473.59	1.55	0	13.59	215.08	60%
downstream	590.652*	Q100	2284	855.44	2406.49	0.95		59.53	535.6	
downstream	590.652*	Q100	2284	855.47	1587.5	1.44	0.03	18.83	321.33	40%
downstream	798.842*	Q100	2284	855.44	2027.32	1.13		66.53	537.46	
downstream	798.842*	Q100	2284	855.49	1451.68	1.57	0.05	23.79	301.95	44%
downstream	1007.03*	Q100	2284	855.48	2494.49	0.92		73.08	620.06	
downstream	1007.03*	Q100	2284	855.53	1601.22	1.43	0.05	28.43	311.45	50%
downstream	1215.224	Q100	2284	855.52	3660.6	0.62		81.06	639.32	
downstream	1215.224	Q100	2284	855.6	2175.58	1.05	0.08	33.69	371.28	42%
downstream	1427.00*	Q100	2284	855.52	3138.79	0.73		92.8	642.03	
downstream	1427.00*	Q100	2284	855.6	1591.36	1.44	0.07	40.49	294.45	54%
downstream	1638.77*	Q100	2284	855.53	2661.17	0.86		102.81	651.82	
downstream	1638.77*	Q100	2284	855.61	1290.24	1.77	0.08	45.77	253.43	61%
downstream	1850.55*	Q100	2284	855.55	2383.66	0.96		111.5	551.31	
downstream	1850.55*	Q100	2284	855.6	873.74	2.61	0.05	49.8	179.42	68%
downstream	2062.331	Q100	2284	855.55	2289.03	1.37		119.5	429.84	
downstream	2062.331	Q100	2284	855.64	701.97	3.25	0.09	52.79	150	65%
downstream	2362.065	Q100	2284	855.6	3202.56	1.86		137.78	233	
downstream	2362.065	Q100	2284	855.98	785.83	2.91	0.39	57.76	104.4	55%
downstream	2731.267	Q100	2284	857.44	2793.24	1.76		157.43	218.45	
downstream	2731.267	Q100	2284	857.53	661.03	3.46	0.08	62.87	81.1	63%
downstream	2950.26	Q100	2284	857.49	2227	1.77		168.75	209	
downstream	2950.26	Q100	2284	857.65	624.7	3.66	0.16	66.02	63.44	70%
downstream	3210.428	Q100	2284	857.51	1849.48	2.18		180.51	199	
downstream	3210.428	Q100	2284	857.66	493.48	4.63	0.15	69.35	56.5	72%
downstream	3539.759	Q100	2260	858.63	1745.74	2.43		192.39	192.7	
downstream	3539.759	Q100	2260	858.86	692.72	3.26	0.23	74.27	92.2	52%
downstream	3707.23*	Q100	2260	858.68	1403.34	2.18		198.13	334.25	
downstream	3707.23*	Q100	2260	858.89	589.29	3.84	0.21	76.73	77.06	77%
downstream	3874.70*	Q100	2260	858.69	1160.31	2.76		202.71	239.61	
downstream	3874.70*	Q100	2260	858.9	480.97	4.7	0.2	78.78	61.93	74%
downstream	4042.179	Q100	2260	858.71	1059.71	3.23		206.6	206.56	
downstream	4042.179	Q100	2260	858.85	366.16	6.17	0.14	80.41	46.79	77%
downstream	4333.371	Q100	2260	858.93	780.71	3.33		212.21	174.69	
downstream	4333.371	Q100	2260	859.1	326.3	6.93	0.17	82.71	43.91	75%
downstream	4807.863	Q100	2260	859.47	590.06	3.83		219	153.61	
downstream	4807.863	Q100	2260	860.12	366.47	6.17	0.66	86.45	46.89	70%
downstream	5055.41*	Q100	2260	860.02	920.73	2.45		222.62	266.01	
downstream	5055.41*	Q100	2260	860.67	400.1	5.65	0.65	88.6	48.08	82%
downstream	5302.97*	Q100	2260	860.34	1207.55	1.87		227.47	361.22	
downstream	5302.97*	Q100	2260	861.2	660.78	3.42	0.86	91.38	107.31	70%
downstream	5550.523	Q100	2260	860.55	1422.77	1.59		233.25	448.25	
downstream	5550.523	Q100	2260	861.53	1102.52	2.05	0.98	95.54	250.05	66%
downstream	5795.87*	Q100	2260	860.65	1026.25	2.2		237.4	402.33	
downstream	5795.87*	Q100	2260	861.62	769.53	2.94	0.96	99.11	178.76	55%
downstream	6041.23*	Q100	2260	860.85	731.36	3.09		240.64	357.03	

downstream	6041.23*	Q100	2260	861.78	535.86	4.22	0.93	101.86	117.47	67%
downstream	6286.59*	Q100	2260	861.28	563.26	4.01		243.25	310.07	
downstream	6286.59*	Q100	2260	862.05	319.53	7.07	0.77	103.95	44.54	86%
downstream	6531.94*	Q100	2260	861.97	525.26	4.3		245.6	322.23	
downstream	6531.94*	Q100	2260	862.72	299.45	7.55	0.75	105.66	42.57	87%
downstream	6777.305	Q100	2260	862.9	677.89	3.46		248.25	348.37	
downstream	6777.305	Q100	2260	863.57	326.6	6.92	0.67	107.36	52.15	85%
downstream	6973.84*	Q100	2260	863.46	529.21	4.27		250.8	289.76	
downstream	6973.84*	Q100	2260	864.22	299.87	7.54	0.76	108.76	40.9	86%
downstream	7170.38*	Q100	2260	864.17	542.4	4.17		253.09	258.51	
downstream	7170.38*	Q100	2260	864.9	313.28	7.21	0.73	110.14	41.19	84%
downstream	7366.929	Q100	2260	864.78	575.57	3.93		255.48	236.14	
downstream	7366.929	Q100	2260	865.56	383.22	5.9	0.78	111.69	72.18	69%
downstream	7669.933	Q100	2260	865.65	1035.23	2.18		259.9	322.91	
downstream	7669.933	Q100	2260	866.46	647.38	3.49	0.81	115	112.62	65%
downstream	7841.19*	Q100	2260	865.76	884.9	2.55		262.94	289.57	
downstream	7841.19*	Q100	2260	866.62	650.02	3.48	0.86	117.34	96.23	67%
downstream	8012.46*	Q100	2260	865.9	798.87	2.83		265.77	238.62	
downstream	8012.46*	Q100	2260	866.76	683.38	3.31	0.86	119.8	91.12	62%
downstream	8183.73	Q100	2260	866.03	778.26	3.34		268.56	101	
downstream	8183.73	Q100	2260	866.87	680.59	3.32	0.85	122.41	78.21	23%
downstream	8359.338	Q100	2260	867.12	540.33	4.18		270.32	80.48	
downstream	8359.338	Q100	2260	867.62	426.78	5.3	0.49	124.08	41	49%
downstream	8498.759	Q100	2260	867.24	524.73	4.31		272.01	82.59	
downstream	8498.759	Q100	2260	867.72	404.82	5.58	0.47	125.42	41.63	50%
downstream	8915.752	Q100	2260	867.97	1171.81	1.93		279.9	218.4	
downstream	8915.752	Q100	2260	868.41	618.47	3.65	0.44	130.24	84.35	61%
downstream	9140.47*	Q100	2260	868.09	1011.62	2.23		284.37	196.89	
downstream	9140.47*	Q100	2260	868.62	482.39	4.68	0.53	132.76	59.46	70%
downstream	9365.18*	Q100	2260	868.26	978.59	2.31		288.59	182.37	
downstream	9365.18*	Q100	2260	869.05	669.38	3.38	0.79	135.45	90	50%
downstream	9589.905	Q100	2260	868.45	1034.08	2.19		292.98	173.02	
downstream	9589.905	Q100	2260	869.37	1038.44	2.18	0.92	139.31	138.5	20%
downstream	9827.66*	Q100	2260	868.62	1290.83	1.75		297.21	275.62	
downstream	9827.66*	Q100	2260	869.52	1264.54	1.79	0.9	143.61	186.85	32%
downstream	10065.4*	Q100	2260	868.78	1627.73	1.39		302.18	372.56	
downstream	10065.4*	Q100	2260	869.64	1595.72	1.42	0.87	148.62	259.35	30%
downstream	10303.18	Q100	2260	868.88	1922.58	1.18		307.93	461.89	
downstream	10303.18	Q100	2260	869.72	1921.79	1.18	0.84	154.42	332.99	28%
downstream	10579.21	Q100	2260	868.96	1198.78	1.91		316.47	338.92	
downstream	10579.21	Q100	2260	869.77	1243.35	1.82	0.81	163.02	270.82	20%
downstream	10643.04	Q100	2260	869.06	1999.43	1.28		318.64	485.63	
downstream	10643.04	Q100	2260	869.85	1872.98	1.21	0.78	165.24	401.32	17%
										2719%
				Velocity		Storage		Average		
				Increase	62%	Decrease	48%	Topwdth Dec.		59%

PATTERSON

River	Reach	River Sta	Profile	Q Total (cfs)	W.S. Elev (ft)	Area (sq ft)	Vel Total (ft/s)	Prof Delta (ft)	Volume (acre-ft)	Top Wdth Act (ft)	Act Topwidth Dec %
Overflow 1	Overflow 1	0.01	baseline sorta	0.1	123.9	1.02	0.1		2.85	2.26	
Overflow 1	Overflow 1	0.01	floodway sorta	0.1	124.84	4.25	0.02	0.94	1.56	4.61	
Overflow 1	Overflow 1	0.02	baseline sorta	0.1	123.9	1.02	0.1		2.85	2.26	
Overflow 1	Overflow 1	0.02	floodway sorta	0.1	124.84	4.25	0.02	0.94	1.56	4.61	
Patterson Cre	Mainstem 1	0.957	baseline sorta	820	75.29	1791.06	0.53		1.64	766.18	71%
Patterson Cre	Mainstem 1	0.957	floodway sorta	820	76.23	735.99	1.11	0.94	0.78	222.1	
Patterson Cre	Mainstem 1	1.135	baseline sorta	820	75.39	4497.99	0.35		68.55	735.82	
Patterson Cre	Mainstem 1	1.135	floodway sorta	820	76.39	1696.62	0.48	1	26.49	390	47%
Patterson Cre	Mainstem 1	1.387	baseline sorta	610	76.18	540.62	1.13		135.9	319.04	
Patterson Cre	Mainstem 1	1.387	floodway sorta	610	76.99	498.5	1.22	0.81	55.95	180.57	47%
Patterson Cre	Mainstem 1	1.52	baseline sorta	610	77.1	1390.38	1.72		150.98	240	
Patterson Cre	Mainstem 1	1.52	floodway sorta	610	77.68	322.67	1.89	0.57	62.09	150	38%
Patterson Cre	Mainstem 1	1.535	baseline sorta	610	78.55	1107	1.87		155.42	80	
Patterson Cre	Mainstem 1	1.535	floodway sorta	610	78.96	573.9	1.06	0.41	63.17	170	0%
Patterson Cre	Mainstem 1	1.65	baseline sorta	610	79	518.25	1.18		162.88	359.43	
Patterson Cre	Mainstem 1	1.65	floodway sorta	610	79.55	177.43	3.44	0.55	66.88	38.6	89%
Patterson Cre	Mainstem 1	1.81	baseline sorta	610	80.74	961.49	3.72		174.72	49	
Patterson Cre	Mainstem 1	1.81	floodway sorta	610	81.62	190.53	3.2	0.89	70.46	45.85	6%
Patterson Cre	Mainstem 1	1.831	baseline sorta	610	81.25	1367.96	1.35		176.44	125	
Patterson Cre	Mainstem 1	1.831	floodway sorta	610	81.91	320.71	1.9	0.66	71.1	70	44%
Patterson Cre	Mainstem 1	1.981	baseline sorta	610	82.2	411.94	1.48		191.74	212.07	
Patterson Cre	Mainstem 1	1.981	floodway sorta	610	83.16	268.07	2.28	0.96	76.29	71.32	66%
Patterson Cre	Mainstem 1	2.145	baseline sorta	610	84.6	141.33	4.32		196.4	45.4	
Patterson Cre	Mainstem 1	2.145	floodway sorta	610	85.23	159.56	3.82	0.63	80.12	35.17	22%
Patterson Cre	Mainstem 1	2.147	baseline sorta	610	84.55	113.73	5.36		196.43	44.3	
Patterson Cre	Mainstem 1	2.147	floodway sorta	610	85.2	129.86	4.7	0.64	80.16	33.85	25%
Patterson Cre	Mainstem 1	2.278	baseline sorta	610	86.22	294.73	2.07		199.01	201.11	
Patterson Cre	Mainstem 1	2.278	floodway sorta	610	86.85	205.06	2.97	0.63	82.48	74.32	63%
Patterson Cre	Mainstem 1	2.295	baseline sorta	610	87.33	553.38	1.24		199.89	230.19	
Patterson Cre	Mainstem 1	2.295	floodway sorta	610	88.29	299.82	2.03	0.96	82.99	80.21	65%
Patterson Cre	Mainstem 1	2.42	baseline sorta	450	88.42	349.59	1.29		205.27	253.46	
Patterson Cre	Mainstem 1	2.42	floodway sorta	450	89.42	316.82	1.42	1	86.95	126.08	43%
Patterson Cre	Mainstem 1	2.597	baseline sorta	450	91.95	339.37	1.33		212.15	424.48	
Patterson Cre	Mainstem 1	2.597	floodway sorta	450	92.93	152.56	2.95	0.98	91.7	49.59	88%
Patterson Cre	Mainstem 1	2.755	baseline sorta	450	95.17	328.7	1.85		218.02	121.4	
Patterson Cre	Mainstem 1	2.755	floodway sorta	450	96.12	197.52	2.28	0.95	94.86	55	55%
Patterson Cre	Mainstem 1	2.89	baseline sorta	450	98.6	159.82	2.82		221.93	99.54	
Patterson Cre	Mainstem 1	2.89	floodway sorta	450	99.11	136.81	3.29	0.5	97.55	35.09	67%
Patterson Cre	Mainstem 1	3.005	baseline sorta	450	101.07	197.74	2.29		224.43	66.06	
Patterson Cre	Mainstem 1	3.005	floodway sorta	450	101.55	169.08	2.66	0.48	99.7	32.92	52%
Patterson Cre	Mainstem 1	3.026	baseline sorta	450	101.51	179.81	2.51		224.83	58.8	
Patterson Cre	Mainstem 1	3.026	floodway sorta	450	101.93	178.22	2.54	0.42	100.08	31.1	47%
Patterson Cre	Mainstem 1	3.11	baseline sorta	450	101.66	1976.73	0.3		236.2	371.35	
Patterson Cre	Mainstem 1	3.11	floodway sorta	450	102.33	385.36	1.17	0.67	103.02	57.11	85%
Patterson Cre	Mainstem 1	3.209	baseline sorta	450	101.67	2906	0.15		266.64	761.3	
Patterson Cre	Mainstem 1	3.209	floodway sorta	450	102.45	683.19	0.66	0.78	109.63	101.87	81%
Patterson Cre	Mainstem 1	3.329	baseline sorta	450	101.69	1855.8	0.24		302.21	653.87	
Patterson Cre	Mainstem 1	3.329	floodway sorta	450	102.54	650.14	0.69	0.85	119.66	113.4	83%

Patterson Cre	Mainstem 1	3.514	baseline sorta	450	101.74	1273.57	0.35		331.21	614.16	
Patterson Cre	Mainstem 1	3.514	floodway sorta	450	102.68	652.81	0.69	0.94	132.02	150	76%
Patterson Cre	Mainstem 1	3.731	baseline sorta	450	101.93	865.5	0.52		349.84	517.58	
Patterson Cre	Mainstem 1	3.731	floodway sorta	450	102.91	576.17	0.78	0.98	143.24	170	67%
Patterson Cre	Mainstem 1	3.854	baseline sorta	450	102.12	937.58	0.48		361.93	556.2	
Patterson Cre	Mainstem 1	3.854	floodway sorta	450	103.07	684.28	0.66	0.96	151.77	188	66%
Patterson Cre	Mainstem 1	3.864	baseline sorta	450	102.2	1160.86	0.39		362.81	612.52	
Patterson Cre	Mainstem 1	3.864	floodway sorta	450	103.2	772	0.58	1	152.43	193.99	68%
Patterson Cre	Mainstem 1	4.066	baseline sorta	450	102.64	762.02	0.59		383.64	684.98	
Patterson Cre	Mainstem 1	4.066	floodway sorta	450	103.64	457.57	0.98	1	166.16	168.08	75%
Patterson Cre	Mainstem 1	4.188	baseline sorta	450	103.24	527.65	0.85		392.51	447.58	
Patterson Cre	Mainstem 1	4.188	floodway sorta	450	104.18	365.07	1.23	0.94	171.91	119.1	73%
Patterson Cre	Mainstem 1	4.337	baseline sorta	450	104.3	512.9	0.88		401.08	508.6	
Patterson Cre	Mainstem 1	4.337	floodway sorta	450	105.27	345.7	1.3	0.97	177.83	168.42	67%
Patterson Cre	Mainstem 1	4.428	baseline sorta	450	104.53	1012.86	0.52		408.87	383.45	
Patterson Cre	Mainstem 1	4.428	floodway sorta	450	105.51	648.65	0.69	0.99	182.74	173.68	55%
Patterson Cre	Mainstem 1	4.441	baseline sorta	450	104.66	1078.27	0.46		409.93	386	
Patterson Cre	Mainstem 1	4.441	floodway sorta	450	105.64	601.76	0.75	0.98	183.5	146.45	62%
Patterson Cre	Mainstem 1	4.563	baseline sorta	390	104.88	646.28	0.6		422.16	544.77	
Patterson Cre	Mainstem 1	4.563	floodway sorta	390	105.85	539.43	0.72	0.98	191.83	150.71	72%
Patterson Cre	Mainstem 1	4.738	baseline sorta	390	105.16	957.65	0.41		437.17	642.89	
Patterson Cre	Mainstem 1	4.738	floodway sorta	390	106.1	680.06	0.57	0.94	203.48	232.32	64%
Patterson Cre	Mainstem 1	4.971	baseline sorta	390	105.8	1242.46	0.31		458.53	1144.51	
Patterson Cre	Mainstem 1	4.971	floodway sorta	390	106.79	690.76	0.56	0.99	218.45	250	78%
Patterson Cre	Mainstem 1	5.103	baseline sorta	390	105.98	943.84	0.41		472.35	971.61	
Patterson Cre	Mainstem 1	5.103	floodway sorta	390	106.98	545.53	0.71	1	226.79	200	79%
Patterson Cre	Mainstem 1	5.233	baseline sorta	390	106.33	636.68	0.61		482.22	540.63	
Patterson Cre	Mainstem 1	5.233	floodway sorta	390	107.32	428.47	0.91	0.99	233.37	164.31	70%
Patterson Cre	Mainstem 1	5.242	baseline sorta	390	106.38	458.41	0.85		482.76	510.13	
Patterson Cre	Mainstem 1	5.242	floodway sorta	390	107.35	443.91	0.88	0.98	233.8	160	69%
Patterson Cre	Mainstem 1	5.45	baseline sorta	390	106.98	1180.13	0.35		499.13	1348.2	
Patterson Cre	Mainstem 1	5.45	floodway sorta	390	107.93	553.81	0.7	0.94	244.13	284.4	79%
Patterson Cre	Mainstem 1	5.561	baseline sorta	390	107.81	545.39	0.72		511.76	732.97	
Patterson Cre	Mainstem 1	5.561	floodway sorta	390	108.75	344.33	1.13	0.94	250.68	198.42	73%
Patterson Cre	Mainstem 1	5.662	baseline sorta	390	108.35	856.93	0.46		519.8	1140.52	
Patterson Cre	Mainstem 1	5.662	floodway sorta	390	109.28	470.96	0.83	0.94	255.41	191.15	83%
Patterson Cre	Mainstem 1	5.774	baseline sorta	390	108.84	806.16	0.48		532.04	1028.12	
Patterson Cre	Mainstem 1	5.774	floodway sorta	390	109.81	479.24	0.81	0.97	262.49	264.86	74%
Patterson Cre	Mainstem 1	5.924	baseline sorta	320	109.36	831.46	0.39		546.51	1023.8	
Patterson Cre	Mainstem 1	5.924	floodway sorta	320	110.34	545.37	0.6	0.98	271.54	300	71%
Patterson Cre	Mainstem 1	6.052	baseline sorta	320	109.61	868.88	0.39		557.49	685.19	
Patterson Cre	Mainstem 1	6.052	floodway sorta	320	110.6	524.95	0.61	1	278.56	226.62	67%
Patterson Cre	Mainstem 1	6.062	baseline sorta	320	109.94	876.46	0.46		559.7	704.64	
Patterson Cre	Mainstem 1	6.062	floodway sorta	320	110.9	406.91	0.79	0.96	279.81	166.68	76%
Patterson Cre	Mainstem 1	6.205	baseline sorta	320	110.13	984.77	0.32		570.77	908.45	
Patterson Cre	Mainstem 1	6.205	floodway sorta	320	111.12	603.51	0.53	0.99	285.78	270	70%
Patterson Cre	Mainstem 1	6.351	baseline sorta	320	110.3	855.13	0.37		582.72	832.96	
Patterson Cre	Mainstem 1	6.351	floodway sorta	320	111.3	558.45	0.57	1	293.48	224.81	73%
Patterson Cre	Mainstem 1	6.475	baseline sorta	320	110.55	691.24	0.46		592.3	625.62	
Patterson Cre	Mainstem 1	6.475	floodway sorta	320	111.54	460.72	0.69	0.99	300.11	192.44	69%
Patterson Cre	Mainstem 1	6.604	baseline sorta	320	111.12	487.89	0.66		599.85	640.17	
Patterson Cre	Mainstem 1	6.604	floodway sorta	320	112.1	286.43	1.12	0.98	305.06	119.9	81%

Patterson Cre	Mainstem 1	6.733	baseline sorta	320	111.76	505.61	0.63		605.72	452.09	
Patterson Cre	Mainstem 1	6.733	floodway sorta	320	112.73	326.33	0.98	0.98	308.89	124.19	73%
Patterson Cre	Mainstem 1	6.852	baseline sorta	320	113.12	685.69	1.03		613.77	428.52	
Patterson Cre	Mainstem 1	6.852	floodway sorta	320	113.88	296.84	1.52	0.76	313.16	97	77%
Patterson Cre	Mainstem 1	6.861	baseline sorta	320	113.29	984.24	0.81		614.3	471.39	
Patterson Cre	Mainstem 1	6.861	floodway sorta	320	114.23	329.43	1.25	0.95	313.39	81.09	82%
Patterson Cre	Mainstem 1	6.938	baseline sorta	320	113.39	1212.03	0.36		622.77	415.9	
Patterson Cre	Mainstem 1	6.938	floodway sorta	320	114.37	605.43	0.53	0.98	317.15	176.42	58%
Patterson Cre	Mainstem 1	7.059	baseline sorta	320	113.56	696.03	0.46		634.55	619.13	
Patterson Cre	Mainstem 1	7.059	floodway sorta	320	114.56	393.86	0.81	1	323.44	126.22	79%
Patterson Cre	Mainstem 1	7.23	baseline sorta	320	114.92	1217.63	1.13		648	562.55	
Patterson Cre	Mainstem 1	7.23	floodway sorta	320	115.91	258.05	1.88	0.99	328.68	75.11	87%
Patterson Cre	Mainstem 1	7.245	baseline sorta	320	115.6	1403.52	0.73		649.1	551.1	
Patterson Cre	Mainstem 1	7.245	floodway sorta	320	116.46	360.07	1.4	0.86	329.01	82.54	85%
Patterson Cre	Mainstem 1	7.313	baseline sorta	320	115.65	1277.11	0.25		657.88	671.46	
Patterson Cre	Mainstem 1	7.313	floodway sorta	320	116.61	491.39	0.65	0.95	331.92	125.87	81%
Patterson Cre	Mainstem 1	7.323	baseline sorta	320	115.66	1301	0.25		659.22	675.2	
Patterson Cre	Mainstem 1	7.323	floodway sorta	320	116.62	437.73	0.73	0.97	332.4	110	84%
Patterson Cre	Mainstem 1	7.452	baseline sorta	320	115.82	604	0.53		672.92	504.01	
Patterson Cre	Mainstem 1	7.452	floodway sorta	320	116.82	482.62	0.66	1	339.12	165.42	67%
Patterson Cre	Mainstem 1	7.596	baseline sorta	320	116.35	468.94	0.68		681.55	388.55	
Patterson Cre	Mainstem 1	7.596	floodway sorta	320	117.34	287.73	1.11	0.99	345.43	100.82	74%
Patterson Cre	Mainstem 1	7.767	baseline sorta	240	117.44	360.46	0.72		689.23	372.22	
Patterson Cre	Mainstem 1	7.767	floodway sorta	240	118.44	211.3	1.14	1	350.25	90	76%
Patterson Cre	Mainstem 1	7.961	baseline sorta	240	119.08	286.99	0.84		695.53	307.63	
Patterson Cre	Mainstem 1	7.961	floodway sorta	240	120.01	156.73	1.53	0.93	353.93	55	82%
Patterson Cre	Mainstem 1	8.129	baseline sorta	240	121.8	272.16	0.88		700.87	521.42	
Patterson Cre	Mainstem 1	8.129	floodway sorta	240	122.79	130.98	1.83	0.99	356.69	60	88%
Patterson Cre	Mainstem 1	8.331	baseline sorta	240	123.83	380.65	0.63		707.59	496.26	
Patterson Cre	Mainstem 1	8.331	floodway sorta	240	124.82	204.92	1.17	0.99	360.18	90.26	82%
Patterson Cre	Mainstem 2	8.504	baseline sorta	240	126.61	152.39	1.57		5.57	301.15	
Patterson Cre	Mainstem 2	8.504	floodway sorta	240	128.38	129.61	1.85	1.76	3.49	125	58%
Patterson Cre	Mainstem 2	8.56	baseline sorta	240	127.48	244.48	0.98		6.91	384.56	
Patterson Cre	Mainstem 2	8.56	floodway sorta	240	129.63	173.52	1.38	2.15	4.38	135	65%
Patterson Cre	Mainstem 2	8.616	baseline sorta	240	128.1	233.41	1.03		8.51	327.4	
Patterson Cre	Mainstem 2	8.616	floodway sorta	240	130.94	112.25	2.14	2.84	5.27	82	75%
Patterson Cre	Mainstem 2	8.667	baseline sorta	240	130.07	120.57	1.99		9.6	226.83	
Patterson Cre	Mainstem 2	8.667	floodway sorta	240	132.27	107.88	2.22	2.2	5.91	70	69%
Patterson Cre	Mainstem 2	8.714	baseline sorta	240	132.75	147.28	1.63		10.39	326.16	
Patterson Cre	Mainstem 2	8.714	floodway sorta	240	133.5	111.23	2.16	0.76	6.52	65	80%
Patterson Cre	Mainstem 2	8.851	baseline sorta	150	139.05	529.88	0.86		15.67	55	
Patterson Cre	Mainstem 2	8.851	floodway sorta	150	138.99	91.69	1.64	-0.06	8.95	20.27	63%
Patterson Cre	Mainstem 2	8.85119*	baseline sorta	150	139.05	528.88	0.86		15.68	55	
Patterson Cre	Mainstem 2	8.85119*	floodway sorta	150	138.99	91.31	1.64	-0.06	8.95	20.25	63%
Patterson Cre	Mainstem 2	8.95	baseline sorta	150	141.93	130.6	1.15		18.59	183.93	
Patterson Cre	Mainstem 2	8.95	floodway sorta	150	142.9	40.35	3.72	0.97	9.73	31.3	83%
Patterson Cre	Mainstem 2	9.043	baseline sorta	150	150.26	45.18	3.32		19.56	61.73	
Patterson Cre	Mainstem 2	9.043	floodway sorta	150	151.05	26.72	5.61	0.79	10.11	14	77%
Patterson Cre	Mainstem 2	9.131	baseline sorta	150	158.87	33.29	4.51		19.96	29.28	
Patterson Cre	Mainstem 2	9.131	floodway sorta	150	158.93	31.26	4.8	0.06	10.41	13.39	55%
Patterson Cre	Mainstem 2	9.184	baseline sorta	150	161.94	50.59	2.96		20.22	32.3	

Patterson Cre	Mainstem 2	9.184	floodway sorta	150	162.47	30.85	4.86	0.52	10.61	12.7	63% 4896%

		Velocity Increase	Storage 45% Decrease	Average 48% Topwdth Dec.	68%

STEVENS BRANCH

Reach	River Sta	Profile	Q Total (cfs)	W.S. Elev (ft)	Area (sq ft)	Vel Total (ft/s)	Prof Delta (ft)	Volume (acre-ft)	Top Wdth Act (ft)	Act Topwdth Dec.
Stevens	289.0488 100.4	1%	14790	542.25	6356.57	3.21			597.8	
Stevens	289.0488 100.4	1%FW	14790	543.25	3820.68	3.87	1		390.21	35%
Stevens	1236.977 300.2	1%	14790	543.13	5015.42	3.43		110.9	666.32	
Stevens	1236.977 300.2	1%FW	14790	544.16	4353.76	3.4	1.03	81.22	554.32	17%
Stevens	1912.057 400.4	1%	14790	543.26	2954.97	5.01		170.4	801.96	
Stevens	1912.057 400.4	1%FW	14790	544.25	2888.96	5.12	0.99	135.44	589.47	26%
Stevens	2840.12	1%	14790	544.68	2999.06	4.93		226.72	953.37	
Stevens	2840.12	1%FW	14790	545.26	2365.5	6.25	0.58	184.8	433.11	54%
Stevens	3283.672 SB-010 DSC	1%	14710	545.79	3565.71	4.4		259.65	696.29	
Stevens	3283.672 SB-010 DSC	1%FW	14710	546.46	3088.31	4.76	0.68	212.2	492.83	29%
Stevens	3364.392 SB-010 DSF	1%	14710	545.83	1980.48	7.43		264.67	539.51	
Stevens	3364.392 SB-010 DSF	1%FW	14710	545.83	1582.36	9.3	0	216.43	348.49	35%
Stevens	3402.073 SB-010 USF	1%	14710	547.56	3786.04	3.89		266.87	1117	
Stevens	3402.073 SB-010 USF	1%FW	14710	548.4	3049.28	4.82	0.84	217.99	449.55	60%
Stevens	3539.273 SB-010 USC	1%	14710	547.58	3226.64	4.6		277.56	801.79	
Stevens	3539.273 SB-010 USC	1%FW	14710	548.52	3009.03	4.89	0.94	227.19	410.87	49%
Stevens	4369.411	1%	14710	548.68	3593.1	4.09		338	817.71	
Stevens	4369.411	1%FW	14710	549.29	2547.19	5.77	0.61	276.99	301.74	63%
Stevens	4912.629	1%	14710	549.1	3711.17	3.96		382.97	780.26	
Stevens	4912.629	1%FW	14710	549.8	2720.44	5.41	0.7	309.59	309.27	60%
Stevens	5472.426	1%	14710	549.2	2492.65	5.9		420.8	536.27	
Stevens	5472.426	1%FW	14710	549.74	1852.72	7.94	0.55	337.99	267.56	50%
Stevens	6211.686	1%	14710	550.51	1578.94	9.32		455.14	215.5	
Stevens	6211.686	1%FW	14710	551.52	1448.26	10.16	1	365.71	144.15	33%
Stevens	6657.747	1%	14710	552.95	2130.06	6.91		473.98	282.41	
Stevens	6657.747	1%FW	14710	553.77	2038.52	7.22	0.82	383.49	191.94	32%
Stevens	7208.071 SB-020USF	1%	14710	557.77	1490.04	10.24		493	223.86	
Stevens	7208.071 SB-020USF	1%FW	14710	558.39	1471.06	10	0.62	402.78	90.97	60%
Stevens	7337.050 SB-020 USC	1%	14710	558.87	2186.62	6.73		498.43	382.33	
Stevens	7337.050 SB-020 USC	1%FW	14710	559.32	1987.65	7.4	0.44	407.92	169.27	58%
Stevens	7476.019	1%	14710	558.48	1488.26	9.88		504.35	181.31	
Stevens	7476.019	1%FW	14710	558.59	1172.05	12.55	0.12	412.98	62.76	66%
Stevens	7733.880 SB-030DSC	1%	14710	559.72	2063.11	7.13		514.93	325.6	
Stevens	7733.880 SB-030DSC	1%FW	14710	560.5	2141.26	6.87	0.78	422.84	190.8	42%
Stevens	7853.008 SB-030DSF	1%	14710	560.38	3442.65	4.4		523.08	697.59	
Stevens	7853.008 SB-030DSF	1%FW	14710	560.47	2175.27	6.8	0.09	429.07	303	57%
Stevens	7913.671 SB-030 USF	1%	14710	560.67	3534.05	4.26		526.92	697.18	
Stevens	7913.671 SB-030 USF	1%FW	14710	561.26	2743.48	5.45	0.59	431.74	473.1	31%
Stevens	8091.100 SB-030 USC	1%	14710	561.02	4133.7	3.56		540.62	684.48	
Stevens	8091.100 SB-030 USC	1%FW	14710	561.26	2252.47	6.53	0.23	441.16	281.63	59%
Stevens	8818.583	1%	14710	561.32	4511.46	3.26		609.76	742.15	
Stevens	8818.583	1%FW	14710	562.24	3562.26	4.13	0.91	488.02	300	60%
Stevens	9607.489	1%	14710	561.1	2009.54	7.32		667.85	207.46	
Stevens	9607.489	1%FW	14710	562.09	1941.87	7.58	1	537.04	140	32%
Stevens	10512.84	1%	14710	562.45	2407.54	6.11		713.63	253.85	
Stevens	10512.84	1%FW	14710	563.16	2067.03	7.12	0.71	578.62	154.22	39%
Stevens	11406.29	1%	12610	563.65	2989.26	4.22		769.5	371.12	
Stevens	11406.29	1%FW	12610	564.22	2010.47	6.27	0.57	620.59	171.34	54%

Stevens	11934.83	1%	12610	563.87	2486	5.07		800.91	364.41		
Stevens	11934.83	1%FW	12610	564.67	1944.37	6.49	0.8	643.6	182.5		50%
Stevens	12726.5	1%	12610	564.24	1495.76	8.43		836.9	211.55		
Stevens	12726.5	1%FW	12610	565.21	1351.62	9.33	0.97	673.45	113.09		46%
Stevens	13658.33	1%	12610	566.38	1480.64	8.52		868.73	165.18		
Stevens	13658.33	1%FW	12610	567.1	1454.89	8.67	0.72	703.45	112.2		32%
Stevens	14639.31	1%	12490	568.03	1715.2	7.28		904.64	171.05		
Stevens	14639.31	1%FW	12490	568.67	1587.14	7.87	0.64	737.69	111.42		35%
Stevens	15515.25	1%	12490	568.74	1181.83	10.57		933.73	119.17		
Stevens	15515.25	1%FW	12490	569.5	1260.46	9.91	0.76	766.31	112.05		6%
Stevens	16460.72	1%	12490	572.08	750.03	17.02		954.58	80.71		
Stevens	16460.72	1%FW	12490	572.1	734.48	17.01	0.02	787.86	77.76		4%
Stevens	17407.49	1%	12490	578.65	1396.92	8.94		977.69	292.3		
Stevens	17407.49	1%FW	12490	578.64	1355.96	9.21	0	810.38	105		64%
Stevens	18299.24	1%	12490	579.77	894.39	13.96		1001.02	132.78		
Stevens	18299.24	1%FW	12490	579.78	892.62	13.99	0.01	833.28	125		5%
Stevens	19053.65 SB-040 DSC	1%	12490	584.17	1023.63	12.2		1017.61	109.98		
Stevens	19053.65 SB-040 DSC	1%FW	12490	584.14	1017.71	12.27	-0.03	849.81	103.38		6%
Stevens	19237.67 SB-040USC	1%	12490	587.81	1757.6	7.11		1022.92	275.02		
Stevens	19237.67 SB-040USC	1%FW	12490	587.76	1680.98	7.43	-0.05	854.99	222		19%
Stevens	19530.04	1%	12490	589.32	4162.94	3.17		1042.23	658.42		
Stevens	19530.04	1%FW	12490	589.28	3450.26	3.62	-0.04	871.75	466.84		29%
Stevens	19872.67 SB-050 DSC	1%	12490	589.56	4562.35	2.74		1076.43	716.97		
Stevens	19872.67 SB-050 DSC	1%FW	12490	589.52	3696.75	3.38	-0.04	899.77	541.83		65%
Stevens	19993.94 SB-050 DSF	1%	12490	589.59	5324.1	2.35		1091.57	1045.38		
Stevens	19993.94 SB-050 DSF	1%FW	12490	589.54	4045.97	3.09	-0.04	911.28	716.44		31%
Stevens	20026.61 SB-050 USF	1%	12490	589.64	4789.37	2.61		1095.05	1029.61		
Stevens	20026.61 SB-050 USF	1%FW	12490	589.62	3828.92	3.26	-0.02	913.94	710.59		31%
Stevens	21111.52	1%	12490	591.19	11044.06	1.13		1282.25	1774.54		
Stevens	21111.52	1%FW	12490	591.55	3522.15	3.55	0.36	975.89	542.03		69%
Stevens	22314.96 SB-060 DSC	1%	12490	591.25	5113.56	2.48		1502.43	1184.24		
Stevens	22314.96 SB-060 DSC	1%FW	12490	592.29	4910.64	2.59	1.04	1090.61	785.38		34%
Stevens	22402.23 SB-060 DSF	1%	12370	591.28	4679.39	2.65		1514.75	1258.79		
Stevens	22402.23 SB-060 DSF	1%FW	12370	592.22	3149.29	3.94	0.95	1100.72	538		57%
Stevens	22452.23 SB-060 USF	1%	12370	591.31	3961.22	3.7		1519.34	1140.68		
Stevens	22452.23 SB-060 USF	1%FW	12370	592.36	3027.73	4.09	1.05	1103.89	538		53%
Stevens	22611.62 SB-060 USC	1%	12370	591.41	2750.8	4.92		1532.62	637.55		
Stevens	22611.62 SB-060 USC	1%FW	12370	592.43	2516.66	4.92	1.02	1114.81	423.42		34%
Stevens	23141.46	1%	12370	592.81	1180.45	10.91		1556.66	323.03		
Stevens	23141.46	1%FW	12370	593	1158.69	10.68	0.19	1137.26	311.57		4%
Stevens	23533.76 SB-070 DSC	1%	12370	595.68	2782.05	4.83		1573.49	641.62		
Stevens	23533.76 SB-070 DSC	1%FW	12370	595.67	2390.03	5.18	-0.01	1152.57	537.36		16%
Stevens	23813.81 SB-070 DSF	1%	10340	596.24	3598.79	3.03		1593.59	1081.94		
Stevens	23813.81 SB-070 DSF	1%FW	10340	596.23	2903.74	3.77	-0.01	1169.42	643.95		41%
Stevens	23877.62 SB-070 USF	1%	10340	596.32	3941.85	2.81		1598.65	1277.04		
Stevens	23877.62 SB-070 USF	1%FW	10340	596.29	2701.6	4.13	-0.02	1173.02	614.8		52%
Stevens	23960.09 SB-070USC, (	1%	10340	596.21	3640.5	3.97		1605.68	850.36		
Stevens	23960.09 SB-070USC, (	1%FW	10340	596.21	2100.15	4.92	0	1177.72	440.57		48%
Stevens	24174.7	1%	10340	596.66	3967.26	2.61		1623.87	1272.14		
Stevens	24174.7	1%FW	10340	596.67	2943.38	3.51	0	1190.08	739.99		42%
Stevens	24374.50 SB-080USF	1%	10340	597.98	2507.61	9.4		1630.67	665.89		

Stevens	24374.50 SB-080USF	1%FW		10340	598	1088.18	9.5	0.02	1195.39	80.53	88%
Stevens	24447.80 SB-080 USC		1%	10340	598	1086.01	9.56		1633.85	190.74	
Stevens	24447.80 SB-080 USC	1%FW		10340	598.01	1081.65	9.56	0	1197.27	188.27	1%
Stevens	25151.63		1%	10340	600.33	3624.07	3.48		1671.94	663.34	
Stevens	25151.63	1%FW		10340	600.31	2666.86	3.88	-0.03	1227.52	551.54	17%
Stevens	26069.13 SB-090DSC		1%	10340	600.26	1073.09	9.64		1721.21	217.53	
Stevens	26069.13 SB-090DSC	1%FW		10340	600.27	956.74	10.81	0.01	1265.65	158.17	27%
Stevens	26229.02 SB-090DSF		1%	10340	602.07	4589.23	7.5		1731.53	214.95	
Stevens	26229.02 SB-090DSF	1%FW		10340	602.42	1282.44	8.06	0.35	1269.75	113.77	47%
Stevens	26262.02 SB-090USF		1%	10340	602.75	5247.86	7.52		1734.49	247.97	
Stevens	26262.02 SB-090USF	1%FW		10340	603.09	1209.93	8.55	0.34	1270.51	113.98	47%
Stevens	26462.23 SB-090 USC		1%	10340	603.79	5272.76	3.84		1759.96	1334.43	
Stevens	26462.23 SB-090 USC	1%FW		10340	604.15	2154.4	4.84	0.36	1278.43	229.8	83%
Stevens	27391.66 SB-100DSC		1%	10340	602.78	645.72	16.01		1823.88	138.33	
Stevens	27391.66 SB-100DSC	1%FW		10340	603.4	645.74	16.01	0.61	1308.43	47.11	66%
Stevens	27739.62 SB-100 USC		1%	10340	609.16	2088.36	4.95		1832.08	283.1	
Stevens	27739.62 SB-100 USC	1%FW		10340	609.15	1790.97	5.77	-0.01	1316	191.01	32%
Stevens	28091.68		1%	10340	609.37	1907	5.42		1848.21	269.15	
Stevens	28091.68	1%FW		10340	609.43	1639.39	6.31	0.05	1329.85	146.8	45%
Stevens	28446.92		1%	10340	609.55	1545.66	6.69		1862.21	230.78	
Stevens	28446.92	1%FW		10340	609.68	1469.85	7.03	0.13	1342.47	109.51	53%
Stevens	28571.50 SB-110 USF		1%	10340	610.58	1104.54	9.36		0.57	117.47	
Stevens	28571.50 SB-110 USF	1%FW		10340	611.49	1127.24	9.17	0.91	0.55	102.59	13%
Stevens	28653.11		1%	10340	611.29	1235.75	8.37		2.78	168.24	
Stevens	28653.11	1%FW		10340	612	1163.87	8.88	0.71	2.71	115.77	31%
Stevens	29355.64		1%	10340	612.8	831.32	12.44		19.45	84.27	
Stevens	29355.64	1%FW		10340	613.57	811.01	12.75	0.77	18.63	61.6	27%
Stevens	29863.61		1%	10340	615.08	949.87	11.41		29.83	101.25	
Stevens	29863.61	1%FW		10340	615.89	870.31	11.88	0.81	28.43	69	32%
Stevens	30350.63		1%	9690	617.21	1378.53	7.03		42.84	255.11	
Stevens	30350.63	1%FW		9690	617.5	1087.09	8.91	0.3	39.37	133.97	48%
Stevens	31145.56 SB-120 DSC		1%	8110	619.61	1163.53	6.97		61.75	531.02	
Stevens	31145.56 SB-120 DSC	1%FW		8110	620.6	1047.8	7.74	0.99	55.81	231.03	56%
Stevens	31210.50 SB-120 DSF		1%	8110	621.22	1468.37	5.62		63.47	432.51	
Stevens	31210.50 SB-120 DSF	1%FW		8110	621.22	1229.63	6.73	0	57.35	321.33	26%
Stevens	31244.37 SB-120USF		1%	8110	622.81	2057.43	3.98		64.99	422.53	
Stevens	31244.37 SB-120USF	1%FW		8110	623.18	1815.09	4.49	0.37	58.63	321.33	27%
Stevens	31373.63 SB-120USC		1%	8110	623.45	2251.79	3.6		70.22	327.38	
Stevens	31373.63 SB-120USC	1%FW		8110	623.57	1655.91	4.9	0.11	62.94	197.3	40%
Stevens	31839.41		1%	8110	624.35	851.44	9.53		86.02	130.35	
Stevens	31839.41	1%FW		8110	624.42	623.36	13.01	0.06	74.64	69.58	47%
Stevens	32130.08		1%	8110	639.27	642.23	13.29		90.51	103.16	
Stevens	32130.08	1%FW		8110	639.27	528.03	15.36	0.01	78.17	70.23	32%
Stevens	32377.86		1%	8110	655.82	985.42	8.23		3.69	202.99	
Stevens	32377.86	1%FW		8110	655.81	975.73	8.31	0	3.64	193.29	2%
Stevens	33238.64 SB-140DSC		1%	8110	660.67	1479.06	5.48		23.91	160.48	
Stevens	33238.64 SB-140DSC	1%FW		8110	660.66	1461.35	5.55	-0.01	23.72	149.02	7%
Stevens	33432.68 SB-140USF		1%	8110	661.65	1144.07	7.09		28.47	145.74	
Stevens	33432.68 SB-140USF	1%FW		8110	661.69	1128.18	7.19	0.03	28.26	125.05	14%
Stevens	33509.41 SB-140USC		1%	8110	662.72	2532.52	3.2		31.78	340.92	
Stevens	33509.41 SB-140USC	1%FW		8110	662.71	2325.06	3.49	-0.01	31.37	297.48	13%

Stevens	33895.21	1%	8110	662.67	1989.4	4.08		46.39	240.35		
Stevens	33895.21	1%FW	8110	662.64	1796.49	4.51	-0.02	44.7	194.16		13%
Stevens	34194.80 SB-141DSC	1%	8110	661.77	837.35	9.69		56.14	107.79		
Stevens	34194.80 SB-141DSC	1%FW	8110	661.88	842.32	9.63	0.11	53.8	101.35		19%
Stevens	34315.69 SB-141DSF	1%	8110	664.59	1460.64	5.55		59.34	137.96		
Stevens	34315.69 SB-141DSF	1%FW	8110	664.6	1437.29	5.64	0.01	56.97	124.47		6%
Stevens	34341.29 SB-141USF	1%	8100	664.73	1542.73	5.25		60.19	143.15		
Stevens	34341.29 SB-141USF	1%FW	8100	664.75	1544.82	5.24	0.02	57.82	140.53		2%
Stevens	34461.46 SB-141USC	1%	8100	665.06	1889.02	4.29		64.11	173.96		
Stevens	34461.46 SB-141USC	1%FW	8100	665.08	1881.14	4.31	0.01	61.74	166.3		2%
Stevens	35048.55	1%	8100	665.49	3991.89	2.03		87.78	390.53		
Stevens	35048.55	1%FW	8100	665.51	3341.44	2.42	0.02	83.47	310.41		4%
Stevens	35488.94	1%	8100	665.54	2540.86	3.19		113.14	242.58		
Stevens	35488.94	1%FW	8100	665.55	1879.92	4.31	0.01	103.86	152.16		37%
Stevens	35523.45	1%	8100	665.51	2182.68	3.71		115.05	227.69		
Stevens	35523.45	1%FW	8100	665.52	1646.92	4.92	0.01	105.29	140.52		38%
Stevens	35559.85	1%	8100	665.52	1329.88	6.09		1.35	196.45		
Stevens	35559.85	1%FW	8100	666.36	1158.45	6.99	0.84	1.1	127.94		35%
Stevens	35681.94	1%	8100	665.69	1213.11	6.68		4.16	172.47		
Stevens	35681.94	1%FW	8100	666.58	1121.41	7.22	0.89	3.78	119.95		31%
Stevens	35854.26	1%	8100	664.94	653.26	12.4		7.62	100.25		
Stevens	35854.26	1%FW	8100	665.85	555.21	14.59	0.91	6.94	51.96		49%
Stevens	35888.01	1%	8100	672.38	785.42	10.31		8.2	134.33		
Stevens	35888.01	1%FW	8100	673.15	499.74	16.21	0.77	7.35	48.64		64%
Stevens	36117.4	1%	8100	682.8	809.81	10		11.57	169.06		
Stevens	36117.4	1%FW	8100	682.82	586.7	13.81	0.02	10.03	99.22		41%
Stevens	36217.4	1%	8100	686.89	1011.9	8		13.66	170.44		
Stevens	36217.4	1%FW	8100	687.87	578.17	14.01	0.98	11.37	64.9		62%
Stevens	36519.59	1%	8100	696.27	679.96	11.91		19.37	90.79		
Stevens	36519.59	1%FW	8100	696.66	492.39	16.45	0.39	15.04	47.01		48%
Stevens	36727.49 SB-160 DSC	1%	8100	702.36	473.38	17.11		22.09	49.87		
Stevens	36727.49 SB-160 DSC	1%FW	8100	702.61	425.01	19.06	0.25	17.23	37.85		24%
Stevens	36922.78 SB-160 USC	1%	8100	710.11	530.84	15.26		24.53	66.05		
Stevens	36922.78 SB-160 USC	1%FW	8100	710.1	462.79	17.5	-0.01	19.56	44.15		33%
Stevens	37159.13	1%	8100	713.23	512.57	15.8		27.37	68.15		
Stevens	37159.13	1%FW	8100	713.25	450.41	17.98	0.02	22.04	44.89		33%
Stevens	37622.45	1%	8100	718.63	2814.74	2.88		45.49	326		
Stevens	37622.45	1%FW	8100	719.12	1952.53	4.15	0.48	35.07	187.98		42%
Stevens	38057.37	1%	8100	718.79	2912.99	2.78		73.23	362.43		
Stevens	38057.37	1%FW	8100	719.37	2017.12	4.02	0.58	54.36	214.12		56%
Stevens	38764.75 SB-170DSC	1%	8100	719.04	2666.51	3.04		111.37	435.4		
Stevens	38764.75 SB-170DSC	1%FW	8100	719.79	1958.54	4.14	0.75	82.85	241.49		45%
Stevens	39212.15 SB-170USC	1%	7680	730.04	5668.38	1.35		22	342.44		
Stevens	39212.15 SB-170USC	1%FW	7680	731.02	5750.08	1.34	0.99	15.22	306.55		10%
Stevens	39985.58	1%	7680	730.04	4153.82	1.85		90.73	296.88		
Stevens	39985.58	1%FW	7680	731.02	4094.12	1.88	0.98	84.08	244.93		17%
Stevens	40759.72 SB-180 DSC	1%	7680	730.09	3865.96	1.99		141.91	352.6		
Stevens	40759.72 SB-180 DSC	1%FW	7680	731.06	3424.2	2.24	0.97	131.93	202.3		43%
Stevens	40874.26 SB-180DSF	1%	7680	730.04	3369.64	2.42		151.76	508.92		
Stevens	40874.26 SB-180DSF	1%FW	7680	731.02	3081.83	2.66	0.98	140.79	305.43		40%
Stevens	40917.36 SB-180 USF	1%	7680	730.22	3575.58	2.42		154.51	516.39		
Stevens	40917.36 SB-180 USF	1%FW	7680	731.16	3168.65	2.76	0.94	143.32	305.43		40%

Stevens	41050.56 SB-180 USC		1%	7680	730.6	6103.63	1.26		168.29	602.06	
Stevens	41050.56 SB-180 USC	1%FW		7680	731.43	3548.85	2.16	0.83	152.94	234.45	61%
Stevens	41791.57		1%	7680	730.68	8160.93	0.94		239.44	598.45	
Stevens	41791.57	1%FW		7680	731.54	3840.94	2	0.86	195.29	239.59	60%
Stevens	42412.61 SB-190DSC		1%	7680	730.68	5577.37	1.38		305.95	433.67	
Stevens	42412.61 SB-190DSC	1%FW		7680	731.62	4081.83	1.88	0.94	238.96	281.67	40%
Stevens	42527.62 SB-190DSF		1%	7680	730.69	6539.84	1.18		314.35	556.11	
Stevens	42527.62 SB-190DSF	1%FW		7680	731.67	5812.24	1.32	0.98	247.85	450.1	21%
Stevens	42542.34 SB-190USF		1%	7680	730.69	6596.92	1.17		316.52	558.75	
Stevens	42542.34 SB-190USF	1%FW		7680	731.68	5901.39	1.3	0.98	249.78	450.1	21%
Stevens	42628.5 SB-190USC		1%	7680	730.66	4376.51	1.75		327.2	361.26	
Stevens	42628.5 SB-190USC	1%FW		7680	731.64	3696.81	2.08	0.98	259.06	261	28%
Stevens	43149.86		1%	7680	730.48	1587.35	4.84		358.31	144.44	
Stevens	43149.86	1%FW		7680	731.47	1497.16	5.13	0.99	287.02	108.91	25%
Stevens	43775.61		1%	7680	731.09	2792.35	2.75		389.33	254.4	
Stevens	43775.61	1%FW		7680	732	2538.72	3.03	0.91	315.62	191.75	25%
Stevens	44729.83		1%	7680	731.52	3253.71	2.36		444.18	312.78	
Stevens	44729.83	1%FW		7680	732.49	2982.98	2.57	0.98	366.85	242.92	22%
Stevens	45749.71		1%	7680	731.61	2777.94	2.76		492.3	325.02	
Stevens	45749.71	1%FW		7680	732.59	2648.46	2.9	0.98	412.62	251.27	23%
Stevens	46444.44 SB-200 DSC		1%	7680	731.86	4177.29	1.84		545.49	498.1	
Stevens	46444.44 SB-200 DSC	1%FW		7680	732.84	3772.77	2.04	0.98	461.81	363.09	27%
Stevens	46514.87 SB-200 DSF		1%	7680	731.87	3975.9	1.93		551.92	475.13	
Stevens	46514.87 SB-200 DSF	1%FW		7680	732.86	3861.42	1.99	0.99	467.81	384.92	19%
Stevens	46560.98 SB-200USF		1%	7680	731.87	3677.65	2.09		555.85	490.99	
Stevens	46560.98 SB-200USF	1%FW		7680	732.87	3623.12	2.12	1	471.67	386.81	21%
Stevens	46695.08 SB-200USC		1%	7680	731.89	3624.63	2.12		568.93	497.74	
Stevens	46695.08 SB-200USC	1%FW		7680	732.88	3259.82	2.36	0.99	484.12	354.76	29%
Stevens	47493.07 SB-201?DSC		1%	7680	732.01	3363.72	2.28		617.54	541.92	
Stevens	47493.07 SB-201?DSC	1%FW		7680	732.99	3232.65	2.38	0.98	529.71	413.28	24%
Stevens	47532.75 SB-201DSF		1%	7680	732.02	3369.29	2.29		621.34	562.08	
Stevens	47532.75 SB-201DSF	1%FW		7680	733.02	3604.9	2.14	1	533.55	509.07	9%
Stevens	47549.53 SB-201USF		1%	7680	732.03	3341.02	2.31		622.6	557.29	
Stevens	47549.53 SB-201USF	1%FW		7680	733.03	3522.37	2.18	1	534.9	499.18	10%
Stevens	47616.17 SB-201USC		1%	7680	732.05	3423.45	2.24		626.78	564.08	
Stevens	47616.17 SB-201USC	1%FW		7680	733.04	3290.41	2.33	0.98	539.14	431.39	23%
Stevens	48319.61		1%	7680	732.22	3013.63	2.55		676.36	765.32	
Stevens	48319.61	1%FW		7680	733.17	2541.98	3.02	0.95	583.98	376.2	51%
Stevens	48937.98 SB-210 DSC		1%	7680	732.47	2378.54	3.23		715.2	506.54	
Stevens	48937.98 SB-210 DSC	1%FW		7680	733.42	2002.63	3.83	0.95	616.74	327	35%
Stevens	48991.00 SB-210DSF		1%	7680	732.48	1984.28	3.9		717.87	505.78	
Stevens	48991.00 SB-210DSF	1%FW		7680	733.43	1759.95	4.4	0.95	619.04	342.67	32%
Stevens	49016.08 SB-210USF		1%	7680	732.49	1755.63	4.41		718.9	515.1	
Stevens	49016.08 SB-210USF	1%FW		7680	733.45	1606.67	4.82	0.96	619.97	342.67	33%
Stevens	49092.70 SB-210USC		1%	7680	732.72	2116.28	3.63		722.31	595.65	
Stevens	49092.70 SB-210USC	1%FW		7680	733.41	1197.1	6.42	0.69	622.44	256	33%
Stevens	50033.67		1%	7680	734.56	1191.16	6.45		751.1	412.81	
Stevens	50033.67	1%FW		7680	735.53	1055.2	7.28	0.97	643.02	227.39	57%
Stevens	50946.51		1%	7680	737.8	1120.31	6.86		773.06	272.45	
Stevens	50946.51	1%FW		7680	738.27	914.26	8.4	0.48	661.84	155.36	45%
Stevens	51574.5		1%	7680	740.05	1605.42	4.78		791.44	501.66	

Stevens	51574.5	1%FW	7680	740.72	1193.13	6.44	0.66	676.06	190.62	62%
Stevens	52068.40 SB-211 DSC	1%	6290	741.28	1921.63	3.27		806.21	354.31	
Stevens	52068.40 SB-211 DSC	1%FW	6290	742.13	1347.35	4.67	0.85	687.14	212.55	40%
Stevens	52125.07 SB-211DSF	1%	6290	741.2	1323.42	4.85		809.19	276.39	
Stevens	52125.07 SB-211DSF	1%FW	6290	742.12	1155.18	5.54	0.91	689.34	191.66	31%
Stevens	52143.90 SB-211USF	1%	6290	741.23	1251.65	5.23		809.71	272.18	
Stevens	52143.90 SB-211USF	1%FW	6290	742.18	1181.38	5.53	0.96	689.8	191.66	30%
Stevens	52240.00 SB-211USC	1%	6290	740.99	675.74	9.31		812.53	162.78	
Stevens	52240.00 SB-211USC	1%FW	6290	741.64	581.47	10.82	0.66	692.38	84.08	48%
Stevens	53064.45	1%	6290	744.65	971.31	6.48		826.45	287.84	
Stevens	53064.45	1%FW	6290	745.31	743.25	8.46	0.66	703.92	100.6	65%
Stevens	53608.26 SB-212DSC	1%	6290	745.7	734.47	8.56		837.04	126.39	
Stevens	53608.26 SB-212DSC	1%FW	6290	746.29	672	9.36	0.59	712.71	88.33	30%
Stevens	53765.17 SB-212DSF	1%	6290	747.03	856.92	7.34		839.98	126.43	
Stevens	53765.17 SB-212DSF	1%FW	6290	747.18	689.09	9.13	0.15	715.21	77.55	38%
Stevens	53782.14 SB-212USF	1%	6290	747.52	939.37	6.7		840.33	134.06	
Stevens	53782.14 SB-212USF	1%FW	6290	747.57	706.28	8.91	0.05	715.48	76	43%
Stevens	53852.26 SB-212USC	1%	6290	747.68	866.65	7.26		841.67	141.34	
Stevens	53852.26 SB-212USC	1%FW	6290	748.19	714.99	8.8	0.51	716.57	74.46	48%
Stevens	54695.89	1%	6290	749.82	1120.68	5.61		860.41	206.43	
Stevens	54695.89	1%FW	6290	750.5	752.74	8.36	0.68	730.66	66.86	68%
Stevens	55371.37	1%	6290	751.23	2585.25	2.43		887.41	341.87	
Stevens	55371.37	1%FW	6290	752.07	2245.15	2.8	0.84	752.63	253.7	25%
Stevens	56200.03	1%	6290	751.52	1993.35	3.16		919.85	396.28	
Stevens	56200.03	1%FW	6290	752.37	1808.69	3.48	0.85	781.87	274.37	31%
Stevens	57182.52 SB-213DSC	1%	6290	752.3	2755.47	2.28		959.28	667.32	
Stevens	57182.52 SB-213DSC	1%FW	6290	753.19	1884.79	3.34	0.89	812.91	337.33	63%
Stevens	57309.73 SB-213DSF	1%	6290	752.32	2478.6	2.54		964.74	636.98	
Stevens	57309.73 SB-213DSF	1%FW	6290	753.24	1778.26	3.54	0.92	816.99	327.36	48%
Stevens	57329.64 SB-213 USF	1%	6290	752.32	2302.27	2.73		965.77	607.94	
Stevens	57329.64 SB-213 USF	1%FW	6290	753.25	1755.26	3.58	0.93	817.75	328	46%
Stevens	57450.83 SB-213USC	1%	4860	752.41	2018.34	2.41		970.1	588.72	
Stevens	57450.83 SB-213USC	1%FW	4860	753.32	1346.23	3.61	0.91	821.07	254	57%
Stevens	57948.22	1%	4860	752.72	1378.26	3.53		987.05	393.3	
Stevens	57948.22	1%FW	4860	753.6	945.23	5.14	0.88	832.8	187	52%
Stevens	58441.42 SB-220 DSC	1%	4860	754.03	771.86	6.3		998.93	260.34	
Stevens	58441.42 SB-220 DSC	1%FW	4860	755	526.01	9.24	0.97	840.96	104.03	60%
Stevens	58517.92 SB-220 DSF	1%	4860	758.9	994.69	6.61		1000.51	211.71	
Stevens	58517.92 SB-220 DSF	1%FW	4860	758.9	646.89	8.46	0	842.01	137	35%
Stevens	58570.78 SB-220 USF	1%	4860	761.04	1761.17	3.35		1001.67	316.22	
Stevens	58570.78 SB-220 USF	1%FW	4860	761.59	1269.11	4.55	0.54	842.85	152	52%
Stevens	58714.65 SB-220 USC	1%	4860	761.29	3043.94	1.6		1009.22	368.94	
Stevens	58714.65 SB-220 USC	1%FW	4860	762.04	2791.3	1.74	0.75	849.26	269.76	27%
Stevens	59419.77	1%	4860	761.39	6153.11	0.79		1072.25	855.62	
Stevens	59419.77	1%FW	4860	762.12	2048.67	2.37	0.73	881.72	244.69	71%
Stevens	60352.6	1%	4860	761.49	3738.89	1.3		1158.74	934.35	
Stevens	60352.6	1%FW	4860	762.43	1806.48	2.69	0.93	915.95	264	72%
Stevens	61149.58	1%	4860	762.06	1019.26	4.77		1193.81	470.37	
Stevens	61149.58	1%FW	4860	762.55	648.7	7.49	0.5	934.08	177.27	62%
Stevens	62009.03 SB-230DSC	1%	4860	765.58	742.76	6.54		1206.37	268.17	
Stevens	62009.03 SB-230DSC	1%FW	4860	766.59	719.29	6.76	1.01	944.09	175	35%

Stevens	62171.17 SB-230 DSF		1%	4860	768.04	918.08	5.29		1209.4	355.89	
Stevens	62171.17 SB-230 DSF	1%FW		4860	768.55	724.74	6.71	0.51	946.71	203.08	43%
Stevens	62213.71 SB-230 USF		1%	4860	770.04	1376.39	3.53		1210.47	411.61	
Stevens	62213.71 SB-230 USF	1%FW		4860	770.95	963.37	5.04	0.92	947.42	203.08	51%
Stevens	62377.08 SB-230 USC		1%	4860	770.49	1908.1	2.55		1213.65	444.95	
Stevens	62377.08 SB-230 USC	1%FW		4860	771.45	916.78	5.3	0.96	949.74	132	70%
Stevens	63051.51 SB-240 USF		1%	4840	778.76	750.5	6.55		1230.35	153.01	
Stevens	63051.51 SB-240 USF	1%FW		4840	778.53	715.87	6.88	-0.23	960.35	149.81	3%
Stevens	63087.15 SB-240USC		1%	4840	778.48	416.43	11.62		1230.82	45.5	
Stevens	63087.15 SB-240USC	1%FW		4840	778.31	408.66	11.84	-0.17	960.8	44.77	3%
Stevens	63754.3		1%	4840	800.15	379.14	12.77		1236.91	60.86	
Stevens	63754.3	1%FW		4840	800.21	295.42	16.38	0.06	966.19	33.91	2%
Stevens	64735.28 SB-250 USC		1%	4840	861.94	1038.95	4.66		1246.47	124.03	
Stevens	64735.28 SB-250 USC	1%FW		4840	861.93	1008.62	4.8	-0.01	975.15	93.73	25%
Stevens	65505.64		1%	4840	862.57	2413.78	2.01		1272.11	196.74	
Stevens	65505.64	1%FW		4840	862.55	2016.07	2.4	-0.01	998.01	130.98	29%
Stevens	66248.66		1%	4840	862.69	2466.37	1.96		1309.23	248	
Stevens	66248.66	1%FW		4840	862.69	1980.92	2.44	0	1029.06	152.8	38%
Stevens	66974.9		1%	4070	862.8	6400.76	0.64		1377.9	965.14	
Stevens	66974.9	1%FW		4070	862.85	4850.24	0.85	0.04	1082.36	528.4	45%
Stevens	67297.09 SB-260 DSC		1%	4070	862.81	5712.51	0.71		1420.76	1089.22	
Stevens	67297.09 SB-260 DSC	1%FW		4070	862.86	4236.22	0.96	0.05	1115.74	567.54	48%
Stevens	67600.35 SB-260 USC		1%	4070	862.82	3996.77	1.02		23.29	1118.32	
Stevens	67600.35 SB-260 USC	1%FW		4070	862.88	2635.42	1.54	0.06	15.57	427.6	61%
Stevens	68362.32		1%	2850	862.9	4780.38	0.6		96.35	840.82	
Stevens	68362.32	1%FW		2850	863	4148.53	0.69	0.1	72.07	621.66	26%
Stevens	70190.98 SB-270 DSC		1%	2850	862.95	1539.07	1.85		182.28	311.83	
Stevens	70190.98 SB-270 DSC	1%FW		2850	863.06	1197.52	2.38	0.11	143.41	214.16	31%
Stevens	70352.40 SB-270DSF		1%	2850	864.1	2017.77	3.39		188.74	669.98	
Stevens	70352.40 SB-270DSF	1%FW		2850	864.44	1084.36	5.87	0.34	147.54	215.68	68%
Stevens	70421.43 SB-270 USF		1%	2850	865.08	1981.85	2.74		190.56	699.79	
Stevens	70421.43 SB-270 USF	1%FW		2850	865.82	1209.36	4.4	0.74	148.64	215.68	69%
Stevens	70534.74 SB-270 USC		1%	2850	865.47	2927.13	0.97		196.22	614.19	
Stevens	70534.74 SB-270 USC	1%FW		2850	866.47	2522.37	1.13	1	152.74	313.02	49%
Stevens	71256.77		1%	2850	865.51	2353.61	1.21		229.02	687.56	
Stevens	71256.77	1%FW		2850	866.5	1877.58	1.52	0.99	180.01	294.74	57%
Stevens	72040.82 SB-280 DSC		1%	2850	865.49	782.17	3.68		253.75	400.87	
Stevens	72040.82 SB-280 DSC	1%FW		2850	866.37	485.04	5.88	0.87	198.64	78.6	80%
Stevens	72087.01 SB-280 DSF		1%	2850	866.02	1536.85	1.85		254.77	635.83	
Stevens	72087.01 SB-280 DSF	1%FW		2850	867	1438.88	1.98	0.98	199.49	310.29	51%
Stevens	72144.60 SB-280 USF		1%	2850	866.71	1926.74	1.48		1.3	809.86	
Stevens	72144.60 SB-280 USF	1%FW		2850	867.6	1476.76	1.93	0.89	1.03	310.29	61%
Stevens	72204.07 SB-280 USC		1%	2850	866.74	1719.33	1.66		3.85	480.49	
Stevens	72204.07 SB-280 USC	1%FW		2850	867.63	1600.76	1.78	0.9	3.18	255.5	47%
Stevens	72763.1		1%	2850	866.83	2957.62	0.96		33.09	598.61	
Stevens	72763.1	1%FW		2850	867.72	3088.04	0.92	0.88	32.47	517.03	14%
Stevens	73809.97		1%	2850	866.92	1410.24	2.02		74.91	441.51	
Stevens	73809.97	1%FW		2850	867.77	1459.09	1.95	0.85	76.19	345.92	22%
Stevens	74690.35		1%	2850	868.3	621.51	4.59		89.66	345.99	
Stevens	74690.35	1%FW		2850	868.53	436.08	6.54	0.23	90.08	154.64	55%
Stevens	75356.31 SB-290 DSC		1%	2850	872	850.17	3.81		98.69	459.95	
Stevens	75356.31 SB-290 DSC	1%FW		2850	872.51	642.81	4.43	0.5	96.84	190.97	59%

Stevens	75403.46 SB-290 DSF	1%	1770	872.48	933.38	1.9		99.74	421.14		
Stevens	75403.46 SB-290 DSF	1%FW	1770	873	736.59	2.4	0.52	97.62	175.38		58%
Stevens	75445.70 SB-290 USF	1%	1770	873.32	1207.81	1.47		0.55	531.04		
Stevens	75445.70 SB-290 USF	1%FW	1770	874.14	864.43	2.05	0.82	0.42	175.38		67%
Stevens	75515.79 SB-290 USC	1%	1770	873.39	1785.02	0.99		2.95	703.26		
Stevens	75515.79 SB-290 USC	1%FW	1770	874.24	1586.9	1.12	0.85	2.44	379.39		46%
Stevens	76324.63	1%	1770	873.64	1221.55	1.45		27.36	641.17		
Stevens	76324.63	1%FW	1770	874.4	1071.13	1.65	0.76	24.13	324.29		49%
Stevens	77149.01	1%	1770	876.15	305.64	5.79		38.2	296.33		
Stevens	77149.01	1%FW	1770	876.56	252.35	7.01	0.41	33.46	163.62		45%
Stevens	77723.17	1%	1770	878.78	609.91	2.9		43.7	333.19		
Stevens	77723.17	1%FW	1770	879.21	494.94	3.58	0.43	37.99	165.41		50%
Stevens	78273.39	1%	1770	883.77	173.32	10.21		47.92	37.06		
Stevens	78273.39	1%FW	1770	883.93	135.61	13.05	0.16	41.37	22.04		40%
Stevens	79056.44 SB-300 DSC	1%	830	898.22	195.27	4.25		51.05	158.13		
Stevens	79056.44 SB-300 DSC	1%FW	830	898.43	116.62	7.12	0.22	43.54	56.89		65%
Stevens	79162.01 SB-300 DSF	1%	830	900.29	242.74	4.15		51.33	183.35		
Stevens	79162.01 SB-300 DSF	1%FW	830	900.47	156.8	5.85	0.17	43.71	89.73		58%
Stevens	79202.20 SB-300USF	1%	830	901.7	509.52	2.31		0.23	167.74		
Stevens	79202.20 SB-300USF	1%FW	830	902.6	338.08	2.76	0.9	0.18	89.73		46%
Stevens	79260.5 SB-300 USC	1%	830	901.79	519.79	1.6		1.29	131.99		
Stevens	79260.5 SB-300 USC	1%FW	830	902.79	485.25	1.71	1	0.95	81.92		38%
Stevens	79940.9	1%	830	902.44	815.87	1.02		9.87	515.82		
Stevens	79940.9	1%FW	830	903.24	798.39	1.05	0.8	9.14	303.28		41%
Stevens	80724.61 SB-310 DSC	1%	830	905.18	207.77	3.99		18.82	180.55		
Stevens	80724.61 SB-310 DSC	1%FW	830	905.38	128.77	6.45	0.2	17.25	70.59		61%
Stevens	80806.62 SB-310DSF	1%	830	906.81	249.23	3.33		19.17	219.06		
Stevens	80806.62 SB-310DSF	1%FW	830	907.02	170.36	4.87	0.22	17.48	83.85		62%
Stevens	80828.87 SB-310USF	1%	830	907.8	363.83	2.5		0.13	211.8		
Stevens	80828.87 SB-310USF	1%FW	830	908.74	269.81	3.08	0.94	0.1	83.85		61%
Stevens	80917.91 SB-310USC	1%	830	908.08	1205.36	0.69		1.28	599.28		
Stevens	80917.91 SB-310USC	1%FW	830	909.1	1233.82	0.67	1.02	1.15	352.67		41%
Stevens	81320.33 SB-320DSC	1%	830	910.02	1319.52	5.41		12.82	139.05		
Stevens	81320.33 SB-320DSC	1%FW	830	910.33	112.69	7.37	0.31	7.2	61.92		56%
Stevens	81399.33 SB-320 DSF	1%	830	910.72	1477.24	4.76		15.53	175.64		
Stevens	81399.33 SB-320 DSF	1%FW	830	911.66	230.12	3.61	0.94	7.51	115.59		34%
Stevens	81418.10 SB-320 USF	1%	830	911.35	382.87	2.18		16	201.32		
Stevens	81418.10 SB-320 USF	1%FW	830	912.04	405.93	2.04	0.7	7.64	140.91		30%
Stevens	81539.55 SB-320 USC	1%	830	911.47	461.8	1.8		17.18	214.75		
Stevens	81539.55 SB-320 USC	1%FW	830	912.13	476.07	1.74	0.66	8.87	137.9		36%
Stevens	82359.3	1%	830	911.6	1673.69	0.5		37.27	568.85		
Stevens	82359.3	1%FW	830	912.21	2015.16	0.41	0.62	32.31	561.22		1%
Stevens	82917.35	1%	830	911.59	1320.05	0.63		37.3	464.28		
Stevens	82917.35	1%FW	830	912.21	1534.29	0.54	0.62	32.35	427.38		8%
											7842%
					Velocity Increase	Storage 18% Decrease		Average 13% Topwdth Dec.			39%

SUGAR RIVER

Reach	River Sta		Profile	Q Total (cfs)	W.S. Elev (ft)	Area (sq ft)	Vel Total (ft/s)	Prof Delta (ft)	Volume (acre-ft)	Top Wdth Act (ft)	Act Topwdth Dec. (%)
1	89746	Gannett Stn 8974	100-Year	2335	920.85	3173.46	2.49			137	
1	89746	Gannett Stn 8974	Floodway	2335	921.85	1611.43	2.4	1		120.79	12%
1		90005	100-Year	2335	921.06	2937.22	0.87		23.04	638	
1		90005	Floodway	2335	922.02	2065.94	1.13	0.97	13.13	323.66	49%
1		90491	100-Year	2335	921.1	1227.23	1.9		45.47	309.44	
1		90491	Floodway	2335	922.06	984.84	2.37	0.95	30.03	144.46	53%
1		91072	100-Year	2335	921.32	1750.86	1.33		64.74	509.23	
1		91072	Floodway	2335	922.28	1330.08	1.76	0.96	45.04	208.22	59%
1		91975	100-Year	2335	921.52	1899.86	1.23		89.25	417.82	
1		91975	Floodway	2335	922.49	1613.41	1.45	0.97	65.52	236.87	47%
1		92819	100-Year	2335	921.72	3281.75	0.71		125.85	888.85	
1		92819	Floodway	2335	922.69	2848.21	0.82	0.97	96.69	545.2	39%
1		93513	100-Year	2335	921.83	4109.97	0.57		168.3	1099.1	
1		93513	Floodway	2335	922.8	3549.21	0.66	0.97	134.06	706.68	34%
1		94331	100-Year	2335	921.96	2737.4	0.92		217.24	654.15	
1		94331	Floodway	2335	922.91	2304.3	1.01	0.95	176.03	431	34%
1		94895	100-Year	2335	922.05	3522.8	0.66		247.95	982.52	
1		94895	Floodway	2335	923	2978.47	0.78	0.95	201.79	579.17	41%
1		96164	100-Year	2335	922.17	1642.7	1.69		292.05	749.26	
1		96164	Floodway	2335	923.08	881.61	2.65	0.91	235.88	155.88	79%
1		96986	100-Year	2335	922.57	2288.96	1.47		313.86	657.76	
1		96986	Floodway	2335	923.51	1122.49	2.08	0.94	247.97	226.36	66%
1		97852	100-Year	2335	922.85	2535.24	1.22		346.04	520.71	
1		97852	Floodway	2335	923.81	1478.78	1.58	0.96	267.56	268.61	48%
1		98410	100-Year	2335	922.98	1613.86	1.82		366.3	343.71	
1		98410	Floodway	2335	923.93	1017.16	2.3	0.95	280.12	193.71	44%
1		98575	100-Year	2335	923	1100.08	3.77		372.55	132	
1		98575	Floodway	2335	923.9	490.27	4.76	0.89	283.47	74.36	44%
1		98721	100-Year	2335	923.29	1037.75	4.75		374.74	100.86	
1		98721	Floodway	2335	924.16	460.66	5.54	0.87	284.83	65.35	35%
1		98933	100-Year	2335	924	1537.95	1.6		381.36	300.25	
1		98933	Floodway	2335	924.98	1157.76	2.02	0.98	288.92	169.61	44%
1		99748	100-Year	2335	924.2	2325.55	1		409.85	500.45	
1		99748	Floodway	2335	925.19	1994.12	1.17	0.99	313.08	300.57	40%
1		100298	100-Year	2335	924.33	2031.39	1.15		442.61	479.28	
1		100298	Floodway	2335	925.31	1663.99	1.4	0.98	340.79	283.08	41%
1		101191	100-Year	2335	924.51	2809.69	0.83		485.77	969.34	
1		101191	Floodway	2335	925.49	2296.59	1.02	0.98	375.93	394.93	59%
1		103071	100-Year	2335	924.68	3623.47	0.64		567.08	1279.97	
1		103071	Floodway	2335	925.66	2889.76	0.81	0.98	442.4	694.95	46%
1		105439	100-Year	1984	924.84	2701.59	0.73		630.66	957.53	
1		105439	Floodway	1984	925.82	2097.4	0.95	0.98	497.83	457.45	52%
1		106336	100-Year	1984	924.94	4071.09	0.65		672.99	1100.07	
1		106336	Floodway	1984	925.92	2288.01	0.87	0.98	526.85	498.21	55%
1		108021	100-Year	1984	925.08	4266.23	0.51		759.83	1527.01	
1		108021	Floodway	1984	926.06	2896.04	0.69	0.97	578.02	701.84	54%
1		109332	100-Year	1984	925.19	3966.42	0.8		813.53	1052	
1		109332	Floodway	1984	926.16	2033.06	0.98	0.97	608.38	600.85	43%
1	109511.*		100-Year	1984	925.23	3406.82	1.17		825.47	871.6	

1	109511.*		Floodway	1984	926.18	1228.42	1.62	0.95	612.28	385.43	56%
1	109691.*		100-Year	1984	925.32	3037	1.76		836.42	665.86	
1	109691.*		Floodway	1984	926.22	690.26	2.87	0.9	614.58	200.15	70%
1	109870.*		100-Year	1984	925.54	3185.96	2.28		847.48	451.2	
1	109870.*		Floodway	1984	926.42	517.87	3.83	0.88	616.14	133.81	70%
1	110050.*		100-Year	1984	925.85	3670.54	2.89		860.17	301.61	
1	110050.*		Floodway	1984	926.73	422.86	4.69	0.88	617.42	95.56	68%
1		110230	100-Year	1984	926.23	4375.57	4.1		875.49	150	
1		110230	Floodway	1984	927.13	345.97	5.73	0.89	618.61	68.38	55%
											1437%

Velocity Increase	32%	Storage Decrease	29%	Average Topwdth Dec.	50%

FOUR MILE CREEK

Reach	River Sta	Profile	Q Total (cfs)	W.S. Elev (ft)	Area (sq ft)	Vel Total (ft/s)	Prof Delta (ft)	Volume (acre-ft)	Top Wdth Act (ft)	Act Topwdth Dec.
Reach - 1	283	100-NAT	4750	533.41	3388.51	1.4			769.85	
Reach - 1	283	100-FW	4750	534.41	2678.15	1.77	1		423.77	45%
Reach - 1	779	100-NAT	4750	533.94	2416.92	1.97		33.05	460.26	
Reach - 1	779	100-FW	4750	534.9	1984.58	2.39	0.96	26.55	274.53	40%
Reach - 1	1244	100-NAT	4750	534.53	2960.81	1.6		61.76	505.84	
Reach - 1	1244	100-FW	4750	535.5	2527.68	1.88	0.97	50.63	332.19	34%
Reach - 1	1509	100-NAT	4750	534.76	3728.85	1.27		82.1	640.88	
Reach - 1	1509	100-FW	4750	535.74	3128.63	1.52	0.98	67.84	400.77	38%
Reach - 1	1952	100-NAT	4750	535.11	2746.95	1.73		115.03	623.81	
Reach - 1	1952	100-FW	4750	536.06	2289.26	2.07	0.95	95.39	386.86	38%
Reach - 1	2305	100-NAT	4750	535.6	1389.04	3.42		131.79	283.04	
Reach - 1	2305	100-FW	4750	536.44	1097.93	4.33	0.84	109.11	161.04	43%
Reach - 1	2841	100-NAT	4750	536.61	4742.86	1		169.52	783.13	
Reach - 1	2841	100-FW	4750	537.61	4522.1	1.05	0.99	143.69	611.05	22%
Reach - 1	3186	100-NAT	4750	536.76	3663.66	1.3		202.81	900.94	
Reach - 1	3186	100-FW	4750	537.7	2691.97	1.76	0.95	172.25	418.6	54%
Reach - 1	3799	100-NAT	4750	537.43	2613.56	1.82		246.98	567.8	
Reach - 1	3799	100-FW	4750	538.34	2067.48	2.3	0.92	205.74	313.86	45%
Reach - 1	4025	100-NAT	4750	537.72	2575.85	1.84		260.44	442.28	
Reach - 1	4025	100-FW	4750	538.64	2229.64	2.13	0.93	216.89	306.6	31%
Reach - 1	4617	100-NAT	4750	538.29	3340.96	1.42		300.64	564.05	
Reach - 1	4617	100-FW	4750	539.23	2792.76	1.7	0.94	251.02	374.99	34%
Reach - 1	4807	100-NAT	4750	538.39	2642.14	1.8		313.69	624.31	
Reach - 1	4807	100-FW	4750	539.3	2008.08	2.37	0.9	261.49	348.34	44%
Reach - 1	5303	100-NAT	4750	539.22	2695.07	1.76		344.08	540.34	
Reach - 1	5303	100-FW	4750	540.15	2210.65	2.15	0.93	285.51	345.12	36%
Reach - 1	5787	100-NAT	4750	539.94	1365.63	3.48		366.64	355.62	
Reach - 1	5787	100-FW	4750	540.71	1006.75	4.72	0.77	303.38	184.15	48%
Reach - 1	5934	100-NAT	4750	540.55	1524.55	3.12		371.52	322.21	
Reach - 1	5934	100-FW	4750	541.49	1194.22	3.98	0.94	307.1	175.58	46%
Reach - 1	6573	100-NAT	4750	542.03	1730.89	2.74		395.39	319.73	
Reach - 1	6573	100-FW	4750	543.01	1726.42	2.75	0.97	328.52	242.14	24%
Reach - 1	6855	100-NAT	4750	543.23	1707.8	2.78		406.36	316.33	
Reach - 1	6855	100-FW	4750	543.67	1220.88	3.89	0.44	339.97	163.08	48%
Reach - 1	7408	100-NAT	4750	544.1	3026.52	1.57		436.41	494.45	
Reach - 1	7408	100-FW	4750	544.79	2341.94	2.03	0.69	362.58	271.24	45%
Reach - 1	7968	100-NAT	4750	544.4	1493.55	3.18		465.46	240	
Reach - 1	7968	100-FW	4750	545.05	1155.79	4.11	0.65	385.06	140.07	42%
Reach - 1	8002	100-NAT	4750	544.6	1580.79	3		466.66	245.76	
Reach - 1	8002	100-FW	4750	545.3	1211.12	3.92	0.7	385.99	145.48	41%
Reach - 1	8086.5	100-NAT	4750	544.57	4749.58	5.47		472.8	149.22	
Reach - 1	8086.5	100-FW	4750	545.31	675.61	7.03	0.74	387.82	72.9	52%
Reach - 1	8113.0 BR	100-NAT	4750	544.5	682.81	6.96		473.43	99.44	
Reach - 1	8113.0 BR	100-FW	4750	545.31	644.19	7.37	0.81	387.97	69.8	30%
Reach - 1	8113.0 BR	100-NAT	4750	544.96	832.47	5.71		474	99.41	
Reach - 1	8113.0 BR	100-FW	4750	545.66	741.5	6.41	0.7	388.49	69.8	30%
Reach - 1	8139.5	100-NAT	4750	545.21	6736.09	4.33		474.87	149.22	
Reach - 1	8139.5	100-FW	4750	545.72	770.3	6.17	0.51	388.67	72.9	51%
Reach - 1	8928	100-NAT	4750	547.1	7871.25	0.6		591.75	1146.54	

Reach - 1	8928	100-FW	4750	547.72	5760.91	0.82	0.63	414.81	717.67	37%
Reach - 1	9363	100-NAT	4750	547.15	4053.41	1.17		651.29	828.15	
Reach - 1	9363	100-FW	4750	547.78	2817.9	1.69	0.64	457.65	354.7	45%
Reach - 1	10101	100-NAT	4750	547.35	1869.3	2.54		701.46	449.96	
Reach - 1	10101	100-FW	4750	547.96	1370.88	3.46	0.61	493.13	231.56	48%
Reach - 1	10159	100-NAT	4750	547.46	2012.74	2.36		704.04	480.7	
Reach - 1	10159	100-FW	4750	548.11	1441.83	3.29	0.65	495	236.87	51%
Reach - 1	10543	100-NAT	4750	547.84	1279.42	3.71		718.55	249.84	
Reach - 1	10543	100-FW	4750	548.5	891.33	5.33	0.66	505.29	97.38	61%
Reach - 1	10653	100-NAT	4750	548.02	1224.09	3.88		721.71	235.92	
Reach - 1	10653	100-FW	4750	548.7	890.75	5.33	0.68	507.54	106.99	55%
Reach - 1	11164	100-NAT	4750	548.95	940.63	5.05		734.41	157.48	
Reach - 1	11164	100-FW	4750	549.7	698.35	6.8	0.75	516.86	64.65	59%
Reach - 1	11245	100-NAT	4750	549.36	1099.69	4.32		736.31	187.05	
Reach - 1	11245	100-FW	4750	550.25	858.19	5.53	0.89	518.3	87.84	53%
Reach - 1	11903	100-NAT	4750	550.67	2527.47	1.88		763.7	527.29	
Reach - 1	11903	100-FW	4750	551.67	2363.99	2.01	0.99	542.64	363.32	31%
Reach - 1	12655	100-NAT	4750	551.29	2621.79	1.81		808.15	477.39	
Reach - 1	12655	100-FW	4750	552.17	2165.35	2.19	0.88	581.74	293.64	39%
Reach - 1	13035	100-NAT	4750	551.6	2147.28	2.21		828.95	466.5	
Reach - 1	13035	100-FW	4750	552.46	1550.73	3.06	0.86	597.95	209.5	55%
Reach - 1	13421	100-NAT	4750	552.08	1940.9	2.45		847.07	361.4	
Reach - 1	13421	100-FW	4750	552.93	1502.39	3.16	0.85	611.47	188.83	48%
Reach - 1	13707	100-NAT	4750	552.65	2899.26	1.64		862.96	532.09	
Reach - 1	13707	100-FW	4750	553.57	2267.69	2.09	0.92	623.85	289.26	46%
Reach - 1	14428	100-NAT	4750	553.34	1747.2	2.72		901.41	398.81	
Reach - 1	14428	100-FW	4750	554.2	1321.17	3.6	0.86	653.55	198.03	50%
Reach - 1	14965	100-NAT	4750	554.56	1946.21	2.44		924.18	383.88	
Reach - 1	14965	100-FW	4750	555.47	1565.41	3.03	0.91	671.34	215.62	44%
Reach - 1	15487	100-NAT	4750	555.56	1525.64	3.11		944.98	324.87	
Reach - 1	15487	100-FW	4750	556.43	1150.69	4.13	0.87	687.62	157.97	51%
Reach - 1	16051	100-NAT	4750	556.9	1207.5	3.93		962.67	270.94	
Reach - 1	16051	100-FW	4750	557.77	888.51	5.35	0.87	700.82	95.62	65%
Reach - 1	16303	100-NAT	4750	557.84	2154.23	2.2		972.4	568.61	
Reach - 1	16303	100-FW	4750	558.81	1540.49	3.08	0.96	707.85	216.73	62%
Reach - 1	16801	100-NAT	4750	558.79	2099.91	2.26		996.71	326.54	
Reach - 1	16801	100-FW	4750	559.76	1802.31	2.64	0.98	726.95	215.18	34%
Reach - 1	17069	100-NAT	4750	559.22	2336.55	2.03		1010.36	430.4	
Reach - 1	17069	100-FW	4750	560.2	2043.83	2.32	0.98	738.79	283.75	34%
Reach - 1	17350	100-NAT	4750	559.59	2235.37	2.12		1025.11	454.7	
Reach - 1	17350	100-FW	4750	560.56	1802.74	2.63	0.96	751.19	292.73	35%
Reach - 1	17937	100-NAT	4750	560.24	4344.38	1.09		1069.44	814.23	
Reach - 1	17937	100-FW	4750	561.22	3625.43	1.31	0.99	787.77	483.63	41%
Reach - 1	18297	100-NAT	4750	560.42	4927.81	0.96		1107.76	884.42	
Reach - 1	18297	100-FW	4750	561.4	4035.45	1.18	0.99	819.42	530.03	40%
Reach - 1	18560	100-NAT	4750	560.52	3762.34	1.26		1133.99	770	
Reach - 1	18560	100-FW	4750	561.5	3097.76	1.53	0.98	840.96	443.46	42%
Reach - 1	19301	100-NAT	4750	561.12	2901.86	1.64		1190.67	695.55	
Reach - 1	19301	100-FW	4750	562.05	2228.39	2.13	0.94	886.26	372.94	46%
Reach - 1	19829	100-NAT	4750	561.68	1204.3	3.94		1215.56	370.23	
Reach - 1	19829	100-FW	4750	562.48	919.05	5.17	0.8	905.33	153.04	59%

Reach - 1	20153	100-NAT	4750	563.46	1530.92	3.1		1225.73	308.75	
Reach - 1	20153	100-FW	4750	564.36	1501.67	3.16	0.9	914.34	244.12	21%
Reach - 1	20624	100-NAT	4750	565.21	2470.98	1.92		10.87	423.12	
Reach - 1	20624	100-FW	4750	565.71	2502.16	1.9	0.5	11.59	366.86	13%
Reach - 1	20962	100-NAT	4750	565.64	2420.2	1.96		29.84	554.04	
Reach - 1	20962	100-FW	4750	566.04	1675.27	2.84	0.4	27.79	265.79	52%
Reach - 1	21476	100-NAT	4750	566.35	2430.96	1.95		58.46	495.67	
Reach - 1	21476	100-FW	4750	566.9	1863.96	2.55	0.56	48.68	306.72	38%
Reach - 1	21798	100-NAT	4750	566.76	2509.03	1.89		76.72	442.15	
Reach - 1	21798	100-FW	4750	567.4	1949.36	2.44	0.64	62.77	256.13	42%
Reach - 1	22544	100-NAT	4750	567.62	2846.43	1.67		122.58	661.75	
Reach - 1	22544	100-FW	4750	568.33	2183.6	2.18	0.72	98.16	379.52	43%
Reach - 1	22919	100-NAT	4750	568.07	1619.41	2.93		141.8	308.41	
Reach - 1	22919	100-FW	4750	568.78	1229.54	3.86	0.71	112.85	167.19	46%
Reach - 1	23556	100-NAT	4750	569.65	2410.89	1.97		171.27	708.28	
Reach - 1	23556	100-FW	4750	570.49	1787.76	2.66	0.84	134.91	357.73	50%
Reach - 1	24014	100-NAT	4750	570.53	1658.01	2.86		192.66	412.18	
Reach - 1	24014	100-FW	4750	571.35	1213.99	3.91	0.82	150.69	205.54	50%
Reach - 1	24294	100-NAT	4750	571.22	1951.98	6.62		204.26	62.44	
Reach - 1	24294	100-FW	4750	572.08	723.9	6.56	0.86	156.92	53.1	15%
										2562%
					Velocity		Storage		Average	
					Increase	26%	Decrease	24%	Topwdth Dec.	43%

CYPRESS K100

Reach	River Sta	Profile	Q Total (cfs)	W.S. Elev (ft)	Area (sq ft)	Vel Total (ft/s)	Prof Delta (ft)	Volume (acre-ft)	Top Wdth Act (ft)	Act Topwdth Dec.
K100-00-00_0040	3988	1PCT_100yr	27258	69.61	12710.53	2.14			1416.35	
K100-00-00_0040	3988	1PCTFloodway_10	27258	70.61	10378.9	2.63	1		680.51	52%
K100-00-00_0040	5279	1PCT_100yr	27258	70.14	16594.41	1.65		395.78	1806.04	
K100-00-00_0040	5279	1PCTFloodway_10	27258	71.13	14060.29	1.94	0.99	337.64	1022.91	43%
K100-00-00_0040	7033	1PCT_100yr	27258	70.66	13463.83	2.02		896.01	1889.24	
K100-00-00_0040	7033	1PCTFloodway_10	27258	71.65	11724.33	2.32	0.99	767.47	1070.35	43%
K100-00-00_0040	8114	1PCT_100yr	27258	71.1	10877.44	2.51		1190.72	2401.78	
K100-00-00_0040	8114	1PCTFloodway_10	27258	72.07	8972.95	3.04	0.97	1018.64	864.98	64%
K100-00-00_0040	9768	1PCT_100yr	27258	71.86	22918.62	1.61		1657.7	1600	
K100-00-00_0040	9768	1PCTFloodway_10	27258	72.83	15723.95	1.73	0.97	1370.19	1290.46	19%
K100-00-00_0040	10280	1PCT_100yr	27258	71.97	23054.54	1.64		1907.6	1393.23	
K100-00-00_0040	10280	1PCTFloodway_10	27258	72.92	12223.28	2.23	0.95	1521.65	840	40%
K100-00-00_0040	10889	1PCT_100yr	27258	72.45	27961.87	2.34		2160.82	1021.27	
K100-00-00_0040	10889	1PCTFloodway_10	27258	73.37	10561.87	2.58	0.91	1636.17	816.41	20%
K100-00-00_0040	11417	1PCT_100yr	27258	72.76	29926.29	1.38		2492.17	1900	
K100-00-00_0040	11417	1PCTFloodway_10	27258	73.67	18154.56	1.5	0.92	1805.9	1522.54	20%
K100-00-00_0040	12763	1PCT_100yr	27258	73.09	15795.83	1.73		3117.45	2087.9	
K100-00-00_0040	12763	1PCTFloodway_10	27258	73.98	14840.62	1.84	0.9	2253.78	1360.51	35%
K100-00-00_0040	14603	1PCT_100yr	27258	73.89	15205.22	1.79		3669.73	2629.48	
K100-00-00_0040	14603	1PCTFloodway_10	27258	74.67	10562.58	2.58	0.78	2712.62	1168.03	55%
K100-00-00_0040	16487	1PCT_100yr	27258	74.97	17882.25	1.52		4423.88	3138.42	
K100-00-00_0040	16487	1PCTFloodway_10	27258	75.86	12930.08	2.11	0.89	3249.31	1226.57	61%
K100-00-00_0040	17183	1PCT_100yr	24412	75.18	15321.37	1.78		4667.33	2477.22	
K100-00-00_0040	17183	1PCTFloodway_10	24412	76.07	9937.01	2.46	0.88	3411.93	1087.04	56%
K100-00-00_0040	18611	1PCT_100yr	24412	75.86	13252.46	1.84		5136.58	3225.53	
K100-00-00_0040	18611	1PCTFloodway_10	24412	76.74	9007.96	2.71	0.88	3700.55	1106.37	66%
K100-00-00_0040	19313	1PCT_100yr	24412	76.27	17131.76	1.42		5336.11	3094.04	
K100-00-00_0040	19313	1PCTFloodway_10	24412	77.17	12389.15	1.97	0.9	3850.64	1251.7	60%
K100-00-00_0040	20680	1PCT_100yr	24023	76.7	21925.42	1.1		5841.61	4055.75	
K100-00-00_0040	20680	1PCTFloodway_10	24023	77.63	16689.34	1.44	0.94	4239.2	1748.98	57%
K100-00-00_0040	22568	1PCT_100yr	24023	77.33	14165.17	1.7		6466.34	3250.87	
K100-00-00_0040	22568	1PCTFloodway_10	24023	78.23	11498.94	2.09	0.9	4730.19	2093.69	36%
K100-00-00_0040	23289	1PCT_100yr	24023	77.64	12345.5	1.95		6605.35	2890.37	
K100-00-00_0040	23289	1PCTFloodway_10	24023	78.6	11385.36	2.11	0.96	4844.92	1969	32%
K100-00-00_0040	23894	1PCT_100yr	24023	78.15	10626.05	2.26		6772.93	1971.46	
K100-00-00_0040	23894	1PCTFloodway_10	24023	78.98	7423.48	3.24	0.83	4985.38	1268.2	36%
K100-00-00_0040	24423	1PCT_100yr	24023	78.51	13326.21	1.8		6917.37	2048.99	
K100-00-00_0040	24423	1PCTFloodway_10	24023	79.48	12728.52	1.89	0.97	5103.46	1496.58	27%
K100-00-00_0040	25956	1PCT_100yr	24023	78.99	14266.52	1.68		7178.27	2192.42	
K100-00-00_0040	25956	1PCTFloodway_10	24023	79.92	11405.26	2.11	0.94	5339.28	1403.79	36%
K100-00-00_0040	26152	1PCT_100yr	24023	79.03	10948.82	2.19		7232.52	1856.63	
K100-00-00_0040	26152	1PCTFloodway_10	24023	79.98	9121.67	2.63	0.95	5383.35	1171.2	37%
K100-00-00_0040	26635	1PCT_100yr	24023	79.4	10511.73	2.29		7357.55	1872.04	
K100-00-00_0040	26635	1PCTFloodway_10	24023	80.36	8725.45	2.75	0.95	5487	995.63	47%
K100-00-00_0040	28109	1PCT_100yr	24023	80.41	11629.09	2.07		7717.93	2223.71	
K100-00-00_0040	28109	1PCTFloodway_10	24023	81.29	8064.95	2.98	0.89	5771.79	907.29	59%
K100-00-00_0040	29226	1PCT_100yr	24023	81.03	13955.07	1.72		8047.51	2033.02	
K100-00-00_0040	29226	1PCTFloodway_10	24023	81.92	10484.07	2.29	0.89	6010.52	842	59%
K100-00-00_0040	30887	1PCT_100yr	24023	81.72	11028.46	2.18		8466.31	2340.19	

K100-00-00_0040	30887	1PCTFloodway_10	24023	82.56	7914.26	3.04	0.84	6323.89	803.34	66%
K100-00-00_0040	31954	1PCT_100yr	24023	82.62	10785.3	2.23		8691.53	2794.23	
K100-00-00_0040	31954	1PCTFloodway_10	24023	83.41	5896.41	4.07	0.8	6475.6	547	80%
K100-00-00_0040	32385	1PCT_100yr	24023	83.35	13453.31	2.31		8787.73	1298.02	
K100-00-00_0040	32385	1PCTFloodway_10	24023	84	7925.74	3.03	0.65	6537.82	681	47%
K100-00-00_0040	33472	1PCT_100yr	24023	83.98	17224.84	1.46		9073.1	2352.41	
K100-00-00_0040	33472	1PCTFloodway_10	24023	84.67	9322.13	2.58	0.69	6715.25	1069.64	55%
K100-00-00_0040	34622	1PCT_100yr	23846	84.48	14845.73	1.61		9512.68	2240.88	
K100-00-00_0040	34622	1PCTFloodway_10	23846	85.44	11034.14	2.16	0.96	6997.8	1096.56	51%
K100-00-00_0040	35492	1PCT_100yr	23846	84.8	10891.09	2.19		9750.32	1692.44	
K100-00-00_0040	35492	1PCTFloodway_10	23846	85.77	8182.71	2.91	0.96	7175.79	786.5	53%
K100-00-00_0040	36814	1PCT_100yr	23846	85.54	13292.66	1.99		10106.97	1908.71	
K100-00-00_0040	36814	1PCTFloodway_10	23846	86.5	8962.72	2.66	0.96	7433.21	816.55	57%
K100-00-00_0040	38150	1PCT_100yr	23846	86.19	15600.19	1.98		10515.37	2030.89	
K100-00-00_0040	38150	1PCTFloodway_10	23846	87.16	9068.57	2.63	0.97	7681.04	701.62	65%
K100-00-00_0040	39789	1PCT_100yr	23846	87.06	11748.2	2.07		11081.74	1570.29	
K100-00-00_0040	39789	1PCTFloodway_10	23846	87.99	9267.35	2.57	0.93	8057.38	1024.2	35%
K100-00-00_0040	40546	1PCT_100yr	23846	87.33	10804.05	2.35		11281.02	1126.88	
K100-00-00_0040	40546	1PCTFloodway_10	23846	88.26	8927.03	2.67	0.93	8219.24	722.53	36%
K100-00-00_0040	41055	1PCT_100yr	23846	87.63	11412.69	2.83		11368.56	956.6	
K100-00-00_0040	41055	1PCTFloodway_10	23846	88.57	10195.27	2.78	0.94	8296.38	685.98	28%
										1633%
					Velocity Increase	22%	Storage Decrease	27%	Average Topwdth Dec.	48%

CYPRESS CREEK K172

Reach	River Sta	Profile	Q Total (cfs)	W.S. Elev (ft)	Area (sq ft)	Vel Total (ft/s)	Prof Delta (ft)	Volume (acre-ft)	Top Wdth Act (ft)	Act Topwdth Dec.
K172-00-00_0045	4473.1	1PCT_100yr	2585	165.92	1016.22	2.54			1257	
K172-00-00_0045	4473.1	1PCTFloodway_10	2585	166.92	1148.24	2.25	1		917.31	27%
K172-00-00_0045	5175.2	1PCT_100yr	2460	168.24	2655.62	0.96		28.72	1597.88	
K172-00-00_0045	5175.2	1PCTFloodway_10	2460	168.64	2586.58	0.95	0.4	29.19	1322.15	17%
K172-00-00_0045	5443.3	1PCT_100yr	2440	168.98	2786.83	0.89		42.86	2055.84	
K172-00-00_0045	5443.3	1PCTFloodway_10	2440	169.26	2256.39	1.08	0.28	42.03	1350	34%
K172-00-00_0045	6901.1	1PCT_100yr	2440	170.09	3667.56	0.68		146.81	2885.6	
K172-00-00_0045	6901.1	1PCTFloodway_10	2440	170.39	3151.82	0.77	0.29	129.2	1604.26	44%
K172-00-00_0045	8204.1	1PCT_100yr	2400	170.49	7533.18	0.35		311.4	5315.85	
K172-00-00_0045	8204.1	1PCTFloodway_10	2400	171.07	3156.27	0.76	0.59	223.31	1500	72%
K172-00-00_0045	9198	1PCT_100yr	2330	170.64	9017.19	0.3		494.16	5273.75	
K172-00-00_0045	9198	1PCTFloodway_10	2330	171.45	4041.9	0.58	0.82	303.36	1700	68%
K172-00-00_0045	10469.3	1PCT_100yr	2270	170.94	3842.32	0.65		665.88	3159.01	
K172-00-00_0045	10469.3	1PCTFloodway_10	2270	171.86	3483.62	0.65	0.92	404.29	1700	46%
K172-00-00_0045	11308.6	1PCT_100yr	2200	171.55	4329.69	0.52		744.82	3820.67	
K172-00-00_0045	11308.6	1PCTFloodway_10	2200	172.23	3434.17	0.64	0.69	471.74	1700	55%
K172-00-00_0045	12446.2	1PCT_100yr	2200	172.42	3450.46	0.7		845.53	3031.74	
K172-00-00_0045	12446.2	1PCTFloodway_10	2200	173.1	1827.61	1.2	0.67	540.64	1140.93	62%
K172-00-00_0045	13669.8	1PCT_100yr	2100	173	5619.58	0.4		968.49	3641.93	
K172-00-00_0045	13669.8	1PCTFloodway_10	2100	173.96	3237.14	0.65	0.95	610.82	1399.59	62%
K172-00-00_0045	14068	1PCT_100yr	2100	173.23	2016.22	1.04		1007.06	2191.51	
K172-00-00_0045	14068	1PCTFloodway_10	2100	174.15	2162.32	0.97	0.92	638.27	1150	48%
K172-00-00_0045	15324.6	1PCT_100yr	1990	174.6	3760.28	0.53		1089.16	3034.57	
K172-00-00_0045	15324.6	1PCTFloodway_10	1990	175.32	1845.72	1.08	0.73	695.35	610	80%
K172-00-00_0045	16322.8	1PCT_100yr	1870	175.31	2745.37	0.71		1162.76	2170.94	
K172-00-00_0045	16322.8	1PCTFloodway_10	1870	176.23	1676.06	1.12	0.92	734.74	600	72%
K172-00-00_0045	17523.3	1PCT_100yr	1800	176.58	2724.91	0.87		1225.29	1907.62	
K172-00-00_0045	17523.3	1PCTFloodway_10	1800	177.32	1647.37	1.09	0.74	772.46	700	63%
K172-00-00_0045	18577.9	1PCT_100yr	1570	177.27	5782.97	0.45		1327.85	2315.26	
K172-00-00_0045	18577.9	1PCTFloodway_10	1570	177.94	2631.04	0.6	0.67	823.66	1100	52%
K172-00-00_0045	19605.1	1PCT_100yr	1410	177.64	4575.61	0.47		1459.71	2144.59	
K172-00-00_0045	19605.1	1PCTFloodway_10	1410	178.54	1533.9	0.92	0.9	875.05	1050	51%
K172-00-00_0045	20751.8	1PCT_100yr	1240	180.4	478.41	2.59		1528.02	1018.53	
K172-00-00_0045	20751.8	1PCTFloodway_10	1240	181.29	583.1	2.13	0.89	903.16	330	68%
K172-00-00_0045	22167.9	1PCT_100yr	1100	185.01	1070.25	1.03		1548.98	1005.68	
K172-00-00_0045	22167.9	1PCTFloodway_10	1100	185.6	538.81	2.04	0.59	918.45	250	75%
K172-00-00_0045	23090.2	1PCT_100yr	980	187.84	341.02	2.87		1564.1	466.65	
K172-00-00_0045	23090.2	1PCTFloodway_10	980	188.82	272.48	3.6	0.98	927.09	130	65%
K172-00-00_0045	24228.8	1PCT_100yr	910	192.26	683.56	1.33		1575.74	508.73	
K172-00-00_0045	24228.8	1PCTFloodway_10	910	192.82	398.72	2.28	0.56	934.87	130	74%
K172-00-00_0045	25764.9	1PCT_100yr	830	197.51	373.03	2.23		1592.82	635.3	
K172-00-00_0045	25764.9	1PCTFloodway_10	830	198.08	189.72	4.37	0.57	944.55	100	84%
K172-00-00_0045	26037.1	1PCT_100yr	830	198.85	336.24	2.47		1596.13	454.72	
K172-00-00_0045	26037.1	1PCTFloodway_10	830	199.76	254.36	3.26	0.91	946.17	80	82%
K172-00-00_0045	27063.8	1PCT_100yr	720	203.05	440.23	1.64		1604.62	377.91	
K172-00-00_0045	27063.8	1PCTFloodway_10	720	203.23	210.24	3.42	0.18	951.32	80	79%
K172-00-00_0045	27893.4	1PCT_100yr	720	206.07	315.78	2.28		1611.54	298.11	
K172-00-00_0045	27893.4	1PCTFloodway_10	720	206.97	201.61	3.57	0.9	955.12	70	77%
K172-00-00_0045	28134.6	1PCT_100yr	720	207.66	691.69	1.04		1614.19	380.05	

K172-00-00_0045	28134.6	1PCTFloodway_10	720	207.86	266.26	2.7	0.2	957.29	70	82%
										1539%
					Velocity		Storage		Average	
					Increase	45%	Decrease	41%	Topwdth Dec.	64%

PLUM CREEK

Reach	River Sta	Profile	Q Total (cfs)	W.S. Elev (ft)	Area (sq ft)	Vel Total (ft/s)	Prof Delta (ft)	Volume (acre-ft)	Top Wdth Act (ft)	Act Topwdth Dec.
Reach 1	0	100-YR	38720	5665.3	2775.48	13.95			414.21	
Reach 1	0	100-YR-FW-1.0'	38720	5665.9	2603.21	14.87	0.6		340	18%
Reach 1	663	100-YR	38720	5672.34	4602.6	8.41		55.71	921.78	
Reach 1	663	100-YR-FW-1.0'	38720	5672.66	3457.2	11.2	0.32	46.63	358.69	61%
Reach 1	1389	100-YR	38720	5677.27	5568.81	6.99		129.97	710.04	
Reach 1	1389	100-YR-FW-1.0'	38720	5678	4775.47	8.11	0.72	107.7	451.98	36%
Reach 1	2414	100-YR	38720	5682.93	5578.97	8.51		278.9	500.73	
Reach 1	2414	100-YR-FW-1.0'	38720	5683.55	4177.04	9.27	0.62	230.11	386.19	23%
Reach 1	3231	100-YR	38720	5687.04	5534.76	7.7		383.42	613.35	
Reach 1	3231	100-YR-FW-1.0'	38720	5687.63	4682.37	8.27	0.58	312.24	473.27	23%
Reach 1	3516	100-YR	38720	5690.21	4159.98	9.31		415.44	707.12	
Reach 1	3516	100-YR-FW-1.0'	38720	5690.64	3575.62	10.83	0.43	339.36	495.64	30%
Reach 1	3850	100-YR	38720	5693.09	6977.38	5.55		454.43	831.12	
Reach 1	3850	100-YR-FW-1.0'	38720	5694.06	6753	5.73	0.97	375.52	638.2	23%
Reach 1	4359	100-YR	38720	5693.77	4640.45	8.52		509.53	540.35	
Reach 1	4359	100-YR-FW-1.0'	38720	5694.54	4387.18	8.83	0.77	428.71	459.5	15%
Reach 1	4849	100-YR	38720	5697.28	6910.29	5.6		620.44	1004.35	
Reach 1	4849	100-YR-FW-1.0'	38720	5697.9	6057.28	6.39	0.63	528.53	684.03	32%
Reach 1	5221	100-YR	38720	5697.91	4566.82	8.48		671.16	789.33	
Reach 1	5221	100-YR-FW-1.0'	38720	5698.37	3862.21	10.03	0.46	570.79	498.06	37%
Reach 1	5772	100-YR	38720	5701.69	3518.64	11		708.87	563.66	
Reach 1	5772	100-YR-FW-1.0'	38720	5701.7	3521.8	10.99	0.01	605.64	561	0%
Reach 1	6218	100-YR	38720	5706.91	5207.73	7.61		770.32	730.3	
Reach 1	6218	100-YR-FW-1.0'	38720	5706.9	5078.9	7.62	-0.01	666.53	730.15	0%
Reach 1	7027	100-YR	38720	5710.65	3671.76	11.07		836.28	757.09	
Reach 1	7027	100-YR-FW-1.0'	38720	5710.66	3502.11	11.06	0.01	730.31	757.52	0%
Reach 1	7369	100-YR	38720	5716.36	9739.33	3.98		899.49	1579.41	
Reach 1	7369	100-YR-FW-1.0'	38720	5716.45	7865.02	4.92	0.09	783.85	1022.3	35%
Reach 1	7911	100-YR	38720	5716.74	5930.18	6.53		938.5	1446.3	
Reach 1	7911	100-YR-FW-1.0'	38720	5716.8	4735.11	8.18	0.06	814.19	897.97	38%
Reach 1	8670	100-YR	38720	5720.78	6470.28	5.98		1041.15	1353.91	
Reach 1	8670	100-YR-FW-1.0'	38720	5721.25	4869.97	7.95	0.47	893.82	563.07	58%
Reach 1	9070	100-YR	38720	5722.47	5870.05	6.6		1096.85	1257.57	
Reach 1	9070	100-YR-FW-1.0'	38720	5722.74	4133.52	9.37	0.28	934.46	502.74	60%
Reach 1	9469	100-YR	38720	5724.05	4423.64	8.75		1136.35	1016.08	
Reach 1	9469	100-YR-FW-1.0'	38720	5724.27	3206.88	12.07	0.22	960.54	378.3	62%
Reach 1	10080	100-YR	38720	5728.43	5881.81	6.58		1193.38	1220.55	
Reach 1	10080	100-YR-FW-1.0'	38720	5728.94	4963.32	7.8	0.52	1006.4	780.47	36%
Reach 1	10619	100-YR	38720	5731.26	4476.69	9.78		1260.97	593.92	
Reach 1	10619	100-YR-FW-1.0'	38720	5731.66	3454.09	11.21	0.4	1061.52	420.09	29%
Reach 1	11366	100-YR	38720	5749.43	13374.81	2.89		1484.21	859.61	
Reach 1	11366	100-YR-FW-1.0'	38720	5750.43	12687.46	3.05	0.99	1244.12	681.4	21%
Reach 1	11806	100-YR	38720	5749.41	8649.55	4.48		1559.16	712.9	
Reach 1	11806	100-YR-FW-1.0'	38720	5750.36	7911.94	4.89	0.95	1314.07	521.48	27%
Reach 1	12535	100-YR	38720	5750.12	6902.18	5.61		1677.81	619.58	
Reach 1	12535	100-YR-FW-1.0'	38720	5750.98	6203.41	6.24	0.86	1421.43	424.06	32%
Reach 1	12983	100-YR	38720	5750.45	4785.96	8.09		1737.17	483.66	
Reach 1	12983	100-YR-FW-1.0'	38720	5751.24	4401.26	8.8	0.79	1474.33	332.6	33%
Reach 1	13528	100-YR	38720	5752.2	5066.78	7.64		1799.78	522.63	

Reach 1	13528	100-YR-FW-1.0'	38720	5752.79	4398.72	8.8	0.59	1530.52	360.78	31%
Reach 1	14230	100-YR	38720	5754.49	6253.37	6.19		1892.88	877.41	
Reach 1	14230	100-YR-FW-1.0'	38720	5755.25	5479.9	7.07	0.76	1611.38	633.39	28%
Reach 1	14639	100-YR	38720	5755.67	5402.83	7.17		1947.34	866.96	
Reach 1	14639	100-YR-FW-1.0'	38720	5756.39	4772.06	8.11	0.73	1658.95	593.89	32%
Reach 1	15405	100-YR	38720	5761.1	6214.75	6.23		2071.03	1514.9	
Reach 1	15405	100-YR-FW-1.0'	38720	5761.71	5997.12	6.46	0.61	1776	1218.49	20%
Reach 1	15950	100-YR	38720	5766.7	6914.56	5.6		2227.18	1368.53	
Reach 1	15950	100-YR-FW-1.0'	38720	5766.9	4902.35	7.9	0.2	1904.21	620	55%
Reach 1	16311	100-YR	38720	5767.75	6115.93	6.81		2274.67	1241.47	
Reach 1	16311	100-YR-FW-1.0'	38720	5768.18	4458.61	8.68	0.43	1937.37	446.97	64%
Reach 1	16802	100-YR	38720	5770.01	6989.28	5.54		2322.67	1520.76	
Reach 1	16802	100-YR-FW-1.0'	38720	5770.19	5036.63	7.69	0.18	1972.35	650	57%
Reach 1	17742	100-YR	38720	5775.85	4236.81	9.14		2443.26	842.2	
Reach 1	17742	100-YR-FW-1.0'	38720	5776.14	3562.97	10.87	0.29	2065.42	567.56	33%
Reach 1	18258	100-YR	16650	5779.36	4954.03	3.41		2494.02	695.68	
Reach 1	18258	100-YR-FW-1.0'	16650	5780.17	4951.08	3.36	0.81	2112.38	600.42	14%
Reach 1	19497	100-YR	16650	5793.48	5037.61	4.37		2623.63	591.2	
Reach 1	19497	100-YR-FW-1.0'	16650	5793.73	2907.5	5.73	0.25	2217.89	296.49	50%
Reach 1	20089	100-YR	16650	5794.96	1914.52	9.38		2674.9	364.91	
Reach 1	20089	100-YR-FW-1.0'	16650	5795	1403.98	11.86	0.04	2249.24	200.5	45%
Reach 1	20617	100-YR	16650	5799.09	2689.96	6.21		2705.75	392.86	
Reach 1	20617	100-YR-FW-1.0'	16650	5799.9	2595.14	6.42	0.81	2276.01	308.73	21%
Reach 1	21032	100-YR	16650	5801.17	1939.89	8.58		2730.58	473.8	
Reach 1	21032	100-YR-FW-1.0'	16650	5801.52	1704.19	9.77	0.35	2298.94	348.82	26%
Reach 1	21641	100-YR	16650	5804.66	2246.31	7.41		2752.4	463.72	
Reach 1	21641	100-YR-FW-1.0'	16650	5805.28	1932.35	8.62	0.62	2318.46	291.52	37%
Reach 1	22422	100-YR	16650	5809.96	1858.09	8.96		2785.3	518.97	
Reach 1	22422	100-YR-FW-1.0'	16650	5810.49	1630.16	10.21	0.54	2347.21	352.12	32%
Reach 1	23026	100-YR	16650	5817.51	2153.83	7.91		2812.46	499.36	
Reach 1	23026	100-YR-FW-1.0'	16650	5817.66	1835.21	9.07	0.14	2370.64	352.86	29%
Reach 1	23468	100-YR	16650	5821.71	2284.96	7.29		2834.78	627.92	
Reach 1	23468	100-YR-FW-1.0'	16650	5821.93	1900.08	8.76	0.22	2389.48	406.79	35%
Reach 1	23866	100-YR	16650	5823.69	4533.32	3.67		2859.62	609.47	
Reach 1	23866	100-YR-FW-1.0'	16650	5824.28	4723.11	3.53	0.59	2413.73	561.94	8%
Reach 1	24386	100-YR	16650	5824.22	3069.02	5.43		2905.57	637.84	
Reach 1	24386	100-YR-FW-1.0'	16650	5824.54	2428.97	6.85	0.31	2457.01	428.06	33%
Reach 1	25010	100-YR	16650	5826.39	2350.55	7.08		2939.65	584.89	
Reach 1	25010	100-YR-FW-1.0'	16650	5827.08	2039.61	8.16	0.69	2485.29	385.89	34%
Reach 1	25418	100-YR	16650	5829.31	2103.21	7.92		2956.39	712.11	
Reach 1	25418	100-YR-FW-1.0'	16650	5829.93	1823.63	9.13	0.61	2499.55	486.71	32%
Reach 1	25968	100-YR	16650	5833.98	2870.28	5.8		2983.6	933.23	
Reach 1	25968	100-YR-FW-1.0'	16650	5834.62	2457.47	6.78	0.64	2522.19	602.05	35%
Reach 1	26497	100-YR	16650	5837.24	2112.23	7.88		3007.33	797.66	
Reach 1	26497	100-YR-FW-1.0'	16650	5837.91	2021.8	8.24	0.66	2543.32	675.99	15%
Reach 1	27079	100-YR	16650	5843.62	2444.04	7.55		3035.83	741.19	
Reach 1	27079	100-YR-FW-1.0'	16650	5844.09	1831.32	9.09	0.47	2566.62	472.84	36%
Reach 1	27558	100-YR	16650	5849.05	2744.51	8.04		3061.54	701.13	
Reach 1	27558	100-YR-FW-1.0'	16650	5849.61	2297.83	9.47	0.56	2587.08	471.46	33%
Reach 1	28037	100-YR	16650	5853.42	2119.58	7.86		3077.48	681.9	
Reach 1	28037	100-YR-FW-1.0'	16650	5853.88	1676.5	9.93	0.46	2599.31	402.78	41%

Reach 1	28567	100-YR	16650	5858.4	2180.55	7.64		3092.49	722.15	
Reach 1	28567	100-YR-FW-1.0'	16650	5858.78	1658.57	10.04	0.39	2610.45	369.12	49%
Reach 1	28998	100-YR	16650	5862.92	2571.13	6.48		3110.27	889.54	
Reach 1	28998	100-YR-FW-1.0'	16650	5863.38	2081.66	8	0.46	2623.71	504.29	43%
Reach 1	29446	100-YR	16650	5867.66	2698.72	6.57		3135.58	699.72	
Reach 1	29446	100-YR-FW-1.0'	16650	5867.7	2726.39	6.5	0.04	2646.8	699.73	0%
Reach 1	29720	100-YR	16650	5868.79	2588.3	6.43		3146.08	593.68	
Reach 1	29720	100-YR-FW-1.0'	16650	5868.75	2568.9	6.48	-0.03	2657.32	592.16	0%
Reach 1	30376	100-YR	16650	5873.2	1910.11	8.72		3167.2	442.26	
Reach 1	30376	100-YR-FW-1.0'	16650	5873.71	1661.27	10.02	0.5	2677.11	316.27	29%
Reach 1	30901	100-YR	16650	5880.86	1964.86	8.47		3185.47	411.36	
Reach 1	30901	100-YR-FW-1.0'	16650	5880.98	1516.59	10.98	0.12	2692.27	250.4	39%
Reach 1	31152	100-YR	16650	5885.75	2071.28	8.04		3194.79	464.59	
Reach 1	31152	100-YR-FW-1.0'	16650	5885.98	1709.25	9.74	0.23	2699.76	336.78	28%
Reach 1	31435	100-YR	16650	5888.42	2077.69	8.01		3204.34	499.6	
Reach 1	31435	100-YR-FW-1.0'	16650	5888.7	1744.08	9.55	0.29	2707.63	377.57	24%
Reach 1	31863	100-YR	16650	5891.39	2125.12	7.83		3222.75	606.18	
Reach 1	31863	100-YR-FW-1.0'	16650	5892.1	2252.12	7.39	0.72	2725.06	534.71	12%
Reach 1	32391	100-YR	16650	5895.44	2572.91	7.09		3249.83	508.21	
Reach 1	32391	100-YR-FW-1.0'	16650	5895.66	1771.47	9.4	0.22	2748.23	362.58	29%
Reach 1	33184	100-YR	16650	5907.38	4745.58	3.51		3287.18	552.51	
Reach 1	33184	100-YR-FW-1.0'	16650	5907.89	4027.83	4.13	0.51	2779.53	344.58	38%
Reach 1	33364	100-YR	16390	5907.56	5701.49	2.87		3310.9	755.36	
Reach 1	33364	100-YR-FW-1.0'	16390	5908.07	4591.93	3.57	0.51	2798.85	444.06	41%
Reach 1	33876	100-YR	16390	5907.71	3209.9	5.11		3356.39	640.29	
Reach 1	33876	100-YR-FW-1.0'	16390	5908.15	2549.68	6.43	0.45	2835.75	355.61	44%
Reach 1	34264	100-YR	16390	5908.74	2458.1	6.67		3387.82	503.16	
Reach 1	34264	100-YR-FW-1.0'	16390	5909.29	1955.4	8.38	0.54	2860.71	305.78	39%
Reach 1	34964	100-YR	16390	5912.45	1559.33	10.51		3420.1	379.51	
Reach 1	34964	100-YR-FW-1.0'	16390	5913.17	1466.02	11.18	0.72	2888.2	278.69	27%
										2047%
					Velocity		Storage		Average	
					Increase	16%	Decrease	15%	Topwdth Dec	32%