

Appendix A. Historical Data Collected at the Blanco River Routine Monitoring Site

TNRCC Segment 1813
 TNRCC Station 12668
 Station Number 11 Blanco River at FM 165 Bridge crossing near City of Blanco
 Latitude 30/05/27 Longitude 98/24/06

Parameter	Parameter Code	Date and 24 hour time											
		10/28/96 1452	11/4/96 1316	12/9/96 1304	1/20/97 1145	2/10/97 910	3/18/97 1145	4/14/97 945	5/13/97 1106	6/16/97 1205	7/15/97 1155	8/18/97 1335	9/29/97 1220
Flow (cfs)	61	18	2.2	6.52	35	12.5	122	262	105	329	152	98	
Fecal Coliform(org/100mL)	31616	159	6	0	2	2	42	22	120	175	86	16	12
Suspended Solids(mg/L)	530	3.3	1	<1.0	1.3	1.8	4.4	11.5	6.9	9.4	7.2	3.6	1.9
Turbidity(NTU)	82079	0.9	0.68	0.44	1.4	1.8	4.4	8.5	4.6	4.2	2.5	2	1.2
pH	400	8.1	8.05	8.08	9	8.28	8.45	8.04	8.22	7.26	7.42	8.42	7.99
Temperature(C)	10	23.5	17.97	14.68	8.91	11	16.01	14.65	21.24	26.48	28.1	29.5	26.22
Dissolved Oxygen(mg/L)	300	8.34	10.05	10.55	11.85	10.19	11.4	10.08	9.38	8.39	7.94	8.2	8.43
Conductivity(umhos/cm)	94	481	563	622	480	475	500	436	543	515	508	510	474
Total Phosphorus(mg/L)	665	0.01	0.03	0.06	0.13	0.05	0.01	<0.05	<0.05	0.05	0.09	0.09	0.05
Nitrate-N(mg/L)	630	0.04	<0.02	<0.02	0.37	0.26	0.55	0.81	1.78	0.84	1.62	1.25	0.74
Chloride(mg/L)	940	17.3	16.4	30.5	13	14.3	17.6	12.4	27.5	9	13.6	13.1	14.5
Sulfate(mg/L)	945	81.2	121	141	35.3	39.2	26.4	25.2	27.7	23	31	36	36.2
Total Hardness(mg/L)	900	217	260	230	238	248	230	238	133	274	232	160	294
Ammonia-N(mg/L)	610	0.18	0.07			0.15	0.33		0.08		0.07		
E. coli(org/100mL)	31648	25	33	0	2	2	36	16	70	138	72	18	12
Chlorophyll a(mg/m ³)	32211	<1.0	1.33	<1.0	2.67	11.1	<1.0	<1.0	<1.0	<1.0	1.1	1	<1.0

Parameter	Parameter Code	Date and 24 hour time											
		10/20/97 1420	11/17/97 1336	12/8/97 1518	1/12/98 1334	2/9/98 1341	3/17/98 1300	4/13/98 1258	5/20/98 1023	6/11/98 1037	7/13/98 1359	8/10/98 1340	9/16/98 1022
Flow (cfs)													
Fecal Coliform(org/100mL)	31616	16	16	4	8	80	950	10	10	102	2	5	2300
Suspended Solids(mg/L)	530	2.2	<1.0	3.4	2.4	1.9	20	7.2	1	<1.0	2.8	1.5	5.1
Turbidity(NTU)	82079	1.8	4	1.6	3.1	1.6	28	3.4	1.4	1.7	2.6	2.3	5.9
pH	400	8.07	8.26	8.1	7.85	7.95	8.3	8.07	8.07	7.88	7.66	7.94	8.23
Temperature(C)	10	22.35	11.8	14.32	14.38	13.59	16.38	22.16	25.13	26.18	33.75	32.12	25.79
Dissolved Oxygen(mg/L)	300	9.49	11.82	11.56	10.72	11.29	10.12	10.03	8.21	8.37	8.08	7.94	7.97
Conductivity(umhos/cm)	94	520	486	478	475	485	411	490	488	444	418	395	405
Total Phosphorus(mg/L)	665	<0.05	<0.05	<0.05	0.09	<0.05	0.14	<0.05	0.12	0.14	0.02	0.08	<0.01
Nitrate-N(mg/L)	630	0.69	0.61	0.36	0.46	0.41	0.48	0.54	0.57	0.35	<0.02	<0.02	0.36
Chloride(mg/L)	940	12.8	14.7	14.4	11.9	9.3	11.4	11.2	12.6	12.4	12	13.5	15.3
Sulfate(mg/L)	945	64.6	35.4	32.3	23.9	41.6	5.3	25.6	35.9	29.6	28.7	33.3	31.7
Total Hardness(mg/L)	900	264	285	189	233	258	210	227	234	156	141	208	168
Ammonia-N(mg/L)	610	0.06	0.07			0.25	<0.1		0.12		0.11		
E. coli(org/100mL)	31648	14	16	4	6	76	875	10	0	88	0	5	400
Chlorophyll a(mg/m ³)	32211	1.7	1.2	7	3.4	2.5	<1.0	4	<1.0	<1.0	<1.0	<1.0	<1.0

Parameter	Parameter Code	Date and 24 hour time											
		10/30/98 1115	11/18/98 1044	12/8/98 1100	1/11/99 958	2/9/99 1210	3/15/99 955	4/13/99 951	5/12/99 940	6/14/99 1255	7/12/99 1012	8/12/99 1442	9/14/99 1055
Flow (cfs)										14.4	20.8		
Fecal Coliform(org/100mL)	31616	133	156	127	2	3	4	14	25	2	12	0	6
Suspended Solids(mg/L)	530	3.8	1.1	1.6	<1.0	4.2	<1.0	2.2	<1.0	<1.0	<1.0	1.8	1.5
Turbidity(NTU)	82079	1	2	1.9	1.7	2.3	1.4	1.7	2.1	1.2	1.2		2.5
pH	400	7.95	7.68	7.67	7.2	7.71	7.3	8.01	8	8.21	8.17	8.2	8.38
Temperature(C)	10	22.6	19.1	15.93	10.28	20.77	14.48	23.37	23.91	29.38	28.67	33.34	25.3
Dissolved Oxygen(mg/L)	300	9.12	9.61	9.91	11.24	10.34	10.76	8.34	8.35	8.9	9.41	9.31	9.55
Conductivity(umhos/cm)	94	518	561	552	550	519	512	466	455	387	369	361	350
Total Phosphorus(mg/L)	665	0.01	<0.01	<0.01	0.07	0.01	0.05	<0.01	0.08	0.11	0.032	<0.01	<0.01
Nitrate-N(mg/L)	630	0.82	0.84	1.3	1.3	0.95	0.44	<0.02	0.17	0.02	0.02	<0.02	<0.02
Chloride(mg/L)	940	12.2	10.8	13.1	12.1	13.6	10.3	13.4	11.8	14.6	9.1	15.2	15.6
Sulfate(mg/L)	945	20.4	20.3	15	31.3	34	30.8	24	26.4	22.5	29	7	26.4
Total Hardness(mg/L)	900	251	198	284	253	226	248	231	205	166	204	162	166
Ammonia-N(mg/L)	610	0.07	0.06			0.06	0.1		0.09		0.12		
E. coli(org/100mL)	31648	112	96	124	2	2	4	11	8	2	4	0	0
Chlorophyll a(mg/m ³)	32211	<1.0	<1.0	<1.0	5.4	1	<1.0	<1.0	1.6	<1.0	<1.0	1.4	1.8
Total Dissolved Solids(mg/L)	70300	246											

TABLE 11 (cont)

TNRCC Segment 1813
 TNRCC Station 12668
 Station Number 11 Blanco River at FM 165 Bridge crossing near City of Blanco
 Latitude 30/05/27 Longitude 98/24/06

Parameter	Parameter Code	Date and 24 hour time											
		10/19/99 1002	11/9/99 1042	12/14/99 959	1/24/00 1034	2/14/00 1013	3/21/00 1101	4/17/00 1404	5/9/00 1242	6/26/00 1051	7/18/00 1142	8/00	9/00
Flow (cfs)			0.95	0.45	3.38	0.712	0.84	0.78	2.02	1.8	1	no flow	no flow
Fecal Coliform(org/100mL)	31616	82	9	46	35	5	27	2	18	107	16		
Suspended Solids(mg/L)	530	<1.0	<1.0	1	1.4	2.4	2	1.4	3.6	2.8	1.6		
Turbidity(NTU)	82079	2.5	2.4	1.1	1.4	2.3	2.1	1.2	1.7	1.9	1.4		
pH	400	8.71	8.29	8.26	8.38	7.83	8.27	8.22	8.06	8.19	8.14		
Temperature(C)	10	22.53	15.9	7.8	12.77	13.25	17.36	26.89	24.7	28.83	28.31		
Dissolved Oxygen(mg/L)	300	9.96	9.74	11.42	9.56	9.71	8.66	9.01	6.94	9.32	7.11		
Conductivity(umhos/cm)	94	347	416	429	529	576	592	597	586	483	522		
Total Phosphorus(mg/L)	665	0.11	0.088	0.053	0.024	<0.01	0.014	0.041	0.06	0.04	0.01		
Nitrate-N(mg/L)	630	<0.02	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	0.44	0.02	<0.02		
Chloride(mg/L)	940	15.5	15.9	16.2	17.2	27.4	19.5	21	20.8	20.1	26.7		
Sulfate(mg/L)	945	29.6	37.9	49.9	71.7	116	97.9	119	107	103	113		
Total Hardness(mg/L)	900	172	189	216	265	278	283	263	263	256	222		
Ammonia-N(mg/L)	610	0.16		0.11		0.22		0.34		0.07			
E. coli(org/100mL)	31648	30	8	46	20	4	0	2	17	40	12		
Chlorophyll a(mg/m ³)	32211	<1.0	<1.0	<1.0	2.9	3.9	2	<1	2.8	1.6	<1		
Total Dissolved Solids(mg/L)	70300	246											

Parameter	Parameter Code	Date and 24 hour time											
		10/31/00 1048	11/27/00 1121	12/14/00 1043	1/22/01 1133	2/21/01 1001	3/19/01 956	4/9/01 1048	5/1/01 1021	6/28/01 1245	7/16/01 937	8/15/01 1019	9/12/01 1039
Flow (cfs)		2.5	70.7	60.3	75	125	150	125	59.2	10	5	6	61.36
Fecal Coliform(org/100mL)	31616	40	52	12	2	41	16	16	10	61	6	8	94
Suspended Solids(mg/L)	530	4.5	2.3	2.2	1.4	2.9	3.5	3.4	3.8	4.6	3.3	4.1	6.6
Turbidity(NTU)	82079	3.2	1.1	2	1.9	2.5	4.5	2.5	2.5	4.6	2.4	1.8	4.8
pH	400	7.62	8.26	8.15	8.09	8.06	8.15	7.96	8.03	7.67	7.65	7.74	7.98
Temperature(C)	10	23.38	13.39	10.89	9.11	17.17	12.62	22.52	22.62	29.9	30.04	28.72	25.83
Dissolved Oxygen(mg/L)	300	9.27	13.33	12.61	13.48	10.25	12.42	9.03	9.12	10	7.9	8.18	8.65
Conductivity(umhos/cm)	94	642	521	576	550	554	536	536	522	506		473	451
Total Phosphorus(mg/L)	665	0.28	0.02	0.04	0.02	0.04	<0.01	0.01	0.04	0.02	<0.01	0.04	0.17
Nitrate-N(mg/L)	630	0.12	1.36	1.38	1.01	1.13	0.88	0.92	0.84	0.21	0.09	<0.02	0.44
Chloride(mg/L)	940	23.2	13	11.6	12.1	11.2	12.8	12.3	13.1	21	28.6	18	9.6
Sulfate(mg/L)	945	162	34	41.3	25.2	25.3	25	25.3	28	31.4	29.4	25.8	5
Total Hardness(mg/L)	900	306	280	280	287	277	252	310	253	201	219	199	218
Ammonia-N(mg/L)	610	0.06		0.16		<0.02		0.02		0.04		0.03	
E. coli(org/100mL)	31648	24	38	10	2	36	16	<1	8	32	6	6	<1
Chlorophyll a(mg/m ³)	32211	7.8	<1	<1	1.5	<1	<1	<1	<1	<1	<1	4.3	5.2

Parameter	Parameter Code	Date and 24 hour time											
		10/15/01 1033	11/18/01 1232	12/17/01 1131	1/22/02 1410	2/12/02 1349	3/18/02 1242	4/24/02 1315	5/16/02 1356	6/11/02 1219	7/24/02 1354	8/16/02 1115	9/23/02 1244
Flow (cfs)		70	25	100	30.4	21.7	42.7	33	14.5	6.28	248		53
Fecal Coliform(org/100mL)	31616	840	192	**									
Suspended Solids(mg/L)	530	19.2	2.7	3.4	4.2	2.4	2.3	2.3	2.9	1.9	4.5	8	4.7
Turbidity(NTU)	82079		2.5	1.7	3.7	1.5	1.4	1.8	2.2	0.8	3.3	5.6	3.5
pH	400	7.81	8.04	8.08	8.07	8.12	8.12	8.15	8.08	8.15	8.01	7.81	7.97
Temperature(C)	10	19.89	20.77	14.72	14.09	12.25	18.96	26.92	26.17	28.95	29.13	28.2	24.4
Dissolved Oxygen(mg/L)	300	9.14	9.92	11.29	11.33	12.21	9.85	10.03	8.11	7.37	8.61	9.09	9.03
Conductivity(umhos/cm)	94	469	488	533	525	541	428	470	473	440	526	450	492
Total Phosphorus(mg/L)	665	0.1	<0.01	0.13	0.07	0.11	<0.01	0.04	0.02	0.02	0.06	<0.01	<0.05
Nitrate-N(mg/L)	630	0.38	0.26	0.99	1.1	1.2	0.84	0.39	0.08	0.08	1.44	0.83	0.88
Chloride(mg/L)	940	9.7	13.2	12.1	13.9	12.4	11.7	11.1	11	11.8	9.19	10.8	11
Sulfate(mg/L)	945	29.2	25.7	23.4	29.3	13.2	31.1	25.2	28	25.2	22.9	30.2	33.2
Total Hardness(mg/L)	900	162	228	193	262	232	280	182	235	200	269	236	253
Ammonia-N(mg/L)	610	0.07		<0.02		<0.02		0.05		0.02		0.03	
E. coli(org/100mL)	31699	660	66	88	15	3	31	10	66	120	36	71	34
Chlorophyll a(mg/m ³)	32211	<1	<1	<1	1.6	2.3	<1	<1	3	4.3	<1	2.2	<1
Pheophytin(mg/m ³)	32218			2.8	1.1	2.1		<1	<1	<1	5.3	3.5	<1

**Fecal Coliform was dropped from the list of parameters analyzed. E. coli is used for the Water Quality Index (126 org/100mL).

TABLE 11 (cont)

TNRCC Segment 1813
 TNRCC Station 12668
 Station Number 11 Blanco River at FM 165 Bridge crossing near City of Blanco
 Latitude 30/05/27 Longitude 98/24/06

Parameter	Parameter Code	Date and 24 hour time									
		10/30/02 1336	11/13/02 1254	12/17/02 1500	1/10/03 1312	2/27/03 1003	3/21/03 1137	4/17/03 1229	5/16/03 1037	6/17/03 1230	7/29/03 1147
Flow (cfs)		99	68.6	96.7	74.2	201	98	55.2	14.4	24.5	13.5
E. coli(org/100mL)	31699	49	41	13	21	75	14	17	53	86	29
Suspended Solids(mg/L)	530	9.9	6.5	3.4	3.8	3.3	10.8	4.6	3.2	3.3	2
Turbidity(NTU)	82079	5	3.1	2.9	2.7	1.8	4	4.5	2	3.5	2
pH	400	8.03	8.05	8.05	8.14	7.97	7.81	7.79	7.88	7.54	8.2
Temperature(C)	10	20.7	16.8	15.9	13.2	8.13	16.3	21.8	27	27	29.6
Dissolved Oxygen(mg/L)	300	9.58	10.94	11.2	11.3	13.9	11	10.2	7.36	10.4	6.98
Conductivity(umhos/cm)	94	481	514	514	534	530	514	509	503	415	416
Total Phosphorus(mg/L)	665	<0.05	0.12	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.02
Nitrate-N(mg/L)	630	0.25	0.3	0.41	0.31	0.29	0.65	0.55	0.18	0.13	0.05
Chloride(mg/L)	940	<10	9.5	9.9	10	9.49	10.3	12.5	12.2	8.07	10.8
Sulfate(mg/L)	945	17.1	21.4	23.8	25.8	21.2	26.5	33.5	38.2	16.1	24
Total Hardness(mg/L)	900	268	271	272	261	270	267	249	239	162	208
Ammonia-N(mg/L)	610	<0.02				<0.02		0.03		0.04	
Chlorophyll a(mg/m ³)	32211	<1	<1	2.6	<1	<1	<1	<1	1.33	3.96	<1.0
Pheophytin(mg/m ³)	32218	<1	2.3	1.8	1.76	4.61	3.19	2.86	<1	<1	1.37

Parameter	Parameter Code	Date and 24 hour time									
		10/30/02 1336	11/13/02 1254	12/17/02 1500	1/10/03 1312	2/27/03 1003	3/21/03 1137	4/17/03 1229	5/16/03 1037	6/17/03 1230	7/29/03 1147
Flow (cfs)		99	68.6	96.7	74.2	201	98	55.2	14.4	24.5	13.5
E. coli(org/100mL)	31699	49	41	13	21	75	14	17	53	86	29
Suspended Solids(mg/L)	530	9.9	6.5	3.4	3.8	3.3	10.8	4.6	3.2	3.3	2
Turbidity(NTU)	82079	5	3.1	2.9	2.7	1.8	4	4.5	2	3.5	2
pH	400	8.03	8.05	8.05	8.14	7.97	7.81	7.79	7.88	7.54	8.2
Temperature(C)	10	20.7	16.8	15.9	13.2	8.13	16.3	21.8	27	27	29.6
Dissolved Oxygen(mg/L)	300	9.58	10.94	11.2	11.3	13.9	11	10.2	7.36	10.4	6.98
Conductivity(umhos/cm)	94	481	514	514	534	530	514	509	503	415	416
Total Phosphorus(mg/L)	665	<0.05	0.12	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.02
Nitrate-N(mg/L)	630	0.25	0.3	0.41	0.31	0.29	0.65	0.55	0.18	0.13	0.05
Chloride(mg/L)	940	<10	9.5	9.9	10	9.49	10.3	12.5	12.2	8.07	10.8
Sulfate(mg/L)	945	17.1	21.4	23.8	25.8	21.2	26.5	33.5	38.2	16.1	24
Total Hardness(mg/L)	900	268	271	272	261	270	267	249	239	162	208
Ammonia-N(mg/L)	610	<0.02				<0.02		0.03		0.04	
Chlorophyll a(mg/m ³)	32211	<1	<1	2.6	<1	<1	<1	<1	1.33	3.96	<1.0
Pheophytin(mg/m ³)	32218	<1	2.3	1.8	1.76	4.61	3.19	2.86	<1	<1	1.37

Parameter	Parameter Code	Date and 24 hour time									
		10/30/02 1336	11/13/02 1254	12/17/02 1500	1/10/03 1312	2/27/03 1003	3/21/03 1137	4/17/03 1229	5/16/03 1037	6/17/03 1230	7/29/03 1147
Flow (cfs)		99	68.6	96.7	74.2	201	98	55.2	14.4	24.5	13.5
E. coli(org/100mL)	31699	49	41	13	21	75	14	17	53	86	29
Suspended Solids(mg/L)	530	9.9	6.5	3.4	3.8	3.3	10.8	4.6	3.2	3.3	2
Turbidity(NTU)	82079	5	3.1	2.9	2.7	1.8	4	4.5	2	3.5	2
pH	400	8.03	8.05	8.05	8.14	7.97	7.81	7.79	7.88	7.54	8.2
Temperature(C)	10	20.7	16.8	15.9	13.2	8.13	16.3	21.8	27	27	29.6
Dissolved Oxygen(mg/L)	300	9.58	10.94	11.2	11.3	13.9	11	10.2	7.36	10.4	6.98
Conductivity(umhos/cm)	94	481	514	514	534	530	514	509	503	415	416
Total Phosphorus(mg/L)	665	<0.05	0.12	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.02
Nitrate-N(mg/L)	630	0.25	0.3	0.41	0.31	0.29	0.65	0.55	0.18	0.13	0.05
Chloride(mg/L)	940	<10	9.5	9.9	10	9.49	10.3	12.5	12.2	8.07	10.8
Sulfate(mg/L)	945	17.1	21.4	23.8	25.8	21.2	26.5	33.5	38.2	16.1	24
Total Hardness(mg/L)	900	268	271	272	261	270	267	249	239	162	208
Ammonia-N(mg/L)	610	<0.02				<0.02		0.03		0.04	
Chlorophyll a(mg/m ³)	32211	<1	<1	2.6	<1	<1	<1	<1	1.33	3.96	<1.0
Pheophytin(mg/m ³)	32218	<1	2.3	1.8	1.76	4.61	3.19	2.86	<1	<1	1.37

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