APPENDIX A

Maps of the Study Area

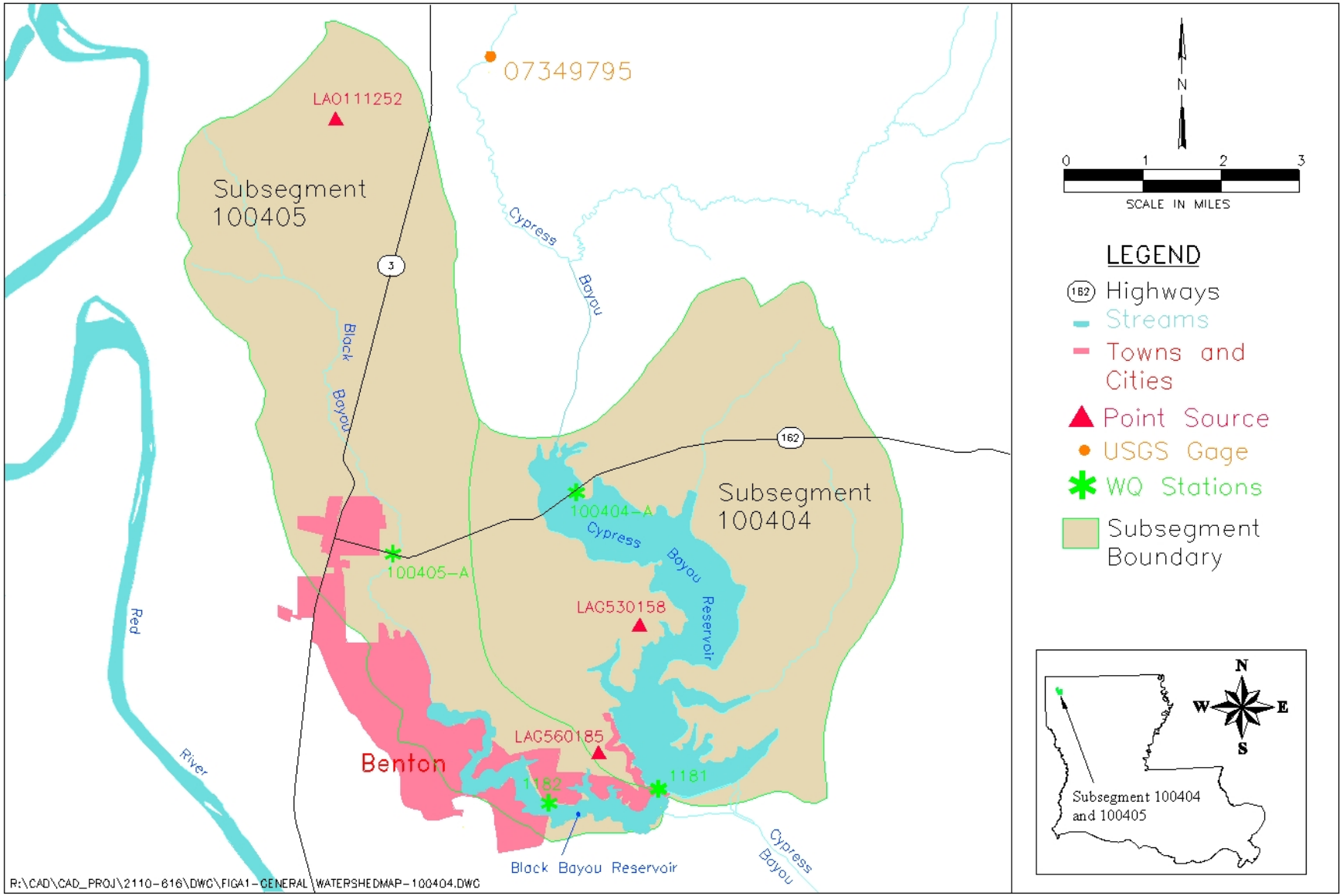

Figure A1. General watershed map of subsegments 100404 and 100405.

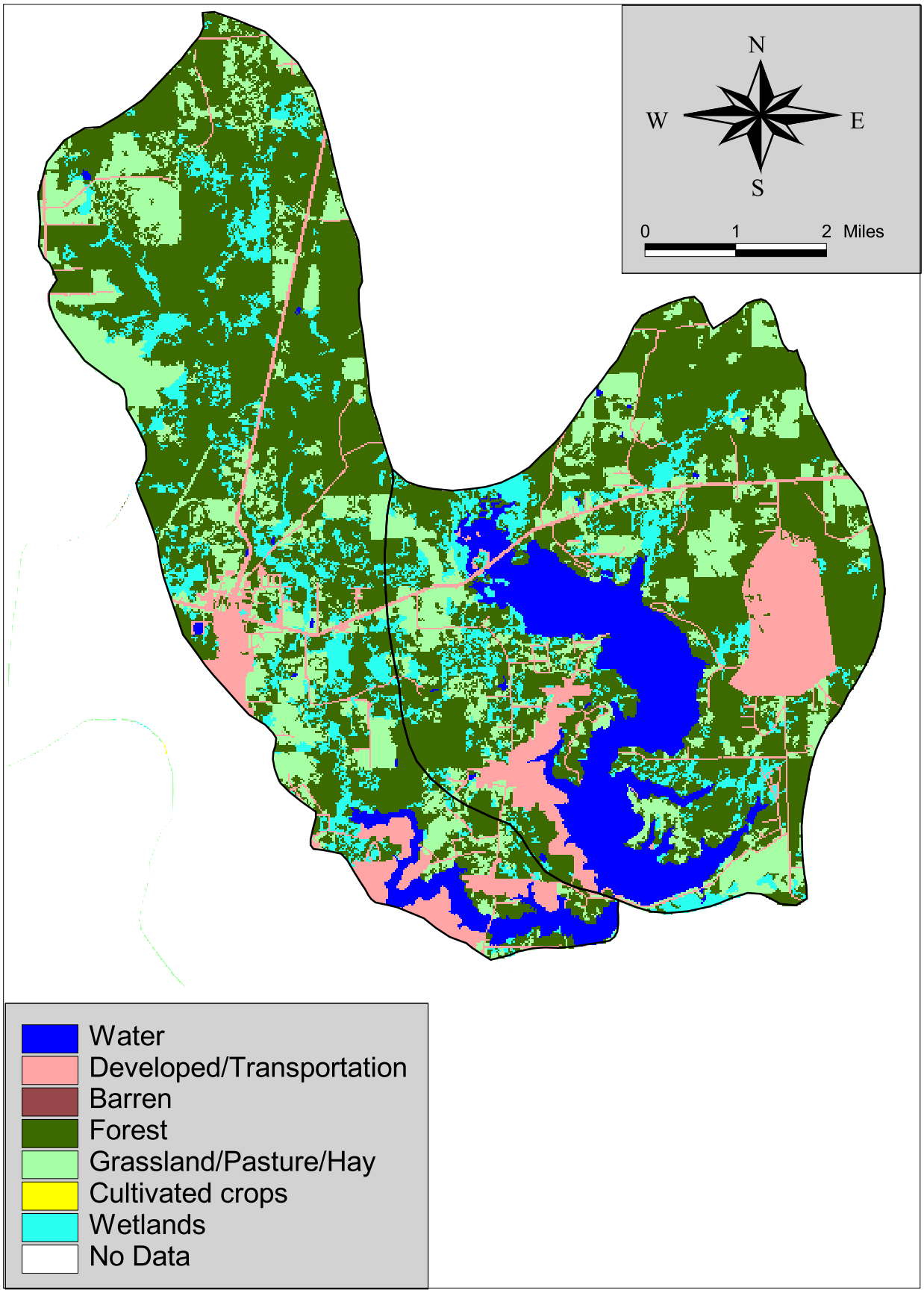

Figure A.2. Land use for subsegments 100404 and 100405.

APPENDIX B

LDEQ Water Quality Data

Table B.1. LDEQ water quality data for station 1181 (Cypress Bayou Reservoir southeast of Benton, Louisiana).

Date	DO (mg/L)
1/7/02	9.62
2/5/02	9.68
3/5/02	9.61
4/2/02	7.29
5/7/02	6.44
6/4/02	4.40
7/16/02	4.40
8/6/02	5.89
9/10/02	4.50
10/8/02	8.15
11/6/02	9.05
12/3/02	9.88
1/30/07	8.92

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Table B.2. Summary of DO data collected at LDEQ Station 1182 (Black Bayou Reservoir at Linton Road, southeast of Benton, Louisiana)

Date	DO (mg/L)
1/7/02	9.95
2/5/02	9.85
3/5/02	9.30
4/2/02	5.99
5/7/02	6.16
6/4/02	6.23
7/16/02	4.34
8/6/02	6.25
9/10/02	4.44
10/8/02	7.82
11/6/02	9.07
12/3/02	9.86

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Table B.3. LDEQ Intensive Survey Data For Subsegments With At Least 70% Forrested.

Subseg #	Sample No.	CBOD decay rate	UCBOD (mg/l)	Initial TOC (mg/l)	NBOD decay rate	UNBOD (mg/l)	Ratio CBODu / TOC
030401	Mill Creek @ Highway 112	0.07	6.49	6.10	0.06	1.20	1.06
	Mill Creek @ iron bridge	0.04	13.22	15.30	0.08	1.84	0.86
	Mill Creek @ Oakdale Road	0.06	5.49	7.80	0.06	0.80	0.70
	Mill Creek @ Tower Road	0.04	16.42	18.00	0.09	2.18	0.91
	Mill Creek Just above the confluence with Calcasieu	0.04	10.37	12.10	0.05	0.64	0.86
030807	BCH1 / Bear Head Creek @ Hwy. 110 SE of Merryville	0.05	15.60	10.80	0.18	1.42	1.44
	BCH2 / Bear Head Creek @ Hwy. 109 SW of Singer	0.04	21.35	15.90	0.06	1.05	1.34
	BCH3 / Bear Head Creek @ Hwy. 389 E of Fields	0.06	18.37	17.90	0.17	1.71	1.03
	BCH4 / Bear Head Creek @ Green Island Rd. N of Starks	0.04	20.43	20.10	0.06	1.61	1.02
	BCH5 / Bear Head Creek @ Hwy. 12 NE of Starks	0.05	21.49	16.40	0.13	1.53	1.31
	BCH6 / Bear Head Creek @ Creek Rd.	0.04	14.90	2.00	0.09	1.29	7.45
081501	CC1 / Castor Creek @ Hwy. 124 above spillway	0.03	9.58	12.10	0.09	0.62	0.79
	CC2 / Castor Creek @ Hwy. 127	0.03	10.13	11.80	0.03	1.17	0.86
	CC3 / Castor Creek @ Hwy. 506	0.03	9.19	14.00	0.15	0.84	0.66
	CC4 / Castor Creek @ Hwy. 126	0.04	14.15	15.30	0.09	1.76	0.92
	CC5 / Castor Creek @ Hwy. 846	0.03	16.37	16.10	0.11	0.92	1.02
	CC6 / Castor Creek @ Hwy. 4	0.07	11.74	14.40	0.17	2.04	0.82
	CC7 / Castor Creek @ Hwy. 34	0.03	14.85	14.70	0.18	0.67	1.01
	CC8 / Castor Creek @ Chatham Cemetery Road	0.04	14.74	14.50	0.04	0.58	1.02
081401	DR10 / Dugdemona River Smurfit-Stone outfall canal sampling sit	0.05	37.90	29.00	0.10	5.87	1.31
	DR12 / Dugdemona River @ LA 4 located W. of Jonesboro	0.03	20.91	26.90	0.06	1.39	0.78
	DR13 / Dugdemona River @ Parish Rd. W of Evergreen Rd. S. of LA	0.03	13.83	22.60	0.05	0.91	0.61
	DR14 / Dugdemona River @ LA 126 located just E of Brewtons Mill	0.03	11.15	21.70	0.09	0.78	0.51
	DR15 / Dugdemona River @ Carter Crossing Rd. located off Hwy. 5	0.03	7.21	15.40	0.03	0.67	0.47
	DR16 / Dugdemona River just past Restriction below Big Creek do	0.03	7.39	14.40	0.04	0.65	0.51
	DR19 / Dugdemona River Cypress Creek in Jackson-Bienville Wildl	0.05	6.59	6.60	0.04	0.89	1.00
	DR32 / Dugdemona River Little Dugdemona River @ Hwy. 167 betwee	0.05	9.07	2.00	0.07	1.33	4.53
	DR41 / Dugdemona River Big Creek @ LA 505 SW of Dodson	0.05	11.13	12.00	0.05	0.96	0.93
	DR5 / Dugdemona River @ Union Church Rd. (Parish Rd. 122)	0.03	6.72	2.00	0.04	0.52	3.36
	DR6 / Dugdemona River located just W. of Quitman	0.04	7.12	8.00	0.04	0.69	0.89
	DR7 / Dugdemona River located just W. of Hodge	0.05	9.32	8.00	0.03	0.87	1.16
	DR9 / Dugdemona River "In canal, upstream of Smurfit-Stone outf"	0.04	135.26	51.30	0.13	29.26	2.64
	DR25 / Dugdemona River Madden Creek/Redwine Creek @ Turner Rd.	0.03	6.72	7.50	0.03	0.85	0.90
081504	FLCR1 / Flat Creek @ Hwy. 147	0.04	15.66	20.30	0.04	3.79	0.77
	FLCR2 / Flat Creek @ Hwy. 127	0.03	14.71	15.70	0.05	1.18	0.94
	FLCR3 / Flat Creek @ confluence with Castor Creek-~ 3 miles	0.05	8.75	12.80	0.09	1.30	0.68
	Count	36	36	36	36	36	36.00
	Min	0.03	5.49	2.00	0.03	0.52	0.47
	Average	0.04	16.51	14.76	0.08	2.11	1.31
	Median	0.04	12.48	14.45	0.06	1.11	0.93
	Max	0.07	135.26	51.30	0.18	29.26	7.45

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APPENDIX C

FTN Field Survey Data

Table C.1. Field data collection sites for FTN Field survey for Red and Sabine basins.

SUBSEG. NUMBER	SITE NO.	SITE NAME	DIRECTIONS	TYPE OF DATA COLLECTED
Red River basin				
100404	100404-A	Cypress Bayou Reservoir at upper end	At LA Hwy 162 bridge east of Benton	In situ
100404	1181	Cypress Bayou Reservoir southeast of Benton, LA	At spillway on Parks Road, 3.1 miles southeast of Benton, 3.5 miles southwest of Bellevue, 9.1 miles north of Bossier	In situ, sample
100405	100405-A	Black Bayou near Benton, LA	At LA Hwy 162 on east edge of Benton	In situ, sample
100405	1182	Black Bayou Reservoir at Linton Road, southeast of Benton, LA	4.4 miles southeast of Benton, 3.2 miles northeast of Dukedale, 4.3 miles southwest of Linton	In situ, sample
100406	363	Flat River Drainage Canal north of Bossier City, LA	At Airline Drive bridge, 4.0 miles south-southeast of Benton, LA	In situ, sample, flow, width
100406	389	Flat River Drainage Canal northeast of Bossier City, LA	At Swan Lake Road bridge 7.5 miles north-northeast of City Hall in Bossier City, LA	In situ, width, flow
100406	390	Flat River Drainage Canal NE of Shreveport	At Deer Point Road bridge 5.75 miles southeast of Benton, LA	In situ, width
100406	272	Flat River east of Taylortown, LA	At State Highway 527 bridge, 13 miles southeast of Shreveport, LA	In situ, flow, width, contin.
100406	100406-A	Flat River east of Poole, LA	At Poole Rd, 3 miles southeast of intersection of Poole Rd and US Hwy 71	In situ, flow, width
100501	100501-A	Bayou Dorcheat south of AR state line	At LA Hwy 157 several miles south of AR state line, east of Springhill, LA	In situ, sample, flow, width
100501	100501-B	Bayou Dorcheat NE of Cotton Valley	At LA Hwy 160 about 4-5 miles northeast of Cotton Valley, LA	In situ, sample, flow, width
100501	61	Bayou Dorcheat west of Minden, LA	At bridge on US Hwy 80, 3.0 miles west of Minden	In situ, flow, width
100501	274	Bayou Dorcheat west of Sibley, LA	At State Highway 164 bridge, 2.0 miles west of Sibley, LA, 6.0 miles southwest of Minden, LA	In situ, flow, width,
100601	100601-A	Wallace Bayou upstream of Bayou Pierre	At White Springs Rd, about 4 miles southwest of Gayles, LA, about 2 miles downstream of Wallace Lake	In situ, sample, flow, width
100601	278	Bayou Pierre near Shreveport, LA	At State Highway 526 bridge, 0.75 mile northeast of Forbing, LA, 8.0 miles south of Shreveport, LA	In situ, sample, flow, width
100601	1183	Bayou Pierre at Ellerbee Road, S of Gayles	3.2 miles south of Gayles, 2.4 miles southwest of Cecile, 5 miles northeast of Frierson	In situ, sample, flow, width
100601	100601-B	Bayou Pierre southwest of Williams, LA	At highway 509, about 4 miles southwest of Williams, LA, about 9 miles south of Caddo/Red River Parish line	In situ, flow, width
100602	100602-A	Boggy Bayou SE of Hicks Crossing, LA	At LA Hwy 169, about 2-3 miles southeast of Hicks Crossing	In situ, sample, flow, width
100602	1207	Boggy Bayou southwest of Shreveport, LA	6.4 miles southwest of Shreveport, 3.1 miles north of Keithville, 2.9 miles southeast of Reservoir	In situ, sample, flow, width
100702	100702-A	Black Lake Bayou west of Mt. Lebanon	At LA Hwy 793 about 5-6 miles west of Mt. Lebanon (in 100701)	In situ, flow, width
100702	100702-B	Leatherman Creek west of Mt. Lebanon	At LA Hwy 793 about 4 miles west of Mt. Lebanon	In situ, sample, flow, width

SUBSEG. NUMBER	SITE NO.	SITE NAME	DIRECTIONS	TYPE OF DATA COLLECTED
100702	282	Black Lake Bayou west of Castor, LA	At LA Highway 4, 2.5 miles west of Castor, LA, 18.5 miles northeast of Coushatta, LA	In situ, sample, flow, width
100702	1187	Black Lake Bayou at Hwy 155, E of Martin	At bridge on State Hwy 155, 3.5 miles east of Martin, 6.2 miles west of Skidder, 5 miles SW of Ashland	In situ, sample, flow, width
100703	100703-A	Black Lake northeast of Campti, LA	On LA Hwy 9 bridge about 6 miles northeast of Campti, LA	In situ, sample
100703	100703-B	Clear Lake outlet northeast of Clarence, LA	At LA Hwy 1226, just downstream of Chivery Dam at outlet of Clear Lake, about 5 miles northeast of Clarence	In situ, sample, flow, width
100803	100803-A	Saline Bayou northeast of Clarence, LA	Access point at end of LA Hwy 1227 at Allen Dam, about 5.5 miles NE of Clarence	In situ, sample, flow, width
100803	1214	Saline Bayou southeast of Clarence, LA	At US Hwy 71, 7 miles east of Natchitoches, 5.1 miles southeast of Clarence, 3.4 miles south of Trichell	In situ, sample, flow, width, contin.
101301	556	Cress Creek west of Oak Grove, LA	At bridge on LA Hwy 8, 2.8 miles W of Oak Grove, 4 miles S of Fairfield, 3.7 miles N of Bagdad	In situ, sample
101301	101301-A	Rigolette Bayou WNW of Bagdad, LA	At LA Hwy 492, about 1 mile WNW of Bagdad, about 7 miles southeast of Colfax	In situ, sample, flow, width
101301	1220	Rigolette Bayou northwest of Pineville, LA	Bridge on Rigolette Rd., 4.8 miles NW of Pineville, 1.6 miles NE of Barrett, 3.9 miles SW of Tio	In situ, sample, flow, width, contin.
101302	101302-A	Iatt Creek near upstream end of Iatt Lake	At LA Hwy 122 about 10 miles east of Montgomery, LA	In situ, sample
101302	570	Beaver Creek south of Faircloth, LA	0.35 miles west of Faircloth, 2 miles northwest of Fairfield, 4.5 miles southwest of Wilhana	In situ, sample
101302	1221	Iatt Lake southwest of Fairfield, LA	Public boat launch near spillway, 4.4 miles southwest Fairfield, 7.1 miles northwest of Oak Grove, 3.7 miles northeast	In situ, sample
101503	371	Saline Bayou east of Alexandria, LA	9.0 miles east of Buckeye, LA, 1.5 mile northeast of Saline Lake, 0.5 mile south of entrance to Bushyhead Bayou	In situ
101503	101503-A	Saline Bayou southeast of Saline Lake	At local road about 1-2 miles southeast of east end of Saline Lake	In situ, sample
101604	1231	Lake Concordia at Ferriday, LA	Sportsman's Marina, 1.7 miles NW of Ridgecrest, 6.8 miles S of Clayton, 16 miles E of Jonesville	In situ, sample
101604	101604-A	Bayou Cocodrie at Ferriday, LA	At US Hwy 65 bridge, about 0.5 miles SW of Lake Concordia	In situ, width, xcs
Sabine River basin				
110401	110401-A	Toro Creek southeast of Florien, LA	At Plainview Road, about 3-4 miles southeast of Florien, LA	In situ, sample, flow, width
110401	1160	Bayou Toro northeast of Toro, LA	At LA Hwy 473, about 2 miles northeast of Toro, LA	In situ, sample, flow, width

Note: "contin." = continuous in situ monitoring

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Table C.2. In situ data for FTN field survey in Red River and Sabine River basins.

Subsegment Number	Site No.	Site Name	Date	Time	Water Temp. (C)	DO (mg/L)	Conductivity (umhos/cm)	pH (su)
100404	1181	Cypress Bayou Reservoir southeast of Benton	09/01/05	10:44	30.8	7.3	54	7.3
	100404-A	Cypress Bayou Reservoir @ Hwy 162	09/01/05	11:20	30.4	6.1	51	7.0
100405	1182	Black Bayou Reservoir @ Linton Rd	09/01/05	10:20	29.8	5.5	75	7.2
	100405-A	Black Bayou @ Hwy 162	09/01/05	11:45	24.9	1.0	440	6.9
100406	272	Flat River @ Hwy 527	09/02/05	08:15	25.5	2.9	811	7.1
	363	Flat River Airline Dr. bridge	09/01/05	09:30	29.3	5.2	90	7.1
	389	Flat River Dr. Canal Swan L. Rd.	09/01/05	07:54	26.9	1.4	336	7.6
	390	Flat River @ Deer Pt. Road	09/01/05	08:40	27.1	0.4	179	7.2
	100406-A	Flat River @ Swan Lake Bridge	08/31/05	19:00	30.6	5.3	888	7.3
100501	61	Bayou Dorcheat @ Hwy 80	09/01/05	18:45	32.6	7.1	127	6.7
	274	Bayou Dorcheat @ Hwy 164	09/02/05	09:40	29.1	6.2	193	7.6
	100501-A	Bayou Dorcheat	09/01/05	14:35	27.1	3.2	418	7.1
	100501-B	Bayou Dorcheat @ Hwy 160	09/01/05	15:55	31.8	5.9	76	7.2
100601	278	Bayou Pierre nr Shreveport	08/31/05	12:20	31.0	6.8	498	7.0
	1183	Bayou Pierre @ Ellerbee Rd	08/31/05	10:10	25.0	3.7	476	7.2
	100601-A	Wallace Bayou	08/31/05	11:10	29.5	5.9	214	7.6
	100601-B	Bayou Pierre	08/31/05	08:45	26.6	4.9	338	7.4
100602	1207	Boggy Bayou Hwy 171	08/31/05	14:40	31.5	5.2	156	7.1
	100602-A	Boggy Bayou @ Hwy 169	08/31/05	13:45	27.2	4.4	208	7.1
100702	282	Black Lake Bayou Hwy 4	09/07/05	09:20	24.7	5.3	35	6.1
	1187	Black Lake Bayou Hwy 155	09/07/05	10:25	24.9	5.3	40	6.3
	100702-A	Black Lake Bayou Hwy 793	09/07/05	07:20	23.4	2.9	167	6.3
	100702-B	Leatherman Creek	09/07/05	08:05	23.3	3.4	54	6.3
100703	100703-A	Black Lake @ Hwy 9	09/07/05	11:20	27.6	5.3	71	6.4
	100703-B	Clear Lake outlet	09/07/05	12:40	29.8	6.9	96	6.9
100803	1214	Saline Bayou @ Hwy 71	09/07/05	14:40	30.2	5.4	105	6.8
	100803-A	Saline Bayou @ Allen Dam	09/07/05	13:40	30.6	8.3	82	7.8
101301	556	Cress Creek @ Hwy 8	09/08/05	11:30	21.7	7.5	22	6.5
	1220	Rigolette Bayou @ Rig. Road	09/08/05	09:35	27.4	4.3	108	6.8
	101301-A	Rigolette Bayou @ hwy 492	09/08/05	10:20	24.2	5.0	54	6.6
101302	570	Beaver Creek	09/08/05	12:30	20.3	8.3	29	6.5
	1221	Iatt Lake	09/08/05	11:05	26.5	3.2	6	6.3
	101302-A	Iatt Creek @ Hwy 122	09/08/05	12:05	24.2	1.2	129	6.4
101503	101503-A	Saline Bayou on Farm Rd.	09/09/05	07:05	24.0	3.3	179	6.9
101504	371	Saline Bayou @ WMA boatramp	09/08/05	15:30	30.6	8.3	47	8.0
101604	1231	Lake Concordia @ Sportmans Lodge	09/09/05	08:45	28.9	7.5	251	8.3
	101604-A	Bayou Cocodrie @ Hwy 65	09/09/05	08:30	27.2	2.2	282	6.9
110401	1160	Bayou Toro @ Hwy 473	09/08/05	07:30	24.4	4.8	99	6.4
	110401-A	Toro Creek @ Plainview Rd.	09/08/05	06:40	21.8	1.3	81	6.3

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Table C.3 Analytical laboratory results from samples collected in FTN field survey for Red River and Sabine River basins.

Subsegment Number	Site Number	Site Name	Sampling Date	TSS (mg/L	TKN (mg/L)	Total Phos. (mg/L)	TOC (mg/L)	Chlorophyll a (mg/L)	Ammonia as N (mg/L)	NO3 + NO2 N (mg/L)
100404	1181	Cypress Bayou Reservoir nr Benton	09/01/05	7.7	1.8	0.045	9.1	0.035	0.24	<0.05
100405	1182	Black Bayou Reservoir nr Linden Rd	09/01/05	8	1.9	0.061	10	0.051	0.14	<0.05
	100405-A	Black Bayou nr Benton	09/01/05	8.4	2.4	0.082	12	<0.02	0.56	<0.05
100406	363-1	Flat River Dr. Canal nr Bossier City	09/01/05	26	2.5	0.093	10	0.027	0.39	<0.05
	363-2	Flat River Dr. Canal nr Bossier City	09/01/05	26	2.2	0.074	11	0.03	0.36	<0.05
100501	100501-A	Bayou Dorcheat nr AR line	09/01/05	11	1.6	0.15	5.7	<0.02	0.2	0.26
	100501-B	Bayou Dorcheat NE Cotton Valley	09/01/05	4.4	1.7	0.048	8.3	0.021	0.18	<0.05
100601	278	Bayou Pierre nr Shreveport	08/31/05	9.8	1.4	0.25	7.6	<0.02	0.13	<0.05
	1183	Bayou Pierre at Ellerbee Rd.	08/31/05	16	2.3	0.22	2.6	<0.02	0.22	0.39
	100601-A-1	Wallace Bayou u/s B. Pierre	08/31/05	19	1.6	0.085	6.8	<0.02	<0.1	<0.05
	100601-A-2	Wallace Bayou u/s B. Pierre	08/31/05	18	1.8	0.085	6.7	<0.02	<0.1	0.06
100602	1207	Boggy Bayou SW of Shreveport	08/31/05	19	1.5	0.14	6.1	<0.02	<0.1	<0.05
	100602-A	Boggy Bayou SE of Hicks Crossing	08/31/05	78	1.8	0.15	8.1	<0.02	<0.1	<0.05
100702	100702-B	Leatherman Creek	09/07/05	18	2.4	0.11	7.5	0.076	0.32	<0.05
	282	Black Lake Bayou w of Castor	09/07/05	4.8	1.6	0.048	5.9	<0.02	0.22	0.064
	1187	Black Lake Bayou @ Hwy 155	09/07/05	5.2	1.7	0.064	6	<0.02	0.17	0.096
100703	100703-A-1	Black Lake NE Campti	09/07/05	73	1.7	0.048	7.7	<0.02	0.17	<0.05
	100703-A-2	Black Lake NE Campti	09/07/05	4.4	1.9	0.05	7.8	<0.02	0.17	<0.05
	100703-B	Clear Lake outlet	09/07/05	16	1.9	0.12	9.2	0.1	0.25	<0.05
100803	1214	Saline Bayou SE of Clarence	09/07/05	22	1.9	0.08	8.6	0.034	0.23	<0.05
	100803-A	Saline Bayou NE of Clarence	09/07/05	16	3	0.098	8.7	0.05	0.21	<0.05
101301	556	Cress Creek	09/08/05	<4	<1	<0.02	3.1	<0.02	0.16	<0.05
	1220	Rigolette Bayou NE of Pineville	09/08/05	13	1.1	0.082	4.9	<0.02	0.12	<0.05
	570	Beaver Creek	09/08/05	6.2	<1	<0.02	1.5	<0.02	<0.1	0.1
	101301-A	Rigolette Bayou WNW of Bagdad	09/08/05	41	1.3	0.08	3.2	<0.02	0.19	<0.05
101302	1221	Iatt Lake	09/08/05	<4	<1	<0.02	9	<0.02	0.19	<0.05
	101302-A-1	Iatt Creek	09/08/05	5.4	1.4	0.048	11	<0.02	0.22	0.059
	101302-A-2	Iatt Creek	09/08/05	5.2	<1	0.048	11	<0.02	0.14	<0.05
101503	101503-A	Saline Bayou SE of Saline L.	09/09/05	280	2.2	0.15	6.8	0.026	0.58	0.068
101604	1231	Lake Concordia	09/09/05	12	1.9	0.15	7.9	0.049	0.23	<0.05
110401	1160	Bayou Toro NE of Toro	09/08/05	16	1.7	0.1	6.4	<0.02	0.14	<0.05
	110401-A	Toro Creek	09/08/05	6.8	1.4	0.11	7.3	<0.02	0.16	<0.05

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Table C.4. Summary of CBOD time series data from FTN field survey of Red River and Sabine River basins..

Subsegment Number	Sample No.	CBOD 1, 2-day	CBOD 2, 5-day	CBOD 3, 9-day	CBOD 4, 14-Day	CBOD 5, 20-day	k rate (1/day)	CBODu (mg/l)
100404	1181	<2	3.3	5	5.3	5.2	0.22	5.49
100405	1182	2.9	4.8	6.7	8.1	12	0.06	15.61
	100405-A	<2	<2	3.3	5.1	6.9	0.05	12.47
100406	363-1	<2	<2	4.3	5.7	6.6	0.12	7.50
	363-2	<2	<2	4.2	5.8	6.8	0.12	7.69
100501	100501-A	2.4	3.2	3.9	4.2	4.8	0.30	4.43
	100501-B	5.2	6.5	7.6	7.9	12	0.21	10.13
100601	278	<2	<2	2.3	4.6	6.8	0.04	13.85
	1183	<2	<2	<2	5.1	3.9	0.60	4.50
	100601-A-1	<2	<2	<2	2.8	4.4	0.16	5.38
	100601-A-2	<2	2.1	2.3	4.1	5.4	0.04	9.83
100602	1207	<2	<2	2.1	3.4	6	0.04	13.05
	100602-A	2.7	3.9	5	7.8	9.4	0.07	11.99
100702	282	<2	<2	<2	<2	2.2	--	--
	1187	<2	<2	<2	<2	<2	--	--
	100702-B	<2	2.1	3.7	4.6	6.2	0.05	9.62
100703	100703-A-1	<2	<2	<2	2.5	4	0.05	8.69
	100703-A-2	<2	<2	<2	2.3	3.1	0.05	5.60
	100703-B	2.4	5.9	8.9	9.6	14	0.08	16.99
100803	1214	<2	2.7	7.1	7.3	8.9	0.31	8.42
	100803-A	<2	<2	3.9	4.8	6.6	0.05	10.75
101301	556	<2	<2	<2	<2	<2	--	--
	1220	<2	<2	<2	3.1	3.9	0.15	4.43
	101301-A	<2	<2	<2	<2	<2	--	--
101302	570	<2	<2	<2	<2	<2	--	--
	1221	<2	<2	<2	<2	2.2	--	--
	101302-A-1	<2	<2	2.7	3.6	4.3	0.10	5.04
	101302-A-2	<2	<2	<2	2.5	3.4	0.05	5.75
101503	101503-A	<2	<2	3.6	6.2	6.9	0.22	7.29
101604	1231	<2	3.6	7.3	9.9	12	0.06	18.50
110401	1160	<2	<2	<2	<2	2	--	--
	110401-A	<2	<2	<2	<2	2.3	--	--

FILE: R:\PROJECTS\2110-616\TECH\FIELD_STUDIES\RED AND SABINE SUMMARY GSBOD TABLE.XLS

Figure C.1. Continuous DO at Station 272 (Flat River at Hwy 527)

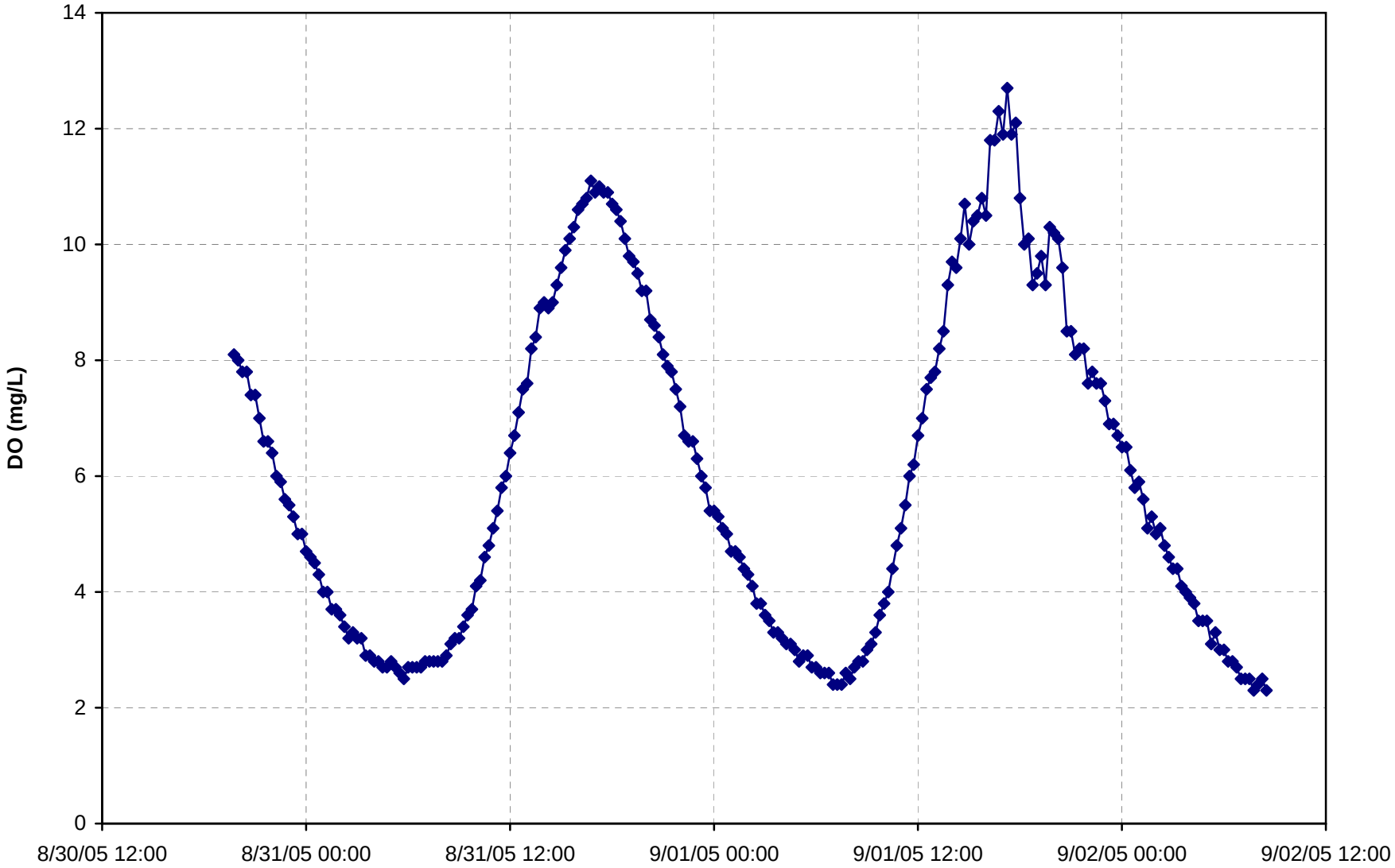


Table C.5 Continuous DO data collected at 272.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 8/31	Ratio of instantaneous DO to daily mean DO For 9/01	Ratio of instantaneous DO to daily min DO For 8/31	Ratio of instantaneous DO to daily min DO For 9/01
8/30/05 19:45	8.1				
8/30/05 20:00	8.0				
8/30/05 20:15	7.8				
8/30/05 20:30	7.8				
8/30/05 20:45	7.4				
8/30/05 21:00	7.4				
8/30/05 21:15	7.0				
8/30/05 21:30	6.6				
8/30/05 21:45	6.6				
8/30/05 22:00	6.4				
8/30/05 22:15	6.0				
8/30/05 22:30	5.9				
8/30/05 22:45	5.6				
8/30/05 23:00	5.5				
8/30/05 23:15	5.3				
8/30/05 23:30	5.0				
8/30/05 23:45	5.0				
8/31/05 00:00	4.7	0.77		1.88	
8/31/05 00:15	4.6	0.75		1.84	
8/31/05 00:30	4.5	0.73		1.80	
8/31/05 00:45	4.3	0.70		1.72	
8/31/05 01:00	4.0	0.65		1.60	
8/31/05 01:15	4.0	0.65		1.60	
8/31/05 01:30	3.7	0.60		1.48	
8/31/05 01:45	3.7	0.60		1.48	
8/31/05 02:00	3.6	0.59		1.44	
8/31/05 02:15	3.4	0.55		1.36	
8/31/05 02:30	3.2	0.52		1.28	
8/31/05 02:45	3.3	0.54		1.32	
8/31/05 03:00	3.2	0.52		1.28	
8/31/05 03:15	3.2	0.52		1.28	
8/31/05 03:30	2.9	0.47		1.16	
8/31/05 03:45	2.9	0.47		1.16	
8/31/05 04:00	2.8	0.46		1.12	
8/31/05 04:15	2.8	0.46		1.12	
8/31/05 04:30	2.7	0.44		1.08	
8/31/05 04:45	2.7	0.44		1.08	
8/31/05 05:00	2.8	0.46		1.12	
8/31/05 05:15	2.7	0.44		1.08	

Estimation of daily mean DO values at other stations

Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily ı DO + 1 mg/L (mg/L)

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 8/31	For 9/01	Ratio of instantaneous DO to daily min DO For 8/31	For 9/01	Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily ı DO + 1 mg/L (mg/L)
8/31/05 05:30	2.6	0.42		1.04								
8/31/05 05:45	2.5	0.41		1.00								
8/31/05 06:00	2.7	0.44		1.08								
8/31/05 06:15	2.7	0.44		1.08								
8/31/05 06:30	2.7	0.44		1.08								
8/31/05 06:45	2.7	0.44		1.08								
8/31/05 07:00	2.8	0.46		1.12								
8/31/05 07:15	2.8	0.46		1.12								
8/31/05 07:30	2.8	0.46		1.12								
8/31/05 07:45	2.8	0.46		1.12								
8/31/05 08:00	2.8	0.46		1.12								
8/31/05 08:15	2.9	0.47		1.16								
8/31/05 08:30	3.1	0.51		1.24								
8/31/05 08:45	3.2	0.52		1.28								
8/31/05 09:00	3.2	0.52		1.28								
8/31/05 09:15	3.4	0.55		1.36								
8/31/05 09:30	3.6	0.59		1.44								
8/31/05 09:45	3.7	0.60		1.48								
8/31/05 10:00	4.1	0.67		1.64								
8/31/05 10:15	4.2	0.68		1.68								
8/31/05 10:30	4.6	0.75		1.84								
8/31/05 10:45	4.8	0.78		1.92								
8/31/05 11:00	5.1	0.83		2.04								
8/31/05 11:15	5.4	0.88		2.16								
8/31/05 11:30	5.8	0.94		2.32								
8/31/05 11:45	6.0	0.98		2.40								
8/31/05 12:00	6.4	1.04		2.56								
8/31/05 12:15	6.7	1.09		2.68								
8/31/05 12:30	7.1	1.16		2.84								
8/31/05 12:45	7.5	1.22		3.00								
8/31/05 13:00	7.6	1.24		3.04								
8/31/05 13:15	8.2	1.34		3.28								
8/31/05 13:30	8.4	1.37		3.36								
8/31/05 13:45	8.9	1.45		3.56								
8/31/05 14:00	9.0	1.47		3.60								
8/31/05 14:15	8.9	1.45		3.56								
8/31/05 14:30	9.0	1.47		3.60								
8/31/05 14:45	9.3	1.52		3.72								
8/31/05 15:00	9.6	1.56		3.84								
8/31/05 15:15	9.9	1.61		3.96								
8/31/05 15:30	10.1	1.65		4.04								
8/31/05 15:45	10.3	1.68		4.12								

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO		Ratio of instantaneous DO to daily min DO		Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily ı DO + 1 mg/L (mg/L)
		For 8/31	For 9/01	For 8/31	For 9/01							
8/31/05 16:00	10.6	1.73		4.24								
8/31/05 16:15	10.7	1.74		4.28								
8/31/05 16:30	10.8	1.76		4.32								
8/31/05 16:45	11.1	1.81		4.44								
8/31/05 17:00	10.9	1.78		4.36								
8/31/05 17:15	11.0	1.79		4.40								
8/31/05 17:30	10.9	1.78		4.36								
8/31/05 17:45	10.9	1.78		4.36								
8/31/05 18:00	10.7	1.74		4.28								
8/31/05 18:15	10.6	1.73		4.24								
8/31/05 18:30	10.4	1.69		4.16								
8/31/05 18:45	10.1	1.65		4.04								
8/31/05 19:00	9.8	1.60		3.92								
8/31/05 19:15	9.7	1.58		3.88								
8/31/05 19:30	9.5	1.55		3.80								
8/31/05 19:45	9.2	1.50		3.68								
8/31/05 20:00	9.2	1.50		3.68								
8/31/05 20:15	8.7	1.42		3.48								
8/31/05 20:30	8.6	1.40		3.44								
8/31/05 20:45	8.4	1.37		3.36								
8/31/05 21:00	8.1	1.32		3.24								
8/31/05 21:15	7.9	1.29		3.16								
8/31/05 21:30	7.8	1.27		3.12								
8/31/05 21:45	7.5	1.22		3.00								
8/31/05 22:00	7.2	1.17		2.88								
8/31/05 22:15	6.7	1.09		2.68								
8/31/05 22:30	6.6	1.08		2.64								
8/31/05 22:45	6.6	1.08		2.64								
8/31/05 23:00	6.3	1.03		2.52								
8/31/05 23:15	6.0	0.98		2.40								
8/31/05 23:30	5.8	0.94		2.32								
8/31/05 23:45	5.4	0.88		2.16								
9/01/05 00:00	5.4		0.83		2.25							
9/01/05 00:15	5.3		0.81		2.21							
9/01/05 00:30	5.1		0.78		2.13							
9/01/05 00:45	5.0		0.77		2.08							
9/01/05 01:00	4.7		0.72		1.96							
9/01/05 01:15	4.7		0.72		1.96							
9/01/05 01:30	4.6		0.71		1.92							
9/01/05 01:45	4.4		0.68		1.83							
9/01/05 02:00	4.3		0.66		1.79							
9/01/05 02:15	4.1		0.63		1.71							

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO		Ratio of instantaneous DO to daily min DO		Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily ı DO + 1 mg/L (mg/L)
		For 8/31	For 9/01	For 8/31	For 9/01							
9/01/05 02:30	3.8		0.58		1.58							
9/01/05 02:45	3.8		0.58		1.58							
9/01/05 03:00	3.6		0.55		1.50							
9/01/05 03:15	3.5		0.54		1.46							
9/01/05 03:30	3.3		0.51		1.38							
9/01/05 03:45	3.3		0.51		1.38							
9/01/05 04:00	3.2		0.49		1.33							
9/01/05 04:15	3.1		0.48		1.29							
9/01/05 04:30	3.1		0.48		1.29							
9/01/05 04:45	3.0		0.46		1.25							
9/01/05 05:00	2.8		0.43		1.17							
9/01/05 05:15	2.9		0.45		1.21							
9/01/05 05:30	2.9		0.45		1.21							
9/01/05 05:45	2.7		0.41		1.13							
9/01/05 06:00	2.7		0.41		1.13							
9/01/05 06:15	2.6		0.40		1.08							
9/01/05 06:30	2.6		0.40		1.08							
9/01/05 06:45	2.6		0.40		1.08							
9/01/05 07:00	2.4		0.37		1.00							
9/01/05 07:15	2.4		0.37		1.00							
9/01/05 07:30	2.4		0.37		1.00							
9/01/05 07:45	2.6		0.40		1.08							
9/01/05 08:00	2.5		0.38		1.04							
9/01/05 08:15	2.7		0.41		1.13							
9/01/05 08:30	2.8		0.43		1.17							
9/01/05 08:45	2.8		0.43		1.17							
9/01/05 09:00	3.0		0.46		1.25							
9/01/05 09:15	3.1		0.48		1.29							
9/01/05 09:30	3.3		0.51		1.38							
9/01/05 09:45	3.6		0.55		1.50							
9/01/05 10:00	3.8		0.58		1.58							
9/01/05 10:15	4.0		0.61		1.67	1182	9/1/2005	10:20	5.54	9.0	3.3	4.3
9/01/05 10:30	4.4		0.68		1.83							
9/01/05 10:45	4.8		0.74		2.00	1181	9/1/2005	10:44	7.3	9.9	3.7	4.7
9/01/05 11:00	5.1		0.78		2.13							
9/01/05 11:15	5.5		0.84		2.29	100404-A	9/1/2005	11:20	6.12	7.2	2.7	3.7
9/01/05 11:30	6.0		0.92		2.50							
9/01/05 11:45	6.2		0.95		2.58							
9/01/05 12:00	6.7		1.03		2.79							
9/01/05 12:15	7.0		1.08		2.92							
9/01/05 12:30	7.5		1.15		3.13							
9/01/05 12:45	7.7		1.18		3.21							

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 8/31	Ratio of instantaneous DO to daily mean DO For 9/01	Ratio of instantaneous DO to daily min DO For 8/31	Ratio of instantaneous DO to daily min DO For 9/01	Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily ı DO + 1 mg/L (mg/L)
9/01/05 13:00	7.8		1.20		3.25							
9/01/05 13:15	8.2		1.26		3.42							
9/01/05 13:30	8.5		1.31		3.54							
9/01/05 13:45	9.3		1.43		3.88							
9/01/05 14:00	9.7		1.49		4.04							
9/01/05 14:15	9.6		1.47		4.00							
9/01/05 14:30	10.1		1.55		4.21							
9/01/05 14:45	10.7		1.64		4.46							
9/01/05 15:00	10.0		1.54		4.17							
9/01/05 15:15	10.4		1.60		4.33							
9/01/05 15:30	10.5		1.61		4.38							
9/01/05 15:45	10.8		1.66		4.50							
9/01/05 16:00	10.5		1.61		4.38							
9/01/05 16:15	11.8		1.81		4.92							
9/01/05 16:30	11.8		1.81		4.92							
9/01/05 16:45	12.3		1.89		5.13							
9/01/05 17:00	11.9		1.83		4.96							
9/01/05 17:15	12.7		1.95		5.29							
9/01/05 17:30	11.9		1.83		4.96							
9/01/05 17:45	12.1		1.86		5.04							
9/01/05 18:00	10.8		1.66		4.50							
9/01/05 18:15	10.0		1.54		4.17							
9/01/05 18:30	10.1		1.55		4.21							
9/01/05 18:45	9.3		1.43		3.88							
9/01/05 19:00	9.5		1.46		3.96							
9/01/05 19:15	9.8		1.51		4.08							
9/01/05 19:30	9.3		1.43		3.88							
9/01/05 19:45	10.3		1.58		4.29							
9/01/05 20:00	10.2		1.57		4.25							
9/01/05 20:15	10.1		1.55		4.21							
9/01/05 20:30	9.6		1.47		4.00							
9/01/05 20:45	8.5		1.31		3.54							
9/01/05 21:00	8.5		1.31		3.54							
9/01/05 21:15	8.1		1.24		3.38							
9/01/05 21:30	8.2		1.26		3.42							
9/01/05 21:45	8.2		1.26		3.42							
9/01/05 22:00	7.6		1.17		3.17							
9/01/05 22:15	7.8		1.20		3.25							
9/01/05 22:30	7.6		1.17		3.17							
9/01/05 22:45	7.6		1.17		3.17							
9/01/05 23:00	7.3		1.12		3.04							
9/01/05 23:15	6.9		1.06		2.88							

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 8/31	Ratio of instantaneous DO to daily mean DO For 9/01	Ratio of instantaneous DO to daily min DO For 8/31	Ratio of instantaneous DO to daily min DO For 9/01	Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily ı DO + 1 mg/L (mg/L)
9/01/05 23:30	6.9		1.06		2.88							
9/01/05 23:45	6.7		1.03		2.79							
9/02/05 00:00	6.5											
9/02/05 00:15	6.5											
9/02/05 00:30	6.1											
9/02/05 00:45	5.8											
9/02/05 01:00	5.9											
9/02/05 01:15	5.6											
9/02/05 01:30	5.1											
9/02/05 01:45	5.3											
9/02/05 02:00	5.0											
9/02/05 02:15	5.1											
9/02/05 02:30	4.8											
9/02/05 02:45	4.6											
9/02/05 03:00	4.4											
9/02/05 03:15	4.4											
9/02/05 03:30	4.1											
9/02/05 03:45	4.0											
9/02/05 04:00	3.9											
9/02/05 04:15	3.8											
9/02/05 04:30	3.5											
9/02/05 04:45	3.5											
9/02/05 05:00	3.5											
9/02/05 05:15	3.1											
9/02/05 05:30	3.3											
9/02/05 05:45	3.0											
9/02/05 06:00	3.0											
9/02/05 06:15	2.8											
9/02/05 06:30	2.8											
9/02/05 06:45	2.7											
9/02/05 07:00	2.5											
9/02/05 07:15	2.5											
9/02/05 07:30	2.5											
9/02/05 07:45	2.3											
9/02/05 08:00	2.4											
9/02/05 08:15	2.5											
9/02/05 08:30	2.3											

APPENDIX D

LA-QUAL Vector Diagrams

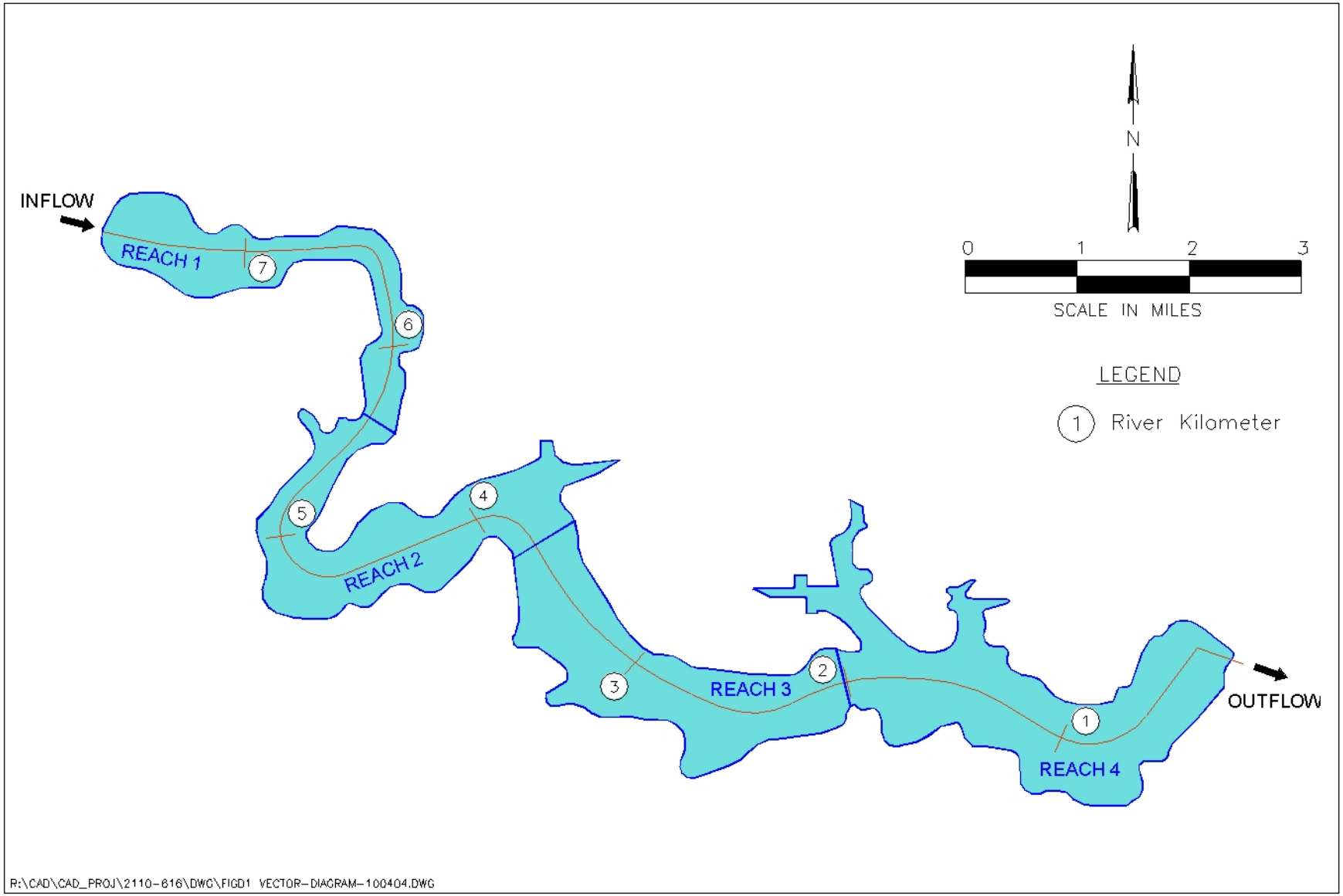


Figure D.1. LA-QUAL vector diagram for Black Bayou Reservoir.

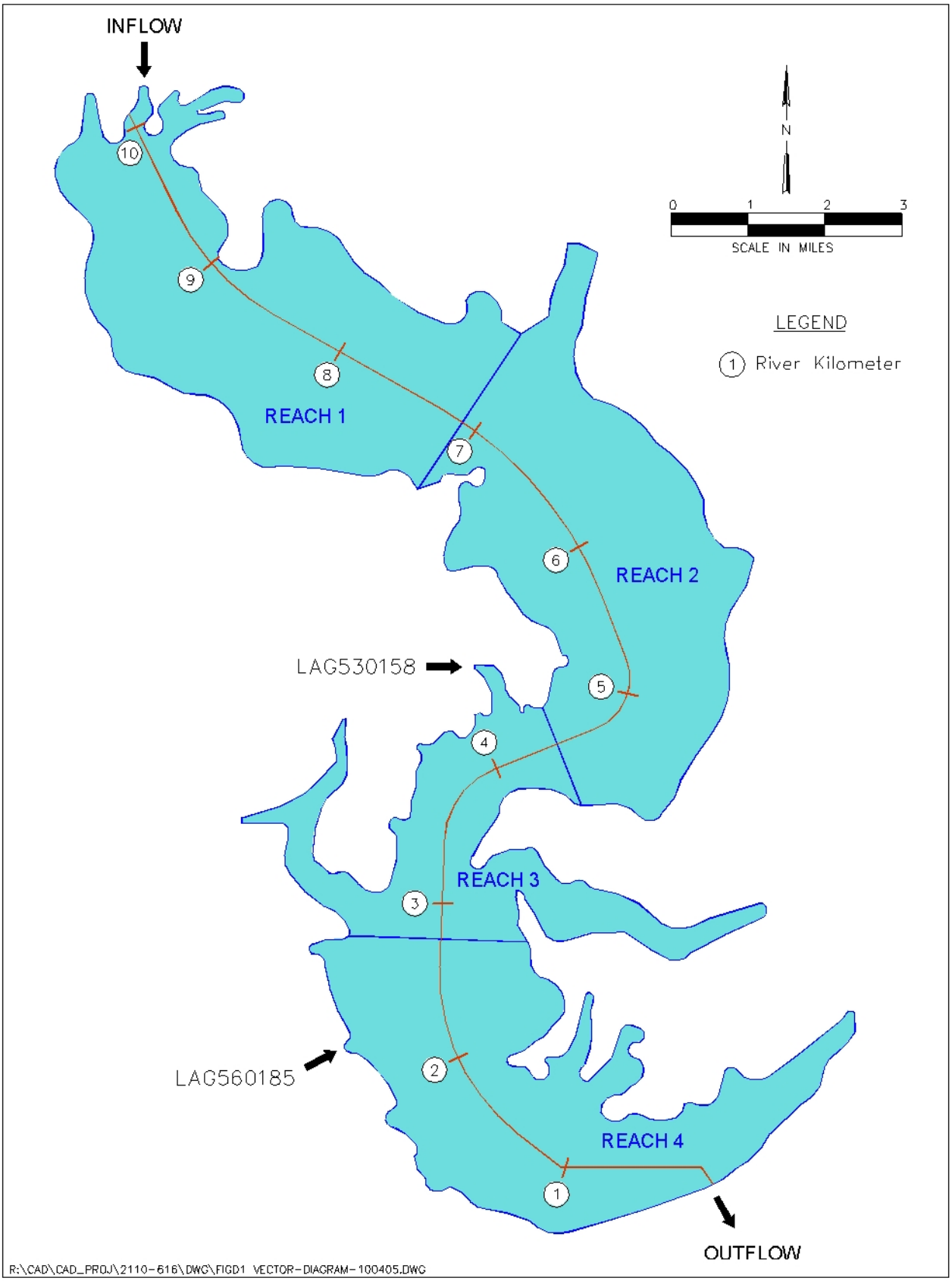


Figure D.2. LA-QUAL vector diagram for Cypress Bayou Reservoir.

APPENDIX E

Calculation of Net DO Added per Unit of Chlorophyll

STEADY STATE CALCULATION OF NET DO FROM PHOTOSYNTHESIS AND RESPIRATION FOR LAKE CONCORDIA

Value and units	Description of parameter	Data source / comments
49 ug/L	Chlorophyll a concentration	Observed value at station 1231 during FTN intensive field survey
60	Carbon to chlorophyll ratio	Table 6-4 in Rates, Constants, Kinetics manual
1.00 /day	Algal growth rate at solar noon	"Calibrated" to maintain steady state chl a conc. (within range of values in Table 6-5 in Rates, Constants, Kinetics manual)
0.16 /day	Algal respiration rate	"Calibrated" to maintain steady state chl a conc. (within range of values in Table 6-18 in Rates, Constants, Kinetics manual)
0.19 m/day	Algal settling rate	"Calibrated" to maintain steady state chl a conc. (within range of values in Table 6-19 in Rates, Constants, Kinetics manual
1.56 m	Depth of photic zone	Equations 7.27 and 7.28 of Thomann and Mueller (1987) and assumed secchi depth of 2.0 ft
2.67 g O2 / g C	Oxygen produced per unit of algal growth	Table 3-29 in Rates, Constants, Kinetics manual (consistent with stoichiometric ratio of 1 mole O2 per mole C in photosynthesis)
2.00 g O2 / g C	Oxygen depleted per unit of algal respiration	Table 3-30 in Rates, Constants, Kinetics manual
5:25 AM	Time of sunrise	For midpoint of calibration period (Aug. 5, 2002) for Ferriday, LA
6:58 PM	Time of sunset	For midpoint of calibration period (Aug. 5, 2002) for Ferriday, LA

Notes:
1. Limitation of algal growth due to sunlight was assumed to vary during the day as a triangular function between sunrise and sunset.
2. Algae conc (mg/L of C) = Chl a conc (ug/L) / 1000 (ug/L per mg/L) * Carbon:Chl a ratio (mg/L C per mg/L chl a)
3. Algal growth (mg/L of C per day) = Max growth rate (1/day) * limitation of max growth rate * Algae conc. (mg/L of C)
4. Algal respiration (mg/L of C per day) = Respiration rate (1/day) * Algae conc. (mg/L of C)
5. Algal settling (mg/L of C per day) = Settling rate (m/day) / Photic zone depth (m) * Algae conc. (mg/L of C)
6. Photic zone depth (m) = 4.61 / Light extinction coefficient (1/m)
7. Light extinction coefficient (1/m) = 1.8 / Secchi depth (m)
8. Rate of O2 produced from photosynthesis = Algal growth (mg/L of C per day) * 2.67 g O2 / g C
9. Rate of O2 consumed from respiration = Algal respiration (mg/L of C per day) * 2.00 g O2 / g C

Time of day	Limitation of max. algal growth due to sunlight	Algal growth (mg/L of C per day)	Algal respiration (mg/L of C per day)	Algal settling (mg/L of C per day)	Rate of O2 production by photosynth. (mg/L/day)	Rate of O2 consumption by respiration (mg/L/day)
12:00 AM	0	0	0.47	0.36	0	0.94
12:30 AM	0	0	0.47	0.36	0	0.94
1:00 AM	0	0	0.47	0.36	0	0.94
1:30 AM	0	0	0.47	0.36	0	0.94
2:00 AM	0	0	0.47	0.36	0	0.94
2:30 AM	0	0	0.47	0.36	0	0.94

Time of day	Limitation of max. algal growth due to sunlight	Algal growth (mg/L of C per day)	Algal respiration (mg/L of C per day)	Algal settling (mg/L of C per day)	Rate of O2 production by photosynth. (mg/L/day)	Rate of O2 consumption by respiration (mg/L/day)
3:00 AM	0	0	0.47	0.36	0	0.94
3:30 AM	0	0	0.47	0.36	0	0.94
4:00 AM	0	0	0.47	0.36	0	0.94
4:30 AM	0	0	0.47	0.36	0	0.94
5:00 AM	0	0	0.47	0.36	0	0.94
5:30 AM	0.012	0.04	0.47	0.36	0.10	0.94
6:00 AM	0.086	0.25	0.47	0.36	0.68	0.94
6:30 AM	0.160	0.47	0.47	0.36	1.25	0.94
7:00 AM	0.234	0.69	0.47	0.36	1.83	0.94
7:30 AM	0.308	0.90	0.47	0.36	2.41	0.94
8:00 AM	0.381	1.12	0.47	0.36	2.99	0.94
8:30 AM	0.455	1.34	0.47	0.36	3.57	0.94
9:00 AM	0.529	1.55	0.47	0.36	4.15	0.94
9:30 AM	0.603	1.77	0.47	0.36	4.73	0.94
10:00 AM	0.677	1.99	0.47	0.36	5.30	0.94
10:30 AM	0.750	2.21	0.47	0.36	5.88	0.94
11:00 AM	0.824	2.42	0.47	0.36	6.46	0.94
11:30 AM	0.898	2.64	0.47	0.36	7.04	0.94
12:00 PM	0.972	2.86	0.47	0.36	7.62	0.94
12:30 PM	0.954	2.81	0.47	0.36	7.48	0.94
1:00 PM	0.881	2.59	0.47	0.36	6.90	0.94
1:30 PM	0.807	2.37	0.47	0.36	6.33	0.94
2:00 PM	0.733	2.16	0.47	0.36	5.75	0.94
2:30 PM	0.659	1.94	0.47	0.36	5.17	0.94
3:00 PM	0.585	1.72	0.47	0.36	4.59	0.94
3:30 PM	0.512	1.50	0.47	0.36	4.01	0.94
4:00 PM	0.438	1.29	0.47	0.36	3.43	0.94
4:30 PM	0.364	1.07	0.47	0.36	2.85	0.94
5:00 PM	0.290	0.85	0.47	0.36	2.28	0.94
5:30 PM	0.216	0.64	0.47	0.36	1.70	0.94
6:00 PM	0.143	0.42	0.47	0.36	1.12	0.94
6:30 PM	0.069	0.20	0.47	0.36	0.54	0.94
7:00 PM	0	0	0.47	0.36	0	0.94
7:30 PM	0	0	0.47	0.36	0	0.94
8:00 PM	0	0	0.47	0.36	0	0.94
8:30 PM	0	0	0.47	0.36	0	0.94

Time of day	Limitation of max. algal growth due to sunlight	Algal growth (mg/L of C per day)	Algal respiration (mg/L of C per day)	Algal settling (mg/L of C per day)	Rate of O2 production by photosynth. (mg/L/day)	Rate of O2 consumption by respiration (mg/L/day)
9:00 PM	0	0	0.47	0.36	0	0.94
9:30 PM	0	0	0.47	0.36	0	0.94
10:00 PM	0	0	0.47	0.36	0	0.94
10:30 PM	0	0	0.47	0.36	0	0.94
11:00 PM	0	0	0.47	0.36	0	0.94
11:30 PM	0	0	0.47	0.36	0	0.94
24-hour averages =		0.83	0.47	0.36	2.21	0.94

Net rate of change in algal biomass = 0.83 – 0.47 – 0.36 = 0.00 mg/L of C per day (zero means steady state)

Net rate of change in DO over 24 hrs = 2.21 – 0.94 = 1.27 mg/L of O2 per day

Net DO added to water per unit of chlorophyll over 24 hrs = 1.27 / 49 = 0.026 mg/L of O2 per day per ug/L of chl a

FILE: R:\PROJECTS\2110-616\TECH\LA-QUAL\LAKE CONCORDIA\NET_DO_FROM_ALGAE.XLS

APPENDIX F

Wind-Aided Reaeration Calculations for Calibration

Wind Aided Reaeration for Black Bayou Reservoir.

Wind Aided Reaeration Coefficient Equation (Eq.3-23 from Rates, Constants, and Kinetics publication)

$K_{L\ with\ wind} = K_{L\ without\ wind}\ [1+(0.2395V_w^{1.643})]$ **Equation 1**

V_w = wind velocity in meters per second
K_2 = reaeration in 1/day that does not account for wind effects. For Louisiana equation use $K_2 = 0.664/D$.
D = depth in meters
$K_L = K_2 * D$ (=oxygen transfer coefficient "a" in model)

Formula to correct wind speed for elevation (obtained from LDEQ):

$V_{w@\ height\ z} = V_{w@\ height\ s}\ [(z/s)^{0.143}]$ **Equation 2**

CALCULATIONS FOR CALIBRATION PERIOD:

Shreveport Regional Airport

Station	Average Wind Speed (knots)	Average Wind Speed (m/s)	Height of Wind Measurement (m)	Height for Calculating Wind-Aided K_L (m)	Wind Speed at Surface using Eqn 2 (m/s)	K_L without wind (m/day)	K_L with wind using Eqn 1 (m/day)
1-Sep-05	5.0	2.6	10	0.1	1.3	0.7	0.97

FILE: R:\PROJECTS\2110-616\TECH\LA-QUAL\BLACK AND CYPRESS\MIN KL.XLS

APPENDIX G

Calculation of Inflow Rate for Calibration Period

Table G.1. Flow estimate for headwaters for Black Bayou Reservoir and for Cypress Bayou Reservoir.

flow statistics (cfs)

Gage	Description	Drain area (mi2)	Begin	End	# Values	% Comp	Min	Average	Median	Max
07349795	CYPRESS BAYOU ABOVE BENTON LA	88.9	10/1/1974	9/30/1986	4383	100	0	69.87422	9.1	3710
07348700	Bayou Dorcheat nr Springhill, LA	605	10/1/1974	9/30/1986	4383	100	0.6	531.7177	111	15100

flow statistics (cfs/mi2)

Gage	Description	Drain area (mi2)	Begin	End	# Values	% Comp	Min	Average	Median	Max
07349795	CYPRESS BAYOU ABOVE BENTON LA	88.9	10/1/1974	9/30/1986	4383	100	0.000	0.786	0.102	41.732
07348700	Bayou Dorcheat nr Springhill, LA	605	10/1/1974	9/30/1986	4383	100	0.001	0.879	0.183	24.959

ratio = 0.89431283 (avg 7349795 / avg 7348700)

Flow at 07348700 on September 1, 2005 = 2.2 cfs
0.0622879 cms
0.000103 cms/mi2

Estimated flow at 07349795 on September 2, 2002 = 9.207E-05 cms/mi2

Estimated headwater flow for Black Bayou Reservoir
Drainage area = 24 mi2
flow = 0.00221 cms

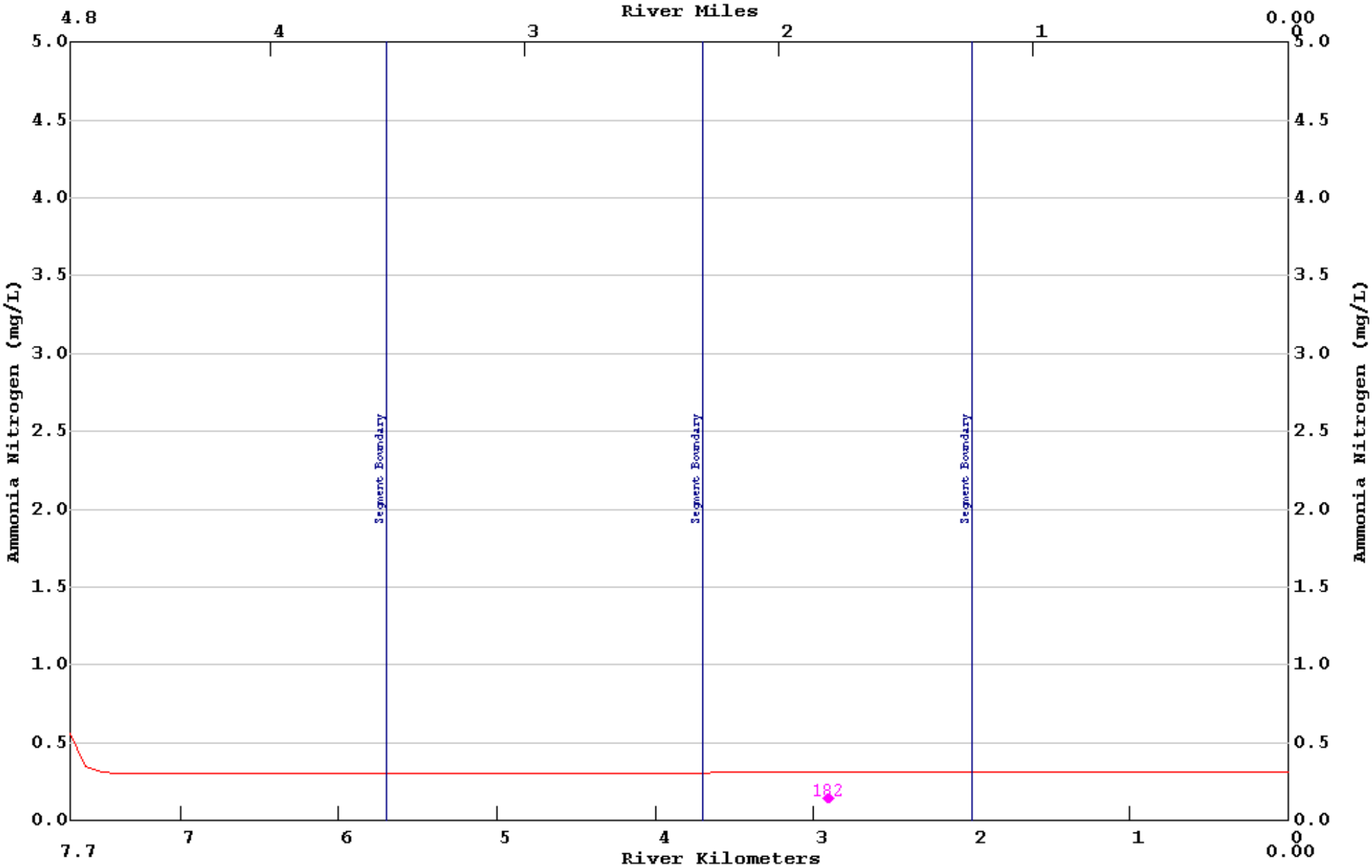
Estimated headwater flow for Cypress Bayou Reservoir
Drainage area = 132 mi2
flow = 0.01215 cms

FILE: R:\WP_FILES\2110-616\CYPRESS-BLACK TMDL\WORD FILES\APPENDICES\APPENDIX G\USGS 07349795 EST FLOWS CYPRESS BAYOU ABOVE BENTON.XLS

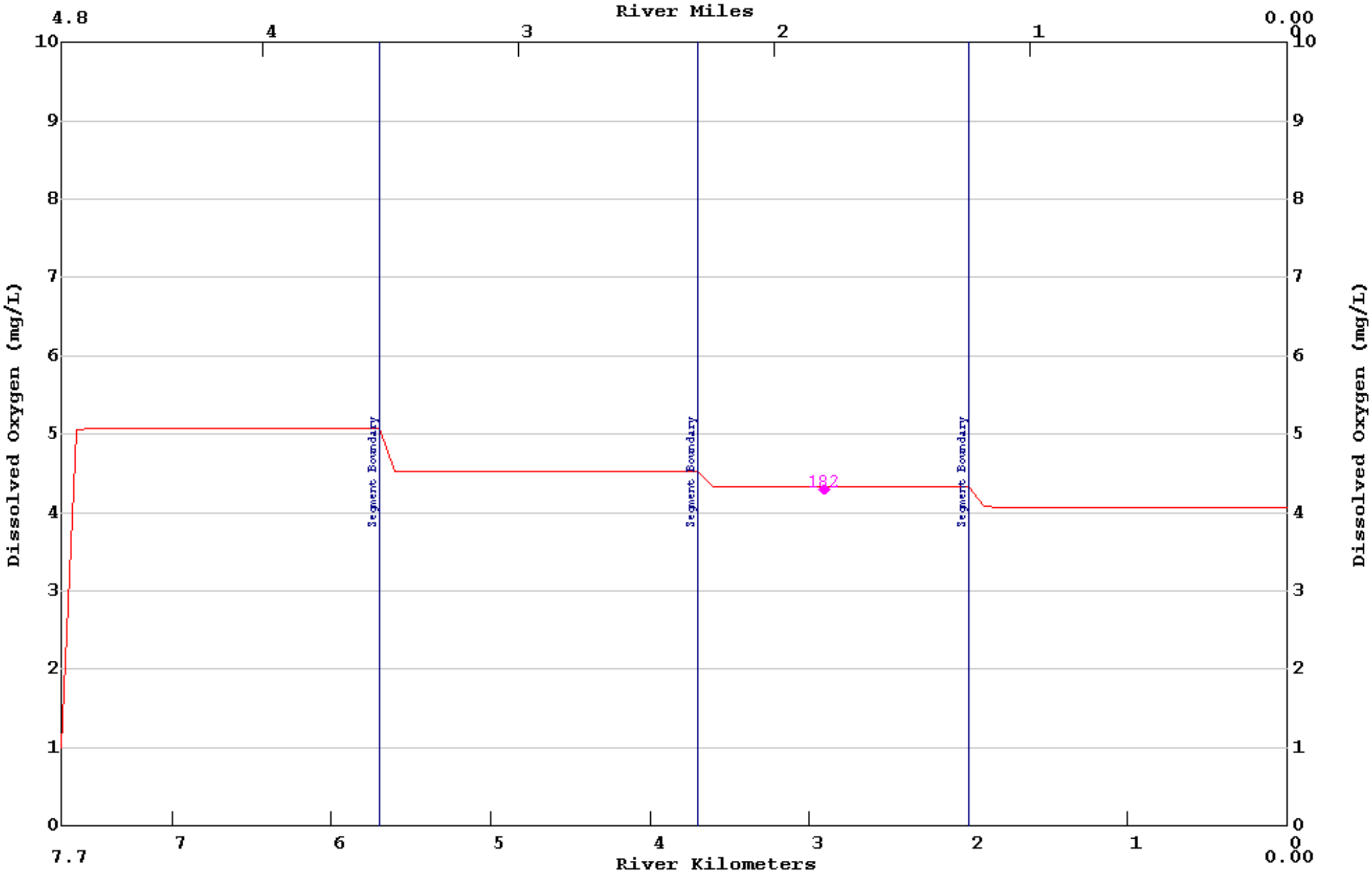
APPENDIX H

Black Bayou Reservoir Calibration Model Ouput

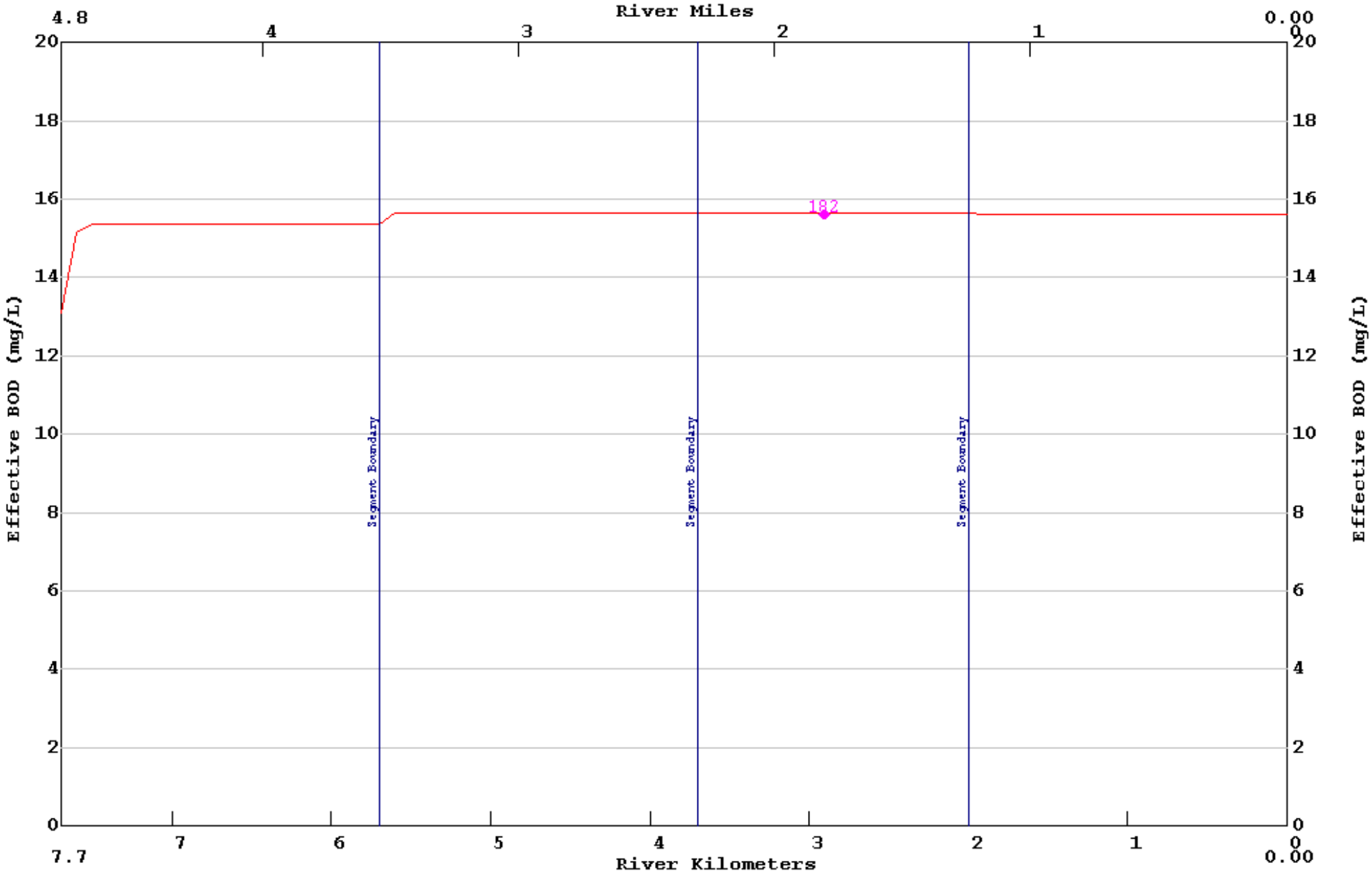
LA-QUAL Version 8.11 Run at 16:49 on 10/17/2007 File D:\comp_models\LA-QUAL_8p11\Black calibration-effBOD.txt
Calibration for FTN 2
Black Bayou Reservoir Calibration



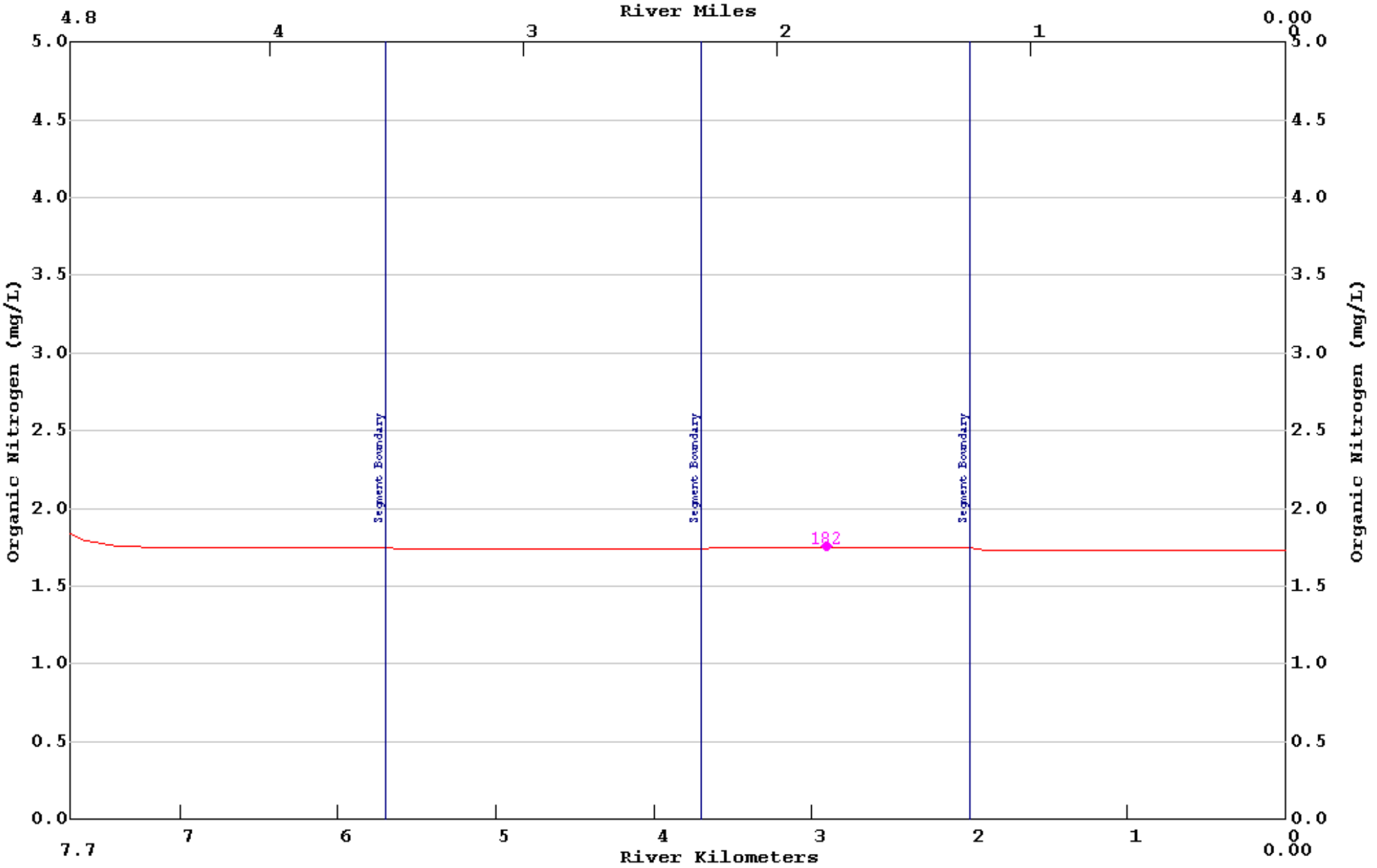
LA-QUAL Version 8.11 Run at 16:49 on 10/17/2007 File D:\comp_models\LA-QUAL_8p11\Black calibration-effBOD.txt
Calibration for FTN 2
Black Bayou Reservoir Calibration



LA-QUAL Version 8.11 Run at 16:49 on 10/17/2007 File D:\comp_models\LA-QUAL_8p11\Black calibration-effBOD.txt
Calibration for FTN 2
Black Bayou Reservoir Calibration



LA-QUAL Version 8.11 Run at 16:49 on 10/17/2007 File D:\comp_models\LA-QUAL_8p11\Black calibration-effBOD.txt
Calibration for FTN 2
Black Bayou Reservoir Calibration



```
LA-QUAL Version 8.11
Louisiana Department of Environmental Quality

Input file is D:\laqual\Black calibration-effBOD.txt
Output produced at 16:36 on 10/12/2007

$$$ DATA TYPE 1 (TITLES AND CONTROL CARDS) $$$

CARD TYPE       CONTROL TITLES

TITLE01         LA-QUAL Calib for Black Bayou Reservoir (100405)
TITLE02         Calibration for FTN 2
CNTROL03   NO   SEQU                      <warning: legacy control - line ignored>
CNTROL04  YES   METR
CNTROL05  YES   OXYG                      <warning: legacy control - line ignored>
ENDATA01

$$$ DATA TYPE 2 (MODEL OPTIONS) $$$

CARD TYPE       MODEL OPTION

MODOPT01   NO   TEMPERATURE
MODOPT02   NO   SALINITY
MODOPT03   NO   CONSERVATIVE MATERIAL #1                    UNITS =
MODOPT04   NO   CONSERVATIVE MATERIAL #2                    UNITS =
MODOPT05  YES   DISSOLVED OXYGEN
MODOPT06  YES   BOD1 BIOCHEMICAL OXYGEN DEMAND #1
MODOPT07   NO   BOD2 BIOCHEMICAL OXYGEN DEMAND #2
MODOPT08  YES   NITROGEN SERIES
MODOPT09   NO   PHOSPHORUS
MODOPT10   NO   CHLOROPHYLL A
MODOPT11   NO   MACROPHYTES
MODOPT12   NO   COLIFORMS
MODOPT13   NO   NONCONSERVATIVE MATERIAL                    UNITS =
ENDATA02

$$$ DATA TYPE 3 (PROGRAM CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                     VALUE

PROGRAM         HYDRAULIC CALCULATION METHOD       =        2.00000 (widths and depths)
PROGRAM         MAXIMUM ITERATION LIMIT            =      200.00000
PROGRAM         ALGAE OXYGEN PROD                  =        0.02600 mg O/ug chl a/day
PROGRAM         EFFECTIVE BOD DUE TO ALGAE         =        0.10000 mg/L BOD per ug/L chl a
ENDATA03

$$$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) $$$

CARD TYPE     RATE CODE     THETA VALUE

THETA        NH3 DECA       1.07000
ENDATA04

$$$ CONSTANTS TYPE 5 (TEMPERATURE DATA) $$$
```

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA05

$$$ DATA TYPE 6 (ALGAE CONSTANTS) $$$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA06

$$$ DATA TYPE 7 (MACROPHYTE CONSTANTS) $$$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA07

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km		END REACH km		REACH LENGTH km	PER RCH NUM	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	BB	Black Bayou Reserv	7.70	TO	5.70	0.1000	2.00	20	1	20
REACH ID	2	BB	Black Bayou Reserv	5.70	TO	3.70	0.1000	2.00	20	21	40
REACH ID	3	BB	Black Bayou Reserv	3.70	TO	2.00	0.1000	1.70	17	41	57
REACH ID	4	BB	Black Bayou Reserv	2.00	TO	0.00	0.1000	2.00	20	58	77

ENDATA08

$$$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) $$$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE "N"	MANNINGS
HYDR-1	1	BB	209.000	0.000	0.000	0.366	0.000	0.000	0.00000	0.000
HYDR-1	2	BB	295.000	0.000	0.000	1.883	0.000	0.000	0.00000	0.000
HYDR-1	3	BB	351.000	0.000	0.000	3.076	0.000	0.000	0.00000	0.000
HYDR-1	4	BB	420.000	0.000	0.000	3.606	0.000	0.000	0.00000	0.000

ENDATA09

$$$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) $$$

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"

ENDATA10

$$$ DATA TYPE 11 (INITIAL CONDITIONS) $$$

CARD TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	BB	29.80	0.00	4.30	0.14	0.00	0.00	51.00	0.00
INITIAL	2	BB	29.80	0.00	4.30	0.14	0.00	0.00	51.00	0.00
INITIAL	3	BB	29.80	0.00	4.30	0.14	0.00	0.00	51.00	0.00
INITIAL	4	BB	29.80	0.00	4.30	0.14	0.00	0.00	51.00	0.00

ENDATA11

```
$$$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) $$$
BOD     ANAER                          BOD2     ANAER
CARD     RCH  RCH  K2                    K2       K2       K2    BKGRND      BOD      BOD      CONV      BOD2      BOD2      BOD2      CONV      BOD2
TYPE     NUM   ID  OPT                  "A"      "B"      "C"       SOD    DECAY     SETT    TO SOD     DECAY     DECAY     SETT    TO SOD     DECAY
g/m²/d   per day       m/d           per day  per day      m/d             per day

COEFF-1    1   BB  20 K2=a/D          0.970    0.000    0.000    1.500    0.140    0.000    0.000     0.000     0.000     0.000    0.000     0.000
COEFF-1    2   BB  20 K2=a/D          0.970    0.000    0.000    1.500    0.140    0.000    0.000     0.000     0.000     0.000    0.000     0.000
COEFF-1    3   BB  20 K2=a/D          0.970    0.000    0.000    1.350    0.140    0.000    0.000     0.000     0.000     0.000    0.000     0.000
COEFF-1    4   BB  20 K2=a/D          0.970    0.000    0.000    1.400    0.140    0.000    0.000     0.000     0.000     0.000    0.000     0.000
ENDATA12

$$$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) $$$

CARD TYPE      REACH  ID       ORG-N     ORG-N   ORGN CONV       NH3       NH3      PHOS     DENIT
DECA      SETT  TO NH3 SRCE     DECA      SRCE       SRCE      RATE

COEFF-2           1   BB       0.020     0.000     0.000     0.080     0.000     0.000     0.000
COEFF-2           2   BB       0.020     0.000     0.000     0.080     0.000     0.000     0.000
COEFF-2           3   BB       0.020     0.000     0.000     0.080     0.000     0.000     0.000
COEFF-2           4   BB       0.020     0.000     0.000     0.080     0.000     0.000     0.000
ENDATA13

$$$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) $$$

CARD TYPE      REACH  ID       SECCHI    ALGAE:     ALGAE    ALG CONV     ALGAE     ALGAE     MACRO     MACRO
DEPTH     CHL A      SETT     TO SOD       GROW      RESP       GROW      RESP   SHADING

ENDATA14

$$$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) $$$

CARD TYPE      REACH  ID    COLIFORM       NCM       NCM    NCM CONV
DIE-OFF     DECAY      SETT     TO SOD

ENDATA15

$$$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) $$$

CARD TYPE      REACH  ID       OUTFLOW      INFLOW      TEMP     SALIN      CM-I     CM-II   IN/DIST  OUT/DIST

ENDATA16

$$$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE      REACH  ID          DO       BOD     ORG-N     NH3-N     NO3-N     BOD#2

ENDATA17

$$$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE      REACH  ID       PHOS     CHL A      COLI       NCM

ENDATA18
```

$$$ DATA TYPE 19 (NONPOINT SOURCE DATA) $$$

CARD TYPE	REACH	ID	BOD#1	ORG-N	COLI	NCM	DO	BOD#2
NONPOINT	1	BB	345.00	6.50	0.00	0.00	0.00	0.00
NONPOINT	2	BB	2570.00	47.00	0.00	0.00	0.00	0.00
NONPOINT	3	BB	4250.00	78.00	0.00	0.00	0.00	0.00
NONPOINT	4	BB	7000.00	127.00	0.00	0.00	0.00	0.00

ENDATA19

$$$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) $$$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW	FLOW	TEMP	SALIN	CM-I	CM-II
			m^3/s	cfs	deg C	ppt			
HDWTR-1	1	Black Bayou	0	0.00221	0.078	30.40	0.00	0.000	0.000	0.00

ENDATA20

$$$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE	ELEMENT	NAME	DO	BOD#1	ORG-N	NH3-N	NO3-N	BOD#2
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
HDWTR-2	1	Black Bayou	1.00	13.10	1.84	0.56	0.00	0.00

ENDATA21

$$$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE	ELEMENT	NAME	PHOS	CHL A	COLI	NCM
			mg/L	mg/L	mg/L	mg/L

ENDATA22

$$$ DATA TYPE 23 (JUNCTION DATA) $$$

CARD TYPE	JUNCTION	UPSTRM	RIVER	NAME
ELEMENT	ELEMENT	KILOM		

ENDATA23

$$$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) $$$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW	FLOW	FLOW	TEMP	SALIN	CM-I	CM-II
				m^3/s	cfs	MGD	deg C	ppt		

ENDATA24

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$

% BOD					%					
CARD TYPE	ELEMENT	NAME	DO	BOD	RMVL	ORG-N	NH3-N	NITRIF	NO3-N	BOD#2
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L

ENDATA25

$$$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

```
CARD TYPE     ELEMENT   NAME                        PHOS     CHL A      COLI       NCM
mg/L      mg/L      mg/L      mg/L

ENDATA26

$$$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) $$$

CARD TYPE    CONSTITUENT                    CONCENTRATION

ENDATA27

$$$ DATA TYPE 28 (DAM DATA) $$$

CARD TYPE     ELEMENT   NAME                  EQN      "A"       "B"       "H"

ENDATA28

$$$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) $$$

CARD TYPE       PARAMETER     COL 1     COL 2     COL 3     COL 4     COL 5     COL 6     COL 7     COL 8

ENDATA29

$$$ DATA TYPE 30 (PLOT CONTROL CARDS) $$$


NUMBER OF PLOTS =  1
NUMBER OF REACHES IN PLOT 1 =   4
PLOT RCH  1  2  3  4
ENDATA30

$$$ DATA TYPE 31 (OVERLAY PLOT DATA) $$$


OVERLAY 1 BlackEFF.OVL                    :Black Bayou Reservoir Calibration
ENDATA31



.....NO ERRORS DETECTED IN INPUT DATA
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN   2 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
***** WARNING:  NEGATIVE CONCENTRATIONS SET TO ZERO FOR Nitrate+Nitrite Nitrogen
.....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11


INTERMEDIATE REPORT
Dissolved Oxygen                                        LA-QUAL Calib for Black Bayou Reservoir (100405)
mg/L                                                  Calibration for FTN 2


ID   RCH  ELEM        +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
```

BB	1	1	5.06	5.08	5.08	5.08	5.08	5.08	5.08	5.08	5.08	5.08
BB	1	11	5.08	5.08	5.08	5.08	5.08	5.08	5.08	5.08	5.08	5.08
BB	2	21	4.52	4.52	4.52	4.52	4.52	4.52	4.52	4.52	4.52	4.52
BB	2	31	4.52	4.52	4.52	4.52	4.52	4.52	4.52	4.52	4.52	4.52
BB	3	41	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32
BB	3	51	4.32	4.32	4.32	4.32	4.32	4.32	4.32			
BB	4	58	4.07	4.07	4.07	4.07	4.07	4.07	4.07	4.07	4.07	4.07
BB	4	68	4.07	4.07	4.07	4.07	4.07	4.07	4.07	4.07	4.07	4.07

INTERMEDIATE REPORT
Effective BOD — LA-QUAL Calib for Black Bayou Reservoir (100405)
mg/L — Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	15.14	15.35	15.37	15.37	15.37	15.37	15.37	15.37	15.37	15.37
BB	1	11	15.37	15.37	15.37	15.37	15.37	15.37	15.37	15.37	15.37	15.37
BB	2	21	15.63	15.63	15.63	15.63	15.63	15.63	15.63	15.63	15.63	15.63
BB	2	31	15.63	15.63	15.63	15.63	15.63	15.63	15.63	15.63	15.63	15.63
BB	3	41	15.64	15.64	15.64	15.64	15.64	15.64	15.64	15.64	15.64	15.64
BB	3	51	15.64	15.64	15.64	15.64	15.64	15.64	15.64			
BB	4	58	15.62	15.62	15.62	15.62	15.62	15.62	15.62	15.62	15.62	15.62
BB	4	68	15.62	15.62	15.62	15.62	15.62	15.62	15.62	15.62	15.62	15.62

INTERMEDIATE REPORT
Biochemical Oxygen Demand — LA-QUAL Calib for Black Bayou Reservoir (100405)
mg/L — Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	10.04	10.25	10.27	10.27	10.27	10.27	10.27	10.27	10.27	10.27
BB	1	11	10.27	10.27	10.27	10.27	10.27	10.27	10.27	10.27	10.27	10.27
BB	2	21	10.53	10.53	10.53	10.53	10.53	10.53	10.53	10.53	10.53	10.53
BB	2	31	10.53	10.53	10.53	10.53	10.53	10.53	10.53	10.53	10.53	10.53
BB	3	41	10.54	10.54	10.54	10.54	10.54	10.54	10.54	10.54	10.54	10.54
BB	3	51	10.54	10.54	10.54	10.54	10.54	10.54	10.54			
BB	4	58	10.52	10.52	10.52	10.52	10.52	10.52	10.52	10.52	10.52	10.52
BB	4	68	10.52	10.52	10.52	10.52	10.52	10.52	10.52	10.52	10.52	10.52

INTERMEDIATE REPORT
Organic Nitrogen — LA-QUAL Calib for Black Bayou Reservoir (100405)
mg/L — Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	1.80	1.77	1.76	1.76	1.75	1.75	1.75	1.75	1.75	1.75
BB	1	11	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
BB	2	21	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74

BB	2	31	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74
BB	3	41	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
BB	3	51	1.75	1.75	1.75	1.75	1.75	1.75	1.75			
BB	4	58	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73
BB	4	68	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73

INTERMEDIATE REPORT
Ammonia Nitrogen — LA-QUAL Calib for Black Bayou Reservoir (100405)
mg/L — Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.35	0.31	0.31	0.31	0.30	0.30	0.30	0.30	0.30	0.30
BB	1	11	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
BB	2	21	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
BB	2	31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
BB	3	41	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
BB	3	51	0.31	0.31	0.31	0.31	0.31	0.31	0.31			
BB	4	58	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
BB	4	68	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31

INTERMEDIATE REPORT
Nitrate+Nitrite Nitrogen — LA-QUAL Calib for Black Bayou Reservoir (100405)
mg/L — Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	51	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
BB	4	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	4	68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

INTERMEDIATE REPORT
Total Nitrogen — LA-QUAL Calib for Black Bayou Reservoir (100405)
mg/L — Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	2.15	2.09	2.07	2.06	2.06	2.06	2.05	2.05	2.05	2.05
BB	1	11	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05
BB	2	21	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05
BB	2	31	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05
BB	3	41	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06
BB	3	51	2.06	2.06	2.06	2.06	2.06	2.06	2.06			
BB	4	58	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04

BB	4	68	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04

INTERMEDIATE REPORT
Chlorophyll a — LA-QUAL Calib for Black Bayou Reservoir (100405)
µg/L — Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	1	11	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	2	21	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	2	31	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	3	41	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	3	51	51.00	51.00	51.00	51.00	51.00	51.00	51.00			
BB	4	58	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	4	68	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00

INTERMEDIATE REPORT
Temperature — LA-QUAL Calib for Black Bayou Reservoir (100405)
deg C — Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80
BB	1	11	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80
BB	2	21	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80
BB	2	31	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80
BB	3	41	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80
BB	3	51	29.80	29.80	29.80	29.80	29.80	29.80	29.80			
BB	4	58	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80
BB	4	68	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80	29.80

INTERMEDIATE REPORT
Salinity — LA-QUAL Calib for Black Bayou Reservoir (100405)
ppt — Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	51	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
BB	4	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	4	68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

INTERMEDIATE REPORT

River Distance
km

LA-QUAL Calib for Black Bayou Reservoir (100405)
Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	8.	8.	7.	7.	7.	7.	7.	7.	7.	7.
BB	1	11	7.	7.	6.	6.	6.	6.	6.	6.	6.	6.
BB	2	21	6.	6.	5.	5.	5.	5.	5.	5.	5.	5.
BB	2	31	5.	5.	4.	4.	4.	4.	4.	4.	4.	4.
BB	3	41	4.	4.	3.	3.	3.	3.	3.	3.	3.	3.
BB	3	51	3.	3.	2.	2.	2.	2.	2.			
BB	4	58	2.	2.	2.	2.	1.	1.	1.	1.	1.	1.
BB	4	68	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.

INTERMEDIATE REPORT
Flow
m^3/s

LA-QUAL Calib for Black Bayou Reservoir (100405)
Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
BB	4	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	4	68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

INTERMEDIATE REPORT
Dispersion
m^2/s

LA-QUAL Calib for Black Bayou Reservoir (100405)
Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
BB	4	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	4	68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

INTERMEDIATE REPORT
Advective Velocity
m/s

LA-QUAL Calib for Black Bayou Reservoir (100405)
Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
BB	4	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	4	68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

INTERMEDIATE REPORT
Depth — LA-QUAL Calib for Black Bayou Reservoir (100405)
m — Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
BB	1	11	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
BB	2	21	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
BB	2	31	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
BB	3	41	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
BB	3	51	3.1	3.1	3.1	3.1	3.1	3.1	3.1			
BB	4	58	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
BB	4	68	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6

INTERMEDIATE REPORT
Width — LA-QUAL Calib for Black Bayou Reservoir (100405)
m — Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0
BB	1	11	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0
BB	2	21	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0
BB	2	31	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0
BB	3	41	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0
BB	3	51	351.0	351.0	351.0	351.0	351.0	351.0	351.0			
BB	4	58	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0
BB	4	68	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0

INTERMEDIATE REPORT
Cross-Sectional Area — LA-QUAL Calib for Black Bayou Reservoir (100405)
m^2 — Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5
BB	1	11	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5

BB	2	21	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5
BB	2	31	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5
BB	3	41	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7
BB	3	51	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7			
BB	4	58	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5
BB	4	68	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5

INTERMEDIATE REPORT
Reaeration Rate
per day

LA-QUAL Calib for Black Bayou Reservoir (100405)
Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	3.177	3.177	3.177	3.177	3.177	3.177	3.177	3.177	3.177	3.177
BB	1	11	3.177	3.177	3.177	3.177	3.177	3.177	3.177	3.177	3.177	3.177
BB	2	21	0.617	0.617	0.617	0.617	0.617	0.617	0.617	0.617	0.617	0.617
BB	2	31	0.617	0.617	0.617	0.617	0.617	0.617	0.617	0.617	0.617	0.617
BB	3	41	0.378	0.378	0.378	0.378	0.378	0.378	0.378	0.378	0.378	0.378
BB	3	51	0.378	0.378	0.378	0.378	0.378	0.378	0.378			
BB	4	58	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322
BB	4	68	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322

INTERMEDIATE REPORT
BOD Decay Rate
per day

LA-QUAL Calib for Black Bayou Reservoir (100405)
Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
BB	1	11	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
BB	2	21	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
BB	2	31	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
BB	3	41	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
BB	3	51	0.22	0.22	0.22	0.22	0.22	0.22	0.22			
BB	4	58	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
BB	4	68	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22

INTERMEDIATE REPORT
BOD Settling Rate
per day

LA-QUAL Calib for Black Bayou Reservoir (100405)
Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	51	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

BB	4	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	4	68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

INTERMEDIATE REPORT
Ammonia Decay Rate — LA-QUAL Calib for Black Bayou Reservoir (100405)
per day — Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
BB	1	11	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
BB	2	21	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
BB	2	31	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
BB	3	41	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
BB	3	51	0.14	0.14	0.14	0.14	0.14	0.14	0.14			
BB	4	58	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
BB	4	68	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14

INTERMEDIATE REPORT
Sediment Oxygen Demand — LA-QUAL Calib for Black Bayou Reservoir (100405)
g/m²/d — Calibration for FTN 2

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78
BB	1	11	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78
BB	2	21	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78
BB	2	31	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78
BB	3	41	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
BB	3	51	2.50	2.50	2.50	2.50	2.50	2.50	2.50			
BB	4	58	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60
BB	4	68	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60

CONDENSED CAPSULE SUMMARY FOR Black Bayou

DIST	FLOW	TEMP	SALN	DO	EBOD1	EBOD2	ORGN	NH3	CHLA	REAER RATE	BOD1 DECA	BOD1 SETT	BOD2 DECA	BOD2 SETT	NH3 DECA	SOD
km	m³/s	deg C	ppt	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	1/da	1/da	1/da	1/da	1/da	1/da	g/m²/d
HDWTR	0.00221	30.40	0.00	1.00	13.10	0.00	1.84	0.56	51.00							
7.60	0.00221	29.80	0.00	5.06	15.14	0.00	1.80	0.35	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
7.50	0.00221	29.80	0.00	5.08	15.35	0.00	1.77	0.31	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
7.40	0.00221	29.80	0.00	5.08	15.37	0.00	1.76	0.31	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
7.30	0.00221	29.80	0.00	5.08	15.37	0.00	1.76	0.31	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
7.20	0.00221	29.80	0.00	5.08	15.37	0.00	1.75	0.30	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
7.10	0.00221	29.80	0.00	5.08	15.37	0.00	1.75	0.30	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
7.00	0.00221	29.80	0.00	5.08	15.37	0.00	1.75	0.30	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
6.90	0.00221	29.80	0.00	5.08	15.37	0.00	1.75	0.30	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
6.80	0.00221	29.80	0.00	5.08	15.37	0.00	1.75	0.30	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
6.70	0.00221	29.80	0.00	5.08	15.37	0.00	1.75	0.30	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78

6.60	0.00221	29.80	0.00	5.08	15.37	0.00	1.75	0.30	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
6.50	0.00221	29.80	0.00	5.08	15.37	0.00	1.75	0.30	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
6.40	0.00221	29.80	0.00	5.08	15.37	0.00	1.75	0.30	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
6.30	0.00221	29.80	0.00	5.08	15.37	0.00	1.75	0.30	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
6.20	0.00221	29.80	0.00	5.08	15.37	0.00	1.75	0.30	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
6.10	0.00221	29.80	0.00	5.08	15.37	0.00	1.75	0.30	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
6.00	0.00221	29.80	0.00	5.08	15.37	0.00	1.75	0.30	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
5.90	0.00221	29.80	0.00	5.08	15.37	0.00	1.75	0.30	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
5.80	0.00221	29.80	0.00	5.08	15.37	0.00	1.75	0.30	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
5.70	0.00221	29.80	0.00	5.08	15.37	0.00	1.75	0.30	51.00	3.18	0.22	0.00	0.00	0.00	0.14	2.78
5.60	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
5.50	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
5.40	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
5.30	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
5.20	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
5.10	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
5.00	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
4.90	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
4.80	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
4.70	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
4.60	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
4.50	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
4.40	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
4.30	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
4.20	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
4.10	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
4.00	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
3.90	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
3.80	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
3.70	0.00221	29.80	0.00	4.52	15.63	0.00	1.74	0.31	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.78
3.60	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
3.50	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
3.40	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
3.30	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
3.20	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
3.10	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
3.00	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
2.90	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
2.80	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
2.70	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
2.60	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
2.50	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
2.40	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
2.30	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
2.20	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
2.10	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
2.00	0.00221	29.80	0.00	4.32	15.64	0.00	1.75	0.31	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.50
1.90	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
1.80	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
1.70	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
1.60	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
1.50	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
1.40	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
1.30	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
1.20	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60

1.10	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
1.00	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
0.90	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
0.80	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
0.70	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
0.60	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
0.50	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
0.40	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
0.30	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
0.20	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
0.10	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60
0.00	0.00221	29.80	0.00	4.07	15.62	0.00	1.73	0.31	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.60

EXPANDED CAPSULE SUMMARY FOR Black Bayou

ADVEC	MEAN	DO	REAER	BOD1	BOD1	BOD2	BOD2	NH3																	
IOR	REACH	DIST	FLOW	TEMP	SALN	DO	EBOD1	EBOD2	ORG-N	NH3	CHLA	DISP	DEPTH	WIDTH	VELO	VELO	SAT	RATE	DECA	SETT	DECA	SETT	DECA	SOD	
km	m³/s	deg C	ppt	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	m²/s		m	m	m/s	m/s	mg/L	1/da	1/da	1/da	1/da	1/da	1/da	g/m²/d		
HDWTR	0.002	30.4	0.0	1.0	13.1	0.0	1.8	0.6	51.0																
1	BB	1	7.60	0.002	29.8	0.0	5.1	15.1	0.0	1.8	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
2	BB	1	7.50	0.002	29.8	0.0	5.1	15.3	0.0	1.8	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
3	BB	1	7.40	0.002	29.8	0.0	5.1	15.4	0.0	1.8	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
4	BB	1	7.30	0.002	29.8	0.0	5.1	15.4	0.0	1.8	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
5	BB	1	7.20	0.002	29.8	0.0	5.1	15.4	0.0	1.8	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
6	BB	1	7.10	0.002	29.8	0.0	5.1	15.4	0.0	1.8	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
7	BB	1	7.00	0.002	29.8	0.0	5.1	15.4	0.0	1.8	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
8	BB	1	6.90	0.002	29.8	0.0	5.1	15.4	0.0	1.8	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
9	BB	1	6.80	0.002	29.8	0.0	5.1	15.4	0.0	1.7	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
10	BB	1	6.70	0.002	29.8	0.0	5.1	15.4	0.0	1.7	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
11	BB	1	6.60	0.002	29.8	0.0	5.1	15.4	0.0	1.7	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
12	BB	1	6.50	0.002	29.8	0.0	5.1	15.4	0.0	1.7	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
13	BB	1	6.40	0.002	29.8	0.0	5.1	15.4	0.0	1.7	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
14	BB	1	6.30	0.002	29.8	0.0	5.1	15.4	0.0	1.7	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
15	BB	1	6.20	0.002	29.8	0.0	5.1	15.4	0.0	1.7	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
16	BB	1	6.10	0.002	29.8	0.0	5.1	15.4	0.0	1.7	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
17	BB	1	6.00	0.002	29.8	0.0	5.1	15.4	0.0	1.7	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
18	BB	1	5.90	0.002	29.8	0.0	5.1	15.4	0.0	1.7	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
19	BB	1	5.80	0.002	29.8	0.0	5.1	15.4	0.0	1.7	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
20	BB	1	5.70	0.002	29.8	0.0	5.1	15.4	0.0	1.7	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.6	3.177	0.22	0.00	0.00	0.00	0.14	2.78
21	BB	2	5.60	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
22	BB	2	5.50	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
23	BB	2	5.40	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
24	BB	2	5.30	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
25	BB	2	5.20	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
26	BB	2	5.10	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
27	BB	2	5.00	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
28	BB	2	4.90	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
29	BB	2	4.80	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
30	BB	2	4.70	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
31	BB	2	4.60	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
32	BB	2	4.50	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
33	BB	2	4.40	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
34	BB	2	4.30	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
35	BB	2	4.20	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
36	BB	2	4.10	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
37	BB	2	4.00	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
38	BB	2	3.90	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
39	BB	2	3.80	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
40	BB	2	3.70	0.002	29.8	0.0	4.5	15.6	0.0	1.7	0.3	51.0	0.0	1.88	295.0	0.000	0.000	7.6	0.617	0.22	0.00	0.00	0.00	0.14	2.78
41	BB	3	3.60	0.002	29.8	0.0	4.3	15.6	0.0	1.7	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50
42	BB	3	3.50	0.002	29.8	0.0	4.3	15.6	0.0	1.7	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50
43	BB	3	3.40	0.002	29.8	0.0	4.3	15.6	0.0	1.8	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50
44	BB	3	3.30	0.002	29.8	0.0	4.3	15.6	0.0	1.8	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50
45	BB	3	3.20	0.002	29.8	0.0	4.3	15.6	0.0	1.8	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50
46	BB	3	3.10	0.002	29.8	0.0	4.3	15.6	0.0	1.8	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50
47	BB	3	3.00	0.002	29.8	0.0	4.3	15.6	0.0	1.8	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50
48	BB	3	2.90	0.002	29.8	0.0	4.3	15.6	0.0	1.8	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50

49	BB	3	2.80	0.002	29.8	0.0	4.3	15.6	0.0	1.8	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50
50	BB	3	2.70	0.002	29.8	0.0	4.3	15.6	0.0	1.8	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50
51	BB	3	2.60	0.002	29.8	0.0	4.3	15.6	0.0	1.8	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50
52	BB	3	2.50	0.002	29.8	0.0	4.3	15.6	0.0	1.8	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50
53	BB	3	2.40	0.002	29.8	0.0	4.3	15.6	0.0	1.8	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50
54	BB	3	2.30	0.002	29.8	0.0	4.3	15.6	0.0	1.8	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50
55	BB	3	2.20	0.002	29.8	0.0	4.3	15.6	0.0	1.8	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50
56	BB	3	2.10	0.002	29.8	0.0	4.3	15.6	0.0	1.8	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50
57	BB	3	2.00	0.002	29.8	0.0	4.3	15.6	0.0	1.8	0.3	51.0	0.0	3.08	351.0	0.000	0.000	7.6	0.378	0.22	0.00	0.00	0.00	0.14	2.50
58	BB	4	1.90	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
59	BB	4	1.80	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
60	BB	4	1.70	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
61	BB	4	1.60	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
62	BB	4	1.50	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
63	BB	4	1.40	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
64	BB	4	1.30	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
65	BB	4	1.20	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
66	BB	4	1.10	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
67	BB	4	1.00	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
68	BB	4	0.90	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
69	BB	4	0.80	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
70	BB	4	0.70	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
71	BB	4	0.60	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
72	BB	4	0.50	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
73	BB	4	0.40	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60

EXPANDED CAPSULE SUMMARY FOR Black Bayou

ADVEC IOR	REACH	MEAN DIST	DO FLOW	REAER TEMP	BOD1 SALN	BOD1 DO	BOD2 EBOD1	BOD2 EBOD2	ORG-N	NH3 NH3	CHLA	DISP	DEPTH	WIDTH	VELO	VELO	SAT	RATE DECA	SETT DECA	SETT DECA	SOD
km		m^3/s	deg C	ppt	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	m^2/s	m	m	m/s	m/s	mg/L	1/da	1/da	1/da	1/da	$g/m^2/d$
74	BB 4	0.30	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
75	BB 4	0.20	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
76	BB 4	0.10	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60
77	BB 4	0.00	0.002	29.8	0.0	4.1	15.6	0.0	1.7	0.3	51.0	0.0	3.61	420.0	0.000	0.000	7.6	0.322	0.22	0.00	0.00	0.00	0.14	2.60

SPECIAL REPORT: Black Bayou
WATER QUALITY CONSTITUENT VALUES

ELEM NO.	ENDING km	TEMP deg C	SALN ppt	CM-I *	CM-II *	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO **	COLI #/100mL	NOM *
1	7.600	29.80	0.0	0.0	0.0	5.06	10.04	0.00	15.14	0.00	1.80	0.35	0.00	2.15	0.00	51.0	0.0	0.	0.00
2	7.500	29.80	0.0	0.0	0.0	5.08	10.25	0.00	15.35	0.00	1.77	0.31	0.00	2.09	0.00	51.0	0.0	0.	0.00
3	7.400	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.76	0.31	0.00	2.07	0.00	51.0	0.0	0.	0.00
4	7.300	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.76	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
5	7.200	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.06	0.00	51.0	0.0	0.	0.00
6	7.100	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.06	0.00	51.0	0.0	0.	0.00
7	7.000	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.0	0.0	0.	0.00
8	6.900	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.0	0.0	0.	0.00
9	6.800	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.0	0.0	0.	0.00
10	6.700	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.0	0.0	0.	0.00
11	6.600	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.0	0.0	0.	0.00
12	6.500	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.0	0.0	0.	0.00
13	6.400	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.0	0.0	0.	0.00
14	6.300	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.0	0.0	0.	0.00
15	6.200	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.0	0.0	0.	0.00
16	6.100	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.0	0.0	0.	0.00
17	6.000	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.0	0.0	0.	0.00
18	5.900	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.0	0.0	0.	0.00
19	5.800	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.0	0.0	0.	0.00
20	5.700	29.80	0.0	0.0	0.0	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.0	0.0	0.	0.00
21	5.600	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
22	5.500	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
23	5.400	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
24	5.300	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
25	5.200	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
26	5.100	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
27	5.000	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
28	4.900	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
29	4.800	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
30	4.700	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
31	4.600	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
32	4.500	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
33	4.400	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
34	4.300	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
35	4.200	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
36	4.100	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
37	4.000	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00

38	3.900	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
39	3.800	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
40	3.700	29.80	0.0	0.0	0.0	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.0	0.0	0.	0.00
41	3.600	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
42	3.500	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
43	3.400	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
44	3.300	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
45	3.200	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
46	3.100	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
47	3.000	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
48	2.900	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
49	2.800	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
50	2.700	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
51	2.600	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
52	2.500	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
53	2.400	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
54	2.300	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
55	2.200	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
56	2.100	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
57	2.000	29.80	0.0	0.0	0.0	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.0	0.0	0.	0.00
58	1.900	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
59	1.800	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
60	1.700	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
61	1.600	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
62	1.500	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
63	1.400	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
64	1.300	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
65	1.200	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
66	1.100	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
67	1.000	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
68	0.900	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
69	0.800	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
70	0.700	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
71	0.600	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
72	0.500	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
73	0.400	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
74	0.300	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
75	0.200	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
76	0.100	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00
77	0.000	29.80	0.0	0.0	0.0	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.0	0.0	0.	0.00

SPECIAL REPORT: Black Bayou
BIOLOGICAL AND PHYSICAL COEFFICIENTS

ELEM	ENDING	SAT	REAER	BOD#1	BOD#1	ABOD#1	BOD#1	BOD#2	ABOD#2	FULL	CORR	ORG-N	ORG-N	NH3	NH3	DENIT	PO4	ALG	MAC	COLI	NCM	NCM
NO.	DIST	D.O.	RATE	DECAY	SETT	DECAY	DECAY	SETT	DECAY	SOD	SOD	DECAY	SETT	DECAY	SRCE	RATE	SRCE	PROD	PROD	DECAY	DECAY	SETT
km	mg/L		1/da	1/da	1/da	1/da	1/da	1/da	*	*	1/da	1/da	1/da	*	1/da	*	**	**	1/da	1/da	1/da	
1	7.600	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
2	7.500	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
3	7.400	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
4	7.300	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
5	7.200	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
6	7.100	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00

7	7.000	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
8	6.900	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
9	6.800	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
10	6.700	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
11	6.600	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
12	6.500	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
13	6.400	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
14	6.300	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
15	6.200	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
16	6.100	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
17	6.000	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
18	5.900	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
19	5.800	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
20	5.700	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
21	5.600	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
22	5.500	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
23	5.400	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
24	5.300	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
25	5.200	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
26	5.100	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
27	5.000	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
28	4.900	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
29	4.800	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
30	4.700	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
31	4.600	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
32	4.500	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
33	4.400	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
34	4.300	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
35	4.200	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
36	4.100	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
37	4.000	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
38	3.900	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
39	3.800	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
40	3.700	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
41	3.600	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
42	3.500	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
43	3.400	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
44	3.300	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
45	3.200	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
46	3.100	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
47	3.000	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
48	2.900	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
49	2.800	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
50	2.700	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
51	2.600	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
52	2.500	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
53	2.400	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
54	2.300	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
55	2.200	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
56	2.100	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
57	2.000	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
58	1.900	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
59	1.800	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
60	1.700	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
61	1.600	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00

62	1.500	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
63	1.400	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
64	1.300	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
65	1.200	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
66	1.100	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
67	1.000	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
68	0.900	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
69	0.800	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
70	0.700	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
71	0.600	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
72	0.500	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
73	0.400	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
74	0.300	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
75	0.200	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
76	0.100	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
77	0.000	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00

SPECIAL REPORT: Black Bayou
HYDRAULIC PARAMETER VALUES

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	ADVCTV VELO	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO
km	km		m^3/s	m/s	m	m	m^3	m^2	m^2	m^3	m/s	m^2/s	m/s
1	7.70	7.60	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
2	7.60	7.50	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
3	7.50	7.40	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
4	7.40	7.30	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
5	7.30	7.20	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
6	7.20	7.10	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
7	7.10	7.00	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
8	7.00	6.90	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
9	6.90	6.80	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
10	6.80	6.70	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
11	6.70	6.60	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
12	6.60	6.50	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
13	6.50	6.40	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
14	6.40	6.30	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
15	6.30	6.20	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
16	6.20	6.10	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
17	6.10	6.00	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
18	6.00	5.90	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
19	5.90	5.80	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
20	5.80	5.70	0.0022	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
21	5.70	5.60	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
22	5.60	5.50	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
23	5.50	5.40	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
24	5.40	5.30	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
25	5.30	5.20	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
26	5.20	5.10	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
27	5.10	5.00	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
28	5.00	4.90	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
29	4.90	4.80	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
30	4.80	4.70	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000

31	4.70	4.60	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
32	4.60	4.50	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
33	4.50	4.40	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
34	4.40	4.30	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
35	4.30	4.20	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
36	4.20	4.10	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
37	4.10	4.00	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
38	4.00	3.90	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
39	3.90	3.80	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
40	3.80	3.70	0.0022	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
41	3.70	3.60	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
42	3.60	3.50	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
43	3.50	3.40	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
44	3.40	3.30	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
45	3.30	3.20	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
46	3.20	3.10	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
47	3.10	3.00	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
48	3.00	2.90	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
49	2.90	2.80	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
50	2.80	2.70	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
51	2.70	2.60	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
52	2.60	2.50	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
53	2.50	2.40	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
54	2.40	2.30	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
55	2.30	2.20	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
56	2.20	2.10	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
57	2.10	2.00	0.0022	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
58	2.00	1.90	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
59	1.90	1.80	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
60	1.80	1.70	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
61	1.70	1.60	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
62	1.60	1.50	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
63	1.50	1.40	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
64	1.40	1.30	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
65	1.30	1.20	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
66	1.20	1.10	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
67	1.10	1.00	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
68	1.00	0.90	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
69	0.90	0.80	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
70	0.80	0.70	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
71	0.70	0.60	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
72	0.60	0.50	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
73	0.50	0.40	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
74	0.40	0.30	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
75	0.30	0.20	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
76	0.20	0.10	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
77	0.10	0.00	0.0022	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000

FINAL REPORT Black Bayou LA-QUAL Calib for Black Bayou Reservoir (100405)
REACH NO. 1 Black Bayou Reserv Calibration for FTN 2

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWTR	0.00221	30.40	0.00	0.00	0.00	1.00	8.00	0.00	13.10	0.00	1.84	0.56	0.00	0.00	51.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
1	7.70	7.60	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
2	7.60	7.50	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
3	7.50	7.40	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
4	7.40	7.30	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
5	7.30	7.20	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
6	7.20	7.10	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
7	7.10	7.00	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
8	7.00	6.90	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
9	6.90	6.80	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
10	6.80	6.70	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
11	6.70	6.60	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
12	6.60	6.50	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
13	6.50	6.40	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
14	6.40	6.30	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
15	6.30	6.20	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
16	6.20	6.10	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
17	6.10	6.00	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
18	6.00	5.90	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
19	5.90	5.80	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
20	5.80	5.70	0.00221	0.0	0.00003	40.06	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
TOT						801.22			152988.00	418000.00					
AVG					0.0000		0.37	209.00			76.49				
CUM						801.22									

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST mg/L	SAT D.O. 1/da	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT *	ABOD#2 DECAY *	BKGD SOD *	FULL SOD 1/da	CORR SOD 1/da	ORGN DECAY 1/da	ORGN SETT *	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE **	PO4 SRCE **	ALG PROD 1/da	MAC PROD 1/da	COLI DECAY 1/da	NCM DECAY	NCM SETT
1	7.600	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
2	7.500	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
3	7.400	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
4	7.300	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
5	7.200	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
6	7.100	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
7	7.000	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
8	6.900	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
9	6.800	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
10	6.700	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
11	6.600	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00

12	6.500	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
13	6.400	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
14	6.300	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
15	6.200	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
16	6.100	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
17	6.000	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
18	5.900	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
19	5.800	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
20	5.700	7.58	3.18	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			2.65	0.14	0.00	0.00	0.00	0.00	0.00	1.50			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* $g/m^2/d$ ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m^3	COLI #/100mL	NCM
1	7.600	29.80	0.00	0.00	0.00	5.06	10.04	0.00	15.14	0.00	1.80	0.35	0.00	2.15	0.00	51.00	0.00	0.	0.00
2	7.500	29.80	0.00	0.00	0.00	5.08	10.25	0.00	15.35	0.00	1.77	0.31	0.00	2.09	0.00	51.00	0.00	0.	0.00
3	7.400	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.76	0.31	0.00	2.07	0.00	51.00	0.00	0.	0.00
4	7.300	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.76	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
5	7.200	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.06	0.00	51.00	0.00	0.	0.00
6	7.100	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.06	0.00	51.00	0.00	0.	0.00
7	7.000	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.00	0.00	0.	0.00
8	6.900	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.00	0.00	0.	0.00
9	6.800	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.00	0.00	0.	0.00
10	6.700	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.00	0.00	0.	0.00
11	6.600	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.00	0.00	0.	0.00
12	6.500	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.00	0.00	0.	0.00
13	6.400	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.00	0.00	0.	0.00
14	6.300	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.00	0.00	0.	0.00
15	6.200	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.00	0.00	0.	0.00
16	6.100	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.00	0.00	0.	0.00
17	6.000	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.00	0.00	0.	0.00
18	5.900	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.00	0.00	0.	0.00
19	5.800	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.00	0.00	0.	0.00
20	5.700	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	2.05	0.00	51.00	0.00	0.	0.00

FINAL REPORT Black Bayou LA-QUAL Calib for Black Bayou Reservoir (100405)
REACH NO. 2 Black Bayou Reserv Calibration for FTN 2

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
21	UPR RCH	0.00221	29.80	0.00	0.00	0.00	5.08	10.27	0.00	15.37	0.00	1.75	0.30	0.00	0.00	51.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO
km	km	m^3/s		m/s	days	m	m	m^3	m^2	m^2	m^3	m/s	m^2/s	m/s	
21	5.70	5.60	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
22	5.60	5.50	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
23	5.50	5.40	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
24	5.40	5.30	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
25	5.30	5.20	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
26	5.20	5.10	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
27	5.10	5.00	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
28	5.00	4.90	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
29	4.90	4.80	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
30	4.80	4.70	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
31	4.70	4.60	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
32	4.60	4.50	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
33	4.50	4.40	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
34	4.40	4.30	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
35	4.30	4.20	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
36	4.20	4.10	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
37	4.10	4.00	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
38	4.00	3.90	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
39	3.90	3.80	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
40	3.80	3.70	0.00221	0.0	0.00000	290.92	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
TOT						5818.30			1110970.00	590000.00					
AVG					0.0000		1.88	295.00			555.48				
CUM						6619.52									

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECAY	BOD#1 SETT	ABOD#1 DECAY	BOD#2 DECAY	BOD#2 SETT	ABOD#2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECAY	NH3 SRCE	DENIT RATE	PO4 SRCE	ALG PROD	MAC PROD	COLI DECAY	NCM DECAY	NCM SETT
mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	*	**	**	1/da	1/da	1/da		
21	5.600	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
22	5.500	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
23	5.400	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
24	5.300	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
25	5.200	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
26	5.100	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
27	5.000	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
28	4.900	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
29	4.800	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
30	4.700	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
31	4.600	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
32	4.500	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
33	4.400	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
34	4.300	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
35	4.200	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
36	4.100	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
37	4.000	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
38	3.900	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00

39	3.800	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
40	3.700	7.58	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.78	2.78	2.78	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.52	0.14	0.00	0.00	0.00	0.00	0.00	1.50			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
21	5.600	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
22	5.500	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
23	5.400	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
24	5.300	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
25	5.200	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
26	5.100	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
27	5.000	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
28	4.900	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
29	4.800	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
30	4.700	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
31	4.600	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
32	4.500	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
33	4.400	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
34	4.300	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
35	4.200	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
36	4.100	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
37	4.000	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
38	3.900	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
39	3.800	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00
40	3.700	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	2.05	0.00	51.00	0.00	0.	0.00

FINAL REPORT Black Bayou LA-QUAL Calib for Black Bayou Reservoir (100405)
REACH NO. 3 Black Bayou Reserv Calibration for FTN 2

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
41	UPR RCH	0.00221	29.80	0.00	0.00	0.00	4.52	10.53	0.00	15.63	0.00	1.74	0.31	0.00	0.00	51.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
41	3.70	3.60	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
42	3.60	3.50	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000

43	3.50	3.40	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
44	3.40	3.30	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
45	3.30	3.20	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
46	3.20	3.10	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
47	3.10	3.00	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
48	3.00	2.90	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
49	2.90	2.80	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
50	2.80	2.70	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
51	2.70	2.60	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
52	2.60	2.50	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
53	2.50	2.40	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
54	2.40	2.30	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
55	2.30	2.20	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
56	2.20	2.10	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
57	2.10	2.00	0.00221	0.0	0.00000	565.44	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
TOT						9612.50			1835449.50	596700.00													
AVG					0.0000		3.08	351.00			1079.68												
CUM						16232.02																	

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECAY	BOD#1 SETT	ABOD#1 DECAY	BOD#2 DECAY	BOD#2 SETT	ABOD#2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECAY	NH3 SRCE	DENIT RATE	PO4 SRCE	ALG PROD	MAC PROD	COLI DECAY	NCM DECAY	NCM SETT
mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	*	**	**	1/da	1/da	1/da		
41	3.600	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
42	3.500	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
43	3.400	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
44	3.300	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
45	3.200	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
46	3.100	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
47	3.000	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
48	2.900	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
49	2.800	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
50	2.700	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
51	2.600	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
52	2.500	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
53	2.400	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
54	2.300	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
55	2.200	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
56	2.100	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
57	2.000	7.58	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.32	0.14	0.00	0.00	0.00	0.00	0.00	1.35			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM

41	3.600	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
42	3.500	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
43	3.400	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
44	3.300	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
45	3.200	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
46	3.100	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
47	3.000	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
48	2.900	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
49	2.800	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
50	2.700	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
51	2.600	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
52	2.500	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
53	2.400	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
54	2.300	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
55	2.200	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
56	2.100	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00
57	2.000	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	2.06	0.00	51.00	0.00	0.	0.00

FINAL REPORT Black Bayou LA-QUAL Calib for Black Bayou Reservoir (100405)
REACH NO. 4 Black Bayou Reserv Calibration for FTN 2

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NOM
58	UPR RCH	0.00221	29.80	0.00	0.00	0.00	4.32	10.54	0.00	15.64	0.00	1.75	0.31	0.00	0.00	51.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
58	2.00	1.90	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
59	1.90	1.80	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
60	1.80	1.70	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
61	1.70	1.60	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
62	1.60	1.50	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
63	1.50	1.40	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
64	1.40	1.30	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
65	1.30	1.20	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
66	1.20	1.10	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
67	1.10	1.00	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
68	1.00	0.90	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
69	0.90	0.80	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
70	0.80	0.70	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
71	0.70	0.60	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
72	0.60	0.50	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
73	0.50	0.40	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
74	0.40	0.30	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
75	0.30	0.20	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000

76	0.20	0.10	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000								
77	0.10	0.00	0.00221	0.0	0.00000	793.17	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000								
TOT						15863.50			3029040.00	840000.00													
AVG					0.0000		3.61	420.00			1514.52												
CUM						32095.54																	

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECAY	BOD#1 SETT	ABOD#1 DECAY	BOD#2 DECAY	BOD#2 SETT	ABOD#2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECAY	NH3 SRCE	DENIT RATE	PO4 SRCE	ALG PROD	MAC PROD	COLI DECAY	NCM DECAY	NCM SETT
mg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	*	*	*	1/da	1/da	1/da	*	1/da	*	**	**	1/da	1/da	1/da		
58	1.900	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
59	1.800	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
60	1.700	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
61	1.600	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
62	1.500	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
63	1.400	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
64	1.300	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
65	1.200	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
66	1.100	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
67	1.000	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
68	0.900	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
69	0.800	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
70	0.700	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
71	0.600	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
72	0.500	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
73	0.400	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
74	0.300	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
75	0.200	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
76	0.100	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
77	0.000	7.58	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.60	2.60	2.60	0.02	0.00	0.14	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.27	0.14	0.00	0.00	0.00	0.00	0.00	1.40			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
58	1.900	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
59	1.800	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
60	1.700	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
61	1.600	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
62	1.500	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
63	1.400	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
64	1.300	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
65	1.200	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
66	1.100	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
67	1.000	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00

68	0.900	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
69	0.800	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
70	0.700	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
71	0.600	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
72	0.500	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
73	0.400	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
74	0.300	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
75	0.200	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
76	0.100	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00
77	0.000	29.80	0.00	0.00	0.00	4.07	10.52	0.00	15.62	0.00	1.73	0.31	0.00	2.04	0.00	51.00	0.00	0.	0.00

STREAM SUMMARY
Black Bayou

LA-QUAL Calib for Black Bayou Reservoir (100405)
Calibration for FTN 2

TRAVEL TIME = 32095.54 DAYS

MAXIMUM EFFLUENT = 0.00 PERCENT

FLOW	=	0.00221 TO	0.00221	m^3/s
DISPERSION	=	0.0000 TO	0.0000	m^2/s
VELOCITY	=	0.00000 TO	0.00003	m/s
DEPTH	=	0.37 TO	3.61	m
WIDTH	=	209.00 TO	420.00	m
BOD DECAY	=	0.22 TO	0.22	per day
NH3 DECAY	=	0.14 TO	0.14	per day
SOD	=	2.50 TO	2.78	$g/m^2/d$
NH3 SOURCE	=	0.00 TO	0.00	$g/m^2/d$
REAERATION	=	0.32 TO	3.18	per day
BOD SETTLING	=	0.00 TO	0.00	per day
ORG-N DECAY	=	0.02 TO	0.02	per day
ORG-N SETTLING	=	0.00 TO	0.00	per day
TEMPERATURE	=	29.80 TO	29.80	deg C
DISSOLVED OXYGEN	=	4.07 TO	5.08	mg/L

LA-QUAL Calib for Black Bayou Reservoir (100405)
Calibration for FTN 2

REACH SUMMARY REPORT FOR Black Bayou

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	AVG DEPTH ft	AVG WIDTH ft
1	Black Bayou Reserv	7.70	5.70	2.00	801.22	0.00221	0.00003	0.366	209.00	0.078	0.000	1.201	685.73
2	Black Bayou Reserv	5.70	3.70	2.00	5818.30	0.00221	0.00000	1.883	295.00	0.078	0.000	6.178	967.89
3	Black Bayou Reserv	3.70	2.00	1.70	9612.50	0.00221	0.00000	3.076	351.00	0.078	0.000	10.092	1151.63
4	Black Bayou Reserv	2.00	0.00	2.00	15863.50	0.00221	0.00000	3.606	420.00	0.078	0.000	11.831	1378.02

DISSOLVED OXYGEN LOADING FOR REACH 1: Black Bayou

IOR ADV	UPMN ADV	UPTR ADV	LOWR DISP	UPMN DISP	UPTR DISP	LOWR IN	INCR OUT	INCR IN	NONP IN	wSLD OUT	WITH IN	REAE DECA	BOD1 DECA	NH3-N DECA	ORG-N DECA	NCM BKGD	SOD BOD1	SOD ALG	SOD NCM	SOD PHOT	ALG RESP	ALG PHOT	MAC OUT	TOT IN	TOT	
1	0.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-2.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.6	77.6	-0.01
2	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.8	77.7	-0.01
3	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.8	77.8	-0.01
4	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.8	77.7	-0.01
5	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.7	77.7	-0.01
6	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.7	77.7	-0.01
7	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.7	77.7	-0.01
8	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.7	77.7	-0.01
9	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.7	77.7	-0.01
10	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.7	77.7	-0.01
11	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.7	77.7	-0.01
12	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.7	77.7	-0.01
13	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.7	77.7	-0.01
14	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.7	77.7	-0.01
15	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.7	77.7	-0.01
16	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.7	77.7	-0.01
17	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.7	77.7	-0.01
18	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.7	77.7	-0.01
19	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.7	77.7	-0.01
20	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	61.	-17.	-1.	0.	0.	-58.	0.	0.	0.	16.	0.	0.	-77.7	77.7	-0.01
21	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.5	221.5	-0.02
22	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
23	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
24	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
25	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
26	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
27	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
28	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
29	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
30	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
31	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
32	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
33	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
34	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
35	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
36	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
37	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
38	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
39	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
40	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	105.	-128.	-10.	0.	0.	-82.	0.	0.	0.	116.	0.	0.	-221.6	221.6	-0.02
41	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00
42	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00
43	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00
44	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00
45	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00
46	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00
47	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00
48	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00
49	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00
50	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00

51	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00
52	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00
53	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00
54	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00
55	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00
56	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00
57	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-250.	-20.	0.	0.	-88.	0.	0.	0.	225.	0.	0.	-358.5	358.5	0.00
58	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	171.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
59	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05

DISSOLVED OXYGEN LOADING FOR REACH 1: Black Bayou

IOR ADV	UPMN ADV	UPTR ADV	LOWR DISP	UPMN DISP	UPTR DISP	LOWR IN	INCR OUT	INCR IN	NONP IN	wSLD OUT	WITH IN	REAE DECA	BOD1 DECA	NH3-N DECA	ORG-N DECA	NCM BKGD	SOD BOD1	SOD ALG	SOD NCM	SOD PHOT	ALG RESP	ALG PHOT	MAC OUT	TOT IN	TOT	
60	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
61	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
62	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
63	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
64	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
65	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
66	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
67	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
68	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
69	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
70	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
71	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
72	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
73	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
74	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
75	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
76	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05
77	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	172.	-350.	-27.	0.	0.	-109.	0.	0.	0.	315.	0.	0.	-487.2	487.3	0.05

LA-QUAL Calib for Black Bayou Reservoir (100405)
Calibration for FTN 2

INPUT/OUTPUT LOADING SUMMARY

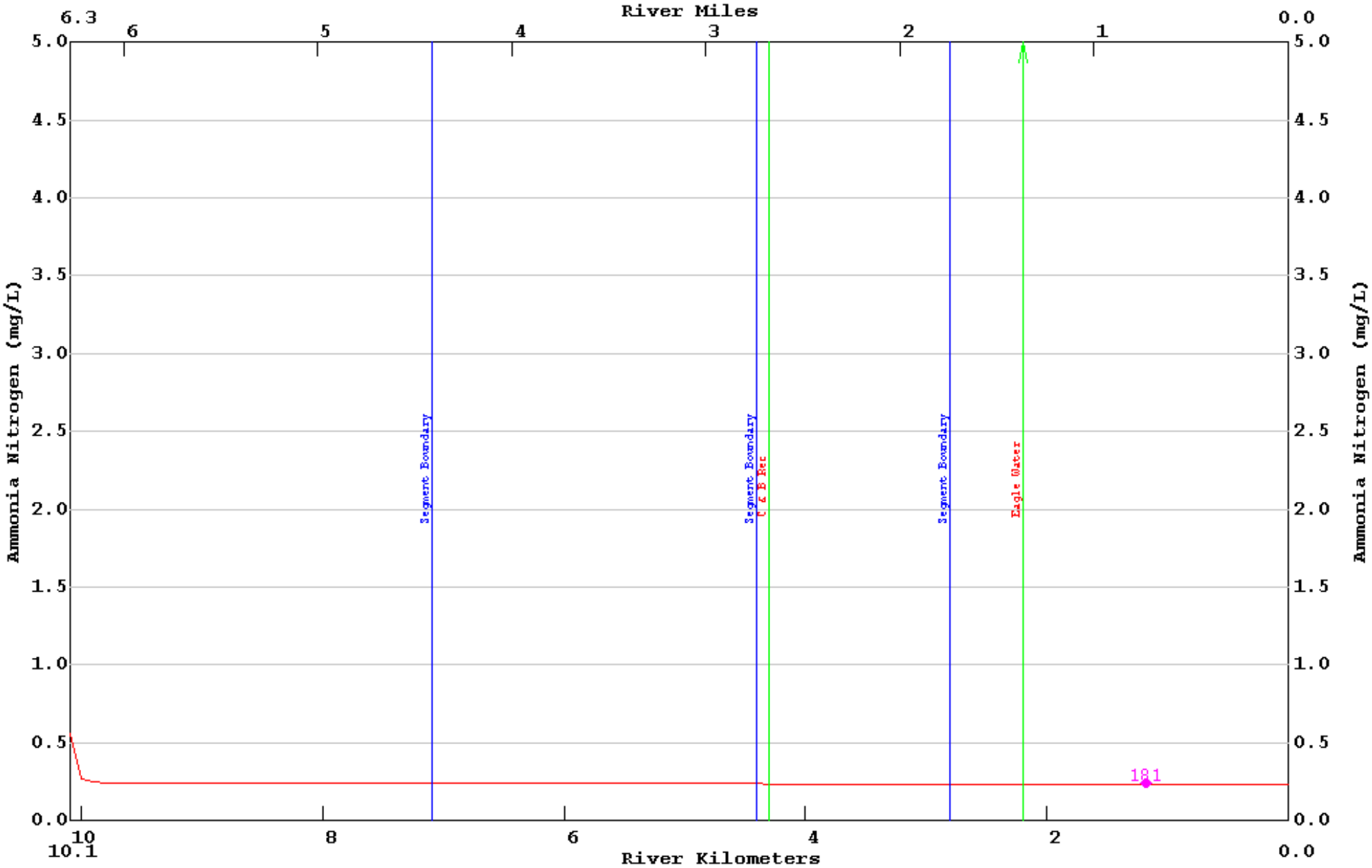
FLOW	DO	BOD#1	BOD#2	ORG-N	NH3-N	NO3-N	PHOS	CHL A	NCM				
m^3/s	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d	kg/d						
HEADWATER FLOW			0.002	0.2	1.5	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0
INCREMENTAL INFLOW			0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
INCREMENTAL OUTFLOW			0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WASTELOADS			0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WITHDRAWLS			0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FLOW THRU LOWER BNDRY			-0.002	-0.8	-2.0	0.0	-0.3	-0.1	0.0	0.0	0.0	0.0	0.0
DISPERSION THRU LOWER BNDRY				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DISPERSION THRU HDWTR BNDRY				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NON-POINT INPUT				0.0	14165.0	0.0	258.5						0.0
NATURAL REAERATION				9014.6									
DAM REAERATION				0.0									
BACKGROUND SOD				-6475.8									
BOD#1 DECAY				-14164.5	-14164.5								
BOD#1 SETTLING				0.0	0.0								
ANAEROBIC BOD#1 DECAY					0.0								
BOD#2 DECAY				0.0		0.0							
BOD#2 SETTLING				0.0		0.0							
ANAEROBIC BOD#2 DECAY						0.0							
ORG-N DECAY				0.0			-258.5	258.5					
ORG-N SETTLING							0.0	0.0					
NH3 DECAY				-1119.1				-258.5	258.5				
BACKGROUND NH3 SOURCE								0.0					
OTHER DENITRIFICATION									0.0				
PHOSPHORUS SOURCE										0.0			
ALGAE PHOTOSYNTHESIS				12745.9				0.0	-1225.6	0.0	0.0		
ALGAE RESPIRATION				0.0				0.0		0.0	0.0		
ALGAE SETTLING				0.0							0.0		
MACRO PHOTOSYNTHESIS				0.0				0.0	0.0	0.0			
NCM DECAY				0.0									0.0
NCM SETTLING				0.0									0.0
TOTAL INPUTS			0.002	21760.7	14166.5	0.0	258.9	258.6	258.5	0.0	0.0	0.0	0.0
TOTAL OUTPUTS			-0.002	-21760.2	-14166.5	0.0	-258.9	-258.5	-1225.6	0.0	0.0	0.0	0.0
NET CONVERGENCE ERROR			0.000	0.5	0.0	0.0	0.0	0.1	-967.1	0.0	0.0	0.0	0.0

.....EXECUTION COMPLETED

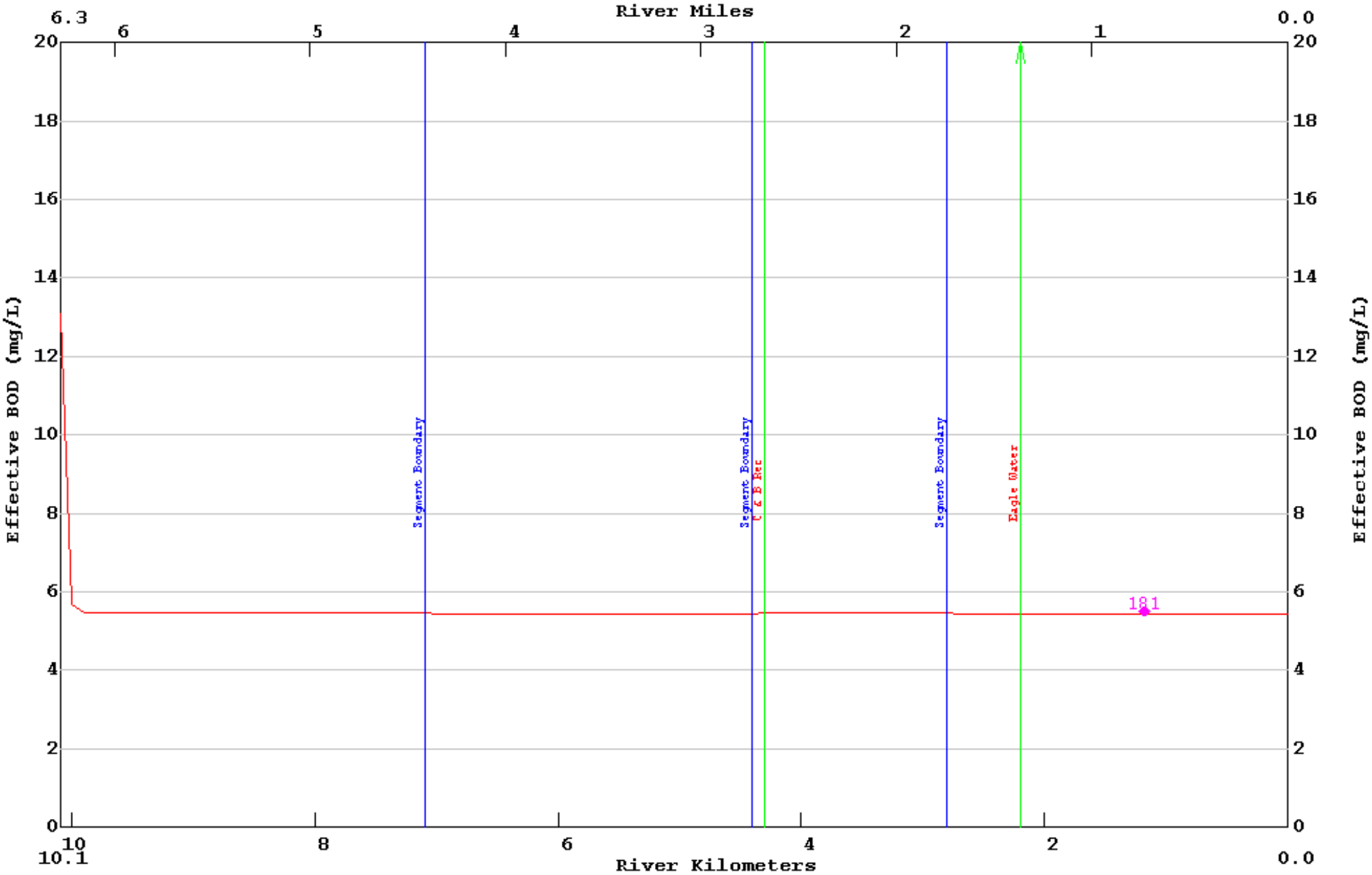
APPENDIX I

Cypress Bayou Reservoir Calibration Model Output

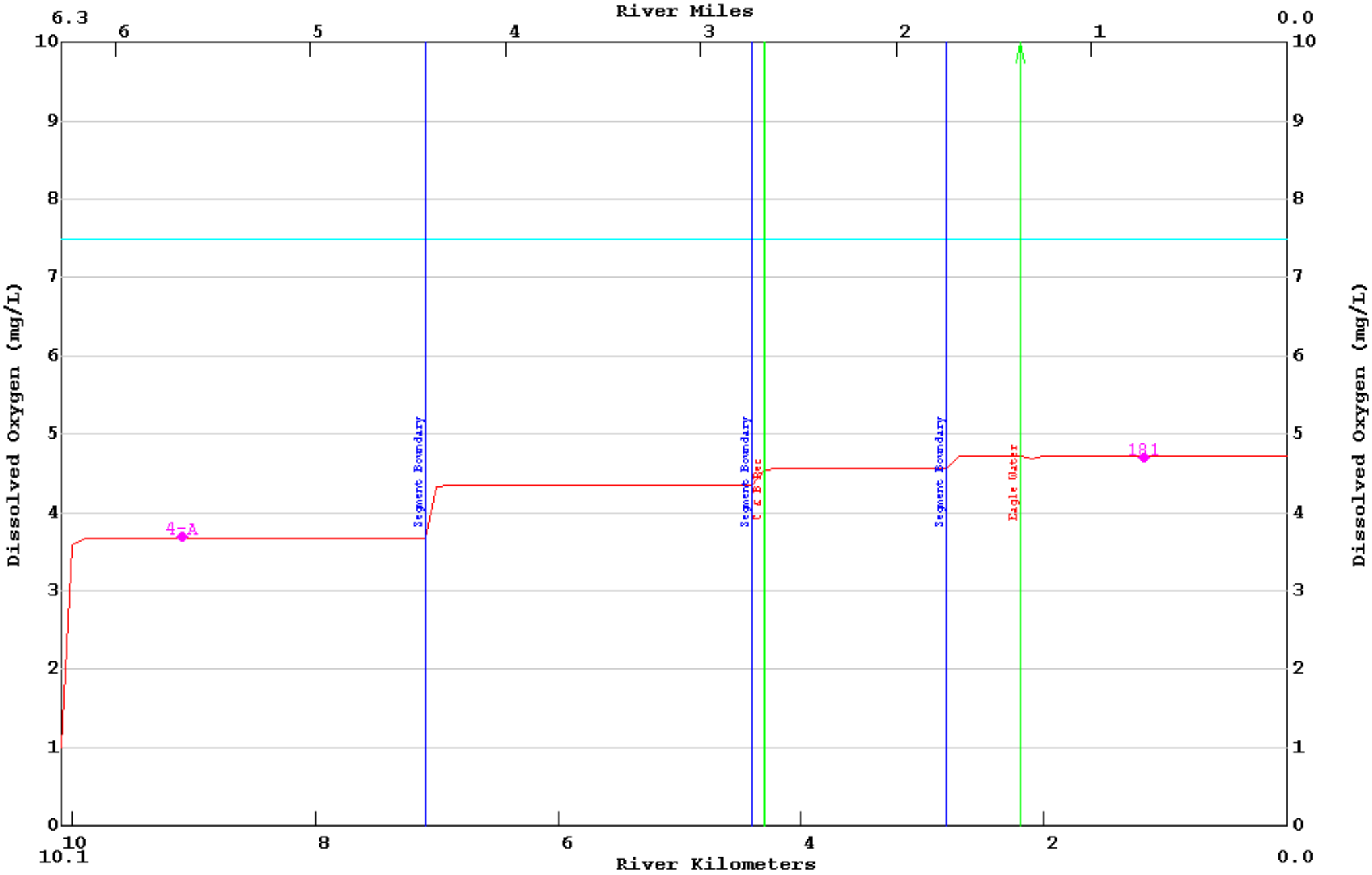
LA-QUAL Version 8.00 Run at 16:08 on 06/20/2007 File D:\comp_models\LA-QUAL_8\Cypress calibration-effBOD.txt
Calibration for FTN
Cypress Bayou Reservoir Calibration



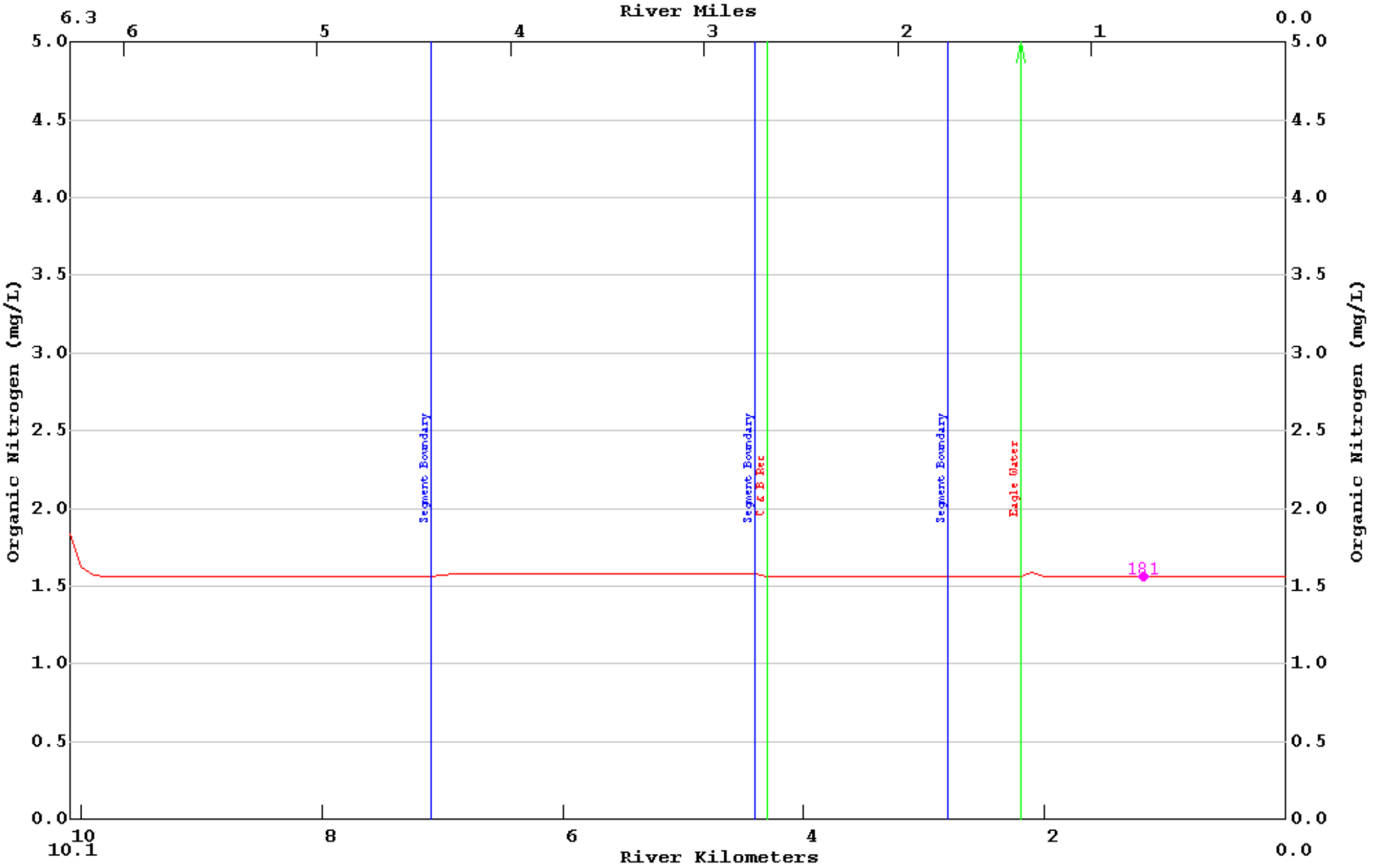
LA-QUAL Version 8.00 Run at 16:08 on 06/20/2007 File D:\comp_models\LA-QUAL_8\Cypress calibration-effBOD.txt
Calibration for FTN
Cypress Bayou Reservoir Calibration



LA-QUAL Version 8.00 Run at 16:08 on 06/20/2007 File D:\comp_models\LA-QUAL_8\Cypress calibration-effBOD.txt
Calibration for FTN
Cypress Bayou Reservoir Calibration



LA-QUAL Version 8.00 Run at 16:08 on 06/20/2007 File D:\comp_models\LA-QUAL_8\Cypress calibration-effBOD.txt
Calibration for FTN
Cypress Bayou Reservoir Calibration



APPENDIX J

90th Percentile Temperature Calculations

Table J.1. 90th percentile temperatures calculated for Lake Bistineau Spillway west of Ringgold, Louisiana (LDEQ 275)

Summer 90th Percentile Temp = 31.19 C, interpolated from values highlighted below
Winter 90th Percentile Temp = 19.285 C, interpolated from values highlighted below

Date	Water Temp (C)	Season	Percentile
11-Oct-94	19.62	summer	1.67
15-Oct-02	20.43	summer	5.00
11-Oct-93	21.15	summer	8.33
15-Oct-96	21.54	summer	11.67
14-Oct-97	21.79	summer	15.00
13-Oct-92	21.9	summer	18.33
09-Oct-95	22.16	summer	21.67
15-Oct-90	22.9	summer	25.00
14-May-02	25.92	summer	28.33
10-Jun-96	26.16	summer	31.67
12-Jun-95	26.46	summer	35.00
14-Oct-91	26.54	summer	38.33
13-Jun-94	26.71	summer	41.67
13-Aug-91	27.2	summer	45.00
09-Jun-97	27.6	summer	48.33
08-Aug-94	27.77	summer	51.67
17-Sep-02	28.06	summer	55.00
14-Aug-90	28.1	summer	58.33
12-Aug-97	28.65	summer	61.67
11-Jun-91	28.71	summer	65.00
11-Jun-02	28.81	summer	68.33
13-Aug-96	28.85	summer	71.67
14-Jun-93	29.09	summer	75.00
11-Jun-90	30.1	summer	78.33
15-Aug-95	30.2	summer	81.67
09-Aug-93	30.27	summer	85.00
10-Aug-92	30.7	summer	88.33
15-Jun-92	31.68	summer	91.67
05-Aug-02	31.71	summer	95.00
09-Jul-02	32.41	summer	98.33

Date	Water Temp (C)	Season	Percentile
14-Feb-95	7.3	winter	1.67
11-Dec-95	8.66	winter	5.00
15-Jan-02	9.49	winter	8.33
14-Dec-92	10.1	winter	11.67
13-Feb-96	10.19	winter	15.00
18-Feb-97	10.42	winter	18.33
10-Feb-92	10.78	winter	21.67
10-Dec-90	11.4	winter	25.00
13-Dec-94	11.63	winter	28.33
09-Dec-97	11.67	winter	31.67
14-Dec-93	12.15	winter	35.00
09-Dec-96	12.24	winter	38.33
19-Feb-02	12.84	winter	41.67
10-Dec-91	12.94	winter	45.00
10-Feb-98	13.36	winter	48.33
04-Feb-91	13.6	winter	51.67
08-Feb-93	13.6	winter	55.00
19-Nov-02	13.97	winter	58.33
08-Feb-94	15.5	winter	61.67
12-Feb-90	15.6	winter	65.00
19-Mar-02	15.87	winter	68.33
08-Apr-96	16.19	winter	71.67
06-Apr-92	16.74	winter	75.00
09-Apr-02	17.17	winter	78.33
15-Apr-97	17.5	winter	81.67
13-Apr-93	18.38	winter	85.00
09-Apr-90	18.4	winter	88.33
12-Apr-94	20.17	winter	91.67
14-Apr-98	23.43	winter	95.00
16-Apr-91	26.1	winter	98.33

FILE: R:\WP_FILES\2110-616\CYPRESS-BLACK TMDL\WORD FILES\APPENDICES\APPENDIX J\STN 1182-90TH PERC TEMP, BLACK BAYOU RESERVOIR.XLS

Table J.2. Calculations for 90th percentile for Black Bayou Reservoir at Linton Road, southeast of Benton, Louisiana (LDEQ 1182)

Black Bayou Reservoir LDEQ (1182) Water Date	Temp (C)	Season	Laek Bistineau (LDEQ 275) Water Date	Temp (C)	Season
1/7/02	7.14	winter	15-Jan-02	9.49	winter
2/5/02	7.12	winter	19-Feb-02	12.84	winter
3/5/02	6.30	winter	19-Mar-02	15.87	winter
4/2/02	18.12	winter	09-Apr-02	17.17	winter
5/7/02	25.12	summer	14-May-02	25.92	summer
6/4/02	27.47	summer	11-Jun-02	28.81	summer
7/16/02	29.07	summer	09-Jul-02	32.41	summer
8/6/02	28.29	summer	05-Aug-02	31.71	summer
9/10/02	27.90	summer	17-Sep-02	28.06	summer
10/8/02	23.26	summer	15-Oct-02	20.43	summer
11/6/02	15.59	winter	19-Nov-02	13.97	winter
12/3/02	12.19	winter			

SUMMER

Averages for May through October (LTP definition of summer)

26.85 C 27.89 C

Difference between stations = -1.04 C

From Previous page, 90th percentile summer temp for Lake Bistineau = 31.19 C

Adjusted 90th percentile temp for Black Bayou Reservoir = 27.89 - 1.04 = 30.15 C

WINTER

Averages for Jan-April and Nov-Dec (LTP definition of winter)

11.08 C 13.87 C

Difference between stations = -2.79 C

From Previous page, 90th percentile winter temp for Lake Bistineau = 19.29 C

Adjusted 90th percentile temp for Black Bayou Reservoir = 19.29 - 2.79 = 16.49 C

FILE: R:\WP_FILES\2110-616\CYPRESS-BLACK TMDL\WORD FILES\APPENDICES\APPENDIX J\STN 1182-90TH PERC TEMP, BLACK BAYOU RESERVOIR.XLS

Table J.3. Calculations for 90th percentile calculations for Cypress Bayou Reservoir southeast of Benton, Louisiana (LDEQ 1181)

Cypress Bayou Reservoir (LDEQ 1181) Water			Lake Bistineau (LDEQ 275) Water		
Date	Temp (C)	Season	Date	Temp (C)	Season
1/7/02	6.58	winter	15-Jan-02	9.49	winter
2/5/02	5.82	winter	19-Feb-02	12.84	winter
3/5/02	6.40	winter	19-Mar-02	15.87	winter
4/2/02	16.53	winter	09-Apr-02	17.17	winter
5/7/02	23.81	summer	14-May-02	25.92	summer
6/4/02	26.15	summer	11-Jun-02	28.81	summer
7/16/02	28.20	summer	09-Jul-02	32.41	summer
8/6/02	31.16	summer	05-Aug-02	31.71	summer
9/10/02	27.60	summer	17-Sep-02	28.06	summer
10/8/02	24.30	summer	15-Oct-02	20.43	summer
11/6/02	15.58	winter	19-Nov-02	13.97	winter
12/3/02	12.29	winter			

SUMMER

Averages for May through October (LTP definition of summer)

26.87 C 27.89 C

Difference between stations = -1.02 C

From Previous page, 90th percentile summer temp for Lake Bistineau = 31.19 C

Adjusted 90th percentile temp for Cypres Bayou Reservoir = 31.19 - 1.02 = 30.17 C

WINTER

Averages for Jan-April and Nov-Dec (LTP definition of winter)

10.53 C 13.87 C

Difference between stations = -3.33 C

From Previous page, 90th percentile winter temp for Lake Bistineau = 19.29 C

Adjusted 90th percentile temp for Cypress Bayou Reservoir = 19.29 - 3.33 = 15.95 C

FILE: R:\WP_FILES\2110-616\CYPRESS-BLACK TMDL\WORD FILES\APPENDICES\APPENDIX J\EXCELL FILES FOR APPENDIX J\STN 1181-90TH PERC TEMP, CYPRESS BAYOU RESERVOIR.XLS

APPENDIX K

Published 7Q10 Information and 7Q10 Calculations

Table K.1. Summer 7Q10 estimate

flow statistics (cfs)

Gage	Description	Drain area (mi2)	Begin	End	# Values	% Comp	Annual 7Q10 (cfs)
07349795	CYPRESS	88.9	10/1/1974	9/30/1986	4383	100	0

Estimated headwater flow for Black Bayou Reservoir

Drainage area = 24 mi2

flow = 0.00000 cms

Estimated headwater flow for Cypress Bayou Reservoir

Drainage area = 132 mi2

flow = 0.00000 cms

FILE: R:\WP_FILES\2110-616\CYPRESS-BLACK TMDL\WORD FILES\APPENDICES\APPENDIX G\USGS 07349795 EST FLOWS CYPRESS BAYOU ABOVE BENTON.XLS

Table K.2. Winter 7Q10 estimate

Gage	Description	Drain area (mi2)	Begin	End	# Values	% Comp	Dec - Feb 7Q10	Basin Areal Flow (cfs/sq mi)	Basin Areal Flow (cms/sq mi)
07349795	CYPRESS	88.9	10/1/1974	9/30/1986	4383	100	0.72	0.008099	0.0002293

Estimated headwater flow for Black Bayou Reservoir

Drainage area = 24 mi2

flow = 0.00550 cms

Estimated headwater flow for Cypress Bayou Reservoir

Drainage area = 132 mi2

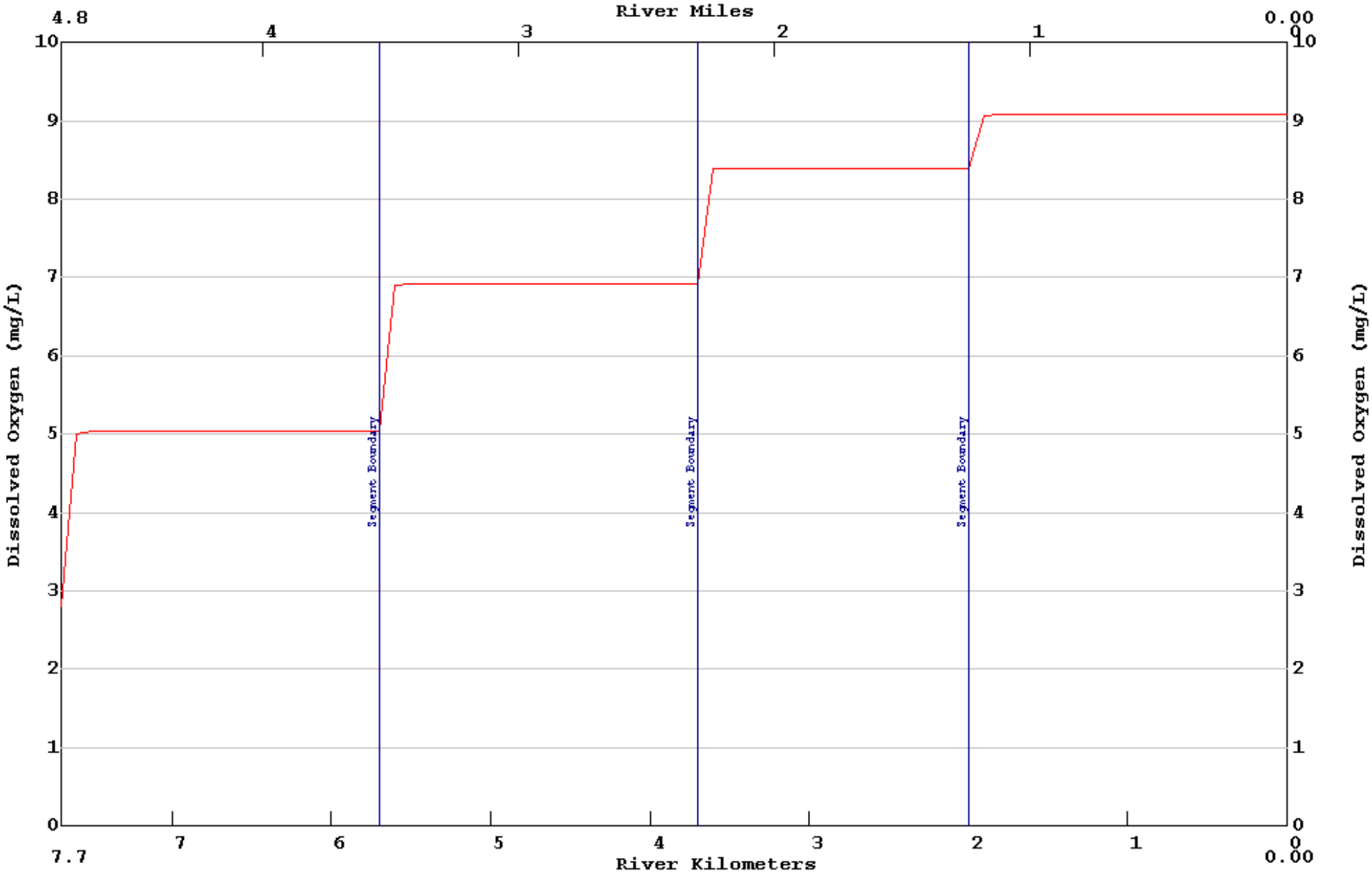
flow = 0.03027 cms

FILE: R:\WP_FILES\2110-616\CYPRESS-BLACK TMDL\WORD FILES\APPENDICES\APPENDIX G\USGS 07349795 EST FLOWS CYPRESS BAYOU ABOVE BENTON.XLS

APPENDIX L

Black Bayou Reservoir summer Projection Model Output

LA-QUAL Version 8.11 Run at 10:44 on 10/16/2007 File D:\comp_models\LA-QUAL_8p11\Black sum.txt
Summer Projection for FTN
Black Bayou Reservoir Summer Projection



```
LA-QUAL Version 8.11
Louisiana Department of Environmental Quality

Input file is D:\laqual\Black sum crl.txt
Output produced at 12:38 on 10/15/2007

$$$ DATA TYPE 1 (TITLES AND CONTROL CARDS) $$$

CARD TYPE       CONTROL TITLES

TITLE01         LA-QUAL Projection for Black Bayou Reservoir (100405)
TITLE02         Summer Projection for FTN
CNTROL03   NO   SEQU                        <Warning: legacy control - line ignored>
CNTROL04  YES   METR
CNTROL05  YES   OXYG                        <Warning: legacy control - line ignored>
ENDATA01

$$$ DATA TYPE 2 (MODEL OPTIONS) $$$

CARD TYPE       MODEL OPTION

MODOPT01   NO   TEMPERATURE
MODOPT02   NO   SALINITY
MODOPT03   NO   CONSERVATIVE MATERIAL #1                      UNITS =
MODOPT04   NO   CONSERVATIVE MATERIAL #2                      UNITS =
MODOPT05  YES   DISSOLVED OXYGEN
MODOPT06  YES   BOD1 BIOCHEMICAL OXYGEN DEMAND #1
MODOPT07   NO   BOD2 BIOCHEMICAL OXYGEN DEMAND #2
MODOPT08  YES   NITROGEN SERIES
MODOPT09   NO   PHOSPHORUS
MODOPT10   NO   CHLOROPHYLL A
MODOPT11   NO   MACROPHYTES
MODOPT12   NO   COLIFORMS
MODOPT13   NO   NONCONSERVATIVE MATERIAL                      UNITS =
ENDATA02

$$$ DATA TYPE 3 (PROGRAM CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                     VALUE

PROGRAM         HYDRAULIC CALCULATION METHOD       =        2.00000 (widths and depths)
PROGRAM         MAXIMUM ITERATION LIMIT            =      200.00000
PROGRAM         ALGAE OXYGEN PROD                  =        0.02600 mg O/ug chl a/day
PROGRAM         EFFECTIVE BOD DUE TO ALGAE         =        0.10000 mg/L BOD per ug/L chl a
ENDATA03

$$$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) $$$

 CARD TYPE     RATE CODE     THETA VALUE

THETA        NH3 DECA       1.07000
ENDATA04

$$$ CONSTANTS TYPE 5 (TEMPERATURE DATA) $$$
```

```
CARD TYPE       DESCRIPTION OF CONSTANT                         VALUE

ENDATA05

$$$ DATA TYPE 6 (ALGAE CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                         VALUE

ENDATA06

$$$ DATA TYPE 7 (MACROPHYTE CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                         VALUE

ENDATA07

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$
                                                      BEGIN          END     ELEM    REACH     ELEMS   BEGIN     END
CARD TYPE  REACH  ID  NAME                            REACH        REACH   LENGTH   LENGTH  PER RCH    ELEM    ELEM
                                                         km           km       km       km                NUM     NUM

REACH ID       1   BB  Black Bayou Reserv             7.70  TO     5.70  0.1000     2.00       20       1      20
REACH ID       2   BB  Black Bayou Reserv             5.70  TO     3.70  0.1000     2.00       20      21      40
REACH ID       3   BB  Black Bayou Reserv             3.70  TO     2.00  0.1000     1.70       17      41      57
REACH ID       4   BB  Black Bayou Reserv             2.00  TO     0.00  0.1000     2.00       20      58      77
ENDATA08

$$$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) $$$

CARD TYPE  REACH  ID       WIDTH       WIDTH       WIDTH       DEPTH       DEPTH       DEPTH       SLOPE    MANNINGS
                             "A"         "B"         "C"         "D"         "E"         "F"                  "N"

HYDR-1         1   BB     209.000       0.000       0.000       0.366       0.000       0.000     0.00000   0.000
HYDR-1         2   BB     295.000       0.000       0.000       1.883       0.000       0.000     0.00000   0.000
HYDR-1         3   BB     351.000       0.000       0.000       3.076       0.000       0.000     0.00000   0.000
HYDR-1         4   BB     420.000       0.000       0.000       3.606       0.000       0.000     0.00000   0.000
ENDATA09

$$$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) $$$

CARD TYPE  REACH  ID     TIDAL      DISPERSION      DISPERSION      DISPERSION      DISPERSION
                          RANGE         "A"             "B"             "C"             "D"

ENDATA10

$$$ DATA TYPE 11 (INITIAL CONDITIONS) $$$

CARD TYPE       REACH  ID        TEMP      SALIN         DO       NH3     NO3+2      PHOS     CHL A     MACRO

INITIAL             1   BB       30.20       0.00       4.30      0.14      0.00      0.00     51.00      0.00
INITIAL             2   BB       30.20       0.00       4.30      0.14      0.00      0.00     51.00      0.00
INITIAL             3   BB       30.20       0.00       4.30      0.14      0.00      0.00     51.00      0.00
INITIAL             4   BB       30.20       0.00       4.30      0.14      0.00      0.00     51.00      0.00
ENDATA11
```

$$$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) $$$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m²/d	BOD DECAY per day	BOD SETT m/d	BOD CONV TO SOD	ANAER BOD2 DECAY per day	BOD2 DECAY per day	BOD2 SETT m/d	BOD2 CONV TO SOD	ANAER BOD2 DECAY per day
COEFF-1	1	BB	20 K2=a/D	0.970	0.000	0.000	1.430	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEFF-1	2	BB	20 K2=a/D	0.970	0.000	0.000	1.430	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEFF-1	3	BB	20 K2=a/D	0.970	0.000	0.000	1.280	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEFF-1	4	BB	20 K2=a/D	0.970	0.000	0.000	1.330	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ENDATA12

$$$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) $$$

CARD TYPE	REACH	ID	ORG-N DECA	ORG-N SETT	ORGN CONV TO NH3 SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEFF-2	1	BB	0.020	0.000	0.000	0.080	0.000	0.000	0.000
COEFF-2	2	BB	0.020	0.000	0.000	0.080	0.000	0.000	0.000
COEFF-2	3	BB	0.020	0.000	0.000	0.080	0.000	0.000	0.000
COEFF-2	4	BB	0.020	0.000	0.000	0.080	0.000	0.000	0.000

ENDATA13

$$$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) $$$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP	SHADING

ENDATA14

$$$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) $$$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD

ENDATA15

$$$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) $$$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST

ENDATA16

$$$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE	REACH	ID	DO	BOD	ORG-N	NH3-N	NO3-N	BOD#2

ENDATA17

$$$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM

ENDATA18

$$$ DATA TYPE 19 (NONPOINT SOURCE DATA) $$$

CARD TYPE	REACH	ID	BOD#1	ORG-N	COLI	NCM	DO	BOD#2
NONPOINT	1	BB	321.00	4.00	0.00	0.00	0.00	0.00
NONPOINT	2	BB	2343.00	30.00	0.00	0.00	0.00	0.00
NONPOINT	3	BB	3865.00	51.00	0.00	0.00	0.00	0.00
NONPOINT	4	BB	6361.00	85.00	0.00	0.00	0.00	0.00

ENDATA19

$$$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) $$$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m^3/s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I	CM-II	
HDWTR-1	1	Black Bayou	0	0.00283	0.100	30.20	0.00	0.000	0.000	0.00

ENDATA20

$$$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	BOD#2 mg/L
HDWTR-2	1	Black Bayou	6.78	13.10	1.84	0.56	0.00	0.00

ENDATA21

$$$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L

ENDATA22

$$$ DATA TYPE 23 (JUNCTION DATA) $$$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER KILOM	NAME

ENDATA23

$$$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) $$$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m^3/s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I	CM-II

ENDATA24

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	ORG-N mg/L	NH3-N mg/L	% NITRIF	NO3-N mg/L	BOD#2 mg/L

ENDATA25

$$$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

```
CARD TYPE     ELEMENT   NAME                        PHOS     CHL A      COLI       NCM
                                                    mg/L      mg/L      mg/L      mg/L

ENDATA26

$$$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) $$$

CARD TYPE    CONSTITUENT                    CONCENTRATION

ENDATA27

$$$ DATA TYPE 28 (DAM DATA) $$$

CARD TYPE     ELEMENT   NAME                  EQN      "A"       "B"       "H"

ENDATA28

$$$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) $$$

CARD TYPE       PARAMETER     COL 1     COL 2     COL 3     COL 4     COL 5     COL 6     COL 7     COL 8

ENDATA29

$$$ DATA TYPE 30 (PLOT CONTROL CARDS) $$$


NUMBER OF PLOTS =  1
NUMBER OF REACHES IN PLOT 1 =   4
PLOT RCH  1  2  3  4
ENDATA30

$$$ DATA TYPE 31 (OVERLAY PLOT DATA) $$$


OVERLAY 1 Black_proj.OVL                 :Black Bayou Reservoir Summer Projection
ENDATA31



     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN   2 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED
 ***** WARNING:  NEGATIVE CONCENTRATIONS SET TO ZERO FOR Nitrate+Nitrite Nitrogen
     .....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11


INTERMEDIATE REPORT
 Dissolved Oxygen                                        LA-QUAL Projection for Black Bayou Reservoir (100405)
     mg/L                                                Summer Projection for FTN


  ID   RCH  ELEM        +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
```

BB	1	1	5.18	5.17	5.18	5.18	5.18	5.18	5.18	5.18	5.18	5.18
BB	1	11	5.18	5.18	5.18	5.18	5.18	5.18	5.18	5.18	5.18	5.18
BB	2	21	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04
BB	2	31	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04
BB	3	41	5.17	5.17	5.17	5.17	5.17	5.17	5.17	5.17	5.17	5.17
BB	3	51	5.17	5.17	5.17	5.17	5.17	5.17	5.17			
BB	4	58	5.06	5.06	5.06	5.06	5.06	5.06	5.06	5.06	5.06	5.06
BB	4	68	5.06	5.06	5.06	5.06	5.06	5.06	5.06	5.06	5.06	5.06

INTERMEDIATE REPORT
Effective BOD
mg/L

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	14.31	14.46	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48
BB	1	11	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48	14.48
BB	2	21	14.53	14.53	14.53	14.53	14.53	14.53	14.53	14.53	14.53	14.53
BB	2	31	14.53	14.53	14.53	14.53	14.53	14.53	14.53	14.53	14.53	14.53
BB	3	41	14.52	14.52	14.52	14.52	14.52	14.52	14.52	14.52	14.52	14.52
BB	3	51	14.52	14.52	14.52	14.52	14.52	14.52	14.52			
BB	4	58	14.49	14.49	14.49	14.49	14.49	14.49	14.49	14.49	14.49	14.49
BB	4	68	14.49	14.49	14.49	14.49	14.49	14.49	14.49	14.49	14.49	14.49

INTERMEDIATE REPORT
Biochemical Oxygen Demand
mg/L

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	9.21	9.36	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38
BB	1	11	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38
BB	2	21	9.43	9.43	9.43	9.43	9.43	9.43	9.43	9.43	9.43	9.43
BB	2	31	9.43	9.43	9.43	9.43	9.43	9.43	9.43	9.43	9.43	9.43
BB	3	41	9.42	9.42	9.42	9.42	9.42	9.42	9.42	9.42	9.42	9.42
BB	3	51	9.42	9.42	9.42	9.42	9.42	9.42	9.42			
BB	4	58	9.39	9.39	9.39	9.39	9.39	9.39	9.39	9.39	9.39	9.39
BB	4	68	9.39	9.39	9.39	9.39	9.39	9.39	9.39	9.39	9.39	9.39

INTERMEDIATE REPORT
Organic Nitrogen
mg/L

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	1.51	1.32	1.21	1.15	1.11	1.09	1.08	1.08	1.07	1.07
BB	1	11	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
BB	2	21	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10

BB	2	31	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
BB	3	41	1.13	1.13	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
BB	3	51	1.14	1.14	1.14	1.14	1.14	1.14	1.14			
BB	4	58	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
BB	4	68	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15

INTERMEDIATE REPORT
Ammonia Nitrogen
mg/L

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.31	0.24	0.21	0.20	0.19	0.19	0.18	0.18	0.18	0.18
BB	1	11	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
BB	2	21	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
BB	2	31	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
BB	3	41	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
BB	3	51	0.19	0.19	0.19	0.19	0.19	0.19	0.19			
BB	4	58	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
BB	4	68	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20

INTERMEDIATE REPORT
Nitrate+Nitrite Nitrogen
mg/L

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	51	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
BB	4	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	4	68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

INTERMEDIATE REPORT
Total Nitrogen
mg/L

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	1.82	1.56	1.42	1.35	1.30	1.28	1.27	1.26	1.26	1.25
BB	1	11	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
BB	2	21	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29
BB	2	31	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29
BB	3	41	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
BB	3	51	1.33	1.33	1.33	1.33	1.33	1.33	1.33			
BB	4	58	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34

BB	4	68	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34

INTERMEDIATE REPORT
Chlorophyll a
µg/L

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	1	11	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	2	21	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	2	31	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	3	41	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	3	51	51.00	51.00	51.00	51.00	51.00	51.00	51.00			
BB	4	58	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	4	68	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00

INTERMEDIATE REPORT
Temperature
deg C

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
BB	1	11	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
BB	2	21	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
BB	2	31	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
BB	3	41	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
BB	3	51	30.20	30.20	30.20	30.20	30.20	30.20	30.20			
BB	4	58	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
BB	4	68	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20

INTERMEDIATE REPORT
Salinity
ppt

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	51	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
BB	4	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	4	68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

INTERMEDIATE REPORT

River Distance
km

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	8.	8.	7.	7.	7.	7.	7.	7.	7.	7.
BB	1	11	7.	7.	6.	6.	6.	6.	6.	6.	6.	6.
BB	2	21	6.	6.	5.	5.	5.	5.	5.	5.	5.	5.
BB	2	31	5.	5.	4.	4.	4.	4.	4.	4.	4.	4.
BB	3	41	4.	4.	3.	3.	3.	3.	3.	3.	3.	3.
BB	3	51	3.	3.	2.	2.	2.	2.	2.			
BB	4	58	2.	2.	2.	2.	1.	1.	1.	1.	1.	1.
BB	4	68	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.

INTERMEDIATE REPORT
Flow
m^3/s

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
BB	4	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	4	68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

INTERMEDIATE REPORT
Dispersion
m^2/s

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
BB	4	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	4	68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

INTERMEDIATE REPORT
Advective Velocity
m/s

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
BB	4	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	4	68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

INTERMEDIATE REPORT
Depth
m

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
BB	1	11	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
BB	2	21	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
BB	2	31	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
BB	3	41	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
BB	3	51	3.1	3.1	3.1	3.1	3.1	3.1	3.1			
BB	4	58	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
BB	4	68	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6

INTERMEDIATE REPORT
Width
m

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0
BB	1	11	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0
BB	2	21	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0
BB	2	31	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0
BB	3	41	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0
BB	3	51	351.0	351.0	351.0	351.0	351.0	351.0	351.0			
BB	4	58	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0
BB	4	68	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0

INTERMEDIATE REPORT
Cross-Sectional Area
m^2

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5
BB	1	11	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5

BB	2	21	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5
BB	2	31	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5
BB	3	41	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7
BB	3	51	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7			
BB	4	58	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5
BB	4	68	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5

INTERMEDIATE REPORT
Reaeration Rate
per day

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	3.199	3.199	3.199	3.199	3.199	3.199	3.199	3.199	3.199	3.199
BB	1	11	3.199	3.199	3.199	3.199	3.199	3.199	3.199	3.199	3.199	3.199
BB	2	21	0.622	0.622	0.622	0.622	0.622	0.622	0.622	0.622	0.622	0.622
BB	2	31	0.622	0.622	0.622	0.622	0.622	0.622	0.622	0.622	0.622	0.622
BB	3	41	0.381	0.381	0.381	0.381	0.381	0.381	0.381	0.381	0.381	0.381
BB	3	51	0.381	0.381	0.381	0.381	0.381	0.381	0.381			
BB	4	58	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325
BB	4	68	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325

INTERMEDIATE REPORT
BOD Decay Rate
per day

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
BB	1	11	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
BB	2	21	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
BB	2	31	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
BB	3	41	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
BB	3	51	0.22	0.22	0.22	0.22	0.22	0.22	0.22			
BB	4	58	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
BB	4	68	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22

INTERMEDIATE REPORT
BOD Settling Rate
per day

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	51	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

BB	4	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	4	68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

INTERMEDIATE REPORT
Ammonia Decay Rate
per day

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
BB	1	11	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
BB	2	21	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
BB	2	31	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
BB	3	41	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
BB	3	51	0.14	0.14	0.14	0.14	0.14	0.14	0.14			
BB	4	58	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
BB	4	68	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14

INTERMEDIATE REPORT
Sediment Oxygen Demand
g/m²/d

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72
BB	1	11	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72
BB	2	21	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72
BB	2	31	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72
BB	3	41	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.43
BB	3	51	2.43	2.43	2.43	2.43	2.43	2.43	2.43			
BB	4	58	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53
BB	4	68	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53

CONDENSED CAPSULE SUMMARY FOR Black Bayou

DIST	FLOW	TEMP	SALN	DO	EBOD1	EBOD2	ORGN	NH3	CHLA	REAER RATE	BOD1 DECA	BOD1 SETT	BOD2 DECA	BOD2 SETT	NH3 DECA	SOD
km	m³/s	deg C	ppt	mg/L	mg/L	mg/L	mg/L	µg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	g/m²/d
HDWTR	0.00283	30.20	0.00	6.78	13.10	0.00	1.84	0.56	51.00							
7.60	0.00283	30.20	0.00	5.18	14.31	0.00	1.51	0.31	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
7.50	0.00283	30.20	0.00	5.17	14.46	0.00	1.32	0.24	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
7.40	0.00283	30.20	0.00	5.18	14.48	0.00	1.21	0.21	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
7.30	0.00283	30.20	0.00	5.18	14.48	0.00	1.15	0.20	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
7.20	0.00283	30.20	0.00	5.18	14.48	0.00	1.11	0.19	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
7.10	0.00283	30.20	0.00	5.18	14.48	0.00	1.09	0.19	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
7.00	0.00283	30.20	0.00	5.18	14.48	0.00	1.08	0.18	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
6.90	0.00283	30.20	0.00	5.18	14.48	0.00	1.08	0.18	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
6.80	0.00283	30.20	0.00	5.18	14.48	0.00	1.07	0.18	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
6.70	0.00283	30.20	0.00	5.18	14.48	0.00	1.07	0.18	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72

6.60	0.00283	30.20	0.00	5.18	14.48	0.00	1.07	0.18	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
6.50	0.00283	30.20	0.00	5.18	14.48	0.00	1.07	0.18	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
6.40	0.00283	30.20	0.00	5.18	14.48	0.00	1.07	0.18	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
6.30	0.00283	30.20	0.00	5.18	14.48	0.00	1.07	0.18	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
6.20	0.00283	30.20	0.00	5.18	14.48	0.00	1.07	0.18	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
6.10	0.00283	30.20	0.00	5.18	14.48	0.00	1.07	0.18	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
6.00	0.00283	30.20	0.00	5.18	14.48	0.00	1.07	0.18	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
5.90	0.00283	30.20	0.00	5.18	14.48	0.00	1.07	0.18	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
5.80	0.00283	30.20	0.00	5.18	14.48	0.00	1.07	0.18	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
5.70	0.00283	30.20	0.00	5.18	14.48	0.00	1.07	0.18	51.00	3.20	0.22	0.00	0.00	0.00	0.14	2.72
5.60	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
5.50	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
5.40	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
5.30	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
5.20	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
5.10	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
5.00	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
4.90	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
4.80	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
4.70	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
4.60	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
4.50	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
4.40	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
4.30	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
4.20	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
4.10	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
4.00	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
3.90	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
3.80	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
3.70	0.00283	30.20	0.00	5.04	14.53	0.00	1.10	0.19	51.00	0.62	0.22	0.00	0.00	0.00	0.14	2.72
3.60	0.00283	30.20	0.00	5.17	14.52	0.00	1.13	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
3.50	0.00283	30.20	0.00	5.17	14.52	0.00	1.13	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
3.40	0.00283	30.20	0.00	5.17	14.52	0.00	1.14	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
3.30	0.00283	30.20	0.00	5.17	14.52	0.00	1.14	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
3.20	0.00283	30.20	0.00	5.17	14.52	0.00	1.14	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
3.10	0.00283	30.20	0.00	5.17	14.52	0.00	1.14	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
3.00	0.00283	30.20	0.00	5.17	14.52	0.00	1.14	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
2.90	0.00283	30.20	0.00	5.17	14.52	0.00	1.14	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
2.80	0.00283	30.20	0.00	5.17	14.52	0.00	1.14	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
2.70	0.00283	30.20	0.00	5.17	14.52	0.00	1.14	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
2.60	0.00283	30.20	0.00	5.17	14.52	0.00	1.14	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
2.50	0.00283	30.20	0.00	5.17	14.52	0.00	1.14	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
2.40	0.00283	30.20	0.00	5.17	14.52	0.00	1.14	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
2.30	0.00283	30.20	0.00	5.17	14.52	0.00	1.14	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
2.20	0.00283	30.20	0.00	5.17	14.52	0.00	1.14	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
2.10	0.00283	30.20	0.00	5.17	14.52	0.00	1.14	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
2.00	0.00283	30.20	0.00	5.17	14.52	0.00	1.14	0.19	51.00	0.38	0.22	0.00	0.00	0.00	0.14	2.43
1.90	0.00283	30.20	0.00	5.06	14.49	0.00	1.15	0.20	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.53
1.80	0.00283	30.20	0.00	5.06	14.49	0.00	1.15	0.20	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.53
1.70	0.00283	30.20	0.00	5.06	14.49	0.00	1.15	0.20	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.53
1.60	0.00283	30.20	0.00	5.06	14.49	0.00	1.15	0.20	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.53
1.50	0.00283	30.20	0.00	5.06	14.49	0.00	1.15	0.20	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.53
1.40	0.00283	30.20	0.00	5.06	14.49	0.00	1.15	0.20	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.53
1.30	0.00283	30.20	0.00	5.06	14.49	0.00	1.15	0.20	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.53
1.20	0.00283	30.20	0.00	5.06	14.49	0.00	1.15	0.20	51.00	0.32	0.22	0.00	0.00	0.00	0.14	2.53

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1.10   0.00283 30.20 0.00   5.06 14.49  0.00 1.15 0.20 51.00   0.32  0.22 0.00 0.00 0.00 0.14  2.53
1.00   0.00283 30.20 0.00   5.06 14.49  0.00 1.15 0.20 51.00   0.32  0.22 0.00 0.00 0.00 0.14  2.53
0.90   0.00283 30.20 0.00   5.06 14.49  0.00 1.15 0.20 51.00   0.32  0.22 0.00 0.00 0.00 0.14  2.53
0.80   0.00283 30.20 0.00   5.06 14.49  0.00 1.15 0.20 51.00   0.32  0.22 0.00 0.00 0.00 0.14  2.53
0.70   0.00283 30.20 0.00   5.06 14.49  0.00 1.15 0.20 51.00   0.32  0.22 0.00 0.00 0.00 0.14  2.53
0.60   0.00283 30.20 0.00   5.06 14.49  0.00 1.15 0.20 51.00   0.32  0.22 0.00 0.00 0.00 0.14  2.53
0.50   0.00283 30.20 0.00   5.06 14.49  0.00 1.15 0.20 51.00   0.32  0.22 0.00 0.00 0.00 0.14  2.53
0.40   0.00283 30.20 0.00   5.06 14.49  0.00 1.15 0.20 51.00   0.32  0.22 0.00 0.00 0.00 0.14  2.53
0.30   0.00283 30.20 0.00   5.06 14.49  0.00 1.15 0.20 51.00   0.32  0.22 0.00 0.00 0.00 0.14  2.53
0.20   0.00283 30.20 0.00   5.06 14.49  0.00 1.15 0.20 51.00   0.32  0.22 0.00 0.00 0.00 0.14  2.53
0.10   0.00283 30.20 0.00   5.06 14.49  0.00 1.15 0.20 51.00   0.32  0.22 0.00 0.00 0.00 0.14  2.53
0.00   0.00283 30.20 0.00   5.06 14.49  0.00 1.15 0.20 51.00   0.32  0.22 0.00 0.00 0.00 0.14  2.53
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EXPANDED CAPSULE SUMMARY FOR Black Bayou

IOR	REACH	DIST km	FLOW m³/s	TEMP deg C	SALN ppt	DO mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3 mg/L	CHLA µg/L	DISP m²/s	DEPTH m	WIDTH m	ADVEC VELO m/s	MEAN VELO m/s	DO SAT mg/L	REAER RATE 1/da	BOD1 DECA 1/da	BOD1 SETT 1/da	BOD2 DECA 1/da	BOD2 SETT 1/da	NH3 DECA 1/da	SOD g/m²/d
		HDWTR	0.003	30.2	0.0	6.8	13.1	0.0	1.8	0.6	51.0													
1	BB 1	7.60	0.003	30.2	0.0	5.2	14.3	0.0	1.5	0.3	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
2	BB 1	7.50	0.003	30.2	0.0	5.2	14.5	0.0	1.3	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
3	BB 1	7.40	0.003	30.2	0.0	5.2	14.5	0.0	1.2	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
4	BB 1	7.30	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
5	BB 1	7.20	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
6	BB 1	7.10	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
7	BB 1	7.00	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
8	BB 1	6.90	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
9	BB 1	6.80	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
10	BB 1	6.70	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
11	BB 1	6.60	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
12	BB 1	6.50	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
13	BB 1	6.40	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
14	BB 1	6.30	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
15	BB 1	6.20	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
16	BB 1	6.10	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
17	BB 1	6.00	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
18	BB 1	5.90	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
19	BB 1	5.80	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
20	BB 1	5.70	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	0.37	209.0	0.000	0.000	7.5	3.199	0.22	0.00	0.00	0.00	0.14	2.72
21	BB 2	5.60	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
22	BB 2	5.50	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
23	BB 2	5.40	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
24	BB 2	5.30	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
25	BB 2	5.20	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
26	BB 2	5.10	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
27	BB 2	5.00	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
28	BB 2	4.90	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
29	BB 2	4.80	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
30	BB 2	4.70	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
31	BB 2	4.60	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
32	BB 2	4.50	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
33	BB 2	4.40	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
34	BB 2	4.30	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
35	BB 2	4.20	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
36	BB 2	4.10	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
37	BB 2	4.00	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
38	BB 2	3.90	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
39	BB 2	3.80	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
40	BB 2	3.70	0.003	30.2	0.0	5.0	14.5	0.0	1.1	0.2	51.0	0.0	1.88	295.0	0.000	0.000	7.5	0.622	0.22	0.00	0.00	0.00	0.14	2.72
41	BB 3	3.60	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43
42	BB 3	3.50	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43
43	BB 3	3.40	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43
44	BB 3	3.30	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43
45	BB 3	3.20	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43
46	BB 3	3.10	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43
47	BB 3	3.00	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43
48	BB 3	2.90	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43

49	BB	3	2.80	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43
50	BB	3	2.70	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43
51	BB	3	2.60	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43
52	BB	3	2.50	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43
53	BB	3	2.40	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43
54	BB	3	2.30	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43
55	BB	3	2.20	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43
56	BB	3	2.10	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43
57	BB	3	2.00	0.003	30.2	0.0	5.2	14.5	0.0	1.1	0.2	51.0	0.0	3.08	351.0	0.000	0.000	7.5	0.381	0.22	0.00	0.00	0.00	0.14	2.43
58	BB	4	1.90	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
59	BB	4	1.80	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
60	BB	4	1.70	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
61	BB	4	1.60	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
62	BB	4	1.50	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
63	BB	4	1.40	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
64	BB	4	1.30	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
65	BB	4	1.20	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
66	BB	4	1.10	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
67	BB	4	1.00	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
68	BB	4	0.90	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
69	BB	4	0.80	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
70	BB	4	0.70	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
71	BB	4	0.60	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
72	BB	4	0.50	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
73	BB	4	0.40	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53

EXPANDED CAPSULE SUMMARY FOR Black Bayou

IOR	REACH	DIST km	FLOW m³/s	TEMP deg C	SALN ppt	DO mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3 mg/L	CHLA µg/L	DISP m²/s	DEPTH m	WIDTH m	ADVEC VELO m/s	MEAN VELO m/s	DO SAT mg/L	REAER RATE 1/da	BOD1 DECA 1/da	BOD1 SETT 1/da	BOD2 DECA 1/da	BOD2 SETT 1/da	NH3 DECA 1/da	SOD g/m²/d
74	BB 4	0.30	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
75	BB 4	0.20	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
76	BB 4	0.10	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53
77	BB 4	0.00	0.003	30.2	0.0	5.1	14.5	0.0	1.1	0.2	51.0	0.0	3.61	420.0	0.000	0.000	7.5	0.325	0.22	0.00	0.00	0.00	0.14	2.53

SPECIAL REPORT: Black Bayou
WATER QUALITY CONSTITUENT VALUES

ELEM NO.	ENDING km	TEMP deg C	SALN ppt	CM-I *	CM-II *	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO **	COLI #/100mL	NCM *
1	7.600	30.20	0.0	0.0	0.0	5.18	9.21	0.00	14.31	0.00	1.51	0.31	0.00	1.82	0.00	51.0	0.0	0.	0.00
2	7.500	30.20	0.0	0.0	0.0	5.17	9.36	0.00	14.46	0.00	1.32	0.24	0.00	1.56	0.00	51.0	0.0	0.	0.00
3	7.400	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.21	0.21	0.00	1.42	0.00	51.0	0.0	0.	0.00
4	7.300	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.15	0.20	0.00	1.35	0.00	51.0	0.0	0.	0.00
5	7.200	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.11	0.19	0.00	1.30	0.00	51.0	0.0	0.	0.00
6	7.100	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.09	0.19	0.00	1.28	0.00	51.0	0.0	0.	0.00
7	7.000	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.08	0.18	0.00	1.27	0.00	51.0	0.0	0.	0.00
8	6.900	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.08	0.18	0.00	1.26	0.00	51.0	0.0	0.	0.00
9	6.800	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.26	0.00	51.0	0.0	0.	0.00
10	6.700	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.0	0.0	0.	0.00
11	6.600	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.0	0.0	0.	0.00
12	6.500	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.0	0.0	0.	0.00
13	6.400	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.0	0.0	0.	0.00
14	6.300	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.0	0.0	0.	0.00
15	6.200	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.0	0.0	0.	0.00
16	6.100	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.0	0.0	0.	0.00
17	6.000	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.0	0.0	0.	0.00
18	5.900	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.0	0.0	0.	0.00
19	5.800	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.0	0.0	0.	0.00
20	5.700	30.20	0.0	0.0	0.0	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.0	0.0	0.	0.00
21	5.600	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
22	5.500	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
23	5.400	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
24	5.300	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
25	5.200	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
26	5.100	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
27	5.000	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
28	4.900	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
29	4.800	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
30	4.700	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
31	4.600	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
32	4.500	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
33	4.400	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
34	4.300	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
35	4.200	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
36	4.100	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
37	4.000	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00

38	3.900	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
39	3.800	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
40	3.700	30.20	0.0	0.0	0.0	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.0	0.0	0.	0.00
41	3.600	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.13	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
42	3.500	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.13	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
43	3.400	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
44	3.300	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
45	3.200	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
46	3.100	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
47	3.000	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
48	2.900	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
49	2.800	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
50	2.700	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
51	2.600	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
52	2.500	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
53	2.400	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
54	2.300	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
55	2.200	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
56	2.100	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
57	2.000	30.20	0.0	0.0	0.0	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.0	0.0	0.	0.00
58	1.900	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
59	1.800	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
60	1.700	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
61	1.600	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
62	1.500	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
63	1.400	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
64	1.300	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
65	1.200	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
66	1.100	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
67	1.000	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
68	0.900	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
69	0.800	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
70	0.700	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
71	0.600	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
72	0.500	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
73	0.400	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
74	0.300	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
75	0.200	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
76	0.100	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00
77	0.000	30.20	0.0	0.0	0.0	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.0	0.0	0.	0.00

SPECIAL REPORT: Black Bayou
BIOLOGICAL AND PHYSICAL COEFFICIENTS

ELEM NO.	ENDING DIST km	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#1 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	FULL SOD *	CORR SOD *	ORG-N DECAY 1/da	ORG-N SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
1	7.600	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
2	7.500	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
3	7.400	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
4	7.300	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
5	7.200	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
6	7.100	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00

7	7.000	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
8	6.900	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
9	6.800	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
10	6.700	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
11	6.600	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
12	6.500	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
13	6.400	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
14	6.300	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
15	6.200	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
16	6.100	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
17	6.000	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
18	5.900	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
19	5.800	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
20	5.700	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
21	5.600	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
22	5.500	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
23	5.400	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
24	5.300	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
25	5.200	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
26	5.100	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
27	5.000	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
28	4.900	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
29	4.800	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
30	4.700	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
31	4.600	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
32	4.500	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
33	4.400	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
34	4.300	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
35	4.200	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
36	4.100	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
37	4.000	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
38	3.900	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
39	3.800	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
40	3.700	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
41	3.600	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
42	3.500	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
43	3.400	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
44	3.300	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
45	3.200	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
46	3.100	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
47	3.000	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
48	2.900	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
49	2.800	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
50	2.700	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
51	2.600	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
52	2.500	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
53	2.400	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
54	2.300	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
55	2.200	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
56	2.100	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
57	2.000	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
58	1.900	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
59	1.800	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
60	1.700	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
61	1.600	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00

62	1.500	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
63	1.400	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
64	1.300	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
65	1.200	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
66	1.100	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
67	1.000	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
68	0.900	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
69	0.800	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
70	0.700	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
71	0.600	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
72	0.500	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
73	0.400	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
74	0.300	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
75	0.200	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
76	0.100	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
77	0.000	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00

SPECIAL REPORT: Black Bayou
HYDRAULIC PARAMETER VALUES

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	ADVCTV VELO m/s	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
1	7.70	7.60	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
2	7.60	7.50	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
3	7.50	7.40	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
4	7.40	7.30	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
5	7.30	7.20	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
6	7.20	7.10	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
7	7.10	7.00	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
8	7.00	6.90	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
9	6.90	6.80	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
10	6.80	6.70	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
11	6.70	6.60	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
12	6.60	6.50	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
13	6.50	6.40	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
14	6.40	6.30	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
15	6.30	6.20	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
16	6.20	6.10	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
17	6.10	6.00	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
18	6.00	5.90	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
19	5.90	5.80	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
20	5.80	5.70	0.0028	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
21	5.70	5.60	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
22	5.60	5.50	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
23	5.50	5.40	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
24	5.40	5.30	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
25	5.30	5.20	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
26	5.20	5.10	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
27	5.10	5.00	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
28	5.00	4.90	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
29	4.90	4.80	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
30	4.80	4.70	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000

31	4.70	4.60	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
32	4.60	4.50	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
33	4.50	4.40	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
34	4.40	4.30	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
35	4.30	4.20	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
36	4.20	4.10	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
37	4.10	4.00	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
38	4.00	3.90	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
39	3.90	3.80	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
40	3.80	3.70	0.0028	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
41	3.70	3.60	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
42	3.60	3.50	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
43	3.50	3.40	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
44	3.40	3.30	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
45	3.30	3.20	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
46	3.20	3.10	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
47	3.10	3.00	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
48	3.00	2.90	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
49	2.90	2.80	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
50	2.80	2.70	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
51	2.70	2.60	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
52	2.60	2.50	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
53	2.50	2.40	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
54	2.40	2.30	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
55	2.30	2.20	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
56	2.20	2.10	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
57	2.10	2.00	0.0028	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
58	2.00	1.90	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
59	1.90	1.80	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
60	1.80	1.70	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
61	1.70	1.60	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
62	1.60	1.50	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
63	1.50	1.40	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
64	1.40	1.30	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
65	1.30	1.20	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
66	1.20	1.10	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
67	1.10	1.00	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
68	1.00	0.90	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
69	0.90	0.80	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
70	0.80	0.70	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
71	0.70	0.60	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
72	0.60	0.50	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
73	0.50	0.40	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
74	0.40	0.30	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
75	0.30	0.20	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
76	0.20	0.10	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
77	0.10	0.00	0.0028	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000

FINAL REPORT Black Bayou LA-QUAL Projection for Black Bayou Reservoir (100405)
REACH NO. 1 Black Bayou Reserv Summer Projection for FTN

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWTR	0.00283	30.20	0.00	0.00	0.00	6.78	8.00	0.00	13.10	0.00	1.84	0.56	0.00	0.00	51.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
1	7.70	7.60	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
2	7.60	7.50	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
3	7.50	7.40	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
4	7.40	7.30	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
5	7.30	7.20	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
6	7.20	7.10	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
7	7.10	7.00	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
8	7.00	6.90	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
9	6.90	6.80	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
10	6.80	6.70	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
11	6.70	6.60	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
12	6.60	6.50	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
13	6.50	6.40	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
14	6.40	6.30	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
15	6.30	6.20	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
16	6.20	6.10	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
17	6.10	6.00	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
18	6.00	5.90	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
19	5.90	5.80	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
20	5.80	5.70	0.00283	0.0	0.00004	31.28	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
TOT						625.69			152988.00	418000.00					
AVG					0.0000		0.37	209.00			76.49				
CUM						625.69									

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
1	7.600	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
2	7.500	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
3	7.400	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
4	7.300	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
5	7.200	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
6	7.100	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
7	7.000	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
8	6.900	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
9	6.800	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
10	6.700	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
11	6.600	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00

12	6.500	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
13	6.400	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
14	6.300	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
15	6.200	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
16	6.100	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
17	6.000	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
18	5.900	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
19	5.800	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
20	5.700	7.53	3.20	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			2.65	0.14	0.00	0.00	0.00	0.00	0.00	1.43			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
1	7.600	30.20	0.00	0.00	0.00	5.18	9.21	0.00	14.31	0.00	1.51	0.31	0.00	1.82	0.00	51.00	0.00	0.	0.00
2	7.500	30.20	0.00	0.00	0.00	5.17	9.36	0.00	14.46	0.00	1.32	0.24	0.00	1.56	0.00	51.00	0.00	0.	0.00
3	7.400	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.21	0.21	0.00	1.42	0.00	51.00	0.00	0.	0.00
4	7.300	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.15	0.20	0.00	1.35	0.00	51.00	0.00	0.	0.00
5	7.200	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.11	0.19	0.00	1.30	0.00	51.00	0.00	0.	0.00
6	7.100	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.09	0.19	0.00	1.28	0.00	51.00	0.00	0.	0.00
7	7.000	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.08	0.18	0.00	1.27	0.00	51.00	0.00	0.	0.00
8	6.900	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.08	0.18	0.00	1.26	0.00	51.00	0.00	0.	0.00
9	6.800	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.26	0.00	51.00	0.00	0.	0.00
10	6.700	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.00	0.00	0.	0.00
11	6.600	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.00	0.00	0.	0.00
12	6.500	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.00	0.00	0.	0.00
13	6.400	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.00	0.00	0.	0.00
14	6.300	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.00	0.00	0.	0.00
15	6.200	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.00	0.00	0.	0.00
16	6.100	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.00	0.00	0.	0.00
17	6.000	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.00	0.00	0.	0.00
18	5.900	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.00	0.00	0.	0.00
19	5.800	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.00	0.00	0.	0.00
20	5.700	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	1.25	0.00	51.00	0.00	0.	0.00

FINAL REPORT Black Bayou LA-QUAL Projection for Black Bayou Reservoir (100405)
REACH NO. 2 Black Bayou Reserv Summer Projection for FTN

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
21	UPR RCH	0.00283	30.20	0.00	0.00	0.00	5.18	9.38	0.00	14.48	0.00	1.07	0.18	0.00	0.00	51.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
21	5.70	5.60	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
22	5.60	5.50	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
23	5.50	5.40	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
24	5.40	5.30	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
25	5.30	5.20	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
26	5.20	5.10	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
27	5.10	5.00	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
28	5.00	4.90	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
29	4.90	4.80	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
30	4.80	4.70	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
31	4.70	4.60	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
32	4.60	4.50	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
33	4.50	4.40	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
34	4.40	4.30	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
35	4.30	4.20	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
36	4.20	4.10	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
37	4.10	4.00	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
38	4.00	3.90	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
39	3.90	3.80	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
40	3.80	3.70	0.00283	0.0	0.00001	227.18	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
TOT						4543.62			1110970.00	590000.00					
AVG					0.0000		1.88	295.00			555.48				
CUM						5169.31									

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
21	5.600	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
22	5.500	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
23	5.400	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
24	5.300	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
25	5.200	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
26	5.100	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
27	5.000	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
28	4.900	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
29	4.800	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
30	4.700	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
31	4.600	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
32	4.500	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
33	4.400	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
34	4.300	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
35	4.200	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
36	4.100	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
37	4.000	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
38	3.900	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00

39	3.800	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
40	3.700	7.53	0.62	0.22	0.00	0.00	0.00	0.00	0.00	2.72	2.72	2.72	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.52	0.14	0.00	0.00	0.00	0.00	0.00	1.43			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
21	5.600	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
22	5.500	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
23	5.400	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
24	5.300	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
25	5.200	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
26	5.100	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
27	5.000	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
28	4.900	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
29	4.800	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
30	4.700	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
31	4.600	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
32	4.500	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
33	4.400	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
34	4.300	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
35	4.200	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
36	4.100	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
37	4.000	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
38	3.900	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
39	3.800	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00
40	3.700	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	1.29	0.00	51.00	0.00	0.	0.00

FINAL REPORT Black Bayou LA-QUAL Projection for Black Bayou Reservoir (100405)
REACH NO. 3 Black Bayou Reserv Summer Projection for FTN

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
41	UPR RCH	0.00283	30.20	0.00	0.00	0.00	5.04	9.43	0.00	14.53	0.00	1.10	0.19	0.00	0.00	51.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
41	3.70	3.60	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
42	3.60	3.50	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000

43	3.50	3.40	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
44	3.40	3.30	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
45	3.30	3.20	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
46	3.20	3.10	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
47	3.10	3.00	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
48	3.00	2.90	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
49	2.90	2.80	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
50	2.80	2.70	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
51	2.70	2.60	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
52	2.60	2.50	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
53	2.50	2.40	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
54	2.40	2.30	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
55	2.30	2.20	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
56	2.20	2.10	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
57	2.10	2.00	0.00283	0.0	0.00000	441.56	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000								
TOT						7506.58			1835449.50	596700.00													
AVG					0.0000		3.08	351.00			1079.68												
CUM						12675.89																	

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
41	3.600	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
42	3.500	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
43	3.400	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
44	3.300	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
45	3.200	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
46	3.100	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
47	3.000	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
48	2.900	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
49	2.800	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
50	2.700	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
51	2.600	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
52	2.500	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
53	2.400	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
54	2.300	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
55	2.200	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
56	2.100	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
57	2.000	7.53	0.38	0.22	0.00	0.00	0.00	0.00	0.00	2.43	2.43	2.43	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.32	0.14	0.00	0.00	0.00	0.00	0.00	1.28			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM

41	3.600	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.13	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00
42	3.500	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.13	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00
43	3.400	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00
44	3.300	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00
45	3.200	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00
46	3.100	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00
47	3.000	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00
48	2.900	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00
49	2.800	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00
50	2.700	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00
51	2.600	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00
52	2.500	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00
53	2.400	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00
54	2.300	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00
55	2.200	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00
56	2.100	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00
57	2.000	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	1.33	0.00	51.00	0.00	0.	0.00

FINAL REPORT Black Bayou LA-QUAL Projection for Black Bayou Reservoir (100405)
REACH NO. 4 Black Bayou Reserv Summer Projection for FTN

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
58	UPR RCH	0.00283	30.20	0.00	0.00	0.00	5.17	9.42	0.00	14.52	0.00	1.14	0.19	0.00	0.00	51.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
58	2.00	1.90	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
59	1.90	1.80	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
60	1.80	1.70	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
61	1.70	1.60	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
62	1.60	1.50	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
63	1.50	1.40	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
64	1.40	1.30	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
65	1.30	1.20	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
66	1.20	1.10	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
67	1.10	1.00	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
68	1.00	0.90	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
69	0.90	0.80	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
70	0.80	0.70	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
71	0.70	0.60	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
72	0.60	0.50	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
73	0.50	0.40	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
74	0.40	0.30	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
75	0.30	0.20	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000

76	0.20	0.10	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000								
77	0.10	0.00	0.00283	0.0	0.00000	619.41	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000								
TOT						12388.10			3029040.00	840000.00													
AVG					0.0000		3.61	420.00			1514.52												
CUM						25063.98																	

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
58	1.900	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
59	1.800	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
60	1.700	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
61	1.600	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
62	1.500	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
63	1.400	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
64	1.300	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
65	1.200	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
66	1.100	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
67	1.000	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
68	0.900	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
69	0.800	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
70	0.700	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
71	0.600	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
72	0.500	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
73	0.400	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
74	0.300	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
75	0.200	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
76	0.100	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
77	0.000	7.53	0.32	0.22	0.00	0.00	0.00	0.00	0.00	2.53	2.53	2.53	0.02	0.00	0.14	0.00	0.00	0.00	2.12	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.27	0.14	0.00	0.00	0.00	0.00	0.00	1.33			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
58	1.900	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
59	1.800	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
60	1.700	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
61	1.600	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
62	1.500	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
63	1.400	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
64	1.300	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
65	1.200	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
66	1.100	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
67	1.000	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00

68	0.900	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
69	0.800	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
70	0.700	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
71	0.600	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
72	0.500	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
73	0.400	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
74	0.300	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
75	0.200	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
76	0.100	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00
77	0.000	30.20	0.00	0.00	0.00	5.06	9.39	0.00	14.49	0.00	1.15	0.20	0.00	1.34	0.00	51.00	0.00	0.	0.00

STREAM SUMMARY
Black Bayou

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

TRAVEL TIME	=	25063.98			DAYS
MAXIMUM EFFLUENT	=	0.00			PERCENT
FLOW	=	0.00283	TO	0.00283	m^3/s
DISPERSION	=	0.0000	TO	0.0000	m^2/s
VELOCITY	=	0.00000	TO	0.00004	m/s
DEPTH	=	0.37	TO	3.61	m
WIDTH	=	209.00	TO	420.00	m
BOD DECAY	=	0.22	TO	0.22	per day
NH3 DECAY	=	0.14	TO	0.14	per day
SOD	=	2.43	TO	2.72	$g/m^2/d$
NH3 SOURCE	=	0.00	TO	0.00	$g/m^2/d$
REAERATION	=	0.32	TO	3.20	per day
BOD SETTLING	=	0.00	TO	0.00	per day
ORG-N DECAY	=	0.02	TO	0.02	per day
ORG-N SETTLING	=	0.00	TO	0.00	per day
TEMPERATURE	=	30.20	TO	30.20	deg C
DISSOLVED OXYGEN	=	5.04	TO	5.18	mg/L

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

REACH SUMMARY REPORT FOR Black Bayou

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	AVG DEPTH ft	AVG WIDTH ft
1	Black Bayou Reserv	7.70	5.70	2.00	625.69	0.00283	0.00004	0.366	209.00	0.100	0.000	1.201	685.73
2	Black Bayou Reserv	5.70	3.70	2.00	4543.62	0.00283	0.00001	1.883	295.00	0.100	0.000	6.178	967.89
3	Black Bayou Reserv	3.70	2.00	1.70	7506.58	0.00283	0.00000	3.076	351.00	0.100	0.000	10.092	1151.63
4	Black Bayou Reserv	2.00	0.00	2.00	12388.10	0.00283	0.00000	3.606	420.00	0.100	0.000	11.831	1378.02

DISSOLVED OXYGEN LOADING FOR REACH 1: Black Bayou

IOR	UPMN ADV	UPTR ADV	LOWR ADV	UPMN DISP	UPTR DISP	LOWR DISP	INCR IN	INCR OUT	NONP IN	WSLD IN	WITH OUT	REAE IN	BOD1 DECA	NH3-N DECA	ORG-N DECA	NCM DECA	SOD BKGD	SOD BOD1	SOD ALG	SOD NCM	ALG PHOT	ALG RESP	MAC PHOT	TOT OUT	TOT IN	
1	2.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	57.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.3	75.3	-0.01
2	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.2	75.2	-0.01
3	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.1	75.1	-0.01
4	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.1	75.1	-0.01
5	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.0	75.0	-0.01
6	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.0	75.0	-0.01
7	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.0	75.0	-0.01
8	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.0	75.0	-0.01
9	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.0	75.0	-0.01
10	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.0	75.0	-0.01
11	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.0	75.0	-0.01
12	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.0	75.0	-0.01
13	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.0	75.0	-0.01
14	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.0	75.0	-0.01
15	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.0	75.0	0.00
16	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.0	75.0	-0.01
17	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.0	75.0	-0.01
18	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.0	75.0	-0.01
19	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.0	75.0	-0.01
20	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	58.	-16.	-1.	0.	0.	-57.	0.	0.	0.	16.	0.	0.	-75.0	75.0	-0.01
21	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-6.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.0	-0.03
22	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
23	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
24	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
25	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
26	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
27	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
28	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
29	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
30	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
31	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
32	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
33	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
34	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
35	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
36	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
37	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
38	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
39	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
40	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	86.	-117.	-7.	0.	0.	-80.	0.	0.	0.	118.	0.	0.	-205.1	205.1	-0.03
41	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07
42	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07
43	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07
44	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07
45	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07
46	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07
47	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07
48	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07
49	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07
50	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07

51	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07
52	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07
53	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07
54	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07
55	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07
56	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07
57	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	97.	-227.	-13.	0.	0.	-85.	0.	0.	0.	229.	0.	0.	-327.1	327.0	-0.07
58	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
59	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09

DISSOLVED OXYGEN LOADING FOR REACH 1: Black Bayou

IOR	UPMN ADV	UPTR ADV	LOWR ADV	UPMN DISP	UPTR DISP	LOWR DISP	INCR IN	INCR OUT	NONP IN	WSLD IN	WITH OUT	REAE IN	BOD1 DECA	NH3-N DECA	ORG-N DECA	NCM DECA	SOD BKGD	SOD BOD1	SOD ALG	SOD NCM	ALG PHOT	ALG RESP	MAC PHOT	TOT OUT	TOT IN	
60	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
61	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
62	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
63	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
64	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
65	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
66	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
67	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
68	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
69	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
70	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
71	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
72	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
73	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
74	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
75	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
76	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09
77	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	122.	-318.	-18.	0.	0.	-106.	0.	0.	0.	321.	0.	0.	-444.0	443.9	-0.09

LA-QUAL Projection for Black Bayou Reservoir (100405)
Summer Projection for FTN

INPUT/OUTPUT LOADING SUMMARY

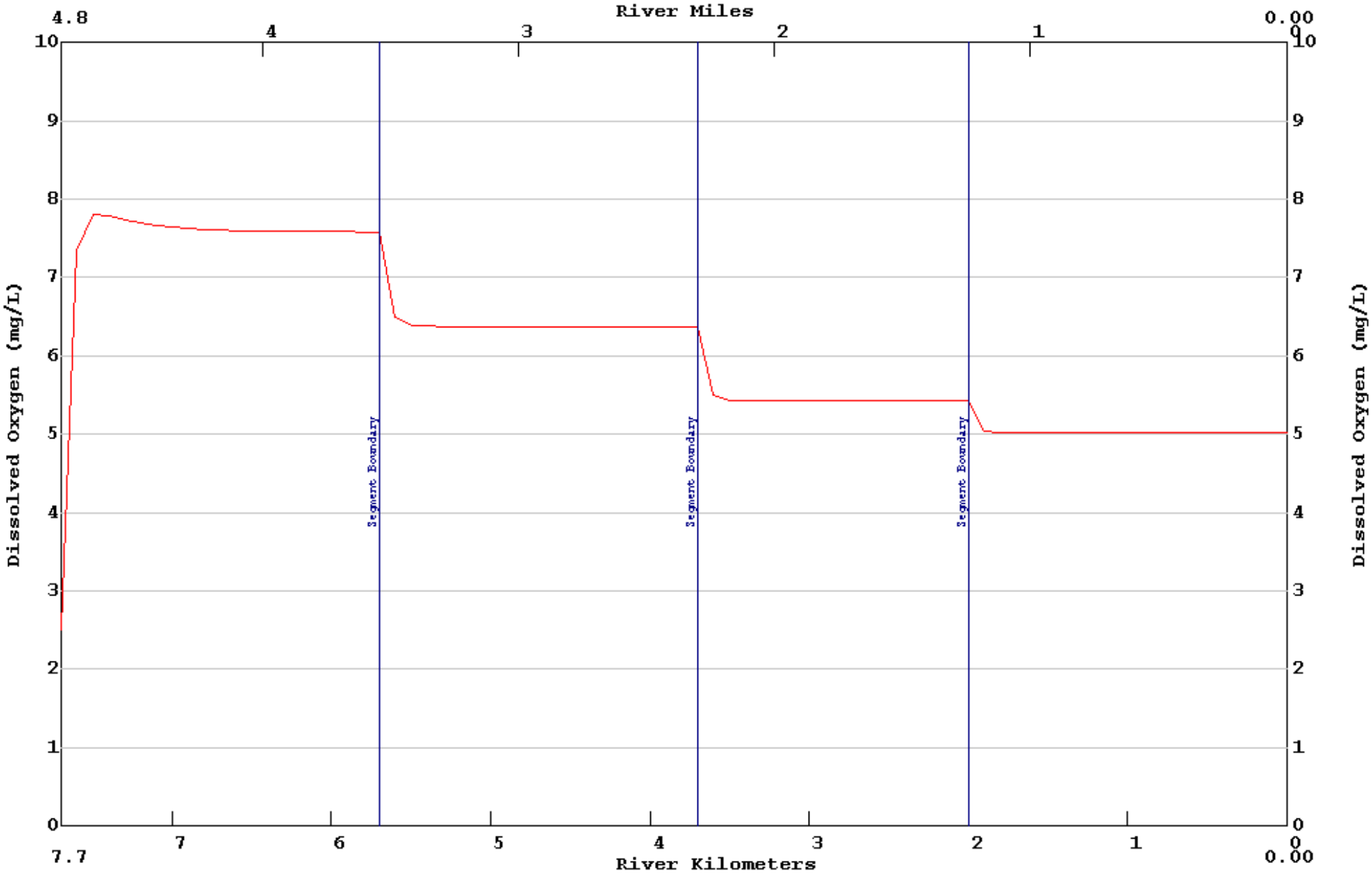
	FLOW m^3/s	DO kg/d	BOD#1 kg/d	BOD#2 kg/d	ORG-N kg/d	NH3-N kg/d	NO3-N kg/d	PHOS kg/d	CHL A	NCM
HEADWATER FLOW	0.003	1.7	2.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0
INCREMENTAL INFLOW	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
INCREMENTAL OUTFLOW	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WASTELOADS	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WITHDRAWLS	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FLOW THRU LOWER BNDRY	-0.003	-1.2	-2.3	0.0	-0.3	0.0	0.0	0.0	0.0	0.0
DISPERSION THRU LOWER BNDRY		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DISPERSION THRU HDWTR BNDRY		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NON-POINT INPUT		0.0	12890.0	0.0	170.0					0.0
NATURAL REAERATION		6959.9								
DAM REAERATION		0.0								
BACKGROUND SOD		-6315.7								
BOD#1 DECAY		-12889.7	-12889.7							
BOD#1 SETTLING		0.0	0.0							
ANAEROBIC BOD#1 DECAY			0.0							
BOD#2 DECAY		0.0		0.0						
BOD#2 SETTLING		0.0		0.0						
ANAEROBIC BOD#2 DECAY				0.0						
ORG-N DECAY		0.0			-170.2	170.2				
ORG-N SETTLING					0.0	0.0				
NH3 DECAY		-741.1				-171.2	171.2			
BACKGROUND NH3 SOURCE						0.0				
OTHER DENITRIFICATION							0.0			
PHOSPHORUS SOURCE								0.0		
ALGAE PHOTOSYNTHESIS		12982.3				0.0	-1248.3	0.0	0.0	
ALGAE RESPIRATION		0.0				0.0		0.0	0.0	
ALGAE SETTLING		0.0							0.0	
MACRO PHOTOSYNTHESIS		0.0				0.0	0.0	0.0		
NCM DECAY		0.0								0.0
NCM SETTLING		0.0								0.0
TOTAL INPUTS	0.003	19943.8	12892.0	0.0	170.4	170.3	171.2	0.0	0.0	0.0
TOTAL OUTPUTS	-0.003	-19947.7	-12892.0	0.0	-170.4	-171.2	-1248.3	0.0	0.0	0.0
NET CONVERGENCE ERROR	0.000	-3.9	0.0	0.0	0.0	-0.9	-1077.1	0.0	0.0	0.0

.....EXECUTION COMPLETED

APPENDIX M

Black Bayou Reservoir Winter Projection Model Output

LA-QUAL Version 8.11 Run at 10:44 on 10/16/2007 File D:\comp_models\LA-QUAL_8p11\Black win.txt
Winter Projection for FTN
Black Bayou Reservoir Winter Projection



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LA-QUAL Version 8.11
Louisiana Department of Environmental Quality

Input file is D:\laqual\Black win crl.txt
Output produced at 13:51 on 10/15/2007

$$$ DATA TYPE 1 (TITLES AND CONTROL CARDS) $$$

CARD TYPE       CONTROL TITLES

TITLE01         LA-QUAL Projection for Black Bayou Reservoir (100405)
TITLE02         Winter Projection for FTN
CNTROL03   NO   SEQU                        <Warning: legacy control - line ignored>
CNTROL04  YES   METR
CNTROL05  YES   OXYG                        <Warning: legacy control - line ignored>
ENDATA01

$$$ DATA TYPE 2 (MODEL OPTIONS) $$$

CARD TYPE       MODEL OPTION

MODOPT01   NO   TEMPERATURE
MODOPT02   NO   SALINITY
MODOPT03   NO   CONSERVATIVE MATERIAL #1                      UNITS =
MODOPT04   NO   CONSERVATIVE MATERIAL #2                      UNITS =
MODOPT05  YES   DISSOLVED OXYGEN
MODOPT06  YES   BOD1 BIOCHEMICAL OXYGEN DEMAND #1
MODOPT07   NO   BOD2 BIOCHEMICAL OXYGEN DEMAND #2
MODOPT08  YES   NITROGEN SERIES
MODOPT09   NO   PHOSPHORUS
MODOPT10   NO   CHLOROPHYLL A
MODOPT11   NO   MACROPHYTES
MODOPT12   NO   COLIFORMS
MODOPT13   NO   NONCONSERVATIVE MATERIAL                      UNITS =
ENDATA02

$$$ DATA TYPE 3 (PROGRAM CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                     VALUE

PROGRAM         HYDRAULIC CALCULATION METHOD       =        2.00000 (widths and depths)
PROGRAM         MAXIMUM ITERATION LIMIT            =      200.00000
PROGRAM         ALGAE OXYGEN PROD                  =        0.02600 mg O/ug chl a/day
PROGRAM         EFFECTIVE BOD DUE TO ALGAE         =        0.10000 mg/L BOD per ug/L chl a
ENDATA03

$$$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) $$$

 CARD TYPE     RATE CODE     THETA VALUE

THETA        NH3 DECA       1.07000
ENDATA04

$$$ CONSTANTS TYPE 5 (TEMPERATURE DATA) $$$
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CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA05

$$$ DATA TYPE 6 (ALGAE CONSTANTS) $$$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA06

$$$ DATA TYPE 7 (MACROPHYTE CONSTANTS) $$$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA07

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km		END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	BB	Black Bayou Reserv	7.70	TO	5.70	0.1000	2.00	20	1	20
REACH ID	2	BB	Black Bayou Reserv	5.70	TO	3.70	0.1000	2.00	20	21	40
REACH ID	3	BB	Black Bayou Reserv	3.70	TO	2.00	0.1000	1.70	17	41	57
REACH ID	4	BB	Black Bayou Reserv	2.00	TO	0.00	0.1000	2.00	20	58	77

ENDATA08

$$$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) $$$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1	BB	209.000	0.000	0.000	0.366	0.000	0.000	0.00000	0.000
HYDR-1	2	BB	295.000	0.000	0.000	1.883	0.000	0.000	0.00000	0.000
HYDR-1	3	BB	351.000	0.000	0.000	3.076	0.000	0.000	0.00000	0.000
HYDR-1	4	BB	420.000	0.000	0.000	3.606	0.000	0.000	0.00000	0.000

ENDATA09

$$$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) $$$

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"

ENDATA10

$$$ DATA TYPE 11 (INITIAL CONDITIONS) $$$

CARD TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	BB	16.50	0.00	4.30	0.14	0.00	0.00	51.00	0.00
INITIAL	2	BB	16.50	0.00	4.30	0.14	0.00	0.00	51.00	0.00
INITIAL	3	BB	16.50	0.00	4.30	0.14	0.00	0.00	51.00	0.00
INITIAL	4	BB	16.50	0.00	4.30	0.14	0.00	0.00	51.00	0.00

ENDATA11

$$$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) $$$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m²/d	BOD DECAY per day	BOD SETT m/d	BOD CONV TO SOD	ANAER BOD2 DECAY per day	BOD2 DECAY per day	BOD2 SETT m/d	BOD2 CONV TO SOD	ANAER BOD2 DECAY per day
COEFF-1	1	BB	20 K2=a/D	0.970	0.000	0.000	1.240	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEFF-1	2	BB	20 K2=a/D	0.970	0.000	0.000	1.240	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEFF-1	3	BB	20 K2=a/D	0.970	0.000	0.000	1.120	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEFF-1	4	BB	20 K2=a/D	0.970	0.000	0.000	1.160	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ENDATA12

$$$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) $$$

CARD TYPE	REACH	ID	ORG-N DECA	ORG-N SETT	ORGN CONV TO NH3 SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEFF-2	1	BB	0.020	0.000	0.000	0.080	0.000	0.000	0.000
COEFF-2	2	BB	0.020	0.000	0.000	0.080	0.000	0.000	0.000
COEFF-2	3	BB	0.020	0.000	0.000	0.080	0.000	0.000	0.000
COEFF-2	4	BB	0.020	0.000	0.000	0.080	0.000	0.000	0.000

ENDATA13

$$$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) $$$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP	SHADING

ENDATA14

$$$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) $$$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD

ENDATA15

$$$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) $$$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST

ENDATA16

$$$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE	REACH	ID	DO	BOD	ORG-N	NH3-N	NO3-N	BOD#2

ENDATA17

$$$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM

ENDATA18

$$$ DATA TYPE 19 (NONPOINT SOURCE DATA) $$$

CARD TYPE	REACH	ID	BOD#1	ORG-N	COLI	NCM	DO	BOD#2
NONPOINT	1	BB	286.00	5.00	0.00	0.00	0.00	0.00
NONPOINT	2	BB	2128.00	39.00	0.00	0.00	0.00	0.00
NONPOINT	3	BB	3519.00	65.00	0.00	0.00	0.00	0.00
NONPOINT	4	BB	5796.00	105.00	0.00	0.00	0.00	0.00

ENDATA19

$$$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) $$$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m^3/s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I	CM-II	
HDWTR-1	1	Black Bayou	0	0.02831	1.000	16.50	0.00	0.000	0.000	0.00

ENDATA20

$$$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	BOD#2 mg/L
HDWTR-2	1	Black Bayou	8.80	13.10	1.84	0.56	0.00	0.00

ENDATA21

$$$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L

ENDATA22

$$$ DATA TYPE 23 (JUNCTION DATA) $$$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER KILOM	NAME

ENDATA23

$$$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) $$$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m^3/s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I	CM-II

ENDATA24

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	ORG-N mg/L	NH3-N mg/L	% NITRIF	NO3-N mg/L	BOD#2 mg/L

ENDATA25

$$$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

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CARD TYPE     ELEMENT   NAME                        PHOS     CHL A      COLI       NCM
                                                    mg/L      mg/L      mg/L      mg/L

ENDATA26

$$$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) $$$

CARD TYPE    CONSTITUENT                    CONCENTRATION

ENDATA27

$$$ DATA TYPE 28 (DAM DATA) $$$

CARD TYPE     ELEMENT   NAME                  EQN      "A"       "B"       "H"

ENDATA28

$$$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) $$$

CARD TYPE       PARAMETER     COL 1     COL 2     COL 3     COL 4     COL 5     COL 6     COL 7     COL 8

ENDATA29

$$$ DATA TYPE 30 (PLOT CONTROL CARDS) $$$


NUMBER OF PLOTS =  1
NUMBER OF REACHES IN PLOT 1 =   4
PLOT RCH  1  2  3  4
ENDATA30

$$$ DATA TYPE 31 (OVERLAY PLOT DATA) $$$


OVERLAY 1 Black_proj.OVL                  :Black Bayou Reservoir Winter Projection
ENDATA31



     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN   2 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED
 ***** WARNING:  NEGATIVE CONCENTRATIONS SET TO ZERO FOR Nitrate+Nitrite Nitrogen
     .....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11


INTERMEDIATE REPORT
 Dissolved Oxygen                                          LA-QUAL Projection for Black Bayou Reservoir (100405)
     mg/L                                                  Winter Projection for FTN


  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
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BB	1	1	8.60	8.51	8.46	8.42	8.39	8.36	8.35	8.34	8.33	8.32
BB	1	11	8.32	8.31	8.31	8.31	8.31	8.31	8.31	8.31	8.31	8.31
BB	2	21	6.88	6.74	6.72	6.72	6.71	6.71	6.71	6.71	6.71	6.71
BB	2	31	6.71	6.71	6.71	6.71	6.71	6.71	6.71	6.71	6.71	6.71
BB	3	41	5.65	5.57	5.57	5.57	5.56	5.56	5.56	5.56	5.56	5.56
BB	3	51	5.56	5.56	5.56	5.56	5.56	5.56	5.56			
BB	4	58	5.03	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
BB	4	68	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

INTERMEDIATE REPORT
Effective BOD
mg/L

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	15.19	16.71	17.81	18.62	19.21	19.63	19.95	20.17	20.34	20.46
BB	1	11	20.55	20.61	20.66	20.69	20.72	20.73	20.75	20.76	20.76	20.77
BB	2	21	21.06	21.14	21.16	21.17	21.17	21.17	21.17	21.17	21.17	21.17
BB	2	31	21.17	21.17	21.17	21.17	21.17	21.17	21.17	21.17	21.17	21.17
BB	3	41	21.18	21.18	21.18	21.18	21.18	21.18	21.18	21.18	21.18	21.18
BB	3	51	21.18	21.18	21.18	21.18	21.18	21.18	21.18			
BB	4	58	21.16	21.15	21.15	21.15	21.15	21.15	21.15	21.15	21.15	21.15
BB	4	68	21.15	21.15	21.15	21.15	21.15	21.15	21.15	21.15	21.15	21.15

INTERMEDIATE REPORT
Biochemical Oxygen Demand
mg/L

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	10.09	11.61	12.71	13.52	14.11	14.53	14.85	15.07	15.24	15.36
BB	1	11	15.45	15.51	15.56	15.59	15.62	15.63	15.65	15.66	15.66	15.67
BB	2	21	15.96	16.04	16.06	16.07	16.07	16.07	16.07	16.07	16.07	16.07
BB	2	31	16.07	16.07	16.07	16.07	16.07	16.07	16.07	16.07	16.07	16.07
BB	3	41	16.08	16.08	16.08	16.08	16.08	16.08	16.08	16.08	16.08	16.08
BB	3	51	16.08	16.08	16.08	16.08	16.08	16.08	16.08			
BB	4	58	16.06	16.05	16.05	16.05	16.05	16.05	16.05	16.05	16.05	16.05
BB	4	68	16.05	16.05	16.05	16.05	16.05	16.05	16.05	16.05	16.05	16.05

INTERMEDIATE REPORT
Organic Nitrogen
mg/L

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	1.84	1.83	1.83	1.82	1.82	1.81	1.81	1.81	1.80	1.80
BB	1	11	1.80	1.80	1.79	1.79	1.79	1.79	1.79	1.78	1.78	1.78
BB	2	21	1.81	1.83	1.85	1.86	1.86	1.87	1.87	1.88	1.88	1.88

BB	2	31	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88
BB	3	41	1.89	1.89	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90
BB	3	51	1.90	1.90	1.90	1.90	1.90	1.90	1.90			
BB	4	58	1.88	1.87	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86
BB	4	68	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86

INTERMEDIATE REPORT
Ammonia Nitrogen
mg/L

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.56	0.56	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
BB	1	11	0.57	0.57	0.57	0.57	0.57	0.56	0.56	0.56	0.56	0.56
BB	2	21	0.57	0.58	0.58	0.59	0.59	0.59	0.60	0.60	0.60	0.60
BB	2	31	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
BB	3	41	0.61	0.61	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
BB	3	51	0.62	0.62	0.62	0.62	0.62	0.62	0.62			
BB	4	58	0.62	0.62	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
BB	4	68	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61

INTERMEDIATE REPORT
Nitrate+Nitrite Nitrogen
mg/L

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	51	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
BB	4	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	4	68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

INTERMEDIATE REPORT
Total Nitrogen
mg/L

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	2.40	2.40	2.39	2.39	2.39	2.38	2.38	2.38	2.37	2.37
BB	1	11	2.37	2.36	2.36	2.36	2.35	2.35	2.35	2.35	2.34	2.34
BB	2	21	2.38	2.41	2.43	2.44	2.46	2.46	2.47	2.47	2.47	2.48
BB	2	31	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48
BB	3	41	2.50	2.51	2.51	2.51	2.51	2.51	2.51	2.51	2.51	2.51
BB	3	51	2.51	2.51	2.51	2.51	2.51	2.51	2.51			
BB	4	58	2.49	2.48	2.48	2.47	2.47	2.47	2.47	2.47	2.47	2.47

BB	4	68	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47

INTERMEDIATE REPORT
Chlorophyll a
µg/L

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	1	11	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	2	21	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	2	31	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	3	41	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	3	51	51.00	51.00	51.00	51.00	51.00	51.00	51.00			
BB	4	58	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00
BB	4	68	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00

INTERMEDIATE REPORT
Temperature
deg C

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
BB	1	11	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
BB	2	21	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
BB	2	31	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
BB	3	41	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
BB	3	51	16.50	16.50	16.50	16.50	16.50	16.50	16.50			
BB	4	58	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
BB	4	68	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50

INTERMEDIATE REPORT
Salinity
ppt

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	51	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
BB	4	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	4	68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

INTERMEDIATE REPORT

River Distance
km

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	8.	8.	7.	7.	7.	7.	7.	7.	7.	7.
BB	1	11	7.	7.	6.	6.	6.	6.	6.	6.	6.	6.
BB	2	21	6.	6.	5.	5.	5.	5.	5.	5.	5.	5.
BB	2	31	5.	5.	4.	4.	4.	4.	4.	4.	4.	4.
BB	3	41	4.	4.	3.	3.	3.	3.	3.	3.	3.	3.
BB	3	51	3.	3.	2.	2.	2.	2.	2.			
BB	4	58	2.	2.	2.	2.	1.	1.	1.	1.	1.	1.
BB	4	68	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.

INTERMEDIATE REPORT
Flow
m^3/s

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
BB	4	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	4	68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

INTERMEDIATE REPORT
Dispersion
m^2/s

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
BB	4	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	4	68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

INTERMEDIATE REPORT
Advective Velocity
m/s

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	3	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
BB	4	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	4	68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

INTERMEDIATE REPORT
Depth
m

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
BB	1	11	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
BB	2	21	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
BB	2	31	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
BB	3	41	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
BB	3	51	3.1	3.1	3.1	3.1	3.1	3.1	3.1			
BB	4	58	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
BB	4	68	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6

INTERMEDIATE REPORT
Width
m

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0
BB	1	11	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0	209.0
BB	2	21	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0
BB	2	31	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0
BB	3	41	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0
BB	3	51	351.0	351.0	351.0	351.0	351.0	351.0	351.0			
BB	4	58	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0
BB	4	68	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0

INTERMEDIATE REPORT
Cross-Sectional Area
m^2

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5
BB	1	11	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5

BB	2	21	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5
BB	2	31	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5	555.5
BB	3	41	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7
BB	3	51	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7	1079.7			
BB	4	58	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5
BB	4	68	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5	1514.5

INTERMEDIATE REPORT
Reaeration Rate
per day

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	2.467	2.467	2.467	2.467	2.467	2.467	2.467	2.467	2.467	2.467
BB	1	11	2.467	2.467	2.467	2.467	2.467	2.467	2.467	2.467	2.467	2.467
BB	2	21	0.480	0.480	0.480	0.480	0.480	0.480	0.480	0.480	0.480	0.480
BB	2	31	0.480	0.480	0.480	0.480	0.480	0.480	0.480	0.480	0.480	0.480
BB	3	41	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294
BB	3	51	0.294	0.294	0.294	0.294	0.294	0.294	0.294			
BB	4	58	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250
BB	4	68	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250

INTERMEDIATE REPORT
BOD Decay Rate
per day

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
BB	1	11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
BB	2	21	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
BB	2	31	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
BB	3	41	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
BB	3	51	0.12	0.12	0.12	0.12	0.12	0.12	0.12			
BB	4	58	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
BB	4	68	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12

INTERMEDIATE REPORT
BOD Settling Rate
per day

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	2	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	3	51	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

BB	4	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	4	68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

INTERMEDIATE REPORT
Ammonia Decay Rate
per day

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
BB	1	11	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
BB	2	21	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
BB	2	31	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
BB	3	41	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
BB	3	51	0.06	0.06	0.06	0.06	0.06	0.06	0.06			
BB	4	58	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
BB	4	68	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06

INTERMEDIATE REPORT
Sediment Oxygen Demand
g/m²/d

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
BB	1	1	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
BB	1	11	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
BB	2	21	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
BB	2	31	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
BB	3	41	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
BB	3	51	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
BB	4	58	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
BB	4	68	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93

CONDENSED CAPSULE SUMMARY FOR Black Bayou

DIST	FLOW	TEMP	SALN	DO	EBOD1	EBOD2	ORGN	NH3	CHLA	REAER RATE	BOD1 DECA	BOD1 SETT	BOD2 DECA	BOD2 SETT	NH3 DECA	SOD
km	m³/s	deg C	ppt	mg/L	mg/L	mg/L	mg/L	µg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	g/m²/d
HDWTR	0.02831	16.50	0.00	8.80	13.10	0.00	1.84	0.56	51.00							
7.60	0.02831	16.50	0.00	8.60	15.19	0.00	1.84	0.56	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
7.50	0.02831	16.50	0.00	8.51	16.71	0.00	1.83	0.56	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
7.40	0.02831	16.50	0.00	8.46	17.81	0.00	1.83	0.57	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
7.30	0.02831	16.50	0.00	8.42	18.62	0.00	1.82	0.57	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
7.20	0.02831	16.50	0.00	8.39	19.21	0.00	1.82	0.57	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
7.10	0.02831	16.50	0.00	8.36	19.63	0.00	1.81	0.57	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
7.00	0.02831	16.50	0.00	8.35	19.95	0.00	1.81	0.57	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
6.90	0.02831	16.50	0.00	8.34	20.17	0.00	1.81	0.57	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
6.80	0.02831	16.50	0.00	8.33	20.34	0.00	1.80	0.57	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
6.70	0.02831	16.50	0.00	8.32	20.46	0.00	1.80	0.57	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99

6.60	0.02831	16.50	0.00	8.32	20.55	0.00	1.80	0.57	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
6.50	0.02831	16.50	0.00	8.31	20.61	0.00	1.80	0.57	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
6.40	0.02831	16.50	0.00	8.31	20.66	0.00	1.79	0.57	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
6.30	0.02831	16.50	0.00	8.31	20.69	0.00	1.79	0.57	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
6.20	0.02831	16.50	0.00	8.31	20.72	0.00	1.79	0.57	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
6.10	0.02831	16.50	0.00	8.31	20.73	0.00	1.79	0.56	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
6.00	0.02831	16.50	0.00	8.31	20.75	0.00	1.79	0.56	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
5.90	0.02831	16.50	0.00	8.31	20.76	0.00	1.78	0.56	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
5.80	0.02831	16.50	0.00	8.31	20.76	0.00	1.78	0.56	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
5.70	0.02831	16.50	0.00	8.31	20.77	0.00	1.78	0.56	51.00	2.47	0.12	0.00	0.00	0.00	0.06	0.99
5.60	0.02831	16.50	0.00	6.88	21.06	0.00	1.81	0.57	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
5.50	0.02831	16.50	0.00	6.74	21.14	0.00	1.83	0.58	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
5.40	0.02831	16.50	0.00	6.72	21.16	0.00	1.85	0.58	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
5.30	0.02831	16.50	0.00	6.72	21.17	0.00	1.86	0.59	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
5.20	0.02831	16.50	0.00	6.71	21.17	0.00	1.86	0.59	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
5.10	0.02831	16.50	0.00	6.71	21.17	0.00	1.87	0.59	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
5.00	0.02831	16.50	0.00	6.71	21.17	0.00	1.87	0.60	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
4.90	0.02831	16.50	0.00	6.71	21.17	0.00	1.88	0.60	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
4.80	0.02831	16.50	0.00	6.71	21.17	0.00	1.88	0.60	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
4.70	0.02831	16.50	0.00	6.71	21.17	0.00	1.88	0.60	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
4.60	0.02831	16.50	0.00	6.71	21.17	0.00	1.88	0.60	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
4.50	0.02831	16.50	0.00	6.71	21.17	0.00	1.88	0.60	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
4.40	0.02831	16.50	0.00	6.71	21.17	0.00	1.88	0.60	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
4.30	0.02831	16.50	0.00	6.71	21.17	0.00	1.88	0.60	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
4.20	0.02831	16.50	0.00	6.71	21.17	0.00	1.88	0.60	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
4.10	0.02831	16.50	0.00	6.71	21.17	0.00	1.88	0.60	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
4.00	0.02831	16.50	0.00	6.71	21.17	0.00	1.88	0.60	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
3.90	0.02831	16.50	0.00	6.71	21.17	0.00	1.88	0.60	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
3.80	0.02831	16.50	0.00	6.71	21.17	0.00	1.88	0.60	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
3.70	0.02831	16.50	0.00	6.71	21.17	0.00	1.88	0.60	51.00	0.48	0.12	0.00	0.00	0.00	0.06	0.99
3.60	0.02831	16.50	0.00	5.65	21.18	0.00	1.89	0.61	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
3.50	0.02831	16.50	0.00	5.57	21.18	0.00	1.89	0.61	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
3.40	0.02831	16.50	0.00	5.57	21.18	0.00	1.90	0.62	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
3.30	0.02831	16.50	0.00	5.57	21.18	0.00	1.90	0.62	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
3.20	0.02831	16.50	0.00	5.56	21.18	0.00	1.90	0.62	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
3.10	0.02831	16.50	0.00	5.56	21.18	0.00	1.90	0.62	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
3.00	0.02831	16.50	0.00	5.56	21.18	0.00	1.90	0.62	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
2.90	0.02831	16.50	0.00	5.56	21.18	0.00	1.90	0.62	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
2.80	0.02831	16.50	0.00	5.56	21.18	0.00	1.90	0.62	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
2.70	0.02831	16.50	0.00	5.56	21.18	0.00	1.90	0.62	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
2.60	0.02831	16.50	0.00	5.56	21.18	0.00	1.90	0.62	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
2.50	0.02831	16.50	0.00	5.56	21.18	0.00	1.90	0.62	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
2.40	0.02831	16.50	0.00	5.56	21.18	0.00	1.90	0.62	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
2.30	0.02831	16.50	0.00	5.56	21.18	0.00	1.90	0.62	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
2.20	0.02831	16.50	0.00	5.56	21.18	0.00	1.90	0.62	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
2.10	0.02831	16.50	0.00	5.56	21.18	0.00	1.90	0.62	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
2.00	0.02831	16.50	0.00	5.56	21.18	0.00	1.90	0.62	51.00	0.29	0.12	0.00	0.00	0.00	0.06	0.90
1.90	0.02831	16.50	0.00	5.03	21.16	0.00	1.88	0.62	51.00	0.25	0.12	0.00	0.00	0.00	0.06	0.93
1.80	0.02831	16.50	0.00	5.00	21.15	0.00	1.87	0.62	51.00	0.25	0.12	0.00	0.00	0.00	0.06	0.93
1.70	0.02831	16.50	0.00	5.00	21.15	0.00	1.86	0.61	51.00	0.25	0.12	0.00	0.00	0.00	0.06	0.93
1.60	0.02831	16.50	0.00	5.00	21.15	0.00	1.86	0.61	51.00	0.25	0.12	0.00	0.00	0.00	0.06	0.93
1.50	0.02831	16.50	0.00	5.00	21.15	0.00	1.86	0.61	51.00	0.25	0.12	0.00	0.00	0.00	0.06	0.93
1.40	0.02831	16.50	0.00	5.00	21.15	0.00	1.86	0.61	51.00	0.25	0.12	0.00	0.00	0.00	0.06	0.93
1.30	0.02831	16.50	0.00	5.00	21.15	0.00	1.86	0.61	51.00	0.25	0.12	0.00	0.00	0.00	0.06	0.93
1.20	0.02831	16.50	0.00	5.00	21.15	0.00	1.86	0.61	51.00	0.25	0.12	0.00	0.00	0.00	0.06	0.93

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1.10   0.02831 16.50 0.00   5.00 21.15  0.00 1.86 0.61 51.00   0.25  0.12 0.00 0.00 0.00 0.06  0.93
1.00   0.02831 16.50 0.00   5.00 21.15  0.00 1.86 0.61 51.00   0.25  0.12 0.00 0.00 0.00 0.06  0.93
0.90   0.02831 16.50 0.00   5.00 21.15  0.00 1.86 0.61 51.00   0.25  0.12 0.00 0.00 0.00 0.06  0.93
0.80   0.02831 16.50 0.00   5.00 21.15  0.00 1.86 0.61 51.00   0.25  0.12 0.00 0.00 0.00 0.06  0.93
0.70   0.02831 16.50 0.00   5.00 21.15  0.00 1.86 0.61 51.00   0.25  0.12 0.00 0.00 0.00 0.06  0.93
0.60   0.02831 16.50 0.00   5.00 21.15  0.00 1.86 0.61 51.00   0.25  0.12 0.00 0.00 0.00 0.06  0.93
0.50   0.02831 16.50 0.00   5.00 21.15  0.00 1.86 0.61 51.00   0.25  0.12 0.00 0.00 0.00 0.06  0.93
0.40   0.02831 16.50 0.00   5.00 21.15  0.00 1.86 0.61 51.00   0.25  0.12 0.00 0.00 0.00 0.06  0.93
0.30   0.02831 16.50 0.00   5.00 21.15  0.00 1.86 0.61 51.00   0.25  0.12 0.00 0.00 0.00 0.06  0.93
0.20   0.02831 16.50 0.00   5.00 21.15  0.00 1.86 0.61 51.00   0.25  0.12 0.00 0.00 0.00 0.06  0.93
0.10   0.02831 16.50 0.00   5.00 21.15  0.00 1.86 0.61 51.00   0.25  0.12 0.00 0.00 0.00 0.06  0.93
0.00   0.02831 16.50 0.00   5.00 21.15  0.00 1.86 0.61 51.00   0.25  0.12 0.00 0.00 0.00 0.06  0.93
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EXPANDED CAPSULE SUMMARY FOR Black Bayou

IOR	REACH	DIST km	FLOW m³/s	TEMP deg C	SALN ppt	DO mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3 mg/L	CHLA µg/L	DISP m²/s	DEPTH m	WIDTH m	ADVEC VELO m/s	MEAN VELO m/s	DO SAT mg/L	REAER RATE 1/da	BOD1 DECA 1/da	BOD1 SETT 1/da	BOD2 DECA 1/da	BOD2 SETT 1/da	NH3 DECA 1/da	SOD g/m²/d
		HDWTR	0.028	16.5	0.0	8.8	13.1	0.0	1.8	0.6	51.0													
1	BB 1	7.60	0.028	16.5	0.0	8.6	15.2	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
2	BB 1	7.50	0.028	16.5	0.0	8.5	16.7	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
3	BB 1	7.40	0.028	16.5	0.0	8.5	17.8	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
4	BB 1	7.30	0.028	16.5	0.0	8.4	18.6	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
5	BB 1	7.20	0.028	16.5	0.0	8.4	19.2	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
6	BB 1	7.10	0.028	16.5	0.0	8.4	19.6	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
7	BB 1	7.00	0.028	16.5	0.0	8.3	19.9	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
8	BB 1	6.90	0.028	16.5	0.0	8.3	20.2	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
9	BB 1	6.80	0.028	16.5	0.0	8.3	20.3	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
10	BB 1	6.70	0.028	16.5	0.0	8.3	20.5	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
11	BB 1	6.60	0.028	16.5	0.0	8.3	20.5	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
12	BB 1	6.50	0.028	16.5	0.0	8.3	20.6	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
13	BB 1	6.40	0.028	16.5	0.0	8.3	20.7	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
14	BB 1	6.30	0.028	16.5	0.0	8.3	20.7	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
15	BB 1	6.20	0.028	16.5	0.0	8.3	20.7	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
16	BB 1	6.10	0.028	16.5	0.0	8.3	20.7	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
17	BB 1	6.00	0.028	16.5	0.0	8.3	20.7	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
18	BB 1	5.90	0.028	16.5	0.0	8.3	20.8	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
19	BB 1	5.80	0.028	16.5	0.0	8.3	20.8	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
20	BB 1	5.70	0.028	16.5	0.0	8.3	20.8	0.0	1.8	0.6	51.0	0.0	0.37	209.0	0.000	0.000	9.8	2.467	0.12	0.00	0.00	0.00	0.06	0.99
21	BB 2	5.60	0.028	16.5	0.0	6.9	21.1	0.0	1.8	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
22	BB 2	5.50	0.028	16.5	0.0	6.7	21.1	0.0	1.8	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
23	BB 2	5.40	0.028	16.5	0.0	6.7	21.2	0.0	1.8	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
24	BB 2	5.30	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
25	BB 2	5.20	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
26	BB 2	5.10	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
27	BB 2	5.00	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
28	BB 2	4.90	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
29	BB 2	4.80	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
30	BB 2	4.70	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
31	BB 2	4.60	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
32	BB 2	4.50	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
33	BB 2	4.40	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
34	BB 2	4.30	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
35	BB 2	4.20	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
36	BB 2	4.10	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
37	BB 2	4.00	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
38	BB 2	3.90	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
39	BB 2	3.80	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
40	BB 2	3.70	0.028	16.5	0.0	6.7	21.2	0.0	1.9	0.6	51.0	0.0	1.88	295.0	0.000	0.000	9.8	0.480	0.12	0.00	0.00	0.00	0.06	0.99
41	BB 3	3.60	0.028	16.5	0.0	5.7	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90
42	BB 3	3.50	0.028	16.5	0.0	5.6	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90
43	BB 3	3.40	0.028	16.5	0.0	5.6	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90
44	BB 3	3.30	0.028	16.5	0.0	5.6	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90
45	BB 3	3.20	0.028	16.5	0.0	5.6	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90
46	BB 3	3.10	0.028	16.5	0.0	5.6	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90
47	BB 3	3.00	0.028	16.5	0.0	5.6	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90
48	BB 3	2.90	0.028	16.5	0.0	5.6	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90

49	BB	3	2.80	0.028	16.5	0.0	5.6	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90
50	BB	3	2.70	0.028	16.5	0.0	5.6	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90
51	BB	3	2.60	0.028	16.5	0.0	5.6	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90
52	BB	3	2.50	0.028	16.5	0.0	5.6	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90
53	BB	3	2.40	0.028	16.5	0.0	5.6	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90
54	BB	3	2.30	0.028	16.5	0.0	5.6	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90
55	BB	3	2.20	0.028	16.5	0.0	5.6	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90
56	BB	3	2.10	0.028	16.5	0.0	5.6	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90
57	BB	3	2.00	0.028	16.5	0.0	5.6	21.2	0.0	1.9	0.6	51.0	0.0	3.08	351.0	0.000	0.000	9.8	0.294	0.12	0.00	0.00	0.00	0.06	0.90
58	BB	4	1.90	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
59	BB	4	1.80	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
60	BB	4	1.70	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
61	BB	4	1.60	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
62	BB	4	1.50	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
63	BB	4	1.40	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
64	BB	4	1.30	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
65	BB	4	1.20	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
66	BB	4	1.10	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
67	BB	4	1.00	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
68	BB	4	0.90	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
69	BB	4	0.80	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
70	BB	4	0.70	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
71	BB	4	0.60	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
72	BB	4	0.50	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
73	BB	4	0.40	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93

EXPANDED CAPSULE SUMMARY FOR Black Bayou

IOR	REACH	DIST km	FLOW m³/s	TEMP deg C	SALN ppt	DO mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3 mg/L	CHLA µg/L	DISP m²/s	DEPTH m	WIDTH m	ADVEC VELO m/s	MEAN VELO m/s	DO SAT mg/L	REAER RATE 1/da	BOD1 DECA 1/da	BOD1 SETT 1/da	BOD2 DECA 1/da	BOD2 SETT 1/da	NH3 DECA 1/da	SOD g/m²/d
74	BB 4	0.30	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
75	BB 4	0.20	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
76	BB 4	0.10	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93
77	BB 4	0.00	0.028	16.5	0.0	5.0	21.2	0.0	1.9	0.6	51.0	0.0	3.61	420.0	0.000	0.000	9.8	0.250	0.12	0.00	0.00	0.00	0.06	0.93

SPECIAL REPORT: Black Bayou
WATER QUALITY CONSTITUENT VALUES

ELEM NO.	ENDING km	TEMP deg C	SALN ppt	CM-I *	CM-II *	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO **	COLI #/100mL	NCM *
1	7.600	16.50	0.0	0.0	0.0	8.60	10.09	0.00	15.19	0.00	1.84	0.56	0.00	2.40	0.00	51.0	0.0	0.	0.00
2	7.500	16.50	0.0	0.0	0.0	8.51	11.61	0.00	16.71	0.00	1.83	0.56	0.00	2.40	0.00	51.0	0.0	0.	0.00
3	7.400	16.50	0.0	0.0	0.0	8.46	12.71	0.00	17.81	0.00	1.83	0.57	0.00	2.39	0.00	51.0	0.0	0.	0.00
4	7.300	16.50	0.0	0.0	0.0	8.42	13.52	0.00	18.62	0.00	1.82	0.57	0.00	2.39	0.00	51.0	0.0	0.	0.00
5	7.200	16.50	0.0	0.0	0.0	8.39	14.11	0.00	19.21	0.00	1.82	0.57	0.00	2.39	0.00	51.0	0.0	0.	0.00
6	7.100	16.50	0.0	0.0	0.0	8.36	14.53	0.00	19.63	0.00	1.81	0.57	0.00	2.38	0.00	51.0	0.0	0.	0.00
7	7.000	16.50	0.0	0.0	0.0	8.35	14.85	0.00	19.95	0.00	1.81	0.57	0.00	2.38	0.00	51.0	0.0	0.	0.00
8	6.900	16.50	0.0	0.0	0.0	8.34	15.07	0.00	20.17	0.00	1.81	0.57	0.00	2.38	0.00	51.0	0.0	0.	0.00
9	6.800	16.50	0.0	0.0	0.0	8.33	15.24	0.00	20.34	0.00	1.80	0.57	0.00	2.37	0.00	51.0	0.0	0.	0.00
10	6.700	16.50	0.0	0.0	0.0	8.32	15.36	0.00	20.46	0.00	1.80	0.57	0.00	2.37	0.00	51.0	0.0	0.	0.00
11	6.600	16.50	0.0	0.0	0.0	8.32	15.45	0.00	20.55	0.00	1.80	0.57	0.00	2.37	0.00	51.0	0.0	0.	0.00
12	6.500	16.50	0.0	0.0	0.0	8.31	15.51	0.00	20.61	0.00	1.80	0.57	0.00	2.36	0.00	51.0	0.0	0.	0.00
13	6.400	16.50	0.0	0.0	0.0	8.31	15.56	0.00	20.66	0.00	1.79	0.57	0.00	2.36	0.00	51.0	0.0	0.	0.00
14	6.300	16.50	0.0	0.0	0.0	8.31	15.59	0.00	20.69	0.00	1.79	0.57	0.00	2.36	0.00	51.0	0.0	0.	0.00
15	6.200	16.50	0.0	0.0	0.0	8.31	15.62	0.00	20.72	0.00	1.79	0.57	0.00	2.35	0.00	51.0	0.0	0.	0.00
16	6.100	16.50	0.0	0.0	0.0	8.31	15.63	0.00	20.73	0.00	1.79	0.56	0.00	2.35	0.00	51.0	0.0	0.	0.00
17	6.000	16.50	0.0	0.0	0.0	8.31	15.65	0.00	20.75	0.00	1.79	0.56	0.00	2.35	0.00	51.0	0.0	0.	0.00
18	5.900	16.50	0.0	0.0	0.0	8.31	15.66	0.00	20.76	0.00	1.78	0.56	0.00	2.35	0.00	51.0	0.0	0.	0.00
19	5.800	16.50	0.0	0.0	0.0	8.31	15.66	0.00	20.76	0.00	1.78	0.56	0.00	2.34	0.00	51.0	0.0	0.	0.00
20	5.700	16.50	0.0	0.0	0.0	8.31	15.67	0.00	20.77	0.00	1.78	0.56	0.00	2.34	0.00	51.0	0.0	0.	0.00
21	5.600	16.50	0.0	0.0	0.0	6.88	15.96	0.00	21.06	0.00	1.81	0.57	0.00	2.38	0.00	51.0	0.0	0.	0.00
22	5.500	16.50	0.0	0.0	0.0	6.74	16.04	0.00	21.14	0.00	1.83	0.58	0.00	2.41	0.00	51.0	0.0	0.	0.00
23	5.400	16.50	0.0	0.0	0.0	6.72	16.06	0.00	21.16	0.00	1.85	0.58	0.00	2.43	0.00	51.0	0.0	0.	0.00
24	5.300	16.50	0.0	0.0	0.0	6.72	16.07	0.00	21.17	0.00	1.86	0.59	0.00	2.44	0.00	51.0	0.0	0.	0.00
25	5.200	16.50	0.0	0.0	0.0	6.71	16.07	0.00	21.17	0.00	1.86	0.59	0.00	2.46	0.00	51.0	0.0	0.	0.00
26	5.100	16.50	0.0	0.0	0.0	6.71	16.07	0.00	21.17	0.00	1.87	0.59	0.00	2.46	0.00	51.0	0.0	0.	0.00
27	5.000	16.50	0.0	0.0	0.0	6.71	16.07	0.00	21.17	0.00	1.87	0.60	0.00	2.47	0.00	51.0	0.0	0.	0.00
28	4.900	16.50	0.0	0.0	0.0	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.47	0.00	51.0	0.0	0.	0.00
29	4.800	16.50	0.0	0.0	0.0	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.47	0.00	51.0	0.0	0.	0.00
30	4.700	16.50	0.0	0.0	0.0	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.0	0.0	0.	0.00
31	4.600	16.50	0.0	0.0	0.0	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.0	0.0	0.	0.00
32	4.500	16.50	0.0	0.0	0.0	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.0	0.0	0.	0.00
33	4.400	16.50	0.0	0.0	0.0	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.0	0.0	0.	0.00
34	4.300	16.50	0.0	0.0	0.0	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.0	0.0	0.	0.00
35	4.200	16.50	0.0	0.0	0.0	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.0	0.0	0.	0.00
36	4.100	16.50	0.0	0.0	0.0	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.0	0.0	0.	0.00
37	4.000	16.50	0.0	0.0	0.0	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.0	0.0	0.	0.00

38	3.900	16.50	0.0	0.0	0.0	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.0	0.0	0.	0.00
39	3.800	16.50	0.0	0.0	0.0	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.0	0.0	0.	0.00
40	3.700	16.50	0.0	0.0	0.0	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.0	0.0	0.	0.00
41	3.600	16.50	0.0	0.0	0.0	5.65	16.08	0.00	21.18	0.00	1.89	0.61	0.00	2.50	0.00	51.0	0.0	0.	0.00
42	3.500	16.50	0.0	0.0	0.0	5.57	16.08	0.00	21.18	0.00	1.89	0.61	0.00	2.51	0.00	51.0	0.0	0.	0.00
43	3.400	16.50	0.0	0.0	0.0	5.57	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.0	0.0	0.	0.00
44	3.300	16.50	0.0	0.0	0.0	5.57	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.0	0.0	0.	0.00
45	3.200	16.50	0.0	0.0	0.0	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.0	0.0	0.	0.00
46	3.100	16.50	0.0	0.0	0.0	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.0	0.0	0.	0.00
47	3.000	16.50	0.0	0.0	0.0	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.0	0.0	0.	0.00
48	2.900	16.50	0.0	0.0	0.0	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.0	0.0	0.	0.00
49	2.800	16.50	0.0	0.0	0.0	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.0	0.0	0.	0.00
50	2.700	16.50	0.0	0.0	0.0	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.0	0.0	0.	0.00
51	2.600	16.50	0.0	0.0	0.0	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.0	0.0	0.	0.00
52	2.500	16.50	0.0	0.0	0.0	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.0	0.0	0.	0.00
53	2.400	16.50	0.0	0.0	0.0	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.0	0.0	0.	0.00
54	2.300	16.50	0.0	0.0	0.0	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.0	0.0	0.	0.00
55	2.200	16.50	0.0	0.0	0.0	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.0	0.0	0.	0.00
56	2.100	16.50	0.0	0.0	0.0	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.0	0.0	0.	0.00
57	2.000	16.50	0.0	0.0	0.0	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.0	0.0	0.	0.00
58	1.900	16.50	0.0	0.0	0.0	5.03	16.06	0.00	21.16	0.00	1.88	0.62	0.00	2.49	0.00	51.0	0.0	0.	0.00
59	1.800	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.87	0.62	0.00	2.48	0.00	51.0	0.0	0.	0.00
60	1.700	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.48	0.00	51.0	0.0	0.	0.00
61	1.600	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00
62	1.500	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00
63	1.400	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00
64	1.300	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00
65	1.200	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00
66	1.100	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00
67	1.000	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00
68	0.900	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00
69	0.800	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00
70	0.700	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00
71	0.600	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00
72	0.500	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00
73	0.400	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00
74	0.300	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00
75	0.200	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00
76	0.100	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00
77	0.000	16.50	0.0	0.0	0.0	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.0	0.0	0.	0.00

SPECIAL REPORT: Black Bayou
BIOLOGICAL AND PHYSICAL COEFFICIENTS

ELEM NO.	ENDING DIST km	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#1 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	FULL SOD *	CORR SOD *	ORG-N DECAY 1/da	ORG-N SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
1	7.600	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
2	7.500	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
3	7.400	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
4	7.300	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
5	7.200	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
6	7.100	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00

7	7.000	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
8	6.900	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
9	6.800	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
10	6.700	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
11	6.600	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
12	6.500	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
13	6.400	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
14	6.300	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
15	6.200	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
16	6.100	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
17	6.000	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
18	5.900	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
19	5.800	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
20	5.700	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
21	5.600	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
22	5.500	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
23	5.400	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
24	5.300	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
25	5.200	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
26	5.100	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
27	5.000	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
28	4.900	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
29	4.800	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
30	4.700	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
31	4.600	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
32	4.500	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
33	4.400	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
34	4.300	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
35	4.200	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
36	4.100	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
37	4.000	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
38	3.900	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
39	3.800	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
40	3.700	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
41	3.600	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
42	3.500	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
43	3.400	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
44	3.300	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
45	3.200	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
46	3.100	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
47	3.000	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
48	2.900	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
49	2.800	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
50	2.700	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
51	2.600	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
52	2.500	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
53	2.400	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
54	2.300	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
55	2.200	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
56	2.100	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
57	2.000	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
58	1.900	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
59	1.800	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
60	1.700	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
61	1.600	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00

62	1.500	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
63	1.400	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
64	1.300	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
65	1.200	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
66	1.100	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
67	1.000	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
68	0.900	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
69	0.800	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
70	0.700	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
71	0.600	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
72	0.500	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
73	0.400	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
74	0.300	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
75	0.200	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
76	0.100	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
77	0.000	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00

SPECIAL REPORT: Black Bayou
HYDRAULIC PARAMETER VALUES

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	ADVCTV VELO m/s	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
1	7.70	7.60	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
2	7.60	7.50	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
3	7.50	7.40	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
4	7.40	7.30	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
5	7.30	7.20	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
6	7.20	7.10	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
7	7.10	7.00	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
8	7.00	6.90	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
9	6.90	6.80	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
10	6.80	6.70	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
11	6.70	6.60	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
12	6.60	6.50	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
13	6.50	6.40	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
14	6.40	6.30	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
15	6.30	6.20	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
16	6.20	6.10	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
17	6.10	6.00	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
18	6.00	5.90	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
19	5.90	5.80	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
20	5.80	5.70	0.0283	0.000	0.37	209.0	7649.	20900.0	76.5	0.	0.000	0.000	0.000
21	5.70	5.60	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
22	5.60	5.50	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
23	5.50	5.40	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
24	5.40	5.30	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
25	5.30	5.20	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
26	5.20	5.10	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
27	5.10	5.00	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
28	5.00	4.90	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
29	4.90	4.80	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
30	4.80	4.70	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000

31	4.70	4.60	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
32	4.60	4.50	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
33	4.50	4.40	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
34	4.40	4.30	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
35	4.30	4.20	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
36	4.20	4.10	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
37	4.10	4.00	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
38	4.00	3.90	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
39	3.90	3.80	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
40	3.80	3.70	0.0283	0.000	1.88	295.0	55548.	29500.0	555.5	0.	0.000	0.000	0.000
41	3.70	3.60	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
42	3.60	3.50	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
43	3.50	3.40	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
44	3.40	3.30	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
45	3.30	3.20	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
46	3.20	3.10	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
47	3.10	3.00	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
48	3.00	2.90	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
49	2.90	2.80	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
50	2.80	2.70	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
51	2.70	2.60	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
52	2.60	2.50	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
53	2.50	2.40	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
54	2.40	2.30	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
55	2.30	2.20	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
56	2.20	2.10	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
57	2.10	2.00	0.0283	0.000	3.08	351.0	107968.	35100.0	1079.7	0.	0.000	0.000	0.000
58	2.00	1.90	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
59	1.90	1.80	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
60	1.80	1.70	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
61	1.70	1.60	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
62	1.60	1.50	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
63	1.50	1.40	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
64	1.40	1.30	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
65	1.30	1.20	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
66	1.20	1.10	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
67	1.10	1.00	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
68	1.00	0.90	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
69	0.90	0.80	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
70	0.80	0.70	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
71	0.70	0.60	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
72	0.60	0.50	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
73	0.50	0.40	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
74	0.40	0.30	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
75	0.30	0.20	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
76	0.20	0.10	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000
77	0.10	0.00	0.0283	0.000	3.61	420.0	151452.	42000.0	1514.5	0.	0.000	0.000	0.000

FINAL REPORT Black Bayou LA-QUAL Projection for Black Bayou Reservoir (100405)
REACH NO. 1 Black Bayou Reserv Winter Projection for FTN

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWTR	0.02831	16.50	0.00	0.00	0.00	8.80	8.00	0.00	13.10	0.00	1.84	0.56	0.00	0.00	51.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
1	7.70	7.60	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
2	7.60	7.50	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
3	7.50	7.40	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
4	7.40	7.30	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
5	7.30	7.20	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
6	7.20	7.10	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
7	7.10	7.00	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
8	7.00	6.90	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
9	6.90	6.80	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
10	6.80	6.70	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
11	6.70	6.60	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
12	6.60	6.50	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
13	6.50	6.40	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
14	6.40	6.30	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
15	6.30	6.20	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
16	6.20	6.10	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
17	6.10	6.00	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
18	6.00	5.90	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
19	5.90	5.80	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
20	5.80	5.70	0.02831	0.0	0.00037	3.13	0.37	209.00	7649.40	20900.00	76.49	0.00	0.000	0.000	0.000
TOT						62.55			152988.00	418000.00					
AVG					0.0004		0.37	209.00			76.49				
CUM						62.55									

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
1	7.600	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
2	7.500	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
3	7.400	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
4	7.300	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
5	7.200	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
6	7.100	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
7	7.000	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
8	6.900	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
9	6.800	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
10	6.700	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
11	6.600	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00

12	6.500	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
13	6.400	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
14	6.300	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
15	6.200	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
16	6.100	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
17	6.000	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
18	5.900	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
19	5.800	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
20	5.700	9.77	2.47	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			2.65	0.14	0.00	0.00	0.00	0.00	0.00	1.24			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
1	7.600	16.50	0.00	0.00	0.00	8.60	10.09	0.00	15.19	0.00	1.84	0.56	0.00	2.40	0.00	51.00	0.00	0.	0.00
2	7.500	16.50	0.00	0.00	0.00	8.51	11.61	0.00	16.71	0.00	1.83	0.56	0.00	2.40	0.00	51.00	0.00	0.	0.00
3	7.400	16.50	0.00	0.00	0.00	8.46	12.71	0.00	17.81	0.00	1.83	0.57	0.00	2.39	0.00	51.00	0.00	0.	0.00
4	7.300	16.50	0.00	0.00	0.00	8.42	13.52	0.00	18.62	0.00	1.82	0.57	0.00	2.39	0.00	51.00	0.00	0.	0.00
5	7.200	16.50	0.00	0.00	0.00	8.39	14.11	0.00	19.21	0.00	1.82	0.57	0.00	2.39	0.00	51.00	0.00	0.	0.00
6	7.100	16.50	0.00	0.00	0.00	8.36	14.53	0.00	19.63	0.00	1.81	0.57	0.00	2.38	0.00	51.00	0.00	0.	0.00
7	7.000	16.50	0.00	0.00	0.00	8.35	14.85	0.00	19.95	0.00	1.81	0.57	0.00	2.38	0.00	51.00	0.00	0.	0.00
8	6.900	16.50	0.00	0.00	0.00	8.34	15.07	0.00	20.17	0.00	1.81	0.57	0.00	2.38	0.00	51.00	0.00	0.	0.00
9	6.800	16.50	0.00	0.00	0.00	8.33	15.24	0.00	20.34	0.00	1.80	0.57	0.00	2.37	0.00	51.00	0.00	0.	0.00
10	6.700	16.50	0.00	0.00	0.00	8.32	15.36	0.00	20.46	0.00	1.80	0.57	0.00	2.37	0.00	51.00	0.00	0.	0.00
11	6.600	16.50	0.00	0.00	0.00	8.32	15.45	0.00	20.55	0.00	1.80	0.57	0.00	2.37	0.00	51.00	0.00	0.	0.00
12	6.500	16.50	0.00	0.00	0.00	8.31	15.51	0.00	20.61	0.00	1.80	0.57	0.00	2.36	0.00	51.00	0.00	0.	0.00
13	6.400	16.50	0.00	0.00	0.00	8.31	15.56	0.00	20.66	0.00	1.79	0.57	0.00	2.36	0.00	51.00	0.00	0.	0.00
14	6.300	16.50	0.00	0.00	0.00	8.31	15.59	0.00	20.69	0.00	1.79	0.57	0.00	2.36	0.00	51.00	0.00	0.	0.00
15	6.200	16.50	0.00	0.00	0.00	8.31	15.62	0.00	20.72	0.00	1.79	0.57	0.00	2.35	0.00	51.00	0.00	0.	0.00
16	6.100	16.50	0.00	0.00	0.00	8.31	15.63	0.00	20.73	0.00	1.79	0.56	0.00	2.35	0.00	51.00	0.00	0.	0.00
17	6.000	16.50	0.00	0.00	0.00	8.31	15.65	0.00	20.75	0.00	1.79	0.56	0.00	2.35	0.00	51.00	0.00	0.	0.00
18	5.900	16.50	0.00	0.00	0.00	8.31	15.66	0.00	20.76	0.00	1.78	0.56	0.00	2.35	0.00	51.00	0.00	0.	0.00
19	5.800	16.50	0.00	0.00	0.00	8.31	15.66	0.00	20.76	0.00	1.78	0.56	0.00	2.34	0.00	51.00	0.00	0.	0.00
20	5.700	16.50	0.00	0.00	0.00	8.31	15.67	0.00	20.77	0.00	1.78	0.56	0.00	2.34	0.00	51.00	0.00	0.	0.00

FINAL REPORT Black Bayou LA-QUAL Projection for Black Bayou Reservoir (100405)
REACH NO. 2 Black Bayou Reserv Winter Projection for FTN

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
21	UPR RCH	0.02831	16.50	0.00	0.00	0.00	8.31	15.67	0.00	20.77	0.00	1.78	0.56	0.00	0.00	51.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
21	5.70	5.60	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
22	5.60	5.50	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
23	5.50	5.40	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
24	5.40	5.30	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
25	5.30	5.20	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
26	5.20	5.10	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
27	5.10	5.00	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
28	5.00	4.90	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
29	4.90	4.80	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
30	4.80	4.70	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
31	4.70	4.60	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
32	4.60	4.50	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
33	4.50	4.40	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
34	4.40	4.30	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
35	4.30	4.20	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
36	4.20	4.10	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
37	4.10	4.00	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
38	4.00	3.90	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
39	3.90	3.80	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
40	3.80	3.70	0.02831	0.0	0.00005	22.71	1.88	295.00	55548.50	29500.00	555.48	0.00	0.000	0.000	0.000
TOT						454.20			1110970.00	590000.00					
AVG					0.0001		1.88	295.00			555.48				
CUM						516.75									

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
21	5.600	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
22	5.500	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
23	5.400	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
24	5.300	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
25	5.200	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
26	5.100	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
27	5.000	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
28	4.900	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
29	4.800	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
30	4.700	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
31	4.600	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
32	4.500	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
33	4.400	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
34	4.300	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
35	4.200	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
36	4.100	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
37	4.000	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
38	3.900	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00

39	3.800	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
40	3.700	9.77	0.48	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.52	0.14	0.00	0.00	0.00	0.00	0.00	1.24			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
21	5.600	16.50	0.00	0.00	0.00	6.88	15.96	0.00	21.06	0.00	1.81	0.57	0.00	2.38	0.00	51.00	0.00	0.	0.00
22	5.500	16.50	0.00	0.00	0.00	6.74	16.04	0.00	21.14	0.00	1.83	0.58	0.00	2.41	0.00	51.00	0.00	0.	0.00
23	5.400	16.50	0.00	0.00	0.00	6.72	16.06	0.00	21.16	0.00	1.85	0.58	0.00	2.43	0.00	51.00	0.00	0.	0.00
24	5.300	16.50	0.00	0.00	0.00	6.72	16.07	0.00	21.17	0.00	1.86	0.59	0.00	2.44	0.00	51.00	0.00	0.	0.00
25	5.200	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.86	0.59	0.00	2.46	0.00	51.00	0.00	0.	0.00
26	5.100	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.87	0.59	0.00	2.46	0.00	51.00	0.00	0.	0.00
27	5.000	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.87	0.60	0.00	2.47	0.00	51.00	0.00	0.	0.00
28	4.900	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.47	0.00	51.00	0.00	0.	0.00
29	4.800	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.47	0.00	51.00	0.00	0.	0.00
30	4.700	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.00	0.00	0.	0.00
31	4.600	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.00	0.00	0.	0.00
32	4.500	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.00	0.00	0.	0.00
33	4.400	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.00	0.00	0.	0.00
34	4.300	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.00	0.00	0.	0.00
35	4.200	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.00	0.00	0.	0.00
36	4.100	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.00	0.00	0.	0.00
37	4.000	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.00	0.00	0.	0.00
38	3.900	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.00	0.00	0.	0.00
39	3.800	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.00	0.00	0.	0.00
40	3.700	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	2.48	0.00	51.00	0.00	0.	0.00

FINAL REPORT Black Bayou LA-QUAL Projection for Black Bayou Reservoir (100405)
REACH NO. 3 Black Bayou Reserv Winter Projection for FTN

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
41	UPR RCH	0.02831	16.50	0.00	0.00	0.00	6.71	16.07	0.00	21.17	0.00	1.88	0.60	0.00	0.00	51.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
41	3.70	3.60	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
42	3.60	3.50	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000

43	3.50	3.40	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
44	3.40	3.30	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
45	3.30	3.20	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
46	3.20	3.10	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
47	3.10	3.00	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
48	3.00	2.90	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
49	2.90	2.80	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
50	2.80	2.70	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
51	2.70	2.60	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
52	2.60	2.50	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
53	2.50	2.40	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
54	2.40	2.30	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
55	2.30	2.20	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
56	2.20	2.10	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
57	2.10	2.00	0.02831	0.0	0.00003	44.14	3.08	351.00	107967.60	35100.00	1079.68	0.00	0.000	0.000	0.000
TOT						750.39			1835449.50	596700.00					
AVG					0.0000		3.08	351.00			1079.68				
CUM						1267.14									

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
41	3.600	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
42	3.500	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
43	3.400	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
44	3.300	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
45	3.200	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
46	3.100	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
47	3.000	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
48	2.900	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
49	2.800	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
50	2.700	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
51	2.600	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
52	2.500	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
53	2.400	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
54	2.300	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
55	2.200	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
56	2.100	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
57	2.000	9.77	0.29	0.12	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.32	0.14	0.00	0.00	0.00	0.00	0.00	1.12			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM

41	3.600	16.50	0.00	0.00	0.00	5.65	16.08	0.00	21.18	0.00	1.89	0.61	0.00	2.50	0.00	51.00	0.00	0.	0.00
42	3.500	16.50	0.00	0.00	0.00	5.57	16.08	0.00	21.18	0.00	1.89	0.61	0.00	2.51	0.00	51.00	0.00	0.	0.00
43	3.400	16.50	0.00	0.00	0.00	5.57	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.00	0.00	0.	0.00
44	3.300	16.50	0.00	0.00	0.00	5.57	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.00	0.00	0.	0.00
45	3.200	16.50	0.00	0.00	0.00	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.00	0.00	0.	0.00
46	3.100	16.50	0.00	0.00	0.00	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.00	0.00	0.	0.00
47	3.000	16.50	0.00	0.00	0.00	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.00	0.00	0.	0.00
48	2.900	16.50	0.00	0.00	0.00	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.00	0.00	0.	0.00
49	2.800	16.50	0.00	0.00	0.00	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.00	0.00	0.	0.00
50	2.700	16.50	0.00	0.00	0.00	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.00	0.00	0.	0.00
51	2.600	16.50	0.00	0.00	0.00	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.00	0.00	0.	0.00
52	2.500	16.50	0.00	0.00	0.00	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.00	0.00	0.	0.00
53	2.400	16.50	0.00	0.00	0.00	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.00	0.00	0.	0.00
54	2.300	16.50	0.00	0.00	0.00	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.00	0.00	0.	0.00
55	2.200	16.50	0.00	0.00	0.00	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.00	0.00	0.	0.00
56	2.100	16.50	0.00	0.00	0.00	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.00	0.00	0.	0.00
57	2.000	16.50	0.00	0.00	0.00	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	2.51	0.00	51.00	0.00	0.	0.00

FINAL REPORT Black Bayou LA-QUAL Projection for Black Bayou Reservoir (100405)
REACH NO. 4 Black Bayou Reserv Winter Projection for FTN

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
58	UPR RCH	0.02831	16.50	0.00	0.00	0.00	5.56	16.08	0.00	21.18	0.00	1.90	0.62	0.00	0.00	51.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
58	2.00	1.90	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
59	1.90	1.80	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
60	1.80	1.70	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
61	1.70	1.60	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
62	1.60	1.50	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
63	1.50	1.40	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
64	1.40	1.30	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
65	1.30	1.20	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
66	1.20	1.10	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
67	1.10	1.00	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
68	1.00	0.90	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
69	0.90	0.80	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
70	0.80	0.70	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
71	0.70	0.60	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
72	0.60	0.50	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
73	0.50	0.40	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
74	0.40	0.30	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000
75	0.30	0.20	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000

76	0.20	0.10	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000							
77	0.10	0.00	0.02831	0.0	0.00002	61.92	3.61	420.00	151452.00	42000.00	1514.52	0.00	0.000	0.000	0.000							
TOT						1238.37			3029040.00	840000.00												
AVG					0.0000		3.61	420.00			1514.52											
CUM						2505.51																

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
58	1.900	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
59	1.800	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
60	1.700	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
61	1.600	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
62	1.500	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
63	1.400	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
64	1.300	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
65	1.200	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
66	1.100	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
67	1.000	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
68	0.900	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
69	0.800	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
70	0.700	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
71	0.600	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
72	0.500	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
73	0.400	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
74	0.300	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
75	0.200	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
76	0.100	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
77	0.000	9.77	0.25	0.12	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.02	0.00	0.06	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.27	0.14	0.00	0.00	0.00	0.00	0.00	1.16			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
58	1.900	16.50	0.00	0.00	0.00	5.03	16.06	0.00	21.16	0.00	1.88	0.62	0.00	2.49	0.00	51.00	0.00	0.	0.00
59	1.800	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.87	0.62	0.00	2.48	0.00	51.00	0.00	0.	0.00
60	1.700	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.48	0.00	51.00	0.00	0.	0.00
61	1.600	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00
62	1.500	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00
63	1.400	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00
64	1.300	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00
65	1.200	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00
66	1.100	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00
67	1.000	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00

68	0.900	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00
69	0.800	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00
70	0.700	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00
71	0.600	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00
72	0.500	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00
73	0.400	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00
74	0.300	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00
75	0.200	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00
76	0.100	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00
77	0.000	16.50	0.00	0.00	0.00	5.00	16.05	0.00	21.15	0.00	1.86	0.61	0.00	2.47	0.00	51.00	0.00	0.	0.00

STREAM SUMMARY
Black Bayou

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

TRAVEL TIME	=	2505.51	DAYS		
MAXIMUM EFFLUENT	=	0.00	PERCENT		
FLOW	=	0.02831	TO	0.02831	m^3/s
DISPERSION	=	0.0000	TO	0.0000	m^2/s
VELOCITY	=	0.00002	TO	0.00037	m/s
DEPTH	=	0.37	TO	3.61	m
WIDTH	=	209.00	TO	420.00	m
BOD DECAY	=	0.12	TO	0.12	per day
NH3 DECAY	=	0.06	TO	0.06	per day
SOD	=	0.90	TO	0.99	$g/m^2/d$
NH3 SOURCE	=	0.00	TO	0.00	$g/m^2/d$
REAERATION	=	0.25	TO	2.47	per day
BOD SETTLING	=	0.00	TO	0.00	per day
ORG-N DECAY	=	0.02	TO	0.02	per day
ORG-N SETTLING	=	0.00	TO	0.00	per day
TEMPERATURE	=	16.50	TO	16.50	deg C
DISSOLVED OXYGEN	=	5.00	TO	8.60	mg/L

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

REACH SUMMARY REPORT FOR Black Bayou

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	AVG DEPTH ft	AVG WIDTH ft
1	Black Bayou Reserv	7.70	5.70	2.00	62.55	0.02831	0.00037	0.366	209.00	1.000	0.001	1.201	685.73
2	Black Bayou Reserv	5.70	3.70	2.00	454.20	0.02831	0.00005	1.883	295.00	1.000	0.000	6.178	967.89
3	Black Bayou Reserv	3.70	2.00	1.70	750.39	0.02831	0.00003	3.076	351.00	1.000	0.000	10.092	1151.63
4	Black Bayou Reserv	2.00	0.00	2.00	1238.37	0.02831	0.00002	3.606	420.00	1.000	0.000	11.831	1378.02

DISSOLVED OXYGEN LOADING FOR REACH 1: Black Bayou

IOR	UPMN ADV	UPTR ADV	LOWR ADV	UPMN DISP	UPTR DISP	LOWR DISP	INCR IN	INCR OUT	NONP IN	WSLD IN	WITH OUT	REAE IN	BOD1 DECA	NH3-N DECA	ORG-N DECA	NCM DECA	SOD BKGD	SOD BOD1	SOD ALG	SOD NCM	ALG PHOT	ALG RESP	MAC PHOT	TOT OUT	TOT IN	
1	22.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	22.	-9.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-52.2	52.1	-0.02
2	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	24.	-11.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-53.3	53.3	-0.02
3	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	25.	-12.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-54.2	54.2	-0.02
4	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	25.	-12.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-54.8	54.8	-0.02
5	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	26.	-13.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-55.3	55.3	-0.02
6	21.	0.	-20.	0.	0.	0.	0.	0.	0.	0.	0.	26.	-13.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-55.6	55.6	-0.02
7	20.	0.	-20.	0.	0.	0.	0.	0.	0.	0.	0.	27.	-14.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-55.9	55.9	-0.02
8	20.	0.	-20.	0.	0.	0.	0.	0.	0.	0.	0.	27.	-14.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-56.1	56.0	-0.02
9	20.	0.	-20.	0.	0.	0.	0.	0.	0.	0.	0.	27.	-14.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-56.2	56.2	-0.02
10	20.	0.	-20.	0.	0.	0.	0.	0.	0.	0.	0.	27.	-14.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-56.3	56.3	-0.02
11	20.	0.	-20.	0.	0.	0.	0.	0.	0.	0.	0.	27.	-14.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-56.4	56.3	-0.02
12	20.	0.	-20.	0.	0.	0.	0.	0.	0.	0.	0.	27.	-14.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-56.4	56.4	-0.02
13	20.	0.	-20.	0.	0.	0.	0.	0.	0.	0.	0.	27.	-14.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-56.4	56.4	-0.02
14	20.	0.	-20.	0.	0.	0.	0.	0.	0.	0.	0.	27.	-14.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-56.5	56.4	-0.02
15	20.	0.	-20.	0.	0.	0.	0.	0.	0.	0.	0.	28.	-14.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-56.5	56.5	-0.02
16	20.	0.	-20.	0.	0.	0.	0.	0.	0.	0.	0.	28.	-14.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-56.5	56.5	-0.02
17	20.	0.	-20.	0.	0.	0.	0.	0.	0.	0.	0.	28.	-14.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-56.5	56.5	-0.02
18	20.	0.	-20.	0.	0.	0.	0.	0.	0.	0.	0.	28.	-14.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-56.5	56.5	-0.02
19	20.	0.	-20.	0.	0.	0.	0.	0.	0.	0.	0.	28.	-14.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-56.5	56.5	-0.02
20	20.	0.	-20.	0.	0.	0.	0.	0.	0.	0.	0.	28.	-14.	-1.	0.	0.	-21.	0.	0.	0.	9.	0.	0.	-56.5	56.5	-0.02
21	20.	0.	-17.	0.	0.	0.	0.	0.	0.	0.	0.	77.	-106.	-8.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.0	159.9	-0.11
22	17.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-8.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.3	160.2	-0.10
23	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-8.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.5	160.4	-0.10
24	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-8.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.5	160.4	-0.10
25	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-8.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.6	160.5	-0.10
26	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-8.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.6	160.5	-0.10
27	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-8.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.6	160.5	-0.11
28	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-9.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.7	160.6	-0.11
29	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-9.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.7	160.6	-0.11
30	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-9.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.7	160.6	-0.11
31	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-9.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.7	160.6	-0.11
32	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-9.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.7	160.6	-0.11
33	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-9.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.7	160.6	-0.11
34	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-9.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.7	160.6	-0.11
35	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-9.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.7	160.6	-0.11
36	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-9.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.7	160.6	-0.11
37	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-9.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.7	160.6	-0.11
38	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-9.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.7	160.6	-0.11
39	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-9.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.7	160.6	-0.11
40	16.	0.	-16.	0.	0.	0.	0.	0.	0.	0.	0.	81.	-106.	-9.	0.	0.	-29.	0.	0.	0.	63.	0.	0.	-160.7	160.6	-0.11
41	16.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	130.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.7	-0.13
42	14.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.6	-0.13
43	14.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.7	-0.13
44	14.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.7	-0.13
45	14.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.7	-0.13
46	14.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.7	-0.13
47	14.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.7	-0.13
48	14.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.7	-0.13
49	14.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.7	-0.13
50	14.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.7	-0.13

51	14.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.7	-0.13
52	14.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.7	-0.13
53	14.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.7	-0.13
54	14.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.7	-0.13
55	14.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.7	-0.13
56	14.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.7	-0.13
57	14.	0.	-14.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-207.	-17.	0.	0.	-32.	0.	0.	0.	122.	0.	0.	-268.8	268.7	-0.13
58	14.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	180.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.3	364.2	-0.11
59	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.1	364.0	-0.11

DISSOLVED OXYGEN LOADING FOR REACH 1: Black Bayou

IOR	UPMN ADV	UPTR ADV	LOWR ADV	UPMN DISP	UPTR DISP	LOWR DISP	INCR IN	INCR OUT	NONP IN	WSLD IN	WITH OUT	REAE IN	BOD1 DECA	NH3-N DECA	ORG-N DECA	NCM DECA	SOD BKGD	SOD BOD1	SOD ALG	SOD NCM	ALG PHOT	ALG RESP	MAC PHOT	TOT OUT	TOT IN	
60	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
61	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
62	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
63	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
64	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
65	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
66	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
67	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
68	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
69	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
70	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
71	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
72	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
73	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
74	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
75	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
76	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11
77	12.	0.	-12.	0.	0.	0.	0.	0.	0.	0.	0.	181.	-290.	-23.	0.	0.	-39.	0.	0.	0.	171.	0.	0.	-364.0	363.9	-0.11

LA-QUAL Projection for Black Bayou Reservoir (100405)
Winter Projection for FTN

INPUT/OUTPUT LOADING SUMMARY

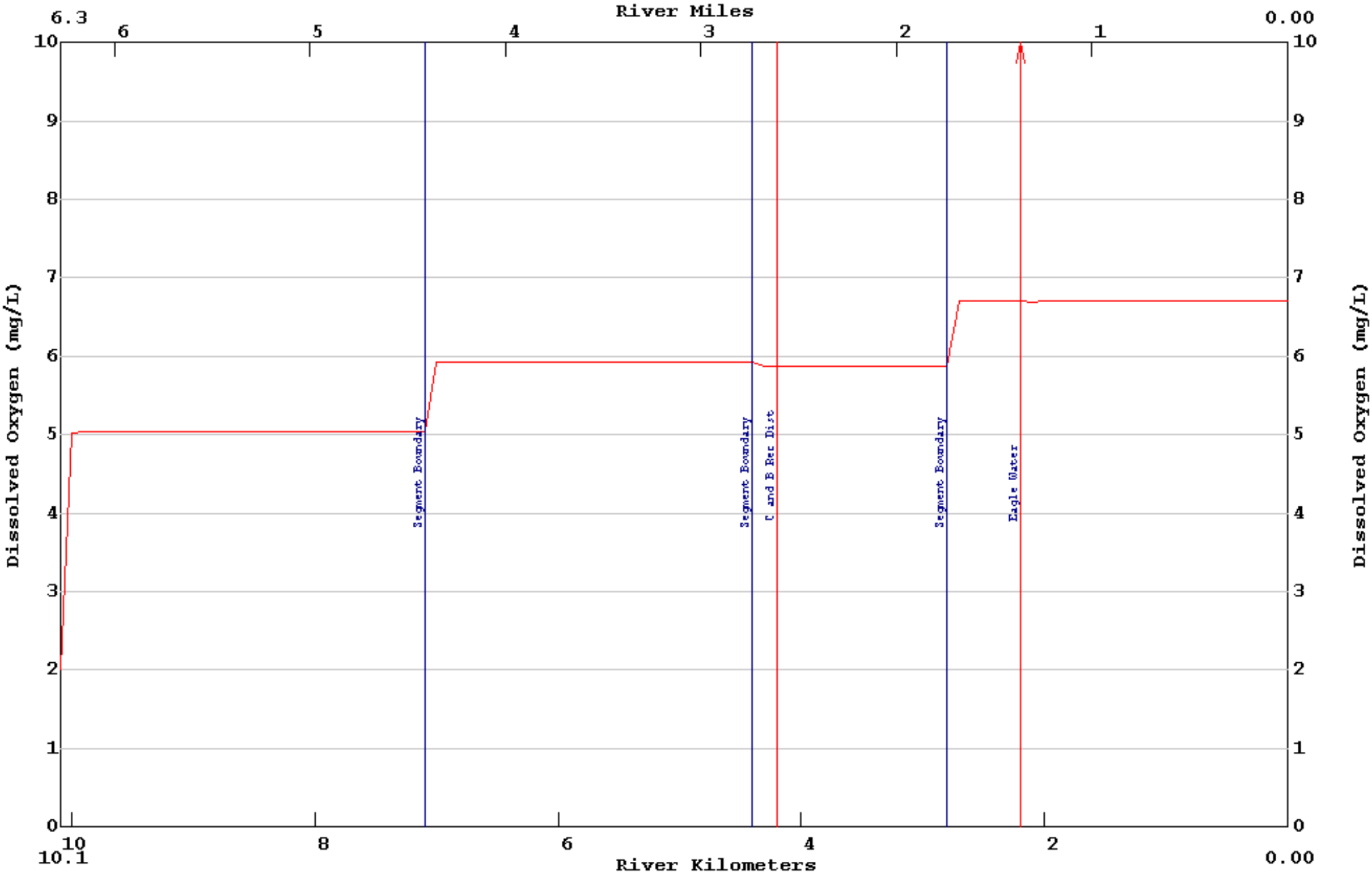
	FLOW m^3/s	DO kg/d	BOD#1 kg/d	BOD#2 kg/d	ORG-N kg/d	NH3-N kg/d	NO3-N kg/d	PHOS kg/d	CHL A	NCM
HEADWATER FLOW	0.028	21.5	19.6	0.0	4.5	1.4	0.0	0.0	0.0	0.0
INCREMENTAL INFLOW	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
INCREMENTAL OUTFLOW	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WASTELOADS	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WITHDRAWLS	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FLOW THRU LOWER BNDRY	-0.028	-12.2	-39.3	0.0	-4.5	-1.5	0.0	0.0	0.0	0.0
DISPERSION THRU LOWER BNDRY		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DISPERSION THRU HDWTR BNDRY		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NON-POINT INPUT		0.0	11729.0	0.0	214.0					0.0
NATURAL REAERATION		8026.7								
DAM REAERATION		0.0								
BACKGROUND SOD		-2320.4								
BOD#1 DECAY		-11709.3	-11709.3							
BOD#1 SETTLING		0.0	0.0							
ANAEROBIC BOD#1 DECAY			0.0							
BOD#2 DECAY		0.0		0.0						
BOD#2 SETTLING		0.0		0.0						
ANAEROBIC BOD#2 DECAY				0.0						
ORG-N DECAY		0.0			-214.0	214.0				
ORG-N SETTLING					0.0	0.0				
NH3 DECAY		-932.7				-215.4	215.4			
BACKGROUND NH3 SOURCE						0.0				
OTHER DENITRIFICATION							0.0			
PHOSPHORUS SOURCE								0.0		
ALGAE PHOTOSYNTHESIS		6919.6				0.0	-665.3	0.0	0.0	
ALGAE RESPIRATION		0.0				0.0		0.0	0.0	
ALGAE SETTLING		0.0							0.0	
MACRO PHOTOSYNTHESIS		0.0				0.0	0.0	0.0		
NCM DECAY		0.0								0.0
NCM SETTLING		0.0								0.0
TOTAL INPUTS	0.028	14967.9	11748.6	0.0	218.5	215.3	215.4	0.0	0.0	0.0
TOTAL OUTPUTS	-0.028	-14974.7	-11748.6	0.0	-218.5	-216.9	-665.3	0.0	0.0	0.0
NET CONVERGENCE ERROR	0.000	-6.8	0.0	0.0	0.0	-1.6	-449.9	0.0	0.0	0.0

.....EXECUTION COMPLETED

APPENDIX N

Cypress Bayou Reservoir Summer Projection Model Output

LA-QUAL Version 8.11 Run at 10:44 on 10/16/2007 File D:\comp_models\LA-QUAL_8p11\Cypress sum.txt
Summer Projection for FTN
Cypress Bayou Reservoir Summer Projection



```
LA-QUAL Version 8.11
Louisiana Department of Environmental Quality

Input file is D:\laqual\Cypress sum crl.txt
Output produced at 12:22 on 10/15/2007

$$$ DATA TYPE 1 (TITLES AND CONTROL CARDS) $$$

CARD TYPE       CONTROL TITLES

TITLE01         LA-QUAL Projection for Cypress Bayou Reservoir
TITLE02         Summer Projection for FTN
CNTROL03   NO   SEQU                        <warning: legacy control - line ignored>
CNTROL04  YES   METR
CNTROL05  YES   OXYG                        <warning: legacy control - line ignored>
ENDATA01

$$$ DATA TYPE 2 (MODEL OPTIONS) $$$

CARD TYPE       MODEL OPTION

MODOPT01   NO   TEMPERATURE
MODOPT02   NO   SALINITY
MODOPT03   NO   CONSERVATIVE MATERIAL #1                      UNITS =
MODOPT04   NO   CONSERVATIVE MATERIAL #2                      UNITS =
MODOPT05  YES   DISSOLVED OXYGEN
MODOPT06  YES   BOD1 BIOCHEMICAL OXYGEN DEMAND #1
MODOPT07   NO   BOD2 BIOCHEMICAL OXYGEN DEMAND #2
MODOPT08  YES   NITROGEN SERIES
MODOPT09   NO   PHOSPHORUS
MODOPT10   NO   CHLOROPHYLL A
MODOPT11   NO   MACROPHYTES
MODOPT12   NO   COLIFORMS
MODOPT13   NO   NONCONSERVATIVE MATERIAL                      UNITS =
ENDATA02

$$$ DATA TYPE 3 (PROGRAM CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                     VALUE

PROGRAM         HYDRAULIC CALCULATION METHOD       =        2.00000 (widths and depths)
PROGRAM         MAXIMUM ITERATION LIMIT            =      200.00000
PROGRAM         ALGAE OXYGEN PROD                  =        0.02600 mg O/ug chl a/day
PROGRAM         EFFECTIVE BOD DUE TO ALGAE         =        0.10000 mg/L BOD per ug/L chl a
ENDATA03

$$$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) $$$

 CARD TYPE     RATE CODE     THETA VALUE

THETA        NH3 DECA       1.07000
ENDATA04

$$$ CONSTANTS TYPE 5 (TEMPERATURE DATA) $$$
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```
CARD TYPE       DESCRIPTION OF CONSTANT                         VALUE

ENDATA05

$$$ DATA TYPE 6 (ALGAE CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                         VALUE

ENDATA06

$$$ DATA TYPE 7 (MACROPHYTE CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                         VALUE

ENDATA07

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$
                                                      BEGIN          END     ELEM    REACH     ELEMS   BEGIN     END
CARD TYPE  REACH  ID  NAME                            REACH        REACH   LENGTH   LENGTH  PER RCH    ELEM    ELEM
                                                         km           km       km       km                NUM     NUM

REACH ID       1   CB  Cypress Bayou Reserv          10.10  TO     7.10   0.1000     3.00      30       1      30
REACH ID       2   CB  Cypress Bayou Reserv           7.10  TO     4.40   0.1000     2.70      27      31      57
REACH ID       3   CB  Cypress Bayou Reserv           4.40  TO     2.80   0.1000     1.60      16      58      73
REACH ID       4   CB  Cypress Bayou Reserv           2.80  TO     0.00   0.1000     2.80      28      74     101
ENDATA08

$$$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) $$$

CARD TYPE  REACH  ID       WIDTH       WIDTH       WIDTH       DEPTH       DEPTH       DEPTH       SLOPE    MANNINGS
                             "A"         "B"         "C"         "D"         "E"         "F"                  "N"

HYDR-1         1   CB    1172.700       0.000       0.000       1.357       0.000       0.000     0.00000   0.000
HYDR-1         2   CB    1338.890       0.000       0.000       2.689       0.000       0.000     0.00000   0.000
HYDR-1         3   CB    1096.520       0.000       0.000       2.542       0.000       0.000     0.00000   0.000
HYDR-1         4   CB    1121.640       0.000       0.000       3.846       0.000       0.000     0.00000   0.000
ENDATA09

$$$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) $$$

CARD TYPE  REACH  ID      TIDAL      DISPERSION      DISPERSION      DISPERSION      DISPERSION
                           RANGE           "A"             "B"             "C"             "D"

ENDATA10

$$$ DATA TYPE 11 (INITIAL CONDITIONS) $$$

CARD TYPE       REACH  ID        TEMP      SALIN         DO       NH3      NO3+2      PHOS      CHL A      MACRO

INITIAL             1   CB       30.20       0.00       3.70      0.24       0.00       0.00      35.00       0.00
INITIAL             2   CB       30.20       0.00       4.20      0.24       0.00       0.00      35.00       0.00
INITIAL             3   CB       30.20       0.00       4.20      0.24       0.00       0.00      35.00       0.00
INITIAL             4   CB       30.20       0.00       4.70      0.24       0.00       0.00      35.00       0.00
ENDATA11
```

$$$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) $$$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m²/d	BOD DECAY per day	BOD SETT m/d	BOD CONV TO SOD	ANAER BOD2 DECAY per day	BOD2 DECAY per day	BOD2 SETT m/d	BOD2 CONV TO SOD	ANAER BOD2 DECAY per day
COEFF-1	1	CB	20 K2=a/D	0.970	0.000	0.000	2.230	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEFF-1	2	CB	20 K2=a/D	0.970	0.000	0.000	2.390	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEFF-1	3	CB	20 K2=a/D	0.970	0.000	0.000	2.230	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEFF-1	4	CB	20 K2=a/D	0.970	0.000	0.000	2.620	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ENDATA12

$$$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) $$$

CARD TYPE	REACH	ID	ORG-N DECA	ORG-N SETT	ORGN CONV TO NH3 SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEFF-2	1	CB	0.020	0.000	0.000	0.080	0.000	0.000	0.000
COEFF-2	2	CB	0.020	0.000	0.000	0.080	0.000	0.000	0.000
COEFF-2	3	CB	0.020	0.000	0.000	0.080	0.000	0.000	0.000
COEFF-2	4	CB	0.020	0.000	0.000	0.080	0.000	0.000	0.000

ENDATA13

$$$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) $$$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP	SHADING

ENDATA14

$$$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) $$$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD

ENDATA15

$$$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) $$$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST

ENDATA16

$$$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE	REACH	ID	DO	BOD	ORG-N	NH3-N	NO3-N	BOD#2

ENDATA17

$$$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM

ENDATA18

$$$ DATA TYPE 19 (NONPOINT SOURCE DATA) $$$

CARD TYPE	REACH	ID	BOD#1	ORG-N	COLI	NCM	DO	BOD#2
NONPOINT	1	CB	1656.00	142.00	0.00	0.00	0.00	0.00
NONPOINT	2	CB	3311.00	291.00	0.00	0.00	0.00	0.00
NONPOINT	3	CB	1540.00	132.00	0.00	0.00	0.00	0.00
NONPOINT	4	CB	4081.00	358.00	0.00	0.00	0.00	0.00

ENDATA19

$$$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) $$$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m^3/s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I	CM-II	
HDWTR-1	1	Cypress Bayou	0	0.00283	0.100	30.20	0.00	0.000	0.000	0.00

ENDATA20

$$$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	BOD#2 mg/L
HDWTR-2	1	Cypress Bayou	6.78	13.10	1.84	0.56	0.00	0.00

ENDATA21

$$$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L

ENDATA22

$$$ DATA TYPE 23 (JUNCTION DATA) $$$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER KILOM	NAME

ENDATA23

$$$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) $$$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m^3/s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I	CM-II
WSTLD-1	60	4.20	C and B Rec District	0.00017	0.00600	0.004	30.20	0.00	0.000	0.000
WSTLD-1	80	2.20	Eagle Water Inc.	0.00166	0.05862	0.038	30.20	0.00	0.000	0.000

ENDATA24

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	ORG-N mg/L	NH3-N mg/L	% NITRIF	NO3-N mg/L	BOD#2 mg/L
WSTLD-2	60	C and B Rec District	2.00	103.50	0.00	15.00	7.50	0.00	0.00	0.00

```
WSTLD-2          80     Eagle Water Inc.           5.00     46.00      0.00      6.67      3.33      0.00      0.00      0.00
ENDATA25

$$$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE     ELEMENT   NAME                       PHOS     CHL A      COLI       NCM
                                                   mg/L      mg/L      mg/L      mg/L

ENDATA26

$$$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) $$$

CARD TYPE    CONSTITUENT                   CONCENTRATION

ENDATA27

$$$ DATA TYPE 28 (DAM DATA) $$$

CARD TYPE     ELEMENT   NAME                 EQN      "A"       "B"       "H"

ENDATA28

$$$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) $$$

CARD TYPE       PARAMETER     COL 1     COL 2     COL 3     COL 4     COL 5     COL 6     COL 7     COL 8

ENDATA29

$$$ DATA TYPE 30 (PLOT CONTROL CARDS) $$$


NUMBER OF PLOTS =  1
NUMBER OF REACHES IN PLOT 1 =   4
PLOT RCH  1  2  3  4
ENDATA30

$$$ DATA TYPE 31 (OVERLAY PLOT DATA) $$$


OVERLAY 1 Cypress_proj.OVL               :Cypress Bayou Reservoir Summer Projection
ENDATA31



     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN   3 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED
 ***** WARNING:  NEGATIVE CONCENTRATIONS SET TO ZERO FOR Nitrate+Nitrite Nitrogen
     .....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11


INTERMEDIATE REPORT
 Dissolved Oxygen                                        LA-QUAL Projection for Cypress Bayou Reservoir
```

mg/L Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	5.03	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05
CB	1	11	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05
CB	1	21	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05
CB	2	31	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91
CB	2	41	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91
CB	2	51	5.91	5.91	5.91	5.91	5.91	5.91	5.91			
CB	3	58	6.04	6.04	6.02	6.04	6.04	6.04	6.04	6.04	6.04	6.04
CB	3	68	6.04	6.04	6.04	6.04	6.04	6.04				
CB	4	74	6.52	6.52	6.52	6.52	6.52	6.52	6.43	6.52	6.52	6.52
CB	4	84	6.52	6.52	6.52	6.52	6.52	6.52	6.52	6.52	6.52	6.52
CB	4	94	6.52	6.52	6.52	6.52	6.52	6.52	6.52	6.52		

INTERMEDIATE REPORT
Effective BOD LA-QUAL Projection for Cypress Bayou Reservoir
mg/L Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	5.11	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05
CB	1	11	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05
CB	1	21	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05
CB	2	31	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02
CB	2	41	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02
CB	2	51	5.02	5.02	5.02	5.02	5.02	5.02	5.02			
CB	3	58	5.04	5.04	5.07	5.04	5.04	5.04	5.04	5.04	5.04	5.04
CB	3	68	5.04	5.04	5.04	5.04	5.04	5.04				
CB	4	74	5.01	5.01	5.01	5.01	5.01	5.01	5.08	5.01	5.01	5.01
CB	4	84	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01
CB	4	94	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01		

INTERMEDIATE REPORT
Biochemical Oxygen Demand LA-QUAL Projection for Cypress Bayou Reservoir
mg/L Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	1.61	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55
CB	1	11	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55
CB	1	21	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55
CB	2	31	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52
CB	2	41	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52
CB	2	51	1.52	1.52	1.52	1.52	1.52	1.52	1.52			
CB	3	58	1.54	1.54	1.57	1.54	1.54	1.54	1.54	1.54	1.54	1.54
CB	3	68	1.54	1.54	1.54	1.54	1.54	1.54				
CB	4	74	1.51	1.51	1.51	1.51	1.51	1.51	1.58	1.51	1.51	1.51
CB	4	84	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51

CB	4	94	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	

INTERMEDIATE REPORT
Organic Nitrogen
mg/L

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	1.25	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
CB	1	11	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
CB	1	21	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
CB	2	31	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
CB	2	41	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
CB	2	51	1.22	1.22	1.22	1.22	1.22	1.22	1.22			
CB	3	58	1.21	1.21	1.24	1.21	1.21	1.21	1.21	1.21	1.21	1.21
CB	3	68	1.21	1.21	1.21	1.21	1.21	1.21				
CB	4	74	1.21	1.21	1.21	1.21	1.21	1.21	1.28	1.21	1.21	1.21
CB	4	84	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21
CB	4	94	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21		

INTERMEDIATE REPORT
Ammonia Nitrogen
mg/L

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.22	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
CB	1	11	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
CB	1	21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
CB	2	31	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
CB	2	41	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
CB	2	51	0.20	0.20	0.20	0.20	0.20	0.20	0.20			
CB	3	58	0.20	0.20	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.20
CB	3	68	0.20	0.20	0.20	0.20	0.20	0.20				
CB	4	74	0.20	0.20	0.20	0.20	0.20	0.20	0.22	0.20	0.20	0.20
CB	4	84	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
CB	4	94	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20		

INTERMEDIATE REPORT
Nitrate+Nitrite Nitrogen
mg/L

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	1	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

CB	2	51	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
CB	3	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	3	68	0.00	0.00	0.00	0.00	0.00	0.00				
CB	4	74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	4	84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	4	94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

INTERMEDIATE REPORT
Total Nitrogen
mg/L

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	1.47	1.43	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42
CB	1	11	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42
CB	1	21	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42
CB	2	31	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43
CB	2	41	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43
CB	2	51	1.43	1.43	1.43	1.43	1.43	1.43	1.43			
CB	3	58	1.41	1.41	1.45	1.41	1.41	1.41	1.41	1.41	1.41	1.41
CB	3	68	1.41	1.41	1.41	1.41	1.41	1.41				
CB	4	74	1.41	1.41	1.41	1.41	1.41	1.41	1.50	1.41	1.41	1.41
CB	4	84	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41
CB	4	94	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41		

INTERMEDIATE REPORT
Chlorophyll a
µg/L

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
CB	1	11	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
CB	1	21	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
CB	2	31	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
CB	2	41	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
CB	2	51	35.00	35.00	35.00	35.00	35.00	35.00	35.00			
CB	3	58	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
CB	3	68	35.00	35.00	35.00	35.00	35.00	35.00				
CB	4	74	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
CB	4	84	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
CB	4	94	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00		

INTERMEDIATE REPORT
Temperature
deg C

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9

CB	1	1	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
CB	1	11	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
CB	1	21	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
CB	2	31	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
CB	2	41	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
CB	2	51	30.20	30.20	30.20	30.20	30.20	30.20	30.20			
CB	3	58	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
CB	3	68	30.20	30.20	30.20	30.20	30.20	30.20				
CB	4	74	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
CB	4	84	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
CB	4	94	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20		

INTERMEDIATE REPORT
Salinity
ppt

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	1	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	51	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
CB	3	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	3	68	0.00	0.00	0.00	0.00	0.00	0.00				
CB	4	74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	4	84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	4	94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

INTERMEDIATE REPORT
River Distance
km

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	10.	10.	10.	10.	10.	9.	9.	9.	9.	9.
CB	1	11	9.	9.	9.	9.	9.	8.	8.	8.	8.	8.
CB	1	21	8.	8.	8.	8.	8.	7.	7.	7.	7.	7.
CB	2	31	7.	7.	7.	7.	7.	7.	6.	6.	6.	6.
CB	2	41	6.	6.	6.	6.	6.	6.	5.	5.	5.	5.
CB	2	51	5.	5.	5.	5.	5.	5.	4.			
CB	3	58	4.	4.	4.	4.	4.	4.	4.	4.	4.	3.
CB	3	68	3.	3.	3.	3.	3.	3.				
CB	4	74	3.	3.	3.	2.	2.	2.	2.	2.	2.	2.
CB	4	84	2.	2.	2.	1.	1.	1.	1.	1.	1.	1.
CB	4	94	1.	1.	1.	0.	0.	0.	0.	0.		

INTERMEDIATE REPORT
Flow

LA-QUAL Projection for Cypress Bayou Reservoir

m³/s Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	1	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
CB	3	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	3	68	0.0	0.0	0.0	0.0	0.0	0.0				
CB	4	74	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	4	84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	4	94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

INTERMEDIATE REPORT
Dispersion LA-QUAL Projection for Cypress Bayou Reservoir
m²/s Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	1	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
CB	3	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	3	68	0.0	0.0	0.0	0.0	0.0	0.0				
CB	4	74	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	4	84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	4	94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

INTERMEDIATE REPORT
Advective Velocity LA-QUAL Projection for Cypress Bayou Reservoir
m/s Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	1	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
CB	3	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	3	68	0.0	0.0	0.0	0.0	0.0	0.0				
CB	4	74	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	4	84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CB	4	94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

INTERMEDIATE REPORT
Depth
m

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
CB	1	11	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
CB	1	21	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
CB	2	31	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
CB	2	41	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
CB	2	51	2.7	2.7	2.7	2.7	2.7	2.7	2.7			
CB	3	58	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
CB	3	68	2.5	2.5	2.5	2.5	2.5	2.5				
CB	4	74	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
CB	4	84	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
CB	4	94	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8		

INTERMEDIATE REPORT
Width
m

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	1172.7	1172.7	1172.7	1172.7	1172.7	1172.7	1172.7	1172.7	1172.7	1172.7
CB	1	11	1172.7	1172.7	1172.7	1172.7	1172.7	1172.7	1172.7	1172.7	1172.7	1172.7
CB	1	21	1172.7	1172.7	1172.7	1172.7	1172.7	1172.7	1172.7	1172.7	1172.7	1172.7
CB	2	31	1338.9	1338.9	1338.9	1338.9	1338.9	1338.9	1338.9	1338.9	1338.9	1338.9
CB	2	41	1338.9	1338.9	1338.9	1338.9	1338.9	1338.9	1338.9	1338.9	1338.9	1338.9
CB	2	51	1338.9	1338.9	1338.9	1338.9	1338.9	1338.9	1338.9			
CB	3	58	1096.5	1096.5	1096.5	1096.5	1096.5	1096.5	1096.5	1096.5	1096.5	1096.5
CB	3	68	1096.5	1096.5	1096.5	1096.5	1096.5	1096.5				
CB	4	74	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6
CB	4	84	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6
CB	4	94	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6		

INTERMEDIATE REPORT
Cross-Sectional Area
m^2

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	1591.4	1591.4	1591.4	1591.4	1591.4	1591.4	1591.4	1591.4	1591.4	1591.4
CB	1	11	1591.4	1591.4	1591.4	1591.4	1591.4	1591.4	1591.4	1591.4	1591.4	1591.4
CB	1	21	1591.4	1591.4	1591.4	1591.4	1591.4	1591.4	1591.4	1591.4	1591.4	1591.4
CB	2	31	3600.3	3600.3	3600.3	3600.3	3600.3	3600.3	3600.3	3600.3	3600.3	3600.3
CB	2	41	3600.3	3600.3	3600.3	3600.3	3600.3	3600.3	3600.3	3600.3	3600.3	3600.3

CB	2	51	3600.3	3600.3	3600.3	3600.3	3600.3	3600.3	3600.3			
CB	3	58	2787.4	2787.4	2787.4	2787.4	2787.4	2787.4	2787.4	2787.4	2787.4	2787.4
CB	3	68	2787.4	2787.4	2787.4	2787.4	2787.4	2787.4				
CB	4	74	4313.8	4313.8	4313.8	4313.8	4313.8	4313.8	4313.8	4313.8	4313.8	4313.8
CB	4	84	4313.8	4313.8	4313.8	4313.8	4313.8	4313.8	4313.8	4313.8	4313.8	4313.8
CB	4	94	4313.8	4313.8	4313.8	4313.8	4313.8	4313.8	4313.8	4313.8		

INTERMEDIATE REPORT
Reaeration Rate
per day

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.863	0.863	0.863	0.863	0.863	0.863	0.863	0.863	0.863	0.863
CB	1	11	0.863	0.863	0.863	0.863	0.863	0.863	0.863	0.863	0.863	0.863
CB	1	21	0.863	0.863	0.863	0.863	0.863	0.863	0.863	0.863	0.863	0.863
CB	2	31	0.435	0.435	0.435	0.435	0.435	0.435	0.435	0.435	0.435	0.435
CB	2	41	0.435	0.435	0.435	0.435	0.435	0.435	0.435	0.435	0.435	0.435
CB	2	51	0.435	0.435	0.435	0.435	0.435	0.435	0.435			
CB	3	58	0.461	0.461	0.461	0.461	0.461	0.461	0.461	0.461	0.461	0.461
CB	3	68	0.461	0.461	0.461	0.461	0.461	0.461				
CB	4	74	0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304
CB	4	84	0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304
CB	4	94	0.304	0.304	0.304	0.304	0.304	0.304	0.304	0.304		

INTERMEDIATE REPORT
BOD Decay Rate
per day

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
CB	1	11	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
CB	1	21	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
CB	2	31	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
CB	2	41	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
CB	2	51	0.22	0.22	0.22	0.22	0.22	0.22	0.22			
CB	3	58	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
CB	3	68	0.22	0.22	0.22	0.22	0.22	0.22				
CB	4	74	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
CB	4	84	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
CB	4	94	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22		

INTERMEDIATE REPORT
BOD Settling Rate
per day

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9

CB	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	1	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	51	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
CB	3	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	3	68	0.00	0.00	0.00	0.00	0.00	0.00				
CB	4	74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	4	84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	4	94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

INTERMEDIATE REPORT
Ammonia Decay Rate
per day

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
CB	1	11	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
CB	1	21	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
CB	2	31	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
CB	2	41	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
CB	2	51	0.15	0.15	0.15	0.15	0.15	0.15	0.15			
CB	3	58	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
CB	3	68	0.15	0.15	0.15	0.15	0.15	0.15				
CB	4	74	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
CB	4	84	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
CB	4	94	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15		

INTERMEDIATE REPORT
Sediment Oxygen Demand
$g/m^2/d$

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24
CB	1	11	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24
CB	1	21	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24
CB	2	31	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54
CB	2	41	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54
CB	2	51	4.54	4.54	4.54	4.54	4.54	4.54	4.54			
CB	3	58	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24
CB	3	68	4.24	4.24	4.24	4.24	4.24	4.24				
CB	4	74	4.98	4.98	4.98	4.98	4.98	4.98	4.98	4.98	4.98	4.98
CB	4	84	4.98	4.98	4.98	4.98	4.98	4.98	4.98	4.98	4.98	4.98
CB	4	94	4.98	4.98	4.98	4.98	4.98	4.98	4.98	4.98		

CONDENSED CAPSULE SUMMARY FOR Cypress Bayou

DIST	FLOW	TEMP	SALN	DO	EBOD1	EBOD2	ORGN	NH3	CHLA	REAER	BOD1	BOD1	BOD2	BOD2	NH3	
										RATE	DECA	SETT	DECA	SETT	DECA	SOD
km	m^3/s	deg C	ppt	mg/L	mg/L	mg/L	mg/L	µg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	$g/m^2/d$
HDWTR	0.00283	30.20	0.00	6.78	13.10	0.00	1.84	0.56	35.00							
10.00	0.00283	30.20	0.00	5.03	5.11	0.00	1.25	0.22	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
9.90	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
9.80	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
9.70	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
9.60	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
9.50	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
9.40	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
9.30	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
9.20	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
9.10	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
9.00	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
8.90	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
8.80	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
8.70	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
8.60	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
8.50	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
8.40	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
8.30	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
8.20	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
8.10	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
8.00	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
7.90	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
7.80	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
7.70	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
7.60	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
7.50	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
7.40	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
7.30	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
7.20	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
7.10	0.00283	30.20	0.00	5.05	5.05	0.00	1.22	0.21	35.00	0.86	0.22	0.00	0.00	0.00	0.14	4.24
7.00	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
6.90	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
6.80	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
6.70	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
6.60	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
6.50	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
6.40	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
6.30	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
6.20	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
6.10	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
6.00	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
5.90	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
5.80	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
5.70	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
5.60	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
5.50	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
5.40	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
5.30	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
5.20	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
5.10	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54

5.00	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
4.90	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
4.80	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
4.70	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
4.60	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
4.50	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
4.40	0.00283	30.20	0.00	5.91	5.02	0.00	1.22	0.20	35.00	0.44	0.22	0.00	0.00	0.00	0.15	4.54
4.30	0.00283	30.20	0.00	6.04	5.04	0.00	1.21	0.20	35.00	0.46	0.22	0.00	0.00	0.00	0.15	4.24
4.20	0.00283	30.20	0.00	6.04	5.04	0.00	1.21	0.20	35.00	0.46	0.22	0.00	0.00	0.00	0.15	4.24
4.10	0.00300	30.20	0.00	6.02	5.07	0.00	1.24	0.21	35.00	0.46	0.22	0.00	0.00	0.00	0.15	4.24
4.00	0.00300	30.20	0.00	6.04	5.04	0.00	1.21	0.20	35.00	0.46	0.22	0.00	0.00	0.00	0.15	4.24
3.90	0.00300	30.20	0.00	6.04	5.04	0.00	1.21	0.20	35.00	0.46	0.22	0.00	0.00	0.00	0.15	4.24
3.80	0.00300	30.20	0.00	6.04	5.04	0.00	1.21	0.20	35.00	0.46	0.22	0.00	0.00	0.00	0.15	4.24
3.70	0.00300	30.20	0.00	6.04	5.04	0.00	1.21	0.20	35.00	0.46	0.22	0.00	0.00	0.00	0.15	4.24
3.60	0.00300	30.20	0.00	6.04	5.04	0.00	1.21	0.20	35.00	0.46	0.22	0.00	0.00	0.00	0.15	4.24
3.50	0.00300	30.20	0.00	6.04	5.04	0.00	1.21	0.20	35.00	0.46	0.22	0.00	0.00	0.00	0.15	4.24
3.40	0.00300	30.20	0.00	6.04	5.04	0.00	1.21	0.20	35.00	0.46	0.22	0.00	0.00	0.00	0.15	4.24
3.30	0.00300	30.20	0.00	6.04	5.04	0.00	1.21	0.20	35.00	0.46	0.22	0.00	0.00	0.00	0.15	4.24
3.20	0.00300	30.20	0.00	6.04	5.04	0.00	1.21	0.20	35.00	0.46	0.22	0.00	0.00	0.00	0.15	4.24
3.10	0.00300	30.20	0.00	6.04	5.04	0.00	1.21	0.20	35.00	0.46	0.22	0.00	0.00	0.00	0.15	4.24
3.00	0.00300	30.20	0.00	6.04	5.04	0.00	1.21	0.20	35.00	0.46	0.22	0.00	0.00	0.00	0.15	4.24
2.90	0.00300	30.20	0.00	6.04	5.04	0.00	1.21	0.20	35.00	0.46	0.22	0.00	0.00	0.00	0.15	4.24
2.80	0.00300	30.20	0.00	6.04	5.04	0.00	1.21	0.20	35.00	0.46	0.22	0.00	0.00	0.00	0.15	4.24
2.70	0.00300	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
2.60	0.00300	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
2.50	0.00300	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
2.40	0.00300	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
2.30	0.00300	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
2.20	0.00300	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
2.10	0.00466	30.20	0.00	6.43	5.08	0.00	1.28	0.22	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
2.00	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
1.90	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
1.80	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
1.70	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
1.60	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
1.50	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
1.40	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
1.30	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
1.20	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
1.10	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
1.00	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
0.90	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
0.80	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
0.70	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
0.60	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
0.50	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
0.40	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
0.30	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
0.20	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
0.10	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98
0.00	0.00466	30.20	0.00	6.52	5.01	0.00	1.21	0.20	35.00	0.30	0.22	0.00	0.00	0.00	0.15	4.98

EXPANDED CAPSULE SUMMARY FOR Cypress Bayou

IOR	REACH	DIST km	FLOW m³/s	TEMP deg C	SALN ppt	DO mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3 mg/L	CHLA µg/L	DISP m²/s	DEPTH m	WIDTH m	ADVEC VELO m/s	MEAN VELO m/s	DO SAT mg/L	REAER RATE 1/da	BOD1 DECA 1/da	BOD1 SETT 1/da	BOD2 DECA 1/da	BOD2 SETT 1/da	NH3 DECA 1/da	SOD g/m²/d
		HDWTR	0.003	30.2	0.0	6.8	13.1	0.0	1.8	0.6	35.0													
1	CB	1	10.00	0.003	30.2	0.0	5.0	5.1	0.0	1.3	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
2	CB	1	9.90	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
3	CB	1	9.80	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
4	CB	1	9.70	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
5	CB	1	9.60	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
6	CB	1	9.50	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
7	CB	1	9.40	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
8	CB	1	9.30	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
9	CB	1	9.20	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
10	CB	1	9.10	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
11	CB	1	9.00	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
12	CB	1	8.90	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
13	CB	1	8.80	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
14	CB	1	8.70	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
15	CB	1	8.60	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
16	CB	1	8.50	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
17	CB	1	8.40	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
18	CB	1	8.30	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
19	CB	1	8.20	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
20	CB	1	8.10	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
21	CB	1	8.00	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
22	CB	1	7.90	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
23	CB	1	7.80	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
24	CB	1	7.70	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
25	CB	1	7.60	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
26	CB	1	7.50	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
27	CB	1	7.40	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
28	CB	1	7.30	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
29	CB	1	7.20	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
30	CB	1	7.10	0.003	30.2	0.0	5.0	5.1	0.0	1.2	0.2	35.0	0.0	1.361	172.7	0.000	0.000	7.5	0.863	0.22	0.00	0.00	0.00	0.14	4.24
31	CB	2	7.00	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
32	CB	2	6.90	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
33	CB	2	6.80	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
34	CB	2	6.70	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
35	CB	2	6.60	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
36	CB	2	6.50	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
37	CB	2	6.40	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
38	CB	2	6.30	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
39	CB	2	6.20	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
40	CB	2	6.10	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
41	CB	2	6.00	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
42	CB	2	5.90	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
43	CB	2	5.80	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
44	CB	2	5.70	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
45	CB	2	5.60	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
46	CB	2	5.50	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
47	CB	2	5.40	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54
48	CB	2	5.30	0.003	30.2	0.0	5.9	5.0	0.0	1.2	0.2	35.0	0.0	2.691	338.9	0.000	0.000	7.5	0.435	0.22	0.00	0.00	0.00	0.15	4.54

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49 CB  2    5.20   0.003 30.2  0.0  5.9   5.0   0.0  1.2  0.2 35.0    0.0   2.691338.9  0.000  0.000   7.5  0.435 0.22 0.00 0.00 0.00 0.15  4.54
50 CB  2    5.10   0.003 30.2  0.0  5.9   5.0   0.0  1.2  0.2 35.0    0.0   2.691338.9  0.000  0.000   7.5  0.435 0.22 0.00 0.00 0.00 0.15  4.54
51 CB  2    5.00   0.003 30.2  0.0  5.9   5.0   0.0  1.2  0.2 35.0    0.0   2.691338.9  0.000  0.000   7.5  0.435 0.22 0.00 0.00 0.00 0.15  4.54
52 CB  2    4.90   0.003 30.2  0.0  5.9   5.0   0.0  1.2  0.2 35.0    0.0   2.691338.9  0.000  0.000   7.5  0.435 0.22 0.00 0.00 0.00 0.15  4.54
53 CB  2    4.80   0.003 30.2  0.0  5.9   5.0   0.0  1.2  0.2 35.0    0.0   2.691338.9  0.000  0.000   7.5  0.435 0.22 0.00 0.00 0.00 0.15  4.54
54 CB  2    4.70   0.003 30.2  0.0  5.9   5.0   0.0  1.2  0.2 35.0    0.0   2.691338.9  0.000  0.000   7.5  0.435 0.22 0.00 0.00 0.00 0.15  4.54
55 CB  2    4.60   0.003 30.2  0.0  5.9   5.0   0.0  1.2  0.2 35.0    0.0   2.691338.9  0.000  0.000   7.5  0.435 0.22 0.00 0.00 0.00 0.15  4.54
56 CB  2    4.50   0.003 30.2  0.0  5.9   5.0   0.0  1.2  0.2 35.0    0.0   2.691338.9  0.000  0.000   7.5  0.435 0.22 0.00 0.00 0.00 0.15  4.54
57 CB  2    4.40   0.003 30.2  0.0  5.9   5.0   0.0  1.2  0.2 35.0    0.0   2.691338.9  0.000  0.000   7.5  0.435 0.22 0.00 0.00 0.00 0.15  4.54
58 CB  3    4.30   0.003 30.2  0.0  6.0   5.0   0.0  1.2  0.2 35.0    0.0   2.541096.5  0.000  0.000   7.5  0.461 0.22 0.00 0.00 0.00 0.15  4.24
59 CB  3    4.20   0.003 30.2  0.0  6.0   5.0   0.0  1.2  0.2 35.0    0.0   2.541096.5  0.000  0.000   7.5  0.461 0.22 0.00 0.00 0.00 0.15  4.24
      WASTELOAD # 060 (C and B Rec District) ENTERS HERE
60 CB  3    4.10   0.003 30.2  0.0  6.0   5.1   0.0  1.2  0.2 35.0    0.0   2.541096.5  0.000  0.000   7.5  0.461 0.22 0.00 0.00 0.00 0.15  4.24
61 CB  3    4.00   0.003 30.2  0.0  6.0   5.0   0.0  1.2  0.2 35.0    0.0   2.541096.5  0.000  0.000   7.5  0.461 0.22 0.00 0.00 0.00 0.15  4.24
62 CB  3    3.90   0.003 30.2  0.0  6.0   5.0   0.0  1.2  0.2 35.0    0.0   2.541096.5  0.000  0.000   7.5  0.461 0.22 0.00 0.00 0.00 0.15  4.24
63 CB  3    3.80   0.003 30.2  0.0  6.0   5.0   0.0  1.2  0.2 35.0    0.0   2.541096.5  0.000  0.000   7.5  0.461 0.22 0.00 0.00 0.00 0.15  4.24
64 CB  3    3.70   0.003 30.2  0.0  6.0   5.0   0.0  1.2  0.2 35.0    0.0   2.541096.5  0.000  0.000   7.5  0.461 0.22 0.00 0.00 0.00 0.15  4.24
65 CB  3    3.60   0.003 30.2  0.0  6.0   5.0   0.0  1.2  0.2 35.0    0.0   2.541096.5  0.000  0.000   7.5  0.461 0.22 0.00 0.00 0.00 0.15  4.24
66 CB  3    3.50   0.003 30.2  0.0  6.0   5.0   0.0  1.2  0.2 35.0    0.0   2.541096.5  0.000  0.000   7.5  0.461 0.22 0.00 0.00 0.00 0.15  4.24
67 CB  3    3.40   0.003 30.2  0.0  6.0   5.0   0.0  1.2  0.2 35.0    0.0   2.541096.5  0.000  0.000   7.5  0.461 0.22 0.00 0.00 0.00 0.15  4.24
68 CB  3    3.30   0.003 30.2  0.0  6.0   5.0   0.0  1.2  0.2 35.0    0.0   2.541096.5  0.000  0.000   7.5  0.461 0.22 0.00 0.00 0.00 0.15  4.24
69 CB  3    3.20   0.003 30.2  0.0  6.0   5.0   0.0  1.2  0.2 35.0    0.0   2.541096.5  0.000  0.000   7.5  0.461 0.22 0.00 0.00 0.00 0.15  4.24
70 CB  3    3.10   0.003 30.2  0.0  6.0   5.0   0.0  1.2  0.2 35.0    0.0   2.541096.5  0.000  0.000   7.5  0.461 0.22 0.00 0.00 0.00 0.15  4.24
71 CB  3    3.00   0.003 30.2  0.0  6.0   5.0   0.0  1.2  0.2 35.0    0.0   2.541096.5  0.000  0.000   7.5  0.461 0.22 0.00 0.00 0.00 0.15  4.24
72 CB  3    2.90   0.003 30.2  0.0  6.0   5.0   0.0  1.2  0.2 35.0    0.0   2.541096.5  0.000  0.000   7.5  0.461 0.22 0.00 0.00 0.00 0.15  4.24
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EXPANDED CAPSULE SUMMARY FOR Cypress Bayou

IOR	REACH	DIST km	FLOW m³/s	TEMP deg C	SALN ppt	DO mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3 mg/L	CHLA µg/L	DISP m²/s	DEPTH m	WIDTH m	ADVEC VELO m/s	MEAN VELO m/s	DO SAT mg/L	REAER RATE 1/da	BOD1 DECA 1/da	BOD1 SETT 1/da	BOD2 DECA 1/da	BOD2 SETT 1/da	NH3 DECA 1/da	SOD g/m²/d
73	CB 3	2.80	0.003	30.2	0.0	6.0	5.0	0.0	1.2	0.2	35.0	0.0	2.54	1096.5	0.000	0.000	7.5	0.461	0.22	0.00	0.00	0.00	0.15	4.24
74	CB 4	2.70	0.003	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
75	CB 4	2.60	0.003	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
76	CB 4	2.50	0.003	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
77	CB 4	2.40	0.003	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
78	CB 4	2.30	0.003	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
79	CB 4	2.20	0.003	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
WASTELOAD # 080 (Eagle Water Inc.) ENTERS HERE																								
80	CB 4	2.10	0.005	30.2	0.0	6.4	5.1	0.0	1.3	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
81	CB 4	2.00	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
82	CB 4	1.90	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
83	CB 4	1.80	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
84	CB 4	1.70	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
85	CB 4	1.60	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
86	CB 4	1.50	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
87	CB 4	1.40	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
88	CB 4	1.30	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
89	CB 4	1.20	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
90	CB 4	1.10	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
91	CB 4	1.00	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
92	CB 4	0.90	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
93	CB 4	0.80	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
94	CB 4	0.70	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
95	CB 4	0.60	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
96	CB 4	0.50	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
97	CB 4	0.40	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
98	CB 4	0.30	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
99	CB 4	0.20	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
100	CB 4	0.10	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98
101	CB 4	0.00	0.005	30.2	0.0	6.5	5.0	0.0	1.2	0.2	35.0	0.0	3.85	1121.6	0.000	0.000	7.5	0.304	0.22	0.00	0.00	0.00	0.15	4.98

SPECIAL REPORT: Cypress Bayou
WATER QUALITY CONSTITUENT VALUES

ELEM NO.	ENDING km	TEMP deg C	SALN ppt	CM-I *	CM-II *	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO **	COLI #/100mL	NCM *
1	10.000	30.20	0.0	0.0	0.0	5.03	1.61	0.00	5.11	0.00	1.25	0.22	0.00	1.47	0.00	35.0	0.0	0.	0.00
2	9.900	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.43	0.00	35.0	0.0	0.	0.00
3	9.800	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
4	9.700	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
5	9.600	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
6	9.500	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
7	9.400	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
8	9.300	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
9	9.200	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
10	9.100	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
11	9.000	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00

12	8.900	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
13	8.800	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
14	8.700	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
15	8.600	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
16	8.500	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
17	8.400	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
18	8.300	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
19	8.200	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
20	8.100	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
21	8.000	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
22	7.900	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
23	7.800	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
24	7.700	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
25	7.600	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
26	7.500	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
27	7.400	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
28	7.300	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
29	7.200	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
30	7.100	30.20	0.0	0.0	0.0	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.0	0.0	0.	0.00
31	7.000	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
32	6.900	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
33	6.800	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
34	6.700	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
35	6.600	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
36	6.500	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
37	6.400	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
38	6.300	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
39	6.200	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
40	6.100	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
41	6.000	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
42	5.900	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
43	5.800	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
44	5.700	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
45	5.600	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
46	5.500	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
47	5.400	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
48	5.300	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
49	5.200	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
50	5.100	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
51	5.000	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
52	4.900	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
53	4.800	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
54	4.700	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
55	4.600	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
56	4.500	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
57	4.400	30.20	0.0	0.0	0.0	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.0	0.0	0.	0.00
58	4.300	30.20	0.0	0.0	0.0	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
59	4.200	30.20	0.0	0.0	0.0	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
60	4.100	30.20	0.0	0.0	0.0	6.02	1.57	0.00	5.07	0.00	1.24	0.21	0.00	1.45	0.00	35.0	0.0	0.	0.00
61	4.000	30.20	0.0	0.0	0.0	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
62	3.900	30.20	0.0	0.0	0.0	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
63	3.800	30.20	0.0	0.0	0.0	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
64	3.700	30.20	0.0	0.0	0.0	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
65	3.600	30.20	0.0	0.0	0.0	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
66	3.500	30.20	0.0	0.0	0.0	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00

67	3.400	30.20	0.0	0.0	0.0	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
68	3.300	30.20	0.0	0.0	0.0	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
69	3.200	30.20	0.0	0.0	0.0	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
70	3.100	30.20	0.0	0.0	0.0	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
71	3.000	30.20	0.0	0.0	0.0	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
72	2.900	30.20	0.0	0.0	0.0	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
73	2.800	30.20	0.0	0.0	0.0	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
74	2.700	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
75	2.600	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
76	2.500	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
77	2.400	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
78	2.300	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
79	2.200	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
80	2.100	30.20	0.0	0.0	0.0	6.43	1.58	0.00	5.08	0.00	1.28	0.22	0.00	1.50	0.00	35.0	0.0	0.	0.00
81	2.000	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
82	1.900	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
83	1.800	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
84	1.700	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
85	1.600	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
86	1.500	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
87	1.400	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
88	1.300	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
89	1.200	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
90	1.100	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
91	1.000	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
92	0.900	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
93	0.800	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
94	0.700	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
95	0.600	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
96	0.500	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
97	0.400	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
98	0.300	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
99	0.200	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
100	0.100	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00
101	0.000	30.20	0.0	0.0	0.0	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.0	0.0	0.	0.00

SPECIAL REPORT: Cypress Bayou
BIOLOGICAL AND PHYSICAL COEFFICIENTS

ELEM NO.	ENDING DIST km	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#1 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	FULL SOD *	CORR SOD *	ORG-N DECAY 1/da	ORG-N SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
1	10.000	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
2	9.900	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
3	9.800	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
4	9.700	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
5	9.600	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
6	9.500	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
7	9.400	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
8	9.300	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
9	9.200	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
10	9.100	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
11	9.000	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00

12	8.900	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
13	8.800	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
14	8.700	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
15	8.600	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
16	8.500	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
17	8.400	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
18	8.300	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
19	8.200	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
20	8.100	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
21	8.000	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
22	7.900	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
23	7.800	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
24	7.700	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
25	7.600	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
26	7.500	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
27	7.400	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
28	7.300	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
29	7.200	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
30	7.100	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
31	7.000	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
32	6.900	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
33	6.800	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
34	6.700	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
35	6.600	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
36	6.500	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
37	6.400	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
38	6.300	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
39	6.200	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
40	6.100	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
41	6.000	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
42	5.900	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
43	5.800	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
44	5.700	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
45	5.600	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
46	5.500	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
47	5.400	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
48	5.300	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
49	5.200	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
50	5.100	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
51	5.000	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
52	4.900	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
53	4.800	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
54	4.700	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
55	4.600	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
56	4.500	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
57	4.400	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
58	4.300	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
59	4.200	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
60	4.100	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
61	4.000	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
62	3.900	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
63	3.800	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
64	3.700	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
65	3.600	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
66	3.500	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00

67	3.400	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
68	3.300	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
69	3.200	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
70	3.100	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
71	3.000	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
72	2.900	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
73	2.800	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
74	2.700	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
75	2.600	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
76	2.500	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
77	2.400	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
78	2.300	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
79	2.200	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
80	2.100	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
81	2.000	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
82	1.900	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
83	1.800	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
84	1.700	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
85	1.600	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
86	1.500	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
87	1.400	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
88	1.300	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
89	1.200	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
90	1.100	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
91	1.000	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
92	0.900	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
93	0.800	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
94	0.700	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
95	0.600	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
96	0.500	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
97	0.400	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
98	0.300	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
99	0.200	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
100	0.100	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
101	0.000	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00

SPECIAL REPORT: Cypress Bayou
HYDRAULIC PARAMETER VALUES

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	ADVCTV VELO m/s	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
1	10.10	10.00	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
2	10.00	9.90	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
3	9.90	9.80	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
4	9.80	9.70	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
5	9.70	9.60	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
6	9.60	9.50	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
7	9.50	9.40	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
8	9.40	9.30	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
9	9.30	9.20	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
10	9.20	9.10	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
11	9.10	9.00	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000

12	9.00	8.90	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
13	8.90	8.80	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
14	8.80	8.70	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
15	8.70	8.60	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
16	8.60	8.50	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
17	8.50	8.40	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
18	8.40	8.30	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
19	8.30	8.20	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
20	8.20	8.10	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
21	8.10	8.00	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
22	8.00	7.90	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
23	7.90	7.80	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
24	7.80	7.70	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
25	7.70	7.60	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
26	7.60	7.50	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
27	7.50	7.40	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
28	7.40	7.30	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
29	7.30	7.20	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
30	7.20	7.10	0.0028	0.000	1.36	1172.7	159135.	117270.0	1591.4	0.	0.000	0.000	0.000
31	7.10	7.00	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
32	7.00	6.90	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
33	6.90	6.80	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
34	6.80	6.70	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
35	6.70	6.60	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
36	6.60	6.50	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
37	6.50	6.40	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
38	6.40	6.30	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
39	6.30	6.20	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
40	6.20	6.10	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
41	6.10	6.00	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
42	6.00	5.90	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
43	5.90	5.80	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
44	5.80	5.70	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
45	5.70	5.60	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
46	5.60	5.50	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
47	5.50	5.40	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
48	5.40	5.30	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
49	5.30	5.20	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
50	5.20	5.10	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
51	5.10	5.00	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
52	5.00	4.90	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
53	4.90	4.80	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
54	4.80	4.70	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
55	4.70	4.60	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
56	4.60	4.50	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
57	4.50	4.40	0.0028	0.000	2.69	1338.9	360028.	133889.0	3600.3	0.	0.000	0.000	0.000
58	4.40	4.30	0.0028	0.000	2.54	1096.5	278735.	109652.0	2787.4	0.	0.000	0.000	0.000
59	4.30	4.20	0.0028	0.000	2.54	1096.5	278735.	109652.0	2787.4	0.	0.000	0.000	0.000
60	4.20	4.10	0.0030	0.000	2.54	1096.5	278735.	109652.0	2787.4	0.	0.000	0.000	0.000
61	4.10	4.00	0.0030	0.000	2.54	1096.5	278735.	109652.0	2787.4	0.	0.000	0.000	0.000
62	4.00	3.90	0.0030	0.000	2.54	1096.5	278735.	109652.0	2787.4	0.	0.000	0.000	0.000
63	3.90	3.80	0.0030	0.000	2.54	1096.5	278735.	109652.0	2787.4	0.	0.000	0.000	0.000
64	3.80	3.70	0.0030	0.000	2.54	1096.5	278735.	109652.0	2787.4	0.	0.000	0.000	0.000
65	3.70	3.60	0.0030	0.000	2.54	1096.5	278735.	109652.0	2787.4	0.	0.000	0.000	0.000
66	3.60	3.50	0.0030	0.000	2.54	1096.5	278735.	109652.0	2787.4	0.	0.000	0.000	0.000

67	3.50	3.40	0.0030	0.000	2.54	1096.5	278735.	109652.0	2787.4	0.	0.000	0.000	0.000
68	3.40	3.30	0.0030	0.000	2.54	1096.5	278735.	109652.0	2787.4	0.	0.000	0.000	0.000
69	3.30	3.20	0.0030	0.000	2.54	1096.5	278735.	109652.0	2787.4	0.	0.000	0.000	0.000
70	3.20	3.10	0.0030	0.000	2.54	1096.5	278735.	109652.0	2787.4	0.	0.000	0.000	0.000
71	3.10	3.00	0.0030	0.000	2.54	1096.5	278735.	109652.0	2787.4	0.	0.000	0.000	0.000
72	3.00	2.90	0.0030	0.000	2.54	1096.5	278735.	109652.0	2787.4	0.	0.000	0.000	0.000
73	2.90	2.80	0.0030	0.000	2.54	1096.5	278735.	109652.0	2787.4	0.	0.000	0.000	0.000
74	2.80	2.70	0.0030	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
75	2.70	2.60	0.0030	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
76	2.60	2.50	0.0030	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
77	2.50	2.40	0.0030	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
78	2.40	2.30	0.0030	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
79	2.30	2.20	0.0030	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
80	2.20	2.10	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
81	2.10	2.00	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
82	2.00	1.90	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
83	1.90	1.80	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
84	1.80	1.70	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
85	1.70	1.60	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
86	1.60	1.50	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
87	1.50	1.40	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
88	1.40	1.30	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
89	1.30	1.20	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
90	1.20	1.10	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
91	1.10	1.00	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
92	1.00	0.90	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
93	0.90	0.80	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
94	0.80	0.70	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
95	0.70	0.60	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
96	0.60	0.50	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
97	0.50	0.40	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
98	0.40	0.30	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
99	0.30	0.20	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
100	0.20	0.10	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000
101	0.10	0.00	0.0047	0.000	3.85	1121.6	431383.	112164.0	4313.8	0.	0.000	0.000	0.000

FINAL REPORT Cypress Bayou LA-QUAL Projection for Cypress Bayou Reservoir
REACH NO. 1 Cypress Bayou Reserv Summer Projection for FTN

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWTR	0.00283	30.20	0.00	0.00	0.00	6.78	9.60	0.00	13.10	0.00	1.84	0.56	0.00	0.00	35.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s

1	10.10	10.00	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
2	10.00	9.90	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
3	9.90	9.80	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
4	9.80	9.70	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
5	9.70	9.60	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
6	9.60	9.50	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
7	9.50	9.40	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
8	9.40	9.30	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
9	9.30	9.20	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
10	9.20	9.10	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
11	9.10	9.00	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
12	9.00	8.90	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
13	8.90	8.80	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
14	8.80	8.70	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
15	8.70	8.60	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
16	8.60	8.50	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
17	8.50	8.40	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
18	8.40	8.30	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
19	8.30	8.20	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
20	8.20	8.10	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
21	8.10	8.00	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
22	8.00	7.90	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
23	7.90	7.80	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
24	7.80	7.70	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
25	7.70	7.60	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
26	7.60	7.50	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
27	7.50	7.40	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
28	7.40	7.30	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
29	7.30	7.20	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
30	7.20	7.10	0.00283	0.0	0.00000	650.83	1.36	1172.70	159135.39	117269.99	1591.35	0.00	0.000	0.000	0.000								
TOT						19524.85			4774063.50	3518099.75													
AVG					0.0000		1.36	1172.70			1591.35												
CUM						19524.85																	

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
1	10.000	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
2	9.900	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
3	9.800	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
4	9.700	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
5	9.600	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
6	9.500	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
7	9.400	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
8	9.300	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
9	9.200	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
10	9.100	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
11	9.000	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
12	8.900	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
13	8.800	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00

14	8.700	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
15	8.600	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
16	8.500	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
17	8.400	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
18	8.300	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
19	8.200	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
20	8.100	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
21	8.000	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
22	7.900	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
23	7.800	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
24	7.700	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
25	7.600	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
26	7.500	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
27	7.400	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
28	7.300	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
29	7.200	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
30	7.100	7.53	0.86	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.14	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.71	0.14	0.00	0.00	0.00	0.00	0.00	2.23			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
1	10.000	30.20	0.00	0.00	0.00	5.03	1.61	0.00	5.11	0.00	1.25	0.22	0.00	1.47	0.00	35.00	0.00	0.	0.00
2	9.900	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.43	0.00	35.00	0.00	0.	0.00
3	9.800	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
4	9.700	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
5	9.600	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
6	9.500	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
7	9.400	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
8	9.300	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
9	9.200	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
10	9.100	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
11	9.000	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
12	8.900	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
13	8.800	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
14	8.700	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
15	8.600	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
16	8.500	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
17	8.400	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
18	8.300	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
19	8.200	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
20	8.100	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
21	8.000	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
22	7.900	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
23	7.800	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
24	7.700	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
25	7.600	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
26	7.500	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
27	7.400	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00

28	7.300	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
29	7.200	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00
30	7.100	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	1.42	0.00	35.00	0.00	0.	0.00

FINAL REPORT Cypress Bayou LA-QUAL Projection for Cypress Bayou Reservoir
REACH NO. 2 Cypress Bayou Reserv Summer Projection for FTN

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
31	UPR RCH	0.00283	30.20	0.00	0.00	0.00	5.05	1.55	0.00	5.05	0.00	1.22	0.21	0.00	0.00	35.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
31	7.10	7.00	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
32	7.00	6.90	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
33	6.90	6.80	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
34	6.80	6.70	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
35	6.70	6.60	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
36	6.60	6.50	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
37	6.50	6.40	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
38	6.40	6.30	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
39	6.30	6.20	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
40	6.20	6.10	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
41	6.10	6.00	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
42	6.00	5.90	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
43	5.90	5.80	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
44	5.80	5.70	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
45	5.70	5.60	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
46	5.60	5.50	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
47	5.50	5.40	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
48	5.40	5.30	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
49	5.30	5.20	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
50	5.20	5.10	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
51	5.10	5.00	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
52	5.00	4.90	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
53	4.90	4.80	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
54	4.80	4.70	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
55	4.70	4.60	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
56	4.60	4.50	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
57	4.50	4.40	0.00283	0.0	0.00000	1472.43	2.69	1338.89	360027.50	133889.00	3600.28	0.00	0.000	0.000	0.000
TOT						39755.70			9720744.00	3615003.00					
AVG					0.0000		2.69	1338.89			3600.27				
CUM						59280.55									

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
31	7.000	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
32	6.900	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
33	6.800	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
34	6.700	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
35	6.600	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
36	6.500	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
37	6.400	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
38	6.300	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
39	6.200	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
40	6.100	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
41	6.000	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
42	5.900	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
43	5.800	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
44	5.700	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
45	5.600	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
46	5.500	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
47	5.400	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
48	5.300	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
49	5.200	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
50	5.100	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
51	5.000	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
52	4.900	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
53	4.800	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
54	4.700	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
55	4.600	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
56	4.500	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
57	4.400	7.53	0.44	0.22	0.00	0.00	0.00	0.00	0.00	4.54	4.54	4.54	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.36	0.14	0.00	0.00	0.00	0.00	0.00	2.39			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
31	7.000	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
32	6.900	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
33	6.800	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
34	6.700	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
35	6.600	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
36	6.500	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
37	6.400	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
38	6.300	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
39	6.200	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
40	6.100	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00

41	6.000	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
42	5.900	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
43	5.800	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
44	5.700	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
45	5.600	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
46	5.500	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
47	5.400	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
48	5.300	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
49	5.200	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
50	5.100	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
51	5.000	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
52	4.900	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
53	4.800	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
54	4.700	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
55	4.600	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
56	4.500	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00
57	4.400	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	1.43	0.00	35.00	0.00	0.	0.00

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
58	UPR RCH	0.00283	30.20	0.00	0.00	0.00	5.91	1.52	0.00	5.02	0.00	1.22	0.20	0.00	0.00	35.00	0.00	0.00
60	WSTLD	0.00017	30.20	0.00	0.00	0.00	2.00	103.50	0.00	103.50	0.00	15.00	7.50	0.00	0.00	0.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
58	4.40	4.30	0.00283	0.0	0.00000	1139.97	2.54	1096.52	278735.41	109652.00	2787.35	0.00	0.000	0.000	0.000
59	4.30	4.20	0.00283	0.0	0.00000	1139.97	2.54	1096.52	278735.41	109652.00	2787.35	0.00	0.000	0.000	0.000
60	4.20	4.10	0.00300	5.7	0.00000	1075.37	2.54	1096.52	278735.41	109652.00	2787.35	0.00	0.000	0.000	0.000
61	4.10	4.00	0.00300	5.7	0.00000	1075.37	2.54	1096.52	278735.41	109652.00	2787.35	0.00	0.000	0.000	0.000
62	4.00	3.90	0.00300	5.7	0.00000	1075.37	2.54	1096.52	278735.41	109652.00	2787.35	0.00	0.000	0.000	0.000
63	3.90	3.80	0.00300	5.7	0.00000	1075.37	2.54	1096.52	278735.41	109652.00	2787.35	0.00	0.000	0.000	0.000
64	3.80	3.70	0.00300	5.7	0.00000	1075.37	2.54	1096.52	278735.41	109652.00	2787.35	0.00	0.000	0.000	0.000
65	3.70	3.60	0.00300	5.7	0.00000	1075.37	2.54	1096.52	278735.41	109652.00	2787.35	0.00	0.000	0.000	0.000
66	3.60	3.50	0.00300	5.7	0.00000	1075.37	2.54	1096.52	278735.41	109652.00	2787.35	0.00	0.000	0.000	0.000
67	3.50	3.40	0.00300	5.7	0.00000	1075.37	2.54	1096.52	278735.41	109652.00	2787.35	0.00	0.000	0.000	0.000
68	3.40	3.30	0.00300	5.7	0.00000	1075.37	2.54	1096.52	278735.41	109652.00	2787.35	0.00	0.000	0.000	0.000
69	3.30	3.20	0.00300	5.7	0.00000	1075.37	2.54	1096.52	278735.41	109652.00	2787.35	0.00	0.000	0.000	0.000
70	3.20	3.10	0.00300	5.7	0.00000	1075.37	2.54	1096.52	278735.41	109652.00	2787.35	0.00	0.000	0.000	0.000
71	3.10	3.00	0.00300	5.7	0.00000	1075.37	2.54	1096.52	278735.41	109652.00	2787.35	0.00	0.000	0.000	0.000
72	3.00	2.90	0.00300	5.7	0.00000	1075.37	2.54	1096.52	278735.41	109652.00	2787.35	0.00	0.000	0.000	0.000
73	2.90	2.80	0.00300	5.7	0.00000	1075.37	2.54	1096.52	278735.41	109652.00	2787.35	0.00	0.000	0.000	0.000

TOT						17335.09								4459767.00		1754432.00							
AVG					0.0000			2.54		1096.52							2787.35						
CUM						76615.62																	

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
58	4.300	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
59	4.200	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
60	4.100	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
61	4.000	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
62	3.900	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
63	3.800	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
64	3.700	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
65	3.600	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
66	3.500	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
67	3.400	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
68	3.300	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
69	3.200	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
70	3.100	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
71	3.000	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
72	2.900	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
73	2.800	7.53	0.46	0.22	0.00	0.00	0.00	0.00	0.00	4.24	4.24	4.24	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.38	0.14	0.00	0.00	0.00	0.00	0.00	2.23			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
58	4.300	30.20	0.00	0.00	0.00	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
59	4.200	30.20	0.00	0.00	0.00	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
60	4.100	30.20	0.00	0.00	0.00	6.02	1.57	0.00	5.07	0.00	1.24	0.21	0.00	1.45	0.00	35.00	0.00	0.	0.00
61	4.000	30.20	0.00	0.00	0.00	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
62	3.900	30.20	0.00	0.00	0.00	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
63	3.800	30.20	0.00	0.00	0.00	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
64	3.700	30.20	0.00	0.00	0.00	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
65	3.600	30.20	0.00	0.00	0.00	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
66	3.500	30.20	0.00	0.00	0.00	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
67	3.400	30.20	0.00	0.00	0.00	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
68	3.300	30.20	0.00	0.00	0.00	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
69	3.200	30.20	0.00	0.00	0.00	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
70	3.100	30.20	0.00	0.00	0.00	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
71	3.000	30.20	0.00	0.00	0.00	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
72	2.900	30.20	0.00	0.00	0.00	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
73	2.800	30.20	0.00	0.00	0.00	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
74	UPR RCH	0.00300	30.20	0.00	0.00	0.00	6.04	1.54	0.00	5.04	0.00	1.21	0.20	0.00	0.00	35.00	0.00	0.00
80	WSTLD	0.00166	30.20	0.00	0.00	0.00	5.00	46.00	0.00	46.00	0.00	6.67	3.33	0.00	0.00	0.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
74	2.80	2.70	0.00300	5.7	0.00000	1664.29	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
75	2.70	2.60	0.00300	5.7	0.00000	1664.29	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
76	2.60	2.50	0.00300	5.7	0.00000	1664.29	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
77	2.50	2.40	0.00300	5.7	0.00000	1664.29	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
78	2.40	2.30	0.00300	5.7	0.00000	1664.29	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
79	2.30	2.20	0.00300	5.7	0.00000	1664.29	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
80	2.20	2.10	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
81	2.10	2.00	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
82	2.00	1.90	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
83	1.90	1.80	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
84	1.80	1.70	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
85	1.70	1.60	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
86	1.60	1.50	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
87	1.50	1.40	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
88	1.40	1.30	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
89	1.30	1.20	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
90	1.20	1.10	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
91	1.10	1.00	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
92	1.00	0.90	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
93	0.90	0.80	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
94	0.80	0.70	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
95	0.70	0.60	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
96	0.60	0.50	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
97	0.50	0.40	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
98	0.40	0.30	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
99	0.30	0.20	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
100	0.20	0.10	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
101	0.10	0.00	0.00466	39.3	0.00000	1071.43	3.85	1121.64	431382.75	112164.00	4313.83	0.00	0.000	0.000	0.000
TOT						33557.13			12078721.00	3140592.00					
AVG					0.0000		3.85	1121.64			4313.83				
CUM						99999.99									

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
74	2.700	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
75	2.600	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
76	2.500	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
77	2.400	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
78	2.300	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
79	2.200	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
80	2.100	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
81	2.000	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
82	1.900	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
83	1.800	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
84	1.700	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
85	1.600	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
86	1.500	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
87	1.400	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
88	1.300	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
89	1.200	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
90	1.100	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
91	1.000	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
92	0.900	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
93	0.800	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
94	0.700	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
95	0.600	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
96	0.500	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
97	0.400	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
98	0.300	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
99	0.200	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
100	0.100	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
101	0.000	7.53	0.30	0.22	0.00	0.00	0.00	0.00	0.00	4.98	4.98	4.98	0.02	0.00	0.15	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.25	0.14	0.00	0.00	0.00	0.00	0.00	2.62			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
74	2.700	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
75	2.600	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
76	2.500	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
77	2.400	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
78	2.300	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
79	2.200	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
80	2.100	30.20	0.00	0.00	0.00	6.43	1.58	0.00	5.08	0.00	1.28	0.22	0.00	1.50	0.00	35.00	0.00	0.	0.00
81	2.000	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
82	1.900	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
83	1.800	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
84	1.700	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00

85	1.600	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
86	1.500	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
87	1.400	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
88	1.300	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
89	1.200	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
90	1.100	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
91	1.000	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
92	0.900	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
93	0.800	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
94	0.700	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
95	0.600	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
96	0.500	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
97	0.400	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
98	0.300	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
99	0.200	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
100	0.100	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00
101	0.000	30.20	0.00	0.00	0.00	6.52	1.51	0.00	5.01	0.00	1.21	0.20	0.00	1.41	0.00	35.00	0.00	0.	0.00

STREAM SUMMARY
Cypress Bayou

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

TRAVEL TIME = 110172.81 DAYS

MAXIMUM EFFLUENT = 39.27 PERCENT

FLOW	=	0.00283	TO	0.00466	m^3/s
DISPERSION	=	0.0000	TO	0.0000	m^2/s
VELOCITY	=	0.00000	TO	0.00000	m/s
DEPTH	=	1.36	TO	3.85	m
WIDTH	=	******	TO	******	m
BOD DECAY	=	0.22	TO	0.22	per day
NH3 DECAY	=	0.14	TO	0.15	per day
SOD	=	4.24	TO	4.98	$g/m^2/d$
NH3 SOURCE	=	0.00	TO	0.00	$g/m^2/d$
REAERATION	=	0.30	TO	0.86	per day
BOD SETTLING	=	0.00	TO	0.00	per day
ORG-N DECAY	=	0.02	TO	0.02	per day
ORG-N SETTLING	=	0.00	TO	0.00	per day
TEMPERATURE	=	30.20	TO	30.20	deg C
DISSOLVED OXYGEN	=	5.03	TO	6.52	mg/L

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

REACH SUMMARY REPORT FOR Cypress Bayou

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	AVG DEPTH ft	AVG WIDTH ft
1	Cypress Bayou Reserv	10.10	7.10	3.00	19524.85	0.00283	0.00000	1.357	1172.70	0.100	0.000	4.452	3847.63

2 Cypress Bayou Reserv	7.10	4.40	2.70	39755.70	0.00283	0.00000	2.689	1338.89	0.100	0.000	8.823	4392.90
3 Cypress Bayou Reserv	4.40	2.80	1.60	17335.09	0.00300	0.00000	2.542	1096.52	0.106	0.000	8.340	3597.68
4 Cypress Bayou Reserv	2.80	0.00	2.80	33557.13	0.00466	0.00000	3.846	1121.64	0.165	0.000	12.619	3680.10

DISSOLVED OXYGEN LOADING FOR REACH 1: Cypress Bayou

IOR	UPMN ADV	UPTR ADV	LOWR ADV	UPMN DISP	UPTR DISP	LOWR DISP	INCR IN	INCR OUT	NONP IN	WSLD IN	WITH OUT	REAE IN	BOD1 DECA	NH3-N DECA	ORG-N DECA	NCM DECA	SOD BKGD	SOD BOD1	SOD ALG	SOD NCM	ALG PHOT	ALG RESP	MAC PHOT	TOT OUT	TOT IN	
1	2.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	344.	-57.	-22.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-577.1	577.0	-0.16
2	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	342.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.3	574.1	-0.15
3	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.15
4	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.15
5	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.14
6	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.14
7	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.14
8	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.14
9	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.13
10	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.13
11	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.13
12	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.13
13	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.13
14	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.12
15	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.12
16	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.12
17	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.12
18	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.11
19	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.11
20	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.11
21	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.11
22	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.2	574.0	-0.11
23	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.1	574.0	-0.10
24	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.1	574.0	-0.10
25	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.1	574.0	-0.10
26	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.1	574.0	-0.10
27	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.1	574.0	-0.09
28	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.1	574.0	-0.09
29	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.1	574.0	-0.09
30	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	341.	-55.	-21.	0.	0.	-497.	0.	0.	0.	231.	0.	0.	-574.1	574.0	-0.09
31	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
32	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
33	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
34	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
35	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
36	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
37	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
38	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
39	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
40	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
41	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
42	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
43	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
44	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
45	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
46	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
47	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
48	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
49	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
50	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35

51	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
52	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
53	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
54	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
55	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
56	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
57	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	254.	-123.	-47.	0.	0.	-608.	0.	0.	0.	523.	0.	0.	-779.4	779.0	-0.35
58	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	192.	-96.	-36.	0.	0.	-465.	0.	0.	0.	405.	0.	0.	-598.6	598.3	-0.28
59	1.	0.	-1.	0.	0.	0.	0.	0.	0.	0.	0.	192.	-96.	-36.	0.	0.	-465.	0.	0.	0.	405.	0.	0.	-598.5	598.3	-0.27

DISSOLVED OXYGEN LOADING FOR REACH 1: Cypress Bayou

IOR	UPMN ADV	UPTR ADV	LOWR ADV	UPMN DISP	UPTR DISP	LOWR DISP	INCR IN	INCR OUT	NONP IN	WSLD IN	WITH OUT	REAE IN	BOD1 DECA	NH3-N DECA	ORG-N DECA	NCM DECA	SOD BKGD	SOD BOD1	SOD ALG	SOD NCM	ALG PHOT	ALG RESP	MAC PHOT	TOT OUT	TOT IN	
60	1.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	194.	-98.	-37.	0.	0.	-465.	0.	0.	0.	405.	0.	0.	-601.4	601.1	-0.27
61	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	192.	-96.	-36.	0.	0.	-465.	0.	0.	0.	405.	0.	0.	-598.7	598.4	-0.26
62	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	192.	-96.	-36.	0.	0.	-465.	0.	0.	0.	405.	0.	0.	-598.6	598.4	-0.25
63	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	192.	-96.	-36.	0.	0.	-465.	0.	0.	0.	405.	0.	0.	-598.6	598.4	-0.25
64	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	192.	-96.	-36.	0.	0.	-465.	0.	0.	0.	405.	0.	0.	-598.6	598.4	-0.24
65	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	192.	-96.	-36.	0.	0.	-465.	0.	0.	0.	405.	0.	0.	-598.6	598.4	-0.23
66	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	192.	-96.	-36.	0.	0.	-465.	0.	0.	0.	405.	0.	0.	-598.6	598.4	-0.23
67	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	192.	-96.	-36.	0.	0.	-465.	0.	0.	0.	405.	0.	0.	-598.6	598.4	-0.22
68	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	192.	-96.	-36.	0.	0.	-465.	0.	0.	0.	405.	0.	0.	-598.6	598.4	-0.22
69	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	192.	-96.	-36.	0.	0.	-465.	0.	0.	0.	405.	0.	0.	-598.6	598.4	-0.21
70	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	192.	-96.	-36.	0.	0.	-465.	0.	0.	0.	405.	0.	0.	-598.6	598.4	-0.21
71	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	192.	-96.	-36.	0.	0.	-465.	0.	0.	0.	405.	0.	0.	-598.6	598.4	-0.20
72	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	192.	-96.	-36.	0.	0.	-465.	0.	0.	0.	405.	0.	0.	-598.6	598.4	-0.19
73	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	192.	-96.	-36.	0.	0.	-465.	0.	0.	0.	405.	0.	0.	-598.6	598.4	-0.19
74	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-761.8	761.4	-0.37
75	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-761.8	761.4	-0.37
76	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-761.8	761.4	-0.37
77	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-761.8	761.4	-0.37
78	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-761.8	761.4	-0.37
79	2.	0.	-2.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-761.8	761.4	-0.37
80	2.	0.	-3.	0.	0.	0.	0.	0.	0.	1.	0.	144.	-152.	-61.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-774.3	773.9	-0.39
81	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.9	762.5	-0.37
82	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
83	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
84	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
85	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
86	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
87	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
88	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
89	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
90	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
91	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
92	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
93	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
94	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
95	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
96	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
97	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
98	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
99	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
100	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37
101	3.	0.	-3.	0.	0.	0.	0.	0.	0.	0.	0.	133.	-146.	-56.	0.	0.	-559.	0.	0.	0.	627.	0.	0.	-762.7	762.4	-0.37

LA-QUAL Projection for Cypress Bayou Reservoir
Summer Projection for FTN

INPUT/OUTPUT LOADING SUMMARY

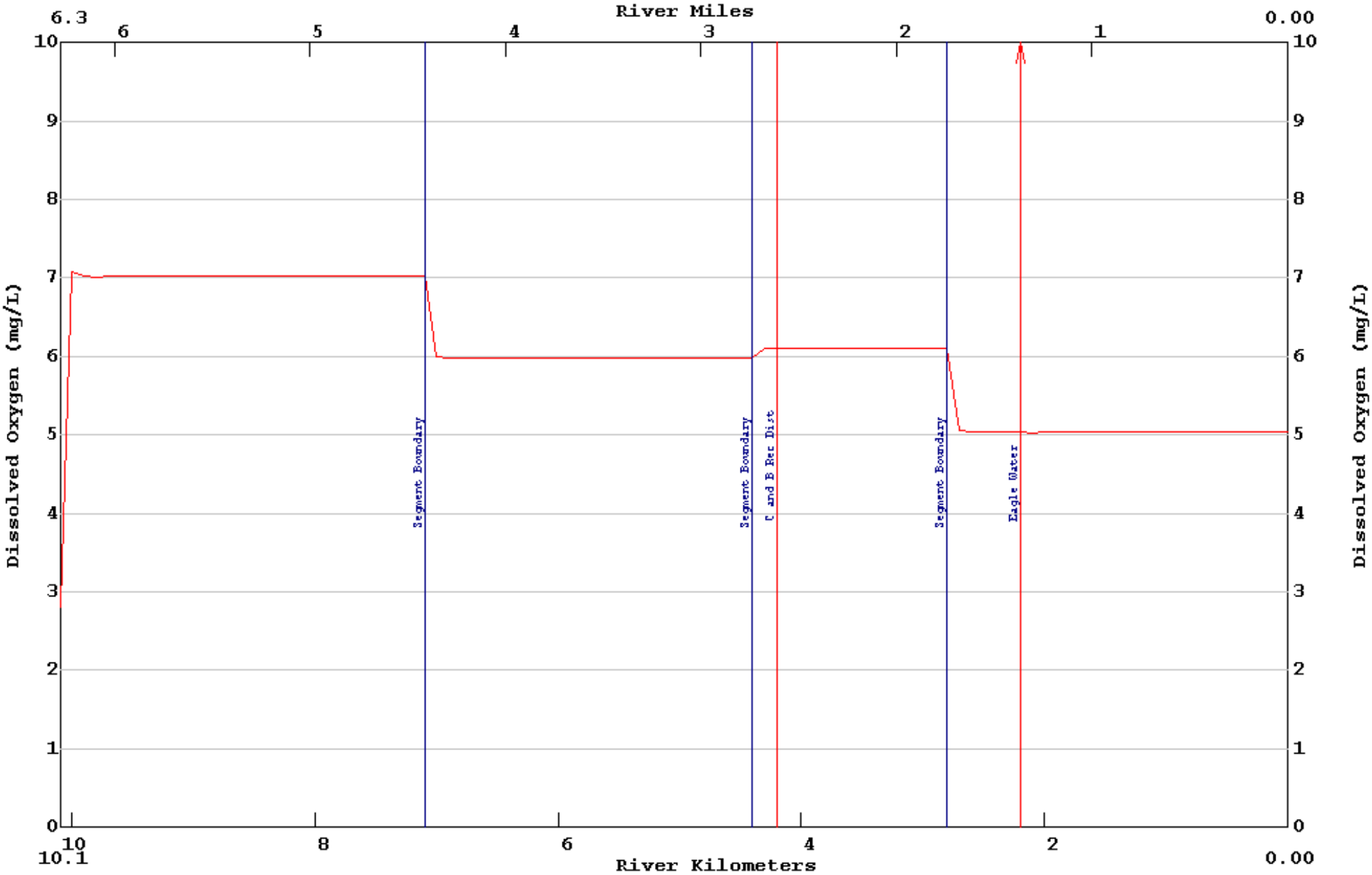
	FLOW m^3/s	DO kg/d	BOD#1 kg/d	BOD#2 kg/d	ORG-N kg/d	NH3-N kg/d	NO3-N kg/d	PHOS kg/d	CHL A	NCM
HEADWATER FLOW	0.003	1.7	2.3	0.0	0.4	0.1	0.0	0.0	0.0	0.0
INCREMENTAL INFLOW	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
INCREMENTAL OUTFLOW	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WASTELOADS	0.002	0.7	8.1	0.0	1.2	0.6	0.0	0.0	0.0	0.0
WITHDRAWLS	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FLOW THRU LOWER BNDRY	-0.005	-2.6	-0.6	0.0	-0.5	-0.1	0.0	0.0	0.0	0.0
DISPERSION THRU LOWER BNDRY		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DISPERSION THRU HDWTR BNDRY		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NON-POINT INPUT		0.0	10588.0	0.0	923.0					0.0
NATURAL REAERATION		23902.9								
DAM REAERATION		0.0								
BACKGROUND SOD		-54415.9								
BOD#1 DECAY		-10597.9	-10597.9							
BOD#1 SETTLING		0.0	0.0							
ANAEROBIC BOD#1 DECAY			0.0							
BOD#2 DECAY		0.0		0.0						
BOD#2 SETTLING		0.0		0.0						
ANAEROBIC BOD#2 DECAY				0.0						
ORG-N DECAY		0.0			-924.1	924.1				
ORG-N SETTLING					0.0	0.0				
NH3 DECAY		-4031.6				-931.1	931.1			
BACKGROUND NH3 SOURCE						0.0				
OTHER DENITRIFICATION							0.0			
PHOSPHORUS SOURCE								0.0		
ALGAE PHOTOSYNTHESIS		45115.4				0.0	-4338.0	0.0	0.0	
ALGAE RESPIRATION		0.0				0.0		0.0	0.0	
ALGAE SETTLING		0.0							0.0	
MACRO PHOTOSYNTHESIS		0.0				0.0	0.0	0.0		
NCM DECAY		0.0								0.0
NCM SETTLING		0.0								0.0
TOTAL INPUTS	0.005	69020.7	10598.5	0.0	924.6	924.9	931.1	0.0	0.0	0.0
TOTAL OUTPUTS	-0.005	-69048.0	-10598.5	0.0	-924.6	-931.2	-4338.0	0.0	0.0	0.0
NET CONVERGENCE ERROR	0.000	-27.3	0.0	0.0	0.0	-6.3	-3406.9	0.0	0.0	0.0

.....EXECUTION COMPLETED

APPENDIX O

Cypress Bayou Reservoir Winter Projection Model Output

LA-QUAL Version 8.11 Run at 10:45 on 10/16/2007 File D:\comp_models\LA-QUAL_8p11\Cypress win.txt
Winter Projection for FTN
Cypress Bayou Reservoir Winter Projection



```
LA-QUAL Version 8.11
Louisiana Department of Environmental Quality

Input file is D:\laqual\Cypress win crl.txt
Output produced at 14:00 on 10/15/2007

$$$ DATA TYPE 1 (TITLES AND CONTROL CARDS) $$$

CARD TYPE       CONTROL TITLES

TITLE01         LA-QUAL Projection for Cypress Bayou Reservoir
TITLE02         Winter Projection for FTN
CNTROL03   NO   SEQU                        <warning: legacy control - line ignored>
CNTROL04  YES   METR
CNTROL05  YES   OXYG                        <warning: legacy control - line ignored>
ENDATA01

$$$ DATA TYPE 2 (MODEL OPTIONS) $$$

CARD TYPE       MODEL OPTION

MODOPT01   NO   TEMPERATURE
MODOPT02   NO   SALINITY
MODOPT03   NO   CONSERVATIVE MATERIAL #1                      UNITS =
MODOPT04   NO   CONSERVATIVE MATERIAL #2                      UNITS =
MODOPT05  YES   DISSOLVED OXYGEN
MODOPT06  YES   BOD1 BIOCHEMICAL OXYGEN DEMAND #1
MODOPT07   NO   BOD2 BIOCHEMICAL OXYGEN DEMAND #2
MODOPT08  YES   NITROGEN SERIES
MODOPT09   NO   PHOSPHORUS
MODOPT10   NO   CHLOROPHYLL A
MODOPT11   NO   MACROPHYTES
MODOPT12   NO   COLIFORMS
MODOPT13   NO   NONCONSERVATIVE MATERIAL                      UNITS =
ENDATA02

$$$ DATA TYPE 3 (PROGRAM CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                     VALUE

PROGRAM         HYDRAULIC CALCULATION METHOD       =        2.00000 (widths and depths)
PROGRAM         MAXIMUM ITERATION LIMIT            =      200.00000
ENDATA03

$$$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) $$$

 CARD TYPE     RATE CODE     THETA VALUE

ENDATA04

$$$ CONSTANTS TYPE 5 (TEMPERATURE DATA) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                     VALUE

ENDATA05
```

$$$ DATA TYPE 6 (ALGAE CONSTANTS) $$$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA06

$$$ DATA TYPE 7 (MACROPHYTE CONSTANTS) $$$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA07

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$

CARD TYPE	REACH ID	NAME	BEGIN REACH km		END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1 CB	Cypress Bayou Reserv	10.10	TO	7.10	0.1000	3.00	30	1	30
REACH ID	2 CB	Cypress Bayou Reserv	7.10	TO	4.40	0.1000	2.70	27	31	57
REACH ID	3 CB	Cypress Bayou Reserv	4.40	TO	2.80	0.1000	1.60	16	58	73
REACH ID	4 CB	Cypress Bayou Reserv	2.80	TO	0.00	0.1000	2.80	28	74	101

ENDATA08

$$$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) $$$

CARD TYPE	REACH ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1 CB	1173.000	0.000	0.000	1.357	0.000	0.000	0.00000	0.000
HYDR-1	2 CB	1339.000	0.000	0.000	2.689	0.000	0.000	0.00000	0.000
HYDR-1	3 CB	1097.000	0.000	0.000	2.542	0.000	0.000	0.00000	0.000
HYDR-1	4 CB	1122.000	0.000	0.000	3.846	0.000	0.000	0.00000	0.000

ENDATA09

$$$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) $$$

CARD TYPE	REACH ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"

ENDATA10

$$$ DATA TYPE 11 (INITIAL CONDITIONS) $$$

CARD TYPE	REACH ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1 CB	16.00	0.00	3.70	0.24	0.00	0.00	35.00	0.00
INITIAL	2 CB	16.00	0.00	4.20	0.24	0.00	0.00	35.00	0.00
INITIAL	3 CB	16.00	0.00	4.20	0.24	0.00	0.00	35.00	0.00
INITIAL	4 CB	16.00	0.00	4.70	0.24	0.00	0.00	35.00	0.00

ENDATA11

$$$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) $$$

CARD	RCH	RCH K2	K2	K2	K2	BKGRND	BOD	BOD	BOD CONV	ANAER BOD2	BOD2	BOD2	BOD2 CONV	ANAER BOD2

TYPE	NUM	ID	OPT	"A"	"B"	"C"	SOD g/m²/d	DECAY per day	SETT m/d	TO SOD	DECAY per day	DECAY per day	SETT m/d	TO SOD	DECAY per day
COEFF-1	1	CB	20 K2=a/D	0.970	0.000	0.000	2.900	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEFF-1	2	CB	20 K2=a/D	0.970	0.000	0.000	3.100	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEFF-1	3	CB	20 K2=a/D	0.970	0.000	0.000	2.900	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEFF-1	4	CB	20 K2=a/D	0.970	0.000	0.000	3.400	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ENDATA12

$$$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) $$$

CARD TYPE	REACH	ID	ORG-N DECA	ORG-N SETT	ORGN CONV TO NH3 SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEFF-2	1	CB	0.020	0.000	0.000	0.080	0.000	0.000	0.000
COEFF-2	2	CB	0.020	0.000	0.000	0.080	0.000	0.000	0.000
COEFF-2	3	CB	0.020	0.000	0.000	0.080	0.000	0.000	0.000
COEFF-2	4	CB	0.020	0.000	0.000	0.080	0.000	0.000	0.000

ENDATA13

$$$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) $$$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP	SHADING

ENDATA14

$$$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) $$$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD

ENDATA15

$$$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) $$$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST
INCR-1	1	CB	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	2	CB	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	3	CB	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	4	CB	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000

ENDATA16

$$$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE	REACH	ID	DO	BOD	ORG-N	NH3-N	NO3-N	BOD#2
INCR-2	1	CB	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	2	CB	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	3	CB	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	4	CB	0.00	0.00	0.00	0.00	0.00	0.00

ENDATA17

$$$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

```
 CARD TYPE      REACH  ID        PHOS     CHL A      COLI       NCM

ENDATA18

$$$ DATA TYPE 19 (NONPOINT SOURCE DATA) $$$

CARD TYPE      REACH  ID       BOD#1     ORG-N      COLI       NCM        DO     BOD#2

NONPOINT           1   CB     2150.00    184.00      0.00      0.00      0.00      0.00
NONPOINT           2   CB     4300.00    378.00      0.00      0.00      0.00      0.00
NONPOINT           3   CB     2000.00    172.00      0.00      0.00      0.00      0.00
NONPOINT           4   CB     5300.00    465.00      0.00      0.00      0.00      0.00
ENDATA19

$$$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) $$$

CARD TYPE     ELEMENT   NAME                 UNIT     FLOW     FLOW    TEMP    SALIN      CM-I     CM-II
                                                       m³/s      cfs   deg C      ppt

HDWTR-1            1    Cypress Bayou           0  0.02831    1.000   16.00     0.00     0.000     0.000   0.00
ENDATA20

$$$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE     ELEMENT   NAME                       DO     BOD#1     ORG-N     NH3-N     NO3-N     BOD#2
                                                   mg/L      mg/L      mg/L      mg/L      mg/L      mg/L

HDWTR-2            1    Cypress Bayou            8.90     13.10      1.84      0.56      0.00      0.00
ENDATA21

$$$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE     ELEMENT   NAME                     PHOS     CHL A      COLI       NCM
                                                   mg/L      mg/L      mg/L      mg/L

ENDATA22

$$$ DATA TYPE 23 (JUNCTION DATA) $$$

CARD TYPE   JUNCTION   UPSTRM     RIVER     NAME
             ELEMENT  ELEMENT     KILOM

ENDATA23

$$$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) $$$

CARD TYPE  ELEMENT    RKILO  NAME                   FLOW       FLOW      FLOW    TEMP    SALIN      CM-I     CM-II
                                                    m³/s        cfs       MGD   deg C      ppt

WSTLD-1        60       4.20  C and B Rec District  0.00017   0.00600    0.004   16.00     0.00     0.000     0.000
WSTLD-1        80       2.20  Eagle Water Inc.      0.00166   0.05862    0.038   16.00     0.00     0.000     0.000
ENDATA24

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$
```

```
                                                          % BOD                          %
CARD TYPE     ELEMENT   NAME                        DO       BOD      RMVL     ORG-N     NH3-N    NITRIF     NO3-N     BOD#2
                                                  mg/L      mg/L                mg/L      mg/L                 mg/L      mg/L

WSTLD-2          60     C and B Rec District      2.00    103.50      0.00     15.00      7.50      0.00      0.00      0.00
WSTLD-2          80     Eagle Water Inc.          5.00     46.00      0.00      6.67      3.33      0.00      0.00      0.00
ENDATA25

$$$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE     ELEMENT   NAME                      PHOS     CHL A      COLI       NCM
                                                  mg/L      mg/L      mg/L      mg/L

ENDATA26

$$$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) $$$

CARD TYPE    CONSTITUENT                    CONCENTRATION

ENDATA27

$$$ DATA TYPE 28 (DAM DATA) $$$

CARD TYPE     ELEMENT   NAME                  EQN      "A"       "B"       "H"

ENDATA28

$$$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) $$$

CARD TYPE       PARAMETER     COL 1     COL 2     COL 3     COL 4     COL 5     COL 6     COL 7     COL 8

ENDATA29

$$$ DATA TYPE 30 (PLOT CONTROL CARDS) $$$


NUMBER OF PLOTS =  1
NUMBER OF REACHES IN PLOT 1 =   4
PLOT RCH  1  2  3  4
ENDATA30

$$$ DATA TYPE 31 (OVERLAY PLOT DATA) $$$


OVERLAY 1 Cypress_proj.OVL               :Cypress Bayou Reservoir Winter Projection
ENDATA31



     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN   2 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED
 ***** WARNING:  NEGATIVE CONCENTRATIONS SET TO ZERO FOR Nitrate+Nitrite Nitrogen
```

.....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

INTERMEDIATE REPORT
Dissolved Oxygen
mg/L

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	8.46	8.61	8.62	8.62	8.62	8.62	8.62	8.62	8.62	8.62
CB	1	11	8.62	8.62	8.62	8.62	8.62	8.62	8.62	8.62	8.62	8.62
CB	1	21	8.62	8.62	8.62	8.62	8.62	8.62	8.62	8.62	8.62	8.62
CB	2	31	9.70	9.72	9.72	9.72	9.72	9.72	9.72	9.72	9.72	9.72
CB	2	41	9.72	9.72	9.72	9.72	9.72	9.72	9.72	9.72	9.72	9.72
CB	2	51	9.72	9.72	9.72	9.72	9.72	9.72	9.72			
CB	3	58	9.74	9.74	9.72	9.74	9.74	9.74	9.74	9.74	9.74	9.74
CB	3	68	9.74	9.74	9.74	9.74	9.74	9.74				
CB	4	74	10.55	10.57	10.57	10.57	10.57	10.57	10.48	10.56	10.57	10.57
CB	4	84	10.57	10.57	10.57	10.57	10.57	10.57	10.57	10.57	10.57	10.57
CB	4	94	10.57	10.57	10.57	10.57	10.57	10.57	10.57	10.57		

INTERMEDIATE REPORT
Effective BOD
mg/L

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	4.94	3.99	3.88	3.87	3.86	3.86	3.86	3.86	3.86	3.86
CB	1	11	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86
CB	1	21	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86
CB	2	31	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80
CB	2	41	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80
CB	2	51	3.80	3.80	3.80	3.80	3.80	3.80	3.80			
CB	3	58	3.84	3.85	3.89	3.85	3.85	3.85	3.85	3.85	3.85	3.85
CB	3	68	3.85	3.85	3.85	3.85	3.85	3.85				
CB	4	74	3.77	3.77	3.77	3.77	3.77	3.77	3.88	3.77	3.77	3.77
CB	4	84	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77
CB	4	94	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77		

INTERMEDIATE REPORT
Biochemical Oxygen Demand
mg/L

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	4.94	3.99	3.88	3.87	3.86	3.86	3.86	3.86	3.86	3.86
CB	1	11	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86
CB	1	21	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86
CB	2	31	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80
CB	2	41	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80

CB	2	51	3.80	3.80	3.80	3.80	3.80	3.80	3.80			
CB	3	58	3.84	3.85	3.89	3.85	3.85	3.85	3.85	3.85	3.85	3.85
CB	3	68	3.85	3.85	3.85	3.85	3.85	3.85				
CB	4	74	3.77	3.77	3.77	3.77	3.77	3.77	3.88	3.77	3.77	3.77
CB	4	84	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77
CB	4	94	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77		

INTERMEDIATE REPORT
Organic Nitrogen
mg/L

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	1.97	2.03	2.06	2.07	2.08	2.08	2.08	2.08	2.09	2.09
CB	1	11	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09
CB	1	21	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09
CB	2	31	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10
CB	2	41	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10
CB	2	51	2.10	2.10	2.10	2.10	2.10	2.10	2.10			
CB	3	58	2.09	2.09	2.11	2.09	2.09	2.09	2.09	2.09	2.09	2.09
CB	3	68	2.09	2.09	2.09	2.09	2.09	2.09				
CB	4	74	2.08	2.08	2.08	2.08	2.08	2.08	2.15	2.10	2.09	2.08
CB	4	84	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08
CB	4	94	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08		

INTERMEDIATE REPORT
Ammonia Nitrogen
mg/L

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.65	0.69	0.71	0.71	0.71	0.71	0.72	0.72	0.71	0.71
CB	1	11	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
CB	1	21	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
CB	2	31	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
CB	2	41	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
CB	2	51	0.71	0.71	0.71	0.71	0.71	0.71	0.71			
CB	3	58	0.71	0.71	0.72	0.71	0.71	0.70	0.70	0.70	0.70	0.70
CB	3	68	0.70	0.70	0.70	0.70	0.70	0.70				
CB	4	74	0.70	0.70	0.70	0.70	0.70	0.70	0.73	0.70	0.70	0.70
CB	4	84	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
CB	4	94	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70		

INTERMEDIATE REPORT
Nitrate+Nitrite Nitrogen
mg/L

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9

CB	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	1	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	51	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
CB	3	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	3	68	0.00	0.00	0.00	0.00	0.00	0.00				
CB	4	74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	4	84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	4	94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

INTERMEDIATE REPORT
Total Nitrogen
mg/L

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	2.63	2.72	2.77	2.79	2.79	2.80	2.80	2.80	2.80	2.80
CB	1	11	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80
CB	1	21	2.80	2.80	2.79	2.79	2.79	2.79	2.79	2.79	2.79	2.79
CB	2	31	2.81	2.82	2.82	2.82	2.82	2.82	2.82	2.82	2.82	2.82
CB	2	41	2.82	2.82	2.82	2.82	2.82	2.82	2.82	2.82	2.82	2.82
CB	2	51	2.82	2.82	2.82	2.82	2.82	2.82	2.82			
CB	3	58	2.80	2.80	2.83	2.80	2.79	2.79	2.79	2.79	2.79	2.79
CB	3	68	2.79	2.79	2.79	2.79	2.78	2.78				
CB	4	74	2.78	2.78	2.78	2.78	2.78	2.78	2.87	2.80	2.78	2.78
CB	4	84	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78
CB	4	94	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78		

INTERMEDIATE REPORT
Chlorophyll a
µg/L

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
CB	1	11	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
CB	1	21	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
CB	2	31	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
CB	2	41	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
CB	2	51	35.00	35.00	35.00	35.00	35.00	35.00	35.00			
CB	3	58	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
CB	3	68	35.00	35.00	35.00	35.00	35.00	35.00				
CB	4	74	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
CB	4	84	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
CB	4	94	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00		

INTERMEDIATE REPORT
Temperature

LA-QUAL Projection for Cypress Bayou Reservoir

deg C

Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
CB	1	11	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
CB	1	21	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
CB	2	31	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
CB	2	41	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
CB	2	51	16.00	16.00	16.00	16.00	16.00	16.00	16.00			
CB	3	58	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
CB	3	68	16.00	16.00	16.00	16.00	16.00	16.00				
CB	4	74	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
CB	4	84	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
CB	4	94	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		

INTERMEDIATE REPORT
Salinity
ppt

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	1	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	51	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
CB	3	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	3	68	0.00	0.00	0.00	0.00	0.00	0.00				
CB	4	74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	4	84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	4	94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

INTERMEDIATE REPORT
River Distance
km

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	10.	10.	10.	10.	10.	9.	9.	9.	9.	9.
CB	1	11	9.	9.	9.	9.	9.	8.	8.	8.	8.	8.
CB	1	21	8.	8.	8.	8.	8.	7.	7.	7.	7.	7.
CB	2	31	7.	7.	7.	7.	7.	7.	6.	6.	6.	6.
CB	2	41	6.	6.	6.	6.	6.	6.	5.	5.	5.	5.
CB	2	51	5.	5.	5.	5.	5.	5.	4.			
CB	3	58	4.	4.	4.	4.	4.	4.	4.	4.	4.	3.
CB	3	68	3.	3.	3.	3.	3.	3.				
CB	4	74	3.	3.	3.	2.	2.	2.	2.	2.	2.	2.
CB	4	84	2.	2.	2.	1.	1.	1.	1.	1.	1.	1.

CB	4	94	1.	1.	1.	0.	0.	0.	0.	0.

INTERMEDIATE REPORT
Flow
m^3/s

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	1	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
CB	3	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	3	68	0.0	0.0	0.0	0.0	0.0	0.0				
CB	4	74	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	4	84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	4	94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

INTERMEDIATE REPORT
Dispersion
m^2/s

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	1	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
CB	3	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	3	68	0.0	0.0	0.0	0.0	0.0	0.0				
CB	4	74	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	4	84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	4	94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

INTERMEDIATE REPORT
Advective Velocity
m/s

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	1	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	2	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CB	2	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
CB	3	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	3	68	0.0	0.0	0.0	0.0	0.0	0.0				
CB	4	74	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	4	84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CB	4	94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

INTERMEDIATE REPORT
Depth
m

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
CB	1	11	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
CB	1	21	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
CB	2	31	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
CB	2	41	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
CB	2	51	2.7	2.7	2.7	2.7	2.7	2.7	2.7			
CB	3	58	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
CB	3	68	2.5	2.5	2.5	2.5	2.5	2.5				
CB	4	74	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
CB	4	84	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
CB	4	94	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8		

INTERMEDIATE REPORT
Width
m

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0
CB	1	11	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0
CB	1	21	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0
CB	2	31	1339.0	1339.0	1339.0	1339.0	1339.0	1339.0	1339.0	1339.0	1339.0	1339.0
CB	2	41	1339.0	1339.0	1339.0	1339.0	1339.0	1339.0	1339.0	1339.0	1339.0	1339.0
CB	2	51	1339.0	1339.0	1339.0	1339.0	1339.0	1339.0	1339.0			
CB	3	58	1097.0	1097.0	1097.0	1097.0	1097.0	1097.0	1097.0	1097.0	1097.0	1097.0
CB	3	68	1097.0	1097.0	1097.0	1097.0	1097.0	1097.0				
CB	4	74	1122.0	1122.0	1122.0	1122.0	1122.0	1122.0	1122.0	1122.0	1122.0	1122.0
CB	4	84	1122.0	1122.0	1122.0	1122.0	1122.0	1122.0	1122.0	1122.0	1122.0	1122.0
CB	4	94	1122.0	1122.0	1122.0	1122.0	1122.0	1122.0	1122.0	1122.0		

INTERMEDIATE REPORT
Cross-Sectional Area
m^2

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9

CB	1	1	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8
CB	1	11	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8
CB	1	21	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8
CB	2	31	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6
CB	2	41	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6
CB	2	51	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6			
CB	3	58	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6
CB	3	68	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6				
CB	4	74	4315.2	4315.2	4315.2	4315.2	4315.2	4315.2	4315.2	4315.2	4315.2	4315.2
CB	4	84	4315.2	4315.2	4315.2	4315.2	4315.2	4315.2	4315.2	4315.2	4315.2	4315.2
CB	4	94	4315.2	4315.2	4315.2	4315.2	4315.2	4315.2	4315.2	4315.2		

INTERMEDIATE REPORT
Reaeration Rate
per day

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658
CB	1	11	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658
CB	1	21	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658
CB	2	31	0.332	0.332	0.332	0.332	0.332	0.332	0.332	0.332	0.332	0.332
CB	2	41	0.332	0.332	0.332	0.332	0.332	0.332	0.332	0.332	0.332	0.332
CB	2	51	0.332	0.332	0.332	0.332	0.332	0.332	0.332			
CB	3	58	0.352	0.352	0.352	0.352	0.352	0.352	0.352	0.352	0.352	0.352
CB	3	68	0.352	0.352	0.352	0.352	0.352	0.352				
CB	4	74	0.232	0.232	0.232	0.232	0.232	0.232	0.232	0.232	0.232	0.232
CB	4	84	0.232	0.232	0.232	0.232	0.232	0.232	0.232	0.232	0.232	0.232
CB	4	94	0.232	0.232	0.232	0.232	0.232	0.232	0.232	0.232		

INTERMEDIATE REPORT
BOD Decay Rate
per day

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
CB	1	11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
CB	1	21	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
CB	2	31	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
CB	2	41	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
CB	2	51	0.12	0.12	0.12	0.12	0.12	0.12	0.12			
CB	3	58	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
CB	3	68	0.12	0.12	0.12	0.12	0.12	0.12				
CB	4	74	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
CB	4	84	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
CB	4	94	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12		

INTERMEDIATE REPORT
BOD Settling Rate

LA-QUAL Projection for Cypress Bayou Reservoir

per day

Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	1	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	2	51	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
CB	3	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	3	68	0.00	0.00	0.00	0.00	0.00	0.00				
CB	4	74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	4	84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CB	4	94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

INTERMEDIATE REPORT

Ammonia Decay Rate

per day

LA-QUAL Projection for Cypress Bayou Reservoir

Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
CB	1	11	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
CB	1	21	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
CB	2	31	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
CB	2	41	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
CB	2	51	0.06	0.06	0.06	0.06	0.06	0.06	0.06			
CB	3	58	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
CB	3	68	0.06	0.06	0.06	0.06	0.06	0.06				
CB	4	74	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
CB	4	84	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
CB	4	94	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06		

INTERMEDIATE REPORT

Sediment Oxygen Demand

$g/m^2/d$

LA-QUAL Projection for Cypress Bayou Reservoir

Winter Projection for FTN

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
CB	1	1	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
CB	1	11	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
CB	1	21	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
CB	2	31	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41
CB	2	41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41
CB	2	51	2.41	2.41	2.41	2.41	2.41	2.41	2.41			
CB	3	58	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
CB	3	68	2.25	2.25	2.25	2.25	2.25	2.25				
CB	4	74	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64
CB	4	84	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64

CB	4	94		2.64		2.64		2.64		2.64		2.64		2.64		2.64		

CONDENSED CAPSULE SUMMARY FOR Cypress Bayou

DIST	FLOW	TEMP	SALN	DO	EBOD1	EBOD2	ORGN	NH3	CHLA	REAER RATE	BOD1 DECA	BOD1 SETT	BOD2 DECA	BOD2 SETT	NH3 DECA	SOD
km	m³/s	deg C	ppt	mg/L	mg/L	mg/L	mg/L	µg/L	1/da	1/da	1/da	1/da	1/da	1/da	1/da	g/m²/d
HDWTR	0.02831	16.00	0.00	8.90	13.10	0.00	1.84	0.56	35.00							
10.00	0.02831	16.00	0.00	8.46	4.94	0.00	1.97	0.65	35.00	0.66	0.12	0.00	0.00	0.00	0.05	2.25
9.90	0.02831	16.00	0.00	8.61	3.99	0.00	2.03	0.69	35.00	0.66	0.12	0.00	0.00	0.00	0.05	2.25
9.80	0.02831	16.00	0.00	8.62	3.88	0.00	2.06	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.05	2.25
9.70	0.02831	16.00	0.00	8.62	3.87	0.00	2.07	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.05	2.25
9.60	0.02831	16.00	0.00	8.62	3.86	0.00	2.08	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.05	2.25
9.50	0.02831	16.00	0.00	8.62	3.86	0.00	2.08	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.05	2.25
9.40	0.02831	16.00	0.00	8.62	3.86	0.00	2.08	0.72	35.00	0.66	0.12	0.00	0.00	0.00	0.05	2.25
9.30	0.02831	16.00	0.00	8.62	3.86	0.00	2.08	0.72	35.00	0.66	0.12	0.00	0.00	0.00	0.05	2.25
9.20	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.05	2.25
9.10	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.05	2.25
9.00	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
8.90	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
8.80	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
8.70	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
8.60	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
8.50	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
8.40	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
8.30	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
8.20	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
8.10	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
8.00	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
7.90	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
7.80	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
7.70	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
7.60	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
7.50	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
7.40	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
7.30	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
7.20	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
7.10	0.02831	16.00	0.00	8.62	3.86	0.00	2.09	0.71	35.00	0.66	0.12	0.00	0.00	0.00	0.06	2.25
7.00	0.02831	16.00	0.00	9.70	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
6.90	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
6.80	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
6.70	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
6.60	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
6.50	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
6.40	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
6.30	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
6.20	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
6.10	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
6.00	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
5.90	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
5.80	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
5.70	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
5.60	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41

5.50	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
5.40	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
5.30	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
5.20	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
5.10	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
5.00	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
4.90	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
4.80	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
4.70	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
4.60	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
4.50	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
4.40	0.02831	16.00	0.00	9.72	3.80	0.00	2.10	0.71	35.00	0.33	0.12	0.00	0.00	0.00	0.06	2.41
4.30	0.02831	16.00	0.00	9.74	3.84	0.00	2.09	0.71	35.00	0.35	0.12	0.00	0.00	0.00	0.06	2.25
4.20	0.02831	16.00	0.00	9.74	3.85	0.00	2.09	0.71	35.00	0.35	0.12	0.00	0.00	0.00	0.06	2.25
4.10	0.02848	16.00	0.00	9.72	3.89	0.00	2.11	0.72	35.00	0.35	0.12	0.00	0.00	0.00	0.06	2.25
4.00	0.02848	16.00	0.00	9.74	3.85	0.00	2.09	0.71	35.00	0.35	0.12	0.00	0.00	0.00	0.06	2.25
3.90	0.02848	16.00	0.00	9.74	3.85	0.00	2.09	0.71	35.00	0.35	0.12	0.00	0.00	0.00	0.06	2.25
3.80	0.02848	16.00	0.00	9.74	3.85	0.00	2.09	0.70	35.00	0.35	0.12	0.00	0.00	0.00	0.06	2.25
3.70	0.02848	16.00	0.00	9.74	3.85	0.00	2.09	0.70	35.00	0.35	0.12	0.00	0.00	0.00	0.06	2.25
3.60	0.02848	16.00	0.00	9.74	3.85	0.00	2.09	0.70	35.00	0.35	0.12	0.00	0.00	0.00	0.06	2.25
3.50	0.02848	16.00	0.00	9.74	3.85	0.00	2.09	0.70	35.00	0.35	0.12	0.00	0.00	0.00	0.06	2.25
3.40	0.02848	16.00	0.00	9.74	3.85	0.00	2.09	0.70	35.00	0.35	0.12	0.00	0.00	0.00	0.06	2.25
3.30	0.02848	16.00	0.00	9.74	3.85	0.00	2.09	0.70	35.00	0.35	0.12	0.00	0.00	0.00	0.06	2.25
3.20	0.02848	16.00	0.00	9.74	3.85	0.00	2.09	0.70	35.00	0.35	0.12	0.00	0.00	0.00	0.06	2.25
3.10	0.02848	16.00	0.00	9.74	3.85	0.00	2.09	0.70	35.00	0.35	0.12	0.00	0.00	0.00	0.06	2.25
3.00	0.02848	16.00	0.00	9.74	3.85	0.00	2.09	0.70	35.00	0.35	0.12	0.00	0.00	0.00	0.06	2.25
2.90	0.02848	16.00	0.00	9.74	3.85	0.00	2.09	0.70	35.00	0.35	0.12	0.00	0.00	0.00	0.06	2.25
2.80	0.02848	16.00	0.00	9.74	3.85	0.00	2.09	0.70	35.00	0.35	0.12	0.00	0.00	0.00	0.06	2.25
2.70	0.02848	16.00	0.00	10.55	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
2.60	0.02848	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
2.50	0.02848	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
2.40	0.02848	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
2.30	0.02848	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
2.20	0.02848	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
2.10	0.03014	16.00	0.00	10.48	3.88	0.00	2.15	0.73	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
2.00	0.03014	16.00	0.00	10.56	3.77	0.00	2.10	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
1.90	0.03014	16.00	0.00	10.57	3.77	0.00	2.09	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
1.80	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
1.70	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
1.60	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
1.50	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
1.40	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
1.30	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
1.20	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
1.10	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
1.00	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
0.90	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
0.80	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
0.70	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
0.60	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
0.50	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
0.40	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
0.30	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
0.20	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64
0.10	0.03014	16.00	0.00	10.57	3.77	0.00	2.08	0.70	35.00	0.23	0.12	0.00	0.00	0.00	0.06	2.64

0.00 0.03014 16.00 0.00 10.57 3.77 0.00 2.08 0.70 35.00 0.23 0.12 0.00 0.00 0.00 0.06 2.64

EXPANDED CAPSULE SUMMARY FOR Cypress Bayou

IOR	REACH	DIST km	FLOW m³/s	TEMP deg C	SALN ppt	DO mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3 mg/L	CHLA µg/L	DISP m²/s	DEPTH m	WIDTH m	ADVEC VELO m/s	MEAN VELO m/s	DO SAT mg/L	REAER RATE 1/da	BOD1 DECA 1/da	BOD1 SETT 1/da	BOD2 DECA 1/da	BOD2 SETT 1/da	NH3 DECA 1/da	SOD g/m²/d
		HDWTR	0.028	16.0	0.0	8.9	13.1	0.0	1.8	0.6	35.0													
1	CB 1	10.00	0.028	16.0	0.0	8.5	4.9	0.0	2.0	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.05	2.25
2	CB 1	9.90	0.028	16.0	0.0	8.6	4.0	0.0	2.0	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.05	2.25
3	CB 1	9.80	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.05	2.25
4	CB 1	9.70	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.05	2.25
5	CB 1	9.60	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.05	2.25
6	CB 1	9.50	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.05	2.25
7	CB 1	9.40	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.05	2.25
8	CB 1	9.30	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.05	2.25
9	CB 1	9.20	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.05	2.25
10	CB 1	9.10	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.05	2.25
11	CB 1	9.00	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
12	CB 1	8.90	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
13	CB 1	8.80	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
14	CB 1	8.70	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
15	CB 1	8.60	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
16	CB 1	8.50	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
17	CB 1	8.40	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
18	CB 1	8.30	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
19	CB 1	8.20	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
20	CB 1	8.10	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
21	CB 1	8.00	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
22	CB 1	7.90	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
23	CB 1	7.80	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
24	CB 1	7.70	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
25	CB 1	7.60	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
26	CB 1	7.50	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
27	CB 1	7.40	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
28	CB 1	7.30	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
29	CB 1	7.20	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
30	CB 1	7.10	0.028	16.0	0.0	8.6	3.9	0.0	2.1	0.7	35.0	0.0	1.361173.0		0.000	0.000	9.9	0.658	0.12	0.00	0.00	0.00	0.06	2.25
31	CB 2	7.00	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
32	CB 2	6.90	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
33	CB 2	6.80	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
34	CB 2	6.70	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
35	CB 2	6.60	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
36	CB 2	6.50	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
37	CB 2	6.40	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
38	CB 2	6.30	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
39	CB 2	6.20	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
40	CB 2	6.10	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
41	CB 2	6.00	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
42	CB 2	5.90	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
43	CB 2	5.80	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
44	CB 2	5.70	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
45	CB 2	5.60	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
46	CB 2	5.50	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
47	CB 2	5.40	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41
48	CB 2	5.30	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.691339.0		0.000	0.000	9.9	0.332	0.12	0.00	0.00	0.00	0.06	2.41

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49 CB  2    5.20   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.691339.0  0.000  0.000   9.9  0.332 0.12 0.00 0.00 0.00 0.06  2.41
50 CB  2    5.10   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.691339.0  0.000  0.000   9.9  0.332 0.12 0.00 0.00 0.00 0.06  2.41
51 CB  2    5.00   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.691339.0  0.000  0.000   9.9  0.332 0.12 0.00 0.00 0.00 0.06  2.41
52 CB  2    4.90   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.691339.0  0.000  0.000   9.9  0.332 0.12 0.00 0.00 0.00 0.06  2.41
53 CB  2    4.80   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.691339.0  0.000  0.000   9.9  0.332 0.12 0.00 0.00 0.00 0.06  2.41
54 CB  2    4.70   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.691339.0  0.000  0.000   9.9  0.332 0.12 0.00 0.00 0.00 0.06  2.41
55 CB  2    4.60   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.691339.0  0.000  0.000   9.9  0.332 0.12 0.00 0.00 0.00 0.06  2.41
56 CB  2    4.50   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.691339.0  0.000  0.000   9.9  0.332 0.12 0.00 0.00 0.00 0.06  2.41
57 CB  2    4.40   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.691339.0  0.000  0.000   9.9  0.332 0.12 0.00 0.00 0.00 0.06  2.41
58 CB  3    4.30   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.541097.0  0.000  0.000   9.9  0.352 0.12 0.00 0.00 0.00 0.06  2.25
59 CB  3    4.20   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.541097.0  0.000  0.000   9.9  0.352 0.12 0.00 0.00 0.00 0.06  2.25
       WASTELOAD # 060 (C and B Rec District) ENTERS HERE
60 CB  3    4.10   0.028 16.0  0.0  9.7   3.9   0.0  2.1  0.7 35.0    0.0   2.541097.0  0.000  0.000   9.9  0.352 0.12 0.00 0.00 0.00 0.06  2.25
61 CB  3    4.00   0.028 16.0  0.0  9.7   3.9   0.0  2.1  0.7 35.0    0.0   2.541097.0  0.000  0.000   9.9  0.352 0.12 0.00 0.00 0.00 0.06  2.25
62 CB  3    3.90   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.541097.0  0.000  0.000   9.9  0.352 0.12 0.00 0.00 0.00 0.06  2.25
63 CB  3    3.80   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.541097.0  0.000  0.000   9.9  0.352 0.12 0.00 0.00 0.00 0.06  2.25
64 CB  3    3.70   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.541097.0  0.000  0.000   9.9  0.352 0.12 0.00 0.00 0.00 0.06  2.25
65 CB  3    3.60   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.541097.0  0.000  0.000   9.9  0.352 0.12 0.00 0.00 0.00 0.06  2.25
66 CB  3    3.50   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.541097.0  0.000  0.000   9.9  0.352 0.12 0.00 0.00 0.00 0.06  2.25
67 CB  3    3.40   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.541097.0  0.000  0.000   9.9  0.352 0.12 0.00 0.00 0.00 0.06  2.25
68 CB  3    3.30   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.541097.0  0.000  0.000   9.9  0.352 0.12 0.00 0.00 0.00 0.06  2.25
69 CB  3    3.20   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.541097.0  0.000  0.000   9.9  0.352 0.12 0.00 0.00 0.00 0.06  2.25
70 CB  3    3.10   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.541097.0  0.000  0.000   9.9  0.352 0.12 0.00 0.00 0.00 0.06  2.25
71 CB  3    3.00   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.541097.0  0.000  0.000   9.9  0.352 0.12 0.00 0.00 0.00 0.06  2.25
72 CB  3    2.90   0.028 16.0  0.0  9.7   3.8   0.0  2.1  0.7 35.0    0.0   2.541097.0  0.000  0.000   9.9  0.352 0.12 0.00 0.00 0.00 0.06  2.25
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EXPANDED CAPSULE SUMMARY FOR Cypress Bayou

IOR	REACH	DIST km	FLOW m³/s	TEMP deg C	SALN ppt	DO mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3 mg/L	CHLA µg/L	DISP m²/s	DEPTH m	WIDTH m	ADVEC VELO m/s	MEAN VELO m/s	DO SAT mg/L	REAER RATE 1/da	BOD1 DECA 1/da	BOD1 SETT 1/da	BOD2 DECA 1/da	BOD2 SETT 1/da	NH3 DECA 1/da	SOD g/m²/d
73	CB 3	2.80	0.028	16.0	0.0	9.7	3.8	0.0	2.1	0.7	35.0	0.0	2.541097.0		0.000	0.000	9.9	0.352	0.12	0.00	0.00	0.00	0.06	2.25
74	CB 4	2.70	0.028	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
75	CB 4	2.60	0.028	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
76	CB 4	2.50	0.028	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
77	CB 4	2.40	0.028	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
78	CB 4	2.30	0.028	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
79	CB 4	2.20	0.028	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
	WASTELOAD # 080 (Eagle Water Inc.) ENTERS HERE																							
80	CB 4	2.10	0.030	16.0	0.0	10.5	3.9	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
81	CB 4	2.00	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
82	CB 4	1.90	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
83	CB 4	1.80	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
84	CB 4	1.70	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
85	CB 4	1.60	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
86	CB 4	1.50	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
87	CB 4	1.40	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
88	CB 4	1.30	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
89	CB 4	1.20	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
90	CB 4	1.10	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
91	CB 4	1.00	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
92	CB 4	0.90	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
93	CB 4	0.80	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
94	CB 4	0.70	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
95	CB 4	0.60	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
96	CB 4	0.50	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
97	CB 4	0.40	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
98	CB 4	0.30	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
99	CB 4	0.20	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
100	CB 4	0.10	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64
101	CB 4	0.00	0.030	16.0	0.0	10.6	3.8	0.0	2.1	0.7	35.0	0.0	3.851122.0		0.000	0.000	9.9	0.232	0.12	0.00	0.00	0.00	0.06	2.64

SPECIAL REPORT: Cypress Bayou
WATER QUALITY CONSTITUENT VALUES

ELEM NO.	ENDING km	TEMP deg C	SALN ppt	CM-I *	CM-II *	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO **	COLI #/100mL	NCM *
1	10.000	16.00	0.0	0.0	0.0	8.46	4.94	0.00	4.94	0.00	1.97	0.65	0.00	2.63	0.00	35.0	0.0	0.	0.00
2	9.900	16.00	0.0	0.0	0.0	8.61	3.99	0.00	3.99	0.00	2.03	0.69	0.00	2.72	0.00	35.0	0.0	0.	0.00
3	9.800	16.00	0.0	0.0	0.0	8.62	3.88	0.00	3.88	0.00	2.06	0.71	0.00	2.77	0.00	35.0	0.0	0.	0.00
4	9.700	16.00	0.0	0.0	0.0	8.62	3.87	0.00	3.87	0.00	2.07	0.71	0.00	2.79	0.00	35.0	0.0	0.	0.00
5	9.600	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.08	0.71	0.00	2.79	0.00	35.0	0.0	0.	0.00
6	9.500	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.08	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
7	9.400	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.08	0.72	0.00	2.80	0.00	35.0	0.0	0.	0.00
8	9.300	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.08	0.72	0.00	2.80	0.00	35.0	0.0	0.	0.00
9	9.200	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
10	9.100	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
11	9.000	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00

12	8.900	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
13	8.800	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
14	8.700	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
15	8.600	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
16	8.500	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
17	8.400	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
18	8.300	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
19	8.200	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
20	8.100	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
21	8.000	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
22	7.900	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
23	7.800	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.79	0.00	35.0	0.0	0.	0.00
24	7.700	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.79	0.00	35.0	0.0	0.	0.00
25	7.600	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.79	0.00	35.0	0.0	0.	0.00
26	7.500	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.79	0.00	35.0	0.0	0.	0.00
27	7.400	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.79	0.00	35.0	0.0	0.	0.00
28	7.300	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.79	0.00	35.0	0.0	0.	0.00
29	7.200	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.79	0.00	35.0	0.0	0.	0.00
30	7.100	16.00	0.0	0.0	0.0	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.79	0.00	35.0	0.0	0.	0.00
31	7.000	16.00	0.0	0.0	0.0	9.70	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.81	0.00	35.0	0.0	0.	0.00
32	6.900	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
33	6.800	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
34	6.700	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
35	6.600	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
36	6.500	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
37	6.400	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
38	6.300	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
39	6.200	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
40	6.100	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
41	6.000	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
42	5.900	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
43	5.800	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
44	5.700	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
45	5.600	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
46	5.500	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
47	5.400	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
48	5.300	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
49	5.200	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
50	5.100	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
51	5.000	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
52	4.900	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
53	4.800	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
54	4.700	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
55	4.600	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
56	4.500	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
57	4.400	16.00	0.0	0.0	0.0	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.0	0.0	0.	0.00
58	4.300	16.00	0.0	0.0	0.0	9.74	3.84	0.00	3.84	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
59	4.200	16.00	0.0	0.0	0.0	9.74	3.85	0.00	3.85	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
60	4.100	16.00	0.0	0.0	0.0	9.72	3.89	0.00	3.89	0.00	2.11	0.72	0.00	2.83	0.00	35.0	0.0	0.	0.00
61	4.000	16.00	0.0	0.0	0.0	9.74	3.85	0.00	3.85	0.00	2.09	0.71	0.00	2.80	0.00	35.0	0.0	0.	0.00
62	3.900	16.00	0.0	0.0	0.0	9.74	3.85	0.00	3.85	0.00	2.09	0.71	0.00	2.79	0.00	35.0	0.0	0.	0.00
63	3.800	16.00	0.0	0.0	0.0	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.0	0.0	0.	0.00
64	3.700	16.00	0.0	0.0	0.0	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.0	0.0	0.	0.00
65	3.600	16.00	0.0	0.0	0.0	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.0	0.0	0.	0.00
66	3.500	16.00	0.0	0.0	0.0	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.0	0.0	0.	0.00

67	3.400	16.00	0.0	0.0	0.0	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.0	0.0	0.	0.00			
68	3.300	16.00	0.0	0.0	0.0	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.0	0.0	0.	0.00			
69	3.200	16.00	0.0	0.0	0.0	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.0	0.0	0.	0.00			
70	3.100	16.00	0.0	0.0	0.0	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.0	0.0	0.	0.00			
71	3.000	16.00	0.0	0.0	0.0	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.0	0.0	0.	0.00			
72	2.900	16.00	0.0	0.0	0.0	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
73	2.800	16.00	0.0	0.0	0.0	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
74	2.700	16.00	0.0	0.0	0.0	10.55	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
75	2.600	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
76	2.500	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
77	2.400	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
78	2.300	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
79	2.200	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
80	2.100	16.00	0.0	0.0	0.0	10.48	3.88	0.00	3.88	0.00	2.15	0.73	0.00	2.87	0.00	35.0	0.0	0.	0.00			
81	2.000	16.00	0.0	0.0	0.0	10.56	3.77	0.00	3.77	0.00	2.10	0.70	0.00	2.80	0.00	35.0	0.0	0.	0.00			
82	1.900	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.09	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
83	1.800	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
84	1.700	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
85	1.600	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
86	1.500	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
87	1.400	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
88	1.300	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
89	1.200	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
90	1.100	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
91	1.000	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
92	0.900	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
93	0.800	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
94	0.700	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
95	0.600	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
96	0.500	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
97	0.400	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
98	0.300	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
99	0.200	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
100	0.100	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			
101	0.000	16.00	0.0	0.0	0.0	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.0	0.0	0.	0.00			

SPECIAL REPORT: Cypress Bayou
BIOLOGICAL AND PHYSICAL COEFFICIENTS

ELEM NO.	ENDING DIST km	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#1 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	FULL SOD *	CORR SOD *	ORG-N DECAY 1/da	ORG-N SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
1	10.000	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
2	9.900	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
3	9.800	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
4	9.700	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
5	9.600	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
6	9.500	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
7	9.400	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
8	9.300	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
9	9.200	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
10	9.100	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
11	9.000	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00

12	8.900	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
13	8.800	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
14	8.700	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
15	8.600	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
16	8.500	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
17	8.400	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
18	8.300	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
19	8.200	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
20	8.100	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
21	8.000	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
22	7.900	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
23	7.800	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
24	7.700	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
25	7.600	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
26	7.500	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
27	7.400	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
28	7.300	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
29	7.200	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
30	7.100	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
31	7.000	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
32	6.900	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
33	6.800	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
34	6.700	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
35	6.600	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
36	6.500	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
37	6.400	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
38	6.300	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
39	6.200	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
40	6.100	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
41	6.000	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
42	5.900	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
43	5.800	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
44	5.700	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
45	5.600	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
46	5.500	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
47	5.400	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
48	5.300	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
49	5.200	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
50	5.100	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
51	5.000	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
52	4.900	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
53	4.800	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
54	4.700	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
55	4.600	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
56	4.500	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
57	4.400	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
58	4.300	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
59	4.200	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
60	4.100	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
61	4.000	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
62	3.900	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
63	3.800	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
64	3.700	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
65	3.600	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
66	3.500	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00

67	3.400	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
68	3.300	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
69	3.200	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
70	3.100	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
71	3.000	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
72	2.900	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
73	2.800	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
74	2.700	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
75	2.600	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
76	2.500	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
77	2.400	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
78	2.300	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
79	2.200	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
80	2.100	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
81	2.000	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
82	1.900	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
83	1.800	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
84	1.700	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
85	1.600	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
86	1.500	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
87	1.400	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
88	1.300	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
89	1.200	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
90	1.100	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
91	1.000	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
92	0.900	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
93	0.800	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
94	0.700	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
95	0.600	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
96	0.500	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
97	0.400	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
98	0.300	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
99	0.200	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
100	0.100	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
101	0.000	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00

SPECIAL REPORT: Cypress Bayou
HYDRAULIC PARAMETER VALUES

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	ADVCTV VELO m/s	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
1	10.10	10.00	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8	0.	0.000	0.000	0.000
2	10.00	9.90	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8	0.	0.000	0.000	0.000
3	9.90	9.80	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8	0.	0.000	0.000	0.000
4	9.80	9.70	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8	0.	0.000	0.000	0.000
5	9.70	9.60	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8	0.	0.000	0.000	0.000
6	9.60	9.50	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8	0.	0.000	0.000	0.000
7	9.50	9.40	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8	0.	0.000	0.000	0.000
8	9.40	9.30	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8	0.	0.000	0.000	0.000
9	9.30	9.20	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8	0.	0.000	0.000	0.000
10	9.20	9.10	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8	0.	0.000	0.000	0.000
11	9.10	9.00	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8	0.	0.000	0.000	0.000

12	9.00	8.90	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
13	8.90	8.80	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
14	8.80	8.70	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
15	8.70	8.60	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
16	8.60	8.50	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
17	8.50	8.40	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
18	8.40	8.30	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
19	8.30	8.20	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
20	8.20	8.10	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
21	8.10	8.00	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
22	8.00	7.90	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
23	7.90	7.80	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
24	7.80	7.70	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
25	7.70	7.60	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
26	7.60	7.50	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
27	7.50	7.40	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
28	7.40	7.30	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
29	7.30	7.20	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
30	7.20	7.10	0.0283	0.000	1.36	1173.0	159176.	117300.0	1591.8		0.	0.000	0.000	0.000
31	7.10	7.00	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
32	7.00	6.90	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
33	6.90	6.80	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
34	6.80	6.70	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
35	6.70	6.60	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
36	6.60	6.50	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
37	6.50	6.40	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
38	6.40	6.30	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
39	6.30	6.20	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
40	6.20	6.10	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
41	6.10	6.00	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
42	6.00	5.90	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
43	5.90	5.80	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
44	5.80	5.70	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
45	5.70	5.60	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
46	5.60	5.50	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
47	5.50	5.40	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
48	5.40	5.30	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
49	5.30	5.20	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
50	5.20	5.10	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
51	5.10	5.00	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
52	5.00	4.90	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
53	4.90	4.80	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
54	4.80	4.70	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
55	4.70	4.60	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
56	4.60	4.50	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
57	4.50	4.40	0.0283	0.000	2.69	1339.0	360057.	133900.0	3600.6		0.	0.000	0.000	0.000
58	4.40	4.30	0.0283	0.000	2.54	1097.0	278857.	109700.0	2788.6		0.	0.000	0.000	0.000
59	4.30	4.20	0.0283	0.000	2.54	1097.0	278857.	109700.0	2788.6		0.	0.000	0.000	0.000
60	4.20	4.10	0.0285	0.000	2.54	1097.0	278857.	109700.0	2788.6		0.	0.000	0.000	0.000
61	4.10	4.00	0.0285	0.000	2.54	1097.0	278857.	109700.0	2788.6		0.	0.000	0.000	0.000
62	4.00	3.90	0.0285	0.000	2.54	1097.0	278857.	109700.0	2788.6		0.	0.000	0.000	0.000
63	3.90	3.80	0.0285	0.000	2.54	1097.0	278857.	109700.0	2788.6		0.	0.000	0.000	0.000
64	3.80	3.70	0.0285	0.000	2.54	1097.0	278857.	109700.0	2788.6		0.	0.000	0.000	0.000
65	3.70	3.60	0.0285	0.000	2.54	1097.0	278857.	109700.0	2788.6		0.	0.000	0.000	0.000
66	3.60	3.50	0.0285	0.000	2.54	1097.0	278857.	109700.0	2788.6		0.	0.000	0.000	0.000

67	3.50	3.40	0.0285	0.000	2.54	1097.0	278857.	109700.0	2788.6	0.	0.000	0.000	0.000
68	3.40	3.30	0.0285	0.000	2.54	1097.0	278857.	109700.0	2788.6	0.	0.000	0.000	0.000
69	3.30	3.20	0.0285	0.000	2.54	1097.0	278857.	109700.0	2788.6	0.	0.000	0.000	0.000
70	3.20	3.10	0.0285	0.000	2.54	1097.0	278857.	109700.0	2788.6	0.	0.000	0.000	0.000
71	3.10	3.00	0.0285	0.000	2.54	1097.0	278857.	109700.0	2788.6	0.	0.000	0.000	0.000
72	3.00	2.90	0.0285	0.000	2.54	1097.0	278857.	109700.0	2788.6	0.	0.000	0.000	0.000
73	2.90	2.80	0.0285	0.000	2.54	1097.0	278857.	109700.0	2788.6	0.	0.000	0.000	0.000
74	2.80	2.70	0.0285	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
75	2.70	2.60	0.0285	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
76	2.60	2.50	0.0285	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
77	2.50	2.40	0.0285	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
78	2.40	2.30	0.0285	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
79	2.30	2.20	0.0285	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
80	2.20	2.10	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
81	2.10	2.00	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
82	2.00	1.90	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
83	1.90	1.80	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
84	1.80	1.70	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
85	1.70	1.60	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
86	1.60	1.50	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
87	1.50	1.40	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
88	1.40	1.30	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
89	1.30	1.20	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
90	1.20	1.10	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
91	1.10	1.00	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
92	1.00	0.90	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
93	0.90	0.80	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
94	0.80	0.70	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
95	0.70	0.60	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
96	0.60	0.50	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
97	0.50	0.40	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
98	0.40	0.30	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
99	0.30	0.20	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
100	0.20	0.10	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000
101	0.10	0.00	0.0301	0.000	3.85	1122.0	431521.	112200.0	4315.2	0.	0.000	0.000	0.000

FINAL REPORT Cypress Bayou LA-QUAL Projection for Cypress Bayou Reservoir
REACH NO. 1 Cypress Bayou Reserv Winter Projection for FTN

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWTR	0.02831	16.00	0.00	0.00	0.00	8.90	13.10	0.00	13.10	0.00	1.84	0.56	0.00	0.00	35.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s

1	10.10	10.00	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
2	10.00	9.90	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
3	9.90	9.80	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
4	9.80	9.70	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
5	9.70	9.60	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
6	9.60	9.50	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
7	9.50	9.40	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
8	9.40	9.30	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
9	9.30	9.20	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
10	9.20	9.10	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
11	9.10	9.00	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
12	9.00	8.90	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
13	8.90	8.80	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
14	8.80	8.70	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
15	8.70	8.60	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
16	8.60	8.50	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
17	8.50	8.40	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
18	8.40	8.30	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
19	8.30	8.20	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
20	8.20	8.10	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
21	8.10	8.00	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
22	8.00	7.90	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
23	7.90	7.80	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
24	7.80	7.70	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
25	7.70	7.60	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
26	7.60	7.50	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
27	7.50	7.40	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
28	7.40	7.30	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
29	7.30	7.20	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
30	7.20	7.10	0.02831	0.0	0.00002	65.08	1.36	1173.00	159176.09	117300.00	1591.76	0.00	0.000	0.000	0.000								
TOT						1952.30			4775281.50	3519000.00													
AVG					0.0000		1.36	1173.00			1591.76												
CUM						1952.30																	

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
1	10.000	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
2	9.900	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
3	9.800	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
4	9.700	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
5	9.600	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
6	9.500	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
7	9.400	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
8	9.300	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
9	9.200	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
10	9.100	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.05	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
11	9.000	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
12	8.900	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
13	8.800	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00

14	8.700	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
15	8.600	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
16	8.500	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
17	8.400	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
18	8.300	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
19	8.200	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
20	8.100	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
21	8.000	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
22	7.900	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
23	7.800	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
24	7.700	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
25	7.600	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
26	7.500	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
27	7.400	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
28	7.300	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
29	7.200	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
30	7.100	9.87	0.66	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.71	0.14	0.00	0.00	0.00	0.00	0.00	2.90			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
1	10.000	16.00	0.00	0.00	0.00	8.46	4.94	0.00	4.94	0.00	1.97	0.65	0.00	2.63	0.00	35.00	0.00	0.	0.00
2	9.900	16.00	0.00	0.00	0.00	8.61	3.99	0.00	3.99	0.00	2.03	0.69	0.00	2.72	0.00	35.00	0.00	0.	0.00
3	9.800	16.00	0.00	0.00	0.00	8.62	3.88	0.00	3.88	0.00	2.06	0.71	0.00	2.77	0.00	35.00	0.00	0.	0.00
4	9.700	16.00	0.00	0.00	0.00	8.62	3.87	0.00	3.87	0.00	2.07	0.71	0.00	2.79	0.00	35.00	0.00	0.	0.00
5	9.600	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.08	0.71	0.00	2.79	0.00	35.00	0.00	0.	0.00
6	9.500	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.08	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
7	9.400	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.08	0.72	0.00	2.80	0.00	35.00	0.00	0.	0.00
8	9.300	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.08	0.72	0.00	2.80	0.00	35.00	0.00	0.	0.00
9	9.200	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
10	9.100	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
11	9.000	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
12	8.900	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
13	8.800	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
14	8.700	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
15	8.600	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
16	8.500	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
17	8.400	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
18	8.300	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
19	8.200	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
20	8.100	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
21	8.000	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
22	7.900	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
23	7.800	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.79	0.00	35.00	0.00	0.	0.00
24	7.700	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.79	0.00	35.00	0.00	0.	0.00
25	7.600	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.79	0.00	35.00	0.00	0.	0.00
26	7.500	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.79	0.00	35.00	0.00	0.	0.00
27	7.400	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.79	0.00	35.00	0.00	0.	0.00

28	7.300	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.79	0.00	35.00	0.00	0.	0.00
29	7.200	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.79	0.00	35.00	0.00	0.	0.00
30	7.100	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	2.79	0.00	35.00	0.00	0.	0.00

FINAL REPORT Cypress Bayou LA-QUAL Projection for Cypress Bayou Reservoir
REACH NO. 2 Cypress Bayou Reserv Winter Projection for FTN

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
31	UPR RCH	0.02831	16.00	0.00	0.00	0.00	8.62	3.86	0.00	3.86	0.00	2.09	0.71	0.00	0.00	35.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
31	7.10	7.00	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
32	7.00	6.90	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
33	6.90	6.80	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
34	6.80	6.70	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
35	6.70	6.60	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
36	6.60	6.50	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
37	6.50	6.40	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
38	6.40	6.30	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
39	6.30	6.20	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
40	6.20	6.10	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
41	6.10	6.00	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
42	6.00	5.90	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
43	5.90	5.80	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
44	5.80	5.70	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
45	5.70	5.60	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
46	5.60	5.50	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
47	5.50	5.40	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
48	5.40	5.30	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
49	5.30	5.20	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
50	5.20	5.10	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
51	5.10	5.00	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
52	5.00	4.90	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
53	4.90	4.80	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
54	4.80	4.70	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
55	4.70	4.60	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
56	4.60	4.50	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
57	4.50	4.40	0.02831	0.0	0.00001	147.20	2.69	1339.00	360057.09	133900.00	3600.57	0.00	0.000	0.000	0.000
TOT						3974.49			9721540.00	3615300.00					
AVG					0.0000		2.69	1339.00			3600.57				
CUM						5926.78									

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
31	7.000	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
32	6.900	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
33	6.800	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
34	6.700	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
35	6.600	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
36	6.500	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
37	6.400	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
38	6.300	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
39	6.200	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
40	6.100	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
41	6.000	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
42	5.900	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
43	5.800	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
44	5.700	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
45	5.600	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
46	5.500	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
47	5.400	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
48	5.300	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
49	5.200	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
50	5.100	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
51	5.000	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
52	4.900	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
53	4.800	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
54	4.700	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
55	4.600	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
56	4.500	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
57	4.400	9.87	0.33	0.12	0.00	0.00	0.00	0.00	0.00	2.41	2.41	2.41	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.36	0.14	0.00	0.00	0.00	0.00	0.00	3.10			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
31	7.000	16.00	0.00	0.00	0.00	9.70	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.81	0.00	35.00	0.00	0.	0.00
32	6.900	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
33	6.800	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
34	6.700	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
35	6.600	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
36	6.500	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
37	6.400	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
38	6.300	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
39	6.200	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
40	6.100	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00

41	6.000	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
42	5.900	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
43	5.800	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
44	5.700	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
45	5.600	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
46	5.500	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
47	5.400	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
48	5.300	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
49	5.200	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
50	5.100	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
51	5.000	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
52	4.900	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
53	4.800	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
54	4.700	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
55	4.600	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
56	4.500	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00
57	4.400	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	2.82	0.00	35.00	0.00	0.	0.00

FINAL REPORT Cypress Bayou LA-QUAL Projection for Cypress Bayou Reservoir
REACH NO. 3 Cypress Bayou Reserv Winter Projection for FTN

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
58	UPR RCH	0.02831	16.00	0.00	0.00	0.00	9.72	3.80	0.00	3.80	0.00	2.10	0.71	0.00	0.00	35.00	0.00	0.00
60	WSTLD	0.00017	16.00	0.00	0.00	0.00	2.00	103.50	0.00	103.50	0.00	15.00	7.50	0.00	0.00	0.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
58	4.40	4.30	0.02831	0.0	0.00001	114.01	2.54	1097.00	278857.41	109700.00	2788.57	0.00	0.000	0.000	0.000
59	4.30	4.20	0.02831	0.0	0.00001	114.01	2.54	1097.00	278857.41	109700.00	2788.57	0.00	0.000	0.000	0.000
60	4.20	4.10	0.02848	0.6	0.00001	113.33	2.54	1097.00	278857.41	109700.00	2788.57	0.00	0.000	0.000	0.000
61	4.10	4.00	0.02848	0.6	0.00001	113.33	2.54	1097.00	278857.41	109700.00	2788.57	0.00	0.000	0.000	0.000
62	4.00	3.90	0.02848	0.6	0.00001	113.33	2.54	1097.00	278857.41	109700.00	2788.57	0.00	0.000	0.000	0.000
63	3.90	3.80	0.02848	0.6	0.00001	113.33	2.54	1097.00	278857.41	109700.00	2788.57	0.00	0.000	0.000	0.000
64	3.80	3.70	0.02848	0.6	0.00001	113.33	2.54	1097.00	278857.41	109700.00	2788.57	0.00	0.000	0.000	0.000
65	3.70	3.60	0.02848	0.6	0.00001	113.33	2.54	1097.00	278857.41	109700.00	2788.57	0.00	0.000	0.000	0.000
66	3.60	3.50	0.02848	0.6	0.00001	113.33	2.54	1097.00	278857.41	109700.00	2788.57	0.00	0.000	0.000	0.000
67	3.50	3.40	0.02848	0.6	0.00001	113.33	2.54	1097.00	278857.41	109700.00	2788.57	0.00	0.000	0.000	0.000
68	3.40	3.30	0.02848	0.6	0.00001	113.33	2.54	1097.00	278857.41	109700.00	2788.57	0.00	0.000	0.000	0.000
69	3.30	3.20	0.02848	0.6	0.00001	113.33	2.54	1097.00	278857.41	109700.00	2788.57	0.00	0.000	0.000	0.000
70	3.20	3.10	0.02848	0.6	0.00001	113.33	2.54	1097.00	278857.41	109700.00	2788.57	0.00	0.000	0.000	0.000
71	3.10	3.00	0.02848	0.6	0.00001	113.33	2.54	1097.00	278857.41	109700.00	2788.57	0.00	0.000	0.000	0.000
72	3.00	2.90	0.02848	0.6	0.00001	113.33	2.54	1097.00	278857.41	109700.00	2788.57	0.00	0.000	0.000	0.000
73	2.90	2.80	0.02848	0.6	0.00001	113.33	2.54	1097.00	278857.41	109700.00	2788.57	0.00	0.000	0.000	0.000

TOT						1814.57						4461719.00	1755200.00										
AVG					0.0000			2.54	1097.00					2788.57									
CUM						7741.36																	

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
58	4.300	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
59	4.200	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
60	4.100	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
61	4.000	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
62	3.900	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
63	3.800	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
64	3.700	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
65	3.600	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
66	3.500	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
67	3.400	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
68	3.300	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
69	3.200	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
70	3.100	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
71	3.000	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
72	2.900	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
73	2.800	9.87	0.35	0.12	0.00	0.00	0.00	0.00	0.00	2.25	2.25	2.25	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.38	0.14	0.00	0.00	0.00	0.00	0.00	2.90			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
58	4.300	16.00	0.00	0.00	0.00	9.74	3.84	0.00	3.84	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
59	4.200	16.00	0.00	0.00	0.00	9.74	3.85	0.00	3.85	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
60	4.100	16.00	0.00	0.00	0.00	9.72	3.89	0.00	3.89	0.00	2.11	0.72	0.00	2.83	0.00	35.00	0.00	0.	0.00
61	4.000	16.00	0.00	0.00	0.00	9.74	3.85	0.00	3.85	0.00	2.09	0.71	0.00	2.80	0.00	35.00	0.00	0.	0.00
62	3.900	16.00	0.00	0.00	0.00	9.74	3.85	0.00	3.85	0.00	2.09	0.71	0.00	2.79	0.00	35.00	0.00	0.	0.00
63	3.800	16.00	0.00	0.00	0.00	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.00	0.00	0.	0.00
64	3.700	16.00	0.00	0.00	0.00	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.00	0.00	0.	0.00
65	3.600	16.00	0.00	0.00	0.00	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.00	0.00	0.	0.00
66	3.500	16.00	0.00	0.00	0.00	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.00	0.00	0.	0.00
67	3.400	16.00	0.00	0.00	0.00	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.00	0.00	0.	0.00
68	3.300	16.00	0.00	0.00	0.00	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.00	0.00	0.	0.00
69	3.200	16.00	0.00	0.00	0.00	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.00	0.00	0.	0.00
70	3.100	16.00	0.00	0.00	0.00	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.00	0.00	0.	0.00
71	3.000	16.00	0.00	0.00	0.00	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.79	0.00	35.00	0.00	0.	0.00
72	2.900	16.00	0.00	0.00	0.00	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
73	2.800	16.00	0.00	0.00	0.00	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
74	UPR RCH	0.02848	16.00	0.00	0.00	0.00	9.74	3.85	0.00	3.85	0.00	2.09	0.70	0.00	0.00	35.00	0.00	0.00
80	WSTLD	0.00166	16.00	0.00	0.00	0.00	5.00	46.00	0.00	46.00	0.00	6.67	3.33	0.00	0.00	0.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
74	2.80	2.70	0.02848	0.6	0.00001	175.37	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
75	2.70	2.60	0.02848	0.6	0.00001	175.37	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
76	2.60	2.50	0.02848	0.6	0.00001	175.37	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
77	2.50	2.40	0.02848	0.6	0.00001	175.37	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
78	2.40	2.30	0.02848	0.6	0.00001	175.37	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
79	2.30	2.20	0.02848	0.6	0.00001	175.37	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
80	2.20	2.10	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
81	2.10	2.00	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
82	2.00	1.90	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
83	1.90	1.80	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
84	1.80	1.70	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
85	1.70	1.60	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
86	1.60	1.50	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
87	1.50	1.40	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
88	1.40	1.30	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
89	1.30	1.20	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
90	1.20	1.10	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
91	1.10	1.00	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
92	1.00	0.90	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
93	0.90	0.80	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
94	0.80	0.70	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
95	0.70	0.60	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
96	0.60	0.50	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
97	0.50	0.40	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
98	0.40	0.30	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
99	0.30	0.20	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
100	0.20	0.10	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
101	0.10	0.00	0.03014	6.1	0.00001	165.71	3.85	1122.00	431521.19	112200.00	4315.21	0.00	0.000	0.000	0.000
TOT						4697.79			12082590.00	3141600.00					
AVG					0.0000		3.85	1122.00			4315.21				
CUM						12439.16									

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
74	2.700	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
75	2.600	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
76	2.500	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
77	2.400	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
78	2.300	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
79	2.200	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
80	2.100	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
81	2.000	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
82	1.900	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
83	1.800	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
84	1.700	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
85	1.600	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
86	1.500	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
87	1.400	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
88	1.300	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
89	1.200	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
90	1.100	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
91	1.000	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
92	0.900	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
93	0.800	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
94	0.700	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
95	0.600	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
96	0.500	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
97	0.400	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
98	0.300	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
99	0.200	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
100	0.100	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
101	0.000	9.87	0.23	0.12	0.00	0.00	0.00	0.00	0.00	2.64	2.64	2.64	0.02	0.00	0.06	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.25	0.14	0.00	0.00	0.00	0.00	0.00	3.40			0.02	0.00	0.08	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I	CM-II	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
74	2.700	16.00	0.00	0.00	0.00	10.55	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
75	2.600	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
76	2.500	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
77	2.400	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
78	2.300	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
79	2.200	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
80	2.100	16.00	0.00	0.00	0.00	10.48	3.88	0.00	3.88	0.00	2.15	0.73	0.00	2.87	0.00	35.00	0.00	0.	0.00
81	2.000	16.00	0.00	0.00	0.00	10.56	3.77	0.00	3.77	0.00	2.10	0.70	0.00	2.80	0.00	35.00	0.00	0.	0.00
82	1.900	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.09	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
83	1.800	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
84	1.700	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00

85	1.600	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
86	1.500	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
87	1.400	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
88	1.300	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
89	1.200	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
90	1.100	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
91	1.000	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
92	0.900	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
93	0.800	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
94	0.700	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
95	0.600	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
96	0.500	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
97	0.400	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
98	0.300	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
99	0.200	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
100	0.100	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00
101	0.000	16.00	0.00	0.00	0.00	10.57	3.77	0.00	3.77	0.00	2.08	0.70	0.00	2.78	0.00	35.00	0.00	0.	0.00

STREAM SUMMARY
Cypress Bayou

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

TRAVEL TIME = 12439.16 DAYS

MAXIMUM EFFLUENT = 6.07 PERCENT

FLOW	=	0.02831	TO	0.03014	m^3/s
DISPERSION	=	0.0000	TO	0.0000	m^2/s
VELOCITY	=	0.00001	TO	0.00002	m/s
DEPTH	=	1.36	TO	3.85	m
WIDTH	=	******	TO	******	m
BOD DECAY	=	0.12	TO	0.12	per day
NH3 DECAY	=	0.05	TO	0.06	per day
SOD	=	2.25	TO	2.64	$g/m^2/d$
NH3 SOURCE	=	0.00	TO	0.00	$g/m^2/d$
REAERATION	=	0.23	TO	0.66	per day
BOD SETTLING	=	0.00	TO	0.00	per day
ORG-N DECAY	=	0.02	TO	0.02	per day
ORG-N SETTLING	=	0.00	TO	0.00	per day
TEMPERATURE	=	16.00	TO	16.00	deg C
DISSOLVED OXYGEN	=	8.46	TO	10.57	mg/L

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

REACH SUMMARY REPORT FOR Cypress Bayou

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT EOR m3/s	AVERAGE VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT EOR cfs	AVERAGE VELO fps	AVG DEPTH ft	AVG WIDTH ft
1	Cypress Bayou Reserv	10.10	7.10	3.00	1952.30	0.02831	0.00002	1.357	1173.00	1.000	0.000	4.452	3848.61

2 Cypress Bayou Reserv	7.10	4.40	2.70	3974.49	0.02831	0.00001	2.689	1339.00	1.000	0.000	8.823	4393.26
3 Cypress Bayou Reserv	4.40	2.80	1.60	1814.57	0.02848	0.00001	2.542	1097.00	1.006	0.000	8.340	3599.26
4 Cypress Bayou Reserv	2.80	0.00	2.80	4697.79	0.03014	0.00001	3.846	1122.00	1.064	0.000	12.619	3681.28

DISSOLVED OXYGEN LOADING FOR REACH 1: Cypress Bayou

IOR	UPMN ADV	UPTR ADV	LOWR ADV	UPMN DISP	UPTR DISP	LOWR DISP	INCR IN	INCR OUT	NONP IN	WSLD IN	WITH OUT	REAE IN	BOD1 DECA	NH3-N DECA	ORG-N DECA	NCM DECA	SOD BKGD	SOD BOD1	SOD ALG	SOD NCM	ALG PHOT	ALG RESP	MAC PHOT	TOT OUT	TOT IN	
1	22.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	147.	-92.	-25.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-401.4	400.9	-0.51
2	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	132.	-74.	-26.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-385.5	385.0	-0.53
3	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.1	383.6	-0.54
4	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.1	383.6	-0.54
5	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.54
6	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.53
7	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.3	383.7	-0.53
8	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.3	383.7	-0.53
9	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.3	383.7	-0.52
10	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.3	383.7	-0.52
11	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.3	383.7	-0.51
12	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.51
13	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.51
14	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.50
15	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.50
16	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.49
17	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.49
18	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.49
19	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.48
20	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.48
21	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.48
22	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.47
23	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.47
24	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.46
25	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.46
26	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.46
27	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.45
28	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.45
29	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.45
30	21.	0.	-21.	0.	0.	0.	0.	0.	0.	0.	0.	131.	-72.	-27.	0.	0.	-264.	0.	0.	0.	232.	0.	0.	-384.2	383.7	-0.44
31	21.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	21.	-159.	-61.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.2	566.2	-1.01
32	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
33	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
34	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
35	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
36	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
37	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
38	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
39	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
40	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
41	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
42	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
43	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
44	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
45	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
46	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
47	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
48	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
49	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
50	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01

51	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
52	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
53	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
54	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
55	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
56	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
57	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	18.	-159.	-62.	0.	0.	-323.	0.	0.	0.	524.	0.	0.	-567.3	566.3	-1.01
58	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	13.	-125.	-47.	0.	0.	-247.	0.	0.	0.	406.	0.	0.	-443.5	442.7	-0.77
59	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	13.	-125.	-47.	0.	0.	-247.	0.	0.	0.	406.	0.	0.	-443.5	442.7	-0.75

DISSOLVED OXYGEN LOADING FOR REACH 1: Cypress Bayou

IOR	UPMN ADV	UPTR ADV	LOWR ADV	UPMN DISP	UPTR DISP	LOWR DISP	INCR IN	INCR OUT	NONP IN	WSLD IN	WITH OUT	REAE IN	BOD1 DECA	NH3-N DECA	ORG-N DECA	NCM DECA	SOD BKGD	SOD BOD1	SOD ALG	SOD NCM	ALG PHOT	ALG RESP	MAC PHOT	TOT OUT	TOT IN	
60	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	15.	-126.	-48.	0.	0.	-247.	0.	0.	0.	406.	0.	0.	-445.7	445.0	-0.76
61	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	13.	-125.	-48.	0.	0.	-247.	0.	0.	0.	406.	0.	0.	-443.9	443.2	-0.73
62	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	13.	-125.	-47.	0.	0.	-247.	0.	0.	0.	406.	0.	0.	-443.6	442.9	-0.72
63	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	13.	-125.	-47.	0.	0.	-247.	0.	0.	0.	406.	0.	0.	-443.5	442.8	-0.71
64	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	13.	-125.	-47.	0.	0.	-247.	0.	0.	0.	406.	0.	0.	-443.5	442.8	-0.70
65	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	13.	-125.	-47.	0.	0.	-247.	0.	0.	0.	406.	0.	0.	-443.5	442.8	-0.69
66	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	13.	-125.	-47.	0.	0.	-247.	0.	0.	0.	406.	0.	0.	-443.5	442.8	-0.68
67	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	13.	-125.	-47.	0.	0.	-247.	0.	0.	0.	406.	0.	0.	-443.5	442.8	-0.67
68	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	13.	-125.	-47.	0.	0.	-247.	0.	0.	0.	406.	0.	0.	-443.5	442.8	-0.66
69	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	13.	-125.	-47.	0.	0.	-247.	0.	0.	0.	406.	0.	0.	-443.5	442.8	-0.65
70	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	13.	-125.	-47.	0.	0.	-247.	0.	0.	0.	406.	0.	0.	-443.4	442.8	-0.64
71	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	13.	-125.	-47.	0.	0.	-247.	0.	0.	0.	406.	0.	0.	-443.4	442.8	-0.63
72	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	13.	-125.	-47.	0.	0.	-247.	0.	0.	0.	406.	0.	0.	-443.4	442.8	-0.62
73	24.	0.	-24.	0.	0.	0.	0.	0.	0.	0.	0.	13.	-125.	-47.	0.	0.	-247.	0.	0.	0.	406.	0.	0.	-443.4	442.8	-0.61
74	24.	0.	-26.	0.	0.	0.	0.	0.	0.	0.	0.	-68.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-653.3	652.4	-0.94
75	26.	0.	-26.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-655.3	654.4	-0.94
76	26.	0.	-26.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-655.4	654.4	-0.94
77	26.	0.	-26.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-655.4	654.4	-0.94
78	26.	0.	-26.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-655.4	654.4	-0.94
79	26.	0.	-26.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-655.4	654.4	-0.94
80	26.	0.	-27.	0.	0.	0.	0.	0.	0.	1.	0.	-61.	-195.	-76.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.1	655.2	-0.98
81	27.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-69.	-190.	-74.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.7	655.7	-0.95
82	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-70.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	655.9	-0.94
83	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
84	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
85	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
86	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
87	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
88	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
89	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
90	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
91	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
92	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
93	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
94	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
95	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
96	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
97	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
98	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
99	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
100	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94
101	28.	0.	-28.	0.	0.	0.	0.	0.	0.	0.	0.	-71.	-189.	-73.	0.	0.	-297.	0.	0.	0.	628.	0.	0.	-656.9	656.0	-0.94

LA-QUAL Projection for Cypress Bayou Reservoir
Winter Projection for FTN

INPUT/OUTPUT LOADING SUMMARY

	FLOW m^3/s	DO kg/d	BOD#1 kg/d	BOD#2 kg/d	ORG-N kg/d	NH3-N kg/d	NO3-N kg/d	PHOS kg/d	CHL A	NCM
HEADWATER FLOW	0.028	21.8	32.0	0.0	4.5	1.4	0.0	0.0	0.0	0.0
INCREMENTAL INFLOW	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
INCREMENTAL OUTFLOW	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WASTELOADS	0.002	0.7	8.1	0.0	1.2	0.6	0.0	0.0	0.0	0.0
WITHDRAWLS	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FLOW THRU LOWER BNDRY	-0.030	-27.5	-9.8	0.0	-5.4	-1.8	0.0	0.0	0.0	0.0
DISPERSION THRU LOWER BNDRY		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DISPERSION THRU HDWTR BNDRY		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NON-POINT INPUT		0.0	13750.0	0.0	1199.0					0.0
NATURAL REAERATION		2677.5								
DAM REAERATION		0.0								
BACKGROUND SOD		-28904.0								
BOD#1 DECAY		-13780.4	-13780.4							
BOD#1 SETTLING		0.0	0.0							
ANAEROBIC BOD#1 DECAY			0.0							
BOD#2 DECAY		0.0		0.0						
BOD#2 SETTLING		0.0		0.0						
ANAEROBIC BOD#2 DECAY				0.0						
ORG-N DECAY		0.0			-1199.3	1199.3				
ORG-N SETTLING					0.0	0.0				
NH3 DECAY		-5272.7				-1217.7	1217.7			
BACKGROUND NH3 SOURCE						0.0				
OTHER DENITRIFICATION							0.0			
PHOSPHORUS SOURCE								0.0		
ALGAE PHOTOSYNTHESIS		45205.3				0.0	-2260.3	0.0	0.0	
ALGAE RESPIRATION		0.0				0.0		0.0	0.0	
ALGAE SETTLING		0.0							0.0	
MACRO PHOTOSYNTHESIS		0.0				0.0	0.0	0.0		
NCM DECAY		0.0								0.0
NCM SETTLING		0.0								0.0
TOTAL INPUTS	0.030	47905.3	13790.2	0.0	1204.7	1201.2	1217.7	0.0	0.0	0.0
TOTAL OUTPUTS	-0.030	-47984.6	-13790.2	0.0	-1204.7	-1219.5	-2260.3	0.0	0.0	0.0
NET CONVERGENCE ERROR	0.000	-79.3	0.0	0.0	0.0	-18.3	-1042.5	0.0	0.0	0.0

.....EXECUTION COMPLETED

APPENDIX P

Input File for TMDL Calculation Program

```
"100405"                Subsegment number for this TMDL
"Black Bayou Reservoir" Subsegment name (max 50 chars)
"Bksumcrl.out"          Name of LA-QUAL output file
4                       Total number of reaches in the model
"100405"                Subsegment that reach 1 is in
"100405"                Subsegment that reach 2 is in
"100405"                Subsegment that reach 3 is in
"100405"                Subsegment that reach 4 is in
10                      point source margin of safety (%)
10                      point source Future Gorwth (%)
10                      NPS margin of safety (%)
10                      NPS Future Growth (%)
4.33                    Ratio of oxygen demand to nitrogen
0                       Number of minor point sources
"No"                    Nutrient TMDL needed?
1.0                     Natural ratio of total N to total P
```

```
"100404"                Subsegment number for this TMDL
"Cypress Bayou Reservr" Subsegment name (max 50 chars)
"Cysumcrl.out"          Name of LA-QUAL output file
4                       Total number of reaches in the model
"100404"                Subsegment that reach 1 is in
"100404"                Subsegment that reach 2 is in
"100404"                Subsegment that reach 3 is in
"100404"                Subsegment that reach 4 is in
10                      point source margin of safety (%)
10                      point source Future Gorwth (%)
10                      NPS margin of safety (%)
10                      NPS Future Growth (%)
4.33                    Ratio of oxygen demand to nitrogen
0                       Number of minor point sources
"No"                    Nutrient TMDL needed?
1.0                     Natural ratio of total N to total P
```

```
"100405"                Subsegment number for this TMDL
"Black Bayou Reservoir" Subsegment name (max 50 chars)
"Bkwincrl.out"          Name of LA-QUAL output file
4                       Total number of reaches in the model
"100405"                Subsegment that reach 1 is in
"100405"                Subsegment that reach 2 is in
"100405"                Subsegment that reach 3 is in
"100405"                Subsegment that reach 4 is in
10                      point source margin of safety (%)
10                      point source Future Gorwth (%)
10                      NPS margin of safety (%)
10                      NPS Future Growth (%)
4.33                    Ratio of oxygen demand to nitrogen
0                       Number of minor point sources
"No"                    Nutrient TMDL needed?
1.0                     Natural ratio of total N to total P
```

```
"100404"                Subsegment number for this TMDL
"Cypress Bayou Reservr" Subsegment name (max 50 chars)
"Cywincrl.out"          Name of LA-QUAL output file
4                       Total number of reaches in the model
"100404"                Subsegment that reach 1 is in
"100404"                Subsegment that reach 2 is in
"100404"                Subsegment that reach 3 is in
"100404"                Subsegment that reach 4 is in
10                      point source margin of safety (%)
10                      point source Future Gorwth (%)
10                      NPS margin of safety (%)
10                      NPS Future Growth (%)
4.33                    Ratio of oxygen demand to nitrogen
0                       Number of minor point sources
"No"                    Nutrient TMDL needed?
1.0                     Natural ratio of total N to total P
```

APPENDIX Q

Output from TMDL Calculation Program

TMDL CALCULATIONS FOR SUBSEGMENT: 100405   Black Bayou Reservoi
FTN ASSOCIATES, LTD.
Program:Pr20m6f

INFO FOR INPUT FILE WITH USER SPECIFIED DATA AND OPTIONS:
File name:blk_sum.inp

INFO FOR LA-QUAL OUTPUT FILE:
File name:Bksumcrl.out
Date/Time:Output produced at 12:38 on 10/15/2007
LA-QUAL Version 8.11

LIST OF ALL REACHES IN LA-QUAL OUTPUT FILE:
  Reach   1 (Elements   1 - 20) is in subsegment 100405 Black Bayou Res
  Reach   2 (Elements 21 - 40) is in subsegment 100405 Black Bayou Res
  Reach   3 (Elements 41 - 57) is in subsegment 100405 Black Bayou Res
  Reach   4 (Elements 58 - 77) is in subsegment 100405 Black Bayou Res

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CALCULATIONS FOR LOADS FROM NPS INFLOWS (HEADWATERS, TRIBUTARIES, AND INCREMENTAL INFLOW):

Equation used: (Load, kg/day) = (Inflow rate, m3/sec) * (Conc., mg/L) * 1.0E-6 kg/mg * 1.0E3 L/m3 *
                                                                                    86400 sec/day

Values from LA-QUAL output:

Reach or Element number	Inflow rate (m3/sec)	CBODu conc. (mg/L)	Organic N conc. (mg/L)	Ammonia N conc. (mg/L)	NO2+NO3 N conc. (mg/L)	Name of inflow
1	0.00283	13.10	1.84	0.56	0.00	Black Bayou

Calculated values:

Element number	CBODu load (kg/day)	Organic N load (kg/day)	Ammonia N load (kg/day)	NO2+NO3 N load (kg/day)
1	3.20	0.45	0.14	0.00
Subsegment totals:	0.00	0.45	0.14	0.00

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CALCULATIONS FOR NONPOINT SOURCE MASS LOADS IN DATA TYPE 19:

Values from LA-QUAL output:

Reach number	CBODu mass load (kg/day)	Organic N mass load (kg/day)
1	321.00	4.00
2	2343.00	30.00
3	3865.00	51.00
4	6361.00	85.00
Subsegment totals	12890.00	170.00

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CALCULATIONS FOR LOADS FROM SOD AND BENTHIC AMMONIA:

SOD temperature correction factor used in LA-QUAL model: 1.065 (default)

Equations used: SOD temp. corrected = (SOD at 20 C) * 1.065^(Water temp - 20 C)
SOD load = (SOD temp. corrected, g/m2/day) * (Surface area, m2) * 1.0E-3 kg/g
Benthic NH3-N load = (Benthic ammonia N, g/m2/day) * (Surface area, m2) * 1.0E-3 kg/g

		Values from LA-QUAL output:				Calculated values:		
Reach number	Element number	Water temp. (deg C)	Surface area (m2)	SOD at 20 C (g/m2/day)	Benthic ammonia N (g/m2/day)	SOD temp. corrected (g/m2/day)	SOD load (kg/day)	Benthic NH3-N load (kg/day)
1	1	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	2	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	3	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	4	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	5	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	6	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	7	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	8	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	9	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	10	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	11	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	12	30.20	20900.0	2.720	0.00	2.720	56.85	0.00

1	13	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	14	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	15	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	16	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	17	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	18	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	19	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
1	20	30.20	20900.0	2.720	0.00	2.720	56.85	0.00
2	21	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	22	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	23	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	24	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	25	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	26	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	27	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	28	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	29	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	30	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	31	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	32	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	33	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	34	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	35	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	36	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	37	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	38	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	39	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
2	40	30.20	29500.0	2.720	0.00	2.720	80.24	0.00
3	41	30.20	35100.0	2.720	0.00	2.430	85.29	0.00
3	42	30.20	35100.0	2.720	0.00	2.430	85.29	0.00
3	43	30.20	35100.0	2.720	0.00	2.430	85.29	0.00
3	44	30.20	35100.0	2.720	0.00	2.430	85.29	0.00
3	45	30.20	35100.0	2.720	0.00	2.430	85.29	0.00
3	46	30.20	35100.0	2.720	0.00	2.430	85.29	0.00
3	47	30.20	35100.0	2.720	0.00	2.430	85.29	0.00
3	48	30.20	35100.0	2.720	0.00	2.430	85.29	0.00
3	49	30.20	35100.0	2.720	0.00	2.430	85.29	0.00
3	50	30.20	35100.0	2.720	0.00	2.430	85.29	0.00
3	51	30.20	35100.0	2.720	0.00	2.430	85.29	0.00
3	52	30.20	35100.0	2.720	0.00	2.430	85.29	0.00
3	53	30.20	35100.0	2.720	0.00	2.430	85.29	0.00
3	54	30.20	35100.0	2.720	0.00	2.430	85.29	0.00
3	55	30.20	35100.0	2.720	0.00	2.430	85.29	0.00
3	56	30.20	35100.0	2.720	0.00	2.430	85.29	0.00
3	57	30.20	35100.0	2.720	0.00	2.430	85.29	0.00

4	58	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	59	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	60	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	61	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	62	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	63	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	64	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	65	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	66	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	67	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	68	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	69	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	70	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	71	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	72	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	73	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	74	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	75	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	76	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
4	77	30.20	42000.0	2.720	0.00	2.530	106.26	0.00
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				Subsegment totals:			6316.94	0.00

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CALCULATIONS FOR LOADS FROM POINT SOURCE DISCHARGES EXPLICITLY MODELED:

For this subsegment, there are no point source discharges explicitly modeled.

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CALCULATIONS FOR LOADS FROM POINT SOURCE DISCHARGES NOT EXPLICITLY MODELED:

For this subsegment, there are no point source discharges not explicitly modeled.

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SUMMARY OF NONPOINT SOURCE OXYGEN DEMAND FOR THIS SUBSEGEMENT:

Equations used: Organic N oxygen demand, kg/day = 4.3300 * Organic N load, kg/day of N
Ammonia N oxygen demand, kg/day = 4.3300 * Ammonia N load, kg/day of N
Margin of safety = 10.0% * nonpoint source load
Future Growth = 10.0% * nonpoint source load
Load Allocation = 80.0% * nonpoint source load

Values from calculations above

	SOD (kg/day)	CBODu (kg/day)	Nitrogen loads (kg/day of N): Organic (kg/day)	Ammonia (kg/day)	NO2+NO3 N (kg/day)
NPS inflows	N/A	0.00	0.45	0.14	0.00
Mass LOads (data type 19)	N/A	12890.00	170.00	N/A	N/A
SOD and Benthic	6316.94	N/A	N/A	0.00	N/A

Calculated loads of oxygen demand:

	SOD (kg/day)	CBODu (kg/day)	Oygen demand loads: Organic (kg/day)	Ammonia (kg/day)	Total Oxygen demand (kg/day)
NPS inflows	N/A	0.00	1.95	0.61	2.55
Mass LOads (data type 19)	N/A	12890.00	736.10	N/A	13626.10
SOD and Benthic	6316.94	N/A	N/A	0.00	6316.94
Total for all NPS loads	6316.94	12890.00	738.05	0.61	19945.59
NPS future growth (10.0%)	631.69	1289.00	73.80	0.06	1994.56
NPS margin of safety (10.0%)	631.69	1289.00	73.80	0.06	1994.56
NPS load allocation (80.0%)	5053.56	10312.00	590.45	0.49	15956.47

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SUMMARY OF POINT SOURCE OXYGEN DEMAND FOR THIS SUBSEGEMENT

For this subsegment, there are no point source discharges either modeled or unmodeled in this subsegment.

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NUTRIENT TMDL CALCULATIONS:

Assumptions: Naturally occurring ratio of total N to total P = 1.00000

Equations used: Total N = (Organic N) + (Ammonia N) + (NO2+NO3 N)
Total P = (Total N) / (Naturally occurring ratio of total N to total P)
NPS margin of safety = 10.0% * nonpoint source load

NPS Future Growth = 10.0% * nonpoint source load
NPS load allocation = 80.0% * nonpoint source load
Margin of safety for all point sources = 10.0% * total point source load
Future Growth for all point soures = 10.0% * nonpoint source load
Wasteload allocation (WLA) for modeled point source = 80.0% * modeled load
Wasteload allocation (WLA) for minor point sources = 80.0% * calculated load

Nonpoint sources:

	Organic N (kg/day)	Ammonia N (kg/day)	NO2+NO3 N (kg/day)	Total N (kg/day)	Total P (kg/day)
Total for all NPS loads	170.45	0.14	0.00	170.59	170.59
NPS margin of safety (10.0%)	17.04	0.01	0.00	17.06	17.06
NPS Future Growth (10.0%)	17.04	0.01	0.00	17.06	17.06
NPS load allocation (80.0%)	136.36	0.13	0.00	153.53	153.53

Point sources:

	Organic N (kg/day)	Ammonia N (kg/day)	NO2+NO3 N (kg/day)	Total N (kg/day)	Total P (kg/day)
Calculated load for minor point source	0.00	0.00	0.00	0.00	0.00
Total for all point source loads	0.00	0.00	0.00	0.00	0.00
MOS for all point Sources (10.0%)	0.00	0.00	0.00	0.00	0.00
FG for all point Sources (10.0%)	0.00	0.00	0.00	0.00	0.00
WLA for minor point sources (80.0%)	0.00	0.00	0.00	0.00	0.00

TMDL CALCULATIONS FOR SUBSEGMENT: 100404   Cypress Bayou Reserv
FTN ASSOCIATES, LTD.
Program:Pr20m6f

INFO FOR INPUT FILE WITH USER SPECIFIED DATA AND OPTIONS:
File name:cyp_sum.inp

INFO FOR LA-QUAL OUTPUT FILE:
File name:Cysumcrl.out
Date/Time:Output produced at 12:22 on 10/15/2007
LA-QUAL Version 8.11

LIST OF ALL REACHES IN LA-QUAL OUTPUT FILE:
  Reach   1 (Elements   1 - 30) is in subsegment 100404 Cypress Bayou R
  Reach   2 (Elements 31 - 57) is in subsegment 100404 Cypress Bayou R
  Reach   3 (Elements 58 - 73) is in subsegment 100404 Cypress Bayou R
  Reach   4 (Elements 74 - 101) is in subsegment 100404 Cypress Bayou R

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CALCULATIONS FOR LOADS FROM NPS INFLOWS (HEADWATERS, TRIBUTARIES, AND INCREMENTAL INFLOW):

Equation used: (Load, kg/day) = (Inflow rate, m3/sec) * (Conc., mg/L) * 1.0E-6 kg/mg * 1.0E3 L/m3 *
                                                                                    86400 sec/day

Values from LA-QUAL output:

Reach or Element number	Inflow rate (m3/sec)	CBODu conc. (mg/L)	Organic N conc. (mg/L)	Ammonia N conc. (mg/L)	NO2+NO3 N conc. (mg/L)	Name of inflow
1	0.00283	13.10	1.84	0.56	0.00	Cypress Bayou

Calculated values:

Element number	CBODu load (kg/day)	Organic N load (kg/day)	Ammonia N load (kg/day)	NO2+NO3 N load (kg/day)
1	3.20	0.45	0.14	0.00

Subsegment totals:	0.08	0.45	0.14	0.00

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CALCULATIONS FOR NONPOINT SOURCE MASS LOADS IN DATA TYPE 19:

Values from LA-QUAL output:

Reach number	CBODu mass load (kg/day)	Organic N mass load (kg/day)
1	1656.00	142.00
2	3311.00	291.00
3	1540.00	132.00
4	4081.00	358.00
Subsegment totals	10588.00	923.00

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CALCULATIONS FOR LOADS FROM SOD AND BENTHIC AMMONIA:

SOD temperature correction factor used in LA-QUAL model: 1.065 (default)

Equations used: SOD temp. corrected = (SOD at 20 C) * 1.065^(Water temp - 20 C)
SOD load = (SOD temp. corrected, g/m2/day) * (Surface area, m2) * 1.0E-3 kg/g
Benthic NH3-N load = (Benthic ammonia N, g/m2/day) * (Surface area, m2) * 1.0E-3 kg/g

		Values from LA-QUAL output:				Calculated values:		
Reach number	Element number	Water temp. (deg C)	Surface area (m2)	SOD at 20 C (g/m2/day)	Benthic ammonia N (g/m2/day)	SOD temp. corrected (g/m2/day)	SOD load (kg/day)	Benthic NH3-N load (kg/day)
1	1	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	2	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	3	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	4	30.20	117270.0	4.240	0.00	4.240	497.22	0.00

1	5	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	6	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	7	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	8	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	9	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	10	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	11	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	12	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	13	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	14	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	15	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	16	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	17	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	18	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	19	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	20	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	21	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	22	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	23	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	24	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	25	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	26	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	27	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	28	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	29	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
1	30	30.20	117270.0	4.240	0.00	4.240	497.22	0.00
2	31	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	32	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	33	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	34	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	35	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	36	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	37	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	38	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	39	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	40	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	41	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	42	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	43	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	44	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	45	30.20	133889.0	4.240	0.00	4.540	607.86	0.00

2	46	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	47	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	48	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	49	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	50	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	51	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	52	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	53	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	54	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	55	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	56	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
2	57	30.20	133889.0	4.240	0.00	4.540	607.86	0.00
3	58	30.20	109652.0	4.240	0.00	4.240	464.92	0.00
3	59	30.20	109652.0	4.240	0.00	4.240	464.92	0.00
3	60	30.20	109652.0	4.240	0.00	4.240	464.92	0.00
3	61	30.20	109652.0	4.240	0.00	4.240	464.92	0.00
3	62	30.20	109652.0	4.240	0.00	4.240	464.92	0.00
3	63	30.20	109652.0	4.240	0.00	4.240	464.92	0.00
3	64	30.20	109652.0	4.240	0.00	4.240	464.92	0.00
3	65	30.20	109652.0	4.240	0.00	4.240	464.92	0.00
3	66	30.20	109652.0	4.240	0.00	4.240	464.92	0.00
3	67	30.20	109652.0	4.240	0.00	4.240	464.92	0.00
3	68	30.20	109652.0	4.240	0.00	4.240	464.92	0.00
3	69	30.20	109652.0	4.240	0.00	4.240	464.92	0.00
3	70	30.20	109652.0	4.240	0.00	4.240	464.92	0.00
3	71	30.20	109652.0	4.240	0.00	4.240	464.92	0.00
3	72	30.20	109652.0	4.240	0.00	4.240	464.92	0.00
3	73	30.20	109652.0	4.240	0.00	4.240	464.92	0.00
4	74	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	75	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	76	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	77	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	78	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	79	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	80	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	81	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	82	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	83	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	84	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	85	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	86	30.20	112164.0	4.240	0.00	4.980	558.58	0.00

4	87	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	88	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	89	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	90	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	91	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	92	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	93	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	94	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	95	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	96	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	97	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	98	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	99	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	100	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
4	101	30.20	112164.0	4.240	0.00	4.980	558.58	0.00
							54407.83	0.00
				Subsegment totals:				

==========

CALCULATIONS FOR LOADS FROM POINT SOURCE DISCHARGES EXPLICITLY MODELED:

Equation used: (Load, kg/day) = (Inflow rate, m3/sec) * (Conc., mg/L) * 1.0E-6 kg/mg * 1.0E3 L/m3 * 86400 sec/day

Values from LA-QUAL output:

Element number	Inflow rate (m3/sec)	CBODu conc. (mg/L)	Organic N conc. (mg/L)	Ammonia N conc. (mg/L)	NO2+NO3 N conc. (mg/L)	Name of discharge
60	0.00017	103.500	15.000	7.500	0.000	C and B Rec Distri
80	0.00166	46.000	6.670	3.330	0.000	Eagle Water Inc.

Calculated values:

Element	CBODu load	Organic N load	Ammonia N load	NO2+NO3 N load

	number	(kg/day)	(kg/day)	(kg/day)	(kg/day)
	60	1.52	0.22	0.11	0.00
	80	6.60	0.96	0.48	0.00
Subsegment total		8.12	1.18	0.59	0.00

==========

CALCULATIONS FOR LOADS FROM POINT SOURCE DISCHARGES NOT EXPLICITLY MODELED:

For this subsegment, there are no point source discharges not explicitly modeled.

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SUMMARY OF NONPOINT SOURCE OXYGEN DEMAND FOR THIS SUBSEGEMENT:

Equations used: Organic N oxygen demand, kg/day = 4.3300 * Organic N load, kg/day of N
Ammonia N oxygen demand, kg/day = 4.3300 * Ammonia N load, kg/day of N
Margin of safety = 10.0% * nonpoint source load
Future Growth = 10.0% * nonpoint source load
Load Allocation = 80.0% * nonpoint source load

Values from calculations above

			Nitrogen loads (kg/day of N):		
	SOD (kg/day)	CBODu (kg/day)	Organic (kg/day)	Ammonia (kg/day)	NO2+NO3 N (kg/day)
NPS inflows	N/A	0.08	0.45	0.14	0.00
Mass LOads (data type 19)	N/A	10588.00	923.00	N/A	N/A
SOD and Benthic	54407.83	N/A	N/A	0.00	N/A

Calculated loads of oxygen demand:

			Oygen demand loads:		Total Oxygen
	SOD	CBODu	Organic	Ammonia	demand

	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)
NPS inflows	N/A	0.08	1.95	0.61	2.64
Mass LOads (data type 19)	N/A	10588.00	3996.59	N/A	14584.59
SOD and Benthic	54407.83	N/A	N/A	0.00	54407.83
Total for all NPS loads	54407.83	10588.08	3998.54	0.61	68995.05
NPS future growth (10.0%)	5440.78	1058.81	399.85	0.06	6899.51
NPS margin of safety (10.0%)	5440.78	1058.81	399.85	0.06	6899.51
NPS load allocation (80.0%)	43526.27	8470.46	3198.84	0.49	55196.04

==========

SUMMARY OF POINT SOURCE OXYGEN DEMAND FOR THIS SUBSEGEMENT

Equations used: Organic N oxygen demand, kg/day = 4.3300 * Organic N load, kg/day of N
Ammonia N oxygen demand, kg/day = 4.3300 * Ammonia N load, kg/day of N
Margin of Safety = 10.0% * point source load
Future Growth = 10.0% * nonpoint source load
Wasteload Allocation (WLA) for modeled point source = 80.0% * modeled load
Wasteload Allocation (WLA) for minor point sources = 80.0% * calculated load

Values from calculations above

		Nitrogen loads (kg/day of N):		
	CBODu (kg/day)	Organic N (kg/day)	Ammonia N (kg/day)	NO3+NO2 (kg/day)
Modeled load for: C and B Rec Distri	1.52	0.22	0.11	0.00
Modeled load for: Eagle Water Inc.	6.60	0.96	0.48	0.00
Calculated load for minor point source	0.00	0.00	0.00	0.00

Calculated loads of oxygen demand

	Oygen demand loads:			Total Oxygen
	CBODu	Organic N	Ammonia N	demand

		(kg/day)	(kg/day)	(kg/day)	(kg/day)
Modeled load for: C and B Rec Distri		1.52	0.95	0.48	2.95
Modeled load for: Eagle Water Inc.		6.60	4.14	2.07	12.81
Calculated load for minor point source		0.00	0.00	0.00	0.00
Total for all point source loads		8.12	5.10	2.55	15.76
MOS for all point Sources	(10.0%)	0.81	0.51	0.25	1.58
FG for all point Sources	(10.0%)	0.81	0.51	0.25	1.58
WLA for: C and B Rec Distri	(80.0%)	1.22	0.76	0.38	2.36
WLA for: Eagle Water Inc.	(80.0%)	5.28	3.31	1.65	10.25
WLA for minor point sources	(80.0%)	0.00	0.00	0.00	0.00

TMDL CALCULATIONS FOR SUBSEGMENT: 100405   Black Bayou Reservoi
FTN ASSOCIATES, LTD.
Program:Pr20m6f

INFO FOR INPUT FILE WITH USER SPECIFIED DATA AND OPTIONS:
File name:blk_win.inp

INFO FOR LA-QUAL OUTPUT FILE:
File name:Bkwincrl.out
Date/Time:Output produced at 13:51 on 10/15/2007
LA-QUAL Version 8.11

LIST OF ALL REACHES IN LA-QUAL OUTPUT FILE:
  Reach   1 (Elements   1 - 20) is in subsegment 100405 Black Bayou Res
  Reach   2 (Elements 21 - 40) is in subsegment 100405 Black Bayou Res
  Reach   3 (Elements 41 - 57) is in subsegment 100405 Black Bayou Res
  Reach   4 (Elements 58 - 77) is in subsegment 100405 Black Bayou Res

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CALCULATIONS FOR LOADS FROM NPS INFLOWS (HEADWATERS, TRIBUTARIES, AND INCREMENTAL INFLOW):

Equation used: (Load, kg/day) = (Inflow rate, m3/sec) * (Conc., mg/L) * 1.0E-6 kg/mg * 1.0E3 L/m3 *
                                                                                    86400 sec/day

Values from LA-QUAL output:

Reach or Element number	Inflow rate (m3/sec)	CBODu conc. (mg/L)	Organic N conc. (mg/L)	Ammonia N conc. (mg/L)	NO2+NO3 N conc. (mg/L)	Name of inflow
1	0.02831	13.10	1.84	0.56	0.00	Black Bayou

Calculated values:

Element number	CBODu load (kg/day)	Organic N load (kg/day)	Ammonia N load (kg/day)	NO2+NO3 N load (kg/day)
1	32.04	4.50	1.37	0.00

Subsegment totals:	0.00	4.50	1.37	0.00

CALCULATIONS FOR NONPOINT SOURCE MASS LOADS IN DATA TYPE 19:

Values from LA-QUAL output:

Reach number	CBODu mass load (kg/day)	Organic N mass load (kg/day)
1	286.00	5.00
2	2128.00	39.00
3	3519.00	65.00
4	5796.00	105.00
Subsegment totals	11729.00	214.00

CALCULATIONS FOR LOADS FROM SOD AND BENTHIC AMMONIA:

SOD temperature correction factor used in LA-QUAL model: 1.065 (default)

Equations used: SOD temp. corrected = (SOD at 20 C) * 1.065^(Water temp - 20 C)
SOD load = (SOD temp. corrected, g/m2/day) * (Surface area, m2) * 1.0E-3 kg/g
Benthic NH3-N load = (Benthic ammonia N, g/m2/day) * (Surface area, m2) * 1.0E-3 kg/g

		Values from LA-QUAL output:				Calculated values:		
Reach number	Element number	Water temp. (deg C)	Surface area (m2)	SOD at 20 C (g/m2/day)	Benthic ammonia N (g/m2/day)	SOD temp. corrected (g/m2/day)	SOD load (kg/day)	Benthic NH3-N load (kg/day)
1	1	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	2	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	3	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	4	16.50	20900.0	0.990	0.00	0.990	20.69	0.00

1	5	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	6	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	7	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	8	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	9	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	10	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	11	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	12	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	13	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	14	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	15	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	16	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	17	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	18	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	19	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
1	20	16.50	20900.0	0.990	0.00	0.990	20.69	0.00
2	21	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	22	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	23	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	24	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	25	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	26	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	27	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	28	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	29	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	30	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	31	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	32	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	33	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	34	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	35	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	36	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	37	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	38	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	39	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
2	40	16.50	29500.0	0.990	0.00	0.990	29.21	0.00
3	41	16.50	35100.0	0.990	0.00	0.900	31.59	0.00
3	42	16.50	35100.0	0.990	0.00	0.900	31.59	0.00
3	43	16.50	35100.0	0.990	0.00	0.900	31.59	0.00
3	44	16.50	35100.0	0.990	0.00	0.900	31.59	0.00
3	45	16.50	35100.0	0.990	0.00	0.900	31.59	0.00

3	46	16.50	35100.0	0.990	0.00	0.900	31.59	0.00
3	47	16.50	35100.0	0.990	0.00	0.900	31.59	0.00
3	48	16.50	35100.0	0.990	0.00	0.900	31.59	0.00
3	49	16.50	35100.0	0.990	0.00	0.900	31.59	0.00
3	50	16.50	35100.0	0.990	0.00	0.900	31.59	0.00
3	51	16.50	35100.0	0.990	0.00	0.900	31.59	0.00
3	52	16.50	35100.0	0.990	0.00	0.900	31.59	0.00
3	53	16.50	35100.0	0.990	0.00	0.900	31.59	0.00
3	54	16.50	35100.0	0.990	0.00	0.900	31.59	0.00
3	55	16.50	35100.0	0.990	0.00	0.900	31.59	0.00
3	56	16.50	35100.0	0.990	0.00	0.900	31.59	0.00
3	57	16.50	35100.0	0.990	0.00	0.900	31.59	0.00
4	58	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	59	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	60	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	61	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	62	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	63	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	64	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	65	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	66	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	67	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	68	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	69	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	70	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	71	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	72	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	73	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	74	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	75	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	76	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
4	77	16.50	42000.0	0.990	0.00	0.930	39.06	0.00
							---------	---------
				Subsegment totals:			2316.15	0.00

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CALCULATIONS FOR LOADS FROM POINT SOURCE DISCHARGES EXPLICITLY MODELED:

For this subsegment, there are no point source discharges explicitly modeled.

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CALCULATIONS FOR LOADS FROM POINT SOURCE DISCHARGES NOT EXPLICITLY MODELED:

For this subsegment, there are no point source discharges not explicitly modeled.

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SUMMARY OF NONPOINT SOURCE OXYGEN DEMAND FOR THIS SUBSEGEMENT:

Equations used: Organic N oxygen demand, kg/day = 4.3300 * Organic N load, kg/day of N
Ammonia N oxygen demand, kg/day = 4.3300 * Ammonia N load, kg/day of N
Margin of safety = 10.0% * nonpoint source load
Future Growth = 10.0% * nonpoint source load
Load Allocation = 80.0% * nonpoint source load

Values from calculations above

			Nitrogen loads (kg/day of N):		
	SOD (kg/day)	CBODu (kg/day)	Organic (kg/day)	Ammonia (kg/day)	NO2+NO3 N (kg/day)
NPS inflows	N/A	0.00	4.50	1.37	0.00
Mass LOads (data type 19)	N/A	11729.00	214.00	N/A	N/A
SOD and Benthic	2316.15	N/A	N/A	0.00	N/A

Calculated loads of oxygen demand:

			Oygen demand loads:		Total Oxygen demand
	SOD (kg/day)	CBODu (kg/day)	Organic (kg/day)	Ammonia (kg/day)	(kg/day)
NPS inflows	N/A	0.00	19.49	5.93	25.42
Mass LOads (data type 19)	N/A	11729.00	926.62	N/A	12655.62
SOD and Benthic	2316.15	N/A	N/A	0.00	2316.15
Total for all NPS loads	2316.15	11729.00	946.10	5.93	14997.19
NPS future growth (10.0%)	231.62	1172.90	94.61	0.59	1499.72

NPS margin of safety (10.0%)	231.62	1172.90	94.61	0.59	1499.72
NPS load allocation (80.0%)	1852.91	9383.20	756.89	4.75	11997.75

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SUMMARY OF POINT SOURCE OXYGEN DEMAND FOR THIS SUBSEGEMENT

For this subsegment, there are no point source discharges either modeled or unmodeled in this subsegment.

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NUTRIENT TMDL CALCULATIONS:

Assumptions: Naturally occurring ratio of total N to total P = 1.00000

Equations used: Total N = (Organic N) + (Ammonia N) + (NO2+NO3 N)
Total P = (Total N) / (Naturally occurring ratio of total N to total P)
NPS margin of safety = 10.0% * nonpoint source load
NPS Future Growth = 10.0% * nonpoint source load
NPS load allocation = 80.0% * nonpoint source load
Margin of safety for all point sources = 10.0% * total point source load
Future Growth for all point soures = 10.0% * nonpoint source load
Wasteload allocation (WLA) for modeled point source = 80.0% * modeled load
Wasteload allocation (WLA) for minor point sources = 80.0% * calculated load

Nonpoint sources:

	Organic N (kg/day)	Ammonia N (kg/day)	NO2+NO3 N (kg/day)	Total N (kg/day)	Total P (kg/day)
Total for all NPS loads	218.50	1.37	0.00	219.87	219.87
NPS margin of safety (10.0%)	21.85	0.14	0.00	21.99	21.99
NPS Future Growth (10.0%)	21.85	0.14	0.00	21.99	21.99
NPS load allocation (80.0%)	174.80	1.23	0.00	197.88	197.88

Point sources:

		Organic N (kg/day)	Ammonia N (kg/day)	NO2+NO3 N (kg/day)	Total N (kg/day)	Total P (kg/day)
Calculated load for minor point source		0.00	0.00	0.00	0.00	0.00
Total for all point source loads		0.00	0.00	0.00	0.00	0.00
MOS for all point Sources	(10.0%)	0.00	0.00	0.00	0.00	0.00
FG for all point Sources	(10.0%)	0.00	0.00	0.00	0.00	0.00
WLA for minor point sources	(80.0%)	0.00	0.00	0.00	0.00	0.00

TMDL CALCULATIONS FOR SUBSEGMENT: 100404   Cypress Bayou Reserv
FTN ASSOCIATES, LTD.
Program:Pr20m6f

INFO FOR INPUT FILE WITH USER SPECIFIED DATA AND OPTIONS:
File name:cyp_win.inp

INFO FOR LA-QUAL OUTPUT FILE:
File name:Cywincrl.out
Date/Time:Output produced at 14:00 on 10/15/2007
LA-QUAL Version 8.11

LIST OF ALL REACHES IN LA-QUAL OUTPUT FILE:
  Reach   1 (Elements   1 - 30) is in subsegment 100404 Cypress Bayou R
  Reach   2 (Elements 31 - 57) is in subsegment 100404 Cypress Bayou R
  Reach   3 (Elements 58 - 73) is in subsegment 100404 Cypress Bayou R
  Reach   4 (Elements 74 - 101) is in subsegment 100404 Cypress Bayou R

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CALCULATIONS FOR LOADS FROM NPS INFLOWS (HEADWATERS, TRIBUTARIES, AND INCREMENTAL INFLOW):

Equation used: (Load, kg/day) = (Inflow rate, m3/sec) * (Conc., mg/L) * 1.0E-6 kg/mg * 1.0E3 L/m3 *
                                                                                    86400 sec/day

Values from LA-QUAL output:

Reach or Element number	Inflow rate (m3/sec)	CBODu conc. (mg/L)	Organic N conc. (mg/L)	Ammonia N conc. (mg/L)	NO2+NO3 N conc. (mg/L)	Name of inflow
1	0.02831	13.10	1.84	0.56	0.00	Cypress Bayou
1	0.00000	0.00	0.00	0.00	0.00	Incremental Reach flow
2	0.00000	0.00	0.00	0.00	0.00	Incremental Reach flow
3	0.00000	0.00	0.00	0.00	0.00	Incremental Reach flow
4	0.00000	0.00	0.00	0.00	0.00	Incremental Reach flow

Calculated values:

	CBODu	Organic N	Ammonia N	NO2+NO3 N

Element number	load (kg/day)	load (kg/day)	load (kg/day)	load (kg/day)
1	32.04	4.50	1.37	0.00
1	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00
Subsegment totals:	0.08	4.50	1.37	0.00

==========

CALCULATIONS FOR NONPOINT SOURCE MASS LOADS IN DATA TYPE 19:

Values from LA-QUAL output:

Reach number	CBODu mass load (kg/day)	Organic N mass load (kg/day)
1	2150.00	184.00
2	4300.00	378.00
3	2000.00	172.00
4	5300.00	465.00
Subsegment totals	13750.00	1199.00

==========

CALCULATIONS FOR LOADS FROM SOD AND BENTHIC AMMONIA:

SOD temperature correction factor used in LA-QUAL model: 1.065 (default)

Equations used: SOD temp. corrected = (SOD at 20 C) * 1.065^(Water temp - 20 C)
SOD load = (SOD temp. corrected, g/m2/day) * (Surface area, m2) * 1.0E-3 kg/g
Benthic NH3-N load = (Benthic ammonia N, g/m2/day) * (Surface area, m2) * 1.0E-3 kg/g

Values from LA-QUAL output: | Calculated values:

Reach number	Element number	Water temp. (deg C)	Surface area (m2)	SOD at 20 C (g/m2/day)	Benthic ammonia N (g/m2/day)	SOD temp. corrected (g/m2/day)	SOD load (kg/day)	Benthic NH3-N load (kg/day)
1	1	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	2	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	3	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	4	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	5	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	6	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	7	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	8	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	9	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	10	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	11	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	12	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	13	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	14	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	15	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	16	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	17	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	18	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	19	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	20	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	21	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	22	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	23	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	24	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	25	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	26	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	27	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	28	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	29	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
1	30	16.00	117300.0	2.250	0.00	2.250	263.93	0.00
2	31	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	32	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	33	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	34	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	35	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	36	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	37	16.00	133900.0	2.250	0.00	2.410	322.70	0.00

2	38	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	39	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	40	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	41	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	42	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	43	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	44	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	45	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	46	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	47	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	48	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	49	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	50	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	51	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	52	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	53	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	54	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	55	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	56	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
2	57	16.00	133900.0	2.250	0.00	2.410	322.70	0.00
3	58	16.00	109700.0	2.250	0.00	2.250	246.83	0.00
3	59	16.00	109700.0	2.250	0.00	2.250	246.83	0.00
3	60	16.00	109700.0	2.250	0.00	2.250	246.83	0.00
3	61	16.00	109700.0	2.250	0.00	2.250	246.83	0.00
3	62	16.00	109700.0	2.250	0.00	2.250	246.83	0.00
3	63	16.00	109700.0	2.250	0.00	2.250	246.83	0.00
3	64	16.00	109700.0	2.250	0.00	2.250	246.83	0.00
3	65	16.00	109700.0	2.250	0.00	2.250	246.83	0.00
3	66	16.00	109700.0	2.250	0.00	2.250	246.83	0.00
3	67	16.00	109700.0	2.250	0.00	2.250	246.83	0.00
3	68	16.00	109700.0	2.250	0.00	2.250	246.83	0.00
3	69	16.00	109700.0	2.250	0.00	2.250	246.83	0.00
3	70	16.00	109700.0	2.250	0.00	2.250	246.83	0.00
3	71	16.00	109700.0	2.250	0.00	2.250	246.83	0.00
3	72	16.00	109700.0	2.250	0.00	2.250	246.83	0.00
3	73	16.00	109700.0	2.250	0.00	2.250	246.83	0.00
4	74	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	75	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	76	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	77	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	78	16.00	112200.0	2.250	0.00	2.640	296.21	0.00

4	79	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	80	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	81	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	82	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	83	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	84	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	85	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	86	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	87	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	88	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	89	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	90	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	91	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	92	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	93	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	94	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	95	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	96	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	97	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	98	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	99	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	100	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
4	101	16.00	112200.0	2.250	0.00	2.640	296.21	0.00
							---	---
				Subsegment totals:			28873.66	0.00

==========

CALCULATIONS FOR LOADS FROM POINT SOURCE DISCHARGES EXPLICITLY MODELED:

Equation used: (Load, kg/day) = (Inflow rate, m3/sec) * (Conc., mg/L) * 1.0E-6 kg/mg * 1.0E3 L/m3 * 86400 sec/day

Values from LA-QUAL output:

Element number	Inflow rate (m3/sec)	CBODu conc. (mg/L)	Organic N conc. (mg/L)	Ammonia N conc. (mg/L)	NO2+NO3 N conc. (mg/L)	Name of discharge
60	0.00017	103.500	15.000	7.500	0.000	C and B Rec Distri
80	0.00166	46.000	6.670	3.330	0.000	Eagle Water Inc.

Calculated values:

Element number	CBODu load (kg/day)	Organic N load (kg/day)	Ammonia N load (kg/day)	NO2+NO3 N load (kg/day)
60	1.52	0.22	0.11	0.00
80	6.60	0.96	0.48	0.00
Subsegment total	8.12	1.18	0.59	0.00

==========

CALCULATIONS FOR LOADS FROM POINT SOURCE DISCHARGES NOT EXPLICITLY MODELED:

For this subsegment, there are no point source discharges not explicitly modeled.

==========

SUMMARY OF NONPOINT SOURCE OXYGEN DEMAND FOR THIS SUBSEGEMENT:

Equations used: Organic N oxygen demand, kg/day = 4.3300 * Organic N load, kg/day of N
Ammonia N oxygen demand, kg/day = 4.3300 * Ammonia N load, kg/day of N
Margin of safety = 10.0% * nonpoint source load
Future Growth = 10.0% * nonpoint source load
Load Allocation = 80.0% * nonpoint source load

Values from calculations above

		Nitrogen loads (kg/day of N):		
SOD (kg/day)	CBODu (kg/day)	Organic (kg/day)	Ammonia (kg/day)	NO2+NO3 N (kg/day)

NPS inflows	N/A	0.08	4.50	1.37	0.00
Mass LOads (data type 19)	N/A	13750.00	1199.00	N/A	N/A
SOD and Benthic	28873.66	N/A	N/A	0.00	N/A

Calculated loads of oxygen demand:

		Oygen demand loads:		Total Oxygen
	SOD (kg/day)	CBODu (kg/day)	Organic (kg/day)	Ammonia (kg/day)	demand (kg/day)
NPS inflows	N/A	0.08	19.49	5.93	25.50
Mass LOads (data type 19)	N/A	13750.00	5191.67	N/A	18941.67
SOD and Benthic	28873.66	N/A	N/A	0.00	28873.66
Total for all NPS loads	28873.66	13750.08	5211.15	5.93	47840.83
NPS future growth (10.0%)	2887.37	1375.01	521.12	0.59	4784.08
NPS margin of safety (10.0%)	2887.37	1375.01	521.12	0.59	4784.08
NPS load allocation (80.0%)	23098.92	11000.06	4168.92	4.75	38272.67

==========

SUMMARY OF POINT SOURCE OXYGEN DEMAND FOR THIS SUBSEGEMENT

Equations used: Organic N oxygen demand, kg/day = 4.3300 * Organic N load, kg/day of N
Ammonia N oxygen demand, kg/day = 4.3300 * Ammonia N load, kg/day of N
Margin of Safety = 10.0% * point source load
Future Growth = 10.0% * nonpoint source load
Wasteload Allocation (WLA) for modeled point source = 80.0% * modeled load
Wasteload Allocation (WLA) for minor point sources = 80.0% * calculated load

Values from calculations above

	Nitrogen loads (kg/day of N):			
	CBODu (kg/day)	Organic N (kg/day)	Ammonia N (kg/day)	NO3+NO2 (kg/day)
Modeled load for: C and B Rec Distri	1.52	0.22	0.11	0.00
Modeled load for: Eagle Water Inc.	6.60	0.96	0.48	0.00

Calculated load for minor point source	0.00	0.00	0.00	0.00

Calculated loads of oxygen demand

		Oygen demand loads:		Total Oxygen
	CBODu (kg/day)	Organic N (kg/day)	Ammonia N (kg/day)	demand (kg/day)
Modeled load for: C and B Rec Distri	1.52	0.95	0.48	2.95
Modeled load for: Eagle Water Inc.	6.60	4.14	2.07	12.81
Calculated load for minor point source	0.00	0.00	0.00	0.00
Total for all point source loads	8.12	5.10	2.55	15.76
MOS for all point Sources (10.0%)	0.81	0.51	0.25	1.58
FG for all point Sources (10.0%)	0.81	0.51	0.25	1.58
WLA for: C and B Rec Distri (80.0%)	1.22	0.76	0.38	2.36
WLA for: Eagle Water Inc. (80.0%)	5.28	3.31	1.65	10.25
WLA for minor point sources (80.0%)	0.00	0.00	0.00	0.00

APPENDIX R

Source Code for TMDL Calculation Program

```
        program pr20m6f
C**** For this prograqm to work the echo of the input and final report must be turned on:
C     1) The echo of the input provides MAJORITY of the ionformation for the calcuations,
C     2) The Hydralic, SOD, and NH3Sr data (needed for surface area for the SOD) are found
C        in the final report reach summary.

C     Printing:
C     This is printed in MSWord or VSlick by setting the left and right margins to 0.3 and 0.38
C     and setting the font to Courier New 9 pt normal text.

C     This program is specifcally formated for LA-QUAL 8.11.


C**********************************Search program (part 1)**************************************
C This whole program is written by Richard R. Bennett on 9/20/07 for LA-QUAL version 8.0
C Every variable is used in this program except

       INTEGER imp,i,a,c,d,e,f,g,h,j,k,l,m,n,o,q,k1
       Character*132 line,stream_id
       Character*8 target
       character*21 target2
       character*15 target3
       character*16 target3b,target5b,target5c,target6,t
     &arget7,target8,target9,target10
       character*36 target4


C**********All arrays are entered in the order in which they occurr in the program
C**************Input REAL arrays

      integer total_elem
      integer incr_reach(1:999)
       REAL SOD_temp_cor(1:999),C2_NH3SR(1:999),
     &incr2_CBODu_con(1:999),incr2_Org_N_con(1:999), incr2_Amm_N_con(1:
     &999),incr2_Nitrate_con(1:999), NP_BOD(1:999),NP_ORG(1:999),
     & HDWT1_Flow(1:999),incr_flow(1:999)
       INTEGER HDWT1_elem(1:999)
       REAL WSTLD_Flow(1:999),Elem_end(1:999),Elem_begin(1:999)
       character NPS_wstld_name(1:999)*25,PS_Wstld_name(1:999)*20
       REAL WSTLD2_BOD(1:999),WSTLD2_ORG(1:999),WSTLD2
     &_NH3(1:999), WSTLD2_NO3(1:999)
       REAL nps_WSTLD_Flow(1:999),nps_elem_wstld(1:999)
       REAL NPS_WSTLD2_BOD(1:999),NPS_WSTLD2_ORG(1:999),NPS_WSTLD2
     &_NH3(1:999),NPS_WSTLD2_NO3(1:999)
       REAL PS_WSTLD_Flow(1:999),ps_elem_wstld(1:999)
       REAL ps_WSTLD2_BOD(1:999),ps_WSTLD2_ORG(1:999),ps_WSTLD2
     &_NH3(1:999),ps_WSTLD2_NO3(1:999)
       Integer NP_reach(1:999),elem_wstld(1:999),num,num_pt_sour
       real ps_mos,ps_mos_per,nps_mos,nps_mos_per
       real ps_FG,ps_FG_per,nps_FG,nps_FG_per
       Real Temp(1:999),S_area_int(1:1000)
       integer elem_col_int
       character source_type(1:999)*3,reach_name(1:999)*15,wstld_name(1:
     &100)*20, hdwt1_name(1:999)*25,reach_subseg_num(1:999)*20,
     &permit_number(1:999)*20,outfall_num(1:999)*20,comment(1:999)*40,
     &comment_con(1:999)*40,nut_tmdl_need*4
       Real perm_flow(1:999),CBOD5_Perm(1:999), cod_perm(1:999),ammon_pe
     &rm(1:999),nat_rat,ammoxy_rat
       real HDWT2_BOD_con(1:999),HDWT2_ORG_con(1:999), HDWT2_NH3_con(1:1
     &00), HDWT2_NO3_con(1:999)
       real incr_outflow(1:999),incr_inflow(1:999)

C****************Character Search Strings
      target = 'CNTROL04'
      target2= 'THETA        BENTHAL'
      target3= '$$$ DATA TYPE 8'  ! Reach ID data
      target3b='$$$ DATA TYPE 11' ! Reach Initial conditions (need temps)
      target4= 'BIOLOGICAL AND PHYSICAL COEFFICIENTS' ! SOD and NH3Sr rates (Final Report)
      target5b= '$$$ DATA TYPE 16'  ! Incrmental flows
      target5c= '$$$ DATA TYPE 17'  ! Incrmental WQ
      target6= '$$$ DATA TYPE 19'   ! Mass laods
      target7= '$$$ DATA TYPE 20'   ! Headwater flows
      Target8= '$$$ DATA TYPE 21'   ! Headwater WQ
      Target9= '$$$ DATA TYPE 24'   ! Wasteload flows
```

```
      target10= '$$$ DATA TYPE 25'  ! Wastelaod WQ

C***************Array counterrs
      num=0
      num_incr=0
      num_hdwt=0
      num_wstld=0
      nps_num_wstld=0
      ps_num_wstld=0
      a=0
      cir=0
      c=0
      d=0
      e=0
      f=0
      g=0
      h=0
      j=0
      k=0
      k1=0
      l=0
      m=0
      nps=1
      ps=1
      n=0
      o=0
      q=0


      Character*70 userFilename,Laqualfilename,subsegname,subsegnumber,
     &pertime,LAQUAL_version,laqualfileoutput

      print*,'Enter user input filename: ' ! this is the TMDL program input file
      read*,userfilename                   ! it is NOT hte LA-QUAL file!!!!

      imp=1000000


C*Read input file
      OPEN(UNIT=12, FILE=userfilename, STATUS='OLD') ! input file
      Open (unit=11, FILE='tmdl-res.txt', Status='UNKNOWN')  ! output file
c      OPEN (UNIT=13, FILE='inter-res.txt', Status='UNKNOWN') ! debugging file
      REad(12,*)subsegnumber  ! subsegment number
      REad(12,*)subsegname    ! subsegment name
      read(12,*)laqualfileoutput ! LA-QUAL output file
      read(12,*)usernum          ! number of reaches in output file
      do 10 I=1,usernum          ! read subsegment number for each reach loop
10       read(12,*)reach_subseg_num(I)
      read(12,*)ps_mos_per  ! point source MOS in percent
      read(12,*)ps_FG_per   ! point source FG in percent
      read(12,*)nps_mos_per  ! nonpoint source MOS in percent
      read(12,*)nps_FG_per   ! nonpoint source FG in percent
      READ(12,*)ammoxy_rat   ! ammonia oxidation rate
      read(12,*)num_pt_sour  ! number of point sources in input file
      do 20 I=1,num_pt_sour  ! read point source data loop
         read(12,*)
         read(12,*)permit_number(I) ! permit number
         read(12,*)outfall_num(I)   ! outfall number
         read(12,*)perm_flow(I)     ! permit flow (MGD)
         read(12,*)comment(I)       ! comment (usually facility name)
         read(12,*)cbod5_perm(I)    ! CBOD5 or BOD5 permit conc in mg/L
         read(12,*)COD_perm(I)      ! COD permit conc in mg/L
         read(12,*)ammon_perm(I)    ! ammonia permit conc in mg/L
         read(12,*)comment_con(I)   ! comment for concentration
20    continue
      read(12,*)nut_tmdl_need       ! is a nutrietn TMDL needed?
      read(12,*) nat_rat            ! ratio of natural nitrogen to phosphorus

      ps_mos=ps_mos_per/100.000
      ps_FG=ps_FG_per/100.000
      nps_mos=nps_mos_per/100.000
      nps_FG=nps_FG_per/100.000

      laqualfilename=laqualfileoutput
```

```
      OPEN(UNIT=10, FILE=Laqualfilename, STATUS='OLD') ! this is teh LA-QUAL output file

1030  FORMAT(A35,3X,A25)
      DO 100 i=1,imp
      READ(10,'(A132)') line

C**********Are we at the end of the file?
      if(line(11:29).EQ.'EXECUTION COMPLETED')GO TO 900


C************ read LA-QUAL version
      if (i .EQ. 1) then
          read (line(1:32),'(A32)') LAQUAL_version
      end if

C**********when was the LA-QUAL file made and metric units
      if (line (1:6) .EQ. 'Output') then
         read(line(1:38),'(A38)') pertime
      else IF (line(1:8).EQ. target) then
1020     FORMAT (A35,3X,A10,3X,A10)

C**********Look for theta Benthal
         else IF (line(1:21).EQ. target2) then
1040        Format (A36,5X,A40)

C**********Data T8,Count number of reaches
         else IF (line (1:15) .EQ. target3) then
            Read (10,*)
            Read (10,*)
            Read (10,*)
            Read (10,*)
105         Read (10, '(A132)') stream_id
            if (stream_id(1:8).EQ. 'REACH ID')then
              num=num+1
              read(stream_ID(23:48),'(A15)')reach_name(num)
              read(stream_ID(109:111),)elem_begin(num)
              read(stream_ID(116:118),)elem_end(num)
              total_elem=elem_end(num)
              go to 105
            end if

C**********Data T11, read temp
      else IF (line (1:16).EQ. target3b) then
            READ (10,*)
            READ (10,*)
            READ (10,*)
107         READ (10,'(A132)') stream_id
            if (stream_id(1:7) .EQ. 'INITIAL') then
               q=q+1
               READ(stream_id(32:36),'(F5.0)') temp(q)
               go to 107
               end if

C**********FINAL REPORT,(read COEF-1 Bckgrd SOD and NH3SR)
      else IF (line (49:84) .EQ. target4) then
            Read (10,*)
            Read (10,*)
            Read (10,*)
            Read (10,*)
            Read (10,*)
110         Read (10, '(A132)') stream_id
            if (stream_id(1:7).NE. ' ') then
               a=a+1
               READ(Stream_id(1:4),'(I4)')elem
               READ(stream_id(68:73),'(F7.0)') SOD_temp_cor(elem)
               READ(Stream_id(106:111),'(F6.0)') C2_NH3SR(elem)
c               elem is used to put them in numerical order, NOT
c               in the order they are read from the LA_QUAL file!
c               (this only comes into play for branched models)
1060        FORMAT (A35,5X,A10,5X,A10)
            GO TO 110
            end if

C***********Data Type (incremenatal flow data part1)
```

```
       else if (line(1:16) .EQ. target5b) then
            read(10,*)
            read(10,*)
            read(10,*)
117         read(10,'(A132)')stream_id
            if (stream_id(1:6) .EQ. 'INCR-1') then
                num_incr=num_incr+1
                read(stream_id(17:19),'(I3)') incr_reach(num_incr)
                read(stream_id(32:38),'(F7.0)') incr_outflow(num_incr)
                read(stream_id(44:50),'(F7.0)') incr_inflow(num_incr)
                incr_flow(num_incr) = abs(incr_inflow(num_incr))-abs(inc
     &r_outflow(num_incr))
            go to 117
            end if

C**********Data Tyoe (incremental flow part 2)
       else if (line(1:16) .EQ. target5c) then
            num_incr=0
            read(10,*)
            read(10,*)
            read(10,*)
118          read(10,'(A132)')stream_id
            if (stream_id(1:6) .EQ. 'INCR-2') then
            num_incr=num_incr+1
            read(stream_id(37:46),'(F10.0)') incr2_CBODu_con(num_incr)
            read(stream_id(47:56),'(F10.0)') incr2_Org_N_con(num_incr)
            read(stream_id(57:66),'(F10.0)') incr2_Amm_N_con(num_incr)
            read(stream_id(67:76),'(F10.0)') incr2_Nitrate_con(num_incr)
            go to 118
            end if

C***********Data T19(reads BOD and ORG-N)
       else IF (line (1:16) .EQ. target6) then
            Read (10,*)
            Read (10,*)
            READ (10,*)
120         Read (10, '(A132)') stream_id
            if (stream_id(1:8).EQ. 'NONPOINT') then
               c=c+1
               d=d+1
               read(stream_ID(17:19),'(I3)')NP_reach(c)
               READ(stream_id(28:36),'(F9.0)')NP_BOD(c)
               READ(stream_id(38:46),'(F9.0)')NP_ORG(d)
1080        Format (A35,5X,A10,2X,A10,2X,A10)
            GO TO 120
            end if

C**********DATA T20(reads flow for HDWTR-1)
         else IF (line (1:16) .EQ. target7) then
            Read (10,*)
            READ (10,*)
            Read (10,*)
            REad (10,*)
125         Read (10, '(A132)') stream_id
            if (stream_id(1:7).EQ. 'HDWTR-1') then
               num_hdwt=num_HDwt+1
               e=e+1
               Read(stream_id(17:19),'(I3)')HDWT1_elem(e)
               read(stream_id(25:44),'(A20)')hdwt1_name(e)
               READ(stream_id(53:59),'(F7.0)') HDWT1_Flow(e)
               GO TO 125
            end if

C**********DATA T21(read BOD,ORG-N,NH3,NO3+2 for HDWTR-2)
         else IF (line (1:16) .EQ. target8) then
            Read (10,*)
            Read (10,*)
            READ (10,*)
            Read (10,*)
130         Read (10, '(A132)') stream_id
            if (stream_id(1:7).EQ. 'HDWTR-2') then
            f=f+1
            g=g+1
            h=h+1
```

```
            j=j+1
            READ(stream_id(58:66),'(F9.0)') HDWT2_BOD_con(f)
            READ(stream_id(68:76),'(F9.0)') HDWT2_ORG_con(g)
            READ(stream_id(78:86),'(F9.0)') HDWT2_NH3_con(h)
            READ(stream_id(88:96),'(F9.0)') HDWT2_NO3_con(j)
1090        Format (A35,5X,A5,5X,A5,5X,A5,5X,A5)
            GO TO 130
            end if

C**********DATA T24(flow for WSTLD-1)
          ps=1
          nps=1
          else IF (line (1:16) .EQ. target9) then
            Read (10,*)
            Read (10,*)
            Read (10,*)
            READ (10,*)
135         Read (10, '(A132)') stream_id
            if (stream_id(1:7).EQ. 'WSTLD-1') then
               num_wstld=num_wstld+1
               k=k+1
               READ(stream_id(52:59),'(F8.0)')WSTLD_Flow(k)
               read(stream_id(13:16),'(I4)')elem_wstld(k)
               read(stream_id(30:47),'(A18)')wstld_name(k)
               if (stream_id(30:32).EQ.'NPS') then !
                  nps_num_wstld=nps_num_wstld+1
                  NPS_wstld_name(nps) = wstld_name(K)
                  NPS_elem_wstld(nps) = elem_wstld(K)
                  NPS_wstld_flow(nps) = wstld_flow(K)
                  nps=nps+1
               else
                    ps_num_wstld=ps_num_wstld+1
                    PS_wstld_name(ps) = wstld_name(K)
                    PS_elem_wstld(ps) = elem_wstld(K)
                    PS_wstld_flow(ps) = wstld_flow(K)
                    ps=ps+1
c                   this loop and if statement is used to separate
c                   point and nonpoint wastelaods
               end if
            GO TO 135
            end if

C**********DATA T25(BOD,ORG-N,NH3,NO3+2) for WSTLD-2
      ps=1
      nps=1
         else IF (line (1:16) .EQ. target10) then
            Read (10,*)
            Read (10,*)
            READ (10,*)
            READ (10,*)
140         Read (10, '(A132)') stream_id
            if (stream_id(1:7).EQ. 'WSTLD-2') then
            l=l+1
            m=m+1
            n=n+1
            o=o+1
            k1=k1+1
            READ(stream_id(25:27),'(A3)')source_type(k1)
            READ(stream_id(57:66),'(F10.0)')WSTLD2_BOD(l)
            READ(stream_id(77:86),'(F10.0)')WSTLD2_ORG(m)
            READ(stream_id(87:96),'(F10.0)')WSTLD2_NH3(n)
            READ(stream_id(107:116),'(F10.0)')WSTLD2_NO3(o)
            if (source_type(K1).EQ.'NPS') then
                  nps_wstld2_bod(nps) = wstld2_bod(l)
                  nps_wstld2_org(nps) = wstld2_org(m)
                  nps_wstld2_nh3(nps) = WSTLD2_NH3(N)
                  nps_wstld2_no3(nps) = wstld2_no3(o)
                  nps=nps+1
               else
                  ps_wstld2_bod(ps) = wstld2_bod(l)
                  ps_wstld2_org(ps) = wstld2_org(m)
                  ps_wstld2_nh3(ps) = WSTLD2_NH3(N)
                  ps_wstld2_no3(ps) = wstld2_no3(o)
                  ps=ps+1
```

```
                end if
c must have blank space after else or the else will only apply to the first statement and NOT
c to all of them

1095        Format (A35,6X,A5,2X,A5,2X,A5,2X,A5,2X,A5)
            GO TO 140
            end if

C*************FINAL REPORT, hydrualic parameter
        else IF (line (1:62) .EQ. ' ***********************************
     &*************** HYDRAULIC') then
             Read (10,*)
             READ (10,*)
             READ (10,*)
             READ (10,*)
             READ (10,*)
145          Read (10, '(A132)') stream_id
             if (stream_id(3:5).NE. '   ') then
c               p=p+1
C* these numbers are NOT in numerical order, they are in Branch (ie model layout) order
               read(stream_id(3:5),'(I3)')elem_col_int
               READ(stream_id(84:94),'(F11.0)')S_Area_int(elem_col_int)
               GO TO 145
            end if
1200  FORMAT (A35,5X,I4)
      END IF
100   Continue
900   CONTINUE
      Print*,'Program has finished reading the inputs!!!'


C***************************PART 2***********************************
C***********************Calculations

C*variables mostly in order of use
      real con3,con4,nps_FG_summary_org
      real mldt19_tot_cbodu, mldt19_tot_org
      real incr_CBODu(1:999), incr_Org_N(1:999), incr_Amm_N(1:999),
     &incr_NItrate(1:999)
      real incr_CBODu_tot, incr_Org_N_tot, incr_Amm_N_tot,incr_NItrate_t
     &ot
      real WSTLD2_BOD_con(1:999),WSTLD2_ORG_con(1:999),WSTLD2_NH3_con
     &(1:999),WSTLD2_NO3_con(1:999)
      real WSTLD2_BOD_cal(1:999),WSTLD2_Org_cal(1:999),WSTLD2_NH3_cal
     &(1:999),WSTLD2_NO3_cal(1:999)
      real WSTLD2_BOD_cal_tot,WSTLD2_Org_cal_tot,WSTLD2_NH3_cal_tot,
     &WSTLD2_NO3_cal_tot
      real ps_WSTLD2_BOD_con(1:999),ps_WSTLD2_ORG_con(1:999),ps_WSTLD2_N
     &H3_con(1:999),ps_WSTLD2_NO3_con(1:999)
      real ps_WSTLD2_BOD_cal(1:999),ps_WSTLD2_Org_cal(1:999),ps_WSTLD2_N
     &H3_cal(1:999),ps_WSTLD2_NO3_cal(1:999)
      real ps_WSTLD2_BOD_cal_tot, ps_WSTLD2_Org_cal_tot, ps_WSTLD2_NH3_c
     &al_tot,ps_WSTLD2_NO3_cal_tot
      real nps_WSTLD2_BOD_con(1:999),nps_WSTLD2_ORG_con(1:999),nps_WSTLD
     &2_NH3_con(1:999),nps_WSTLD2_NO3_con(1:999)
      real nps_WSTLD2_BOD_cal(1:999),nps_WSTLD2_Org_cal(1:999),nps_WSTLD
     &2_NH3_cal(1:999),nps_WSTLD2_NO3_cal(1:999)
      real nps_WSTLD2_BOD_cal_tot,nps_WSTLD2_Org_cal_tot, nps_WSTLD2_NH3
     &_cal_tot,nps_WSTLD2_NO3_cal_tot
      real nps_BOD_tot,nps_Org_N_tot,nps_NH3_N_tot,nps_NO3_tot
      real HDWT_BOD_cal(1:999), HDWT_Org_cal(1:999), HDWT_NH3_cal(1:999)
     &, HDWT_NO3_cal(1:999)
      real HDWT_BOD_cal_tot, HDWT_Org_cal_tot, HDWT_NH3_cal_tot,
     &HDWT_NO3_cal_tot
      real elem_benthis(1:1000), elem_sod(1:1000), elem_temp(1:1000)
     &,sod_load(1:1000), benthic(1:1000)
      real nps_sod_load_tot, nps_benthic_tot,fac_mos_FG
      reaL tmdl_cal_flow(1:999)
      real cbodu_tmdl_val(1:999), org_N_tmdl_val(1:999),ammon_tmdl_val(1
     &:100),no3_tmdl_val(1:999)
      real  cbodu_tmdl_cal(1:999),org_N_tmdl_cal(1:999), ammon_tmdl_cal(
     &1:100), no3_tmdl_cal(1:999)
      real  cbodu_tmdl_tot,org_N_tmdl_tot,ammon_tmdl_tot,no3_tmdl_tot
      real nps_summary_cbodu,nps_summary_org,nps_summary_ammon
```

```
 real oxy_dem_nps_org_N_tot, oxy_dem_nps_nh3_tot
 real nps_mos_sod_load_tot,nps_mos_summary_cbodu,nps_mos_summary_or
&g,nps_mos_summary_ammon,nps_mos_nps_NO3_tot
 real nps_FG_sod_load_tot,nps_FG_summary_cbodu
&,nps_FG_summary_ammon,nps_FG_nps_NO3_tot
 real nps_LA_sod_load_tot,nps_LA_summary_cbodu,nps_LA_summary_org,n
&ps_LA_summary_ammon,nps_LA_nps_NO3_tot
 real ps_summary_cbodu,ps_summary_org,ps_summary_nh3_n
 real mos_ps_summary_cbodu,mos_ps_summary_org,mos_ps_summary_nh3_n
 real FG_ps_summary_cbodu,FG_ps_summary_org,FG_ps_summary_nh3_n
 real wla_ps_cbodu_tmdl_tot,wla_ps_org_N_tmdl_tot, wla_ps_ammon_tmd
&l_tot
 real wla_ps_WSTLD2_BOD_cal(1:999),wla_ps_WSTLD2_ORG_cal(1:999),wla
&_ps_WSTLD2_NH3_cal(1:999)
 real oxy_dem_mldt19_tot_org,nps_inflows_tot_oxy_demand,
&mldt19_tot_oxy_dem,tot_oxy_dem_sod_ben
 real oxy_dem_ps_WSTLD2_Bod_cal(1:999),oxy_dem_ps_WSTLD2_ORG_cal(1:
&100),oxy_dem_ps_WSTLD2_Nh3_cal(1:999),tot_oxy_dem_nps,
&wla_min_ps_summary_tot
 real oxy_dem_ps_WSTLD2_Org_cal_tot,oxy_dem_ps_WSTLD2_NH3_cal_tot
 real nps_mos_tot_oxy_dem,nps_FG_tot_oxy_dem,nps_LA_tot_oxy_dem
 real oxy_dem_org_N_tmdl,oxy_dem_ammon_tmdl,min_ps_summary_tot,
&mod_tot_oxy_dem_ps(1:999),mos_tot_oxy_dem_summary,wla_mod_tot_oxy_
&dem_ps(1:999)
 real nut_tmdl_nps_org_N_tot,nps_tot_nitrogen_load,nps_total_P
 real ps_nut_tmdl_summary_org_N_tot,ps_nut_tmdl_summary_nh3_N_tot,
&ps_nut_tmdl_summary_no3_N_tot,ps_tot_nitrogen_final_load,ps_tot_P_
&final,ps_tot_sum_total_nitrogen_load,ps_tot_sum_total_P
 real mos_ps_nut_tmdl_sum_org_N_tot,
&mos_ps_nut_tmdl_sum_nh3_N_tot,
&mos_ps_nut_tmdl_sum_no3_N_tot,
&mos_ps_tot_nitrogen_final_load,
&mos_ps_tot_P_final
 real FG_ps_nut_tmdl_sum_org_N_tot,
&FG_ps_nut_tmdl_sum_nh3_N_tot,
&FG_ps_nut_tmdl_sum_no3_N_tot,
&FG_ps_tot_nitrogen_final_load,
&FG_ps_tot_P_final
 real wla_min_ps_nut_tmdl_sum_org,
&wla_min_ps_nut_tmdl_sum_nh3,
&wla_min_ps_nut_tmdl_sum_no3,
&wla_min_ps_nitrogen_final_load,
&wla_min_ps_P_final
 real wla_ps_WSTLD2_org_cal_sum(1:999),wla_ps_WSTLD2_NH3_cal_sum(1:
&100),wla_ps_WSTLD2_NO3_cal_sum(1:999)
 real wla_ps_total_nitrogen_load(1:999), wla_ps_total_P(1:999)
 real nps_mos_nut_tmdl_nps_Org_N_tot,nps_mos_nps_nh3_n_tot,
&nps_mos_tot_nitrogen_load,nps_mos_total_p
 real nps_FG_nut_tmdl_nps_Org_N_tot,nps_FG_nps_nh3_n_tot,
&nps_FG_tot_nitrogen_load,nps_FG_total_p
 real nps_la_nut_tmdl_nps_Org_N_tot,nps_la_nps_nh3_n_tot,
&nps_la_tot_nitrogen_load,nps_la_total_p
 real min_ps_total_nitrogen_load,min_ps_total_P
 real ps_total_nitrogen_load(1:999),ps_total_P(1:999)

 if (usernum.NE.num) then
   print*,'Usernum does not equal num, there has been a read failur
&e!',num,usernum
   Write(11,*)'This output is NOT correct!'
   end if

 mldt19_tot_cbodu=0
 mldt19_tot_org=0

 incr_CBODu_tot=0
 incr_Org_N_tot=0
 incr_Amm_N_tot=0
 incr_Nitrate_tot=0

 ps_WSTLD2_BOD_cal_tot=0
 ps_WSTLD2_Org_cal_tot=0
 ps_WSTLD2_NH3_cal_tot=0

 nps_WSTLD2_BOD_cal_tot=0
```

```
      nps_WSTLD2_Org_cal_tot=0
      nps_WSTLD2_NH3_cal_tot=0

      WSTLD2_BOD_cal_tot=0
      WSTLD2_Org_cal_tot=0
      WSTLD2_NH3_cal_tot=0

      HDWT_BOD_cal_tot=0
      HDWT_Org_cal_tot=0
      HDWT_NH3_cal_tot=0
      HDWT_NO3_cal_tot=0

      nps_sod_load_tot=0
      nps_benthic_tot=0

      cbodu_tmdl_tot=0
      org_N_tmdl_tot=0
      ammon_tmdl_tot=0
      no3_tmdl_tot=0

      fac_mos_FG=1/(1-(ps_mos+ps_FG))
      con3 = 1.00/1000000.00*1000.00*86400.00
      con4 = 3.7850000000 ! MGD * mg/L * con4,
c     con4 = 3.785 L/gal * 1.0E6 gal/MG * 1.0E-6 kg/mg

      do 180 I=1,num
      mldt19_tot_cbodu=mldt19_tot_cbodu+NP_bod(I)
      mldt19_tot_org= mldt19_tot_org+NP_org(I)
180   continue

C* Here I will arrange the elemntal surface areas into the numerical order to match the order the SOD
C* and NH3 data are in.
c          elem_col(1) = elem_col_int(1)
c          S_Area(1) = S_Area_int(1)
c      DO 185 I=2,total_elem   !need to start at 2 for comaprisons
c          elem_col(I)=I
c          if (elem_col_int(I).EQ.I) then
c             S_Area(I) = S_Area_int(I)
c          else
c
c             DO 184 R=1,total_elem  !go through the list until we get a match
c             if (Elem_col_int(R).EQ.Elem_col(I)) then
c                S_Area(I) = S_Area_int(I)
c             end if
c184          continue
c          end if

c185   continue

      cir=num_incr
      DO 190 cirr=1,cir

      incr_CBODu(cirr)=incr_flow(cirr)*incr2_CBODu_con(cirr)*con3
      incr_Org_N(cirr)=incr_flow(cirr)*incr2_Org_N_con(cirr)*con3
      incr_Amm_N(cirr)=incr_flow(cirr)*incr2_Amm_N_con(cirr)*con3
      incr_NItrate(cirr)=incr_flow(cirr)*incr2_Nitrate_con(cirr)*con3

      incr_CBODu_tot=incr_CBODu_tot+incr_CBODu(cirr)
      incr_Org_N_tot=incr_Org_N_tot+incr_Org_N(cirr)
      incr_Amm_N_tot=incr_Amm_N_tot+incr_Amm_N(cirr)
      incr_Nitrate_tot=incr_Nitrate_tot+incr_Nitrate(cirr)
190   continue

C*********** calcualtions for point soucers EXPLICITLY modeled
      cir=ps_num_wstld
      DO 194 cirr=1,cir
      ps_WSTLD2_BOD_con(cirr)=ps_wstld2_bod(cirr)
      ps_WSTLD2_ORG_con(cirr)=ps_wstld2_org(cirr)
      ps_WSTLD2_NH3_con(cirr)=ps_wstld2_nh3(cirr)
      ps_WSTLD2_NO3_con(cirr)=ps_wstld2_no3(cirr)

      ps_WSTLD2_BOD_cal(cirr)=ps_WSTLD_Flow(cirr)*ps_WSTLD2_BOD_con(cirr
     &)*con3
      ps_WSTLD2_Org_cal(cirr)=ps_WSTLD_FLow(cirr)*ps_WSTLD2_Org_con(cirr
```

```
     &)*con3
      ps_WSTLD2_NH3_cal(cirr)=ps_WSTLD_FLow(cirr)*ps_WSTLD2_NH3_con(cirr
     &)*con3
      ps_WSTLD2_NO3_cal(cirr)=ps_WSTLD_Flow(cirr)*ps_WSTLD2_NO3_con(cirr
     &)*con3

      wla_ps_WSTLD2_org_cal_sum(cirr)=ps_WSTLD2_org_cal(cirr)*(1-ps_mos-
     &ps_FG)
      wla_ps_WSTLD2_NH3_cal_sum(cirr)=ps_WSTLD2_NH3_cal(cirr)*(1-ps_mos-
     &ps_FG)
      wla_ps_WSTLD2_NO3_cal_sum(cirr)=ps_WSTLD2_NO3_cal(cirr)*(1-ps_mos-
     &ps_FG)

      ps_WSTLD2_BOD_cal_tot=ps_WSTLD2_BOD_cal_tot+ps_WSTLD2_BOD_cal(cirr
     &)
      ps_WSTLD2_Org_cal_tot=ps_WSTLD2_Org_cal_tot+ps_WSTLD2_Org_cal(cirr
     &)
      ps_WSTLD2_NH3_cal_tot=ps_WSTLD2_NH3_cal_tot+ps_WSTLD2_NH3_cal(cirr
     &)
      ps_WSTLD2_NO3_cal_tot=ps_WSTLD2_NO3_cal_tot+ps_WSTLD2_NO3_cal(cirr
     &)

       oxy_dem_ps_wstld2_bod_cal(cirr)=1*ps_WSTLD2_BOD_cal(cirr
     &)
       oxy_dem_ps_wstld2_org_cal(cirr)=ammoxy_rat*ps_wstld2_org_cal(cirr
     &)
       oxy_dem_ps_wstld2_nh3_cal(cirr)=ammoxy_rat*ps_wstld2_nh3_cal(cirr
     &)
       mod_tot_oxy_dem_ps(cirr)=oxy_dem_ps_wstld2_bod_cal(cirr)+oxy_dem_
     &ps_wstld2_org_cal(cirr)+ oxy_dem_ps_wstld2_nh3_cal(cirr)

       wla_ps_wstld2_bod_cal(cirr)=ps_wstld2_bod_cal(cirr)*(1-ps_mos-ps_
     &FG)
       wla_ps_WSTLD2_ORG_cal(cirr)=oxy_dem_ps_WSTLD2_Org_cal(cirr)*(1-ps
     &_mos-ps_FG)
       wla_ps_wstld2_nh3_cal(cirr)=oxy_dem_ps_WSTLD2_NH3_cal(cirr)*(1-ps
     &_mos-ps_FG)
       wla_mod_tot_oxy_dem_ps(cirr)=mod_tot_oxy_dem_ps(cirr)*(1-ps_mos-p
     &s_FG)

C     rounding functions (uisng the anint function)

       wla_ps_wstld2_bod_cal(cirr)=wla_ps_wstld2_bod_cal(cirr)*100
       wla_ps_wstld2_bod_cal(cirr)=anint(wla_ps_wstld2_bod_cal(cirr))
       wla_ps_wstld2_bod_cal(cirr)=wla_ps_wstld2_bod_cal(cirr)/100

       wla_ps_wstld2_org_cal(cirr)=wla_ps_wstld2_org_cal(cirr)*100
       wla_ps_wstld2_org_cal(cirr)=anint(wla_ps_wstld2_org_cal(cirr))
       wla_ps_wstld2_org_cal(cirr)=wla_ps_wstld2_org_cal(cirr)/100

       wla_ps_wstld2_nh3_cal(cirr)=wla_ps_wstld2_nh3_cal(cirr)*100
       wla_ps_wstld2_nh3_cal(cirr)=anint(wla_ps_wstld2_nh3_cal(cirr))
       wla_ps_wstld2_nh3_cal(cirr)=wla_ps_wstld2_nh3_cal(cirr)/100

       wla_mod_tot_oxy_dem_ps(cirr)=wla_mod_tot_oxy_dem_ps(cirr)*100
       wla_mod_tot_oxy_dem_ps(cirr)=anint(wla_mod_tot_oxy_dem_ps(cirr))
       wla_mod_tot_oxy_dem_ps(cirr)=wla_mod_tot_oxy_dem_ps(cirr)/100

C*************** nps wasteload calculations
194   continue
      do 196 cirr=1,nps_num_wstld
      nps_WSTLD2_BOD_con(cirr)=nps_wstld2_bod(cirr)
      nps_WSTLD2_ORG_con(cirr)=nps_wstld2_org(cirr)
      nps_WSTLD2_NH3_con(cirr)=nps_wstld2_nh3(cirr)
      nps_WSTLD2_NO3_con(cirr)=nps_wstld2_no3(cirr)

      nps_WSTLD2_BOD_cal(cirr)=nps_WSTLD_Flow(cirr)*nps_WSTLD2_BOD_con(c
     &irr)*con3
      nps_WSTLD2_Org_cal(cirr)=nps_WSTLD_FLow(cirr)*nps_WSTLD2_Org_con(c
     &irr)*con3
      nps_WSTLD2_NH3_cal(cirr)=nps_WSTLD_FLow(cirr)*nps_WSTLD2_NH3_con(c
     &irr)*con3
      nps_WSTLD2_NO3_cal(cirr)=nps_WSTLD_Flow(cirr)*nps_WSTLD2_NO3_con(c
     &irr)*con3
```

```
       nps_WSTLD2_BOD_cal_tot=nps_WSTLD2_BOD_cal_tot+nps_WSTLD2_BOD_cal(c
      &irr)
       nps_WSTLD2_Org_cal_tot=nps_WSTLD2_Org_cal_tot+nps_WSTLD2_Org_cal(c
      &irr)
       nps_WSTLD2_NH3_cal_tot=nps_WSTLD2_NH3_cal_tot+nps_WSTLD2_NH3_cal(c
      &irr)
       nps_WSTLD2_NO3_cal_tot=nps_WSTLD2_NO3_cal_tot+nps_WSTLD2_NO3_cal(c
      &irr)

       nps_WSTLD2_BOD_cal_tot=nps_WSTLD2_BOD_cal_tot*100
       nps_WSTLD2_BOD_cal_tot=anint(nps_WSTLD2_BOD_cal_tot)
       nps_WSTLD2_BOD_cal_tot=nps_WSTLD2_BOD_cal_tot/100

       nps_WSTLD2_Org_cal_tot=nps_WSTLD2_Org_cal_tot*100
       nps_WSTLD2_Org_cal_tot=anint(nps_WSTLD2_Org_cal_tot)
       nps_WSTLD2_Org_cal_tot=nps_WSTLD2_Org_cal_tot/100

       nps_WSTLD2_NH3_cal_tot=nps_WSTLD2_NH3_cal_tot*100
       nps_WSTLD2_NH3_cal_tot=anint(nps_WSTLD2_NH3_cal_tot)
       nps_WSTLD2_NH3_cal_tot=nps_WSTLD2_NH3_cal_tot/100

       nps_WSTLD2_NO3_cal_tot=nps_WSTLD2_NO3_cal_tot*100
       nps_WSTLD2_NO3_cal_tot=anint(nps_WSTLD2_NO3_cal_tot)
       nps_WSTLD2_NO3_cal_tot=nps_WSTLD2_NO3_cal_tot/100


c**********only wasteloads can be divided into point source and non point sources
196    continue

       do 198 cirr= 1, num_wstld
       WSTLD2_BOD_con(cirr)=WSTLD2_BOD(cirr)
       WSTLD2_ORG_con(cirr)=WSTLD2_Org(cirr)
       WSTLD2_NH3_con(cirr)=WSTLD2_NH3(cirr)
       WSTLD2_NO3_con(cirr)=WSTLD2_NO3(cirr)

       WSTLD2_BOD_cal(cirr)=WSTLD_Flow(cirr)*WSTLD2_BOD_con(cirr)*con3
       WSTLD2_Org_cal(cirr)=WSTLD_FLow(cirr)*WSTLD2_Org_con(cirr)*con3
       WSTLD2_NH3_cal(cirr)=WSTLD_FLow(cirr)*WSTLD2_NH3_con(cirr)*con3
       WSTLD2_NO3_cal(cirr)=WSTLD_Flow(cirr)*WSTLD2_NO3_con(cirr)*con3

       WSTLD2_BOD_cal_tot=WSTLD2_BOD_cal_tot+WSTLD2_BOD_cal(cirr)
       WSTLD2_Org_cal_tot=WSTLD2_Org_cal_tot+WSTLD2_Org_cal(cirr)
       WSTLD2_NH3_cal_tot=WSTLD2_NH3_cal_tot+WSTLD2_NH3_cal(cirr)
       WSTLD2_NO3_cal_tot=WSTLD2_NO3_cal_tot+WSTLD2_NO3_cal(cirr)

       wstld2_bod_cal_tot=wstld2_bod_cal_tot*100
       wstld2_bod_cal_tot=anint(wstld2_bod_cal_tot)
       wstld2_bod_cal_tot=wstld2_bod_cal_tot/100

       wstld2_org_cal_tot=wstld2_org_cal_tot*100
       wstld2_org_cal_tot=anint(wstld2_org_cal_tot)
       wstld2_org_cal_tot=wstld2_org_cal_tot/100

       wstld2_NH3_cal_tot=wstld2_NH3_cal_tot*100
       wstld2_NH3_cal_tot=anint(wstld2_NH3_cal_tot)
       wstld2_NH3_cal_tot=wstld2_NH3_cal_tot/100

       wstld2_NO3_cal_tot=wstld2_NO3_cal_tot*100
       wstld2_NO3_cal_tot=anint(wstld2_NO3_cal_tot)
       wstld2_NO3_cal_tot=wstld2_NO3_cal_tot/100
198    continue

       cir=num_hdwt

       DO 199 cirr=1,cir

       HDWT_BOD_cal(cirr)=HDWT1_Flow(cirr)*HDWT2_BOD_con(cirr)*con3
       HDWT_Org_cal(cirr)=HDWT1_FLow(cirr)*HDWT2_Org_con(cirr)*con3
       HDWT_NH3_cal(cirr)=HDWT1_FLow(cirr)*HDWT2_NH3_con(cirr)*con3
       HDWT_NO3_cal(cirr)=HDWT1_Flow(cirr)*HDWT2_NO3_con(cirr)*con3

       HDWT_BOD_cal_tot=HDWT_BOD_cal_tot+HDWT_BOD_cal(cirr)
```

```
      HDWT_Org_cal_tot=HDWT_Org_cal_tot+HDWT_Org_cal(cirr)
      HDWT_NH3_cal_tot=HDWT_NH3_cal_tot+HDWT_NH3_cal(cirr)
      HDWT_NO3_cal_tot=HDWT_NO3_cal_tot+HDWT_NO3_cal(cirr)

      HDWT_bod_cal_tot=HDWT_bod_cal_tot*100
      HDWT_bod_cal_tot=anint(HDWT_bod_cal_tot)
      HDWT_bod_cal_tot=wstld2_bod_cal_tot/100

      HDWT_org_cal_tot=HDWT_org_cal_tot*100
      HDWT_org_cal_tot=anint(HDWT_org_cal_tot)
      HDWT_org_cal_tot=HDWT_org_cal_tot/100

      HDWT_NH3_cal_tot=HDWT_NH3_cal_tot*100
      HDWT_NH3_cal_tot=anint(HDWT_NH3_cal_tot)
      HDWT_NH3_cal_tot=HDWT_NH3_cal_tot/100

      HDWT_NO3_cal_tot=HDWT_NO3_cal_tot*100
      HDWT_NO3_cal_tot=anint(HDWT_NO3_cal_tot)
      HDWT_NO3_cal_tot=HDWT_NO3_cal_tot/100



199   Continue


C*************** total up NPS values from incremetnal flow, tribs and headwaters
      nps_BOD_tot=incr_CBODu_tot+nps_WSTLD2_BOD_cal_tot+
     &HDWT_BOD_cal_tot
      nps_Org_N_tot=incr_Org_N_tot+nps_WSTLD2_Org_cal_tot+
     &HDWT_Org_cal_tot
      nps_NH3_N_tot=incr_Amm_N_tot+nps_WSTLD2_NH3_cal_tot+HDWT_NH3
     &_cal_tot
      nps_NO3_tot=incr_Nitrate_tot+nps_WSTLD2_NO3_cal_tot+HDWT_NO3_cal_t
     &ot

C************* total up oxygen demand for NPS
      oxy_dem_nps_org_N_tot=ammoxy_rat*nps_org_N_tot
      oxy_dem_nps_nh3_tot=ammoxy_rat*nps_nh3_N_tot
      oxy_dem_mldt19_tot_org=ammoxy_rat*mldt19_tot_org


C************* create the element and reach column, as well as other columns for
C************* for SOD and benthic ammonia
      DO 201 I=1,num
          DO 200 J=elem_begin(I), elem_end(I)
               elem_benthis(J)= C2_NH3SR (I)
               elem_sod(J)=SOD_temp_cor(I)
               elem_temp(J)=temp(I)
200            continue
201   continue



      do 202 I=1,total_elem
c               sod_temp_cor(I)=elem_sod(I)*1.065**(elem_temp(I)-20)
               sod_load(I)=sod_temp_cor(I)*s_area_int(I)*1.00/1000.00
               benthic(I)=elem_benthis(I)*s_area_int(I)*1.00/1000.00
               nps_sod_load_tot=nps_sod_load_tot+sod_load(I)
               nps_benthic_tot=nps_benthic_tot+benthic(I)
202   continue


C*****************calculate values for PS and NPS summary sections
      oxy_dem_nps_benthic_tot=ammoxy_rat*nps_benthic_tot

      nps_inflows_tot_oxy_demand=nps_BOD_tot+oxy_dem_nps_org_N_tot+oxy_d
     &em_nps_nh3_tot
      mldt19_tot_oxy_dem=mldt19_tot_cbodu+oxy_dem_mldt19_tot_org
      tot_oxy_dem_sod_ben=nps_sod_load_tot+oxy_dem_nps_benthic_tot

      tot_oxy_dem_nps=nps_inflows_tot_oxy_demand+mldt19_tot_oxy_dem+tot_
     &oxy_dem_sod_ben

      oxy_dem_ps_WSTLD2_Org_cal_tot=ps_WSTLD2_Org_cal_tot*ammoxy_rat
```

```
 oxy_dem_ps_WSTLD2_NH3_cal_tot=ps_WSTLD2_NH3_cal_tot*ammoxy_rat

 nps_summary_cbodu=nps_bod_tot+mldt19_tot_cbodu
 nps_summary_org=oxy_dem_nps_org_N_tot+oxy_dem_mldt19_tot_org
 nps_summary_ammon=oxy_dem_nps_nh3_tot+oxy_dem_nps_benthic_tot

 nps_mos_sod_load_tot=nps_sod_load_tot*nps_mos
 nps_mos_sod_load_tot=nps_mos_sod_load_tot*100
 nps_mos_sod_load_tot=anint(nps_mos_sod_load_tot)/100

 nps_mos_summary_cbodu=nps_summary_cbodu*nps_mos
 nps_mos_summary_cbodu=nps_mos_summary_cbodu*100
 nps_mos_summary_cbodu=anint(nps_mos_summary_cbodu)/100

 nps_mos_summary_org=nps_summary_org*nps_mos
 nps_mos_summary_org=nps_mos_summary_org*100
 nps_mos_summary_org=anint(nps_mos_summary_org)/100

 nps_mos_summary_ammon=nps_summary_ammon*nps_mos
 nps_mos_summary_ammon=nps_mos_summary_ammon*100
 nps_mos_summary_ammon=anint(nps_mos_summary_ammon)/100

 nps_FG_sod_load_tot=nps_sod_load_tot*nps_FG
 nps_FG_sod_load_tot=nps_FG_sod_load_tot*100
 nps_FG_sod_load_tot=anint(nps_FG_sod_load_tot)/100


 nps_FG_summary_cbodu=nps_summary_cbodu*nps_FG
 nps_FG_summary_cbodu=nps_FG_summary_cbodu*100
 nps_FG_summary_cbodu=anint(nps_FG_summary_cbodu)/100

 nps_FG_summary_org=nps_summary_org*nps_FG
 nps_FG_summary_org=nps_FG_summary_org*100
 nps_FG_summary_org=anint(nps_FG_summary_org)/100

 nps_FG_summary_ammon=nps_summary_ammon*nps_FG
 nps_FG_summary_ammon=nps_FG_summary_ammon*100
 nps_FG_summary_ammon=anint(nps_FG_summary_ammon)/100


 nps_mos_tot_oxy_dem=tot_oxy_dem_nps*nps_mos
 nps_mos_tot_oxy_dem=nps_mos_tot_oxy_dem*100
 nps_mos_tot_oxy_dem=anint(nps_mos_tot_oxy_dem)/100


 nps_FG_tot_oxy_dem=tot_oxy_dem_nps*nps_FG
 nps_FG_tot_oxy_dem=nps_FG_tot_oxy_dem*100
 nps_FG_tot_oxy_dem=anint(nps_FG_tot_oxy_dem)/100


 nps_mos_nps_NO3_tot=nps_NO3_tot*nps_mos
 nps_mos_nps_NO3_tot=nps_mos_nps_NO3_tot*100
 nps_mos_nps_NO3_tot=anint(nps_mos_nps_NO3_tot)/100


 nps_FG_nps_NO3_tot=nps_NO3_tot*nps_FG
 nps_FG_nps_NO3_tot=nps_FG_nps_NO3_tot*100
 nps_FG_nps_NO3_tot=anint(nps_FG_nps_NO3_tot)/100


 nps_LA_sod_load_tot=nps_sod_load_tot-nps_MOS_sod_load_tot-nps_FG_s
&od_load_tot
 nps_LA_summary_cbodu=nps_summary_cbodu-nps_MOS_summary_cbodu-nps_F
&G_summary_cbodu
 nps_LA_summary_org=nps_summary_org-nps_MOS_summary_org-nps_FG_summ
&ary_org
 nps_LA_summary_ammon=nps_summary_ammon-nps_MOS_summary_ammon-nps_F
&G_summary_ammon
 nps_LA_nps_NO3_tot=nps_NO3_tot-nps_MOS_nps_NO3_tot-nps_FG_nps_NO3_
&tot

 nps_LA_tot_oxy_dem=tot_oxy_dem_nps-nps_mos_tot_oxy_dem-nps_fg_tot_
&oxy_dem
```

```
c these values are from reading data from La_qual output (and thus ARE NOT minor point sources)
      ps_BOD_tot=ps_WSTLD2_BOD_cal_tot
      ps_Org_N_tot=ps_WSTLD2_Org_cal_tot
      ps_NH3_N_tot=ps_WSTLD2_NH3_cal_tot
      ps_NO3_tot=ps_WSTLD2_NO3_cal_tot

c this produces the "values for tmdl calculations table"
      do 204 I =1, num_pt_sour
               cbodu_tmdl_val(I)=2.30*cbod5_perm(I)
               if (CBOD5_perm(I).EQ.0.OR.CBOD5_perm(I).EQ.-999)then
                  cbodu_tmdl_val(I)=1.00*cod_perm(I)
                  if (cod_perm(I).EQ.0.OR.Cod_perm(I).EQ.-999)then
                  cbodu_tmdl_val(I)=0
               end if
               end if

               ammon_tmdl_val(I)=ammon_perm(I)
               if (ammon_perm(I) .EQ.-999) then
                  ammon_tmdl_val(I)=2*cbod5_perm(I)
                  if (cbod5_perm(I).EQ.-999) then
                     ammon_tmdl_val(I)=0
               end if
               end if

               no3_tmdl_val(I) = 0

               org_N_tmdl_val(I)=ammon_tmdl_val(I)*2.00

               if (cbod5_perm(I).EQ.0.AND.ammon_perm(I).EQ.0) then
               org_N_tmdl_val(I)=0
               ammon_tmdl_val(I)=0
               no3_tmdl_val(I) = 0
               end if

204   continue

C *** caluculate tmdl vlues for tmdl load chart
      do 206 I=1,num_pt_sour
         tmdl_cal_flow(I)=perm_flow(I)*fac_mos_FG
         cbodu_tmdl_cal(I) = tmdl_cal_flow(I)*cbodu_tmdl_val(I)*con4
         org_N_tmdl_cal(I) = tmdl_cal_flow(I)*org_N_tmdl_val(I)*con4
         ammon_tmdl_cal(I) = tmdl_cal_flow(I)*ammon_tmdl_val(I)*con4
         no3_tmdl_cal(I) = tmdl_cal_flow(I)*no3_tmdl_val(I) *con4

         cbodu_tmdl_tot=cbodu_tmdl_tot+cbodu_tmdl_cal(I)
         org_N_tmdl_tot=org_N_tmdl_tot+org_N_tmdl_cal(I)
         ammon_tmdl_tot=ammon_tmdl_tot+ammon_tmdl_cal(I)
         no3_tmdl_tot=no3_tmdl_tot+no3_tmdl_cal(I)

         oxy_dem_org_N_tmdl= org_N_tmdl_tot*ammoxy_rat
         oxy_dem_ammon_tmdl= ammon_tmdl_tot*ammoxy_rat


206   continue
c*********calculate tmdl values for summary chart (using ammox multiplier



c first term is read in from La-qual second is from User supplied data
c more summary calculations
      ps_summary_cbodu=ps_bod_tot+cbodu_tmdl_tot
      ps_summary_org= oxy_dem_ps_wstld2_org_cal_tot+ oxy_dem_org_N_tmdl

      ps_summary_nh3_n=oxy_dem_ps_WSTLD2_NH3_cal_tot+oxy_dem_ammon_tmdl

      tot_oxy_dem_summary=ps_summary_cbodu+ps_summary_org+ps_summary_nh3
     &_n

      mos_ps_summary_cbodu=ps_summary_cbodu*ps_mos
      mos_ps_summary_org=ps_summary_org*ps_mos
      mos_ps_summary_nh3_n= ps_summary_nh3_n*ps_mos

      FG_ps_summary_cbodu=ps_summary_cbodu*ps_FG
      FG_ps_summary_org=ps_summary_org*ps_FG
```

```
      FG_ps_summary_nh3_n= ps_summary_nh3_n*ps_FG


      min_ps_summary_tot=cbodu_tmdl_tot+oxy_dem_org_N_tmdl+oxy_dem_ammon
     &_tmdl

      mos_tot_oxy_dem_summary=tot_oxy_dem_summary*ps_mos
      FG_tot_oxy_dem_summary=tot_oxy_dem_summary*ps_FG

c WLA for minor point sources
      wla_ps_cbodu_tmdl_tot=cbodu_tmdl_tot*(1-ps_mos-ps_FG)
      wla_ps_org_N_tmdl_tot=oxy_dem_org_N_tmdl*(1-ps_mos-ps_FG)
      wla_ps_ammon_tmdl_tot=oxy_dem_ammon_tmdl*(1-ps_mos-ps_FG)
      wla_min_ps_summary_tot=min_ps_summary_tot*(1-ps_mos-ps_FG)


C********** Nutrient TMDL calucaltions (a lot of the NPS calcualatiosn are done above
C********* in lines 677-684
C just need to take nps_org_N_tot from
C the first equtaion (which has org_N from heads, tribs and increments)
C and add mass loads data type 19
C (seen in last term),


C******** the loop below should be with the section "calcualtions for point sources explicitly modeled
C*since the loop below is all PS stuff but oh well I do not want to risk moving it

      if (ps_num_wstld .EQ.0) then
      go to 207
      end if



      do 208 cir=1,ps_num_wstld
             ps_total_nitrogen_load(cir)=ps_WSTLD2_ORG_cal(cir)+ps_WSTLD
     &2_Nh3_cal(cir)+ps_WSTLd2_NO3_cal(cir)
             ps_total_P(cir)=ps_total_nitrogen_load(cir)/nat_rat

             ps_tot_sum_total_nitrogen_load=ps_tot_sum_total_nitrogen_lo
     &ad+ps_total_nitrogen_load(cir)
             ps_tot_sum_total_P=ps_tot_sum_total_P+ps_total_P(cir)

             wla_ps_total_nitrogen_load(cir)=ps_total_nitrogen_load(cir)
     &*(1-ps_mos-ps_FG)
             wla_ps_total_P(cir)=ps_total_P(cir)*(1-ps_mos-ps_FG)

208   continue



207   nut_tmdl_nps_Org_N_tot=nps_org_N_tot+mldt19_tot_org
      nps_tot_nitrogen_load= nut_tmdl_nps_org_N_tot+nps_nh3_n_tot+
     &nps_NO3_tot

      nps_total_P=nps_tot_nitrogen_load/nat_rat

      nps_mos_nut_tmdl_nps_Org_N_tot=nut_tmdl_nps_Org_N_tot*nps_mos
      nps_mos_nps_nh3_n_tot=nps_nh3_n_tot*nps_mos
      nps_mos_nps_NO3_tot=nps_NO3_tot*nps_mos
      nps_mos_tot_nitrogen_load=nps_tot_nitrogen_load*nps_mos
      nps_mos_total_p=NPS_total_p*nps_mos

      nps_FG_nut_tmdl_nps_Org_N_tot=nut_tmdl_nps_Org_N_tot*nps_FG
      nps_FG_nps_nh3_n_tot=nps_nh3_n_tot*nps_FG
      nps_FG_nps_NO3_tot=nps_NO3_tot*nps_FG
      nps_FG_tot_nitrogen_load=nps_tot_nitrogen_load*nps_FG
      nps_FG_total_p=NPS_total_p*nps_FG

      nps_la_nut_tmdl_nps_Org_N_tot=nut_tmdl_nps_Org_N_tot*(1-nps_mos-np
     &s_FG)
      nps_la_nps_nh3_n_tot=nps_nh3_n_tot*(1-nps_mos)
      nps_la_nps_NO3_tot=nps_NO3_tot*(1-nps_mos)
      nps_la_tot_nitrogen_load=nps_tot_nitrogen_load*(1-nps_mos)
```

```
      nps_la_total_p=npS_total_p*(1-nps_mos)

      min_ps_total_nitrogen_load=org_N_tmdl_tot+ammon_tmdl_tot+no3_tmdl_
     &tot
      min_ps_total_P=min_ps_total_nitrogen_load/nat_rat

      ps_nut_tmdl_summary_org_N_tot=ps_WSTLD2_Org_cal_tot+org_N_tmdl_tot
      ps_nut_tmdl_summary_nh3_N_tot=ps_WSTLD2_NH3_cal_tot+ammon_tmdl_tot
      ps_nut_tmdl_summary_no3_N_tot=ps_WSTLD2_NO3_cal_tot+no3_tmdl_tot

      ps_tot_nitrogen_final_load=min_ps_total_nitrogen_load+ps_tot_sum_t
     &otal_nitrogen_load
      ps_tot_P_final=min_ps_total_P+ps_tot_sum_total_P

      mos_ps_nut_tmdl_sum_org_N_tot=ps_nut_tmdl_summary_org_N_tot*ps_mos
      mos_ps_nut_tmdl_sum_nh3_N_tot=ps_nut_tmdl_summary_nh3_N_tot*ps_mos
      mos_ps_nut_tmdl_sum_no3_N_tot=ps_nut_tmdl_summary_no3_N_tot*ps_mos

      FG_ps_nut_tmdl_sum_org_N_tot=ps_nut_tmdl_summary_org_N_tot*ps_FG
      FG_ps_nut_tmdl_sum_nh3_N_tot=ps_nut_tmdl_summary_nh3_N_tot*ps_FG
      FG_ps_nut_tmdl_sum_no3_N_tot=ps_nut_tmdl_summary_no3_N_tot*ps_FG

      mos_ps_tot_nitrogen_final_load=ps_tot_nitrogen_final_load*ps_mos
      mos_ps_tot_P_final=ps_tot_P_final*ps_mos

      FG_ps_tot_nitrogen_final_load=ps_tot_nitrogen_final_load*ps_FG
      FG_ps_tot_P_final=ps_tot_P_final*ps_FG

      wla_min_ps_nut_tmdl_sum_org=org_N_tmdl_tot*(1-ps_mos-ps_FG)
      wla_min_ps_nut_tmdl_sum_nh3=ammon_tmdl_tot*(1-ps_mos-ps_FG)
      wla_min_ps_nut_tmdl_sum_no3=no3_tmdl_tot*(1-ps_mos-ps_FG)

      wla_min_ps_nitrogen_final_load=min_ps_total_nitrogen_load*(1-p
     &s_mos-ps_FG)
      wla_min_ps_P_final=min_ps_total_P*(1-ps_mos-ps_FG)

c590   write(11,6090)'Calculated load for minor point sources   ',org_N_t
c     &mdl_tot,ammon_tmdl_tot,no3_tmdl_tot,min_ps_total_nitrogen_load,min
c     &_ps_total_P



c      write(11,6090)'Total for all point source loads             ',ps_n
c     &ut_tmdl_summary_org_N_tot,ps_nut_tmdl_summary_nh3_N_tot,ps_nut_tmd
c     &l_summary_no3_N_tot,ps_tot_nitrogen_final_load,ps_tot_P_final




C***********Output File Write Statements

C*****SECTION: "TMDL CALCULATIONS FOR SUBSEGMENT:"

990   format(A33,2x,A10,2x,A20)
      Write (11,990)'TMDL CALCULATIONS FOR SUBSEGMENT:',subsegnumber,sub
     &segname
      Write(11,*)'FTN ASSOCIATES, LTD.'
      Write(11,*)'Program:Pr20m6f'
      Write(11,*)' '
      Write(11,*)'INFO FOR INPUT FILE WITH USER SPECIFIED DATA AND OPTIO
     &NS:'
      Write(11,*)'File name:',userfilename
      write(11,*)' '
      write(11,*)'INFO FOR LA-QUAL OUTPUT FILE:'
      Write(11,*)'File name:',laqualfilename
      Write(11,*)'Date/Time:',pertime
      write(11,*)LAQUAL_version
      write(11,*)'  '
      Write(11,*)'LIST OF ALL REACHES IN LA-QUAL OUTPUT FILE:'
      DO 209 numm=1, num
1000      Format(A7,1x,I3,1x,A10,1x,I3,1x,A1,1x,I3,A18,2x,A6,1x,A15)
209       WRITE(11,1000)'Reach',np_Reach(numm),'(Elements',Elem_begin(nu
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```
     &mm),'-',elem_end(numm),') is in subsegment',reach_subseg_num(numm)
     &,reach_name(numm)
      write(11,*)' '


C***** SECTION:"CALCULATIONS FOR LOADS FROM NPS INFLOWS (HEADWATERS, TRIBUTARIES, AND INCREMENTAL INFLOW):"

      Write(11,3030)
      write(11,*)' '
3030  FORmat(102('='))
      Write(11,*)'CALCULATIONS FOR LOADS FROM NPS INFLOWS (HEADWATERS, T
     &RIBUTARIES, AND INCREMENTAL INFLOW):'
      Write(11,*)' '
      write(11,*)'Equation used: (Load, kg/day) = (Inflow rate, m3/sec)
     &* (Conc., mg/L) * 1.0E-6 kg/mg * 1.0E3 L/m3 *'
      write(11,*)'
     &                          86400 sec/day'
      write(11,*)' '
      Write(11,*)'Values from LA-QUAL output:'
      write(11,*)' '
      Write(11,*)'Reach or   Inflow      CBODu     Organic N   Ammonia N
     &        NO2+NO3 N'
      write(11,*)'Element     rate        conc.       conc.       conc.
     &          conc.'
      write(11,*)'number    (m3/sec)     (mg/L)      (mg/L)      (mg/L)
     &          (mg/L)     Name of inflow'
      write(11,*)'------    --------    --------    --------    --------
     &        --------     --------------------'
3050  Format(I3,5x,f10.5,4x,f8.2,4x,f8.2,4x,f8.2,8x,f8.2,5x,A25)
      do 210 cir=1,num_hdwt
210      write(11,3050) HDWT1_elem(cir), HDWT1_Flow(cir), HDWT2_BOD_con(
     &cir),HDWT2_ORG_con(cir),HDWT2_NH3_con(cir), HDWT2_NO3_con(cir),
     &hdwt1_name(cir)
      do 220 cir=1,nps_num_wstld
220   write(11,3050)nps_elem_wstld(cir),nps_WSTLD_Flow(cir), nps_WSTL
     &D2_BOD_con(cir),nps_WSTLD2_ORG_con(cir), nps_WSTLD2_NH3_con(cir),
     &nps_WSTLD2_NO3_con(cir),NPS_wstld_name(cir)
      do 222 cir=1,num_incr
222   write(11,3050)incr_reach(cir),incr_inFlow(cir), incr2_CBODu_con(ci
     &r),incr2_ORG_N_con(cir),incr2_Amm_N_con(cir),incr2_Nitrate_con(cir
     &),'Incremental Reach flow   '
      write(11,*)'  '
c      write(11,*)'------    --------    --------    --------    --------
c     &        --------     --------------------'
      write(11,*)'  '
      write(11,*)'Calculated values:'
      write(11,*)' '
      write(11,*)'                          CBODu     Organic N   Ammonia
     &N   NO2+NO3 N'
      write(11,*)'             Element     load        load        load
     &     load'
      write(11,*)'             number    (kg/day)    (kg/day)    (kg/day
     &)    (kg/day)'
      write(11,*)'             ------    --------    --------    --------
     &    --------'
3060  Format(13x,I3,5x,f10.2,2x,f10.2,1x,f10.2,2x,f10.2)
      cir=num_hdwt
      do 224 cirr=1,cir
224      write(11,3060) HDWT1_elem(cirr), HDWT_BOD_cal(cirr),
     &HDWT_ORG_cal(cirr),HDWT_NH3_cal(cirr), HDWT_NO3_
     &cal(cirr)
      cir=nps_num_wstld
      do 226 cirr=1,cir
226      write(11,3060)nps_elem_wstld(cirr),nps_WSTLD2_BOD_cal(cirr)
     &, nps_WSTLD2_ORG_cal(cirr), nps_WSTLD2_NH3_cal(cirr), nps_WSTLD2_N
     &O3_cal(cirr)
      do 228 cirr=1,num_incr
228      write(11,3060)incr_reach(cirr),incr_CBODu(cirr)
     &, incr_Org_N(cirr), incr_Amm_N(cirr),incr_NITrate(cirr)
      write(11,*)'             ------    --------    --------    --------
     &    --------'
3070  Format(A19,f12.2,2x,f10.2,1x,f10.2,2x,f10.2)
      write(11,3070)'Subsegment totals:',nps_BOD_tot,nps_Org_N_tot,nps_
     &NH3_N_tot,nps_NO3_tot
```

```
      write(11,*)' '


C***** SECTION:"CALCULATIONS FOR NONPOINT SOURCE MASS LOADS IN DATA TYPE 19:"

      Write(11,3030)
      write(11,*)' '
      write(11,*)'CALCULATIONS FOR NONPOINT SOURCE MASS LOADS IN DATA TY
     &PE 19:'
      write(11,*)' '
      write(11,*)'Values from LA-QUAL output:'
      write(11,*)' '
      write(11,*)'                                        CBODu       Orga
     &nic N'
      write(11,*)'                         Reach      mass load     mass
     & load'
      write(11,*)'                         number      (kg/day)      (kg
     &/day)'
      write(11,*)'                         ------      --------    -----
     &------'
      DO 230 numm=1,num
3080  Format(26X,I3,6x,F10.2,5x,F10.2)
230      Write(11,3080)NP_reach(numm),NP_BOD(numm), NP_Org(numm)
      write(11,*)'                         ------      --------    -----
     &------'
3090  format(A33,F12.2,3x,F12.2)
      write(11,3090)'Subsegment totals               ',MLDT19_tot_CBODu
     &,MLDT19_tot_org
      write(11,*)' '


C***** SECTION:"CALCULATIONS FOR LOADS FROM SOD AND BENTHIC AMMONIA:"

      ctr=1
      write(11,3030)
      write(11,*)'  '
      write(11,*)'CALCULATIONS FOR LOADS FROM SOD AND BENTHIC AMMONIA:'
      write(11,*)'  '
      write(11,*)'SOD temperature correction factor used in LA-QUAL mode
     &l: 1.065 (default)'
      write(11,*)' '
      write(11,*)'Equations used: SOD temp. corrected = (SOD at 20 C) *
     &1.065^(Water temp - 20 C)'
      write(11,*)'                SOD load = (SOD temp. corrected, g/m2/
     &day) * (Surface area, m2) * 1.0E-3 kg/g'
      write(11,*)'                Benthic NH3-N load = (Benthic ammonia
     &N, g/m2/day) * (Surface area, m2) * 1.0E-3 kg/g'
      write(11,*)' '
      write(11,*)' '
      write(11,*)'                               Values from LA-QUAL output
     &:                  Calculated values:'
      write(11,*)'                        ----------------------------------
     &---------    --------------------------------'
      write(11,*)'                      Water     Surface      SOD at
     &Benthic      SOD temp.     SOD       Benthic'
      write(11,*)'Reach    Element     temp.       area        20 C
     &ammonia N    corrected     load     NH3-N load'
      write(11,*)'number   number     (deg C)      (m2)     (g/m2/day)
     &(g/m2/day)  (g/m2/day)   (kg/day)    (kg/day)'
      write(11,*)'------   ------    --------    --------    --------
     &--------     --------    --------    ---------'
      DO 300 cir=1, total_elem
4000  format(I3,7x,I3,4x,f10.2,1x,f10,3x,f10.3,1x,f10.2,5x,f6.3,3x,f10.2
     &,6x,f6.2)
4001  if (cir.LT.elem_begin(ctr)) then

      ctr=ctr-1
      go to 4001
      end if

4002  if (cir.GT.elem_end(ctr)) then
      ctr=ctr+1
      go to 4002
      end if
```

```
4009  FORMAT(I3,2x,I3,2x,I3,2x,F6.2,2x,I3,2x,I3,2x,F8.4)
C      write(13,4009)cir,elem_begin(ctr),elem_end(ctr),elem_col(cir),ctr,
C     &np_reach(ctr),elem_sod(cir)

      write (11,4000)np_reach(ctr),cir,elem_temp(cir),
     &s_area_int(cir),elem_sod(cir), elem_benthis(cir),sod_temp_cor(cir)
     &,sod_load(cir),benthic(cir)

300   continue
      write(11,*)'
     &                        --------    ---------'
4010  format(A60,16x,F10.2,2x,f10.2)
      write(11,4010)'Subsegment totals:',nps_sod_load_tot,nps_benthic_to
     &t
      write(11,*)' '


C***** SECTION:"CALCULATIONS FOR LOADS FROM POINT SOURCE DISCHARGES EXPLICITLY MODELED:"

      write(11,3030)
      write(11,*)' '
      write(11,*)'CALCULATIONS FOR LOADS FROM POINT SOURCE DISCHARGES EX
     &PLICITLY MODELED:'
      write(11,*)' '
      if (ps_num_wstld.EQ.0) then
      WRITE(11,*)'For this subsegment, there are no point source dischar
     &ges explicitly modeled.'
      go to 335
      end if
      write(11,*)'Equation used: (Load, kg/day) = (Inflow rate, m3/sec)
     &* (Conc., mg/L) * 1.0E-6 kg/mg * 1.0E3 L/m3 *'
      write(11,*)'
     &                               86400 sec/day'
      write(11,*)'  '
      write(11,*)'Values from LA-QUAL output:'
      write(11,*)'  '
      write(11,*)'          Inflow      CBODu     Organic N   Ammonia N
     &   NO2+NO3 N'
      write(11,*)'Element     rate        conc.       conc.       conc.
     &     conc.'
      write(11,*)'number    (m3/sec)     (mg/L)      (mg/L)      (mg/L)
     &      (mg/L)     Name of discharge'
      write(11,*)'------    --------    --------    --------    --------
     &    --------    --------------------'
      DO 330 cir=1,ps_num_wstld
4020  Format(I3,5x,f10.5,5x,f7.3,5x,f7.3,5x,f7.3,5x,f7.3,6x,A20)
        write(11,4020)ps_elem_wstld(cir),ps_WSTLD_Flow(cir), ps_WSTL
     &D2_BOD_con(cir),ps_WSTLD2_ORG_con(cir), ps_WSTLD2_NH3_con(cir),
     &ps_WSTLD2_NO3_con(cir),PS_wstld_name(cir)
330   continue
      write(11,*)'  '
      write(11,*)'  '
      write(11,*)'  '
      write(11,*)'Calculated values:'
      write(11,*)' '
      write(11,*)'  '
      write(11,*)'                        CBODu     Organic N   Ammonia N
     & NO2+NO3 N'
      write(11,*)'            Element     load        load        load
     &       load'
      write(11,*)'            number    (kg/day)    (kg/day)    (kg/day)
     &    (kg/day)'
      write(11,*)'            ------    --------    --------    --------
     &    --------'
      cir=ps_num_wstld
      if (ps_num_wstld .EQ.0) then
      write(11,*)'             NONE         0.00        0.00        0.00
     &       0.00'
      go to 342
      end if
      do 340 cirr=1,cir
4030  Format(13x,I3,4x,f10.2,4x,f8.2,4x,f8.2,4x,f8.2)
340      write(11,4030)ps_elem_wstld(cirr),ps_WSTLD2_BOD_cal(cirr)
```

```
     &, ps_WSTLD2_ORG_cal(cirr), ps_WSTLD2_NH3_cal(cirr), ps_WSTLD2_N
     &O3_cal(cirr)
342   write(11,*)'            ------    --------    --------    --------
     &    --------'
4040  Format(A16,4x,f10.2,2x,f10.2,2x,f10.2,2x, f10.2)
      write(11,4040)'Subsegment totals:',ps_BOD_tot,ps_Org_N_tot,ps_
     &NH3_N_tot,ps_NO3_tot
      write(11,*)'  '
      write(11,*)'  '


C*****SECTION:"CALCULATIONS FOR LOADS FROM POINT SOURCE DISCHARGES NOT EXPLICITLY MODELED:"

335   write(11,3030)
      write(11,*)'  '
      write(11,*)'  '
      write(11,*)'CALCULATIONS FOR LOADS FROM POINT SOURCE DISCHARGES NO
     &T EXPLICITLY MODELED:'
      write(11,*)'  '
      if (num_pt_sour.EQ.0) THEN
         WRITE(11,*)'For this subsegment, there are no point source disc
     &harges not explicitly modeled.'
         write(11,*)' '
         GO TO 431
         END IF
4045  format (A62,f6.3,A33)
      write(11,4045)'Equations used: Flow rate from TMDL calcs = Permit
     &flow rate * ',fac_mos_FG,' (to incorporate MOS and FG) '
      write(11,*)'                (Load, kg/day) = (Flow rate, MGD) * (C
     &onc., mg/L) * 3.785 L/gal * 1.0E6 gal/MG * 1.0E-6 kg/mg'
      write(11,*)'  '
      write(11,*)'  '
      write(11,*)'Assumptions: Ratio of CBODu to CBOD5 for point source
     & dissharges = 2.3 (guidance from LTP).'
      write(11,*)'             For permits with BOD or ammonia limits, N
     &O2+NO3 = 10 mg/L (drinking water criteria).'
      write(11,*)'             For permits with COD limits, assume that
     &CBODu is about the same magnitude as COD and'
      write(11,*)'                          that discharges of nitrogen (o
     &rganic, ammonia, and NO2+NO3) are negligible.'
      write(11,*)' '
      write(11,*)'  '
      write(11,*)'                           Permit    Factor to      Flow
     &'
      write(11,*)'NPDES                      flow    incorporate   rate fo
     &r'
      write(11,*)'permit      Outfall        rate     MOS and FG   TMDL ca
     &lcs            '
      write(11,*)'number      number         (MGD)     into flow       (MG)
     &D      Comments'
      write(11,*)'--------    --------    --------    --------    ------
     &--    ----------------------------------------'
      do 400 I= 1,num_pt_sour
         tmdl_cal_flow(I)=perm_flow(I)*fac_mos_FG
4050     Format(A10,4x,A3,5x,F10.3,3x,F6.3,4x,f10.3,5x,A40)
         write (11,4050)permit_number(I), outfall_num(I),perm_flow(I),fa
     &c_mos_FG,tmdl_cal_flow(I), comment(I)
400    continue
      write(11,*)'  '
      write(11,*)'  '
      write(11,*)'  '
      write(11,*)'                            User specified permit limits
     &:'
      write(11,*)' NPDES                    ------------------------------
     &-'
      write(11,*)' permit      Outfall     CBOD5        COD       Ammoni
     &a'
      write(11,*)' number      number      (mg/L)      (mg/L)      (mg/L
     &)     Comments'
      write(11,*)'--------    --------    --------    --------    ------
     &--    ----------------------------------------'
      do 410 I= 1,num_pt_sour
4060     Format(A10,4x,A3,5x,F10.1,2x,F10.1,2x,F10.1,4x,A40)
410      write (11,4060)permit_number(I), outfall_num(I),CBOD5_perm(I),
```

```
     &COD_perm(I), ammon_perm(I),comment_con(I)
      write(11,*)'  '
      write(11,*)'  '
      write(11,*)'  '
      write(11,*)'                                Values for TMDL calcul
     &ations:'
      write(11,*)' NPDES                  ------------------------------
     &-------------'
      write(11,*)' permit      Outfall     CBODu     Organic N   Ammonia
     & N   NO2+NO3 N'
      write(11,*)'  number      number      (mg/L)      (mg/L)      (mg/
     &L)      (mg/L)     Comments'
      write(11,*)'--------    --------    --------    --------    ------
     &--    --------    ----------------------------'
      do 420 I= 1,num_pt_sour
         tmdl_cal_flow(I)=perm_flow(I)*fac_MOS_fg
4070     Format(A10,4x,A3,5x,F10.2,2x,F10.2,2x,F10.2,2x,F10.2)
420      write (11,4070)permit_number(I), outfall_num(I),CBODu_tmdl_val(
     &I),org_N_tmdl_val(I),ammon_tmdl_val(I), no3_tmdl_val(I)
      write(11,*)'  '
      write(11,*)'  '
      write(11,*)'  '
      write(11,*)'                                      Calculated loads
     &:'
      write(11,*)' NPDES                  ------------------------------
     &-------------'
      write(11,*)' permit      Outfall     CBODu     Organic N   Ammonia
     &N   NO2+NO3 N'
      write(11,*)' number      number     (kg/day)    (kg/day)    (kg.da
     &y)   (kg.day)     Comments'
      write(11,*)'--------    --------    --------    --------    ------
     &--    --------    ----------------------------'
      DO 430 I= 1,num_pt_sour
4080     Format(A10,4x,A3,5x,F10.2,2x,F10.2,2x,F10.2,2x,F10.2)
         write(11,4080)permit_number(I), outfall_num(I),cbodu_tmdl_cal(I
     &), org_n_tmdl_cal(I),ammon_tmdl_cal(I),no3_tmdl_cal(I)
430   continue
      write(11,*)'                            --------    --------    ------
     &--    --------'
4090  format(A20,2x,f10.2,2x,f10.2,2x,f10.2,2x, f10.2)
      write(11,4090)'Subsegment total',cbodu_tmdl_tot,org_N_tmdl_tot,amm
     &on_tmdl_tot,no3_tmdl_tot


C*****SECTION:"SUMMARY OF NONPOINT SOURCE OXYGEN DEMAND FOR THIS SUBSEGEMENT:"

431   write(11,3030)
      write(11,*)' '
      write(11,*)'SUMMARY OF NONPOINT SOURCE OXYGEN DEMAND FOR THIS SUBS
     &EGEMENT:'
      write(11,*)' '
      write(11,*)' '
4093  format(A52,f6.4,A30)
      write(11,4093)'Equations used:  Organic N oxygen demand, kg/day =
     &',ammoxy_rat,' * Organic N load, kg/day of N'
4094  format(A52,F6.4,A30)
      write(11,4094)'                 Ammonia N oxygen demand, kg/day =
     &',ammoxy_rat,' * Ammonia N load, kg/day of N'
4095  format(A37,f4.1,A24)
      write(11,4095)'                 Margin of safety = ',nps_mos_per,'
     &% * nonpoint source load'
4097  format(A34,f4.1,A24)
      write(11,4097)'                 Future Growth = ',nps_FG_per,'% *
     &nonpoint source load'
4099  format(A36,f4.1,A24)
      write(11,4099)'                 Load Allocation = ',100-nps_mos_pe
     &r-ps_FG_per,'% * nonpoint source load'
      write(11,*)' '
      write(11,*)'Values from calculations above'
      write(11,*)' '
      write(11,*)'
     &    Nitrogen loads (kg/day of N):'
      write(11,*)'
     &---------------------------------'
```

```
      write(11,*)'                                    SOD       CBODu
     &Organic      Ammonia     NO2+NO3 N'
      write(11,*)'                                 (kg/day)    (kg/day)   (
     &kg/day)     (kg/day)     (kg/day)'
      write(11,*)'                                 --------    --------   -
     &-------     --------     ---------'
5000  format(A36,4x,f10.2,1x,f10.2,3x,f10.2,4x,f10.2)
      write(11,5000)'NPS inflows                      N/A ',nps_bod_tot,n
     &ps_org_N_tot,nps_nh3_n_tot,nps_NO3_tot
5010  format(A36,4x,f10.2,1x,f10.2,4x,A20)
      write(11,5010)'Mass LOads (data type 19)       N/A ',mldt19_tot_cb
     &odu,mldt19_tot_org,'N/A          N/A'
5020  format(A15,13x,f10.2,1x,A20,5x,f10.2,7x,A4)
      write(11,5020)'SOD and Benthic ammonia',nps_sod_load_tot,'N/A
     &   N/A',nps_benthic_tot,'N/A'
c      write(11,*)'                                 --------    --------   -
c     &-------     --------     ---------'
      write(11,*)'  '
      write(11,*)'Calculated loads of oxygen demand:'
      write(11,*)'
     & Oygen demand loads:     Total'
      write(11,*)'
     & -------------------     Oxygen'
      write(11,*)'                                    SOD       CBODu
     &Organic      Ammonia     demand'
      write(11,*)'                                 (kg/day)    (kg/day)   (
     &kg/day)     (kg/day)     (kg/day)'
      write(11,*)'                                 --------    --------   -
     &-------     --------     ---------'
c5000  format(A36,4x,f10.5,2x,f10.5,2x,f10.5,3x,f10.5)

      write(11,5000)'NPS inflows                      N/A ',nps_bod_tot,
     &oxy_dem_nps_org_N_tot,oxy_dem_nps_nh3_tot,nps_inflows_tot_oxy_dema
     &nd
5011  format(A36,4x,f10.2,1x,f10.2,8x,A3,6x,f10.2)
      write(11,5011)'Mass LOads (data type 19)       N/A ',mldt19_tot_cb
     &odu,oxy_dem_mldt19_tot_org,'N/A',mldt19_tot_oxy_dem
5021  format(A15,13x,f10.2,1x,A20,5x,f10.2,4x,f10.2)
      write(11,5021)'SOD and Benthic ammonia',nps_sod_load_tot,'N/A
     &   N/A',oxy_dem_nps_benthic_tot,tot_oxy_dem_sod_ben
      write(11,*)' '
5030  format(A23,5x,f10.2,2x,f10.2,1x,f10.2,3x,f10.2,4x,f10.2)
      write(11,5030)'Total for all NPS loads',nps_sod_load_tot,nps_summa
     &ry_cbodu,nps_summary_org,nps_summary_ammon, tot_oxy_dem_nps
      write(11,*)' '
5035  format(A22,f4.1,A2,f10.2,2x,f10.2,1x,f10.2,3x,f10.2,4x,f10.2)
      write(11,5035)'NPS future growth    (',nps_FG_per,'%)    ',nps_FG_
     &sod_load_tot,nps_FG_summary_cbodu,nps_FG_summary_org,nps_FG_s
     &ummary_ammon,nps_FG_tot_oxy_dem
5040  format(A22,f4.1,A2,f10.2,2x,f10.2,1x,f10.2,3x,f10.2,4x,f10.2)
      write(11,5040)'NPS margin of safety (',nps_mos_per,'%)    ',nps_mo
     &s_sod_load_tot,nps_mos_summary_cbodu,nps_mos_summary_org,nps_mos_s
     &ummary_ammon,nps_mos_tot_oxy_dem
5050  format(A22,f4.1,A2,f10.2,2x,f10.2,1x,f10.2,3x,f10.2,4x,f10.2)
      write(11,5050)'NPS load allocation  (',100-nps_MOS_PER-nps_FG_PER
     &,'%)    ',npS_LA_sod_load_tot,nps_LA _summary_cbodu,nps_LA_summary
     &_org,nps_La_summary_ammon,nps_LA_tot_oxy_dem
      write(11,*)' '
      write(11,*)'  '


C*****SECTION:"SUMMARY OF POINT SOURCE OXYGEN DEMAND FOR THIS SUBSEGEMENT"

      write(11,3030)
      write(11,*)' '
      Write(11,*)'SUMMARY OF POINT SOURCE OXYGEN DEMAND FOR THIS SUBSEGE
     &MENT'
      write(11,*)' '
      if (num_pt_sour+ps_num_wstld.EQ.0) THEN
         WRITE(11,*)'For this subsegment, there are no point source disc
     &harges either modeled or unmodeled in this subsegment.'
         write(11,*)' '
         GO TO 561
         end if
```

```
      write(11,*)'  '
      write(11,4093)' Equations used: Organic N oxygen demand, kg/day =
     & ',ammoxy_rat,' * Organic N load, kg/day of N'
      write(11,4093)'                 Ammonia N oxygen demand, kg/day =
     & ',ammoxy_rat,' * Ammonia N load, kg/day of N'
5052  format(A36,f4.1,A21)
      write(11,5052)'                 Margin of Safety = ',ps_mos_per,'%
     & * point source load'
5053  format(A33,F4.1,A24)
      write(11,5053)'                 Future Growth = ',nps_FG_per,'% *
     &nonpoint source load'
5054  format(A71,f4.1,A16)
      write(11,5054)'                 Wasteload Allocation (WLA) for mod
     &eled point source = ',100-ps_mos_per-ps_FG_per,'% * modeled load'
5056  format(A70,f4.1,A19)
      write(11,5056)'                 Wasteload Allocation (WLA) for min
     &or point sources = ',100-ps_mos_per-ps_FG_per,'% * calculated load
     &'
      write(11,*)' '
      write(11,*)'Values from calculations above'
      write(11,*)'
     & Nitrogen loads (kg/day of N):'
      write(11,*)'                                                      -
     &--------------------------------'
      write(11,*)'                                                CBODu    O
     &rganic N   Ammonia N    NO3+NO2'
      write(11,*)'                                               (kg/day)
     &(kg/day)    (kg/day)    (kg/day)'
      write(11,*)'                                               -------   -
     &--------    --------    --------'
      if (ps_num_wstld .EQ.0) then
      go to 470
      end if
      DO 450 cir=1,ps_num_wstld
5060  Format(A17,1x,A20,2x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2)
      write(11,5060)'Modeled load for:' ,ps_wstld_name(cir),
     &ps_WSTLD2_Bod_cal(cir),ps_WSTLD2_ORG_cal(cir), ps_WSTLD2_N
     &h3_cal(cir),ps_WSTLd2_NO3_cal(cir)
450   continue
5080  format(A38,2x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2)
470   write(11,5080)'Calculated load for minor point sources   ',cbodu_t
     &mdl_tot,org_N_tmdl_tot,ammon_tmdl_tot,no3_tmdl_tot
      write(11,*)'  '
      write(11,*)'  '
      write(11,*)'Calculated loads of oxygen demand'
      write(11,*)' '
      write(11,*)'
     & Oygen demand loads:     Total'
      write(11,*)'
     & -------------------     Oxygen'
      write(11,*)'                                                CBODu    O
     &rganic N   Ammonia N     demand'
      write(11,*)'                                               (kg/day)
     &(kg/day)    (kg/day)    (kg/day)'
      write(11,*)'                                               -------   -
     &--------    --------    --------'
      if (ps_num_wstld .EQ.0) then
      go to 540
      end if
      DO 490 cir=1,ps_num_wstld
      write(11,5060)'Modeled load for:',ps_wstld_name(cir),
     &oxy_dem_ps_WSTLD2_Bod_cal(cir),oxy_dem_ps_WSTLD2_ORG_cal(cir),oxy_
     &dem_ps_WSTLD2_Nh3_cal(cir),mod_tot_oxy_dem_ps(cir)
490   continue
540   write(11,5080)'Calculated load for minor point sources   ',cbodu_t
     &mdl_tot,oxy_dem_org_N_tmdl, oxy_dem_ammon_tmdl,min_ps_summary_tot
      write(11,5080)'Total for all point source loads             ',ps_s
     &ummary_cbodu, ps_summary_org,ps_summary_nh3_n,tot_oxy_dem_summary
      write(11,*)' '
5090  Format(A31,f4.1,A3,2x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2)
      write(11,5090)'MOS for all point Sources     (',ps_mos_per,'%)  ',
     &mos_ps_summary_cbodu, mos_ps_summary_org,mos_ps_summary_nh3_n,mos_
     &tot_oxy_dem_summary
5092  Format(A31,f4.1,A3,2x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2)
```

```
      write(11,5092)'FG for all point Sources      (',ps_FG_per,'%)  ',
     &FG_ps_summary_cbodu,FG_ps_summary_org,FG_ps_summary_nh3_n,FG_
     &tot_oxy_dem_summary

      if (ps_num_wstld .EQ.0) then
      go to 560
      end if
      DO 550 cir=1,ps_num_wstld
5095  Format(A8,1x,A21,A1,f4.1,A2,3x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2)
      write(11,5095)'WLA for:',ps_wstld_name(cir),'(',100-ps_mos_per-ps_
     &FG_per,'%)',wla_ps_WSTLD2_BOD_cal(cir),wla_ps_WSTLD2_ORG_cal(cir),
     &wla_ps_WSTLd2_nH3_cal(cir),wla_mod_tot_oxy_dem_ps(cir)
550   continue
6000  format(A31,f4.1,A2,3x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2)
560   write(11,6000)'WLA for minor point sources   (',100-ps_mos_per-ps_
     &FG_per,'%)   ',wla_ps_cbodu_tmdl_tot,wla_ps_org_N_tmdl_tot, wla_ps
     &_ammon_tmdl_tot,wla_min_ps_summary_tot


      if (nut_tmdl_need .EQ. 'YES') then
         goto 561
      else
         go to 605
      end if


C*****SECTION:"NUTRIENT TMDL CALCULATIONS:"

561   write(11,3030)
      write(11,*)' '
      write(11,*)' '
      write(11,*)'NUTRIENT TMDL CALCULATIONS:'
      write(11,*)'  '
      if(nut_tmdl_need.EQ.'NO') then
      write(11,*)'No nutrient TMDL is needed for this subsegment'
      go to 605
      end if
      write(11,*)'Assumptions: Naturally occurring ratio of total N to t
     &otal P = ',nat_rat
      write(11,*)' '
      write(11,*)'Equations used: Total N = (Organic N) + (Ammonia N) +
     &(NO2+NO3 N)'
      write(11,*)'                Total P = (Total N) / (Naturally occur
     &ring ratio of total N to total P)'
6010  format(A39,f4.1,A24)
      write(11,6010)'              NPS margin of safety = ',nps_mos_per,
     &'% * nonpoint source load'
6015  format(A36,f4.1,A24)
      write(11,6015)'              NPS Future Growth = ',nps_FG_per,
     &'% * nonpoint source load'
6020  format(A38,f4.1,A24)
      write(11,6020)'                NPS load allocation = ',100-nps_mos
     &_per-nps_FG_per,'% * nonpoint source load'
6030  format(A57,f4.1,A27)
      write(11,6030)'                Margin of safety for all point sour
     &ces = ',ps_mos_per,'% * total point source load'
6035  format(A53,F4.1,A24)
      write(11,6035)'                Future Growth for all point soures
     &= ',nps_FG_per,'% * nonpoint source load'
6040  format(A70,f4.1,A16)
      write(11,6040)'                Wasteload allocation (WLA) for mode
     &led point source = ',100-ps_mos_per-ps_FG_per,'% * modeled load'
6050  format(A69,f4.1,A19)
      write(11,6050)'                Wasteload allocation (WLA) for mino
     &r point sources = ',100-ps_mos_per-ps_FG_per,'% * calculated load'
      write(11,*)'  '
      write(11,*)' '
      write(11,*)'Nonpoint sources:'
      write(11,*)'                                                Organic N
     &Ammonia N   NO2+NO3 N    Total N     Total P'
      write(11,*)'                                                 (kg/day)
     & (kg/day)    (kg/day)    (kg/day)    (kg/day)'
      write(11,*)'                                                 --------
     & --------    --------    --------    --------'
```

```
6060  format(A25,16x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2)
      write(11,6060)'Total for all NPS loads                    ',nut_tm
     &dl_nps_org_N_tot,nps_nh3_n_tot,nps_NO3_tot,nps_tot_nitrogen_load,n
     &ps_total_P
      write(11,*)'  '
6070  format(A22,f4.1,A2,13x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2)
      write(11,6070)'NPS margin of safety (',nps_mos_per,'%)    ',nps_mo
     &s_nut_tmdl_nps_Org_N_tot,nps_mos_nps_nh3_n_tot,nps_mos_nps_NO3_tot
     &,nps_mos_tot_nitrogen_load,nps_mos_total_p
6075  format(A22,f4.1,A2,13x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2)
      write(11,6075)'NPS Future Growth    (',nps_mos_per,'%)    ',nps_FG
     &_nut_tmdl_nps_Org_N_tot,nps_FG_nps_nh3_n_tot,nps_FG_nps_NO3_tot
     &,nps_FG_tot_nitrogen_load,nps_FG_total_p
6080  format(A22,f4.1,A2,13x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2)
      write(11,6080)'NPS load allocation  (',100-nps_mos_per-nps_FG_per,
     &'%)    ',nps_la_nut_tmdl_nps_Org_N_tot,nps_la_nps_nh3_n_tot,nps_la
     &_nps_NO3_tot,nps_la_tot_nitrogen_load,nps_la_total_p
      write(11,*)' '
      write(11,*)'  '
      write(11,*)'Point sources:'
      write(11,*)' '
      write(11,*)'                                              Organic N
     &Ammonia N   NO2+NO3 N    Total N     Total P'
      write(11,*)'                                               (kg/day)
     & (kg/day)    (kg/day)    (kg/day)    (kg/day)'
      write(11,*)'                                               --------
     & --------    --------    --------    --------'
      if (ps_num_wstld .EQ.0) then
      go to 590
      end if
      DO 585 cir=1,ps_num_wstld
6085  Format(A17,1x,A14,8x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2)
        write(11,6085)'Modeled load for:',ps_wstld_name(cir),
     &ps_WSTLD2_ORG_cal(cir),ps_WSTLD2_Nh3_cal(cir),ps_WSTLd2_NO3_cal(c
     &ir),ps_total_nitrogen_load(cir),ps_total_P(cir)

585   continue
c5080  format(A38,2x,f10.5,2x,f10.5,2x,f10.5,2x,f10.5)
6090  format(A38,2x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2)
590   write(11,6090)'Calculated load for minor point sources   ',org_N_t
     &mdl_tot,ammon_tmdl_tot,no3_tmdl_tot,min_ps_total_nitrogen_load,min
     &_ps_total_P
      write(11,*)'                                               --------
     & --------    --------    --------    --------'
      write(11,6090)'Total for all point source loads             ',ps_n
     &ut_tmdl_summary_org_N_tot,ps_nut_tmdl_summary_nh3_N_tot,ps_nut_tmd
     &l_summary_no3_N_tot,ps_tot_nitrogen_final_load,ps_tot_P_final
      write(11,*)' '
7000  Format(A31,f4.1,A2,3x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2)
      write(11,7000)'MOS for all point Sources     (',ps_mos_per,'%)',
     &mos_ps_nut_tmdl_sum_org_N_tot,mos_ps_nut_tmdl_sum_nh3_N_tot,
     &mos_ps_nut_tmdl_sum_no3_N_tot,mos_ps_tot_nitrogen_final_load,
     &mos_ps_tot_P_final
7005  Format(A31,f4.1,A2,3x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2)
      write(11,7005)'FG for all point Sources      (',ps_mos_p
     &er,'%)',FG_ps_nut_tmdl_sum_org_N_tot,FG_ps_nut_tmdl_sum_nh3_N_to
     &t,FG_ps_nut_tmdl_sum_no3_N_tot,FG_ps_tot_nitrogen_final_load,
     &FG_ps_tot_P_final
      if (ps_num_wstld .EQ.0) then
      go to 610
      end if
      DO 600 cir=1,ps_num_wstld
7010  Format(A9,1x,A20,A1,f4.1,A2,3x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2,2
     &x,f10.2)
600   write(11,7010)'WLA for: ',ps_wstld_name(cir),'(',100-ps_mos_per-ps
     &_FG_per,'%)',wla_ps_WSTLD2_ORG_cal_sum(cir),wla_ps_WSTLd2_nH3_cal_
     &sum(cir),wla_ps_wstLD2_NO3_cal_sum(cir),wla_ps_total_nitrogen_load
     &(cir),wla_ps_total_P(cir)
610   continue
7020  format(A31,f4.1,A2,3x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2,2x,f10.2)

      write(11,7020)'WLA for minor point sources   (',100-ps_mos_per-ps_
     &FG_per,'%)   ',wla_min_ps_nut_tmdl_sum_org,wla_min_ps_nut_tmdl_sum
     &_nh3,wla_min_ps_nut_tmdl_sum_no3,wla_min_ps_nitrogen_final_load
```

```
     &,wla_min_ps_P_final

605   Print*,'Program has made the output file!!!'

606   STOP
      END
```

APPENDIX S

Ammonia Toxicity Calculations

AMMONIA TOXICITY CALCULATIONS FOR BLACK BAYOU RESERVOIR (SUBSEGMENT 100405)

Equations from 1999 Update of Ambient Water Quality Criteria for Ammonia, EPA-822-R-99-014, Dec. 1999.

Use chronic criterion when fish early life stages are present (as mentioned on page 88, this is the same as CCC for early life stages absent when temp > 15°C)

CCC, in mg N/L = $[0.0577/(1+10^{7.688-pH}) + 2.487/(1+10^{pH-7.688})] * MIN [2.85, 1.45*10^{0.028*(25-T)}]$

Note: CCC is the Chronic Criterion Concentration

CCC calculations below use seasonal average pH from LDEQ ambient monitoring data at station 272 (Flat River east of Taylortown):

Summer (May-Oct)		Winter (Nov-Apr)	
Date	pH (su)	Date	pH (su)
07-MAY-2002	6.91	07-JAN-2002	7.5
04-JUN-2002	6.56	05-FEB-2002	7.3
16-JUL-2002	6.83	05-MAR-2002	6.5
06-AUG-2002	6.59	02-APR-2002	7.31
10-SEP-2002	7.01	06-NOV-2002	6.98
08-OCT-2002	7.23	03-DEC-2002	6.93
Average =	6.855	Average =	7.08666667

Model Element	Summer				Winter			
	Temp. in projection run (°C)	Calculated CCC (mg N/L)	Predicted NH3-N conc. in projection (mg N/L)	Toxic ?	Temp. in projection run (°C)	Calculated CCC (mg N/L)	Predicted NH3-N conc. in projection (mg N/L)	Toxic ?
1	30.2	2.26	0.31	No	16.5	5.02	0.56	No
2	30.2	2.26	0.24	No	16.5	5.02	0.56	No
3	30.2	2.26	0.21	No	16.5	5.02	0.57	No
4	30.2	2.26	0.20	No	16.5	5.02	0.57	No
5	30.2	2.26	0.19	No	16.5	5.02	0.57	No
6	30.2	2.26	0.19	No	16.5	5.02	0.57	No
7	30.2	2.26	0.18	No	16.5	5.02	0.57	No
8	30.2	2.26	0.18	No	16.5	5.02	0.57	No
9	30.2	2.26	0.18	No	16.5	5.02	0.57	No
10	30.2	2.26	0.18	No	16.5	5.02	0.57	No
11	30.2	2.26	0.18	No	16.5	5.02	0.57	No
12	30.2	2.26	0.18	No	16.5	5.02	0.57	No
13	30.2	2.26	0.18	No	16.5	5.02	0.57	No
14	30.2	2.26	0.18	No	16.5	5.02	0.57	No
15	30.2	2.26	0.18	No	16.5	5.02	0.57	No
16	30.2	2.26	0.18	No	16.5	5.02	0.56	No
17	30.2	2.26	0.18	No	16.5	5.02	0.56	No
18	30.2	2.26	0.18	No	16.5	5.02	0.56	No
19	30.2	2.26	0.18	No	16.5	5.02	0.56	No
20	30.2	2.26	0.18	No	16.5	5.02	0.56	No
21	30.2	2.26	0.19	No	16.5	5.02	0.57	No
22	30.2	2.26	0.19	No	16.5	5.02	0.58	No
23	30.2	2.26	0.19	No	16.5	5.02	0.58	No
24	30.2	2.26	0.19	No	16.5	5.02	0.59	No
25	30.2	2.26	0.19	No	16.5	5.02	0.59	No
26	30.2	2.26	0.19	No	16.5	5.02	0.59	No

Model Element	Summer				Winter			
	Temp. in projection run (ºC)	Calculated CCC (mg N/L)	Predicted NH3-N conc. in projection (mg N/L)	Toxic ?	Temp. in projection run (ºC)	Calculated CCC (mg N/L)	Predicted NH3-N conc. in projection (mg N/L)	Toxic ?
27	30.2	2.26	0.19	No	16.5	5.02	0.60	No
28	30.2	2.26	0.19	No	16.5	5.02	0.60	No
29	30.2	2.26	0.19	No	16.5	5.02	0.60	No
30	30.2	2.26	0.19	No	16.5	5.02	0.60	No
31	30.2	2.26	0.19	No	16.5	5.02	0.60	No
32	30.2	2.26	0.19	No	16.5	5.02	0.60	No
33	30.2	2.26	0.19	No	16.5	5.02	0.60	No
34	30.2	2.26	0.19	No	16.5	5.02	0.60	No
35	30.2	2.26	0.19	No	16.5	5.02	0.60	No
36	30.2	2.26	0.19	No	16.5	5.02	0.60	No
37	30.2	2.26	0.19	No	16.5	5.02	0.60	No
38	30.2	2.26	0.19	No	16.5	5.02	0.60	No
39	30.2	2.26	0.19	No	16.5	5.02	0.60	No
40	30.2	2.26	0.19	No	16.5	5.02	0.60	No
41	30.2	2.26	0.19	No	16.5	5.02	0.61	No
42	30.2	2.26	0.19	No	16.5	5.02	0.61	No
43	30.2	2.26	0.19	No	16.5	5.02	0.62	No
44	30.2	2.26	0.19	No	16.5	5.02	0.62	No
45	30.2	2.26	0.19	No	16.5	5.02	0.62	No
46	30.2	2.26	0.19	No	16.5	5.02	0.62	No
47	30.2	2.26	0.19	No	16.5	5.02	0.62	No
48	30.2	2.26	0.19	No	16.5	5.02	0.62	No
49	30.2	2.26	0.19	No	16.5	5.02	0.62	No
50	30.2	2.26	0.19	No	16.5	5.02	0.62	No
51	30.2	2.26	0.19	No	16.5	5.02	0.62	No
52	30.2	2.26	0.19	No	16.5	5.02	0.62	No
53	30.2	2.26	0.19	No	16.5	5.02	0.62	No
54	30.2	2.26	0.19	No	16.5	5.02	0.62	No
55	30.2	2.26	0.19	No	16.5	5.02	0.62	No
56	30.2	2.26	0.19	No	16.5	5.02	0.62	No
57	30.2	2.26	0.19	No	16.5	5.02	0.62	No
58	30.2	2.26	0.20	No	16.5	5.02	0.62	No
59	30.2	2.26	0.20	No	16.5	5.02	0.62	No
60	30.2	2.26	0.20	No	16.5	5.02	0.61	No
61	30.2	2.26	0.20	No	16.5	5.02	0.61	No
62	30.2	2.26	0.20	No	16.5	5.02	0.61	No
63	30.2	2.26	0.20	No	16.5	5.02	0.61	No
64	30.2	2.26	0.20	No	16.5	5.02	0.61	No
65	30.2	2.26	0.20	No	16.5	5.02	0.61	No
66	30.2	2.26	0.20	No	16.5	5.02	0.61	No
67	30.2	2.26	0.20	No	16.5	5.02	0.61	No
68	30.2	2.26	0.20	No	16.5	5.02	0.61	No
69	30.2	2.26	0.20	No	16.5	5.02	0.61	No
70	30.2	2.26	0.20	No	16.5	5.02	0.61	No
71	30.2	2.26	0.20	No	16.5	5.02	0.61	No
72	30.2	2.26	0.20	No	16.5	5.02	0.61	No
73	30.2	2.26	0.20	No	16.5	5.02	0.61	No
74	30.2	2.26	0.20	No	16.5	5.02	0.61	No
75	30.2	2.26	0.20	No	16.5	5.02	0.61	No
76	30.2	2.26	0.20	No	16.5	5.02	0.61	No
77	30.2	2.26	0.20	No	16.5	5.02	0.61	No

Model Element	Summer				Winter			
	Temp. in projection run (ºC)	Calculated CCC (mg N/L)	Predicted NH3-N conc. in projection (mg N/L)	Toxic ?	Temp. in projection run (ºC)	Calculated CCC (mg N/L)	Predicted NH3-N conc. in projection (mg N/L)	Toxic ?
	Number of elements with toxicity =			0	Number of elements with toxicity =			0

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AMMONIA TOXICITY CALCULATIONS FOR BLACK BAYOU RESERVOIR (SUBSEGMENT 100405)

Equations from 1999 Update of Ambient Water Quality Criteria for Ammonia, EPA-822-R-99-014, Dec. 1999.

Use chronic criterion when fish early life stages are present (as mentioned on page 88, this is the same as CCC for early life stages absent when temp > 15°C)

CCC, in mg N/L = $[0.0577/(1+10^{7.688-pH}) + 2.487/(1+10^{pH-7.688})] * MIN [2.85, 1.45*10^{0.028*(25-T)}]$

Note: CCC is the Chronic Criterion Concentration

CCC calculations below use seasonal average pH from LDEQ ambient monitoring data at station 272 (Flat River east of Taylortown):

Summer (May-Oct)		Winter (Nov-Apr)	
Date	pH (su)	Date	pH (su)
07-MAY-2002	6.58	07-JAN-2002	7.18
04-JUN-2002	6.52	05-FEB-2002	7.17
16-JUL-2002	6.7	05-MAR-2002	6.8
06-AUG-2002	6.66	02-APR-2002	7.48
10-SEP-2002	7.02	06-NOV-2002	7.08
08-OCT-2002	6.86	03-DEC-2002	6.91
Average =	6.72333333	Average =	7.10333333

Model Element	Summer				Winter			
	Temp. in projection run (°C)	Calculated CCC (mg N/L)	Predicted NH3-N conc. in projection (mg N/L)	Toxic ?	Temp. in projection run (°C)	Calculated CCC (mg N/L)	Predicted NH3-N conc. in projection (mg N/L)	Toxic ?
1	30.2	2.33	0.22	No	16	5.14	0.65	No
2	30.2	2.33	0.21	No	16	5.14	0.69	No
3	30.2	2.33	0.21	No	16	5.14	0.71	No
4	30.2	2.33	0.21	No	16	5.14	0.71	No
5	30.2	2.33	0.21	No	16	5.14	0.71	No
6	30.2	2.33	0.21	No	16	5.14	0.71	No
7	30.2	2.33	0.21	No	16	5.14	0.72	No
8	30.2	2.33	0.21	No	16	5.14	0.72	No
9	30.2	2.33	0.21	No	16	5.14	0.71	No
10	30.2	2.33	0.21	No	16	5.14	0.71	No
11	30.2	2.33	0.21	No	16	5.14	0.71	No
12	30.2	2.33	0.21	No	16	5.14	0.71	No
13	30.2	2.33	0.21	No	16	5.14	0.71	No
14	30.2	2.33	0.21	No	16	5.14	0.71	No
15	30.2	2.33	0.21	No	16	5.14	0.71	No
16	30.2	2.33	0.21	No	16	5.14	0.71	No
17	30.2	2.33	0.21	No	16	5.14	0.71	No
18	30.2	2.33	0.21	No	16	5.14	0.71	No
19	30.2	2.33	0.21	No	16	5.14	0.71	No
20	30.2	2.33	0.21	No	16	5.14	0.71	No
21	30.2	2.33	0.21	No	16	5.14	0.71	No
22	30.2	2.33	0.21	No	16	5.14	0.71	No
23	30.2	2.33	0.21	No	16	5.14	0.71	No
24	30.2	2.33	0.21	No	16	5.14	0.71	No
25	30.2	2.33	0.21	No	16	5.14	0.71	No
26	30.2	2.33	0.21	No	16	5.14	0.71	No

Model Element	Summer				Winter			
	Temp. in projection run (ºC)	Calculated CCC (mg N/L)	Predicted NH3-N conc. in projection (mg N/L)	Toxic ?	Temp. in projection run (ºC)	Calculated CCC (mg N/L)	Predicted NH3-N conc. in projection (mg N/L)	Toxic ?
27	30.2	2.33	0.21	No	16	5.14	0.71	No
28	30.2	2.33	0.21	No	16	5.14	0.71	No
29	30.2	2.33	0.21	No	16	5.14	0.71	No
30	30.2	2.33	0.21	No	16	5.14	0.71	No
31	30.2	2.33	0.20	No	16	5.14	0.71	No
32	30.2	2.33	0.20	No	16	5.14	0.71	No
33	30.2	2.33	0.20	No	16	5.14	0.71	No
34	30.2	2.33	0.20	No	16	5.14	0.71	No
35	30.2	2.33	0.20	No	16	5.14	0.71	No
36	30.2	2.33	0.20	No	16	5.14	0.71	No
37	30.2	2.33	0.20	No	16	5.14	0.71	No
38	30.2	2.33	0.20	No	16	5.14	0.71	No
39	30.2	2.33	0.20	No	16	5.14	0.71	No
40	30.2	2.33	0.20	No	16	5.14	0.71	No
41	30.2	2.33	0.20	No	16	5.14	0.71	No
42	30.2	2.33	0.20	No	16	5.14	0.71	No
43	30.2	2.33	0.20	No	16	5.14	0.71	No
44	30.2	2.33	0.20	No	16	5.14	0.71	No
45	30.2	2.33	0.20	No	16	5.14	0.71	No
46	30.2	2.33	0.20	No	16	5.14	0.71	No
47	30.2	2.33	0.20	No	16	5.14	0.71	No
48	30.2	2.33	0.20	No	16	5.14	0.71	No
49	30.2	2.33	0.20	No	16	5.14	0.71	No
50	30.2	2.33	0.20	No	16	5.14	0.71	No
51	30.2	2.33	0.20	No	16	5.14	0.71	No
52	30.2	2.33	0.20	No	16	5.14	0.71	No
53	30.2	2.33	0.20	No	16	5.14	0.71	No
54	30.2	2.33	0.20	No	16	5.14	0.71	No
55	30.2	2.33	0.20	No	16	5.14	0.71	No
56	30.2	2.33	0.20	No	16	5.14	0.71	No
57	30.2	2.33	0.20	No	16	5.14	0.71	No
58	30.2	2.33	0.20	No	16	5.14	0.71	No
59	30.2	2.33	0.20	No	16	5.14	0.71	No
60	30.2	2.33	0.21	No	16	5.14	0.72	No
61	30.2	2.33	0.20	No	16	5.14	0.71	No
62	30.2	2.33	0.20	No	16	5.14	0.71	No
63	30.2	2.33	0.20	No	16	5.14	0.70	No
64	30.2	2.33	0.20	No	16	5.14	0.70	No
65	30.2	2.33	0.20	No	16	5.14	0.70	No
66	30.2	2.33	0.20	No	16	5.14	0.70	No
67	30.2	2.33	0.20	No	16	5.14	0.70	No
68	30.2	2.33	0.20	No	16	5.14	0.70	No
69	30.2	2.33	0.20	No	16	5.14	0.70	No
70	30.2	2.33	0.20	No	16	5.14	0.70	No
71	30.2	2.33	0.20	No	16	5.14	0.70	No
72	30.2	2.33	0.20	No	16	5.14	0.70	No
73	30.2	2.33	0.20	No	16	5.14	0.70	No
74	30.2	2.33	0.20	No	16	5.14	0.70	No
75	30.2	2.33	0.20	No	16	5.14	0.70	No
76	30.2	2.33	0.20	No	16	5.14	0.70	No
77	30.2	2.33	0.20	No	16	5.14	0.70	No
78	30.2	2.33	0.20	No	16	5.14	0.70	No

Model Element	Summer				Winter			
	Temp. in projection run (ºC)	Calculated CCC (mg N/L)	Predicted NH3-N conc. in projection (mg N/L)	Toxic ?	Temp. in projection run (ºC)	Calculated CCC (mg N/L)	Predicted NH3-N conc. in projection (mg N/L)	Toxic ?
79	30.2	2.33	0.20	No	16	5.14	0.70	No
80	30.2	2.33	0.22	No	16	5.14	0.73	No
81	30.2	2.33	0.20	No	16	5.14	0.70	No
82	30.2	2.33	0.20	No	16	5.14	0.70	No
83	30.2	2.33	0.20	No	16	5.14	0.70	No
84	30.2	2.33	0.20	No	16	5.14	0.70	No
85	30.2	2.33	0.20	No	16	5.14	0.70	No
86	30.2	2.33	0.20	No	16	5.14	0.70	No
87	30.2	2.33	0.20	No	16	5.14	0.70	No
88	30.2	2.33	0.20	No	16	5.14	0.70	No
89	30.2	2.33	0.20	No	16	5.14	0.70	No
90	30.2	2.33	0.20	No	16	5.14	0.70	No
91	30.2	2.33	0.20	No	16	5.14	0.70	No
92	30.2	2.33	0.20	No	16	5.14	0.70	No
93	30.2	2.33	0.20	No	16	5.14	0.70	No
94	30.2	2.33	0.20	No	16	5.14	0.70	No
95	30.2	2.33	0.20	No	16	5.14	0.70	No
96	30.2	2.33	0.20	No	16	5.14	0.70	No
97	30.2	2.33	0.20	No	16	5.14	0.70	No
98	30.2	2.33	0.20	No	16	5.14	0.70	No
99	30.2	2.33	0.20	No	16	5.14	0.70	No
100	30.2	2.33	0.20	No	16	5.14	0.70	No
101	30.2	2.33	0.20	No	16	5.14	0.70	No

Number of elements with toxicity = 0

Number of elements with toxicity = 0

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