MEMORANDUM

FREESE AND NICHOLS

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TO: Bruce Turner, Luminant

FROM: Jon S. Albright

SUBJECT: HYD-26 Wheeler Branch Reservoir

DATE: February 18, 2010

Provide maps of sufficient detail to show the relationship of the WBR to the CPNPP site and City of Glen Rose

Figure 1 is a satellite map showing the reservoir and its relationship to the Comanche Peak Nuclear Power Plant and the City of Glen Rose.

Provide a quantitative and qualitative description of the WBR

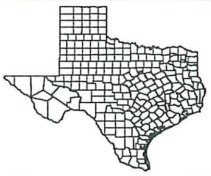
Wheeler Branch reservoir is an off-channel reservoir located in Somervell County approximately 2 miles north of the City of Glen Rose. The reservoir was built to provide municipal and industrial water to users in Somervell County, including the Comanche Peak Nuclear Power Plant. The reservoir is owned and operated by the Somervell County Water District (SCWD). Water for the reservoir is diverted from a channel dam on the Palxuy River located in the City of Glen Rose. A 2.2-mile 36-inch pipeline conveys the water from the Paluxy River to a discharge structure in the reservoir. The reservoir, pipeline, pump station and channel dam were completed in the Summer of 2006. Treatment and delivery facilities for the reservoir are being designed. The first phase of the treatment and delivery project is expected to be completed in 2012. Table 1 is a summary of pertinent data regarding the project.

Provide variations in inflows, outflows, water surface elevations, and storage volumes and retention time

Attachment A contains output from an operation study of the Wheeler Branch Reservoir and the Paluxy River diversion at full the full permitted demand of 2,000 acre-feet per year. The study uses the OPERATE model, a proprietary model developed by Freese and Nichols. Available diversions from the Paluxy River are calculated on a daily basis in an Excel spreadsheet. The operation model file and the daily flow calculation file are available in Attachment B, provided electronically. The operation of the Wheeler Branch Reservoir uses a monthly time step. Since the reservoir has only a 1.6-sq. mile drainage area, inflows from the watershed are small enough to be ignored.

0 675 1,350 2,700 Feet

January 15, 2010
RAI HYD-26



FIGURE

1

Freese and Nichols
4055 International Plaza, Suite 200
Fort Worth, Texas 76109-4895
817-735-7300

Wheeler Branch Reservoir
Location Map

FNI PROJECT NO	TUE06154
FILE	H:\JJR\WheelerBranchAerial.mxd
DATUM & COORDINATE SYSTEM	NAD83 STATE PLANE TX NORTH CENTRAL (FEET)
DATE	FEBRUARY 2010
PREPARED BY	DLB

Table 1
Pertinent Data for Wheeler Branch Reservoir & Diversion Facilities

Location	Somervell County, Texas
Owner	Somervell County Water District
Completion Date	Summer 2006
Wheeler Branch Dam & Reservoir	
Storage	4,118 acre-feet
Surface area	169 acres
Drainage area	1.6 sq. miles
Normal operating level	785 feet msl
Top of dam	796 feet msl
Type	Earthen embankment
Length	1,750 feet
Service spillway	Morning glory intake at elevation 785 feet with a 48-inch conduit
Emergency spillway	200-foot wide open channel at elevation 790 feet
Low-flow outlet	24-inch pipeline with a multiple-level intake
Channel Dam	
Storage	35.2 acre-feet
Surface area	9 acres
Drainage area	427 sq. miles
Normal operating level	598 feet msl
Top of dam	598 feet msl
Type	Reinforced concrete channel dam
Length	100 feet
Pump station	
Capacity	50 cfs (22,500 gpm)
Pumps	4 x 5,625 gpm pumps (2 currently installed)
Pipeline	
Size	36-inch
Length	2.2 miles

Figure 2: Simulated Storage in Wheeler Branch Reservoir at Full Demand (2,000 acre-ft/yr)

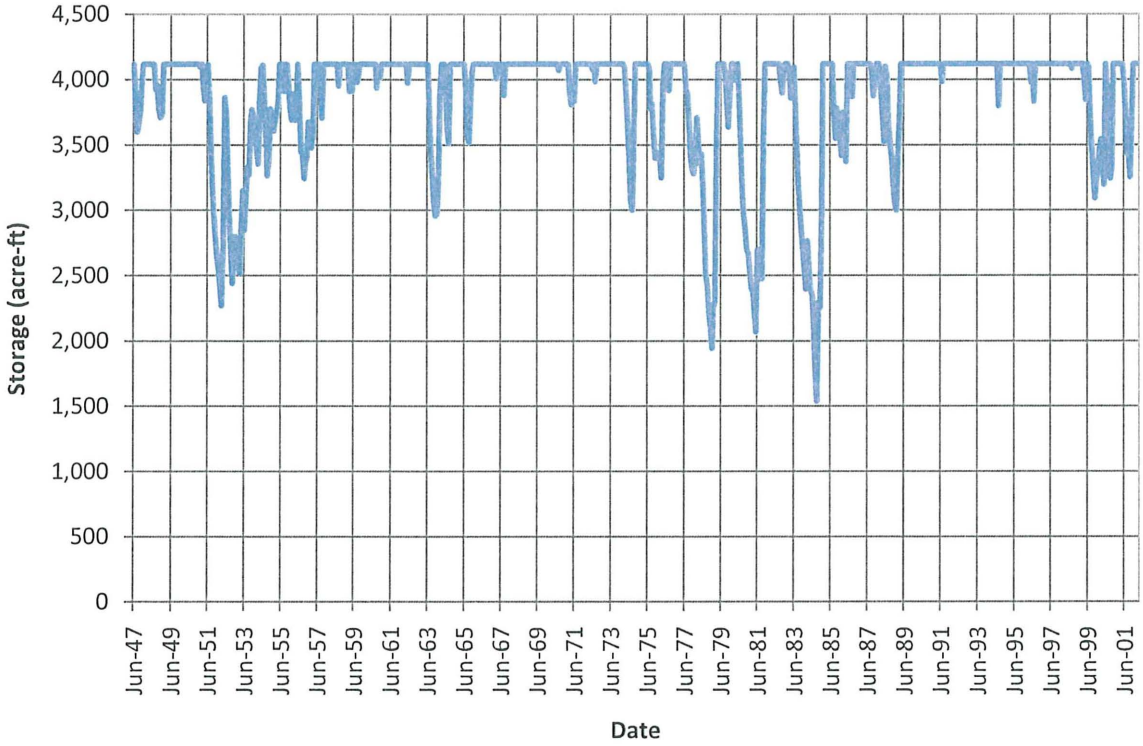
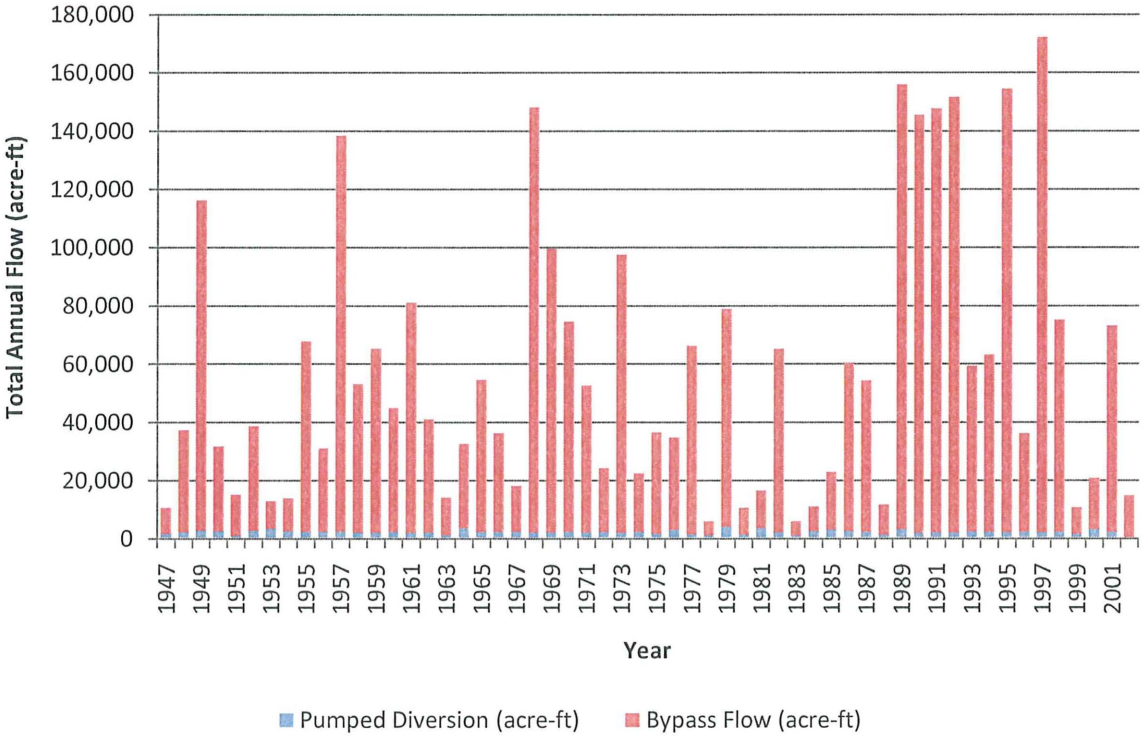


Figure 3: Comparison of Annual Diversions for Wheeler Branch Reservoir to Annual Flows Remaining in the Paluxy River



Note: 1947 and 2008 are incomplete years

Figure 2 shows the storage trace of the reservoir from the operation study. Figure 3 compares the annual diversions from the Paluxy River to the flows remaining in the river. Because almost all of the water in the reservoir has to be pumped from the Paluxy River, the reservoir will be operated to minimize spills. The only significant outflow from the reservoir will be through evaporation and diversions. At the full permitted diversion of 2,000 acre-feet per year, the average retention time for Wheeler Branch Reservoir (calculated as the average of the storage divided by water pumped from the Paluxy River) is 642 days.

Summary of statutory and other legal restrictions relating to water use or specific water-body restrictions on water use imposed by Federal or State regulations

Wheeler Branch Reservoir and the Paluxy channel dam and diversion are authorized by Permit/Application 12-5744. This water right permit was issued by the Texas Commission on Environmental Quality on December 11, 2002. Attachment C contains a copy of the permit. Table 2 is a summary of the major provisions of the permit.

Table 2
Summary of Major Water Rights Provisions Associated with Wheeler Branch Reservoir

Water Right Number	Permit 12-5744/Application 12-5744
Owner	Somervell County Water District
Priority Date	June 27, 2001
Storage	35.2 acre-feet in channel dam
	4,118 acre-feet in off-channel reservoir
Diversions	5,000 acre-feet per year from the Paluxy River at a maximum rate of 50 cfs
	2,000 acre-feet per year from off-channel reservoir at a maximum rate of 11 cfs
Purpose	Municipal, industrial, irrigation and recreation

The Wheeler Branch water right permit contains environmental bypass criteria for diversions from the Paluxy River. Table 3 contains these Pumping from the channel dam cannot cause the flows in the river to fall below the specified values. These restrictions only require the bypass of water. Flows in the Paluxy River can and frequently do fall below these levels. SCWD is not obligated to release stored water from Wheeler Branch Reservoir for environmental purposes.

Table 3
Environmental Bypass Provisions
(Values in cfs)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
6.7	7.9	14.4	14.4	27.2	17.5	6.2	3.1	3.7	4.2	5.8	5.8

For the Paluxy River, which feeds WBR, provide the following information: mean flow, peak and minimum flows, and 7Q10 values as determined by USGS; follow rates of discharges from the WBR dam; and an analysis of how proposed CPNPP withdrawals from WBR would affect water quantity and aquatic habitat in the reservoir and the Paluxy River, both at normal flow and during low-flow periods

Table 4 contains the mean, peak and minimum flows for the USGS stream gage 08091500 Paluxy River at Glen Rose, Tx. This gage is located approximately 2.25 river miles upstream of the channel dam (see Figure 1). The stream gage has a drainage area of 410 sq. miles, while the channel dam has a drainage area of 427 sq. miles. Flows at the channel dam should not be substantially different than those measured at the gage.

Table 4
Stream Flow Statistics for USGS 09091500 Paluxy River at Glen Rose, TX
(Values in cfs)

Mean [a]	94.1
Peak [a]	32,300
Minimum [a]	0.0
7Q10	0.0
7Q2	0.8 cfs

a - Mean, peak and minimum flows are from the USGS[1]
b - 7Q2 is from the Texas Commission on Environmental Quality[2]

FNI was unable to locate a published 7Q10 for the Glen Rose gage. Using the Environmental Protection Agencies DFLOW model, the 7Q10 for the Glen Rose gage is 0.0 cfs. The State of Texas uses a 7Q2 for permitting purposes. The published value in the Texas Water Quality Standards is 0.8 cfs[2].

As a way to evaluate the potential impact of water supply for the Comanche Peak Nuclear Power Plant, the operation model used for the water rights application was run with a demand of 1,435 acre-feet per year, which is the full permitted diversion of the reservoir less the amount contracted to Luminant. This demand represents the portion of the reservoir's supply that will be used for other customers of the SCWD. Output from the modeling run may be found in Attachment D. The model file and the daily inflows file (which are identical for both runs) may be found in Attachment B in electronic format. Figures 4 through 6 compare this run to the reservoir operating at its full permitted diversion. The full permitted diversion scenario represents the operation of the reservoir

[1] United States Geological Survey: Water Data Report 2008 08091500 Paluxy River at Glen Rose, TX.
[2] Texas Commission on Environmental Quality: Texas Surface Water Quality Standards, available on-line at http://www.tceq.state.tx.us/nav/eq/eq_swqs.html

Figure 4: Comparison of Wheeler Branch Elevations with and without Luminant Diversion

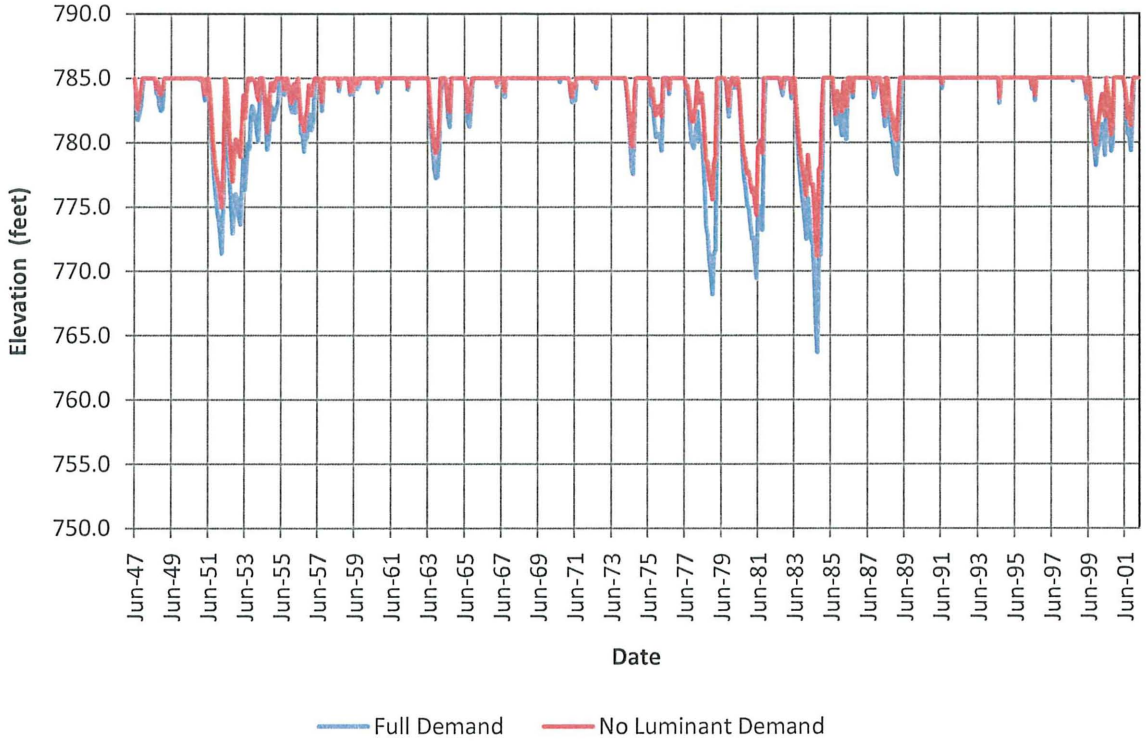


Figure 5: Comparison of Wheeler Branch Surface Areas with and without Luminant Diversion

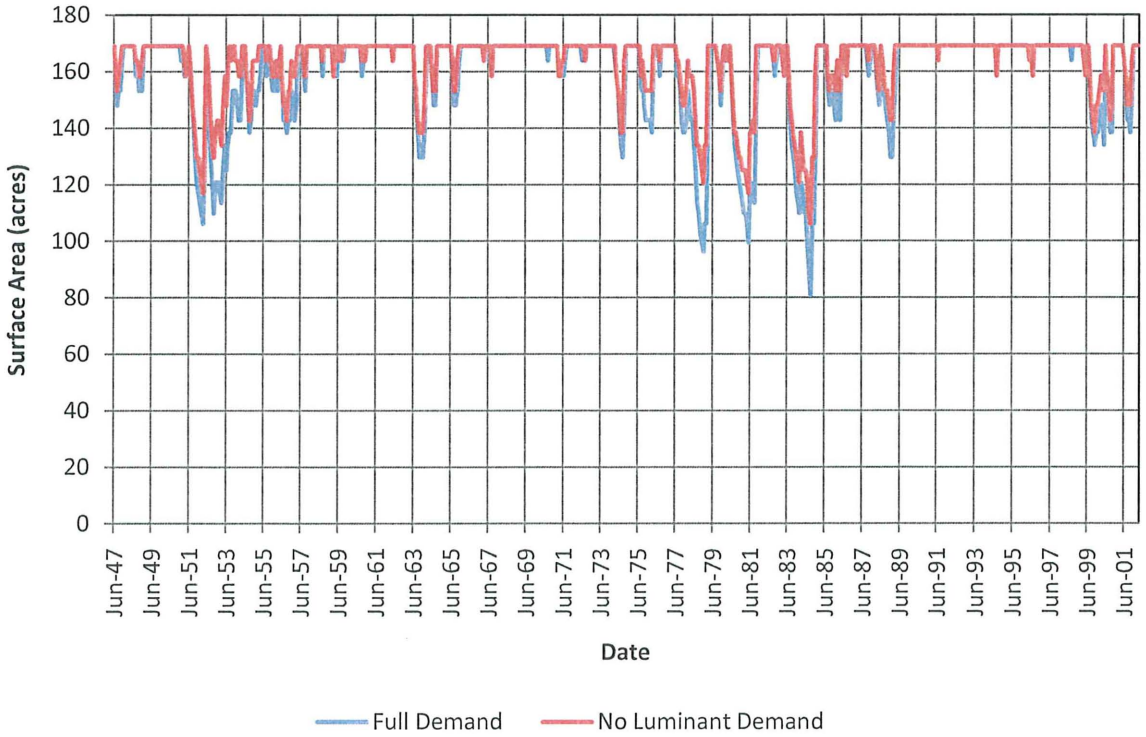
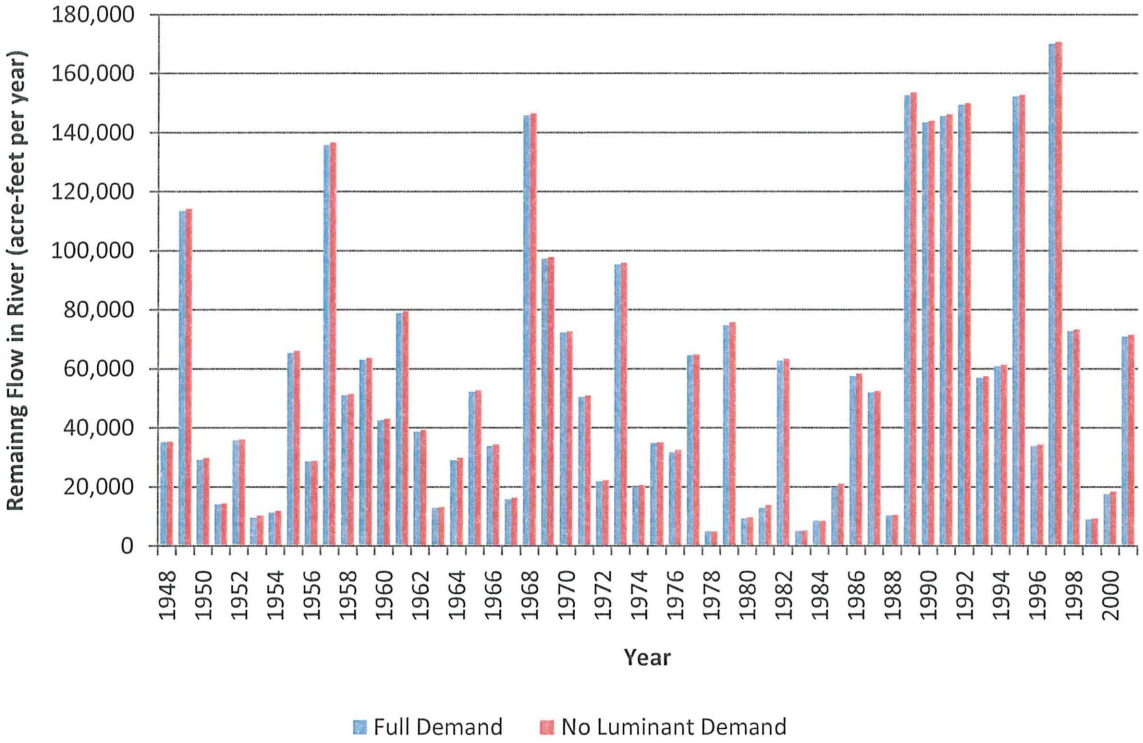


Figure 6: Comparison of Remaining Flow in the Paluxy River with and without Luminant Demand



including the Luminant's demand. Figure 4 compares the elevations with and without the Luminant diversion. With the Luminant diversion on average the reservoir would be 0.7 feet lower with a maximum difference of 7.5 feet in September 1984. Figure 5 compares the water surface area with and without the Luminant diversion. With the Luminant demand, on average the water surface area would be 4 acres less than without the demand, with a maximum difference of 31 acres in August 1953. Figure 6 compares annual flow remaining in the Paluxy River with and without the Luminant demands. On average 554 acre-feet per year (0.8 cfs) more water would be diverted from the Paluxy River with a maximum difference of 1,205 acre-feet (1.7 cfs) in 1979. The average increase in diversion is 0.9 percent of the average flow in the Paluxy River.

Wheeler Branch Reservoir was built to provide water to the Comanche Peak Nuclear Power Plant and other customers in Somervell County. The water will be provided to the plant regardless of whether Units 3 and 4 are constructed. A new surface water source was needed because of limited groundwater supplies in the area.

The reservoir itself is built on the headwaters of a small ephemeral stream. Any aquatic habitat is the result of the construction of the reservoir, which will be operating as designed and permitted.

Any mitigation for the Luminant demand from the reservoir has already been addressed through the Texas Commission on Environmental Quality and U.S. Army Corps of Engineers permitting process.

As with the reservoir, the diversion facilities on the Paluxy River will be operating as designed and permitted. Changes in the flow pattern for the Paluxy River due to the Luminant demand are minimal. Instream uses are protected by low-flow bypass criteria in the water rights permit. Any other mitigation for the diversion facilities has already been addressed through the Texas Commission on Environmental Quality and U.S. Army Corps of Engineers permitting process.

Most of the water provided to Luminant from Wheeler Branch Reservoir will be used for potable purposes at the plant. Some will be used for process water. Only a portion of that is associated with Units 3 and 4. Therefore the impacts of water use for Units 3 and 4 is expected to be less than shown in this analysis.

Provide clarification on the quantity of water that would be used from the WBR based on the Somervell County Water Supply Project phases noted in the June 2006 amendment to the Brazos River Region G Water Plan

The amount of water available for Luminant was under negotiation at the time of the June 2006 Amendment to the Brazos G Regional Water Plan. The final quantity for the contract is 350 gpm, or about 565 acre-feet per year. This is about 28 percent of the available supply from the reservoir. Currently, the Brazos G Water Planning Group is in the process of developing the 2011 regional water plan update. Luminant is working with the Brazos G Water Planning Group to have the demand correctly represented in the 2011 plan.

Attachment A
Wheeler Branch Operation Study at Full Demand

Attachment A: Wheeler Branch Reservoir - Full Demand Operation

Wheeler Branch Reservoir

Pump capacity (cfs)	**50**
Yearly Demand (ac-ft)	2000
Initial Content (ac-ft)	4118
Minimum Content (ac-ft)	1535

Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
												169	4118		785.0
1947	6	2888	2120	445	274	2614	0	0.55	92	182	0	169	4118	0	785.0
1947	7	391	73	73	73	318	0	1.00	161	246	0	153	3784	0	783.0
1947	8	357	251	174	174	183	0	0.76	114	246	0	148	3598	0	781.8
1947	9	1558	1373	371	371	1187	0	0.74	111	188	0	153	3670	0	782.2
1947	10	1261	1069	336	336	925	0	0.50	77	170	0	153	3759	0	782.8
1947	11	719	374	374	374	345	0	0.20	31	140	0	164	3962	0	784.1
1947	12	3602	3246	1036	274	3328	0	-0.13	-22	140	0	169	4118	0	785.0
Total		10776	8505	2809	1876	8900	0	3.62	564	1312	0				
1948	1	2160	1748	772	143	2017	0	0.05	9	134	0	169	4118	0	785.0
1948	2	12222	11768	804	102	12120	0	-0.11	-18	120	0	169	4118	0	785.0
1948	3	5118	4233	2135	174	4944	0	0.23	38	136	0	169	4118	0	785.0
1948	4	1319	462	462	213	1106	0	0.42	71	142	0	169	4118	0	785.0
1948	5	6538	5287	745	196	6342	0	0.24	40	156	0	169	4118	0	785.0
1948	6	3846	3155	699	257	3589	0	0.45	75	182	0	169	4118	0	785.0
1948	7	3298	2928	1121	361	2937	0	0.68	115	246	0	169	4118	0	785.0
1948	8	370	222	182	182	188	0	0.80	131	246	0	158	3923	0	783.8
1948	9	1289	1095	323	323	966	0	0.64	103	188	0	164	3955	0	784.0
1948	10	307	80	80	80	227	0	0.57	90	170	0	153	3775	0	782.9
1948	11	491	147	147	147	344	0	0.47	72	140	0	153	3710	0	782.5
1948	12	571	215	215	215	356	0	0.33	51	140	0	153	3734	0	782.6
Total		37529	31338	7685	2393	35136	0	4.76	777	2000	0				
1949	1	1106	694	587	483	623	0	-0.22	-35	134	0	169	4118	0	785.0
1949	2	4663	4225	735	112	4551	0	-0.05	-8	120	0	169	4118	0	785.0
1949	3	6416	5538	1103	151	6265	0	0.09	15	136	0	169	4118	0	785.0
1949	4	9769	8912	1761	150	9619	0	0.04	8	142	0	169	4118	0	785.0
1949	5	76299	74627	2462	155	76144	0	-0.01	-1	156	0	169	4118	0	785.0
1949	6	7614	6573	2726	223	7391	0	0.24	41	182	0	169	4118	0	785.0
1949	7	1606	1225	1216	373	1233	0	0.75	127	246	0	169	4118	0	785.0
1949	8	1145	955	804	362	783	0	0.69	116	246	0	169	4118	0	785.0
1949	9	584	364	364	299	285	0	0.66	111	188	0	169	4118	0	785.0
1949	10	5354	5096	1241	194	5160	0	0.14	24	170	0	169	4118	0	785.0
1949	11	817	472	472	215	602	0	0.44	75	140	0	169	4118	0	785.0
1949	12	1038	681	681	152	886	0	0.07	12	140	0	169	4118	0	785.0

Attachment A: Wheeler Branch Reservoir - Full Demand Operation

Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
Total		116411	109361	14152	2869	113542	0	2.86	485	2000	0				
1950	1	2631	2219	1108	110	2521	0	-0.14	-24	134	0	169	4118	0	785.0
1950	2	5513	5074	2439	116	5397	0	-0.02	-4	120	0	169	4118	0	785.0
1950	3	1900	1014	1014	213	1687	0	0.46	77	136	0	169	4118	0	785.0
1950	4	4645	3788	1480	157	4488	0	0.09	15	142	0	169	4118	0	785.0
1950	5	4112	2440	1563	178	3934	0	0.13	22	156	0	169	4118	0	785.0
1950	6	1722	761	675	260	1462	0	0.46	78	182	0	169	4118	0	785.0
1950	7	4042	3661	1528	290	3752	0	0.26	44	246	0	169	4118	0	785.0
1950	8	589	399	399	383	206	0	0.81	137	246	0	169	4118	0	785.0
1950	9	4712	4492	1368	200	4512	0	0.07	12	188	0	169	4118	0	785.0
1950	10	672	414	414	282	390	0	0.66	112	170	0	169	4118	0	785.0
1950	11	658	313	313	240	418	0	0.59	100	140	0	169	4118	0	785.0
1950	12	644	288	288	201	443	0	0.36	61	140	0	169	4118	0	785.0
Total		31840	24861	12589	2630	29210	0	3.72	630	2000	0				
1951	1	557	145	145	145	412	0	0.22	36	134	0	164	4093	0	784.8
1951	2	759	321	321	156	603	0	0.07	11	120	0	169	4118	0	785.0
1951	3	670	1	1	1	669	0	0.32	52	136	0	158	3931	0	783.9
1951	4	726	99	99	99	627	0	0.32	51	142	0	158	3837	0	783.3
1951	5	1820	995	316	316	1504	0	0.05	8	156	0	164	3989	0	784.2
1951	6	9779	8861	1001	315	9464	0	0.03	4	182	0	169	4118	0	785.0
1951	7	367	93	93	93	274	0	0.63	104	246	0	158	3861	0	783.4
1951	8	61	5	5	5	56	0	0.84	129	246	0	148	3491	0	781.0
1951	9	16	0	0	0	16	0	0.71	101	188	0	138	3202	0	779.0
1951	10	51	2	2	2	49	0	0.50	67	170	0	130	2967	0	777.3
1951	11	218	0	0	0	218	0	0.30	38	140	0	121	2789	0	775.9
1951	12	361	14	14	14	347	0	0.27	32	140	0	117	2631	0	774.6
Total		15385	10535	1997	1146	14239	0	4.25	633	2000	0				
1952	1	485	73	73	73	412	0	0.19	21	134	0	113	2549	0	773.9
1952	2	455	19	19	19	436	0	0.23	26	120	0	110	2422	0	772.8
1952	3	533	0	0	0	533	0	0.18	19	136	0	106	2267	0	771.4
1952	4	3176	2512	565	565	2611	0	-0.13	-14	142	0	121	2704	0	775.2
1952	5	30153	28824	1321	1321	28832	0	0.04	6	156	0	158	3863	0	783.4
1952	6	975	176	176	176	799	0	0.83	129	182	0	153	3728	0	782.6
1952	7	270	32	32	32	238	0	0.92	137	246	0	143	3377	0	780.3
1952	8	87	28	28	28	59	0	1.24	169	246	0	130	2990	0	777.5
1952	9	17	0	0	0	17	0	0.80	101	188	0	121	2701	0	775.2

Attachment A: Wheeler Branch Reservoir - Full Demand Operation

Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1952	10	10	0	0	0	10	0	0.79	92	170	0	110	2439	0	772.9
1952	11	2005	1849	389	389	1616	0	-0.09	-10	140	0	121	2698	0	775.1
1952	12	596	243	243	243	353	0	0.00	0	140	0	121	2801	0	776.0
Total		38762	33758	2846	2846	35916	0	5.01	676	2000	0				
1953	1	507	109	109	109	398	0	0.27	33	134	0	121	2743	0	775.5
1953	2	365	0	0	0	365	0	0.20	24	120	0	117	2599	0	774.3
1953	3	601	70	70	70	531	0	0.13	15	136	0	113	2518	0	773.6
1953	4	1730	1172	497	497	1233	0	0.14	17	142	0	125	2856	0	776.4
1953	5	4340	3379	476	476	3864	0	0.19	25	156	0	134	3151	0	778.7
1953	6	146	0	0	0	146	0	0.95	123	182	0	125	2846	0	776.3
1953	7	867	671	582	582	285	0	0.65	85	246	0	134	3097	0	778.3
1953	8	1654	1486	567	567	1087	0	0.64	87	246	0	138	3331	0	779.9
1953	9	326	237	230	230	96	0	0.73	101	188	0	138	3272	0	779.5
1953	10	1510	1307	611	611	899	0	0.23	33	170	0	153	3680	0	782.3
1953	11	646	314	253	253	393	0	0.14	22	140	0	153	3771	0	782.9
1953	12	472	115	115	115	357	0	0.25	39	140	0	153	3707	0	782.5
Total		13164	8861	3510	3510	9654	0	4.54	604	2000	0				
1954	1	473	61	61	61	412	0	0.07	10	134	0	148	3624	0	781.9
1954	2	354	2	2	2	352	0	0.34	49	120	0	143	3457	0	780.8
1954	3	477	84	84	84	393	0	0.36	52	136	0	143	3353	0	780.1
1954	4	4415	3800	637	637	3778	0	0.07	11	142	0	158	3837	0	783.3
1954	5	2398	1468	437	437	1961	0	0.18	30	156	0	164	4088	0	784.8
1954	6	2939	2655	280	280	2659	0	0.46	75	182	0	164	4111	0	785.0
1954	7	220	190	99	99	121	0	0.74	120	246	0	158	3844	0	783.3
1954	8	125	91	91	91	34	0	0.89	136	246	0	148	3553	0	781.5
1954	9	5	0	0	0	5	0	0.71	101	188	0	138	3264	0	779.5
1954	10	1324	1241	322	322	1002	0	0.23	33	170	0	143	3383	0	780.3
1954	11	904	594	552	552	352	0	0.13	20	140	0	153	3775	0	782.9
1954	12	431	137	137	137	294	0	0.20	30	140	0	153	3742	0	782.7
Total		14065	10324	2702	2702	11363	0	4.38	667	2000	0				
1955	1	338	9	9	9	329	0	0.07	10	134	0	148	3607	0	781.8
1955	2	551	187	187	187	364	0	0.09	14	120	0	153	3660	0	782.2
1955	3	772	320	253	253	519	0	0.30	46	136	0	153	3731	0	782.6
1955	4	1794	1343	274	274	1520	0	0.28	43	142	0	158	3820	0	783.2
1955	5	38721	37578	1192	447	38274	0	-0.04	-7	156	0	169	4118	0	785.0
1955	6	2394	1495	789	240	2154	0	0.34	58	182	0	169	4118	0	785.0

Attachment A: Wheeler Branch Reservoir - Full Demand Operation

Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1955	7	665	404	373	336	329	0	0.53	90	246	0	169	4118	0	785.0
1955	8	203	120	120	120	83	0	0.50	83	246	0	158	3909	0	783.7
1955	9	20758	20642	880	363	20395	0	-0.21	-34	188	0	169	4118	0	785.0
1955	10	1092	834	489	232	860	0	0.37	62	170	0	169	4118	0	785.0
1955	11	266	0	0	0	266	0	0.35	57	140	0	158	3921	0	783.8
1955	12	375	26	26	26	349	0	0.17	27	140	0	153	3780	0	782.9
Total		67929	62958	4592	2487	65442	0	2.75	449	2000	0				
1956	1	425	60	60	60	365	0	0.10	16	134	0	153	3690	0	782.4
1956	2	765	320	320	320	445	0	-0.01	-2	120	0	158	3892	0	783.6
1956	3	374	0	0	0	374	0	0.44	68	136	0	153	3688	0	782.3
1956	4	895	710	325	325	570	0	0.20	31	142	0	158	3840	0	783.3
1956	5	23696	22472	637	483	23213	0	0.30	49	156	0	169	4118	0	785.0
1956	6	259	0	0	0	259	0	0.65	106	182	0	158	3830	0	783.2
1956	7	11	0	0	0	11	0	0.91	137	246	0	143	3447	0	780.7
1956	8	1328	1284	342	342	986	0	0.82	117	246	0	143	3426	0	780.6
1956	9	158	97	97	97	61	0	0.68	95	188	0	138	3240	0	779.3
1956	10	495	420	317	317	178	0	0.19	26	170	0	143	3361	0	780.2
1956	11	359	211	204	204	155	0	0.17	24	140	0	143	3401	0	780.4
1956	12	2472	2245	421	421	2051	0	0.06	8	140	0	153	3674	0	782.3
Total		31237	27820	2723	2569	28668	0	4.50	675	2000	0				
1957	1	395	15	15	15	380	0	0.11	17	134	0	148	3538	0	781.4
1957	2	437	56	56	56	381	0	-0.02	-3	120	0	143	3477	0	781.0
1957	3	1018	461	260	260	758	0	0.11	17	136	0	148	3584	0	781.7
1957	4	40160	39418	1500	567	39593	0	-0.69	-109	142	0	169	4118	0	785.0
1957	5	65954	64282	3074	83	65871	0	-0.43	-73	156	0	169	4118	0	785.0
1957	6	10218	9176	2498	227	9991	0	0.26	45	182	0	169	4118	0	785.0
1957	7	1617	1236	872	363	1254	0	0.69	117	246	0	169	4118	0	785.0
1957	8	346	156	156	156	190	0	0.73	120	246	0	158	3908	0	783.7
1957	9	227	32	32	32	195	0	0.30	47	188	0	153	3705	0	782.4
1957	10	5798	5572	1018	562	5236	0	-0.13	-21	170	0	169	4118	0	785.0
1957	11	8847	8502	2653	102	8745	0	-0.22	-38	140	0	169	4118	0	785.0
1957	12	3486	3130	2776	151	3335	0	0.06	11	140	0	169	4118	0	785.0
Total		138503	132035	14910	2574	135929	0	0.79	130	2000	0				
1958	1	5308	4896	2790	131	5177	0	-0.02	-3	134	0	169	4118	0	785.0
1958	2	3763	3325	2739	124	3639	0	0.02	4	120	0	169	4118	0	785.0
1958	3	7191	6305	3067	133	7058	0	-0.02	-3	136	0	169	4118	0	785.0

Attachment A: Wheeler Branch Reservoir - Full Demand Operation

Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1958	4	7360	6503	2776	128	7232	0	-0.08	-14	142	0	169	4118	0	785.0
1958	5	16193	14521	2831	164	16029	0	0.05	8	156	0	169	4118	0	785.0
1958	6	2612	1571	1121	243	2369	0	0.36	61	182	0	169	4118	0	785.0
1958	7	6072	5693	994	337	5735	0	0.54	91	246	0	169	4118	0	785.0
1958	8	340	152	152	152	188	0	0.45	74	246	0	158	3950	0	784.0
1958	9	2160	1957	1094	330	1830	0	-0.16	-26	188	0	169	4118	0	785.0
1958	10	771	513	513	201	570	0	0.18	31	170	0	169	4118	0	785.0
1958	11	734	389	389	157	577	0	0.10	17	140	0	169	4118	0	785.0
1958	12	795	439	439	152	643	0	0.07	12	140	0	169	4118	0	785.0
Total		53299	46264	18905	2252	51047	0	1.49	252	2000	0				
1959	1	694	282	282	162	532	0	0.17	28	134	0	169	4118	0	785.0
1959	2	676	237	237	124	552	0	0.02	4	120	0	169	4118	0	785.0
1959	3	523	0	0	0	523	0	0.45	74	136	0	158	3908	0	783.7
1959	4	3079	2407	511	364	2715	0	0.07	12	142	0	169	4118	0	785.0
1959	5	522	0	0	0	522	0	0.32	53	156	0	158	3909	0	783.7
1959	6	3106	2453	859	380	2726	0	-0.07	-11	182	0	169	4118	0	785.0
1959	7	1613	1279	853	276	1337	0	0.18	30	246	0	169	4118	0	785.0
1959	8	1258	1108	191	191	1067	0	0.51	84	246	0	164	3979	0	784.2
1959	9	552	375	306	306	246	0	0.35	57	188	0	164	4040	0	784.5
1959	10	46374	46116	2890	174	46200	0	-0.45	-74	170	0	169	4118	0	785.0
1959	11	3252	2907	2092	170	3082	0	0.18	30	140	0	169	4118	0	785.0
1959	12	3802	3446	2265	129	3673	0	-0.06	-11	140	0	169	4118	0	785.0
Total		65451	60609	10486	2276	63175	0	1.67	276	2000	0				
1960	1	15571	15159	3074	110	15461	0	-0.14	-24	134	0	169	4118	0	785.0
1960	2	5507	5052	2876	137	5370	0	0.10	17	120	0	169	4118	0	785.0
1960	3	3775	2889	2706	169	3606	0	0.20	33	136	0	169	4118	0	785.0
1960	4	5231	4374	1719	184	5047	0	0.25	42	142	0	169	4118	0	785.0
1960	5	7678	6005	2149	185	7493	0	0.17	29	156	0	169	4118	0	785.0
1960	6	2464	1450	886	250	2214	0	0.41	68	182	0	169	4118	0	785.0
1960	7	1989	1608	893	323	1666	0	0.46	77	246	0	169	4118	0	785.0
1960	8	595	405	405	324	271	0	0.46	78	246	0	169	4118	0	785.0
1960	9	267	80	80	80	187	0	0.45	74	188	0	158	3936	0	783.9
1960	10	634	375	371	371	263	0	0.24	39	170	0	164	4098	0	784.9
1960	11	440	97	97	97	343	0	0.26	42	140	0	164	4013	0	784.4
1960	12	901	544	544	196	705	0	-0.29	-49	140	0	169	4118	0	785.0
Total		45052	38040	15800	2426	42626	0	2.56	426	2000	0				

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Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1961	1	13422	13010	2571	64	13358	0	-0.41	-70	134	0	169	4118	0	785.0
1961	2	14044	13606	2777	117	13927	0	-0.02	-3	120	0	169	4118	0	785.0
1961	3	5999	5113	3074	172	5827	0	0.21	36	136	0	169	4118	0	785.0
1961	4	3642	2785	2208	210	3432	0	0.40	68	142	0	169	4118	0	785.0
1961	5	2678	1050	776	196	2482	0	0.24	40	156	0	169	4118	0	785.0
1961	6	6905	5884	1558	144	6761	0	-0.23	-38	182	0	169	4118	0	785.0
1961	7	5091	4710	2120	264	4827	0	0.11	18	246	0	169	4118	0	785.0
1961	8	854	663	663	333	521	0	0.52	87	246	0	169	4118	0	785.0
1961	9	1008	788	611	234	774	0	0.27	46	188	0	169	4118	0	785.0
1961	10	19729	19470	2615	139	19590	0	-0.18	-31	170	0	169	4118	0	785.0
1961	11	3936	3591	2052	142	3794	0	0.01	2	140	0	169	4118	0	785.0
1961	12	3887	3531	2786	151	3736	0	0.06	11	140	0	169	4118	0	785.0
Total		81195	74201	23811	2166	79029	0	0.97	166	2000	0				
1962	1	2395	1983	1983	155	2240	0	0.12	21	134	0	169	4118	0	785.0
1962	2	1712	1273	1273	158	1554	0	0.22	38	120	0	169	4118	0	785.0
1962	3	1685	799	799	175	1510	0	0.23	39	136	0	169	4118	0	785.0
1962	4	2128	1271	1219	145	1983	0	0.02	3	142	0	169	4118	0	785.0
1962	5	1050	76	76	76	974	0	0.41	68	156	0	164	3970	0	784.1
1962	6	1732	918	534	341	1391	0	0.07	11	182	0	169	4118	0	785.0
1962	7	1236	908	617	310	926	0	0.38	64	246	0	169	4118	0	785.0
1962	8	903	750	364	312	591	0	0.39	66	246	0	169	4118	0	785.0
1962	9	938	746	491	172	766	0	-0.10	-16	188	0	169	4118	0	785.0
1962	10	22455	22197	1724	161	22294	0	-0.05	-9	170	0	169	4118	0	785.0
1962	11	2356	2011	1364	144	2212	0	0.02	4	140	0	169	4118	0	785.0
1962	12	2551	2195	2154	158	2393	0	0.10	18	140	0	169	4118	0	785.0
Total		41141	35129	12598	2307	38834	0	1.82	307	2000	0				
1963	1	1650	1238	1238	156	1494	0	0.13	22	134	0	169	4118	0	785.0
1963	2	1207	768	768	149	1058	0	0.17	29	120	0	169	4118	0	785.0
1963	3	1127	242	242	180	947	0	0.26	44	136	0	169	4118	0	785.0
1963	4	2206	1365	428	174	2032	0	0.19	32	142	0	169	4118	0	785.0
1963	5	5116	3778	982	169	4947	0	0.08	13	156	0	169	4118	0	785.0
1963	6	1832	943	671	248	1584	0	0.39	66	182	0	169	4118	0	785.0
1963	7	198	28	28	28	170	0	0.62	102	246	0	158	3798	0	783.0
1963	8	111	37	37	37	74	0	0.57	88	246	0	148	3501	0	781.1
1963	9	46	0	0	0	46	0	0.19	27	188	0	138	3286	0	779.6
1963	10	30	0	0	0	30	0	0.44	59	170	0	130	3057	0	778.0
1963	11	285	47	47	47	238	0	0.05	6	140	0	130	2958	0	777.2
1963	12	514	157	157	157	357	0	0.04	5	140	0	130	2970	0	777.3

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Total		14322	8601	4598	1345	12977	0	3.12	493	2000	0				
1964	1	1371	959	398	398	973	0	-0.12	-17	134	0	138	3251	0	779.4
1964	2	1234	779	761	761	473	0	0.11	16	120	0	158	3876	0	783.5
1964	3	2223	1351	940	383	1840	0	0.03	5	136	0	169	4118	0	785.0
1964	4	9222	8368	1125	140	9082	0	-0.01	-2	142	0	169	4118	0	785.0
1964	5	1846	586	404	213	1633	0	0.34	57	156	0	169	4118	0	785.0
1964	6	426	36	36	36	390	0	0.50	82	182	0	158	3890	0	783.6
1964	7	293	223	99	99	194	0	0.81	124	246	0	148	3619	0	781.9
1964	8	349	232	232	232	117	0	0.59	88	246	0	148	3517	0	781.2
1964	9	4952	4801	986	820	4132	0	0.19	31	188	0	169	4118	0	785.0
1964	10	515	279	279	210	305	0	0.24	40	170	0	169	4118	0	785.0
1964	11	9399	9054	1262	134	9265	0	-0.03	-6	140	0	169	4118	0	785.0
1964	12	862	505	505	165	697	0	0.15	25	140	0	169	4118	0	785.0
Total		32692	27172	7027	3591	29101	0	2.79	443	2000	0				
1965	1	2659	2247	916	121	2538	0	-0.07	-13	134	0	169	4118	0	785.0
1965	2	10715	10277	2230	94	10621	0	-0.15	-26	120	0	169	4118	0	785.0
1965	3	2437	1551	1551	177	2260	0	0.24	41	136	0	169	4118	0	785.0
1965	4	1742	885	785	207	1535	0	0.39	65	142	0	169	4118	0	785.0
1965	5	29529	28019	2003	61	29468	0	-0.56	-95	156	0	169	4118	0	785.0
1965	6	3187	2147	1537	266	2921	0	0.50	84	182	0	169	4118	0	785.0
1965	7	489	156	156	156	333	0	0.74	122	246	0	158	3906	0	783.7
1965	8	114	0	0	0	114	0	0.59	91	246	0	148	3569	0	781.6
1965	9	369	249	206	206	163	0	0.47	69	188	0	148	3518	0	781.2
1965	10	1787	1549	436	436	1351	0	0.13	19	170	0	153	3765	0	782.8
1965	11	786	441	441	441	345	0	0.05	9	140	0	164	4057	0	784.6
1965	12	830	473	473	190	640	0	-0.07	-11	140	0	169	4118	0	785.0
Total		54644	47996	10734	2355	52289	0	2.25	355	2000	0				
1966	1	869	457	457	139	730	0	0.03	5	134	0	169	4118	0	785.0
1966	2	1490	1051	752	111	1379	0	-0.05	-9	120	0	169	4118	0	785.0
1966	3	1145	282	230	189	956	0	0.31	53	136	0	169	4118	0	785.0
1966	4	9532	8779	572	155	9377	0	0.08	13	142	0	169	4118	0	785.0
1966	5	10179	8547	1342	180	9999	0	0.14	24	156	0	169	4118	0	785.0
1966	6	6065	5070	1040	203	5862	0	0.13	21	182	0	169	4118	0	785.0
1966	7	861	500	492	357	504	0	0.66	111	246	0	169	4118	0	785.0
1966	8	1991	1800	815	278	1713	0	0.19	32	246	0	169	4118	0	785.0
1966	9	1933	1713	880	196	1737	0	0.05	8	188	0	169	4118	0	785.0
1966	10	692	434	434	225	467	0	0.32	55	170	0	169	4118	0	785.0

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1966	11	748	402	402	194	554	0	0.32	54	140	0	169	4118	0	785.0
1966	12	815	458	458	158	657	0	0.11	18	140	0	169	4118	0	785.0
Total		36320	29493	7874	2385	33935	0	2.27	385	2000	0				
1967	1	661	249	249	177	484	0	0.25	43	134	0	169	4118	0	785.0
1967	2	610	171	171	156	454	0	0.22	36	120	0	169	4118	0	785.0
1967	3	750	76	76	76	674	0	0.31	52	136	0	164	4006	0	784.3
1967	4	1241	614	409	290	951	0	0.21	36	142	0	169	4118	0	785.0
1967	5	2291	1474	369	189	2102	0	0.19	33	156	0	169	4118	0	785.0
1967	6	706	336	234	234	472	0	0.42	70	182	0	164	4100	0	784.9
1967	7	5535	5268	734	295	5240	0	0.18	31	246	0	169	4118	0	785.0
1967	8	266	121	121	121	145	0	0.71	115	246	0	158	3878	0	783.5
1967	9	3220	3020	1160	411	2809	0	-0.10	-17	188	0	169	4118	0	785.0
1967	10	897	638	638	203	694	0	0.20	33	170	0	169	4118	0	785.0
1967	11	936	591	591	162	774	0	0.13	22	140	0	169	4118	0	785.0
1967	12	1176	819	819	135	1041	0	-0.03	-5	140	0	169	4118	0	785.0
Total		18289	13378	5571	2449	15840	0	2.70	449	2000	0				
1968	1	19265	18853	2041	74	19191	0	-0.35	-60	134	0	169	4118	0	785.0
1968	2	6218	5763	2876	120	6098	0	0.00	0	120	0	169	4118	0	785.0
1968	3	31194	30308	3074	129	31065	0	-0.04	-7	136	0	169	4118	0	785.0
1968	4	9365	8508	2975	157	9208	0	0.09	15	142	0	169	4118	0	785.0
1968	5	55104	53432	3074	84	55020	0	-0.42	-72	156	0	169	4118	0	785.0
1968	6	6457	5415	2900	240	6217	0	0.35	58	182	0	169	4118	0	785.0
1968	7	8536	8154	2797	309	8227	0	0.37	63	246	0	169	4118	0	785.0
1968	8	6761	6570	1956	330	6431	0	0.50	84	246	0	169	4118	0	785.0
1968	9	1583	1363	1285	247	1336	0	0.35	59	188	0	169	4118	0	785.0
1968	10	971	712	712	230	741	0	0.35	60	170	0	169	4118	0	785.0
1968	11	1407	1062	1062	143	1264	0	0.02	3	140	0	169	4118	0	785.0
1968	12	1392	1036	1036	167	1225	0	0.16	27	140	0	169	4118	0	785.0
Total		148253	141177	25788	2230	146023	0	1.37	230	2000	0				
1969	1	1238	826	826	164	1074	0	0.18	30	134	0	169	4118	0	785.0
1969	2	1297	858	858	125	1172	0	0.03	5	120	0	169	4118	0	785.0
1969	3	4271	3386	1866	110	4161	0	-0.15	-26	136	0	169	4118	0	785.0
1969	4	32669	31812	2772	120	32549	0	-0.13	-22	142	0	169	4118	0	785.0
1969	5	37574	35902	3074	144	37430	0	-0.07	-12	156	0	169	4118	0	785.0
1969	6	6494	5453	2791	262	6232	0	0.47	80	182	0	169	4118	0	785.0
1969	7	1320	939	939	367	953	0	0.72	121	246	0	169	4118	0	785.0

Attachment A: Wheeler Branch Reservoir - Full Demand Operation

Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1969	8	2310	2119	1280	300	2010	0	0.32	54	246	0	169	4118	0	785.0
1969	9	842	621	621	233	609	0	0.26	45	188	0	169	4118	0	785.0
1969	10	6269	6010	1486	143	6126	0	-0.16	-27	170	0	169	4118	0	785.0
1969	11	1622	1277	1277	168	1454	0	0.16	28	140	0	169	4118	0	785.0
1969	12	3784	3427	1819	130	3654	0	-0.06	-10	140	0	169	4118	0	785.0
Total		99690	92630	19609	2266	97424	0	1.57	266	2000	0				
1970	1	4110	3698	2978	145	3965	0	0.07	11	134	0	169	4118	0	785.0
1970	2	9214	8775	2485	90	9124	0	-0.18	-30	120	0	169	4118	0	785.0
1970	3	26894	26009	3074	120	26774	0	-0.09	-16	136	0	169	4118	0	785.0
1970	4	14980	14123	2975	143	14837	0	0.00	1	142	0	169	4118	0	785.0
1970	5	7593	5921	2994	179	7414	0	0.14	23	156	0	169	4118	0	785.0
1970	6	4709	3668	1988	260	4449	0	0.46	78	182	0	169	4118	0	785.0
1970	7	1060	679	679	362	698	0	0.69	116	246	0	169	4118	0	785.0
1970	8	498	307	307	307	191	0	0.67	112	246	0	164	4067	0	784.7
1970	9	2118	1898	985	229	1889	0	-0.06	-10	188	0	169	4118	0	785.0
1970	10	1515	1257	1063	200	1315	0	0.18	30	170	0	169	4118	0	785.0
1970	11	1075	730	730	199	876	0	0.35	59	140	0	169	4118	0	785.0
1970	12	965	609	609	186	779	0	0.27	46	140	0	169	4118	0	785.0
Total		74731	67672	20867	2420	72311	0	2.50	420	2000	0				
1971	1	899	487	487	176	723	0	0.25	42	134	0	169	4118	0	785.0
1971	2	822	383	383	152	670	0	0.19	32	120	0	169	4118	0	785.0
1971	3	773	1	1	1	772	0	0.51	84	136	0	158	3899	0	783.7
1971	4	812	98	98	98	714	0	0.31	48	142	0	158	3807	0	783.1
1971	5	4713	4148	298	298	4415	0	0.14	21	156	0	158	3928	0	783.9
1971	6	903	172	172	172	731	0	0.56	89	182	0	158	3829	0	783.2
1971	7	5585	5480	560	560	5025	0	0.18	28	246	0	164	4115	0	785.0
1971	8	2788	2597	1456	282	2506	0	0.20	33	246	0	169	4118	0	785.0
1971	9	619	400	387	235	384	0	0.28	47	188	0	169	4118	0	785.0
1971	10	12031	11772	1617	91	11940	0	-0.47	-79	170	0	169	4118	0	785.0
1971	11	2017	1671	1530	148	1869	0	0.05	8	140	0	169	4118	0	785.0
1971	12	20842	20485	3028	77	20765	0	-0.37	-63	140	0	169	4118	0	785.0
Total		52804	47696	10017	2290	50514	0	1.81	290	2000	0				
1972	1	4509	4098	3036	148	4361	0	0.08	14	134	0	169	4118	0	785.0
1972	2	2555	2101	2101	157	2398	0	0.22	37	120	0	169	4118	0	785.0
1972	3	1769	883	883	209	1560	0	0.43	73	136	0	169	4118	0	785.0
1972	4	2476	1619	725	176	2300	0	0.20	34	142	0	169	4118	0	785.0

Attachment A: Wheeler Branch Reservoir - Full Demand Operation

Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1972	5	3470	1876	940	159	3311	0	0.02	3	156	0	169	4118	0	785.0
1972	6	1033	237	226	226	807	0	0.53	88	182	0	164	4074	0	784.7
1972	7	4381	4021	694	384	3997	0	0.56	94	246	0	169	4118	0	785.0
1972	8	346	177	168	168	178	0	0.34	56	246	0	164	3984	0	784.2
1972	9	865	698	560	315	550	0	-0.04	-7	188	0	169	4118	0	785.0
1972	10	945	692	543	162	783	0	-0.05	-8	170	0	169	4118	0	785.0
1972	11	1062	717	717	137	925	0	-0.02	-3	140	0	169	4118	0	785.0
1972	12	881	525	525	167	714	0	0.16	27	140	0	169	4118	0	785.0
Total		24292	17642	11118	2408	21884	0	2.44	408	2000	0				
1973	1	1769	1358	1336	109	1660	0	-0.15	-25	134	0	169	4118	0	785.0
1973	2	2566	2127	1861	123	2443	0	0.02	3	120	0	169	4118	0	785.0
1973	3	3259	2373	2030	160	3099	0	0.14	24	136	0	169	4118	0	785.0
1973	4	45220	44363	2439	88	45132	0	-0.32	-54	142	0	169	4118	0	785.0
1973	5	9769	8097	2802	206	9563	0	0.30	50	156	0	169	4118	0	785.0
1973	6	18958	17917	2655	132	18826	0	-0.29	-50	182	0	169	4118	0	785.0
1973	7	6527	6146	2062	252	6275	0	0.04	6	246	0	169	4118	0	785.0
1973	8	1608	1418	1248	348	1260	0	0.60	102	246	0	169	4118	0	785.0
1973	9	912	691	691	216	696	0	0.16	28	188	0	169	4118	0	785.0
1973	10	4269	4010	1496	146	4123	0	-0.14	-24	170	0	169	4118	0	785.0
1973	11	1510	1165	1139	167	1343	0	0.16	27	140	0	169	4118	0	785.0
1973	12	1185	828	828	182	1003	0	0.25	42	140	0	169	4118	0	785.0
Total		97552	90493	20587	2129	95423	0	0.75	129	2000	0				
1974	1	1172	760	760	134	1038	0	0.00	0	134	0	169	4118	0	785.0
1974	2	1023	584	584	162	861	0	0.25	42	120	0	169	4118	0	785.0
1974	3	1054	169	169	169	885	0	0.38	64	136	0	164	4087	0	784.8
1974	4	777	14	14	14	763	0	0.49	79	142	0	158	3880	0	783.6
1974	5	583	0	0	0	583	0	0.31	48	156	0	153	3676	0	782.3
1974	6	92	0	0	0	92	0	0.53	78	182	0	143	3416	0	780.5
1974	7	1	0	0	0	1	0	0.71	98	246	0	134	3072	0	778.1
1974	8	268	210	197	197	71	0	0.18	24	246	0	130	2999	0	777.5
1974	9	1220	1025	770	770	450	0	-0.32	-45	188	0	148	3626	0	781.9
1974	10	7666	7429	1007	633	7033	0	-0.18	-29	170	0	169	4118	0	785.0
1974	11	6393	6048	2896	155	6238	0	0.09	15	140	0	169	4118	0	785.0
1974	12	2282	1925	1925	147	2135	0	0.04	7	140	0	169	4118	0	785.0
Total		22531	18164	8322	2381	20150	0	2.47	381	2000	0				
1975	1	1960	1548	1548	146	1814	0	0.07	12	134	0	169	4118	0	785.0

Attachment A: Wheeler Branch Reservoir - Full Demand Operation

Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1975	2	10961	10522	2777	109	10852	0	-0.07	-11	120	0	169	4118	0	785.0
1975	3	3818	2933	2773	156	3662	0	0.12	20	136	0	169	4118	0	785.0
1975	4	11517	10661	2755	156	11361	0	0.08	14	142	0	169	4118	0	785.0
1975	5	3671	1999	1719	159	3512	0	0.02	3	156	0	169	4118	0	785.0
1975	6	2160	1121	852	255	1905	0	0.43	73	182	0	169	4118	0	785.0
1975	7	621	246	246	246	375	0	0.32	53	246	0	164	4065	0	784.7
1975	8	182	36	36	36	146	0	0.53	83	246	0	153	3772	0	782.9
1975	9	867	729	276	276	591	0	0.29	46	188	0	158	3814	0	783.1
1975	10	118	0	0	0	118	0	0.44	68	170	0	148	3576	0	781.6
1975	11	226	4	4	4	222	0	0.29	43	140	0	143	3397	0	780.4
1975	12	513	159	159	159	354	0	0.07	10	140	0	143	3406	0	780.5
Total		36614	29957	13145	1702	34912	0	2.60	414	2000	0				
1976	1	611	199	199	199	412	0	0.27	38	134	0	143	3433	0	780.6
1976	2	590	136	136	136	454	0	0.32	45	120	0	143	3404	0	780.4
1976	3	724	16	16	16	708	0	0.27	38	136	0	138	3246	0	779.3
1976	4	4303	3482	841	841	3462	0	-0.15	-23	142	0	164	3968	0	784.1
1976	5	13378	12385	561	291	13087	0	-0.09	-15	156	0	169	4118	0	785.0
1976	6	2737	1813	667	248	2489	0	0.39	66	182	0	169	4118	0	785.0
1976	7	3697	3319	826	295	3402	0	0.29	49	246	0	169	4118	0	785.0
1976	8	1142	1037	113	113	1029	0	0.45	73	246	0	158	3912	0	783.8
1976	9	1581	1360	791	420	1161	0	0.16	26	188	0	169	4118	0	785.0
1976	10	2555	2297	830	153	2402	0	-0.10	-17	170	0	169	4118	0	785.0
1976	11	1288	943	943	164	1124	0	0.14	24	140	0	169	4118	0	785.0
1976	12	2252	1895	1497	134	2118	0	-0.03	-6	140	0	169	4118	0	785.0
Total		34858	28882	7420	3010	31848	0	1.91	298	2000	0				
1977	1	1874	1462	1462	131	1743	0	-0.02	-3	134	0	169	4118	0	785.0
1977	2	2942	2504	2250	142	2800	0	0.13	22	120	0	169	4118	0	785.0
1977	3	27498	26612	2202	111	27387	0	-0.15	-25	136	0	169	4118	0	785.0
1977	4	13951	13094	2975	140	13811	0	-0.01	-2	142	0	169	4118	0	785.0
1977	5	15691	14019	3068	175	15516	0	0.11	19	156	0	169	4118	0	785.0
1977	6	2409	1368	1342	264	2145	0	0.49	82	182	0	169	4118	0	785.0
1977	7	498	162	162	162	336	0	0.64	105	246	0	158	3929	0	783.9
1977	8	438	278	278	278	160	0	0.47	74	246	0	158	3887	0	783.6
1977	9	150	36	36	36	114	0	0.61	94	188	0	153	3641	0	782.0
1977	10	81	0	0	0	81	0	0.31	46	170	0	143	3425	0	780.6
1977	11	359	49	49	49	310	0	0.14	19	140	0	138	3315	0	779.8
1977	12	501	144	144	144	357	0	0.30	42	140	0	138	3277	0	779.6
Total		66392	59727	13968	1632	64760	0	3.00	473	2000	0				

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Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1978	1	683	271	271	271	412	0	0.04	6	134	0	143	3408	0	780.5
1978	2	834	396	396	396	438	0	-0.13	-20	120	0	153	3704	0	782.4
1978	3	752	1	1	1	751	0	0.27	40	136	0	148	3529	0	781.3
1978	4	630	18	18	18	612	0	0.34	50	142	0	143	3355	0	780.1
1978	5	2441	1669	227	227	2214	0	-0.03	-4	156	0	143	3430	0	780.6
1978	6	132	0	0	0	132	0	0.61	84	182	0	134	3164	0	778.8
1978	7	0	0	0	0	0	0	0.79	102	246	0	125	2816	0	776.1
1978	8	0	0	0	0	0	0	0.54	65	246	0	113	2505	0	773.5
1978	9	201	123	123	123	78	0	0.15	16	188	0	110	2424	0	772.8
1978	10	0	0	0	0	0	0	0.43	45	170	0	103	2209	0	770.8
1978	11	130	14	14	14	116	0	-0.10	-10	140	0	99	2093	0	769.7
1978	12	236	3	3	3	233	0	0.16	15	140	0	96	1941	0	768.2
Total		6039	2494	1053	1053	4986	0	3.06	389	2000	0				
1979	1	1416	1015	432	432	984	0	-0.15	-15	134	0	106	2254	0	771.3
1979	2	588	152	152	152	436	0	-0.07	-7	120	0	106	2293	0	771.6
1979	3	4621	3862	1301	1301	3320	0	-0.21	-27	136	0	148	3485	0	781.0
1979	4	6504	5648	2389	786	5718	0	0.07	11	142	0	169	4118	0	785.0
1979	5	58210	56537	3064	112	58098	0	-0.26	-44	156	0	169	4118	0	785.0
1979	6	3580	2539	1431	220	3360	0	0.22	38	182	0	169	4118	0	785.0
1979	7	1103	722	722	312	791	0	0.39	66	246	0	169	4118	0	785.0
1979	8	1478	1287	737	318	1160	0	0.43	72	246	0	169	4118	0	785.0
1979	9	344	132	132	132	212	0	0.24	39	188	0	164	4023	0	784.4
1979	10	113	4	4	4	109	0	0.31	49	170	0	158	3808	0	783.1
1979	11	260	0	0	0	260	0	0.22	34	140	0	148	3634	0	782.0
1979	12	707	351	351	351	356	0	-0.17	-26	140	0	158	3871	0	783.5
Total		78924	72249	10715	4120	74804	0	1.02	190	2000	0				
1980	1	1015	603	524	388	627	0	0.05	7	134	0	169	4118	0	785.0
1980	2	657	202	202	144	513	0	0.14	24	120	0	169	4118	0	785.0
1980	3	631	53	53	53	578	0	0.24	40	136	0	164	3995	0	784.3
1980	4	1014	251	236	236	778	0	0.21	34	142	0	164	4055	0	784.6
1980	5	6085	4468	1426	191	5894	0	-0.17	-28	156	0	169	4118	0	785.0
1980	6	562	19	19	19	543	0	0.62	101	182	0	158	3854	0	783.4
1980	7	14	0	0	0	14	0	0.88	132	246	0	143	3476	0	780.9
1980	8	2	0	0	0	2	0	0.74	102	246	0	134	3128	0	778.5
1980	9	73	40	40	40	33	0	0.09	11	188	0	130	2969	0	777.3
1980	10	172	107	107	107	65	0	0.41	53	170	0	125	2853	0	776.4
1980	11	102	0	0	0	102	0	0.14	17	140	0	121	2696	0	775.1

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Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1980	12	402	111	111	111	291	0	-0.01	-1	140	0	117	2668	0	774.9
Total		10729	5854	2718	1289	9440	0	3.33	492	2000	0				
1981	1	363	0	0	0	363	0	0.12	14	134	0	113	2520	0	773.6
1981	2	369	3	3	3	366	0	0.10	11	120	0	110	2392	0	772.5
1981	3	820	156	156	156	664	0	0.10	11	136	0	110	2401	0	772.6
1981	4	441	0	0	0	441	0	0.25	27	142	0	106	2232	0	771.1
1981	5	246	6	6	6	240	0	0.16	16	156	0	99	2066	0	769.4
1981	6	2632	1902	811	811	1821	0	0.00	0	182	0	121	2695	0	775.1
1981	7	458	296	285	285	173	0	0.56	67	246	0	117	2667	0	774.9
1981	8	406	349	289	289	117	0	0.48	56	246	0	117	2654	0	774.8
1981	9	133	45	45	45	88	0	0.37	42	188	0	113	2469	0	773.2
1981	10	6344	6156	1220	1220	5124	0	-0.42	-56	170	0	148	3575	0	781.6
1981	11	3605	3260	1176	694	2911	0	0.07	11	140	0	169	4118	0	785.0
1981	12	817	461	461	171	646	0	0.18	31	140	0	169	4118	0	785.0
Total		16634	12634	4452	3680	12954	0	1.97	230	2000	0				
1982	1	857	445	445	150	707	0	0.10	16	134	0	169	4118	0	785.0
1982	2	1157	719	719	116	1041	0	-0.02	-4	120	0	169	4118	0	785.0
1982	3	1757	871	860	154	1603	0	0.11	18	136	0	169	4118	0	785.0
1982	4	1366	509	509	162	1204	0	0.12	20	142	0	169	4118	0	785.0
1982	5	36826	35156	2780	1103	36723	0	-0.32	-53	156	0	169	4118	0	785.0
1982	6	15191	14149	2975	187	15004	0	0.03	5	182	0	169	4118	0	785.0
1982	7	4786	4405	2582	305	4481	0	0.35	59	246	0	169	4118	0	785.0
1982	8	1044	854	854	347	697	0	0.60	101	246	0	169	4118	0	785.0
1982	9	375	155	155	155	220	0	0.55	92	188	0	164	3993	0	784.2
1982	10	368	110	110	110	258	0	0.24	39	170	0	158	3894	0	783.6
1982	11	626	281	281	281	345	0	-0.07	-12	140	0	164	4047	0	784.6
1982	12	815	458	458	214	601	0	0.02	3	140	0	169	4118	0	785.0
Total		65168	58109	12728	2284	62884	0	1.70	284	2000	0				
1983	1	806	394	394	145	661	0	0.06	11	134	0	169	4118	0	785.0
1983	2	672	234	234	142	530	0	0.13	22	120	0	169	4118	0	785.0
1983	3	866	94	94	94	772	0	0.07	12	136	0	164	4064	0	784.7
1983	4	613	0	0	0	613	0	0.40	65	142	0	158	3857	0	783.4
1983	5	1662	543	298	298	1364	0	-0.25	-41	156	0	164	4040	0	784.5
1983	6	1064	300	300	300	764	0	0.40	65	182	0	164	4093	0	784.8
1983	7	103	0	0	0	103	0	0.62	98	246	0	153	3749	0	782.7
1983	8	4	0	0	0	4	0	0.45	67	246	0	143	3436	0	780.7

Attachment A: Wheeler Branch Reservoir - Full Demand Operation

Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1983	9	0	0	0	0	0	0	0.40	56	188	0	134	3192	0	779.0
1983	10	13	3	3	3	10	0	0.27	35	170	0	130	2990	0	777.5
1983	11	66	0	0	0	66	0	0.22	27	140	0	125	2823	0	776.2
1983	12	231	0	0	0	231	0	0.06	7	140	0	117	2676	0	775.0
Total		6100	1569	1323	982	5118	0	2.83	424	2000	0				
1984	1	302	2	2	2	300	0	0.13	15	134	0	113	2529	0	773.7
1984	2	329	2	2	2	327	0	0.17	19	120	0	110	2392	0	772.5
1984	3	2440	1794	491	491	1949	0	-0.14	-16	136	0	121	2763	0	775.7
1984	4	448	0	0	0	448	0	0.47	56	142	0	117	2565	0	774.0
1984	5	349	18	18	18	331	0	0.35	39	156	0	110	2388	0	772.5
1984	6	465	257	197	197	268	0	0.52	57	182	0	110	2346	0	772.1
1984	7	76	36	36	36	40	0	0.57	60	246	0	99	2076	0	769.5
1984	8	0	0	0	0	0	0	0.65	62	246	0	90	1768	0	766.3
1984	9	0	0	0	0	0	0	0.52	45	188	0	81	1535	0	763.6
1984	10	3434	3334	897	897	2537	0	-0.31	-29	170	0	106	2291	0	771.6
1984	11	415	111	111	111	304	0	0.11	12	140	0	106	2250	0	771.2
1984	12	2836	2491	810	810	2026	0	-0.26	-31	140	0	130	2951	0	777.2
Total		11094	8046	2564	2564	8530	0	2.79	289	2000	0				
1985	1	2896	2484	1361	1320	1576	0	0.13	19	134	0	169	4118	0	785.0
1985	2	1209	771	728	121	1088	0	0.01	1	120	0	169	4118	0	785.0
1985	3	1904	1018	860	157	1747	0	0.12	21	136	0	169	4118	0	785.0
1985	4	8071	7242	404	158	7913	0	0.10	16	142	0	169	4118	0	785.0
1985	5	3447	1829	1367	203	3244	0	0.28	47	156	0	169	4118	0	785.0
1985	6	2770	1919	525	253	2517	0	0.42	71	182	0	169	4118	0	785.0
1985	7	1018	741	358	338	680	0	0.54	92	246	0	169	4118	0	785.0
1985	8	24	0	0	0	24	0	0.71	114	246	0	153	3758	0	782.8
1985	9	83	39	39	39	44	0	0.42	63	188	0	148	3546	0	781.4
1985	10	865	736	387	387	478	0	-0.10	-14	170	0	153	3777	0	782.9
1985	11	323	24	24	24	299	0	0.06	9	140	0	153	3652	0	782.1
1985	12	439	82	82	82	357	0	0.13	19	140	0	148	3575	0	781.6
Total		23049	16885	6135	3082	19967	0	2.81	458	2000	0				
1986	1	423	12	12	12	411	0	0.25	37	134	0	143	3416	0	780.5
1986	2	1747	1311	462	462	1285	0	0.08	11	120	0	153	3747	0	782.7
1986	3	482	0	0	0	482	0	0.35	53	136	0	148	3558	0	781.5
1986	4	401	0	0	0	401	0	0.32	47	142	0	143	3369	0	780.2
1986	5	4918	3631	877	830	4088	0	-0.48	-75	156	0	169	4118	0	785.0

Attachment A: Wheeler Branch Reservoir - Full Demand Operation

Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1986	6	26816	25774	2392	173	26643	0	-0.05	-9	182	0	169	4118	0	785.0
1986	7	769	399	399	317	452	0	0.42	71	246	0	169	4118	0	785.0
1986	8	261	82	82	82	179	0	0.53	86	246	0	158	3868	0	783.5
1986	9	20049	19829	2124	353	19696	0	-0.52	-85	188	0	169	4118	0	785.0
1986	10	1354	1096	1096	168	1186	0	-0.01	-2	170	0	169	4118	0	785.0
1986	11	1128	783	783	152	976	0	0.07	12	140	0	169	4118	0	785.0
1986	12	1988	1631	1617	118	1870	0	-0.13	-22	140	0	169	4118	0	785.0
Total		60336	54548	9844	2667	57669	0	0.83	124	2000	0				
1987	1	2476	2064	2046	138	2338	0	0.02	4	134	0	169	4118	0	785.0
1987	2	6798	6359	1934	87	6711	0	-0.20	-33	120	0	169	4118	0	785.0
1987	3	8058	7173	3026	173	7885	0	0.22	37	136	0	169	4118	0	785.0
1987	4	2248	1391	1391	218	2030	0	0.45	76	142	0	169	4118	0	785.0
1987	5	14333	12696	1469	78	14255	0	-0.46	-78	156	0	169	4118	0	785.0
1987	6	16034	14993	2882	184	15850	0	0.01	2	182	0	169	4118	0	785.0
1987	7	1746	1365	1365	347	1399	0	0.60	101	246	0	169	4118	0	785.0
1987	8	591	400	400	343	248	0	0.57	97	246	0	169	4118	0	785.0
1987	9	407	186	186	186	221	0	0.29	48	188	0	164	4068	0	784.7
1987	10	290	40	40	40	250	0	0.42	67	170	0	158	3871	0	783.5
1987	11	602	257	257	257	345	0	0.03	6	140	0	164	3982	0	784.2
1987	12	751	395	395	275	476	0	-0.01	-1	140	0	169	4118	0	785.0
Total		54334	47320	15391	2326	52008	0	1.95	326	2000	0				
1988	1	689	277	277	163	526	0	0.17	29	134	0	169	4118	0	785.0
1988	2	635	180	180	152	483	0	0.19	32	120	0	169	4118	0	785.0
1988	3	590	0	0	0	590	0	0.34	56	136	0	158	3926	0	783.8
1988	4	421	0	0	0	421	0	0.37	58	142	0	153	3726	0	782.6
1988	5	214	0	0	0	214	0	0.33	49	156	0	148	3521	0	781.2
1988	6	8191	7487	732	732	7459	0	-0.17	-26	182	0	164	4097	0	784.9
1988	7	488	237	237	237	251	0	0.43	70	246	0	164	4018	0	784.4
1988	8	5	0	0	0	5	0	0.64	102	246	0	153	3670	0	782.2
1988	9	37	22	22	22	15	0	0.10	15	188	0	148	3489	0	781.0
1988	10	191	97	97	97	94	0	0.19	28	170	0	143	3388	0	780.3
1988	11	91	0	0	0	91	0	0.30	42	140	0	138	3206	0	779.1
1988	12	223	0	0	0	223	0	0.07	10	140	0	130	3056	0	778.0
Total		11775	8300	1545	1403	10372	0	2.97	465	2000	0				
1989	1	374	75	75	75	299	0	0.00	1	134	0	130	2996	0	777.5
1989	2	1584	1178	527	527	1057	0	-0.14	-19	120	0	143	3422	0	780.6

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Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1989	3	27234	26519	397	397	26837	0	-0.26	-39	136	0	153	3722	0	782.6
1989	4	11172	10315	2314	574	10598	0	0.22	36	142	0	169	4118	0	785.0
1989	5	48501	46828	2626	79	48422	0	-0.45	-77	156	0	169	4118	0	785.0
1989	6	55189	54148	2941	126	55063	0	-0.33	-56	182	0	169	4118	0	785.0
1989	7	3624	3243	2603	351	3273	0	0.62	105	246	0	169	4118	0	785.0
1989	8	3087	2897	1973	278	2809	0	0.19	32	246	0	169	4118	0	785.0
1989	9	1775	1555	1277	223	1552	0	0.21	35	188	0	169	4118	0	785.0
1989	10	1081	823	823	238	843	0	0.40	68	170	0	169	4118	0	785.0
1989	11	1181	835	835	189	992	0	0.29	49	140	0	169	4118	0	785.0
1989	12	1206	849	849	178	1028	0	0.22	38	140	0	169	4118	0	785.0
Total		156008	149265	17240	3235	152773	0	0.98	173	2000	0				
1990	1	1280	868	868	123	1157	0	-0.07	-11	134	0	169	4118	0	785.0
1990	2	1478	1039	1020	99	1379	0	-0.12	-21	120	0	169	4118	0	785.0
1990	3	7988	7103	1940	108	7880	0	-0.16	-28	136	0	169	4118	0	785.0
1990	4	51294	50437	2757	117	51177	0	-0.15	-25	142	0	169	4118	0	785.0
1990	5	62425	60752	3074	104	62321	0	-0.30	-52	156	0	169	4118	0	785.0
1990	6	9315	8274	2740	250	9065	0	0.40	68	182	0	169	4118	0	785.0
1990	7	2554	2173	2121	320	2234	0	0.44	74	246	0	169	4118	0	785.0
1990	8	4769	4578	2249	269	4500	0	0.14	23	246	0	169	4118	0	785.0
1990	9	1553	1333	1333	229	1324	0	0.24	41	188	0	169	4118	0	785.0
1990	10	908	650	650	197	711	0	0.16	27	170	0	169	4118	0	785.0
1990	11	978	633	633	132	846	0	-0.04	-8	140	0	169	4118	0	785.0
1990	12	1017	660	660	151	866	0	0.07	11	140	0	169	4118	0	785.0
Total		145559	138500	20045	2099	143460	0	0.59	99	2000	0				
1991	1	1793	1381	1380	108	1685	0	-0.15	-26	134	0	169	4118	0	785.0
1991	2	1607	1168	1168	148	1459	0	0.17	28	120	0	169	4118	0	785.0
1991	3	1490	605	605	196	1294	0	0.35	60	136	0	169	4118	0	785.0
1991	4	1479	622	622	164	1315	0	0.13	22	142	0	169	4118	0	785.0
1991	5	3068	1446	1065	157	2911	0	0.01	1	156	0	169	4118	0	785.0
1991	6	5692	4662	1586	194	5498	0	0.07	12	182	0	169	4118	0	785.0
1991	7	607	232	232	232	375	0	0.72	120	246	0	164	3984	0	784.2
1991	8	1711	1521	727	399	1312	0	0.11	19	246	0	169	4118	0	785.0
1991	9	1543	1323	1170	207	1336	0	0.11	19	188	0	169	4118	0	785.0
1991	10	27162	26904	1180	110	27052	0	-0.35	-60	170	0	169	4118	0	785.0
1991	11	13092	12747	2975	168	12924	0	0.16	28	140	0	169	4118	0	785.0
1991	12	88523	88167	3074	19	88504	0	-0.72	-121	140	0	169	4118	0	785.0
Total		147767	140777	15784	2102	145665	0	0.61	102	2000	0				

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Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1992	1	24332	23920	3074	110	24222	0	-0.14	-24	134	0	169	4118	0	785.0
1992	2	55933	55478	2876	77	55856	0	-0.25	-43	120	0	169	4118	0	785.0
1992	3	21794	20909	3074	166	21628	0	0.18	30	136	0	169	4118	0	785.0
1992	4	9331	8474	2975	169	9162	0	0.16	27	142	0	169	4118	0	785.0
1992	5	13567	11894	3059	107	13460	0	-0.29	-49	156	0	169	4118	0	785.0
1992	6	12654	11612	2975	210	12444	0	0.17	28	182	0	169	4118	0	785.0
1992	7	3517	3135	2624	334	3183	0	0.52	88	246	0	169	4118	0	785.0
1992	8	1901	1710	1619	268	1633	0	0.13	22	246	0	169	4118	0	785.0
1992	9	1449	1229	1229	248	1201	0	0.35	60	188	0	169	4118	0	785.0
1992	10	1104	846	846	240	864	0	0.42	70	170	0	169	4118	0	785.0
1992	11	1713	1368	1285	135	1578	0	-0.03	-5	140	0	169	4118	0	785.0
1992	12	4387	4030	1946	121	4266	0	-0.12	-19	140	0	169	4118	0	785.0
Total		151682	144607	27582	2185	149497	0	1.10	185	2000	0				
1993	1	3087	2675	2495	120	2967	0	-0.08	-14	134	0	169	4118	0	785.0
1993	2	9108	8669	2774	106	9002	0	-0.08	-14	120	0	169	4118	0	785.0
1993	3	14059	13173	3074	146	13913	0	0.06	10	136	0	169	4118	0	785.0
1993	4	12315	11458	2975	170	12145	0	0.17	28	142	0	169	4118	0	785.0
1993	5	5531	3859	2310	186	5345	0	0.18	30	156	0	169	4118	0	785.0
1993	6	2719	1678	1610	225	2494	0	0.25	43	182	0	169	4118	0	785.0
1993	7	1767	1385	1385	407	1360	0	0.95	161	246	0	169	4118	0	785.0
1993	8	949	758	758	383	566	0	0.81	137	246	0	169	4118	0	785.0
1993	9	2124	1904	1202	252	1872	0	0.38	64	188	0	169	4118	0	785.0
1993	10	5527	5269	2075	154	5373	0	-0.09	-16	170	0	169	4118	0	785.0
1993	11	1100	755	755	162	938	0	0.13	22	140	0	169	4118	0	785.0
1993	12	1158	801	801	139	1019	0	0.00	-1	140	0	169	4118	0	785.0
Total		59444	52384	22214	2450	56994	0	2.67	450	2000	0				
1994	1	1550	1138	1138	145	1405	0	0.06	11	134	0	169	4118	0	785.0
1994	2	1618	1179	1172	125	1493	0	0.03	5	120	0	169	4118	0	785.0
1994	3	1727	842	842	169	1558	0	0.20	33	136	0	169	4118	0	785.0
1994	4	1893	1036	703	175	1718	0	0.19	33	142	0	169	4118	0	785.0
1994	5	19966	18304	2033	154	19812	0	-0.01	-2	156	0	169	4118	0	785.0
1994	6	2031	1025	910	271	1760	0	0.53	89	182	0	169	4118	0	785.0
1994	7	1053	700	511	346	707	0	0.59	100	246	0	169	4118	0	785.0
1994	8	183	32	32	32	151	0	0.66	107	246	0	158	3797	0	783.0
1994	9	4527	4307	1882	512	4015	0	0.02	3	188	0	169	4118	0	785.0
1994	10	9252	8994	1887	150	9102	0	-0.12	-20	170	0	169	4118	0	785.0
1994	11	11510	11165	2847	121	11389	0	-0.11	-19	140	0	169	4118	0	785.0
1994	12	7851	7495	3074	125	7726	0	-0.09	-15	140	0	169	4118	0	785.0

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Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
Total		63161	56217	17031	2325	60836	0	1.94	325	2000	0				
1995	1	7019	6607	3074	146	6873	0	0.07	12	134	0	169	4118	0	785.0
1995	2	3637	3198	2741	147	3490	0	0.16	27	120	0	169	4118	0	785.0
1995	3	9291	8406	2942	112	9179	0	-0.14	-24	136	0	169	4118	0	785.0
1995	4	8692	7835	2975	164	8528	0	0.13	22	142	0	169	4118	0	785.0
1995	5	19530	17857	3028	143	19387	0	-0.08	-13	156	0	169	4118	0	785.0
1995	6	34058	33017	2975	211	33847	0	0.17	29	182	0	169	4118	0	785.0
1995	7	15683	15301	2421	215	15468	0	-0.18	-31	246	0	169	4118	0	785.0
1995	8	46153	45963	3070	314	45839	0	0.40	68	246	0	169	4118	0	785.0
1995	9	4578	4358	2479	220	4358	0	0.19	32	188	0	169	4118	0	785.0
1995	10	2215	1957	1957	242	1973	0	0.43	72	170	0	169	4118	0	785.0
1995	11	1836	1491	1491	174	1662	0	0.20	34	140	0	169	4118	0	785.0
1995	12	1877	1520	1520	163	1714	0	0.13	23	140	0	169	4118	0	785.0
Total		154569	147510	30673	2251	152318	0	1.49	251	2000	0				
1996	1	1751	1339	1339	166	1585	0	0.19	32	134	0	169	4118	0	785.0
1996	2	1358	903	903	166	1192	0	0.27	46	120	0	169	4118	0	785.0
1996	3	1355	469	469	186	1169	0	0.29	50	136	0	169	4118	0	785.0
1996	4	1499	642	642	189	1310	0	0.28	47	142	0	169	4118	0	785.0
1996	5	930	122	99	99	831	0	0.51	84	156	0	164	3977	0	784.2
1996	6	1905	1173	575	379	1526	0	0.34	56	182	0	169	4118	0	785.0
1996	7	253	36	36	36	217	0	0.48	79	246	0	158	3829	0	783.2
1996	8	4395	4237	1274	485	3910	0	-0.30	-50	246	0	169	4118	0	785.0
1996	9	6485	6264	2156	185	6300	0	-0.01	-3	188	0	169	4118	0	785.0
1996	10	3806	3547	1403	188	3618	0	0.10	18	170	0	169	4118	0	785.0
1996	11	7172	6827	2698	123	7049	0	-0.10	-17	140	0	169	4118	0	785.0
1996	12	5310	4954	3054	174	5136	0	0.20	34	140	0	169	4118	0	785.0
Total		36219	30513	14648	2376	33843	0	2.24	376	2000	0				
1997	1	3010	2598	2598	166	2844	0	0.19	32	134	0	169	4118	0	785.0
1997	2	52567	52128	2314	31	52536	0	-0.53	-89	120	0	169	4118	0	785.0
1997	3	32114	31229	3074	152	31962	0	0.09	16	136	0	169	4118	0	785.0
1997	4	24357	23500	2975	127	24230	0	-0.09	-15	142	0	169	4118	0	785.0
1997	5	30320	28648	3074	180	30140	0	0.14	24	156	0	169	4118	0	785.0
1997	6	16214	15172	2975	201	16013	0	0.11	19	182	0	169	4118	0	785.0
1997	7	6347	5966	2784	335	6012	0	0.53	89	246	0	169	4118	0	785.0
1997	8	2116	1925	1815	329	1787	0	0.49	83	246	0	169	4118	0	785.0
1997	9	988	767	767	275	713	0	0.51	87	188	0	169	4118	0	785.0

Attachment A: Wheeler Branch Reservoir - Full Demand Operation

Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1997	10	1192	934	934	159	1033	0	-0.06	-11	170	0	169	4118	0	785.0
1997	11	1411	1066	1066	158	1253	0	0.11	18	140	0	169	4118	0	785.0
1997	12	1666	1309	1309	110	1556	0	-0.18	-30	140	0	169	4118	0	785.0
Total		172302	165241	25685	2223	170079	0	1.33	223	2000	0				
1998	1	4961	4549	2278	140	4821	0	0.04	6	134	0	169	4118	0	785.0
1998	2	8154	7715	1770	79	8075	0	-0.24	-41	120	0	169	4118	0	785.0
1998	3	41891	41005	3074	112	41779	0	-0.14	-24	136	0	169	4118	0	785.0
1998	4	7119	6262	2975	207	6912	0	0.39	65	142	0	169	4118	0	785.0
1998	5	3969	2296	1857	209	3760	0	0.32	53	156	0	169	4118	0	785.0
1998	6	2525	1483	1303	266	2259	0	0.50	84	182	0	169	4118	0	785.0
1998	7	734	371	371	363	371	0	0.69	117	246	0	169	4118	0	785.0
1998	8	474	287	287	287	187	0	0.47	79	246	0	164	4080	0	784.8
1998	9	669	487	470	285	384	0	0.35	59	188	0	169	4118	0	785.0
1998	10	897	638	638	184	713	0	0.08	14	170	0	169	4118	0	785.0
1998	11	2376	2031	1225	97	2279	0	-0.25	-43	140	0	169	4118	0	785.0
1998	12	1424	1067	1067	139	1285	0	-0.01	-1	140	0	169	4118	0	785.0
Total		75193	68193	17315	2368	72825	0	2.20	368	2000	0				
1999	1	1140	728	713	148	992	0	0.09	14	134	0	169	4118	0	785.0
1999	2	897	458	458	162	735	0	0.25	42	120	0	169	4118	0	785.0
1999	3	1132	264	264	153	979	0	0.10	17	136	0	169	4118	0	785.0
1999	4	901	93	93	93	808	0	0.32	53	142	0	164	4016	0	784.4
1999	5	800	4	4	4	796	0	0.13	21	156	0	158	3843	0	783.3
1999	6	4560	3544	1073	484	4076	0	0.17	27	182	0	169	4118	0	785.0
1999	7	605	327	327	327	278	0	0.59	99	246	0	164	4100	0	784.9
1999	8	1	0	0	0	1	0	0.74	117	246	0	153	3737	0	782.7
1999	9	0	0	0	0	0	0	0.50	75	188	0	143	3474	0	780.9
1999	10	0	0	0	0	0	0	0.28	40	170	0	138	3264	0	779.5
1999	11	121	0	0	0	121	0	0.25	34	140	0	134	3090	0	778.2
1999	12	625	285	285	285	340	0	0.04	5	140	0	138	3230	0	779.2
Total		10782	5703	3217	1656	9126	0	3.46	544	2000	0				
2000	1	636	224	224	224	412	0	0.11	15	134	0	138	3305	0	779.8
2000	2	759	304	304	304	455	0	0.20	28	120	0	143	3461	0	780.8
2000	3	1056	229	229	229	827	0	0.08	12	136	0	148	3542	0	781.4
2000	4	644	25	25	25	619	0	0.30	43	142	0	143	3382	0	780.3
2000	5	306	0	0	0	306	0	0.22	31	156	0	134	3195	0	779.0
2000	6	8290	7340	1515	1058	7232	0	-0.31	-47	182	0	169	4118	0	785.0

Attachment A: Wheeler Branch Reservoir - Full Demand Operation

Year	Month	Paluxy Flow @ Diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
2000	7	244	112	112	112	132	0	0.71	116	246	0	158	3868	0	783.5
2000	8	0	0	0	0	0	0	0.78	120	246	0	148	3502	0	781.1
2000	9	0	0	0	0	0	0	0.52	74	188	0	138	3240	0	779.3
2000	10	448	423	240	240	208	0	-0.06	-8	170	0	138	3318	0	779.9
2000	11	6254	5909	2263	916	5338	0	-0.16	-24	140	0	169	4118	0	785.0
2000	12	2301	1944	1827	149	2152	0	0.05	9	140	0	169	4118	0	785.0
Total		20938	16511	6739	3257	17681	0	2.45	369	2000	0				
2001	1	6996	6584	2804	123	6873	0	-0.06	-11	134	0	169	4118	0	785.0
2001	2	20668	20230	2777	100	20568	0	-0.12	-20	120	0	169	4118	0	785.0
2001	3	31336	30450	3074	125	31211	0	-0.07	-11	136	0	169	4118	0	785.0
2001	4	7044	6187	2921	191	6853	0	0.29	49	142	0	169	4118	0	785.0
2001	5	3136	1467	1296	198	2938	0	0.25	42	156	0	169	4118	0	785.0
2001	6	1023	130	130	130	893	0	0.50	83	182	0	164	3983	0	784.2
2001	7	264	82	82	82	182	0	0.68	108	246	0	153	3711	0	782.5
2001	8	71	30	30	30	41	0	0.42	63	246	0	143	3432	0	780.6
2001	9	376	184	184	184	192	0	0.06	9	188	0	143	3419	0	780.6
2001	10	176	29	29	29	147	0	0.19	27	170	0	138	3251	0	779.4
2001	11	1068	787	571	571	497	0	-0.04	-6	140	0	153	3688	0	782.3
2001	12	1101	745	742	563	538	0	-0.04	-7	140	0	169	4118	0	785.0
Total		73259	66904	14640	2326	70933	0	2.08	326	2000	0				
2002	1	1202	790	527	142	1060	0	0.05	8	134	0	169	4118	0	785.0
2002	2	2016	1577	1376	134	1882	0	0.08	14	120	0	169	4118	0	785.0
2002	3	11774	10888	1614	128	11646	0	-0.05	-8	136	0	169	4118	0	785.0
Total		14992	13256	3517	404	14588	0	0.08	14	390	0				

Attachment B
Operation Study Files (Provided Electronically)

Attachment C
Wheeler Branch Water Right

12-5744-1

B-12

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

AN ORDER extending the time for the Somervell County Water District to commence and complete construction of two dams and reservoirs on the Paluxy River and Wheeler Branch, tributary of the Paluxy River, tributary of the Brazos River, Brazos River Basin in Somervell County, authorized by Water Use Permit No. 5744.

An application by the Somervell County Water District, applicant, was presented to the Executive Director of the Texas Commission on Environmental Quality for consideration of approval. The applicant requests authorization to extend the time to commence and complete modifications of two dams and reservoirs on the Paluxy River and Wheeler Branch, tributary of the Paluxy River, tributary of the Brazos River, Brazos River Basin in Somervell County, authorized by Water Use Permit No. 5744. The Permit includes a requirement that the construction of the two dams be commenced by December 11, 2004, and be completed by December 11, 2005. Applicant seeks to extend the deadline to commence construction to December 11, 2006, and to complete construction to December 11, 2007.

After considering the application and matters thereto related, the Commission is of the opinion that the application is reasonable and should be granted.

NOW, THEREFORE, BE IT ORDERED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY that the Somervell County Water District shall commence construction by December 11, 2006 and complete construction by December 11, 2007, on two dams and reservoirs on the Paluxy River and Wheeler Branch, tributary of the Paluxy River, tributary of the Brazos River, Brazos River Basin in Somervell County, authorized by Water Use Permit No. 5744.

All other terms and conditions contained in Water Use Permit No. 5744 which are not specifically contrary to the terms of this order shall remain in full force and effect.

TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

For the Commission

DATE ISSUED: FEB 22 2005

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

PERMIT TO
APPROPRIATE STATE WATER

APPLICATION NO. 5744 PERMIT NO. 5744 TYPE: 11.121 & 11.042

Permittee:	Somervell County Water District	Address:	P.O. 1386 Glen Rose, Texas 76043
Filed:	June 27, 2001	Granted:	DEC 11 2002
Purpose:	Municipal, Industrial, Agriculture, and Recreation	County:	Somervell
Watercourse:	Paluxy River, tributary of the Brazos River	Watershed:	Brazos River Basin

WHEREAS, Somervell County Water District, Applicant, seeks authorization to construct and maintain two on-channel dams and reservoirs for recreational and/or multipurpose (municipal, industrial, and agriculture); and

WHEREAS, Reservoir No. 1, Paluxy River Reservoir, located on the on the Paluxy River, tributary of the Brazos River, Brazos River Basin in Somervell County, will have a surface area of approximately 9 acres and impound not to exceed 35.2 acre-feet of water; and

WHEREAS, station 10+00 on the centerpoint of the dam forming Reservoir No. 1 will be located in the City of Glen Rose at 32.239°N Latitude, 97.747°W Longitude, also bearing N 38.920° E, 4,810 feet from the southwest corner of the Milam County School Land Survey, Abstract No. A-136, in Somervell County, Texas; and

WHEREAS, Reservoir No. 2, Wheeler Branch Reservoir, located on Wheeler Branch, tributary of the Paluxy River will have a surface area of approximately 169 acres and impound not to exceed 4,118 acre-feet of water; and

WHEREAS, station 0+00 on the centerline of the dam forming Reservoir No. 2 will be located approximately 2 miles north-northwest of the City of Glen Rose at 32.255° N Latitude, 97.770°W Longitude, also bearing S 86.433° E, 6,066 feet from the northwest corner of the Milam County School Land Survey, Abstract No. A-135, in Somervell County, Texas; and

WHEREAS, Applicant seeks authorization to divert not to exceed 5,000 acre-feet of water per annum from the perimeter of the Reservoir No. 1 on the Paluxy River at a maximum rate of 50 cfs (22,500 gpm) and convey this water by pipeline to Reservoir No. 2 on Wheeler Branch for storage; and

WHEREAS, Applicant also seeks to divert and use, from the 5000 acre-feet of water per annum diverted from Reservoir No. 1 to Reservoir No. 2 and the impoundment of in-flows from the Wheeler Branch watershed, not to exceed 2,000 acre-feet of water per annum, from the perimeter of Reservoir No. 2, at a maximum rate of 11 cfs (4, 937 gpm), for municipal, industrial, and agricultural purposes within the District's service area in the Brazos River Basin; and

WHEREAS, Applicant also seeks authorization to reuse all return flows generated from the use of the water authorized by the permit, if granted, for the purposes authorized within the service area of Somervell County Water District; and

WHEREAS, Applicant also seeks to use the bed and banks of the Brazos River and other streams to deliver the aforesaid water for use downstream; and

WHEREAS, Applicant has the power of eminent domain that will be exercised as necessary to obtain the acreage required for the construction of the proposed reservoirs; and

WHEREAS, the Texas Commission on Environmental Quality finds that jurisdiction over the application is established; and

WHERE the Executive Director has determined that the granting of this application would not be inconsistent with the January 2001 Brazos G Regional Water Plan and the 2002 Water Plan; and

WHEREAS, the Executive Director has determined that certain stream-flow restrictions are required to protect in-stream uses; and

WHEREAS, Applicant has secured an agreement with the Brazos River Authority (BRA) dated October 16, 2000, subordinating BRA's rights under Certificate of Adjudication No. 12-5157 to the exercise of Applicant's rights under this permit, and upon which Applicant has partially relied to calculate a firm yield for its proposed Wheeler Branch Reservoir of 2,000 acre-feet of water per annum; and

WHEREAS, the Executive Director has calculated a firm yield of the proposed Wheeler Branch Reservoir of 1,200 acre-feet of water per annum, but 100% and 75% of the annual demand of 2,000 acre-feet of water from the reservoir on Wheeler Branch would be available 89.7% and 93.1% of the years, respectively, and the monthly demand would be available in 95.3% of the months; and

WHEREAS, because Applicant's proposed reservoir is intended as a multiple purpose reservoir for which Applicant's use is not limited to or by any firm yield, it is unnecessary to resolve the differing views presented regarding the effect of said subordination agreement upon the firm yield of the proposed reservoir; and

WHEREAS, no person protested the issuance of this application; and

WHEREAS, the Commission has complied with the requirements of the Texas Water Code and Rules of the Texas Commission on Environmental Quality in issuing this permit.

NOW, THEREFORE, Water Use Permit No. 5744 is issued to Somervell County Water District, subject to the following terms and conditions:

1. IMPOUNDMENTS

A. Permittee is authorized to construct and maintain an on-channel dam and reservoir, "Paluxy River Reservoir" on the Paluxy River, tributary of the Brazos River, Brazos River Basin, having a surface area of approximately 9 acres and impound therein not to exceed 35.2 acre-feet of water. Station 10+00 on the centerpoint of the dam forming the reservoir will be located in the City of Glen Rose at 32.239°N Latitude, 97.747°W Longitude, also bearing N 38.920° E, 4,810 feet from the southwest corner of the Milam County School Land Survey, Abstract No. A-136, in Somervell County, Texas.

B. Permittee is authorized to construct an on-channel reservoir, Wheeler Branch Reservoir, on Wheeler Branch, tributary of the Paluxy River, tributary of the Brazos River, Brazos River Basin, having a surface area of approximately 169 acres and impound therein not to exceed 4,118 acre-feet of water. Station 0+00 on the centerline of the dam forming the reservoir will be located approximately 2 miles north-northwest of the City of Glen Rose at 32.255° N Latitude, 97.770°W Longitude, also bearing S 86.433° E, 6,066 feet from the northwest corner of the Milam County School Land Survey, Abstract No. A-135, in Somervell County, Texas.

2. USES

A. Permittee is authorized to divert not to exceed 5,000 acre-feet of water per annum at the maximum rate of 50 cfs (22,500 gpm) from the perimeter of the "Paluxy River Reservoir" on the Paluxy River and convey this water by pipeline to the "Wheeler Branch Reservoir" on Wheeler Branch for storage.

B. Permittee is authorized to divert and use, from the perimeter of Reservoir No. 2, not to exceed 2,000 acre-feet of water per annum at a maximum rate of 11 cfs (4, 937 gpm), for municipal, industrial, and agricultural (irrigation) purposes within the District's service area in the Brazos River Basin

C. Permittee is authorized to reuse all return flows generated from the use of the water authorized by the permit for municipal, industrial and irrigation purposes within the service area of Somervell County Water District.

D. Permittee is authorized to use the impounded water in both reservoirs for in-place recreation purposes.

E. Owner is authorized to use the bed and banks of the Brazos River and other streams to deliver the aforesaid water for use downstream.

3. DIVERSION

A. From the perimeter of Reservoir 1, the Paluxy River Reservoir, at the maximum rate of 50 cfs (22,500 gpm).

B. From the perimeter of Reservoir 2, the Wheeler Branch Reservoir, at a maximum rate of 11 cfs (4,937 gpm).

4. TIME PRIORITY

The time priority for the diversion of the impoundment and use of the water authorized by this permit is June 27, 2001.

5. TIME LIMITATIONS

A. Construction of the proposed dams and reservoirs must be in accordance with plans approved by the Executive Director and must begin within two years of issuance of this amendment and be completed within three years of the issuance of this amendment.

B. Failure to commence and/or complete construction of the proposed dams and reservoirs within the period stated above shall cause all authorizations for the reservoir not constructed to expire and become null and void without further Commission consideration unless permittee applies for an extension of time to commence and/or complete construction prior to the deadline for commence and completion, and the application is subsequently granted.

6. SPECIAL CONDITIONS

A. Construction of the proposed dams and reservoirs must be in accordance with plans approved by the Executive Director. Construction of the dam without final approval of the construction plans is a violation of this authorization.

B. In order to provide maintenance flows for existing in-stream uses, Permittee may only divert water from the Paluxy River during times when the stream-flow equals or exceeds the following in cubic-feet-per-second:

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
6.7	7.9	14.4	14.4	27.2	17.5	6.2	3.1	3.7	4.2	5.8	5.8

C. In order to implement the above described diversion strategy, permittee shall install and maintain a reference marker or metering device with an accuracy of +/- 5% immediately downstream of the diversion dam.

7. CONSERVATION

Permittee shall implement a water conservation plan that provides for the utilization of those practices, techniques, and technologies that reduce or maintain the consumption of water, prevent or reduce the loss or waste of water, maintain or improve the efficiency in the use of water, increase the recycling and reuse of water, or prevent the pollution of water, so that a water supply is made available for future or alternative uses. Such plans shall include a requirement that in every wholesale water supply contract entered into or renewed after official adoption of the water conservation plan, including any contract extension, must ensure that each successive wholesale customer develop and implement a water conservation plan or water conservation measures that incorporate elements of Title 30, Texas Administrative Code, Chapter 288.

This permit is issued subject to all superior and senior water right in the Brazos River Basin.

Permittee agrees to be bound by the terms, conditions and provisions contained herein and such agreement is a condition precedent to the granting of this permit.

All other matters requested in the application which are not specifically granted by this permit are denied.

This permit is issued subject to the Rules of the Texas Commission on Environmental Quality and to the right of continuing supervision of State water resources exercised by the Commission.

TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

Margaret Hoffman

For the Commission

ISSUED: DEC 11 2002

Attachment D
Wheeler Branch Operation Study without Luminant Demand

Attachment D: Wheeler Branch Reservoir Operation without Luminant Demand

Wheeler Branch Reservoir

Pump capacity (cfs)	**50**
Yearly Demand (ac-ft)	1435
Initial Content (ac-ft)	4118
Minimum Content (ac-ft)	2245

Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
												169	4118		785.0
1947	6	2888	2120	445	223	2665	0	0.55	92	131	0	169	4118	0	785.0
1947	7	391	73	73	73	318	0	1.00	164	177	0	158	3850	0	783.4
1947	8	357	251	174	174	183	0	0.76	118	177	0	153	3729	0	782.6
1947	9	1558	1373	371	371	1187	0	0.74	115	135	0	158	3850	0	783.4
1947	10	1261	1069	336	336	925	0	0.50	81	122	0	164	3983	0	784.2
1947	11	719	374	374	268	451	0	0.20	33	100	0	169	4118	0	785.0
1947	12	3602	3246	1036	78	3524	0	-0.13	-22	100	0	169	4118	0	785.0
		10776	8505	2809	1523	9253	0	3.62	581	942	0				
1948	1	2160	1748	772	105	2055	0	0.05	9	96	0	169	4118	0	785.0
1948	2	12222	11768	804	68	12154	0	-0.11	-18	86	0	169	4118	0	785.0
1948	3	5118	4233	2135	136	4982	0	0.23	38	98	0	169	4118	0	785.0
1948	4	1319	462	462	173	1146	0	0.42	71	102	0	169	4118	0	785.0
1948	5	6538	5287	745	152	6386	0	0.24	40	112	0	169	4118	0	785.0
1948	6	3846	3155	699	206	3640	0	0.45	75	131	0	169	4118	0	785.0
1948	7	3298	2928	1121	292	3006	0	0.68	115	177	0	169	4118	0	785.0
1948	8	370	222	182	182	188	0	0.80	133	177	0	164	3990	0	784.2
1948	9	1289	1095	323	323	966	0	0.64	104	135	0	164	4074	0	784.7
1948	10	307	80	80	80	227	0	0.57	91	122	0	158	3941	0	783.9
1948	11	491	147	147	147	344	0	0.47	74	100	0	158	3914	0	783.8
1948	12	571	215	215	215	356	0	0.33	54	100	0	164	3975	0	784.1
Total		37529	31338	7685	2079	35450	0	4.76	786	1436	0				
1949	1	1106	694	587	203	903	0	-0.22	-36	96	0	169	4118	0	785.0
1949	2	4663	4225	735	78	4585	0	-0.05	-8	86	0	169	4118	0	785.0
1949	3	6416	5538	1103	113	6303	0	0.09	15	98	0	169	4118	0	785.0
1949	4	9769	8912	1761	110	9659	0	0.04	8	102	0	169	4118	0	785.0
1949	5	76299	74627	2462	111	76188	0	-0.01	-1	112	0	169	4118	0	785.0
1949	6	7614	6573	2726	172	7442	0	0.24	41	131	0	169	4118	0	785.0
1949	7	1606	1225	1216	304	1302	0	0.75	127	177	0	169	4118	0	785.0
1949	8	1145	955	804	293	852	0	0.69	116	177	0	169	4118	0	785.0
1949	9	584	364	364	246	338	0	0.66	111	135	0	169	4118	0	785.0
1949	10	5354	5096	1241	146	5208	0	0.14	24	122	0	169	4118	0	785.0
1949	11	817	472	472	175	642	0	0.44	75	100	0	169	4118	0	785.0
1949	12	1038	681	681	112	926	0	0.07	12	100	0	169	4118	0	785.0

Attachment D: Wheeler Branch Reservoir Operation without Luminant Demand

Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
Total		116411	109361	14152	2063	114348	0	2.86	484	1436	0				
1950	1	2631	2219	1108	72	2559	0	-0.14	-24	96	0	169	4118	0	785.0
1950	2	5513	5074	2439	82	5431	0	-0.02	-4	86	0	169	4118	0	785.0
1950	3	1900	1014	1014	175	1725	0	0.46	77	98	0	169	4118	0	785.0
1950	4	4645	3788	1480	117	4528	0	0.09	15	102	0	169	4118	0	785.0
1950	5	4112	2440	1563	134	3978	0	0.13	22	112	0	169	4118	0	785.0
1950	6	1722	761	675	209	1513	0	0.46	78	131	0	169	4118	0	785.0
1950	7	4042	3661	1528	221	3821	0	0.26	44	177	0	169	4118	0	785.0
1950	8	589	399	399	314	275	0	0.81	137	177	0	169	4118	0	785.0
1950	9	4712	4492	1368	147	4565	0	0.07	12	135	0	169	4118	0	785.0
1950	10	672	414	414	234	438	0	0.66	112	122	0	169	4118	0	785.0
1950	11	658	313	313	200	458	0	0.59	100	100	0	169	4118	0	785.0
1950	12	644	288	288	161	483	0	0.36	61	100	0	169	4118	0	785.0
Total		31840	24861	12589	2066	29774	0	3.72	630	1436	0				
1951	1	557	145	145	132	425	0	0.22	36	96	0	169	4118	0	785.0
1951	2	759	321	321	97	662	0	0.07	11	86	0	169	4118	0	785.0
1951	3	670	1	1	1	669	0	0.32	52	98	0	164	3969	0	784.1
1951	4	726	99	99	99	627	0	0.32	52	102	0	158	3914	0	783.8
1951	5	1820	995	316	316	1504	0	0.05	8	112	0	164	4110	0	785.0
1951	6	9779	8861	1001	143	9636	0	0.03	4	131	0	169	4118	0	785.0
1951	7	367	93	93	93	274	0	0.63	104	177	0	158	3930	0	783.9
1951	8	61	5	5	5	56	0	0.84	129	177	0	148	3629	0	782.0
1951	9	16	0	0	0	16	0	0.71	103	135	0	143	3391	0	780.4
1951	10	51	2	2	2	49	0	0.50	70	122	0	138	3201	0	779.0
1951	11	218	0	0	0	218	0	0.30	41	100	0	130	3060	0	778.0
1951	12	361	14	14	14	347	0	0.27	35	100	0	130	2939	0	777.1
Total		15385	10535	1997	902	14483	0	4.25	645	1436	0				
1952	1	485	73	73	73	412	0	0.19	24	96	0	125	2892	0	776.7
1952	2	455	19	19	19	436	0	0.23	28	86	0	121	2797	0	776.0
1952	3	533	0	0	0	533	0	0.18	21	98	0	117	2678	0	775.0
1952	4	3176	2512	565	565	2611	0	-0.13	-16	102	0	134	3157	0	778.7
1952	5	30153	28824	1321	1079	29074	0	0.04	6	112	0	169	4118	0	785.0
1952	6	975	176	176	176	799	0	0.83	138	131	0	164	4025	0	784.4
1952	7	270	32	32	32	238	0	0.92	146	177	0	153	3734	0	782.6
1952	8	87	28	28	28	59	0	1.24	183	177	0	143	3402	0	780.4
1952	9	17	0	0	0	17	0	0.80	111	135	0	134	3156	0	778.7
1952	10	10	0	0	0	10	0	0.79	103	122	0	130	2931	0	777.0
1952	11	2005	1849	389	389	1616	0	-0.09	-12	100	0	138	3232	0	779.2

Attachment D: Wheeler Branch Reservoir Operation without Luminant Demand

Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1952	12	596	243	243	243	353	0	0.00	0	100	0	143	3375	0	780.2
Total		38762	33758	2846	2604	36158	0	5.01	732	1436	0				
1953	1	507	109	109	109	398	0	0.27	39	96	0	143	3349	0	780.1
1953	2	365	0	0	0	365	0	0.20	29	86	0	138	3234	0	779.3
1953	3	601	70	70	70	531	0	0.13	18	98	0	134	3188	0	778.9
1953	4	1730	1172	497	497	1233	0	0.14	20	102	0	148	3563	0	781.5
1953	5	4340	3379	476	476	3864	0	0.19	29	112	0	158	3898	0	783.7
1953	6	146	0	0	0	146	0	0.95	145	131	0	148	3622	0	781.9
1953	7	867	671	582	582	285	0	0.65	100	177	0	158	3927	0	783.8
1953	8	1654	1486	567	473	1181	0	0.64	105	177	0	169	4118	0	785.0
1953	9	326	237	230	230	96	0	0.73	121	135	0	164	4092	0	784.8
1953	10	1510	1307	611	186	1324	0	0.23	38	122	0	169	4118	0	785.0
1953	11	646	314	253	124	522	0	0.14	24	100	0	169	4118	0	785.0
1953	12	472	115	115	115	357	0	0.25	42	100	0	164	4091	0	784.8
Total		13164	8861	3510	2862	10302	0	4.54	710	1436	0				
1954	1	473	61	61	61	412	0	0.07	11	96	0	164	4045	0	784.6
1954	2	354	2	2	2	352	0	0.34	55	86	0	158	3906	0	783.7
1954	3	477	84	84	84	393	0	0.36	58	98	0	158	3834	0	783.3
1954	4	4415	3800	637	398	4017	0	0.07	12	102	0	169	4118	0	785.0
1954	5	2398	1468	437	143	2255	0	0.18	31	112	0	169	4118	0	785.0
1954	6	2939	2655	280	209	2730	0	0.46	78	131	0	169	4118	0	785.0
1954	7	220	190	99	99	121	0	0.74	122	177	0	158	3918	0	783.8
1954	8	125	91	91	91	34	0	0.89	138	177	0	153	3694	0	782.4
1954	9	5	0	0	0	5	0	0.71	104	135	0	143	3455	0	780.8
1954	10	1324	1241	322	322	1002	0	0.23	34	122	0	148	3621	0	781.9
1954	11	904	594	552	552	352	0	0.13	21	100	0	164	4052	0	784.6
1954	12	431	137	137	137	294	0	0.20	32	100	0	164	4057	0	784.6
Total		14065	10324	2702	2098	11967	0	4.38	696	1436	0				
1955	1	338	9	9	9	329	0	0.07	11	96	0	164	3959	0	784.0
1955	2	551	187	187	187	364	0	0.09	15	86	0	164	4045	0	784.6
1955	3	772	320	253	221	551	0	0.30	50	98	0	169	4118	0	785.0
1955	4	1794	1343	274	149	1645	0	0.28	47	102	0	169	4118	0	785.0
1955	5	38721	37578	1192	105	38616	0	-0.04	-7	112	0	169	4118	0	785.0
1955	6	2394	1495	789	189	2205	0	0.34	58	131	0	169	4118	0	785.0
1955	7	665	404	373	267	398	0	0.53	90	177	0	169	4118	0	785.0
1955	8	203	120	120	120	83	0	0.50	84	177	0	164	3977	0	784.2
1955	9	20758	20642	880	241	20517	0	-0.21	-35	135	0	169	4118	0	785.0

Attachment D: Wheeler Branch Reservoir Operation without Luminant Demand

Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1955	10	1092	834	489	184	908	0	0.37	62	122	0	169	4118	0	785.0
1955	11	266	0	0	0	266	0	0.35	57	100	0	164	3961	0	784.1
1955	12	375	26	26	26	349	0	0.17	28	100	0	158	3859	0	783.4
Total		67929	62958	4592	1698	66231	0	2.75	460	1436	0				
1956	1	425	60	60	60	365	0	0.10	17	96	0	158	3806	0	783.1
1956	2	765	320	320	320	445	0	-0.01	-2	86	0	164	4042	0	784.5
1956	3	374	0	0	0	374	0	0.44	71	98	0	158	3873	0	783.5
1956	4	895	710	325	325	570	0	0.20	32	102	0	164	4064	0	784.7
1956	5	23696	22472	637	216	23480	0	0.30	50	112	0	169	4118	0	785.0
1956	6	259	0	0	0	259	0	0.65	106	131	0	158	3881	0	783.6
1956	7	11	0	0	0	11	0	0.91	139	177	0	148	3565	0	781.5
1956	8	1328	1284	342	342	986	0	0.82	121	177	0	148	3609	0	781.8
1956	9	158	97	97	97	61	0	0.68	98	135	0	143	3473	0	780.9
1956	10	495	420	317	317	178	0	0.19	28	122	0	153	3640	0	782.0
1956	11	359	211	204	204	155	0	0.17	26	100	0	153	3718	0	782.5
1956	12	2472	2245	421	421	2051	0	0.06	9	100	0	164	4030	0	784.5
Total		31237	27820	2723	2302	28935	0	4.50	695	1436	0				
1957	1	395	15	15	15	380	0	0.11	18	96	0	158	3931	0	783.9
1957	2	437	56	56	56	381	0	-0.02	-3	86	0	158	3904	0	783.7
1957	3	1018	461	260	260	758	0	0.11	18	98	0	164	4048	0	784.6
1957	4	40160	39418	1500	57	40103	0	-0.69	-115	102	0	169	4118	0	785.0
1957	5	65954	64282	3074	39	65915	0	-0.43	-73	112	0	169	4118	0	785.0
1957	6	10218	9176	2498	176	10042	0	0.26	45	131	0	169	4118	0	785.0
1957	7	1617	1236	872	294	1323	0	0.69	117	177	0	169	4118	0	785.0
1957	8	346	156	156	156	190	0	0.73	122	177	0	164	3975	0	784.1
1957	9	227	32	32	32	195	0	0.30	49	135	0	158	3823	0	783.2
1957	10	5798	5572	1018	396	5402	0	-0.13	-21	122	0	169	4118	0	785.0
1957	11	8847	8502	2653	62	8785	0	-0.22	-38	100	0	169	4118	0	785.0
1957	12	3486	3130	2776	111	3375	0	0.06	11	100	0	169	4118	0	785.0
Total		138503	132035	14910	1654	136849	0	0.79	130	1436	0				
1958	1	5308	4896	2790	93	5215	0	-0.02	-3	96	0	169	4118	0	785.0
1958	2	3763	3325	2739	90	3673	0	0.02	4	86	0	169	4118	0	785.0
1958	3	7191	6305	3067	95	7096	0	-0.02	-3	98	0	169	4118	0	785.0
1958	4	7360	6503	2776	88	7272	0	-0.08	-14	102	0	169	4118	0	785.0
1958	5	16193	14521	2831	120	16073	0	0.05	8	112	0	169	4118	0	785.0
1958	6	2612	1571	1121	192	2420	0	0.36	61	131	0	169	4118	0	785.0
1958	7	6072	5693	994	268	5804	0	0.54	91	177	0	169	4118	0	785.0

Attachment D: Wheeler Branch Reservoir Operation without Luminant Demand

Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1958	8	340	152	152	152	188	0	0.45	75	177	0	164	4018	0	784.4
1958	9	2160	1957	1094	209	1951	0	-0.16	-26	135	0	169	4118	0	785.0
1958	10	771	513	513	153	618	0	0.18	31	122	0	169	4118	0	785.0
1958	11	734	389	389	117	617	0	0.10	17	100	0	169	4118	0	785.0
1958	12	795	439	439	112	683	0	0.07	12	100	0	169	4118	0	785.0
Total		53299	46264	18905	1689	51610	0	1.49	253	1436	0				
1959	1	694	282	282	124	570	0	0.17	28	96	0	169	4118	0	785.0
1959	2	676	237	237	90	586	0	0.02	4	86	0	169	4118	0	785.0
1959	3	523	0	0	0	523	0	0.45	74	98	0	158	3946	0	784.0
1959	4	3079	2407	511	286	2793	0	0.07	12	102	0	169	4118	0	785.0
1959	5	522	0	0	0	522	0	0.32	54	112	0	164	3952	0	784.0
1959	6	3106	2453	859	286	2820	0	-0.07	-11	131	0	169	4118	0	785.0
1959	7	1613	1279	853	207	1406	0	0.18	30	177	0	169	4118	0	785.0
1959	8	1258	1108	191	191	1067	0	0.51	84	177	0	164	4048	0	784.6
1959	9	552	375	306	263	289	0	0.35	58	135	0	169	4118	0	785.0
1959	10	46374	46116	2890	47	46327	0	-0.45	-75	122	0	169	4118	0	785.0
1959	11	3252	2907	2092	130	3122	0	0.18	30	100	0	169	4118	0	785.0
1959	12	3802	3446	2265	89	3713	0	-0.06	-11	100	0	169	4118	0	785.0
Total		65451	60609	10486	1713	63738	0	1.67	277	1436	0				
1960	1	15571	15159	3074	72	15499	0	-0.14	-24	96	0	169	4118	0	785.0
1960	2	5507	5052	2876	103	5404	0	0.10	17	86	0	169	4118	0	785.0
1960	3	3775	2889	2706	131	3644	0	0.20	33	98	0	169	4118	0	785.0
1960	4	5231	4374	1719	144	5087	0	0.25	42	102	0	169	4118	0	785.0
1960	5	7678	6005	2149	141	7537	0	0.17	29	112	0	169	4118	0	785.0
1960	6	2464	1450	886	199	2265	0	0.41	68	131	0	169	4118	0	785.0
1960	7	1989	1608	893	254	1735	0	0.46	77	177	0	169	4118	0	785.0
1960	8	595	405	405	255	340	0	0.46	78	177	0	169	4118	0	785.0
1960	9	267	80	80	80	187	0	0.45	75	135	0	164	3988	0	784.2
1960	10	634	375	371	292	342	0	0.24	40	122	0	169	4118	0	785.0
1960	11	440	97	97	97	343	0	0.26	43	100	0	164	4072	0	784.7
1960	12	901	544	544	97	804	0	-0.29	-49	100	0	169	4118	0	785.0
Total		45052	38040	15800	1865	43187	0	2.56	429	1436	0				
1961	1	13422	13010	2571	26	13396	0	-0.41	-70	96	0	169	4118	0	785.0
1961	2	14044	13606	2777	83	13961	0	-0.02	-3	86	0	169	4118	0	785.0
1961	3	5999	5113	3074	134	5865	0	0.21	36	98	0	169	4118	0	785.0
1961	4	3642	2785	2208	170	3472	0	0.40	68	102	0	169	4118	0	785.0
1961	5	2678	1050	776	152	2526	0	0.24	40	112	0	169	4118	0	785.0

Attachment D: Wheeler Branch Reservoir Operation without Luminant Demand

Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1961	6	6905	5884	1558	93	6812	0	-0.23	-38	131	0	169	4118	0	785.0
1961	7	5091	4710	2120	195	4896	0	0.11	18	177	0	169	4118	0	785.0
1961	8	854	663	663	264	590	0	0.52	87	177	0	169	4118	0	785.0
1961	9	1008	788	611	181	827	0	0.27	46	135	0	169	4118	0	785.0
1961	10	19729	19470	2615	91	19638	0	-0.18	-31	122	0	169	4118	0	785.0
1961	11	3936	3591	2052	102	3834	0	0.01	2	100	0	169	4118	0	785.0
1961	12	3887	3531	2786	111	3776	0	0.06	11	100	0	169	4118	0	785.0
Total		81195	74201	23811	1602	79593	0	0.97	166	1436	0				
1962	1	2395	1983	1983	117	2278	0	0.12	21	96	0	169	4118	0	785.0
1962	2	1712	1273	1273	124	1588	0	0.22	38	86	0	169	4118	0	785.0
1962	3	1685	799	799	137	1548	0	0.23	39	98	0	169	4118	0	785.0
1962	4	2128	1271	1219	105	2023	0	0.02	3	102	0	169	4118	0	785.0
1962	5	1050	76	76	76	974	0	0.41	68	112	0	164	4014	0	784.4
1962	6	1732	918	534	246	1486	0	0.07	11	131	0	169	4118	0	785.0
1962	7	1236	908	617	241	995	0	0.38	64	177	0	169	4118	0	785.0
1962	8	903	750	364	243	660	0	0.39	66	177	0	169	4118	0	785.0
1962	9	938	746	491	119	819	0	-0.10	-16	135	0	169	4118	0	785.0
1962	10	22455	22197	1724	113	22342	0	-0.05	-9	122	0	169	4118	0	785.0
1962	11	2356	2011	1364	104	2252	0	0.02	4	100	0	169	4118	0	785.0
1962	12	2551	2195	2154	118	2433	0	0.10	18	100	0	169	4118	0	785.0
Total		41141	35129	12598	1743	39398	0	1.82	307	1436	0				
1963	1	1650	1238	1238	118	1532	0	0.13	22	96	0	169	4118	0	785.0
1963	2	1207	768	768	115	1092	0	0.17	29	86	0	169	4118	0	785.0
1963	3	1127	242	242	142	985	0	0.26	44	98	0	169	4118	0	785.0
1963	4	2206	1365	428	134	2072	0	0.19	32	102	0	169	4118	0	785.0
1963	5	5116	3778	982	125	4991	0	0.08	13	112	0	169	4118	0	785.0
1963	6	1832	943	671	197	1635	0	0.39	66	131	0	169	4118	0	785.0
1963	7	198	28	28	28	170	0	0.62	102	177	0	158	3867	0	783.5
1963	8	111	37	37	37	74	0	0.57	89	177	0	153	3638	0	782.0
1963	9	46	0	0	0	46	0	0.19	28	135	0	143	3475	0	780.9
1963	10	30	0	0	0	30	0	0.44	62	122	0	138	3291	0	779.7
1963	11	285	47	47	47	238	0	0.05	7	100	0	138	3231	0	779.2
1963	12	514	157	157	157	357	0	0.04	6	100	0	138	3282	0	779.6
Total		14322	8601	4598	1100	13222	0	3.12	500	1436	0				
1964	1	1371	959	398	398	973	0	-0.12	-18	96	0	148	3602	0	781.8
1964	2	1234	779	761	619	615	0	0.11	17	86	0	169	4118	0	785.0
1964	3	2223	1351	940	103	2120	0	0.03	5	98	0	169	4118	0	785.0

Attachment D: Wheeler Branch Reservoir Operation without Luminant Demand

Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1964	4	9222	8368	1125	100	9122	0	-0.01	-2	102	0	169	4118	0	785.0
1964	5	1846	586	404	169	1677	0	0.34	57	112	0	169	4118	0	785.0
1964	6	426	36	36	36	390	0	0.50	82	131	0	158	3941	0	783.9
1964	7	293	223	99	99	194	0	0.81	126	177	0	153	3737	0	782.7
1964	8	349	232	232	232	117	0	0.59	91	177	0	153	3701	0	782.4
1964	9	4952	4801	986	583	4369	0	0.19	31	135	0	169	4118	0	785.0
1964	10	515	279	279	162	353	0	0.24	40	122	0	169	4118	0	785.0
1964	11	9399	9054	1262	94	9305	0	-0.03	-6	100	0	169	4118	0	785.0
1964	12	862	505	505	125	737	0	0.15	25	100	0	169	4118	0	785.0
Total		32692	27172	7027	2720	29972	0	2.79	448	1436	0				
1965	1	2659	2247	916	83	2576	0	-0.07	-13	96	0	169	4118	0	785.0
1965	2	10715	10277	2230	60	10655	0	-0.15	-26	86	0	169	4118	0	785.0
1965	3	2437	1551	1551	139	2298	0	0.24	41	98	0	169	4118	0	785.0
1965	4	1742	885	785	167	1575	0	0.39	65	102	0	169	4118	0	785.0
1965	5	29529	28019	2003	17	29512	0	-0.56	-95	112	0	169	4118	0	785.0
1965	6	3187	2147	1537	215	2972	0	0.50	84	131	0	169	4118	0	785.0
1965	7	489	156	156	156	333	0	0.74	123	177	0	164	3974	0	784.1
1965	8	114	0	0	0	114	0	0.59	94	177	0	153	3703	0	782.4
1965	9	369	249	206	206	163	0	0.47	72	135	0	153	3702	0	782.4
1965	10	1787	1549	436	436	1351	0	0.13	20	122	0	164	3996	0	784.3
1965	11	786	441	441	231	555	0	0.05	9	100	0	169	4118	0	785.0
1965	12	830	473	473	88	742	0	-0.07	-12	100	0	169	4118	0	785.0
Total		54644	47996	10734	1798	52846	0	2.25	362	1436	0				
1966	1	869	457	457	101	768	0	0.03	5	96	0	169	4118	0	785.0
1966	2	1490	1051	752	77	1413	0	-0.05	-9	86	0	169	4118	0	785.0
1966	3	1145	282	230	151	994	0	0.31	53	98	0	169	4118	0	785.0
1966	4	9532	8779	572	115	9417	0	0.08	13	102	0	169	4118	0	785.0
1966	5	10179	8547	1342	136	10043	0	0.14	24	112	0	169	4118	0	785.0
1966	6	6065	5070	1040	152	5913	0	0.13	21	131	0	169	4118	0	785.0
1966	7	861	500	492	288	573	0	0.66	111	177	0	169	4118	0	785.0
1966	8	1991	1800	815	209	1782	0	0.19	32	177	0	169	4118	0	785.0
1966	9	1933	1713	880	143	1790	0	0.05	8	135	0	169	4118	0	785.0
1966	10	692	434	434	177	515	0	0.32	55	122	0	169	4118	0	785.0
1966	11	748	402	402	154	594	0	0.32	54	100	0	169	4118	0	785.0
1966	12	815	458	458	118	697	0	0.11	18	100	0	169	4118	0	785.0
Total		36320	29493	7874	1821	34499	0	2.27	385	1436	0				
1967	1	661	249	249	139	522	0	0.25	43	96	0	169	4118	0	785.0

Attachment D: Wheeler Branch Reservoir Operation without Luminant Demand

Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1967	2	610	171	171	122	488	0	0.22	36	86	0	169	4118	0	785.0
1967	3	750	76	76	76	674	0	0.31	52	98	0	164	4044	0	784.6
1967	4	1241	614	409	212	1029	0	0.21	36	102	0	169	4118	0	785.0
1967	5	2291	1474	369	145	2146	0	0.19	33	112	0	169	4118	0	785.0
1967	6	706	336	234	202	504	0	0.42	71	131	0	169	4118	0	785.0
1967	7	5535	5268	734	208	5327	0	0.18	31	177	0	169	4118	0	785.0
1967	8	266	121	121	121	145	0	0.71	115	177	0	158	3947	0	784.0
1967	9	3220	3020	1160	289	2931	0	-0.10	-17	135	0	169	4118	0	785.0
1967	10	897	638	638	155	742	0	0.20	33	122	0	169	4118	0	785.0
1967	11	936	591	591	122	814	0	0.13	22	100	0	169	4118	0	785.0
1967	12	1176	819	819	95	1081	0	-0.03	-5	100	0	169	4118	0	785.0
Total		18289	13378	5571	1886	16403	0	2.70	450	1436	0				
1968	1	19265	18853	2041	36	19229	0	-0.35	-60	96	0	169	4118	0	785.0
1968	2	6218	5763	2876	86	6132	0	0.00	0	86	0	169	4118	0	785.0
1968	3	31194	30308	3074	91	31103	0	-0.04	-7	98	0	169	4118	0	785.0
1968	4	9365	8508	2975	117	9248	0	0.09	15	102	0	169	4118	0	785.0
1968	5	55104	53432	3074	40	55064	0	-0.42	-72	112	0	169	4118	0	785.0
1968	6	6457	5415	2900	189	6268	0	0.35	58	131	0	169	4118	0	785.0
1968	7	8536	8154	2797	240	8296	0	0.37	63	177	0	169	4118	0	785.0
1968	8	6761	6570	1956	261	6500	0	0.50	84	177	0	169	4118	0	785.0
1968	9	1583	1363	1285	194	1389	0	0.35	59	135	0	169	4118	0	785.0
1968	10	971	712	712	182	789	0	0.35	60	122	0	169	4118	0	785.0
1968	11	1407	1062	1062	103	1304	0	0.02	3	100	0	169	4118	0	785.0
1968	12	1392	1036	1036	127	1265	0	0.16	27	100	0	169	4118	0	785.0
Total		148253	141177	25788	1666	146587	0	1.37	230	1436	0				
1969	1	1238	826	826	126	1112	0	0.18	30	96	0	169	4118	0	785.0
1969	2	1297	858	858	91	1206	0	0.03	5	86	0	169	4118	0	785.0
1969	3	4271	3386	1866	72	4199	0	-0.15	-26	98	0	169	4118	0	785.0
1969	4	32669	31812	2772	80	32589	0	-0.13	-22	102	0	169	4118	0	785.0
1969	5	37574	35902	3074	100	37474	0	-0.07	-12	112	0	169	4118	0	785.0
1969	6	6494	5453	2791	211	6283	0	0.47	80	131	0	169	4118	0	785.0
1969	7	1320	939	939	298	1022	0	0.72	121	177	0	169	4118	0	785.0
1969	8	2310	2119	1280	231	2079	0	0.32	54	177	0	169	4118	0	785.0
1969	9	842	621	621	180	662	0	0.26	45	135	0	169	4118	0	785.0
1969	10	6269	6010	1486	95	6174	0	-0.16	-27	122	0	169	4118	0	785.0
1969	11	1622	1277	1277	128	1494	0	0.16	28	100	0	169	4118	0	785.0
1969	12	3784	3427	1819	90	3694	0	-0.06	-10	100	0	169	4118	0	785.0
Total		99690	92630	19609	1702	97988	0	1.57	266	1436	0				

Attachment D: Wheeler Branch Reservoir Operation without Luminant Demand

Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1970	1	4110	3698	2978	107	4003	0	0.07	11	96	0	169	4118	0	785.0
1970	2	9214	8775	2485	56	9158	0	-0.18	-30	86	0	169	4118	0	785.0
1970	3	26894	26009	3074	82	26812	0	-0.09	-16	98	0	169	4118	0	785.0
1970	4	14980	14123	2975	103	14877	0	0.00	1	102	0	169	4118	0	785.0
1970	5	7593	5921	2994	135	7458	0	0.14	23	112	0	169	4118	0	785.0
1970	6	4709	3668	1988	209	4500	0	0.46	78	131	0	169	4118	0	785.0
1970	7	1060	679	679	293	767	0	0.69	116	177	0	169	4118	0	785.0
1970	8	498	307	307	291	207	0	0.67	114	177	0	169	4118	0	785.0
1970	9	2118	1898	985	125	1993	0	-0.06	-10	135	0	169	4118	0	785.0
1970	10	1515	1257	1063	152	1363	0	0.18	30	122	0	169	4118	0	785.0
1970	11	1075	730	730	159	916	0	0.35	59	100	0	169	4118	0	785.0
1970	12	965	609	609	146	819	0	0.27	46	100	0	169	4118	0	785.0
Total		74731	67672	20867	1858	72873	0	2.50	422	1436	0				
1971	1	899	487	487	138	761	0	0.25	42	96	0	169	4118	0	785.0
1971	2	822	383	383	118	704	0	0.19	32	86	0	169	4118	0	785.0
1971	3	773	1	1	1	772	0	0.51	84	98	0	158	3937	0	783.9
1971	4	812	98	98	98	714	0	0.31	48	102	0	158	3885	0	783.6
1971	5	4713	4148	298	298	4415	0	0.14	22	112	0	164	4049	0	784.6
1971	6	903	172	172	172	731	0	0.56	92	131	0	164	3998	0	784.3
1971	7	5585	5480	560	326	5259	0	0.18	29	177	0	169	4118	0	785.0
1971	8	2788	2597	1456	211	2577	0	0.20	34	177	0	169	4118	0	785.0
1971	9	619	400	387	182	437	0	0.28	47	135	0	169	4118	0	785.0
1971	10	12031	11772	1617	43	11988	0	-0.47	-79	122	0	169	4118	0	785.0
1971	11	2017	1671	1530	108	1909	0	0.05	8	100	0	169	4118	0	785.0
1971	12	20842	20485	3028	37	20805	0	-0.37	-63	100	0	169	4118	0	785.0
Total		52804	47696	10017	1732	51072	0	1.81	296	1436	0				
1972	1	4509	4098	3036	110	4399	0	0.08	14	96	0	169	4118	0	785.0
1972	2	2555	2101	2101	123	2432	0	0.22	37	86	0	169	4118	0	785.0
1972	3	1769	883	883	171	1598	0	0.43	73	98	0	169	4118	0	785.0
1972	4	2476	1619	725	136	2340	0	0.20	34	102	0	169	4118	0	785.0
1972	5	3470	1876	940	115	3355	0	0.02	3	112	0	169	4118	0	785.0
1972	6	1033	237	226	221	812	0	0.53	90	131	0	169	4118	0	785.0
1972	7	4381	4021	694	272	4109	0	0.56	95	177	0	169	4118	0	785.0
1972	8	346	177	168	168	178	0	0.34	56	177	0	164	4053	0	784.6
1972	9	865	698	560	193	672	0	-0.04	-7	135	0	169	4118	0	785.0
1972	10	945	692	543	114	831	0	-0.05	-8	122	0	169	4118	0	785.0
1972	11	1062	717	717	97	965	0	-0.02	-3	100	0	169	4118	0	785.0
1972	12	881	525	525	127	754	0	0.16	27	100	0	169	4118	0	785.0

Attachment D: Wheeler Branch Reservoir Operation without Luminant Demand

Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
Total		24292	17642	11118	1847	22445	0	2.44	411	1436	0				
1973	1	1769	1358	1336	71	1698	0	-0.15	-25	96	0	169	4118	0	785.0
1973	2	2566	2127	1861	89	2477	0	0.02	3	86	0	169	4118	0	785.0
1973	3	3259	2373	2030	122	3137	0	0.14	24	98	0	169	4118	0	785.0
1973	4	45220	44363	2439	48	45172	0	-0.32	-54	102	0	169	4118	0	785.0
1973	5	9769	8097	2802	162	9607	0	0.30	50	112	0	169	4118	0	785.0
1973	6	18958	17917	2655	81	18877	0	-0.29	-50	131	0	169	4118	0	785.0
1973	7	6527	6146	2062	183	6344	0	0.04	6	177	0	169	4118	0	785.0
1973	8	1608	1418	1248	279	1329	0	0.60	102	177	0	169	4118	0	785.0
1973	9	912	691	691	163	749	0	0.16	28	135	0	169	4118	0	785.0
1973	10	4269	4010	1496	98	4171	0	-0.14	-24	122	0	169	4118	0	785.0
1973	11	1510	1165	1139	127	1383	0	0.16	27	100	0	169	4118	0	785.0
1973	12	1185	828	828	142	1043	0	0.25	42	100	0	169	4118	0	785.0
Total		97552	90493	20587	1565	95987	0	0.75	129	1436	0				
1974	1	1172	760	760	96	1076	0	0.00	0	96	0	169	4118	0	785.0
1974	2	1023	584	584	128	895	0	0.25	42	86	0	169	4118	0	785.0
1974	3	1054	169	169	163	891	0	0.38	65	98	0	169	4118	0	785.0
1974	4	777	14	14	14	763	0	0.49	80	102	0	158	3950	0	784.0
1974	5	583	0	0	0	583	0	0.31	48	112	0	153	3790	0	783.0
1974	6	92	0	0	0	92	0	0.53	80	131	0	148	3579	0	781.6
1974	7	1	0	0	0	1	0	0.71	101	177	0	138	3301	0	779.7
1974	8	268	210	197	197	71	0	0.18	25	177	0	138	3296	0	779.7
1974	9	1220	1025	770	770	450	0	-0.32	-49	135	0	164	3980	0	784.2
1974	10	7666	7429	1007	230	7436	0	-0.18	-30	122	0	169	4118	0	785.0
1974	11	6393	6048	2896	115	6278	0	0.09	15	100	0	169	4118	0	785.0
1974	12	2282	1925	1925	107	2175	0	0.04	7	100	0	169	4118	0	785.0
Total		22531	18164	8322	1820	20711	0	2.47	384	1436	0				
1975	1	1960	1548	1548	108	1852	0	0.07	12	96	0	169	4118	0	785.0
1975	2	10961	10522	2777	75	10886	0	-0.07	-11	86	0	169	4118	0	785.0
1975	3	3818	2933	2773	118	3700	0	0.12	20	98	0	169	4118	0	785.0
1975	4	11517	10661	2755	116	11401	0	0.08	14	102	0	169	4118	0	785.0
1975	5	3671	1999	1719	115	3556	0	0.02	3	112	0	169	4118	0	785.0
1975	6	2160	1121	852	204	1956	0	0.43	73	131	0	169	4118	0	785.0
1975	7	621	246	246	231	390	0	0.32	54	177	0	169	4118	0	785.0
1975	8	182	36	36	36	146	0	0.53	86	177	0	158	3891	0	783.6
1975	9	867	729	276	276	591	0	0.29	47	135	0	164	3985	0	784.2
1975	10	118	0	0	0	118	0	0.44	71	122	0	158	3792	0	783.0
1975	11	226	4	4	4	222	0	0.29	46	100	0	153	3650	0	782.1

Attachment D: Wheeler Branch Reservoir Operation without Luminant Demand

Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1975	12	513	159	159	159	354	0	0.07	10	100	0	153	3699	0	782.4
Total		36614	29957	13145	1442	35172	0	2.60	425	1436	0				
1976	1	611	199	199	199	412	0	0.27	41	96	0	153	3761	0	782.8
1976	2	590	136	136	136	454	0	0.32	49	86	0	153	3762	0	782.8
1976	3	724	16	16	16	708	0	0.27	41	98	0	153	3639	0	782.0
1976	4	4303	3482	841	556	3747	0	-0.15	-25	102	0	169	4118	0	785.0
1976	5	13378	12385	561	97	13281	0	-0.09	-15	112	0	169	4118	0	785.0
1976	6	2737	1813	667	197	2540	0	0.39	66	131	0	169	4118	0	785.0
1976	7	3697	3319	826	226	3471	0	0.29	49	177	0	169	4118	0	785.0
1976	8	1142	1037	113	113	1029	0	0.45	74	177	0	164	3980	0	784.2
1976	9	1581	1360	791	299	1282	0	0.16	26	135	0	169	4118	0	785.0
1976	10	2555	2297	830	105	2450	0	-0.10	-17	122	0	169	4118	0	785.0
1976	11	1288	943	943	124	1164	0	0.14	24	100	0	169	4118	0	785.0
1976	12	2252	1895	1497	94	2158	0	-0.03	-6	100	0	169	4118	0	785.0
Total		34858	28882	7420	2162	32696	0	1.91	307	1436	0				
1977	1	1874	1462	1462	93	1781	0	-0.02	-3	96	0	169	4118	0	785.0
1977	2	2942	2504	2250	108	2834	0	0.13	22	86	0	169	4118	0	785.0
1977	3	27498	26612	2202	73	27425	0	-0.15	-25	98	0	169	4118	0	785.0
1977	4	13951	13094	2975	100	13851	0	-0.01	-2	102	0	169	4118	0	785.0
1977	5	15691	14019	3068	131	15560	0	0.11	19	112	0	169	4118	0	785.0
1977	6	2409	1368	1342	213	2196	0	0.49	82	131	0	169	4118	0	785.0
1977	7	498	162	162	162	336	0	0.64	106	177	0	164	3997	0	784.3
1977	8	438	278	278	278	160	0	0.47	76	177	0	164	4022	0	784.4
1977	9	150	36	36	36	114	0	0.61	98	135	0	158	3825	0	783.2
1977	10	81	0	0	0	81	0	0.31	48	122	0	153	3655	0	782.1
1977	11	359	49	49	49	310	0	0.14	21	100	0	148	3583	0	781.7
1977	12	501	144	144	144	357	0	0.30	45	100	0	148	3582	0	781.6
Total		66392	59727	13968	1387	65005	0	3.00	487	1436	0				
1978	1	683	271	271	271	412	0	0.04	6	96	0	153	3751	0	782.7
1978	2	834	396	396	396	438	0	-0.13	-21	86	0	164	4082	0	784.8
1978	3	752	1	1	1	751	0	0.27	43	98	0	158	3942	0	783.9
1978	4	630	18	18	18	612	0	0.34	55	102	0	158	3803	0	783.1
1978	5	2441	1669	227	227	2214	0	-0.03	-4	112	0	158	3922	0	783.8
1978	6	132	0	0	0	132	0	0.61	94	131	0	153	3697	0	782.4
1978	7	0	0	0	0	0	0	0.79	116	177	0	143	3404	0	780.4
1978	8	0	0	0	0	0	0	0.54	75	177	0	134	3152	0	778.7
1978	9	201	123	123	123	78	0	0.15	20	135	0	134	3120	0	778.4

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Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1978	10	0	0	0	0	0	0	0.43	56	122	0	130	2942	0	777.1
1978	11	130	14	14	14	116	0	-0.10	-13	100	0	125	2869	0	776.5
1978	12	236	3	3	3	233	0	0.16	19	100	0	121	2753	0	775.6
Total		6039	2494	1053	1053	4986	0	3.06	446	1436	0				
1979	1	1416	1015	432	432	984	0	-0.15	-19	96	0	134	3108	0	778.3
1979	2	588	152	152	152	436	0	-0.07	-9	86	0	134	3183	0	778.9
1979	3	4621	3862	1301	1001	3620	0	-0.21	-32	98	0	169	4118	0	785.0
1979	4	6504	5648	2389	114	6390	0	0.07	12	102	0	169	4118	0	785.0
1979	5	58210	56537	3064	68	58142	0	-0.26	-44	112	0	169	4118	0	785.0
1979	6	3580	2539	1431	169	3411	0	0.22	38	131	0	169	4118	0	785.0
1979	7	1103	722	722	243	860	0	0.39	66	177	0	169	4118	0	785.0
1979	8	1478	1287	737	249	1229	0	0.43	72	177	0	169	4118	0	785.0
1979	9	344	132	132	132	212	0	0.24	39	135	0	164	4076	0	784.7
1979	10	113	4	4	4	109	0	0.31	49	122	0	158	3909	0	783.7
1979	11	260	0	0	0	260	0	0.22	35	100	0	153	3774	0	782.9
1979	12	707	351	351	351	356	0	-0.17	-27	100	0	164	4052	0	784.6
Total		78924	72249	10715	2915	76009	0	1.02	180	1436	0				
1980	1	1015	603	524	170	845	0	0.05	8	96	0	169	4118	0	785.0
1980	2	657	202	202	110	547	0	0.14	24	86	0	169	4118	0	785.0
1980	3	631	53	53	53	578	0	0.24	40	98	0	164	4033	0	784.5
1980	4	1014	251	236	222	792	0	0.21	35	102	0	169	4118	0	785.0
1980	5	6085	4468	1426	84	6001	0	-0.17	-28	112	0	169	4118	0	785.0
1980	6	562	19	19	19	543	0	0.62	101	131	0	158	3905	0	783.7
1980	7	14	0	0	0	14	0	0.88	134	177	0	148	3594	0	781.7
1980	8	2	0	0	0	2	0	0.74	106	177	0	138	3311	0	779.8
1980	9	73	40	40	40	33	0	0.09	12	135	0	138	3204	0	779.0
1980	10	172	107	107	107	65	0	0.41	56	122	0	134	3133	0	778.5
1980	11	102	0	0	0	102	0	0.14	19	100	0	130	3014	0	777.6
1980	12	402	111	111	111	291	0	-0.01	-1	100	0	130	3026	0	777.7
Total		10729	5854	2718	916	9813	0	3.33	506	1436	0				
1981	1	363	0	0	0	363	0	0.12	16	96	0	125	2914	0	776.9
1981	2	369	3	3	3	366	0	0.10	12	86	0	125	2819	0	776.1
1981	3	820	156	156	156	664	0	0.10	12	98	0	125	2865	0	776.5
1981	4	441	0	0	0	441	0	0.25	31	102	0	121	2732	0	775.4
1981	5	246	6	6	6	240	0	0.16	19	112	0	117	2607	0	774.4
1981	6	2632	1902	811	811	1821	0	0.00	0	131	0	138	3287	0	779.6
1981	7	458	296	285	285	173	0	0.56	78	177	0	138	3317	0	779.8

Attachment D: Wheeler Branch Reservoir Operation without Luminant Demand

Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1981	8	406	349	289	289	117	0	0.48	68	177	0	143	3361	0	780.2
1981	9	133	45	45	45	88	0	0.37	52	135	0	138	3219	0	779.1
1981	10	6344	6156	1220	956	5388	0	-0.42	-65	122	0	169	4118	0	785.0
1981	11	3605	3260	1176	112	3493	0	0.07	12	100	0	169	4118	0	785.0
1981	12	817	461	461	131	686	0	0.18	31	100	0	169	4118	0	785.0
Total		16634	12634	4452	2794	13840	0	1.97	266	1436	0				
1982	1	857	445	445	112	745	0	0.10	16	96	0	169	4118	0	785.0
1982	2	1157	719	719	82	1075	0	-0.02	-4	86	0	169	4118	0	785.0
1982	3	1757	871	860	116	1641	0	0.11	18	98	0	169	4118	0	785.0
1982	4	1366	509	509	122	1244	0	0.12	20	102	0	169	4118	0	785.0
1982	5	36826	35154	2780	59	36767	0	-0.32	-53	112	0	169	4118	0	785.0
1982	6	15191	14149	2975	136	15055	0	0.03	5	131	0	169	4118	0	785.0
1982	7	4786	4405	2582	236	4550	0	0.35	59	177	0	169	4118	0	785.0
1982	8	1044	854	854	278	766	0	0.60	101	177	0	169	4118	0	785.0
1982	9	375	155	155	155	220	0	0.55	92	135	0	164	4046	0	784.6
1982	10	368	110	110	110	258	0	0.24	40	122	0	164	3994	0	784.3
1982	11	626	281	281	212	414	0	-0.07	-12	100	0	169	4118	0	785.0
1982	12	815	458	458	103	712	0	0.02	3	100	0	169	4118	0	785.0
Total		65168	58109	12728	1721	63447	0	1.70	285	1436	0				
1983	1	806	394	394	107	699	0	0.06	11	96	0	169	4118	0	785.0
1983	2	672	234	234	108	564	0	0.13	22	86	0	169	4118	0	785.0
1983	3	866	94	94	94	772	0	0.07	12	98	0	164	4102	0	784.9
1983	4	613	0	0	0	613	0	0.40	65	102	0	158	3935	0	783.9
1983	5	1662	543	298	254	1408	0	-0.25	-41	112	0	169	4118	0	785.0
1983	6	1064	300	300	198	866	0	0.40	67	131	0	169	4118	0	785.0
1983	7	103	0	0	0	103	0	0.62	101	177	0	158	3840	0	783.3
1983	8	4	0	0	0	4	0	0.45	70	177	0	148	3593	0	781.7
1983	9	0	0	0	0	0	0	0.40	59	135	0	143	3399	0	780.4
1983	10	13	3	3	3	10	0	0.27	38	122	0	138	3242	0	779.3
1983	11	66	0	0	0	66	0	0.22	29	100	0	134	3113	0	778.4
1983	12	231	0	0	0	231	0	0.06	8	100	0	130	3005	0	777.6
Total		6100	1569	1323	764	5336	0	2.83	441	1436	0				
1984	1	302	2	2	2	300	0	0.13	16	96	0	125	2895	0	776.7
1984	2	329	2	2	2	327	0	0.17	21	86	0	121	2790	0	775.9
1984	3	2440	1794	491	491	1949	0	-0.14	-18	98	0	138	3201	0	779.0
1984	4	448	0	0	0	448	0	0.47	63	102	0	130	3036	0	777.8
1984	5	349	18	18	18	331	0	0.35	44	112	0	125	2898	0	776.7

Attachment D: Wheeler Branch Reservoir Operation without Luminant Demand

Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1984	6	465	257	197	197	268	0	0.52	65	131	0	125	2899	0	776.8
1984	7	76	36	36	36	40	0	0.57	70	177	0	121	2688	0	775.1
1984	8	0	0	0	0	0	0	0.65	75	177	0	110	2436	0	772.9
1984	9	0	0	0	0	0	0	0.52	56	135	0	106	2245	0	771.2
1984	10	3434	3334	897	897	2537	0	-0.31	-36	122	0	130	3056	0	778.0
1984	11	415	111	111	111	304	0	0.11	15	100	0	130	3052	0	777.9
1984	12	2836	2491	810	810	2026	0	-0.26	-38	100	0	158	3800	0	783.1
Total		11094	8046	2564	2564	8530	0	2.79	333	1436	0				
1985	1	2896	2484	1361	435	2461	0	0.13	21	96	0	169	4118	0	785.0
1985	2	1209	771	728	87	1122	0	0.01	1	86	0	169	4118	0	785.0
1985	3	1904	1018	860	119	1785	0	0.12	21	98	0	169	4118	0	785.0
1985	4	8071	7242	404	118	7953	0	0.10	16	102	0	169	4118	0	785.0
1985	5	3447	1829	1367	159	3288	0	0.28	47	112	0	169	4118	0	785.0
1985	6	2770	1919	525	202	2568	0	0.42	71	131	0	169	4118	0	785.0
1985	7	1018	741	358	269	749	0	0.54	92	177	0	169	4118	0	785.0
1985	8	24	0	0	0	24	0	0.71	116	177	0	158	3825	0	783.2
1985	9	83	39	39	39	44	0	0.42	65	135	0	153	3664	0	782.2
1985	10	865	736	387	387	478	0	-0.10	-15	122	0	158	3944	0	784.0
1985	11	323	24	24	24	299	0	0.06	10	100	0	158	3858	0	783.4
1985	12	439	82	82	82	357	0	0.13	20	100	0	158	3820	0	783.2
Total		23049	16885	6135	1921	21128	0	2.81	465	1436	0				
1986	1	423	12	12	12	411	0	0.25	39	96	0	153	3697	0	782.4
1986	2	1747	1311	462	462	1285	0	0.08	12	86	0	164	4061	0	784.7
1986	3	482	0	0	0	482	0	0.35	57	98	0	158	3906	0	783.7
1986	4	401	0	0	0	401	0	0.32	50	102	0	153	3754	0	782.8
1986	5	4918	3631	877	398	4520	0	-0.48	-78	112	0	169	4118	0	785.0
1986	6	26816	25774	2392	122	26694	0	-0.05	-9	131	0	169	4118	0	785.0
1986	7	769	399	399	248	521	0	0.42	71	177	0	169	4118	0	785.0
1986	8	261	82	82	82	179	0	0.53	86	177	0	158	3937	0	783.9
1986	9	20049	19829	2124	231	19818	0	-0.52	-85	135	0	169	4118	0	785.0
1986	10	1354	1096	1096	120	1234	0	-0.01	-2	122	0	169	4118	0	785.0
1986	11	1128	783	783	112	1016	0	0.07	12	100	0	169	4118	0	785.0
1986	12	1988	1631	1617	78	1910	0	-0.13	-22	100	0	169	4118	0	785.0
Total		60336	54548	9844	1865	58471	0	0.83	131	1436	0				
1987	1	2476	2064	2046	100	2376	0	0.02	4	96	0	169	4118	0	785.0
1987	2	6798	6359	1934	53	6745	0	-0.20	-33	86	0	169	4118	0	785.0
1987	3	8058	7173	3026	135	7923	0	0.22	37	98	0	169	4118	0	785.0

Attachment D: Wheeler Branch Reservoir Operation without Luminant Demand

Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1987	4	2248	1391	1391	178	2070	0	0.45	76	102	0	169	4118	0	785.0
1987	5	14333	12696	1469	34	14299	0	-0.46	-78	112	0	169	4118	0	785.0
1987	6	16034	14993	2882	133	15901	0	0.01	2	131	0	169	4118	0	785.0
1987	7	1746	1365	1365	278	1468	0	0.60	101	177	0	169	4118	0	785.0
1987	8	591	400	400	274	317	0	0.57	97	177	0	169	4118	0	785.0
1987	9	407	186	186	184	223	0	0.29	49	135	0	169	4118	0	785.0
1987	10	290	40	40	40	250	0	0.42	69	122	0	164	3967	0	784.1
1987	11	602	257	257	257	345	0	0.03	6	100	0	169	4118	0	785.0
1987	12	751	395	395	99	652	0	-0.01	-1	100	0	169	4118	0	785.0
Total		54334	47320	15391	1765	52569	0	1.95	329	1436	0				
1988	1	689	277	277	125	564	0	0.17	29	96	0	169	4118	0	785.0
1988	2	635	180	180	118	517	0	0.19	32	86	0	169	4118	0	785.0
1988	3	590	0	0	0	590	0	0.34	57	98	0	164	3963	0	784.1
1988	4	421	0	0	0	421	0	0.37	60	102	0	158	3801	0	783.1
1988	5	214	0	0	0	214	0	0.33	51	112	0	153	3638	0	782.0
1988	6	8191	7487	732	584	7607	0	-0.17	-27	131	0	169	4118	0	785.0
1988	7	488	237	237	237	251	0	0.43	71	177	0	164	4107	0	784.9
1988	8	5	0	0	0	5	0	0.64	103	177	0	158	3827	0	783.2
1988	9	37	22	22	22	15	0	0.10	15	135	0	153	3699	0	782.4
1988	10	191	97	97	97	94	0	0.19	29	122	0	153	3645	0	782.1
1988	11	91	0	0	0	91	0	0.30	45	100	0	148	3500	0	781.1
1988	12	223	0	0	0	223	0	0.07	11	100	0	143	3389	0	780.3
Total		11775	8300	1545	1183	10592	0	2.97	476	1436	0				
1989	1	374	75	75	75	299	0	0.00	1	96	0	143	3367	0	780.2
1989	2	1584	1178	527	527	1057	0	-0.14	-21	86	0	158	3829	0	783.2
1989	3	27234	26519	397	344	26890	0	-0.26	-43	98	0	169	4118	0	785.0
1989	4	11172	10315	2314	140	11032	0	0.22	38	102	0	169	4118	0	785.0
1989	5	48501	46828	2626	35	48466	0	-0.45	-77	112	0	169	4118	0	785.0
1989	6	55189	54148	2941	75	55114	0	-0.33	-56	131	0	169	4118	0	785.0
1989	7	3624	3243	2603	282	3342	0	0.62	105	177	0	169	4118	0	785.0
1989	8	3087	2897	1973	209	2878	0	0.19	32	177	0	169	4118	0	785.0
1989	9	1775	1555	1277	170	1605	0	0.21	35	135	0	169	4118	0	785.0
1989	10	1081	823	823	190	891	0	0.40	68	122	0	169	4118	0	785.0
1989	11	1181	835	835	149	1032	0	0.29	49	100	0	169	4118	0	785.0
1989	12	1206	849	849	138	1068	0	0.22	38	100	0	169	4118	0	785.0
Total		156008	149265	17240	2334	153674	0	0.98	169	1436	0				
1990	1	1280	868	868	85	1195	0	-0.07	-11	96	0	169	4118	0	785.0

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Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1990	2	1478	1039	1020	65	1413	0	-0.12	-21	86	0	169	4118	0	785.0
1990	3	7988	7103	1940	70	7918	0	-0.16	-28	98	0	169	4118	0	785.0
1990	4	51294	50437	2757	77	51217	0	-0.15	-25	102	0	169	4118	0	785.0
1990	5	62425	60752	3074	60	62365	0	-0.30	-52	112	0	169	4118	0	785.0
1990	6	9315	8274	2740	199	9116	0	0.40	68	131	0	169	4118	0	785.0
1990	7	2554	2173	2121	251	2303	0	0.44	74	177	0	169	4118	0	785.0
1990	8	4769	4578	2249	200	4569	0	0.14	23	177	0	169	4118	0	785.0
1990	9	1553	1333	1333	176	1377	0	0.24	41	135	0	169	4118	0	785.0
1990	10	908	650	650	149	759	0	0.16	27	122	0	169	4118	0	785.0
1990	11	978	633	633	92	886	0	-0.04	-8	100	0	169	4118	0	785.0
1990	12	1017	660	660	111	906	0	0.07	11	100	0	169	4118	0	785.0
Total		145559	138500	20045	1535	144024	0	0.59	99	1436	0				
1991	1	1793	1381	1380	70	1723	0	-0.15	-26	96	0	169	4118	0	785.0
1991	2	1607	1168	1168	114	1493	0	0.17	28	86	0	169	4118	0	785.0
1991	3	1490	605	605	158	1332	0	0.35	60	98	0	169	4118	0	785.0
1991	4	1479	622	622	124	1355	0	0.13	22	102	0	169	4118	0	785.0
1991	5	3068	1446	1065	113	2955	0	0.01	1	112	0	169	4118	0	785.0
1991	6	5692	4662	1586	143	5549	0	0.07	12	131	0	169	4118	0	785.0
1991	7	607	232	232	232	375	0	0.72	120	177	0	164	4053	0	784.6
1991	8	1711	1521	727	261	1450	0	0.11	19	177	0	169	4118	0	785.0
1991	9	1543	1323	1170	154	1389	0	0.11	19	135	0	169	4118	0	785.0
1991	10	27162	26904	1180	62	27100	0	-0.35	-60	122	0	169	4118	0	785.0
1991	11	13092	12747	2975	128	12964	0	0.16	28	100	0	169	4118	0	785.0
1991	12	88523	88167	3074	0	88523	0	-0.72	-121	100	21	169	4118	0	785.0
Total		147767	140777	15784	1559	146208	0	0.61	102	1436	21				
1992	1	24332	23920	3074	72	24260	0	-0.14	-24	96	0	169	4118	0	785.0
1992	2	55933	55478	2876	43	55890	0	-0.25	-43	86	0	169	4118	0	785.0
1992	3	21794	20909	3074	128	21666	0	0.18	30	98	0	169	4118	0	785.0
1992	4	9331	8474	2975	129	9202	0	0.16	27	102	0	169	4118	0	785.0
1992	5	13567	11894	3059	63	13504	0	-0.29	-49	112	0	169	4118	0	785.0
1992	6	12654	11612	2975	159	12495	0	0.17	28	131	0	169	4118	0	785.0
1992	7	3517	3135	2624	265	3252	0	0.52	88	177	0	169	4118	0	785.0
1992	8	1901	1710	1619	199	1702	0	0.13	22	177	0	169	4118	0	785.0
1992	9	1449	1229	1229	195	1254	0	0.35	60	135	0	169	4118	0	785.0
1992	10	1104	846	846	192	912	0	0.42	70	122	0	169	4118	0	785.0
1992	11	1713	1368	1285	95	1618	0	-0.03	-5	100	0	169	4118	0	785.0
1992	12	4387	4030	1946	81	4306	0	-0.12	-19	100	0	169	4118	0	785.0
Total		151682	144607	27582	1621	150061	0	1.10	185	1436	0				

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Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1993	1	3087	2675	2495	82	3005	0	-0.08	-14	96	0	169	4118	0	785.0
1993	2	9108	8669	2774	72	9036	0	-0.08	-14	86	0	169	4118	0	785.0
1993	3	14059	13173	3074	108	13951	0	0.06	10	98	0	169	4118	0	785.0
1993	4	12315	11458	2975	130	12185	0	0.17	28	102	0	169	4118	0	785.0
1993	5	5531	3859	2310	142	5389	0	0.18	30	112	0	169	4118	0	785.0
1993	6	2719	1678	1610	174	2545	0	0.25	43	131	0	169	4118	0	785.0
1993	7	1767	1385	1385	338	1429	0	0.95	161	177	0	169	4118	0	785.0
1993	8	949	758	758	314	635	0	0.81	137	177	0	169	4118	0	785.0
1993	9	2124	1904	1202	199	1925	0	0.38	64	135	0	169	4118	0	785.0
1993	10	5527	5269	2075	106	5421	0	-0.09	-16	122	0	169	4118	0	785.0
1993	11	1100	755	755	122	978	0	0.13	22	100	0	169	4118	0	785.0
1993	12	1158	801	801	99	1059	0	0.00	-1	100	0	169	4118	0	785.0
Total		59444	52384	22214	1886	57558	0	2.67	450	1436	0				
1994	1	1550	1138	1138	107	1443	0	0.06	11	96	0	169	4118	0	785.0
1994	2	1618	1179	1172	91	1527	0	0.03	5	86	0	169	4118	0	785.0
1994	3	1727	842	842	131	1596	0	0.20	33	98	0	169	4118	0	785.0
1994	4	1893	1036	703	135	1758	0	0.19	33	102	0	169	4118	0	785.0
1994	5	19966	18304	2033	110	19856	0	-0.01	-2	112	0	169	4118	0	785.0
1994	6	2031	1025	910	220	1811	0	0.53	89	131	0	169	4118	0	785.0
1994	7	1053	700	511	277	776	0	0.59	100	177	0	169	4118	0	785.0
1994	8	183	32	32	32	151	0	0.66	107	177	0	158	3866	0	783.5
1994	9	4527	4307	1882	390	4137	0	0.02	3	135	0	169	4118	0	785.0
1994	10	9252	8994	1887	102	9150	0	-0.12	-20	122	0	169	4118	0	785.0
1994	11	11510	11165	2847	81	11429	0	-0.11	-19	100	0	169	4118	0	785.0
1994	12	7851	7495	3074	85	7766	0	-0.09	-15	100	0	169	4118	0	785.0
Total		63161	56217	17031	1761	61400	0	1.94	325	1436	0				
1995	1	7019	6607	3074	108	6911	0	0.07	12	96	0	169	4118	0	785.0
1995	2	3637	3198	2741	113	3524	0	0.16	27	86	0	169	4118	0	785.0
1995	3	9291	8406	2942	74	9217	0	-0.14	-24	98	0	169	4118	0	785.0
1995	4	8692	7835	2975	124	8568	0	0.13	22	102	0	169	4118	0	785.0
1995	5	19530	17857	3028	99	19431	0	-0.08	-13	112	0	169	4118	0	785.0
1995	6	34058	33017	2975	160	33898	0	0.17	29	131	0	169	4118	0	785.0
1995	7	15683	15301	2421	146	15537	0	-0.18	-31	177	0	169	4118	0	785.0
1995	8	46153	45963	3070	245	45908	0	0.40	68	177	0	169	4118	0	785.0
1995	9	4578	4358	2479	167	4411	0	0.19	32	135	0	169	4118	0	785.0
1995	10	2215	1957	1957	194	2021	0	0.43	72	122	0	169	4118	0	785.0
1995	11	1836	1491	1491	134	1702	0	0.20	34	100	0	169	4118	0	785.0
1995	12	1877	1520	1520	123	1754	0	0.13	23	100	0	169	4118	0	785.0

Attachment D: Wheeler Branch Reservoir Operation without Luminant Demand

Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
Total		154569	147510	30673	1687	152882	0	1.49	251	1436	0				
1996	1	1751	1339	1339	128	1623	0	0.19	32	96	0	169	4118	0	785.0
1996	2	1358	903	903	132	1226	0	0.27	46	86	0	169	4118	0	785.0
1996	3	1355	469	469	148	1207	0	0.29	50	98	0	169	4118	0	785.0
1996	4	1499	642	642	149	1350	0	0.28	47	102	0	169	4118	0	785.0
1996	5	930	122	99	99	831	0	0.51	84	112	0	164	4021	0	784.4
1996	6	1905	1173	575	284	1621	0	0.34	56	131	0	169	4118	0	785.0
1996	7	253	36	36	36	217	0	0.48	79	177	0	158	3898	0	783.7
1996	8	4395	4237	1274	347	4048	0	-0.30	-50	177	0	169	4118	0	785.0
1996	9	6485	6264	2156	132	6353	0	-0.01	-3	135	0	169	4118	0	785.0
1996	10	3806	3547	1403	140	3666	0	0.10	18	122	0	169	4118	0	785.0
1996	11	7172	6827	2698	83	7089	0	-0.10	-17	100	0	169	4118	0	785.0
1996	12	5310	4954	3054	134	5176	0	0.20	34	100	0	169	4118	0	785.0
Total		36219	30513	14648	1812	34407	0	2.24	376	1436	0				
1997	1	3010	2598	2598	128	2882	0	0.19	32	96	0	169	4118	0	785.0
1997	2	52567	52128	2314	0	52567	0	-0.53	-89	86	3	169	4118	0	785.0
1997	3	32114	31229	3074	114	32000	0	0.09	16	98	0	169	4118	0	785.0
1997	4	24357	23500	2975	87	24270	0	-0.09	-15	102	0	169	4118	0	785.0
1997	5	30320	28648	3074	136	30184	0	0.14	24	112	0	169	4118	0	785.0
1997	6	16214	15172	2975	150	16064	0	0.11	19	131	0	169	4118	0	785.0
1997	7	6347	5966	2784	266	6081	0	0.53	89	177	0	169	4118	0	785.0
1997	8	2116	1925	1815	260	1856	0	0.49	83	177	0	169	4118	0	785.0
1997	9	988	767	767	222	766	0	0.51	87	135	0	169	4118	0	785.0
1997	10	1192	934	934	111	1081	0	-0.06	-11	122	0	169	4118	0	785.0
1997	11	1411	1066	1066	118	1293	0	0.11	18	100	0	169	4118	0	785.0
1997	12	1666	1309	1309	70	1596	0	-0.18	-30	100	0	169	4118	0	785.0
Total		172302	165241	25685	1662	170640	0	1.33	223	1436	3				
1998	1	4961	4549	2278	102	4859	0	0.04	6	96	0	169	4118	0	785.0
1998	2	8154	7715	1770	45	8109	0	-0.24	-41	86	0	169	4118	0	785.0
1998	3	41891	41005	3074	74	41817	0	-0.14	-24	98	0	169	4118	0	785.0
1998	4	7119	6262	2975	167	6952	0	0.39	65	102	0	169	4118	0	785.0
1998	5	3969	2296	1857	165	3804	0	0.32	53	112	0	169	4118	0	785.0
1998	6	2525	1483	1303	215	2310	0	0.50	84	131	0	169	4118	0	785.0
1998	7	734	371	371	294	440	0	0.69	117	177	0	169	4118	0	785.0
1998	8	474	287	287	257	217	0	0.47	80	177	0	169	4118	0	785.0
1998	9	669	487	470	195	474	0	0.35	60	135	0	169	4118	0	785.0
1998	10	897	638	638	136	761	0	0.08	14	122	0	169	4118	0	785.0
1998	11	2376	2031	1225	57	2319	0	-0.25	-43	100	0	169	4118	0	785.0

Attachment D: Wheeler Branch Reservoir Operation without Luminant Demand

Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
1998	12	1424	1067	1067	99	1325	0	-0.01	-1	100	0	169	4118	0	785.0
Total		75193	68193	17315	1806	73387	0	2.20	370	1436	0				
1999	1	1140	728	713	110	1030	0	0.09	14	96	0	169	4118	0	785.0
1999	2	897	458	458	128	769	0	0.25	42	86	0	169	4118	0	785.0
1999	3	1132	264	264	115	1017	0	0.10	17	98	0	169	4118	0	785.0
1999	4	901	93	93	93	808	0	0.32	53	102	0	164	4056	0	784.6
1999	5	800	4	4	4	796	0	0.13	21	112	0	158	3927	0	783.8
1999	6	4560	3544	1073	349	4211	0	0.17	27	131	0	169	4118	0	785.0
1999	7	605	327	327	277	328	0	0.59	100	177	0	169	4118	0	785.0
1999	8	1	0	0	0	1	0	0.74	121	177	0	158	3820	0	783.2
1999	9	0	0	0	0	0	0	0.50	77	135	0	148	3608	0	781.8
1999	10	0	0	0	0	0	0	0.28	41	122	0	143	3445	0	780.7
1999	11	121	0	0	0	121	0	0.25	35	100	0	138	3310	0	779.8
1999	12	625	285	285	285	340	0	0.04	6	100	0	148	3489	0	781.0
Total		10782	5703	3217	1361	9421	0	3.46	554	1436	0				
2000	1	636	224	224	224	412	0	0.11	17	96	0	148	3600	0	781.8
2000	2	759	304	304	304	455	0	0.20	30	86	0	153	3788	0	783.0
2000	3	1056	229	229	229	827	0	0.08	13	98	0	158	3906	0	783.7
2000	4	644	25	25	25	619	0	0.30	46	102	0	153	3783	0	782.9
2000	5	306	0	0	0	306	0	0.22	34	112	0	153	3637	0	782.0
2000	6	8290	7340	1515	562	7728	0	-0.31	-50	131	0	169	4118	0	785.0
2000	7	244	112	112	112	132	0	0.71	116	177	0	158	3937	0	783.9
2000	8	0	0	0	0	0	0	0.78	122	177	0	153	3638	0	782.0
2000	9	0	0	0	0	0	0	0.52	77	135	0	143	3426	0	780.6
2000	10	448	423	240	240	208	0	-0.06	-8	122	0	148	3552	0	781.5
2000	11	6254	5909	2263	641	5613	0	-0.16	-25	100	0	169	4118	0	785.0
2000	12	2301	1944	1827	109	2192	0	0.05	9	100	0	169	4118	0	785.0
Total		20938	16511	6739	2446	18492	0	2.45	381	1436	0				
2001	1	6996	6584	2804	85	6911	0	-0.06	-11	96	0	169	4118	0	785.0
2001	2	20668	20230	2777	66	20602	0	-0.12	-20	86	0	169	4118	0	785.0
2001	3	31336	30450	3074	87	31249	0	-0.07	-11	98	0	169	4118	0	785.0
2001	4	7044	6187	2921	151	6893	0	0.29	49	102	0	169	4118	0	785.0
2001	5	3136	1467	1296	154	2982	0	0.25	42	112	0	169	4118	0	785.0
2001	6	1023	130	130	130	893	0	0.50	83	131	0	164	4034	0	784.5
2001	7	264	82	82	82	182	0	0.68	110	177	0	158	3829	0	783.2
2001	8	71	30	30	30	41	0	0.42	65	177	0	148	3617	0	781.9
2001	9	376	184	184	184	192	0	0.06	10	135	0	153	3656	0	782.1

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Year	Month	Paluxy Flow @ diversion (acre-ft)	Available Diversion (acre-ft)	Available to Pump (acre-ft)	Pumped Diversion (acre-ft)	Bypass Flow (acre-ft)	Releases (ac-ft)	Evap Rate (ft)	Evap Loss (acre-ft)	Demand (acre-ft)	Spills (acre-ft)	EOM Area (acres)	EOM Content (acre-ft)	Shortage (acre-ft)	Elevation (ft)
2001	10	176	29	29	29	147	0	0.19	29	122	0	148	3534	0	781.3
2001	11	1068	787	571	571	497	0	-0.04	-6	100	0	164	4011	0	784.4
2001	12	1101	745	742	200	901	0	-0.04	-7	100	0	169	4118	0	785.0
Total		73259	66904	14640	1769	71490	0	2.08	333	1436	0				
2002	1	1202	790	527	104	1098	0	0.05	8	96	0	169	4118	0	785.0
2002	2	2016	1577	1376	100	1916	0	0.08	14	86	0	169	4118	0	785.0
2002	3	11774	10888	1614	90	11684	0	-0.05	-8	98	0	169	4118	0	785.0
Total		14992	13256	3517	294	14698	0	0.08	14	280	0				