

Angostura Contract Negotiation EIS
 River Discharge (cfs) for Scenario with 12,218 acres

Year	Historic Actual	Historic Plus Seepage	<u>Natural</u>	No Action	Recreation	Improved Efficiency			
				Scen 1	Scen 5	Scen 13	Scen 15	Scen 17	Scen 19
1998	102.4	102.7	82.8	47.6	55.4	50.8	59.3	59.3	59.3
1999	49.7	50.3	54.2	3.3	3.3	3.3	3.3	3.3	10.0
2000	88.1	88.9	210.2	97.9	91.4	132.2	125.5	125.5	157.1
2001	45.8	46.7	55.0	20.0	24.8	20.6	28.4	28.4	28.7
2002	90.8	92.7	208.4	123.0	126.2	140.9	136.1	136.1	164.6
2003	62.3	62.8	136.4	65.0	69.5	79.8	88.1	88.1	89.9
2004	9.7	11.9	47.7	3.3	3.3	3.3	3.3	3.3	6.8
2005	0.1	3.2	34.1	3.3	3.3	3.3	3.3	3.3	3.3
2006	0.0	3.3	22.8	3.3	3.3	3.3	3.3	3.3	3.9
2007	406.7	409.0	559.5	421.2	452.9	430.7	457.4	475.6	520.5
2008	68.2	70.2	123.7	73.9	70.7	76.7	78.3	78.3	88.0
2009	9.9	12.7	64.3	15.6	16.1	26.0	26.8	26.8	36.9
2010	89.6	92.1	176.8	86.3	85.0	105.9	101.2	101.2	134.8
2011	17.3	19.8	78.4	20.5	14.9	20.5	27.9	27.9	34.7
2012	200.5	202.4	221.9	159.3	173.3	175.7	180.7	180.7	186.3
2013	24.9	27.7	92.7	39.0	38.1	46.6	39.7	39.7	57.0
2014	59.3	61.5	126.2	62.5	70.1	74.6	83.0	83.0	89.0
2015	0.7	3.7	42.0	3.3	3.3	6.3	3.3	3.3	15.0
2016	182.9	185.6	261.0	167.0	166.3	185.2	183.8	186.2	231.0
2017	0.6	3.6	67.8	8.0	7.0	16.7	17.3	17.3	37.7
2018	7.9	10.9	104.7	28.1	22.5	47.2	39.9	39.9	62.7
2019	29.5	31.7	56.0	32.5	32.5	32.5	32.5	32.5	35.8
2020	0.0	3.3	65.0	3.3	3.3	3.3	6.8	6.8	37.0
2021	0.0	3.3	58.8	3.3	3.3	3.3	3.3	3.3	23.3
2022	0.0	3.3	44.8	3.3	3.3	3.3	3.3	3.3	7.0
2023	246.9	249.1	391.6	265.1	280.2	313.6	316.0	316.0	345.5
2024	27.5	30.3	92.6	32.7	34.2	43.4	44.9	44.9	50.1
2025	25.2	27.6	60.9	22.0	15.5	22.5	17.4	17.4	23.2
2026	0.0	3.3	46.8	3.3	3.3	3.3	3.3	3.3	5.5
2027	27.1	29.5	147.5	43.7	44.0	73.9	74.1	74.1	101.7
2028	28.5	30.1	70.5	26.2	30.9	26.6	33.0	33.0	36.9
2029	84.7	87.0	141.4	74.2	77.4	87.7	89.7	89.7	110.0
2030	0.1	3.2	35.3	3.3	3.3	3.3	3.3	3.3	6.1
2031	75.1	76.7	199.7	80.6	83.0	111.3	105.4	109.8	157.9
2032	76.6	77.6	105.9	66.3	66.5	67.3	70.7	70.7	72.5
2033	1.7	1.9	29.8	3.3	3.3	3.3	3.3	3.3	5.0
2034	2.9	2.9	36.8	3.3	3.3	3.3	3.3	3.3	9.9
2035	5.4	5.4	46.6	3.3	3.3	3.3	3.3	3.3	15.6
2036	181.1	181.1	286.6	185.3	206.8	187.0	208.5	223.4	259.6
2037	0.7	2.6	32.0	3.3	3.3	3.3	3.3	3.3	5.3
2038	54.2	55.4	155.1	74.4	69.3	96.2	91.3	91.3	122.3
2039	59.0	59.0	90.7	55.3	55.3	55.6	55.6	55.6	60.7
2040	31.0	32.1	103.2	27.0	34.5	40.2	47.8	47.8	78.4
2041	49.4	50.3	114.6	48.8	49.5	53.7	60.1	60.1	68.9
2042	171.8	172.9	249.4	193.9	198.1	208.2	208.5	208.5	218.2
Mean	59.9	61.8	120.7	60.2	62.3	68.9	70.6	71.5	86.1
Min	0.0	1.9	22.8	3.3	3.3	3.3	3.3	3.3	3.3
10 pctile	0.1	3.2	35.9	3.3	3.3	3.3	3.3	3.3	5.7
25 pctile	2.9	3.7	54.2	3.3	3.3	3.3	3.3	3.3	15.6
Median	29.5	31.7	90.7	32.5	38.1	43.4	39.9	39.9	57.0
75 pctile	76.6	77.6	147.5	74.2	70.7	87.7	89.7	89.7	110.0
90 pctile	177.4	177.8	238.4	163.9	170.5	181.4	182.6	184.0	205.4
Max	406.7	409.0	559.5	421.2	452.9	430.7	457.4	475.6	520.5

NOTE: The following based on 37 years of 2006 - 2042 as historic 1953-1960 had power generation and irrigation started in 1955.

Mean	62.8	124.4	63.4	65.6	72.0	73.8	74.9	90.6
Mean Diff (Scen vs Hist)		61.7	0.6	2.8	9.3	11.1	12.1	27.9

Angostura Contract Negotiation EIS
 River Discharge (cfs) for Scenario with 10,000 acres

Year	Historic Actual	Historic Plus Seepage	<u>Natural</u>	No Action	Recreation	Improved Efficiency			
				Scen 2	Scen 6	Scen 14	Scen 16	Scen 18	Scen 20
1998	102.4	102.7	82.8	51.3	59.0	54.5	62.2	62.2	62.8
1999	49.7	50.3	54.2	3.3	3.3	10.5	4.0	4.0	11.5
2000	88.1	88.9	210.2	129.4	122.6	149.5	149.4	149.4	162.5
2001	45.8	46.7	55.0	20.5	28.2	23.4	31.2	31.2	31.5
2002	90.8	92.7	208.4	139.4	135.3	154.9	148.4	148.4	168.6
2003	62.3	62.8	136.4	78.9	86.9	88.5	97.5	97.5	97.5
2004	9.7	11.9	47.7	3.3	3.3	3.3	3.3	3.3	9.7
2005	0.1	3.2	34.1	3.3	3.3	3.3	3.3	3.3	5.0
2006	0.0	3.3	22.8	3.3	3.3	3.3	3.3	3.3	3.9
2007	406.7	409.0	559.5	430.0	457.1	460.4	460.8	479.0	523.9
2008	68.2	70.2	123.7	76.4	77.6	81.0	84.4	84.4	91.1
2009	9.9	12.7	64.3	25.2	25.9	31.5	34.0	34.0	38.6
2010	89.6	92.1	176.8	104.4	99.8	120.0	113.4	113.4	138.9
2011	17.3	19.8	78.4	20.5	26.9	20.5	38.0	38.0	39.2
2012	200.5	202.4	221.9	174.5	180.1	189.9	185.3	185.3	190.2
2013	24.9	27.7	92.7	45.9	39.3	56.0	44.9	44.9	58.1
2014	59.3	61.5	126.2	74.2	82.3	79.2	93.2	93.2	93.7
2015	0.7	3.7	42.0	5.8	3.3	11.8	3.3	3.3	16.1
2016	182.9	185.6	261.0	184.0	181.9	196.0	199.2	199.2	233.0
2017	0.6	3.6	67.8	16.1	16.8	24.6	25.1	25.1	39.6
2018	7.9	10.9	104.7	46.1	38.7	60.1	53.3	53.3	67.6
2019	29.5	31.7	56.0	32.5	32.5	32.7	32.7	32.7	36.2
2020	0.0	3.3	65.0	3.3	6.0	9.4	17.1	17.1	38.8
2021	0.0	3.3	58.8	3.3	3.3	5.8	6.3	6.3	25.6
2022	0.0	3.3	44.8	3.3	3.3	3.3	3.3	3.3	7.7
2023	246.9	249.1	391.6	310.5	313.5	343.4	340.8	340.8	352.7
2024	27.5	30.3	92.6	42.6	44.1	50.6	52.7	52.7	56.7
2025	25.2	27.6	60.9	22.5	17.3	22.7	20.6	20.6	25.3
2026	0.0	3.3	46.8	3.3	3.3	3.3	3.3	3.3	10.0
2027	27.1	29.5	147.5	71.8	72.1	96.7	95.7	95.7	108.4
2028	28.5	30.1	70.5	26.6	32.9	27.1	34.7	34.7	38.6
2029	84.7	87.0	141.4	86.6	88.8	97.5	98.3	98.3	112.1
2030	0.1	3.2	35.3	3.3	3.3	3.3	3.3	3.3	6.1
2031	75.1	76.7	199.7	109.3	103.5	133.4	127.7	127.7	162.3
2032	76.6	77.6	105.9	67.2	70.2	67.9	73.5	73.5	75.3
2033	1.7	1.9	29.8	3.3	3.3	3.3	3.3	3.3	5.0
2034	2.9	2.9	36.8	3.3	3.3	3.3	3.3	3.3	10.3
2035	5.4	5.4	46.6	3.3	3.3	3.3	3.3	3.3	16.9
2036	181.1	181.1	286.6	186.8	208.3	209.1	214.5	227.7	260.7
2037	0.7	2.6	32.0	3.3	3.3	3.3	3.3	3.3	5.7
2038	54.2	55.4	155.1	94.7	89.5	112.2	107.5	107.5	126.5
2039	59.0	59.0	90.7	55.6	55.6	55.8	55.8	55.8	60.8
2040	31.0	32.1	103.2	39.2	46.8	50.1	57.7	57.7	79.9
2041	49.4	50.3	114.6	58.4	59.3	59.0	63.5	63.5	71.2
2042	171.8	172.9	249.4	207.2	207.7	216.1	217.1	217.1	221.5
Mean	59.9	61.8	120.7	68.4	70.0	76.3	77.3	78.0	88.8
Min	0.0	1.9	22.8	3.3	3.3	3.3	3.3	3.3	3.9
10 pctile	0.1	3.2	35.9	3.3	3.3	3.3	3.3	3.3	6.7
25 pctile	2.9	3.7	54.2	3.3	3.3	9.4	4.0	4.0	16.9
Median	29.5	31.7	90.7	42.6	39.3	50.6	52.7	52.7	58.1
75 pctile	76.6	77.6	147.5	86.6	88.8	97.5	98.3	98.3	112.1
90 pctile	177.4	177.8	238.4	180.2	181.2	193.6	193.6	193.6	209.0
Max	406.7	409.0	559.5	430.0	457.1	460.4	460.8	479.0	523.9

NOTE: The following based on 37 years of 2006 - 2042 as historic 1953-1960 had power generation and irrigation started in 1955.

Mean	62.8	124.4	71.6	73.2	79.7	80.5	81.3	93.2
Mean Diff (Scen vs Hist)		61.7	8.8	10.4	16.9	17.7	18.6	30.4



