

Table 1: Percent of Time Flow Criteria Were Met at Cleveland

Cleveland	Development Data		WAM 3: Full		WAM 8: Current		WAM 9: Future	
	1940-2007		1940-1995		1940-1995		1940-1995	
	Peak, Volume and Duration	Peak Only	Peak, Volume and Duration	Peak Only	Peak, Volume and Duration	se Flow	Peak, Volume and Duration	Peak Only
Overbank	Total 21 %	Total 42 %	Total 15 %	Total 21 %	Total 15 %	Total 21 %	Total 15 %	Total 21 %
Annual High 1	31%	62%	27%	38%	27%	38%	27%	38%
Annual High 2	71%	79%	54%	71%	54%	71%	54%	71%
Winter High	48	54	30	40	30	40	30	40
Winter Low 1	25	40	11	27	11	27	11	27
Winter Low 2	40	46	24	33	24	33	24	33
Spring High	53	59	43%	59%	43%	59%	43%	59%
Spring Low 1	53	59	66%	80%	66%	80%	66%	80%
Spring Low 2	38	47	30%	57%	30%	57%	30%	57%
Summer High	29	39	46%	57%	46%	57%	46%	57%
Summer Low 1	54	58	63%	80%	63%	80%	63%	80%
Summer Low 2	36	41	36%	55%	36%	55%	36%	55%
Fall High	33	37	27%	64%	27%	64%	27%	64%
Fall Low 1	46	47	54%	64%	54%	64%	54%	64%
Fall Low 2	30	30	30%	39%	30%	39%	30%	39%
Total Number of Pulses	564	661	319	463	319	463	319	463
Number of Years for this Condition	68		56		56		56	

Table 2: Attainment Frequencies of Subsistence and Base Flow Recommendations for Cleveland in the Development Time Period and WAM 3, 8 and 9.

Season	Condition	Recommended Flow (cfs)	Recommended Frequency	Development 1940-2008	Full WAM 3 1940-1996	Current WAM 8 1940-1996	Future WAM 9 1940-1996
Winter	Subsistence	22	95%	95%	91%	91%	91%
	Dry	30	88%	88%	85%	85%	85%
	Average	43	77%	77%	76%	76%	76%
	Wet	80	62%	62%	61%	61%	61%
Spring	Subsistence	18	96%	96%	89%	89%	89%
	Dry	28	86%	86%	80%	80%	80%
	Average	42	72%	72%	72%	72%	72%
	Wet	64	56%	56%	62%	61%	62%
Summer	Subsistence	8	95%	95%	74%	74%	74%
	Dry	18	68%	68%	50%	50%	50%
	Average	24	52%	52%	42%	42%	42%
	Wet	34	33%	33%	34%	34%	34%
Fall	Subsistence	10	95%	94%	87%	87%	87%
	Dry	19	75%	75%	65%	65%	65%
	Average	27	57%	57%	53%	53%	53%
	Wet	38	41%	41%	44%	44%	44%

Table 3: Percent of Time Flow Criteria Were Met at Conroe

Conroe	Development Data				WAM 3: Full				WAM 8: Current				WAM 9: Future			
	1941-1973				1940-1995				1940-1995				1940-1995			
	Peak, Volume and Duration		Peak Only		Peak, Volume and Duration		Peak Only		Peak, Volume and Duration		Peak Only		Peak, Volume and Duration		Peak Only	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
Overbank	2	6%	8	24%	2	4%	8	14%	1	2%	11	20%	2	4%	8	14%
Annual High 1	20	61%	23	70%	23	41%	41	73%	28	50%	45	80%	23	41%	42	75%
Annual High 2	15	45%	19	58%	12	21%	25	45%	16	29%	30	54%	13	23%	25	45%
Winter High	19	58%	23	70%	22	39%	31	55%	29	52%	36	64%	23	41%	32	57%
Winter Low 1	28	85%	28	85%	46	82%	48	86%	44	79%	49	88%	47	84%	51	91%
Winter Low 2	24	73%	24	73%	35	63%	42	75%	32	57%	44	79%	34	61%	44	79%
Spring High	18	55%	20	61%	17	30%	33	59%	19	34%	36	64%	16	29%	34	61%
Spring Low 1	30	91%	31	94%	36	64%	47	84%	38	68%	48	86%	36	64%	48	86%
Spring Low 2	15	45%	18	55%	24	43%	31	55%	24	43%	35	63%	23	41%	32	57%
Summer High	17	52%	19	58%	25	45%	30	54%	25	45%	32	57%	23	41%	29	52%
Summer Low 1	23	70%	27	82%	27	48%	31	55%	27	48%	32	57%	26	46%	29	52%
Summer Low 2	14	42%	15	45%	14	25%	17	30%	14	25%	15	27%	14	25%	16	29%
Fall High	14	42%	14	42%	20	36%	23	41%	21	38%	24	43%	21	38%	24	43%
Fall Low 1	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Fall Low 2	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total Number of Pulses	239		269		303		407		318		437		301		414	
Number of Years for this Condition	33				56				56				56			

Table 4: Attainment Frequencies of Subsistence and Base Flow Recommendations for Conroe in the Development Time Period and WAM 3, 8 and 9.

Season	Condition	Recommended Flow (cfs)	Recommended Frequency	Development 1940-1973	Full WAM 3 1940-1996	Current WAM 8 1940-1996	Future WAM 9 1940-1996
Winter	Subsistence	23	95%	95%	96%	98%	98%
	Dry	36	86%	88%	88%	92%	92%
	Average	58	77%	77%	72%	75%	77%
	Wet	111	61%	61%	51%	55%	53%
	Subsistence	24	96%	95%	91%	95%	94%
	Dry	37	87%	87%	78%	82%	82%
Spring	Average	56	74%	74%	61%	67%	66%
	Wet	88	59%	59%	46%	50%	49%
	Subsistence	9	95%	94%	83%	92%	90%
	Dry	18	67%	67%	62%	78%	69%
	Average	26	49%	49%	46%	56%	43%
	Wet	38	32%	32%	28%	34%	27%
Summer	Subsistence	9	95%	97%	84%	90%	91%
	Dry	22	71%	72%	64%	70%	70%
	Average	29	57%	58%	52%	59%	60%
	Wet	47	42%	42%	36%	38%	39%
Fall	Subsistence	9	95%	97%	84%	90%	91%
	Dry	22	71%	72%	64%	70%	70%
	Average	29	57%	58%	52%	59%	60%
	Wet	47	42%	42%	36%	38%	39%

Table 5: Percent of Time Flow Criteria Were Met at Spring Creek

Spring	Development Data		WAM 3: Full		WAM 8: Current		WAM 9: Future	
	1940-2007		1940-1995		1940-1995		1940-1995	
	Peak, Volume and Duration	Peak Only	Peak, Volume and Duration	Peak Only	Peak, Volume and Duration	Peak Only	Peak, Volume and Duration	Peak Only
Overbank	Total 17 %	25%	Total 35 %	51%	Total 12 %	21%	Total 28 %	50%
Annual High 1	40	59%	52	76%	26	46%	43	77%
Annual High 2	21	31%	35	51%	11	20%	26	46%
Winter High	39	57%	45	66%	28	50%	36	64%
Winter Low 1	57	84%	59	87%	40	71%	49	88%
Winter Low 2	41	60%	45	66%	30	54%	37	66%
Spring High	31	46%	43	63%	23	41%	37	66%
Spring Low 1	52	76%	55	81%	38	68%	47	84%
Spring Low 2	33	49%	38	56%	25	45%	33	59%
Summer High	29	43%	34	50%	19	34%	23	41%
Summer Low 1	43	63%	50	74%	29	52%	44	79%
Summer Low 2	30	44%	37	54%	16	29%	27	48%
Fall High	35	51%	39	57%	21	38%	30	54%
Fall Low 1	52	76%	57	84%	37	66%	43	77%
Fall Low 2	31	46%	41	60%	23	41%	33	59%
Total Number of Pulses	551		665		363		511	
Number of Years for this Condition	68		56		56		56	

Table 6: Attainment Frequencies of Subsistence and Base Flow Recommendations for Spring Creek in the Development Time Period and WAM 3, 8 and 9.

Season	Condition	Recommended Flow	Recommended Frequency	Development 1940-2007	Full WAM 3 1940-1996	Current WAM 8 1940-1996	Future WAM 9 1940-1996
Winter	Subsistence	14	95%	96%	94%	98%	98%
	Dry	22	86%	86%	83%	92%	92%
	Average	36	74%	74%	70%	74%	75%
	Wet	59	60%	60%	56%	58%	59%
	Subsistence	14	96%	96%	94%	98%	98%
	Dry	24	86%	86%	81%	89%	89%
Spring	Average	36	72%	72%	67%	74%	74%
	Wet	52	57%	57%	53%	58%	58%
	Subsistence	6	95%	94%	93%	100%	99%
	Dry	17	71%	71%	62%	83%	83%
Summer	Average	24	56%	56%	47%	65%	64%
	Wet	35	39%	39%	31%	42%	41%
	Subsistence	6	95%	95%	93%	100%	100%
	Dry	17	75%	75%	66%	84%	84%
	Average	24	61%	61%	52%	68%	68%
Fall	Wet	37	45%	45%	38%	45%	45%

Table 7: Percent of Time Flow Criteria Were Met at Piney Point

Piney Point	Development Data		WAM 3: Full		WAM 8: Current		WAM 9: Future	
	1964-1975		1964-1976 and 1985-1995		1964-1976 and 1984-1995		1964-1976 and 1984-1995	
	Peak, Volume and Duration	Peak Only	Peak, Volume and Duration	Peak Only	Peak, Volume and Duration	Peak Only	Peak, Volume and Duration	Peak Only
Overbank	Total 6 %	Total 8 %	Total 7 %	Total 10 %	Total 8 %	Total 11 %	Total 8 %	Total 11 %
Annual High 1	50%	67%	29%	42%	32%	44%	32%	44%
Annual High 2	83%	92%	83%	83%	80%	80%	80%	80%
Winter High	42%	58%	29%	42%	32%	44%	32%	44%
Winter Low 1	67%	75%	79%	83%	76%	80%	76%	80%
Winter Low 2	75%	92%	83%	83%	84%	92%	84%	92%
Spring High	58%	67%	25%	29%	28%	40%	28%	40%
Spring Low 1	50%	50%	50%	50%	52%	52%	52%	52%
Spring Low 2	67%	75%	71%	83%	72%	88%	72%	88%
Summer High	42%	67%	21%	29%	24%	40%	24%	40%
Summer Low 1	50%	67%	38%	42%	36%	40%	36%	40%
Summer Low 2	67%	83%	58%	63%	68%	68%	68%	68%
Fall High	42%	50%	13%	21%	16%	32%	16%	32%
Fall Low 1	58%	67%	8%	13%	24%	36%	24%	36%
Fall Low 2	75%	75%	46%	46%	60%	60%	60%	60%
Total Number of Pulses	6 50%	6 50%	3 13%	3 13%	6 24%	7 28%	6 24%	7 28%
Number of Years for this Condition	105	124	155	173	177	206	177	206
	12		24		25		25	

Table 8: Attainment Frequencies of Subsistence and Base Flow Recommendations for Piney Point in the Development Time Period and WAM 3, 8 and 9.

Season	Condition	Recommended Flow (cfs)	Recommended Frequency	Development 1964-1975	Fall WAM 3 1964-1975 and 1985-1996	Current WAM 8 1964-1975 and 1984-1996	Future WAM 9 1964-1975 and 1984-1996
Winter	Subsistence	11	96%	96%	91%	97%	97%
	Dry	25	80%	80%	77%	89%	89%
	Average	38	68%	68%	68%	76%	76%
	Wet	58	55%	55%	55%	61%	61%
	Subsistence	13	95%	95%	91%	98%	98%
	Dry	26	81%	81%	75%	88%	88%
Spring	Average	37	67%	67%	62%	74%	74%
	Wet	51	54%	54%	55%	60%	60%
	Subsistence	26	95%	95%	87%	93%	93%
	Dry	45	87%	85%	68%	79%	79%
	Average	66	74%	72%	54%	61%	61%
	Wet	96	60%	58%	40%	47%	47%
Summer	Subsistence	13	96%	96%	94%	100%	100%
	Dry	33	81%	81%	72%	87%	86%
	Average	49	69%	69%	58%	67%	65%
	Wet	75	56%	56%	46%	49%	48%
	Subsistence	26	95%	95%	87%	93%	93%
	Dry	45	87%	85%	68%	79%	79%
Fall	Average	37	67%	67%	62%	74%	74%
	Wet	51	54%	54%	55%	60%	60%
	Subsistence	26	95%	95%	87%	93%	93%
	Dry	45	87%	85%	68%	79%	79%
	Average	66	74%	72%	54%	61%	61%
	Wet	96	60%	58%	40%	47%	47%

Table 9: Percent of Time Flow Criteria Were Met at Houston

Houston	Development Data				WAM 3: Full				WAM 8: Current				WAM 9: Future			
	1937-1960				1940-1995				1940-1995				1940-1995			
	Peak, Volume and Duration	Peak Only	Peak, Volume and Duration	Peak Only	Peak, Volume and Duration	Peak Only	Peak, Volume and Duration	Peak Only	Peak, Volume and Duration	Peak Only	Peak, Volume and Duration	Peak Only	Peak, Volume and Duration	Peak Only		
Overbank	Total 1	% 4%	Total 7	% 29%	Total 10	% 18%	Total 26	% 46%	Total 0	% 0%	Total 35	% 63%	Total 0	% 0%	Total 18	% 32%
Annual High 1	13	54%	16	67%	21	38%	48	86%	7	13%	56	100%	4	7%	36	64%
Annual High 2	8	33%	13	54%	7	13%	34	61%	1	2%	53	95%	0	0%	21	38%
Winter High	11	46%	15	63%	17	30%	43	77%	7	13%	55	98%	0	0%	45	80%
Winter Low 1	21	88%	22	92%	33	59%	54	96%	28	50%	56	100%	18	32%	56	100%
Winter Low 2	17	71%	18	75%	18	32%	46	82%	15	27%	56	100%	5	9%	56	100%
Spring High	13	54%	17	71%	17	30%	45	80%	11	20%	56	100%	6	11%	51	91%
Spring Low 1	21	88%	21	88%	34	61%	54	96%	36	64%	56	100%	31	55%	56	100%
Spring Low 2	9	38%	15	63%	19	34%	44	79%	19	34%	56	100%	12	21%	56	100%
Summer High	17	71%	18	75%	28	50%	50	89%	29	52%	56	100%	27	48%	56	100%
Summer Low 1	22	92%	23	96%	44	79%	54	96%	54	96%	56	100%	56	100%	56	100%
Summer Low 2	13	54%	14	58%	32	57%	50	89%	47	84%	56	100%	53	95%	56	100%
Fall High	9	38%	12	50%	20	36%	46	82%	17	30%	55	98%	14	25%	55	98%
Fall Low 1	20	83%	20	83%	46	82%	52	93%	55	98%	56	100%	56	100%	56	100%
Fall Low 2	12	50%	13	54%	39	70%	47	84%	49	88%	56	100%	56	100%	56	100%
Total Number of Pulses	207		244		385		693		375		814		338		730	
Number of Years for this Condition	24				56				56				56			

Table 10: Attainment Frequencies of Subsistence and Base Flow Recommendations for Houston in the Development Time Period and WAM 3, 8 and 9.

Season	Condition	Recommended Flow	Recommended Frequency	Development 1937-1960	Full WAM 3 1940-1996	Current WAM 8 1940-1996	Future WAM 9 1940-1996
Winter	Subsistence	3	95%	95%	99%	100%	100%
	Dry	6	84%	84%	94%	100%	98%
	Average	9	72%	72%	89%	99%	96%
	Wet	10	67%	67%	87%	99%	95%
	Subsistence	1	97%	98%	99%	100%	100%
	Dry	5	79%	79%	94%	100%	98%
Spring	Average	8	60%	60%	86%	98%	96%
	Wet	10	50%	50%	82%	98%	94%
	Subsistence	1	97%	92%	99%	100%	100%
	Dry	5	72%	72%	92%	99%	98%
	Average	8	57%	57%	85%	99%	96%
	Wet	10	47%	47%	81%	98%	95%
Summer	Subsistence	1	95%	90%	99%	100%	100%
	Dry	5	71%	89%	91%	99%	98%
	Average	7	58%	79%	85%	98%	96%
	Wet	9	48%	72%	81%	98%	95%
	Subsistence	1	95%	90%	99%	100%	100%
	Dry	5	71%	89%	91%	99%	98%
Fall	Average	7	58%	79%	85%	98%	96%
	Wet	9	48%	72%	81%	98%	95%
	Subsistence	1	95%	90%	99%	100%	100%
	Dry	5	71%	89%	91%	99%	98%
	Average	7	58%	79%	85%	98%	96%
	Wet	9	48%	72%	81%	98%	95%