APPENDIX B

Long Term Plots of Turbidity and TSS

Table B.1. Observed Turbidity and TSS Data for Bayou DeView at BDV0002.

Date	Observed turbidity (NTU)	Observed TSS (mg/L)	Flow at USGS gage (cfs)	Flow per unit area (cfs/mi2)	Load per unit area (lbs/day/mi2)	Percent of days flow exceeded	Applicable category	Applicable water quality standard (NTU)	Turbidity meeting base flow standard?	Turbidity meeting storm-flow standard?
4/10/1995	88	75	145	0.12	5.00E+01	90.17%	Base flow	75	No	
11/4/2002	37.8	20	179	0.15	1.65E+01	87.22%	Base flow	75	Yes	
2/19/1996	105		207	0.18	0.00E+00	84.87%	Base flow	75	No	
4/28/2003	458	170	312	0.27	2.44E+02	75.85%	Base flow	75	No	
8/25/2003	80.3	98.6	470	0.40	2.13E+02	64.77%	Base flow	75	No	
10/2/1995	36	41	511	0.44	9.64E+01	62.43%	Base flow	75	Yes	
9/12/1994	38	48	592	0.51	1.31E+02	58.03%	Storm-flow	250		Yes
9/23/2002	20	13.8	738	0.63	4.69E+01	51.52%	Storm-flow	250		Yes
1/16/1995	180	159.5	783	0.67	5.75E+02	50.22%	Storm-flow	250		Yes
10/7/1996	36	40.5	1020	0.87	1.90E+02	43.69%	Storm-flow	250		Yes
10/22/2001	6.8	13	1050	0.90	6.28E+01	43.06%	Storm-flow	250		Yes
6/23/2003	62.4	50	1060	0.90	2.44E+02	42.88%	Storm-flow	250		Yes
5/6/1996	128	49	1120	0.96	2.53E+02	41.41%	Storm-flow	250		Yes
6/13/1994	86	65	1250	1.07	3.74E+02	38.25%	Storm-flow	250		Yes
7/17/1995	33	33	1370	1.17	2.08E+02	35.82%	Storm-flow	250		Yes
5/21/2002	160	66	1690	1.44	5.13E+02	29.62%	Storm-flow	250		Yes
1/28/2002	170	58.5	2240	1.91	6.03E+02	20.89%	Storm-flow	250		Yes
7/29/2002	4	11	2480	2.12	1.26E+02	18.23%	Storm-flow	250		Yes
1/7/2003	126	19	2800	2.39	2.45E+02	15.37%	Storm-flow	250		Yes
3/25/2002		42	3490	2.98	6.74E+02	9.57%	Storm-flow	250		
3/10/2003	171	56	3940	3.36	1.02E+03	6.74%	Storm-flow	250		Yes

Number exceeding applicable water quality standard for turbidity =	4	0
Total number of observations in each category =	6	14
Percent exceeding applicable water quality standard for turbidity =	67%	0%

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Table B.2. Observed Turbidity and TSS Data for Bayou DeView at WHI0026.

Date	Observed turbidity (NTU)	Observed TSS (mg/L)	Flow at USGS gage (cfs)	Flow per unit area (cfs/mi2)	Load per unit area (lbs/day/mi2)	Percent of days flow exceeded	Applicable category	Applicable water quality standard (NTU)	Turbidity meeting base flow standard?	Turbidity meeting storm-flow standard?
10/23/1995	14	16.0	0.001	0.00	1.23E-04	99.68	Base flow	75	Yes	
10/17/2000	26	27.0	0.001	0.00	2.08E-04	99.68	Base flow	75	Yes	
11/13/2001	9	7.0	0.44	0.00	2.37E-02	99.25	Base flow	75	Yes	
10/5/2004	6	3.2	1.7	0.00	4.19E-02	99.05	Base flow	75	Yes	
11/2/1999	18	20.0	6	0.01	9.23E-01	98.33	Base flow	75	Yes	
10/18/1994	48	30.5	7	0.01	1.64E+00	98.20	Base flow	75	Yes	
6/12/2001	6	14.3	11	0.02	1.21E+00	97.26	Base flow	75	Yes	
11/6/1990	36		13	0.02	0.00E+00	96.98	Base flow	75	Yes	
10/27/1992	96	62.0	14	0.02	6.68E+00	96.81	Base flow	75	No	
11/9/1998	55	11.5	18	0.03	1.59E+00	95.95	Base flow	75	Yes	
10/8/2002	22	12.2	20	0.03	1.88E+00	95.33	Base flow	75	Yes	
4/22/2003	18	19.5	20	0.03	3.00E+00	95.33	Base flow	75	Yes	
5/20/1997	13	25.0	23	0.03	4.42E+00	94.10	Base flow	75	Yes	
3/12/1991	25	22.0	25	0.04	4.23E+00	93.21	Base flow	75	Yes	
9/21/1999	17	23.5	29	0.04	5.24E+00	92.03	Base flow	75	Yes	
11/9/1993	25	10.0	30	0.04	2.31E+00	91.79	Base flow	75	Yes	
9/19/2000	28	34.0	32	0.05	8.37E+00	91.31	Base flow	75	Yes	
12/15/1998	88	31.5	37	0.05	8.97E+00	89.97	Base flow	75	No	
10/1/1991	22	27.0	41	0.06	8.52E+00	88.68	Base flow	75	Yes	
3/14/2000	20	10.0	41	0.06	3.15E+00	88.68	Base flow	75	Yes	
6/24/2003	75	41.5	41	0.06	1.31E+01	88.68	Base flow	75	Yes	
6/11/1991	26	27.0	45	0.06	9.35E+00	87.94	Base flow	75	Yes	
9/23/1997	13	14.0	49	0.07	5.28E+00	87.09	Base flow	75	Yes	
9/30/2003	7	5.5	49	0.07	2.07E+00	87.09	Base flow	75	Yes	
12/7/1999	6	8.0	54	0.08	3.32E+00	85.91	Base flow	75	Yes	
5/21/1996	37	30.0	55	0.08	1.27E+01	85.64	Base flow	75	Yes	
4/18/1995	29	35.0	59	0.08	1.59E+01	84.67	Base flow	75	Yes	
4/6/2004	21	20.0	62	0.09	9.54E+00	84.05	Base flow	75	Yes	
9/26/1995	47	19.5	65	0.09	9.75E+00	83.17	Base flow	75	Yes	
10/14/1997	160	102.5	66	0.09	5.20E+01	82.91	Base flow	75	No	

Date	Observed turbidity (NTU)	Observed TSS (mg/L)	Flow at USGS gage (cfs)	Flow per unit area (cfs/mi2)	Load per unit area (lbs/day/mi2)	Percent of days flow exceeded	Applicable category	Applicable water quality standard (NTU)	Turbidity meeting base flow standard?	Turbidity meeting storm-flow standard?
9/20/1994	35	45.0	67	0.10	2.32E+01	82.65	Base flow	75	Yes	
2/23/1999	24	7.0	68	0.10	3.66E+00	82.38	Base flow	75	Yes	
5/11/1999	52	26.5	70	0.10	1.43E+01	81.79	Base flow	75	Yes	
3/25/2003	50	31.8	74	0.11	1.81E+01	80.86	Base flow	75	Yes	
2/1/2000	1	1.0	76	0.11	5.85E-01	80.29	Base flow	75	Yes	
12/9/1997	73	7.0	77	0.11	4.15E+00	80.00	Base flow	75	Yes	
4/11/2000	15	13.0	78	0.11	7.80E+00	79.73	Base flow	75	Yes	
3/21/1995	110	25.5	81	0.12	1.59E+01	78.88	Base flow	75	No	
6/20/1995	30	37.0	87	0.12	2.48E+01	77.64	Base flow	75	Yes	
7/9/1991	30	30.0	90	0.13	2.08E+01	76.95	Base flow	75	Yes	
5/12/1992	18	37.0	91	0.13	2.59E+01	76.71	Base flow	75	Yes	
6/24/1997	34	31.0	96	0.14	2.29E+01	75.58	Base flow	75	Yes	
11/12/1997	32	17.0	100	0.14	1.31E+01	74.56	Base flow	75	Yes	
9/17/2002	210	162.0	100	0.14	1.25E+02	74.56	Base flow	75	No	
1/21/2003	56	3.8	103	0.15	3.01E+00	73.88	Base flow	75	Yes	
11/20/1995	47	9.0	105	0.15	7.27E+00	73.45	Base flow	75	Yes	
6/25/2002	11		107	0.15	0.00E+00	73.06	Base flow	75	Yes	
2/20/1996	205	154.0	110	0.16	1.30E+02	72.42	Base flow	75	No	
3/26/1996	160	140.0	110	0.16	1.18E+02	72.42	Base flow	75	No	
4/10/2001	18	18.5	115	0.16	1.64E+01	71.45	Base flow	75	Yes	
7/17/2001	5	9.5	125	0.18	9.14E+00	69.75	Base flow	75	Yes	
5/9/2000	44	36.5	126	0.18	3.54E+01	69.57	Base flow	75	Yes	
2/3/1998	36	13.0	128	0.18	1.28E+01	69.13	Base flow	75	Yes	
1/3/1995	51	3.0	129	0.18	2.98E+00	68.92	Base flow	75	Yes	
2/12/1991	33	20.0	138	0.20	2.12E+01	67.26	Base flow	75	Yes	
7/6/1993	25	63.0	140	0.20	6.79E+01	67.02	Base flow	75	Yes	
2/6/1995	53	10.0	153	0.22	1.18E+01	65.03	Base flow	75	Yes	
8/7/2001	7	5.8	162	0.23	7.17E+00	63.71	Base flow	75	Yes	
12/10/2002	40	8.8	179	0.26	1.21E+01	61.40	Base flow	75	Yes	
3/17/1992	14	20.0	182	0.26	2.80E+01	60.91	Base flow	75	Yes	
3/17/1992	270	177.0	182	0.26	2.48E+02	60.91	Base flow	75	No	
8/6/1996		47.0	221	0.32	7.99E+01	56.47	Storm-flow	250		

Table B.2.
Turbidity and TSS data WHI0026

Date	Observed turbidity (NTU)	Observed TSS (mg/L)	Flow at USGS gage (cfs)	Flow per unit area (cfs/mi2)	Load per unit area (lbs/day/mi2)	Percent of days flow exceeded	Applicable category	Applicable water quality standard (NTU)	Turbidity meeting base flow standard?	Turbidity meeting storm-flow standard?
3/22/1994	48	24.0	229	0.33	4.23E+01	55.66	Storm-flow	250		Yes
8/3/2004	32	22.2	244	0.35	4.17E+01	54.37	Storm-flow	250		Yes
1/21/1992	36	18.0	248	0.35	3.43E+01	53.88	Storm-flow	250		Yes
8/16/1994	28	37.5	262	0.37	7.56E+01	52.80	Storm-flow	250		Yes
10/21/2003	53	18.5	272	0.39	3.87E+01	52.09	Storm-flow	250		Yes
8/29/1995	08	12.0	274	0.39	2.53E+01	51.92	Storm-flow	250		Yes
3/23/1999	63	19.0	304	0.43	4.44E+01	49.63	Storm-flow	250		Yes
2/13/2001	54	21.0	307	0.44	4.96E+01	49.42	Storm-flow	250		Yes
9/3/1996	41	56.0	308	0.44	1.33E+02	49.33	Storm-flow	250		Yes
8/1/1995	76	72.5	324	0.46	1.81E+02	48.22	Storm-flow	250		Yes
8/19/2003	32	22.2	326	0.47	5.57E+01	48.08	Storm-flow	250		Yes
7/20/1999	05	22.0	328	0.47	5.55E+01	47.95	Storm-flow	250		Yes
7/18/2000	13	25.0	332	0.47	6.39E+01	47.72	Storm-flow	250		Yes
8/13/1991	180	117.0	334	0.48	3.01E+02	47.61	Storm-flow	250		Yes
6/1/1993	25	22.0	340	0.49	5.75E+01	47.23	Storm-flow	250		Yes
6/9/1992	109	110.0	342	0.49	2.89E+02	47.05	Storm-flow	250		Yes
10/1/1996	86	27.5	353	0.50	7.47E+01	46.23	Storm-flow	250		Yes
3/22/2005	266	290.0	354	0.50	7.90E+02	46.19	Storm-flow	250		No
9/11/1990	52	94.0	361	0.51	2.61E+02	45.68	Storm-flow	250		Yes
7/23/2002	30	26.5	374	0.53	7.62E+01	45.04	Storm-flow	250		Yes
4/9/1991	64	50.0	375	0.53	1.44E+02	44.99	Storm-flow	250		Yes
11/12/2002	28	10.0	392	0.56	3.02E+01	43.96	Storm-flow	250		Yes
3/16/1993	440	1358.0	400	0.57	4.18E+03	43.58	Storm-flow	250		No
7/16/1996	05	100.0	416	0.59	3.20E+02	42.76	Storm-flow	250		Yes
7/16/1996	41	23.0	416	0.59	7.36E+01	42.76	Storm-flow	250		Yes
8/24/1999	28	22.0	426	0.61	7.21E+01	42.26	Storm-flow	250		Yes
5/27/2003	51	41.5	428	0.61	1.37E+02	42.15	Storm-flow	250		Yes
2/19/2002	70	33.5	459	0.65	1.18E+02	40.86	Storm-flow	250		Yes
1/6/2004	89	22.8	486	0.69	8.52E+01	39.96	Storm-flow	250		Yes
1/23/2001	56	24.0	492	0.70	9.08E+01	39.67	Storm-flow	250		Yes
6/11/1996	97	72.5	520	0.74	2.90E+02	38.79	Storm-flow	250		Yes
3/2/2004	89	30.5	586	0.84	1.37E+02	36.76	Storm-flow	250		Yes

Table B.2.
Turbidity and TSS data WHI0026

Date	Observed turbidity (NTU)	Observed TSS (mg/L)	Flow at USGS gage (cfs)	Flow per unit area (cfs/mi2)	Load per unit area (lbs/day/mi2)	Percent of days flow exceeded	Applicable category	Applicable water quality standard (NTU)	Turbidity meeting base flow standard?	Turbidity meeting storm-flow standard?
10/12/1999	310	206.5	600	0.86	9.53E+02	36.33	Storm-flow	250		No
2/3/2004	115	49.2	647	0.92	2.45E+02	34.96	Storm-flow	250		Yes
1/6/1998	61	85.0	656	0.94	4.29E+02	34.82	Storm-flow	250		Yes
5/28/2002	47	27.0	686	0.98	1.42E+02	33.95	Storm-flow	250		Yes
9/18/2001	26	18.5	691	0.99	9.83E+01	33.86	Storm-flow	250		Yes
5/8/2001	09	17.5	695	0.99	9.36E+01	33.77	Storm-flow	250		Yes
2/23/1993	49	24.0	703	1.00	1.30E+02	33.59	Storm-flow	250		Yes
9/10/1991	42	48.0	711	1.01	2.63E+02	33.35	Storm-flow	250		Yes
8/4/1992	07	70.0	715	1.02	3.85E+02	33.29	Storm-flow	250		Yes
8/10/1993	47	45.0	720	1.03	2.49E+02	33.21	Storm-flow	250		Yes
12/2/2003	70	24.5	731	1.04	1.38E+02	32.92	Storm-flow	250		Yes
9/21/1993	60	6.0	750	1.07	3.46E+01	32.45	Storm-flow	250		Yes
7/22/2003	91	60.6	773	1.10	3.60E+02	31.98	Storm-flow	250		Yes
9/1/1992	46	34.0	802	1.14	2.10E+02	31.26	Storm-flow	250		Yes
5/10/1994	75	18.5	880	1.26	1.25E+02	29.79	Storm-flow	250		Yes
4/13/1993	51	34.0	900	1.28	2.35E+02	29.39	Storm-flow	250		Yes
4/16/2002	37	28.2	904	1.29	1.96E+02	29.31	Storm-flow	250		Yes
1/23/1996	65	14.0	985	1.41	1.06E+02	27.64	Storm-flow	250		Yes
11/18/2003	339	419.0	1020	1.46	3.29E+03	27.09	Storm-flow	250		No
8/27/2002	15	21.8	1050	1.50	1.76E+02	26.64	Storm-flow	250		Yes
5/11/1993	89		1100	1.57	0.00E+00	25.94	Storm-flow	250		Yes
1/19/1999	180		1120	1.60	0.00E+00	25.61	Storm-flow	250		Yes
2/11/1997	58	30.0	1180	1.68	2.72E+02	24.88	Storm-flow	250		Yes
7/6/2004	66	42.0	1270	1.81	4.10E+02	23.90	Storm-flow	250		Yes
4/23/1996	150		1280	1.83	0.00E+00	23.75	Storm-flow	250		Yes
9/22/1992	22	142.0	1410	2.01	1.54E+03	22.14	Storm-flow	250		Yes
1/8/2002	05	21.3	1420	2.03	2.33E+02	22.03	Storm-flow	250		Yes
1/21/1997	91	99.0	1490	2.13	1.13E+03	21.26	Storm-flow	250		Yes
12/19/1995	200	59.0	1500	2.14	6.81E+02	21.09	Storm-flow	250		Yes
5/7/1991	04	4.0	1550	2.21	4.77E+01	20.58	Storm-flow	250		Yes
10/25/1993	87	30.0	1610	2.30	3.72E+02	19.99	Storm-flow	250		Yes
1/26/1993	73	46.0	1750	2.50	6.19E+02	18.59	Storm-flow	250		Yes

Table B.2.
Turbidity and TSS data WHI0026

Date	Observed turbidity (NTU)	Observed TSS (mg/L)	Flow at USGS gage (cfs)	Flow per unit area (cfs/mi2)	Load per unit area (lbs/day/mi2)	Percent of days flow exceeded	Applicable category	Applicable water quality standard (NTU)	Turbidity meeting base flow standard?	Turbidity meeting storm-flow standard?
3/4/2003	77	24.0	1770	2.52	3.27E+02	18.36	Storm-flow	250		Yes
11/15/1994	130	46.5	1800	2.57	6.44E+02	18.09	Storm-flow	250		Yes
6/15/1999	110		1810	2.58	0.00E+00	18.00	Storm-flow	250		Yes
2/25/1992	120	107.0	1920	2.74	1.58E+03	16.88	Storm-flow	250		Yes
1/25/1994	110	177.0	2000	2.85	2.72E+03	16.11	Storm-flow	250		Yes
2/22/1994	760	936.0	2000	2.85	1.44E+04	16.11	Storm-flow	250		No
3/12/2002	235	441.0	2040	2.91	6.92E+03	15.66	Storm-flow	250		Yes
11/14/2000	49	32.0	2150	3.07	5.29E+02	14.68	Storm-flow	250		Yes
7/7/1992	150	183.0	2320	3.31	3.27E+03	13.40	Storm-flow	250		Yes
8/18/1998			2320	3.31	0.00E+00	13.40	Storm-flow	250		
4/21/1992	110	126.0	2360	3.37	2.29E+03	13.10	Storm-flow	250		Yes
2/8/2005	118	78.0	2360	3.37	1.42E+03	13.14	Storm-flow	250		Yes
5/9/1995	250		2450	3.50	0.00E+00	12.44	Storm-flow	250		Yes
10/16/2001	62	25.0	2680	3.82	5.15E+02	10.78	Storm-flow	250		Yes
11/5/1996	89	27.5	2890	4.12	6.11E+02	9.20	Storm-flow	250		Yes
7/5/1994	80	38.0	2910	4.15	8.51E+02	9.02	Storm-flow	250		Yes
4/12/1994	200	334.0	2920	4.17	7.50E+03	8.94	Storm-flow	250		Yes
12/18/1990	210	313.0	2930	4.18	7.06E+03	8.86	Storm-flow	250		Yes
11/9/2004	455	176.0	3060	4.37	4.14E+03	8.01	Storm-flow	250		No
4/6/1999	210	324.5	3100	4.42	7.74E+03	7.71	Storm-flow	250		Yes
6/7/1994	330	450.0	3120	4.45	1.08E+04	7.55	Storm-flow	250		No
1/4/2000	260	142.0	3170	4.52	3.46E+03	7.18	Storm-flow	250		No
10/9/1990	45	59.0	3200	4.56	1.45E+03	6.96	Storm-flow	250		Yes
11/23/1992	91	90.0	3240	4.62	2.24E+03	6.63	Storm-flow	250		Yes
10/20/1998	85		3300	4.71	0.00E+00	6.27	Storm-flow	250		Yes
5/4/2004	54	23.8	3380	4.82	6.19E+02	5.71	Storm-flow	250		Yes
11/5/1991	75	33.0	3420	4.88	8.68E+02	5.38	Storm-flow	250		Yes
1/18/2005	60	17.2	3420	4.88	4.53E+02	5.43	Storm-flow	250		Yes
4/15/1997	55	36.0	3430	4.89	9.50E+02	5.30	Storm-flow	250		Yes
3/10/1998	64	30.5	3530	5.04	8.28E+02	4.64	Storm-flow	250		Yes
5/12/1998	77	57.0	3530	5.04	1.55E+03	4.64	Storm-flow	250		Yes
12/7/2004	163	98.7	3720	5.31	2.82E+03	3.83	Storm-flow	250		Yes

Table B.2.
Turbidity and TSS data WHI0026

Date	Observed turbidity (NTU)	Observed TSS (mg/L)	Flow at USGS gage (cfs)	Flow per unit area (cfs/mi2)	Load per unit area (lbs/day/mi2)	Percent of days flow exceeded	Applicable category	Applicable water quality standard (NTU)	Turbidity meeting base flow standard?	Turbidity meeting storm-flow standard?
12/11/2001	58	14.0	3950	5.63	4.25E+02	2.95	Storm-flow	250		Yes
3/6/2001	74	33.0	3960	5.65	1.01E+03	2.92	Storm-flow	250		Yes
12/13/1994	74	23.5	4110	5.86	7.43E+02	2.40	Storm-flow	250		Yes
4/30/1991	140		4160	5.93	0.00E+00	2.28	Storm-flow	250		Yes
12/7/1993	80	82.0	4260	6.08	2.69E+03	2.07	Storm-flow	250		Yes
12/3/1996	57	24.5	4290	6.12	8.09E+02	1.99	Storm-flow	250		Yes
3/4/1997	180		5090	7.26	0.00E+00	0.78	Storm-flow	250		Yes
1/15/1991	105	210.0	5130	7.32	8.29E+03	0.75	Storm-flow	250		Yes

Number exceeding applicable water quality standard for turbidity =	8	8
Total number of observations in each category =	61	103
Percent exceeding applicable water quality standard for turbidity =	13%	8%

FILE: R:\PROJECTS\2110-615\TECH\TMDL\DEVIEW\DEVIEW TMDL-WHI26-DEC2005.XLS

Table B.2.
Turbidity and TSS data WHI0026

Table B.3. Observed Turbidity and TSS Data for Cache River at WHI0032.

Date	Observed turbidity (NTU)	Observed TSS (mg/L)	Flow at USGS gage (cfs)	Flow per unit area (cfs/mi2)	Load per unit area (lbs/day/mi2)	Percent of days flow exceeded	Applicable category	Applicable water quality standard (NTU)	Turbidity meeting base flow standard?	Turbidity meeting storm-flow standard?
7/29/2002	23	14.5	53	4.52E-02	3.54	99.38%	Base flow	75	Yes	
1/28/2002	56	24.5	56	4.78E-02	6.31	96.13%	Base flow	75	Yes	
4/10/1995	74	28	145	1.24E-01	18.68	90.17%	Base flow	75	Yes	
11/4/2002	44.4	16.8	179	1.53E-01	13.84	87.22%	Base flow	75	Yes	
6/7/1994	74		212	1.81E-01		84.49%	Base flow	75	Yes	
4/28/2003	152	39	312	2.66E-01	55.99	75.85%	Base flow	75	No	
2/26/1996	105	28.5	414	3.53E-01	54.29	68.27%	Base flow	75	No	
8/25/2003	30.2	26.3	470	4.01E-01	56.88	64.77%	Base flow	75	Yes	
10/2/1995	45	27.5	511	4.36E-01	64.66	62.43%	Base flow	75	Yes	
9/13/1994	36	50	586	5.00E-01	134.82	58.30%	Storm-flow	250		Yes
9/23/2002	31	23.4	738	6.30E-01	79.46	51.52%	Storm-flow	250		Yes
1/16/1995	81	11.5	783	6.68E-01	41.43	50.22%	Storm-flow	250		Yes
9/30/1996	35	21.5	965	8.23E-01	95.47	45.13%	Storm-flow	250		Yes
10/22/2001	26	17	1050	8.96E-01	82.14	43.06%	Storm-flow	250		Yes
6/23/2003	71	31.5	1060	9.04E-01	153.64	42.88%	Storm-flow	250		Yes
5/6/1996	198	31.5	1120	9.56E-01	162.34	41.41%	Storm-flow	250		Yes
7/17/1995	60	24	1370	1.17E+00	151.30	35.82%	Storm-flow	250		Yes
5/21/2002	103	50	1690	1.44E+00	388.82	29.62%	Storm-flow	250		Yes
1/7/2003	196	10.3	2800	2.39E+00	132.71	15.37%	Storm-flow	250		Yes
3/25/2002		10.5	3490	2.98E+00	168.62	9.57%	Storm-flow	250		
3/10/2003	196	17.2	3940	3.36E+00	311.83	6.74%	Storm-flow	250		Yes

Number exceeding applicable water quality standard for turbidity =	2	0
Total number of observations in each category =	9	11
Percent exceeding applicable water quality standard for turbidity =	22%	0%

FILE: R:\PROJECTS\2110-615\TECH\WQ DATA\ADEQ_DATA\WHI0032.XLS

Table B.4. Observed Turbidity and TSS Data for Cache River at CHR0002.

Date	Observed turbidity (NTU)	Observed TSS (mg/L)	Flow at USGS gage (cfs)	Flow per unit area (cfs/mi2)	Load per unit area (lbs/day/mi2)	Percent of days flow exceeded	Applicable category	Applicable water quality standard (NTU)	Turbidity meeting base flow standard?	Turbidity meeting storm-flow standard?
4/10/1995	110	41.5	145	0.12	2.77E+01	90.17%	Base flow	75	No	
11/4/2002	49.9	11	179	0.15	9.06E+00	87.22%	Base flow	75	Yes	
2/19/1996	165		207	0.18		84.87%	Base flow	75	No	
4/28/2003	303	60.8	312	0.27	8.73E+01	75.85%	Base flow	75	No	
8/25/2003	40.3	8.5	470	0.40	1.84E+01	64.77%	Base flow	75	Yes	
10/2/1995	69	69	511	0.44	1.62E+02	62.43%	Base flow	75	Yes	
9/12/1994	45	41.5	592	0.51	1.13E+02	58.03%	Storm-flow	250		Yes
9/23/2002	24	20.1	738	0.63	6.83E+01	51.52%	Storm-flow	250		Yes
1/16/1995	90	12.5	783	0.67	4.50E+01	50.22%	Storm-flow	250		Yes
10/7/1996	56	29.5	1020	0.87	1.38E+02	43.69%	Storm-flow	250		Yes
10/22/2001	18	7.3	1050	0.90	3.53E+01	43.06%	Storm-flow	250		Yes
6/23/2003	70.5	47.5	1060	0.90	2.32E+02	42.88%	Storm-flow	250		Yes
5/6/1996	410	80	1120	0.96	4.12E+02	41.41%	Storm-flow	250		No
6/13/1994	130	26.5	1250	1.07	1.52E+02	38.25%	Storm-flow	250		Yes
7/17/1995	92	89	1370	1.17	5.61E+02	35.82%	Storm-flow	250		Yes
5/21/2002	170	39	1690	1.44	3.03E+02	29.62%	Storm-flow	250		Yes
1/28/2002	130	37.5	2240	1.91	3.87E+02	20.89%	Storm-flow	250		Yes
7/29/2002	22	16	2480	2.12	1.83E+02	18.23%	Storm-flow	250		Yes
1/7/2003	253	19.8	2800	2.39	2.55E+02	15.37%	Storm-flow	250		No
3/25/2002		44	3490	2.98	7.07E+02	9.57%	Storm-flow	250		
3/10/2003	262	24.8	3940	3.36	4.50E+02	6.74%	Storm-flow	250		No
							Number exceeding applicable water quality standard for turbidity =		3	3
							Total number of observations in each category =		6	14
							Percent exceeding applicable water quality standard for turbidity =		50%	21%

FILE: R:\PROJECTS\2110-615\TECH\TMDL\CACHE\CACHE TMDL-CHR02-DEC2005.XLS

Table B.5. Observed Turbidity and TSS Data for Cache River at CHR0003.

Date	Observed turbidity (NTU)	Observed TSS (mg/L)	Flow at USGS gage (cfs)	Flow per unit area (cfs/mi2)	Load per unit area (lbs/day/mi2)	Percent of days flow exceeded	Applicable category	Applicable water quality standard (NTU)	Turbidity meeting base flow standard?	Turbidity meeting storm-flow standard?
10/2/1995	32	49.5	12	0.02	4.57E+00	97.09	Base flow	75	Yes	
4/10/1995	100	77.5	14	0.02	8.35E+00	96.79	Base flow	75	No	
10/7/1996	56	61.5	25	0.04	1.18E+01	93.06	Base flow	75	Yes	
11/4/2002	73.4	43.2	25	0.04	8.31E+00	92.99	Base flow	75	Yes	
5/6/1996	410	285	72	0.10	1.58E+02	81.19	Base flow	75	No	
6/23/2003	61.4	43.3	79	0.11	2.63E+01	79.33	Base flow	75	Yes	
9/12/1994	29	60	117	0.17	5.40E+01	71.00	Base flow	75	Yes	
2/19/1996	250		120	0.17		70.49	Base flow	75	No	
10/22/2001	2.8	35.3	180	0.26	4.89E+01	61.13	Base flow	75	Yes	
7/29/2002	38	65	180	0.26	9.00E+01	61.13	Base flow	75	Yes	
6/13/1994	94	37	225	0.32	6.40E+01	55.95	Storm-flow	250		Yes
3/10/2003	368	157	292	0.42	3.53E+02	50.47	Storm-flow	250		No
7/17/1995	52	79.5	297	0.42	1.82E+02	50.13	Storm-flow	250		Yes
1/16/1995	170	104.5	335	0.48	2.69E+02	47.46	Storm-flow	250		Yes
8/25/2003	15.5	46	799	1.14	2.83E+02	31.34	Storm-flow	250		Yes
4/28/2003	77.7	322	2290	3.27	5.67E+03	13.63	Storm-flow	250		Yes
1/28/2002	370	176	2920	4.17	3.95E+03	8.89	Storm-flow	250		No
5/21/2002	225	144	3170	4.52	3.51E+03	7.15	Storm-flow	250		Yes
3/25/2002		138	3210	4.58	3.41E+03	6.86	Storm-flow	250		
9/23/2002	53	61.6	3320	4.74	1.57E+03	6.05	Storm-flow	250		Yes
1/7/2003	288	65.3	3450	4.92	1.73E+03	5.15	Storm-flow	250		No
							Number exceeding applicable water quality standard for turbidity =		3	3
							Total number of observations in each category =		10	10
							Percent exceeding applicable water quality standard for turbidity =		30%	30%

FILE: R:\PROJECTS\2110-615\TECH\TMDL\CACHE\CACHE TMDL-CHR03-DEC2005.XLS

Table B.6. Observed Turbidity and TSS Data for Cache River at CHR0004.

Date	Observed turbidity (NTU)	Observed TSS (mg/L)	Flow at USGS gage (cfs)	Flow per unit area (cfs/mi2)	Load per unit area (lbs/day/mi2)	Percent of days flow exceeded	Applicable category	Applicable water quality standard (NTU)	Turbidity meeting base flow standard?	Turbidity meeting storm-flow standard?
10/2/1995	17	13.5	12	0.02	1.25E+00	97.12	Base flow	75	Yes	
4/10/1995	50	50.5	14	0.02	5.44E+00	96.81	Base flow	75	Yes	
10/7/1996	27	16.5	25	0.04	3.17E+00	93.21	Base flow	75	Yes	
11/4/2002	27.9	5.3	25	0.04	1.02E+00	93.21	Base flow	75	Yes	
5/6/1996	220	128	72	0.10	7.09E+01	81.28	Base flow	75	No	
6/23/2003	95.3	85.4	79	0.11	5.19E+01	79.46	Base flow	75	No	
9/12/1994	34	48	117	0.17	4.32E+01	71.07	Base flow	75	Yes	
2/19/1996	195		120	0.17		70.56	Base flow	75	No	
10/22/2001	79	76	180	0.26	1.05E+02	61.24	Base flow	75	No	
7/29/2002	34	69.5	180	0.26	9.62E+01	61.24	Base flow	75	Yes	
6/13/1994	82	101	225	0.32	1.75E+02	55.98	Storm-flow	250		Yes
3/10/2003	469	480	292	0.42	1.08E+03	50.51	Storm-flow	250		No
7/17/1995	53	94.5	297	0.42	2.16E+02	50.15	Storm-flow	250		Yes
1/16/1995	91	57	335	0.48	1.47E+02	47.51	Storm-flow	250		Yes
8/25/2003	58.9	70.5	799	1.14	4.33E+02	31.36	Storm-flow	250		Yes
4/28/2003	449	261	2290	3.27	4.60E+03	13.67	Storm-flow	250		No
1/28/2002	310	160	2920	4.17	3.59E+03	8.94	Storm-flow	250		No
5/21/2002	220	88.5	3170	4.52	2.16E+03	7.18	Storm-flow	250		Yes
3/25/2002		55	3210	4.58	1.36E+03	6.88	Storm-flow	250		
9/23/2002	53	88.2	3320	4.74	2.25E+03	6.07	Storm-flow	250		Yes
1/7/2003	274	55.5	3450	4.92	1.47E+03	5.18	Storm-flow	250		No

Number exceeding applicable water quality standard for turbidity =	4	4
Total number of observations in each category =	10	10
Percent exceeding applicable water quality standard for turbidity =	40%	40%

FILE: R:\PROJECTS\2110-615\TECH\TMDL\CACHE\CACHE TMDL-CHR04-DEC2005.XLS

Figure B.1. Long Term TSS for Bayou DeView at Hwy 64 (BDV0002)

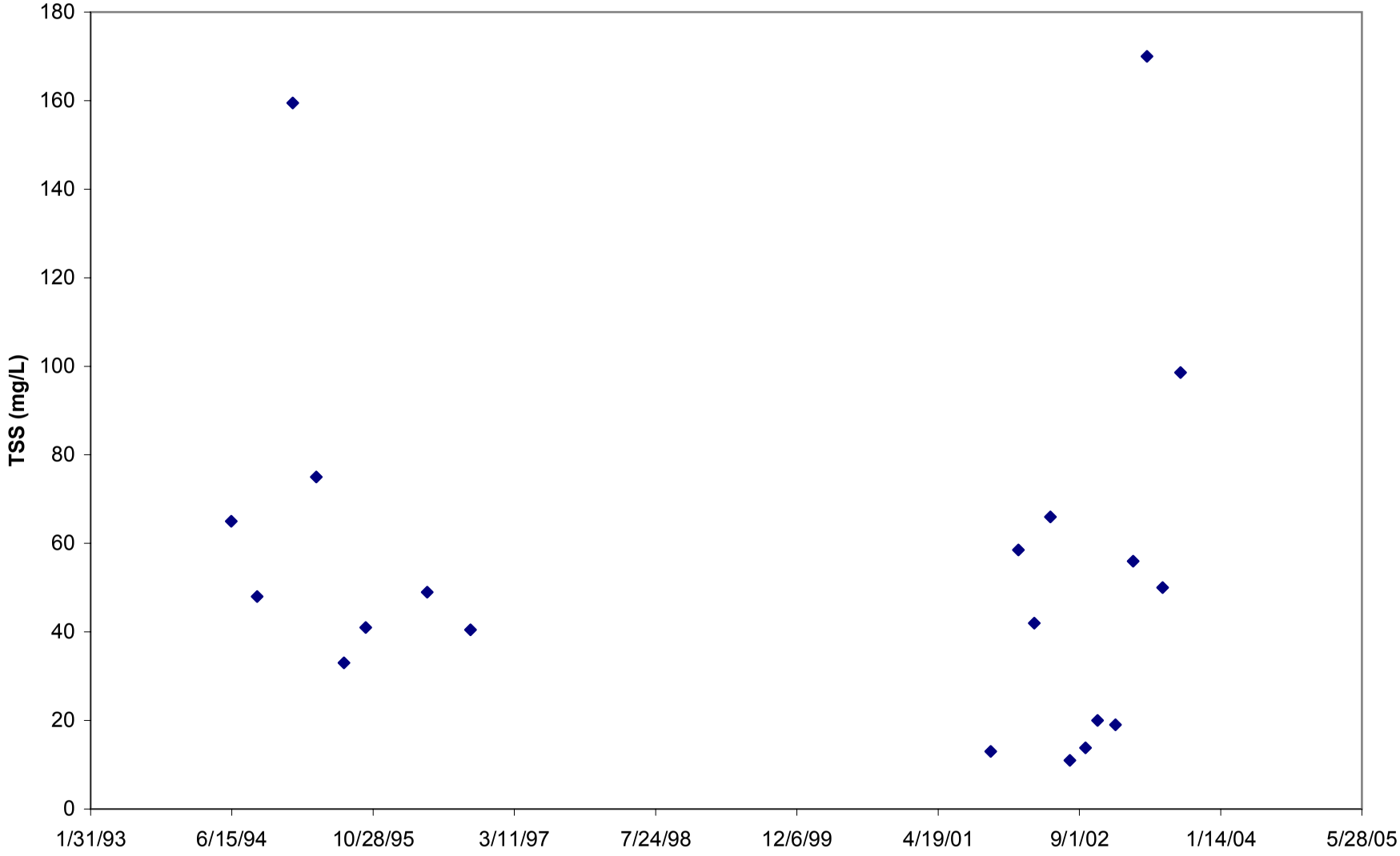


Figure B.2. Long Term Turbidity for Bayou DeView at Hwy 64 (BDV0002)

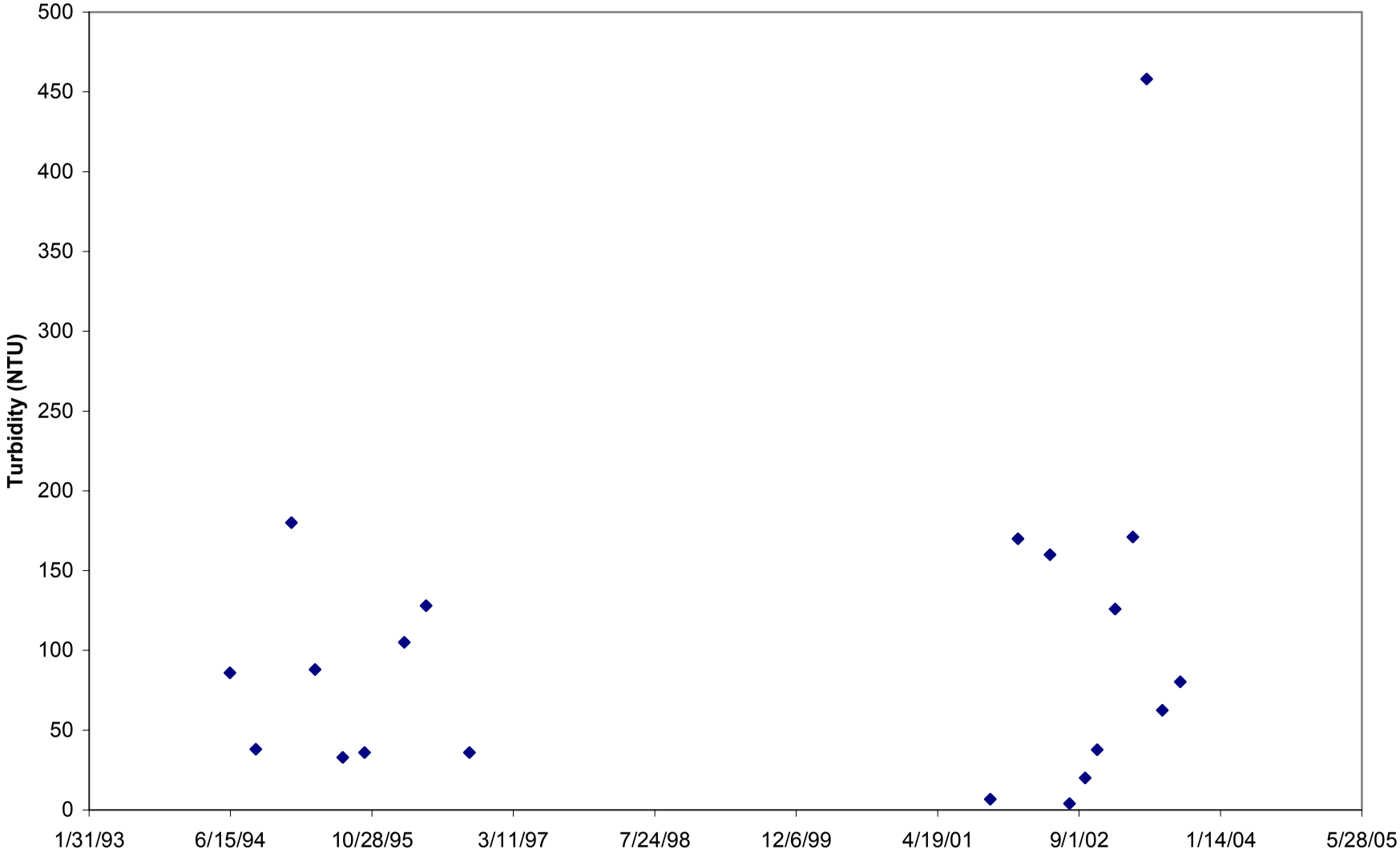


Figure B.3. Observed Long Term TSS for Bayou DeView West of Gibson, AR (WHI0026)

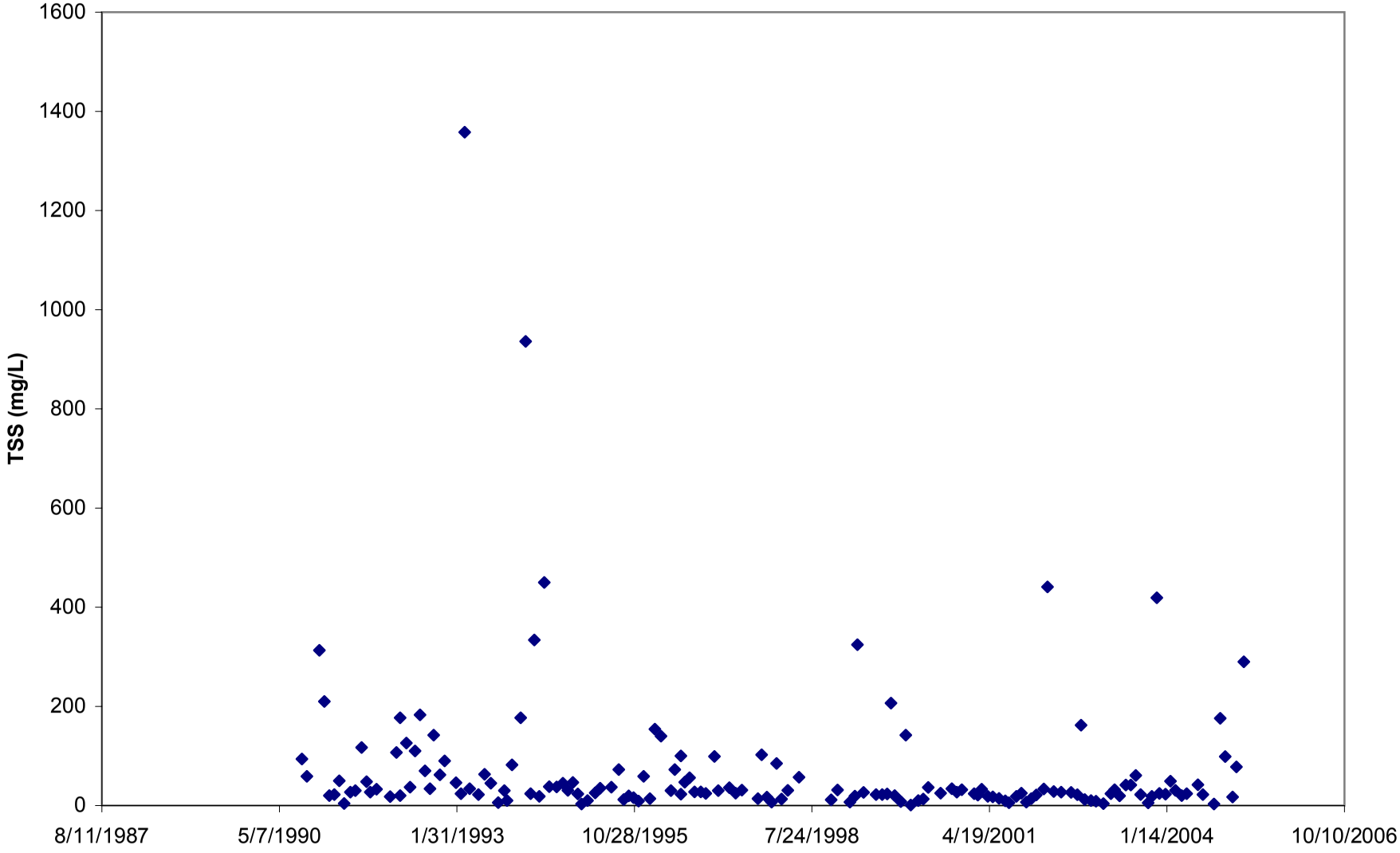


Figure B.4. Observed Long Term Turbidity for Bayou DeView West of Gibson, AR (WHI0026)

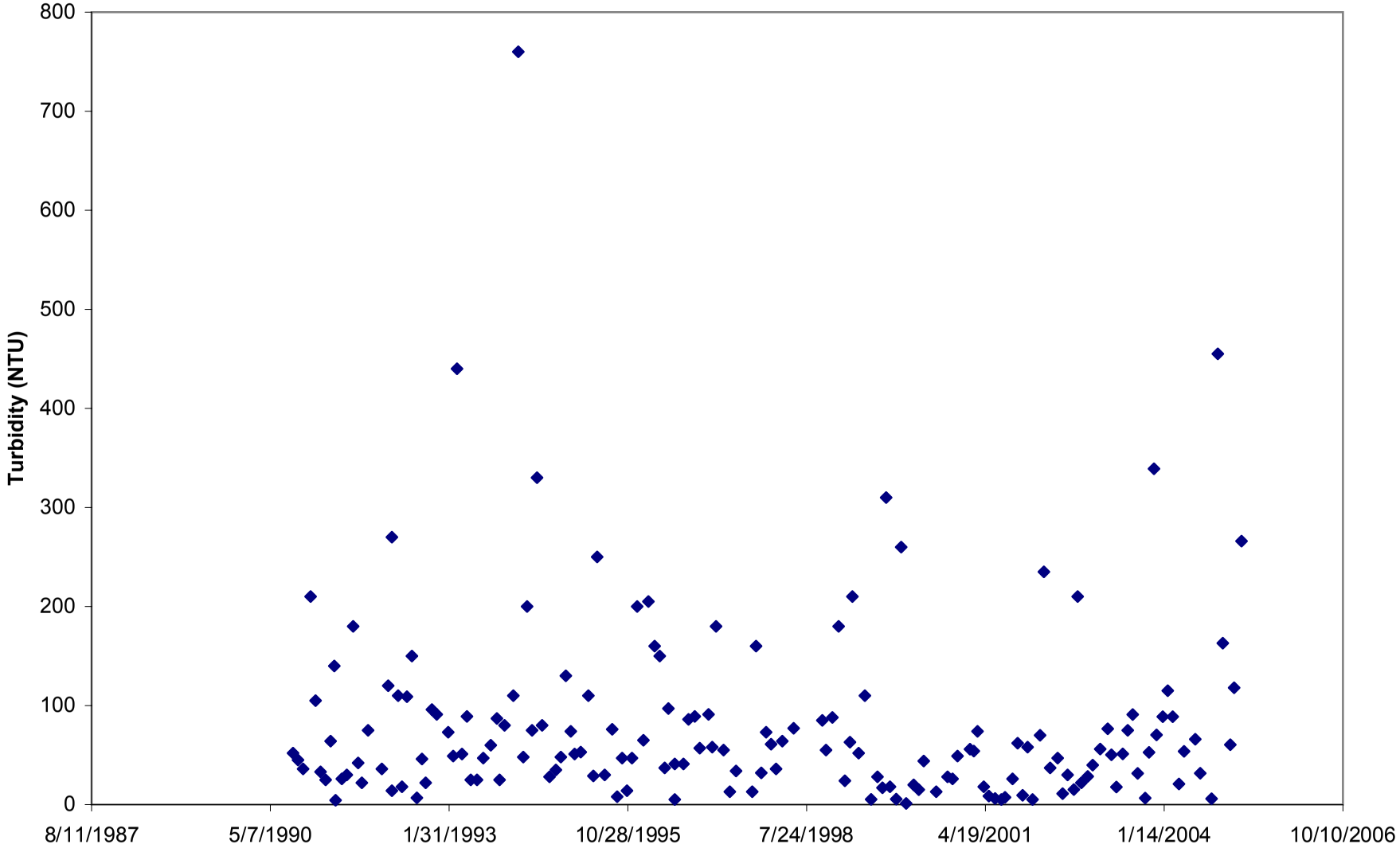


Figure B.5. Observed Long Term TSS for Cache RIver near Brasfield, AR (WHI0032)

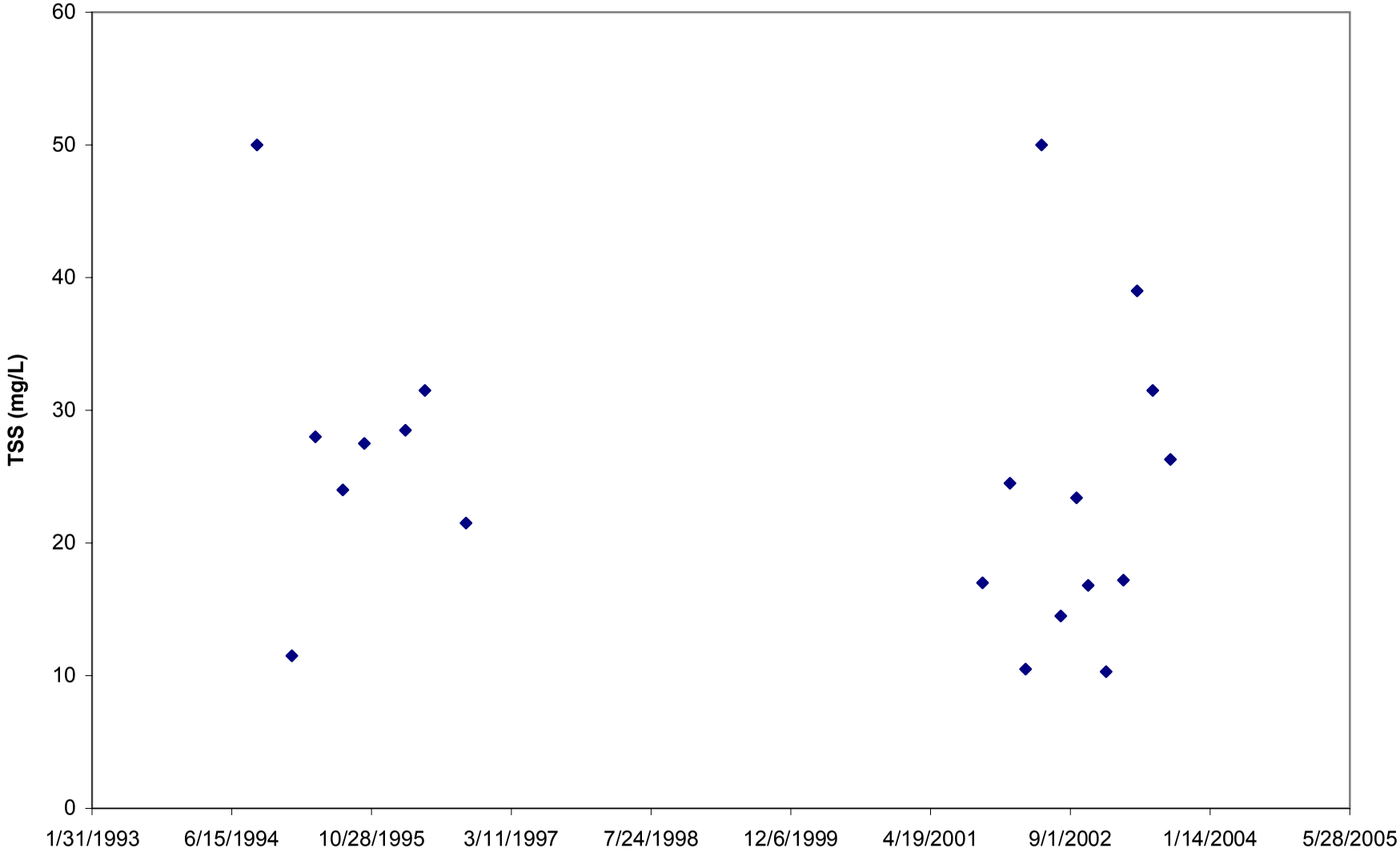


Figure B.6. Observed Long Term Turbidity for Cache RIver near Brasfield, AR (WHI0032)

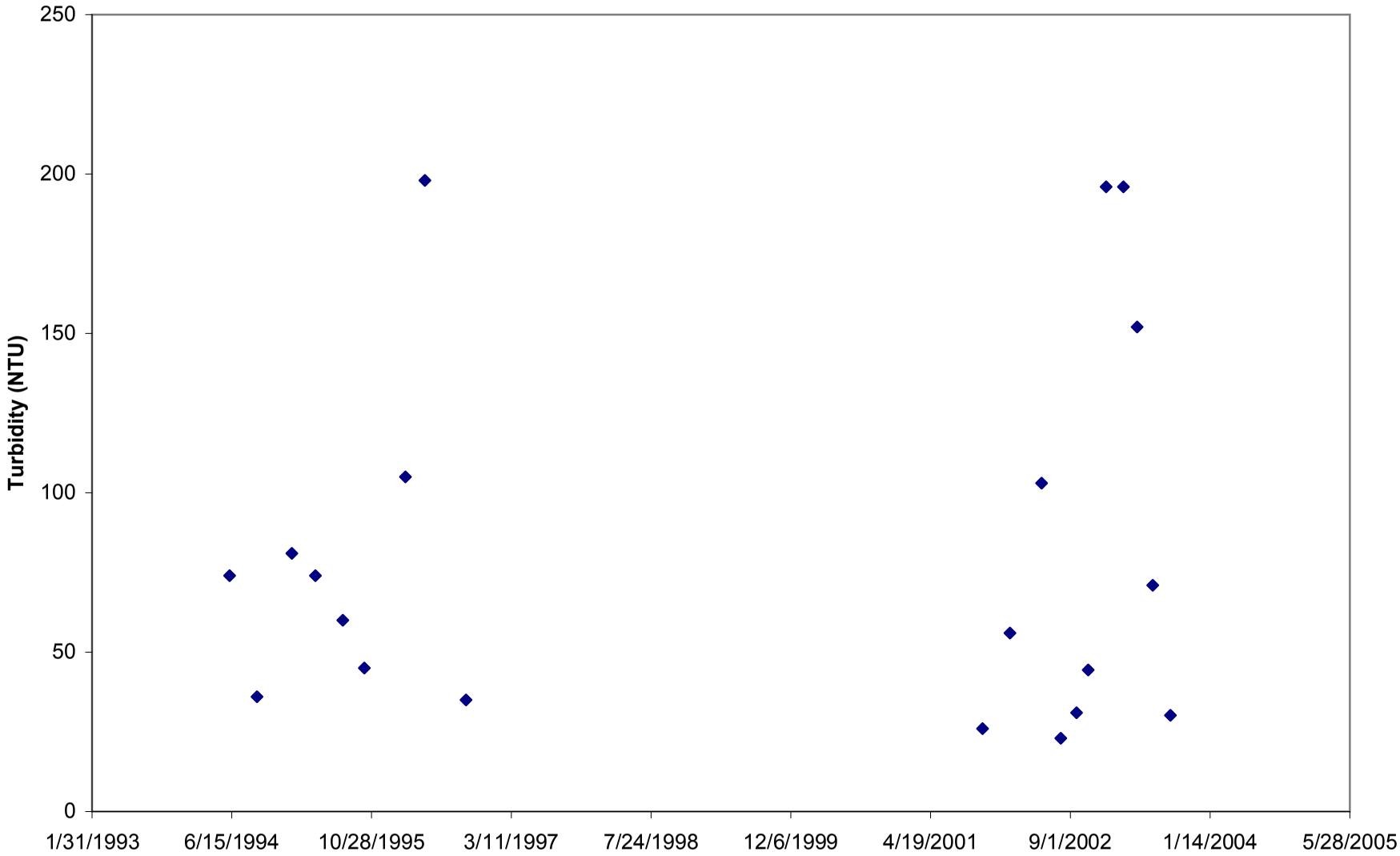


Figure B.7. Observed Long TermTSS for Cache River near Peterson, AR (CHR0002)

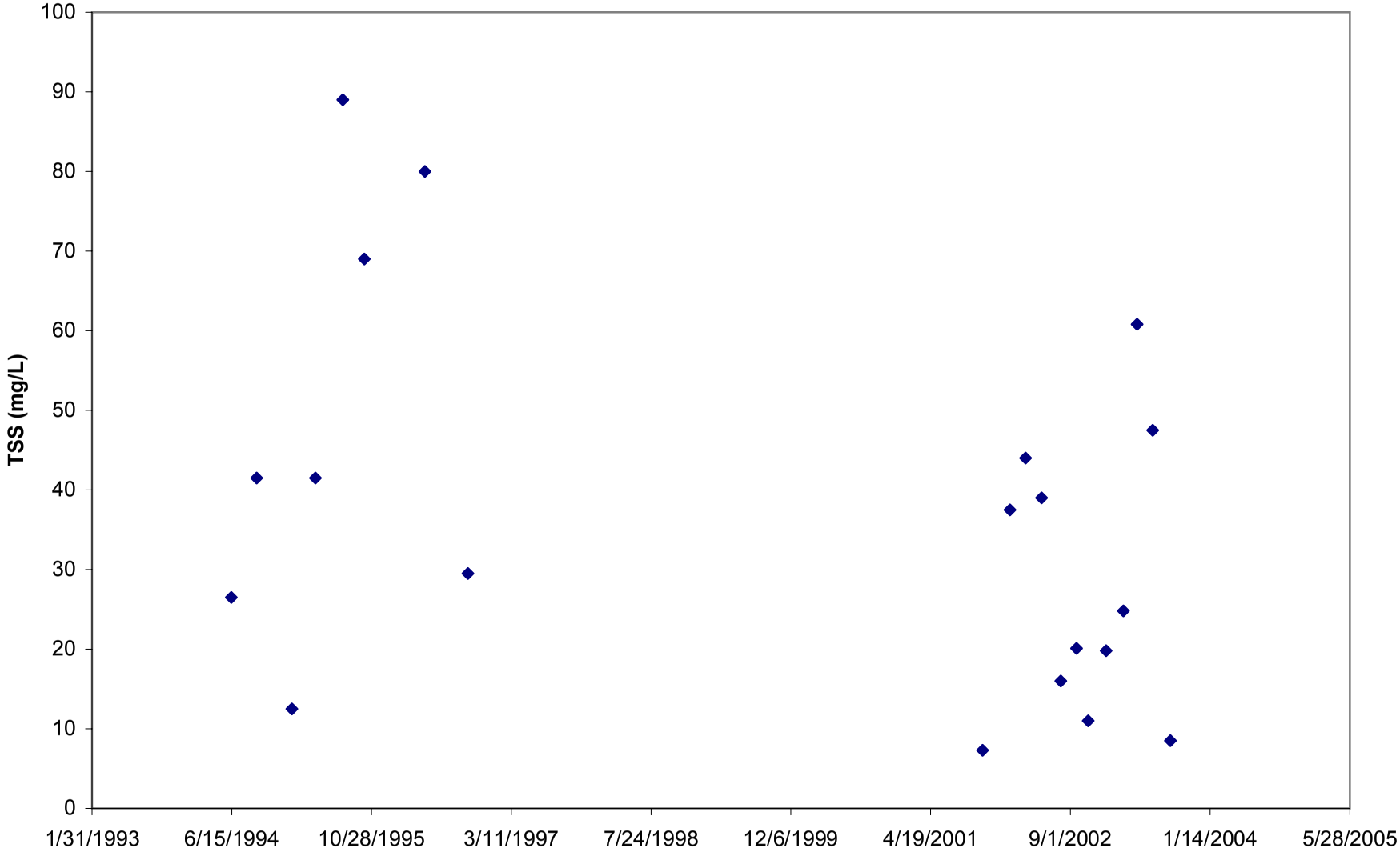


Figure B.8. Observed Long TermTurbidity for Cache River near Peterson, AR (CHR0002)

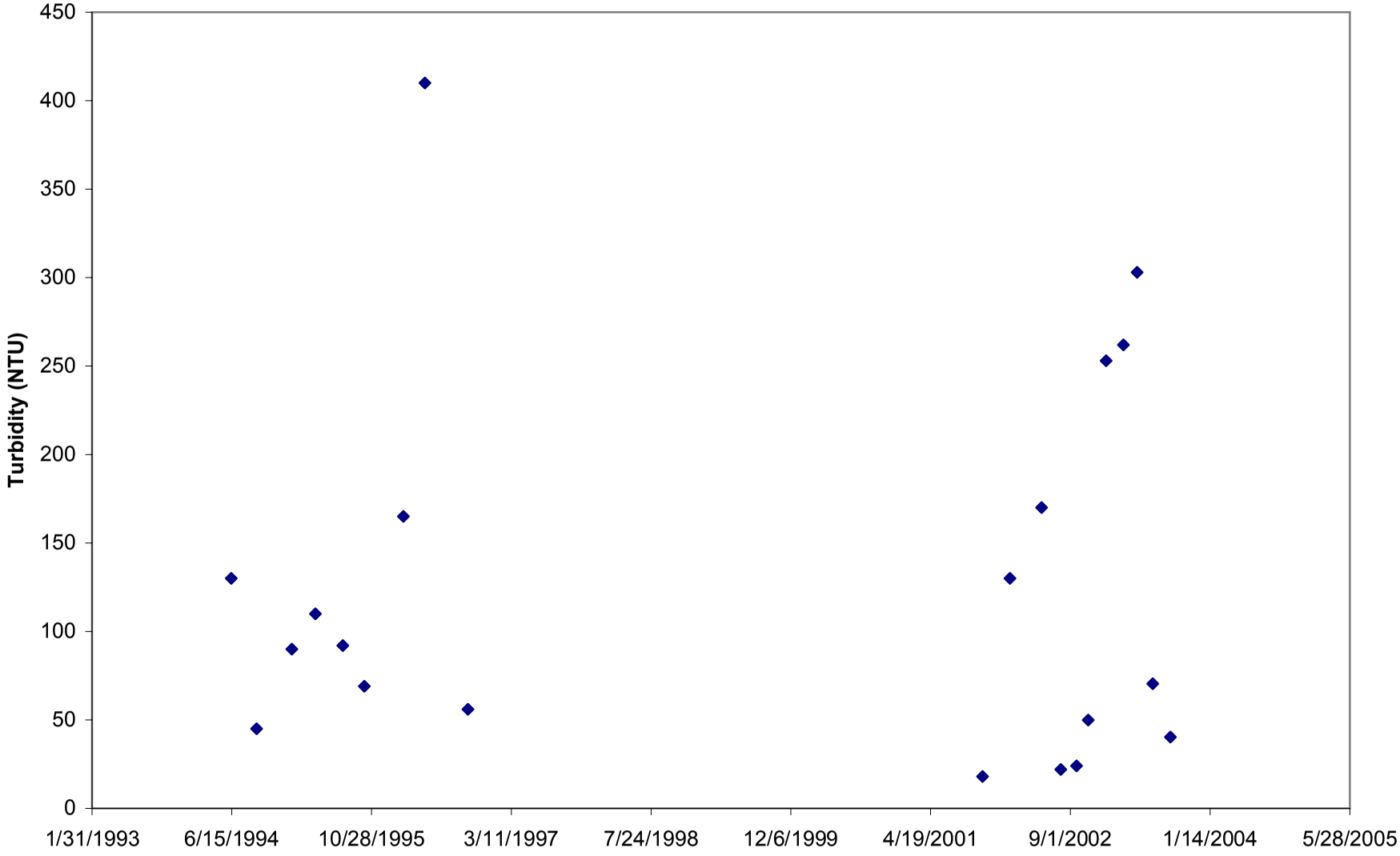


Figure B.9. Observed Long Term TSS for Cache River at Hwy 18 (CHR0003)

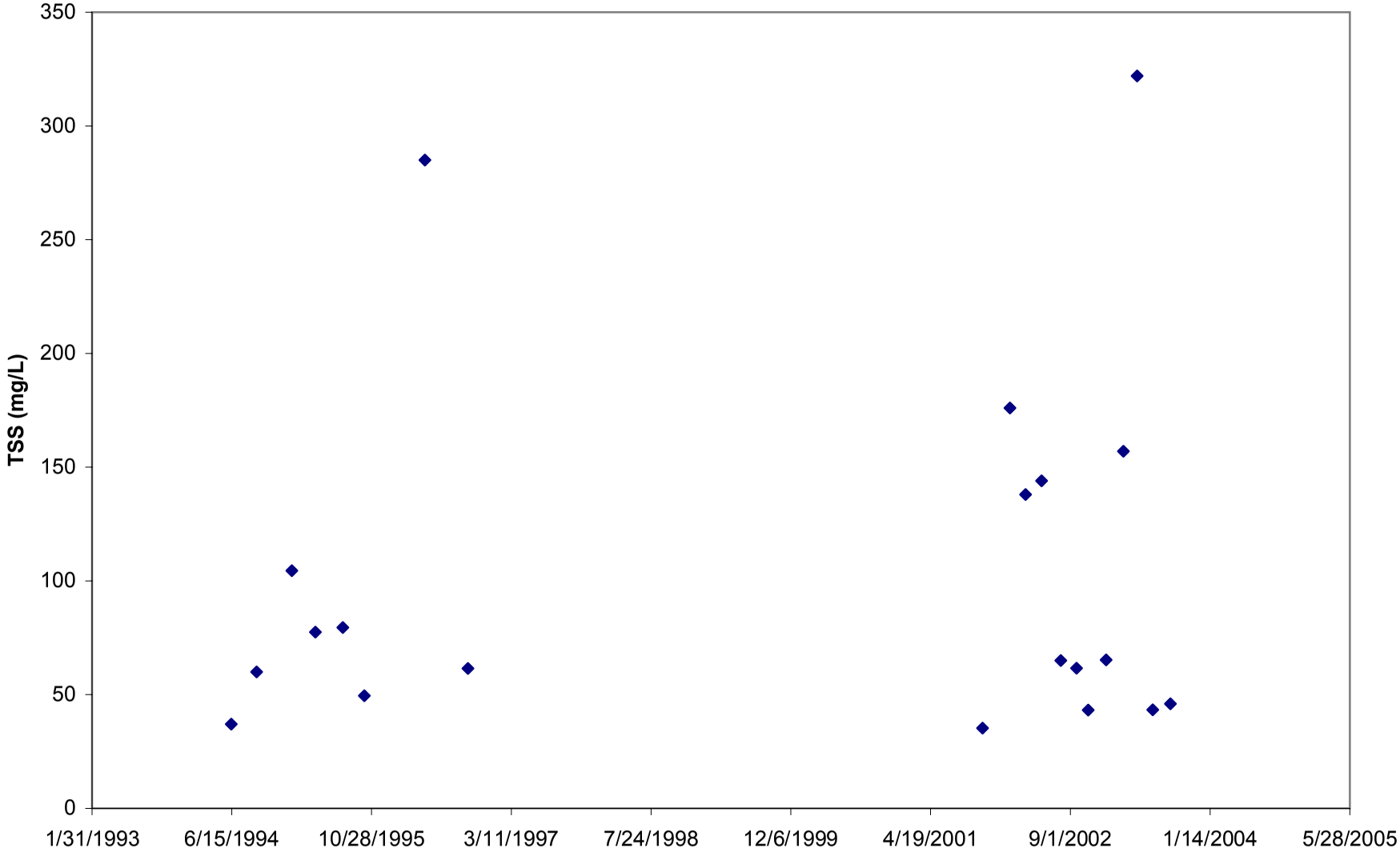


Figure B.10. Observed Long Term Turbidity for Cache River at Hwy 18 (CHR0003)

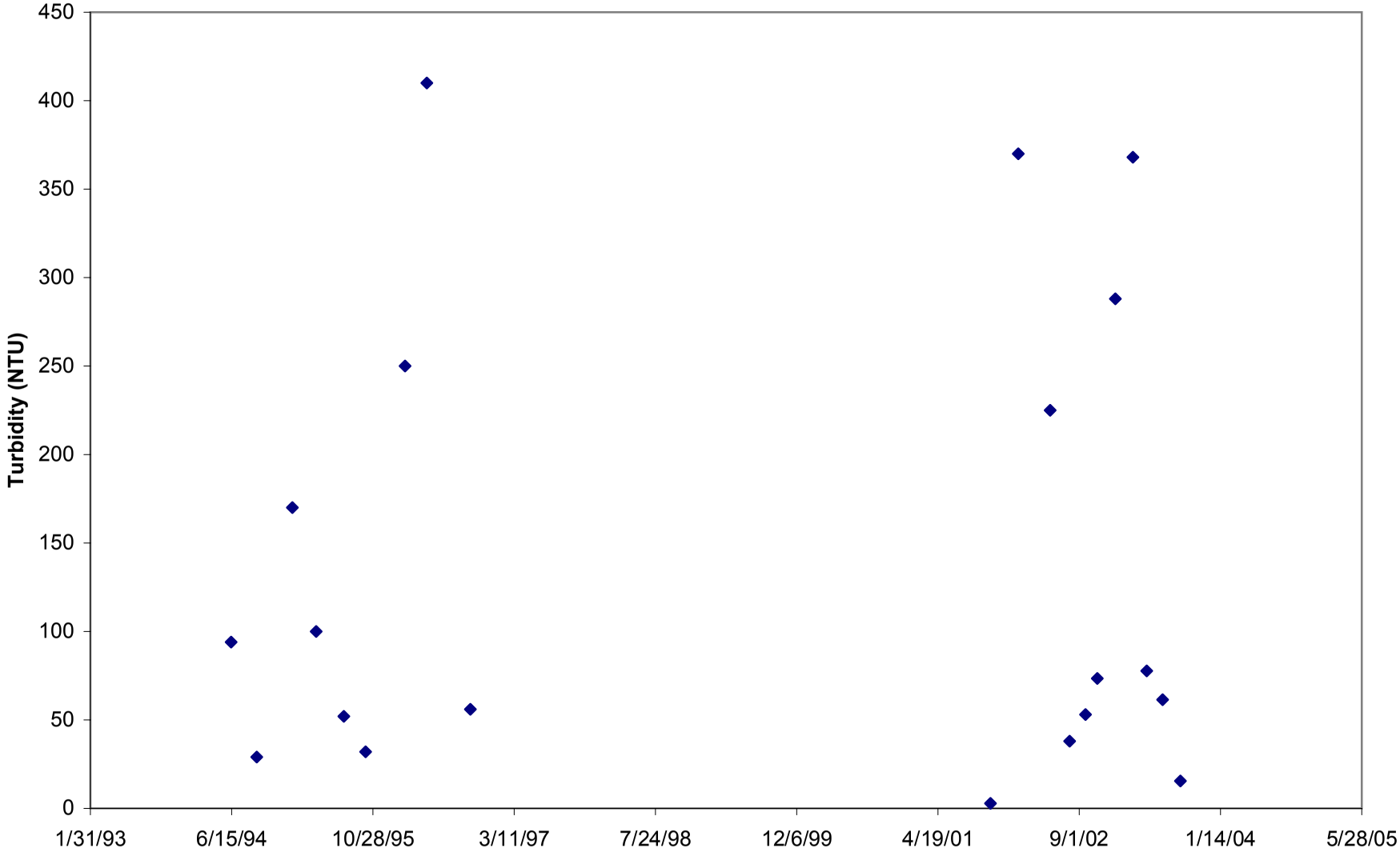


Figure B.11. Observed Long Term TSS for Cache River near Hwy 412 (CHR0004)

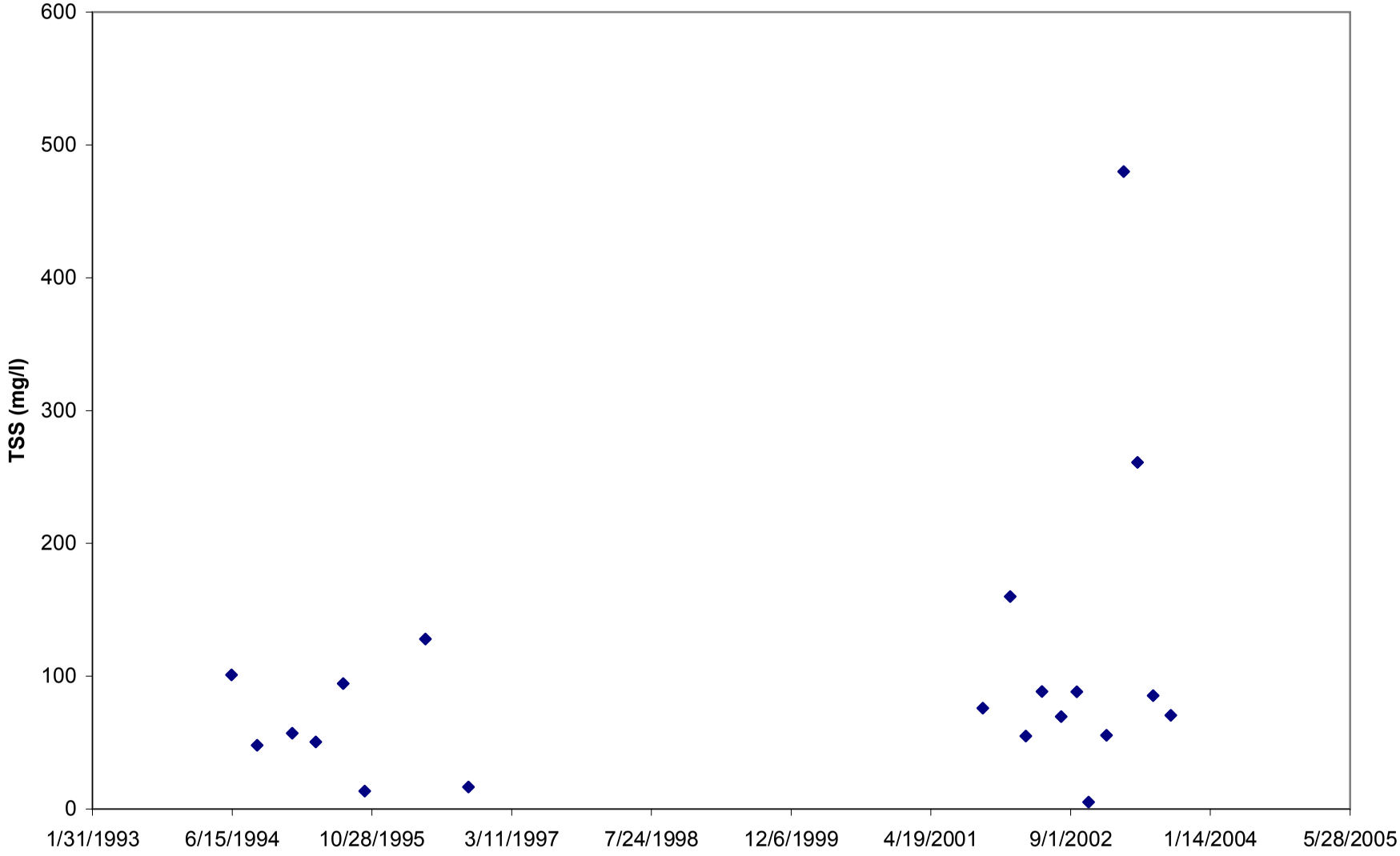
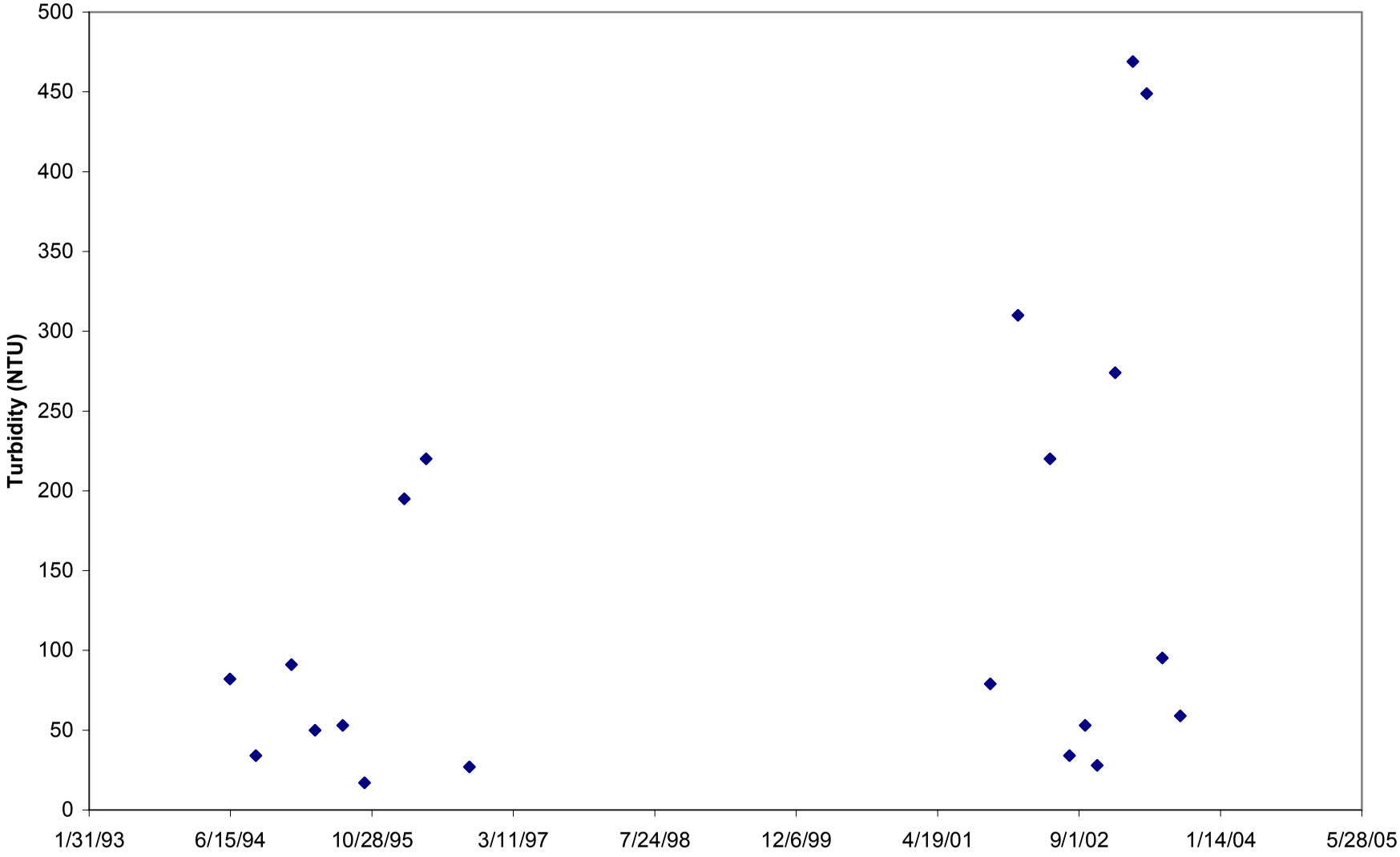


Figure B.12. Observed Long Term Turbidity for Cache River near Hwy 412 (CHR0004)



APPENDIX C

Seasonal Plots of Turbidity and TSS

Figure C.1. Seasonal TSS for Bayou DeView at Hwy 64 (BDV0002)

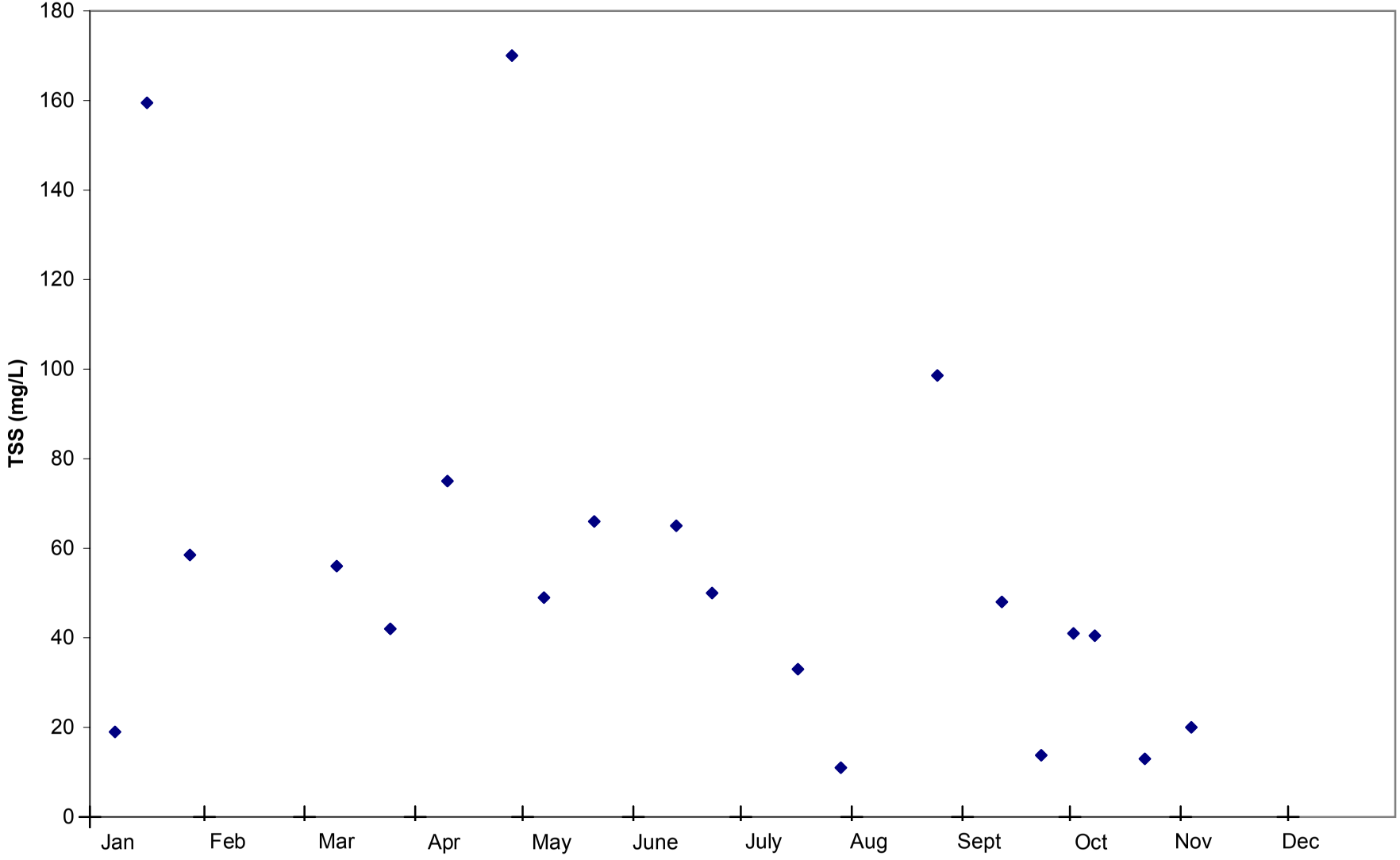


Figure C.2. Seasonal Turbidity for Bayou DeView at Hwy 64 (BDV0002)

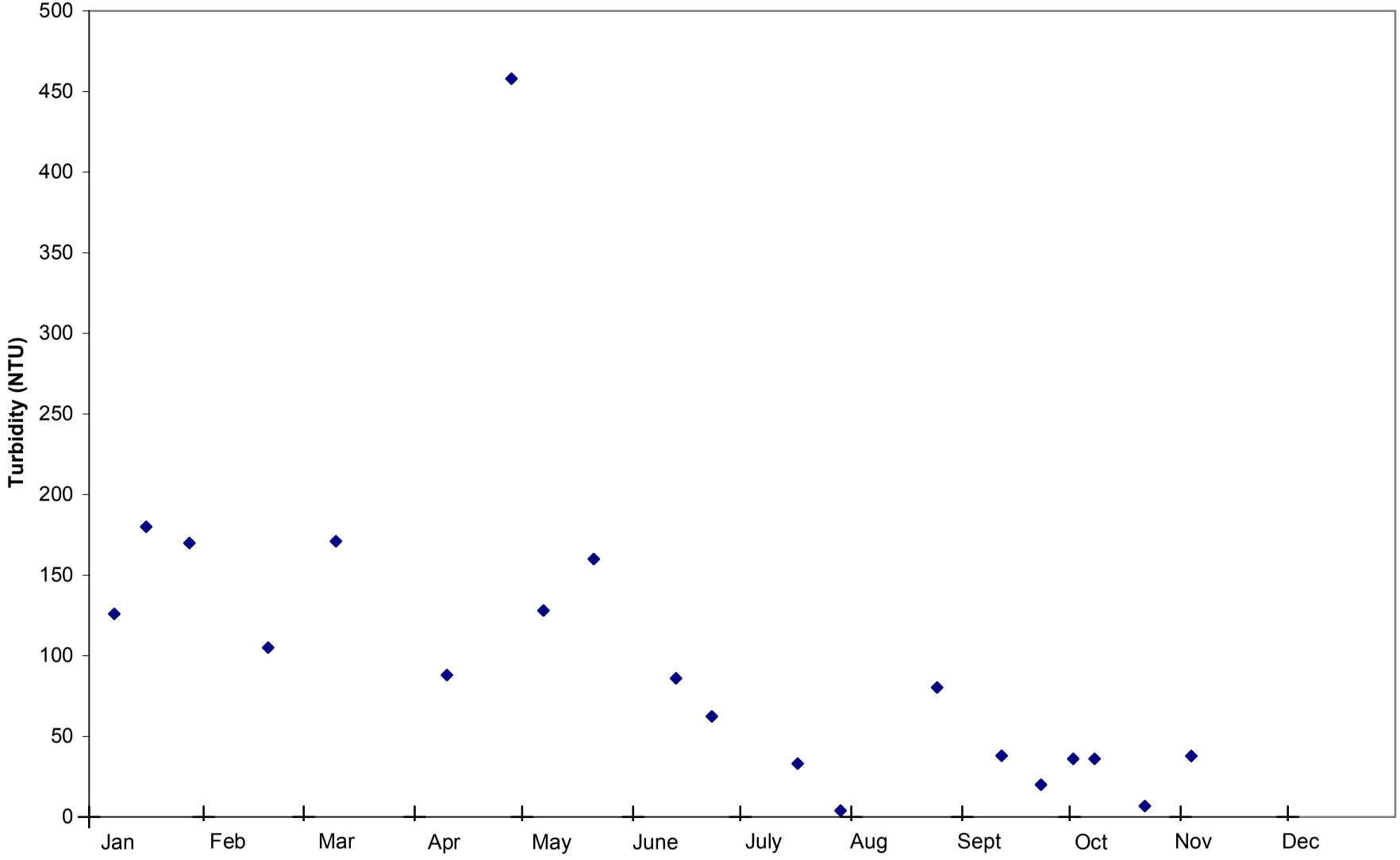


Figure C.3. Observed Seasonal TSS for Bayou DeView West of Gibson, AR (WHI0026)

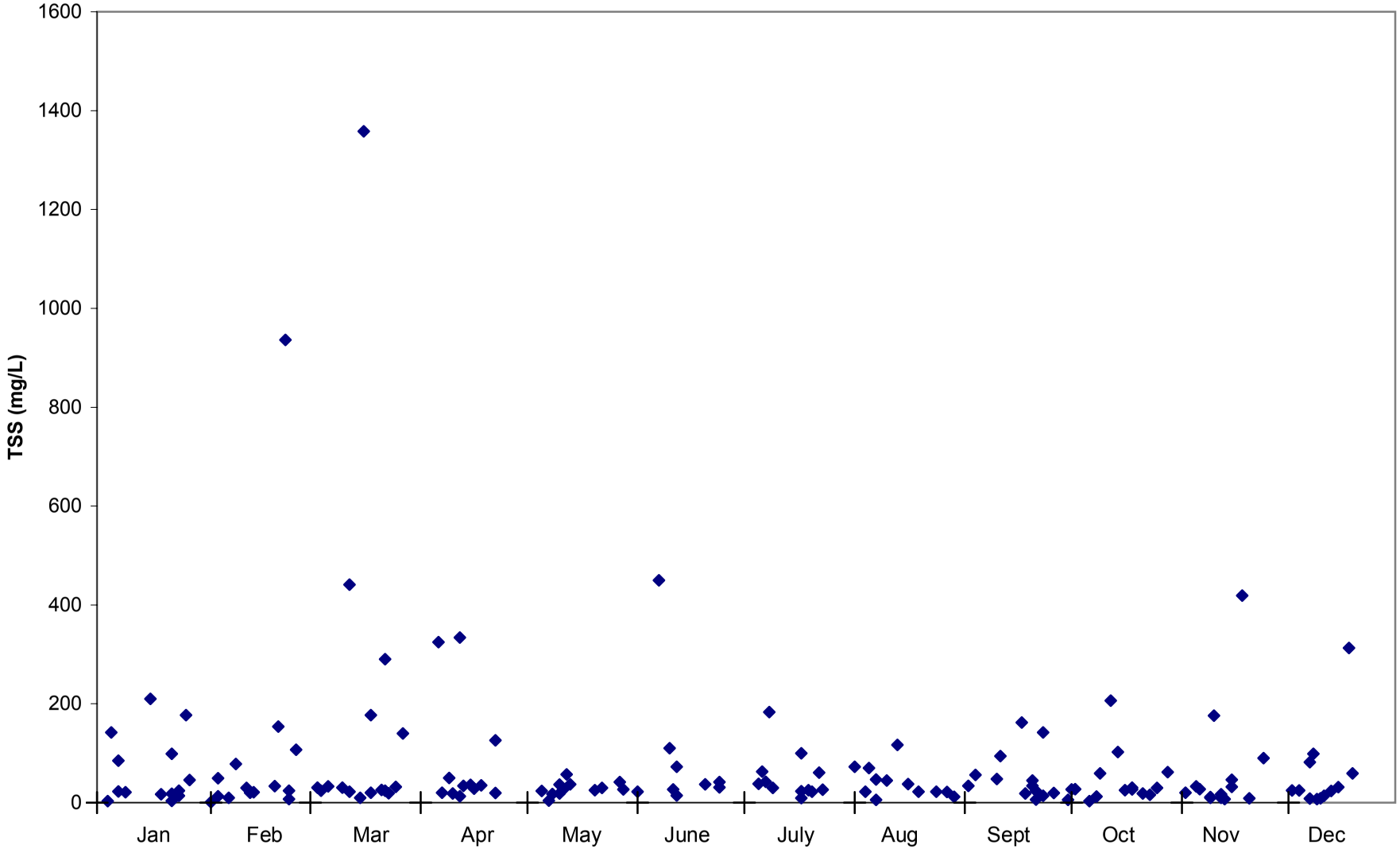


Figure C.4. Observed Seasonal Turbidity for Bayou DeView West of Gibson, AR (WHI0026)

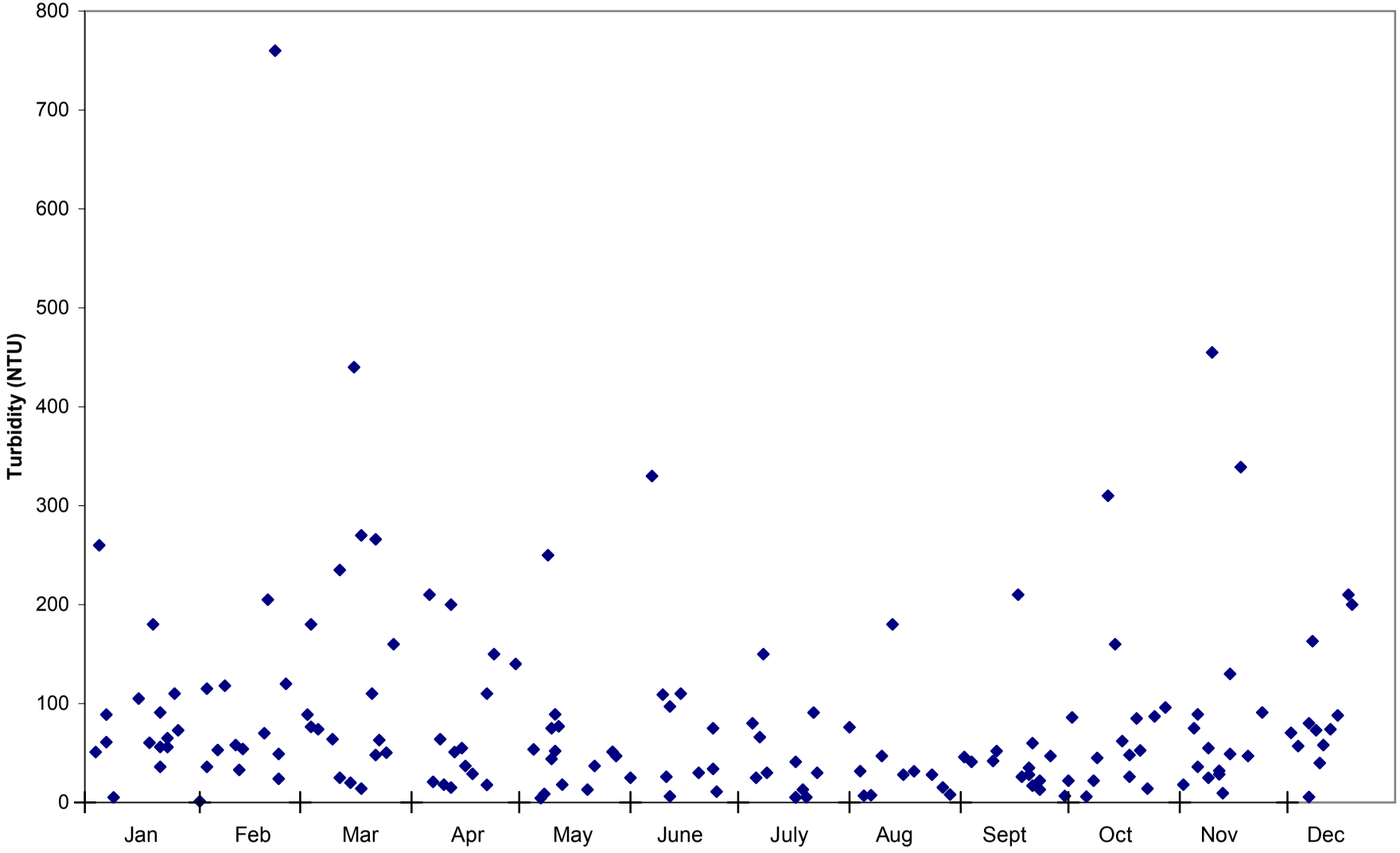


Figure C.5. Observed Seasonal TSS for Cache River near Brasfield, AR (WHI0032)

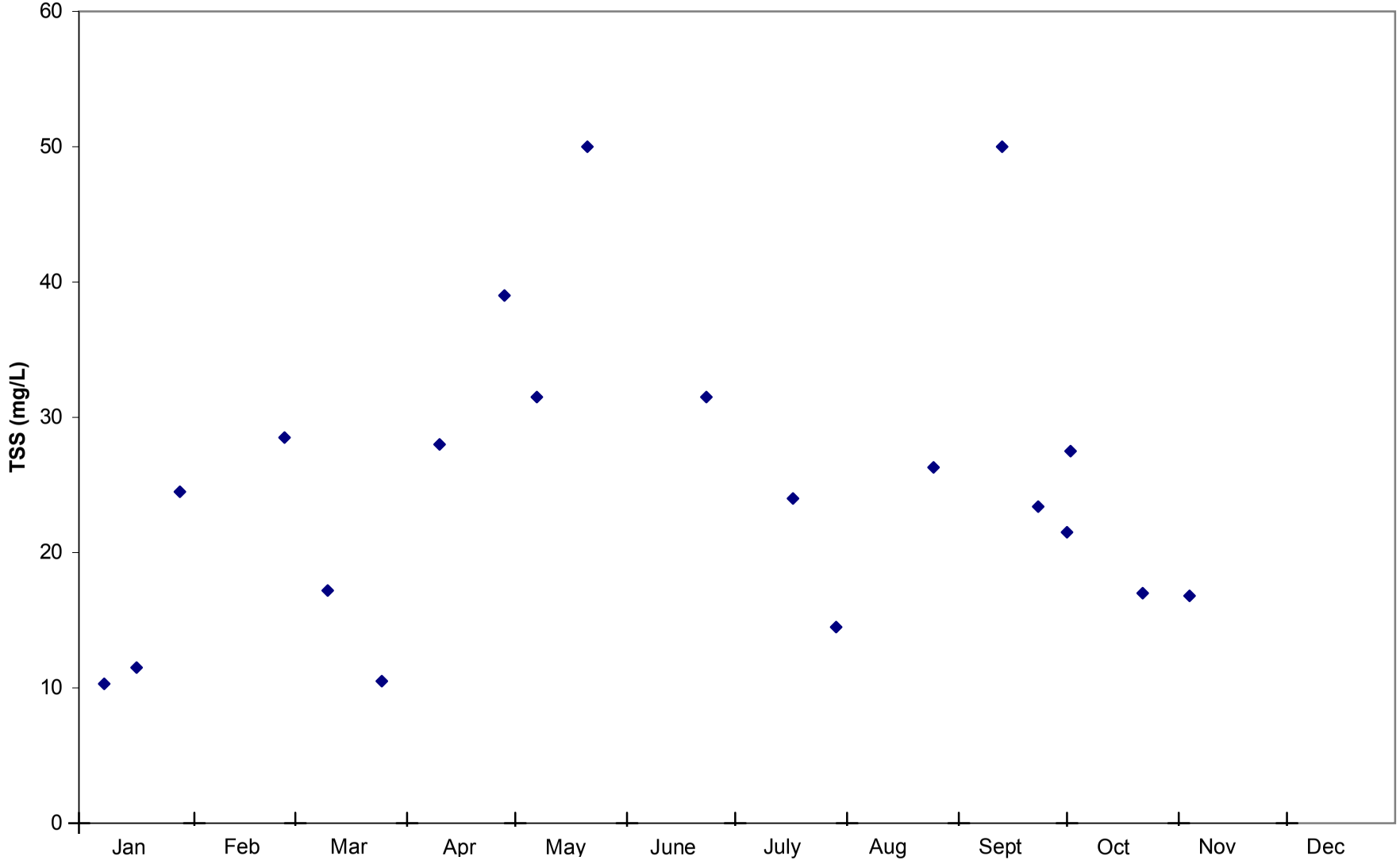


Figure C.6. Observed Seasonal Turbidity for Cache River near Brasfield, AR (WHI0032)

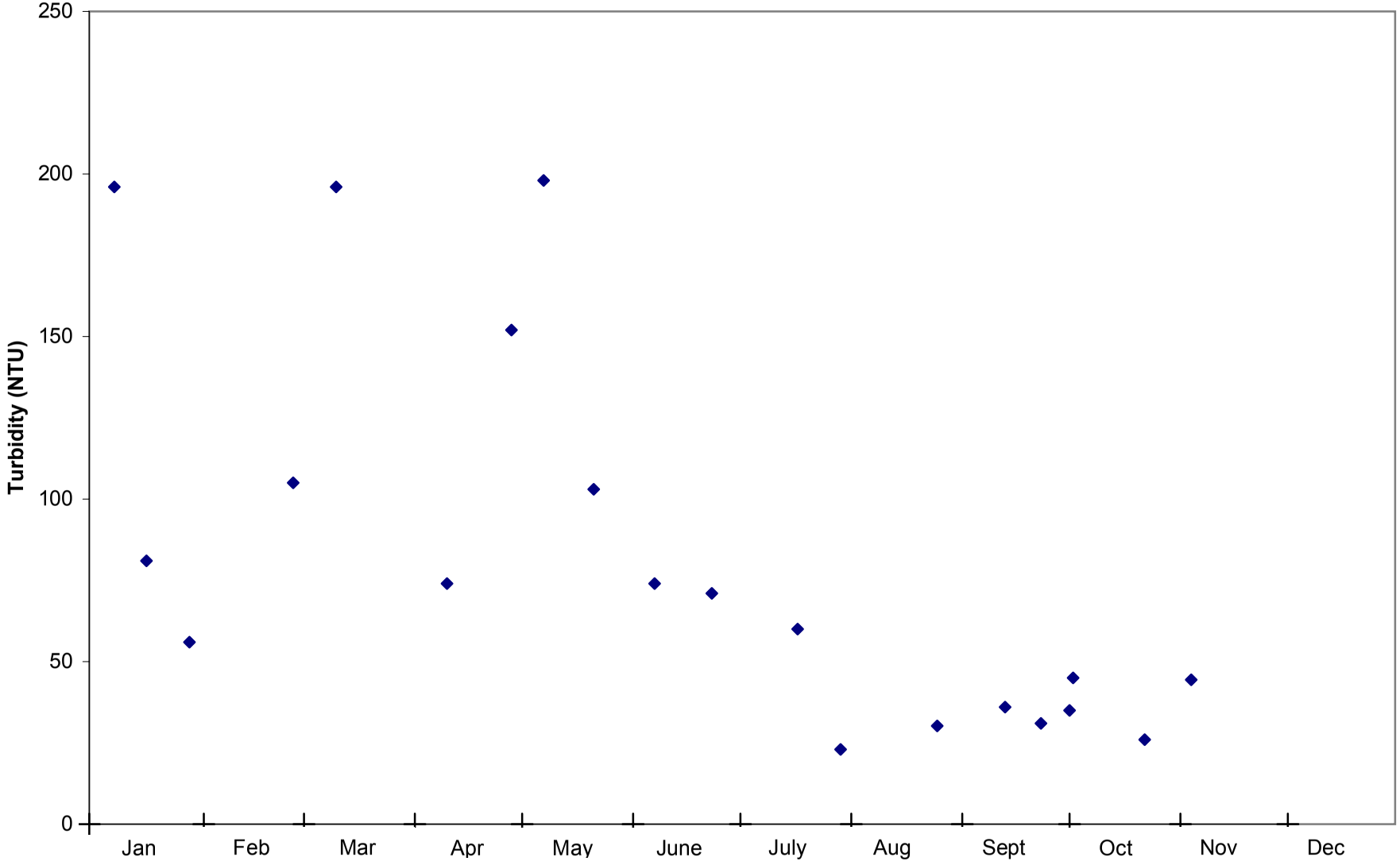


Figure C.7. Observed Seasonal TSS for Cache River near Peterson, AR (CHR0002)

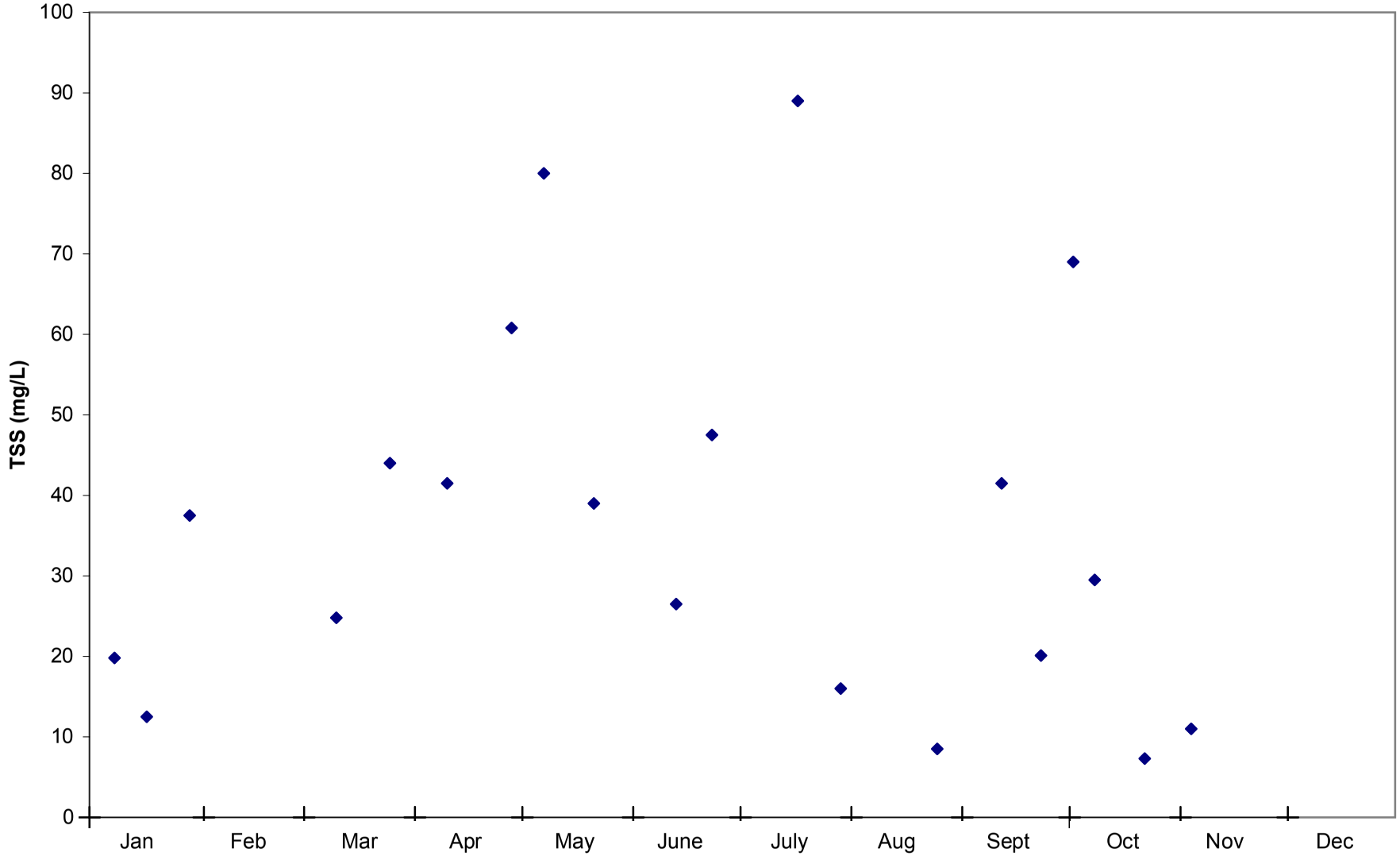


Figure C.8. Observed Seasonal Turbidity for Cache River near Peterson, AR (CHR0002)

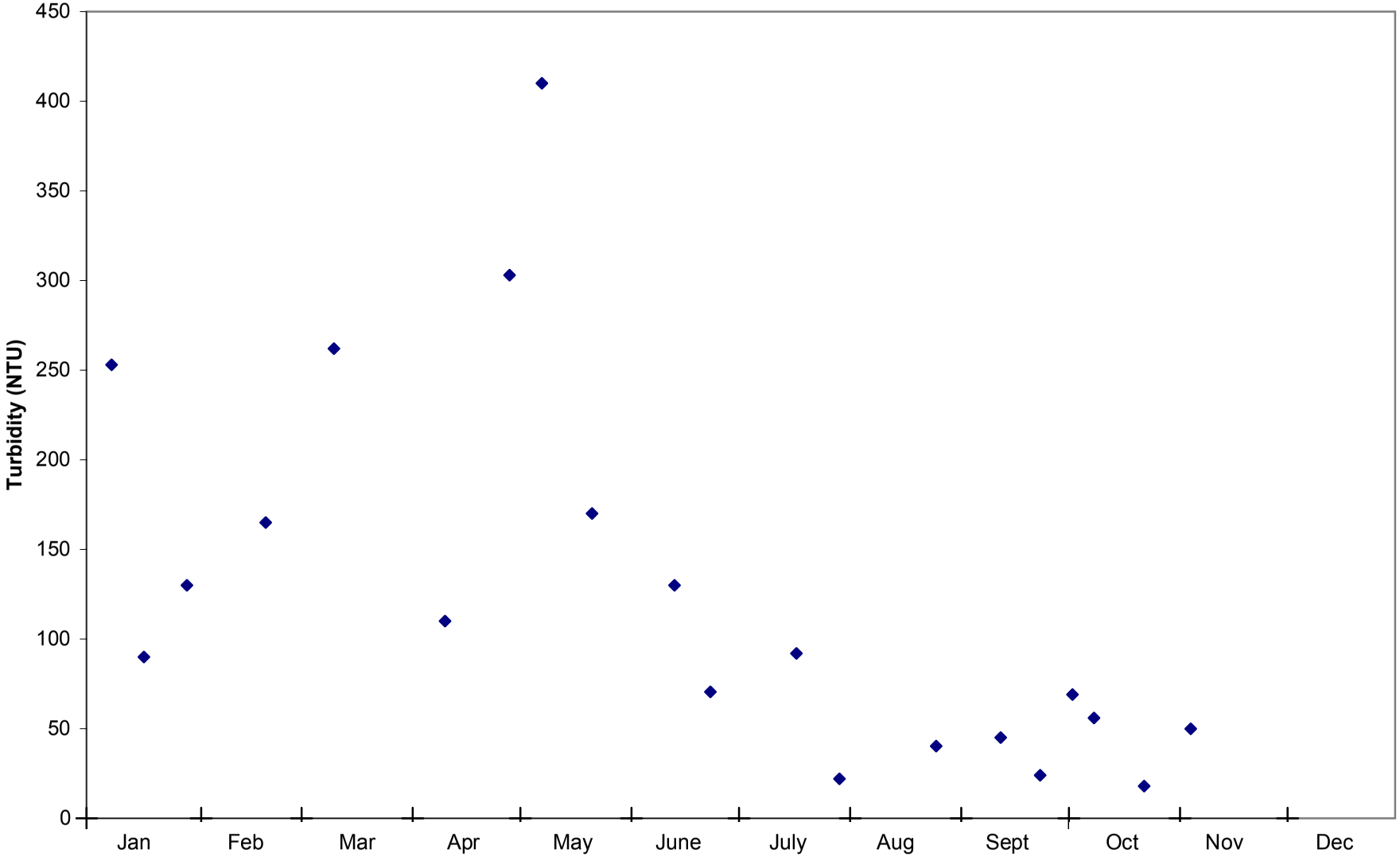


Figure C.9. Observed Seasonal TSS for Cache River at Hwy 18 (CHR0003)

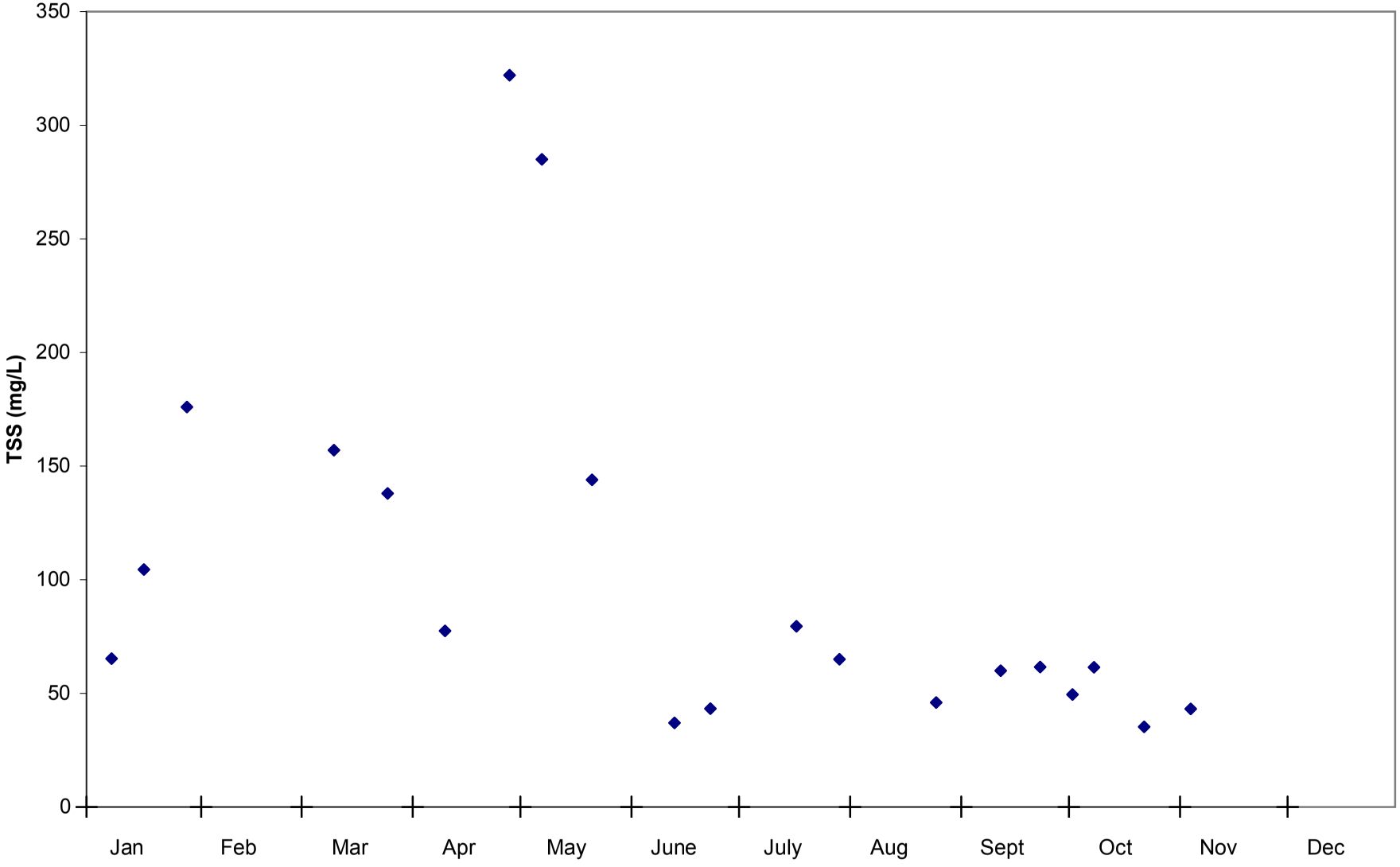


Figure C.10. Observed Seasonal Turbidity for Cache River at Hwy 18 (CHR0003)

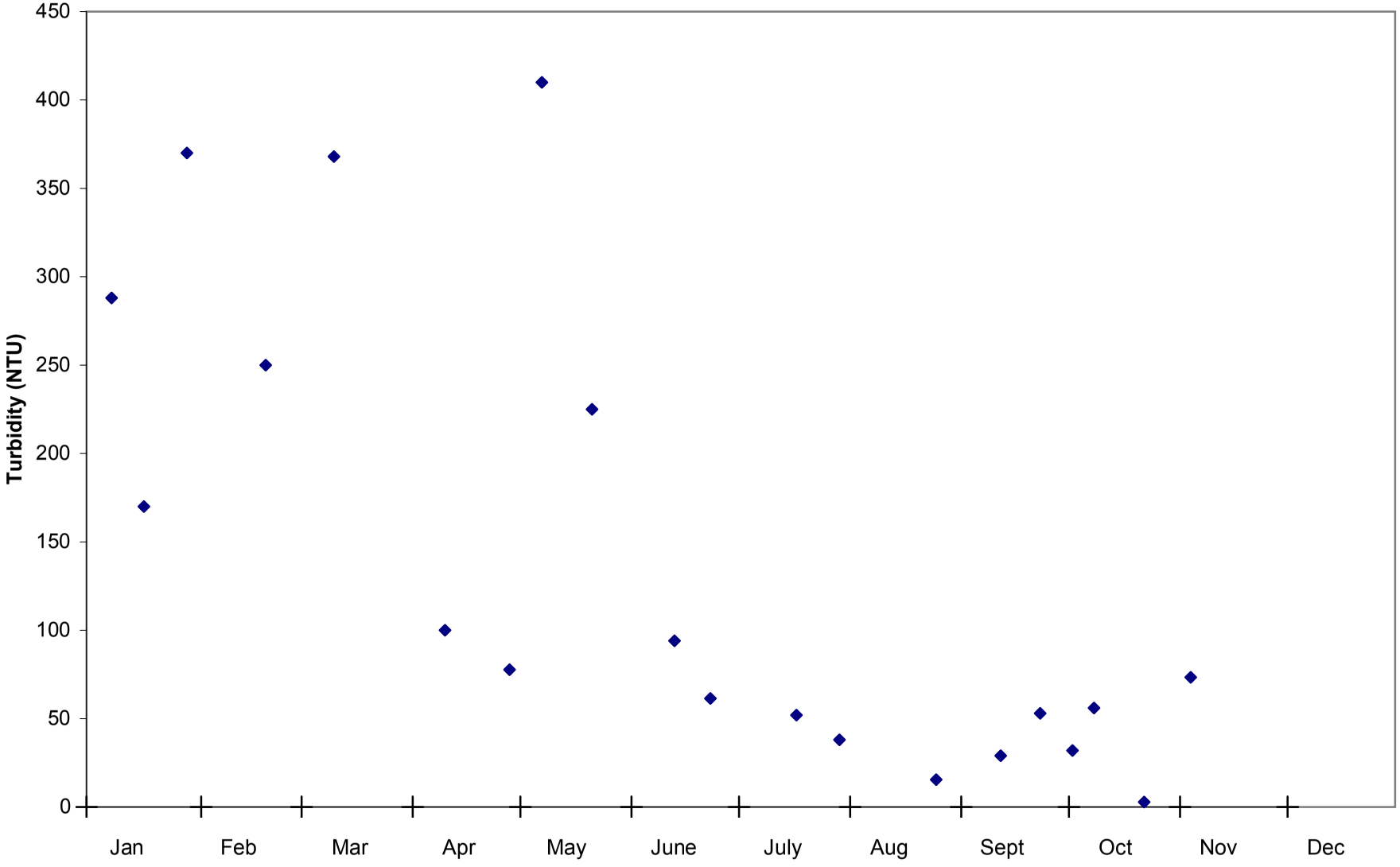


Figure C.11. Observed Seasonal TSS for Cache River near Hwy 412 (CHR0004)

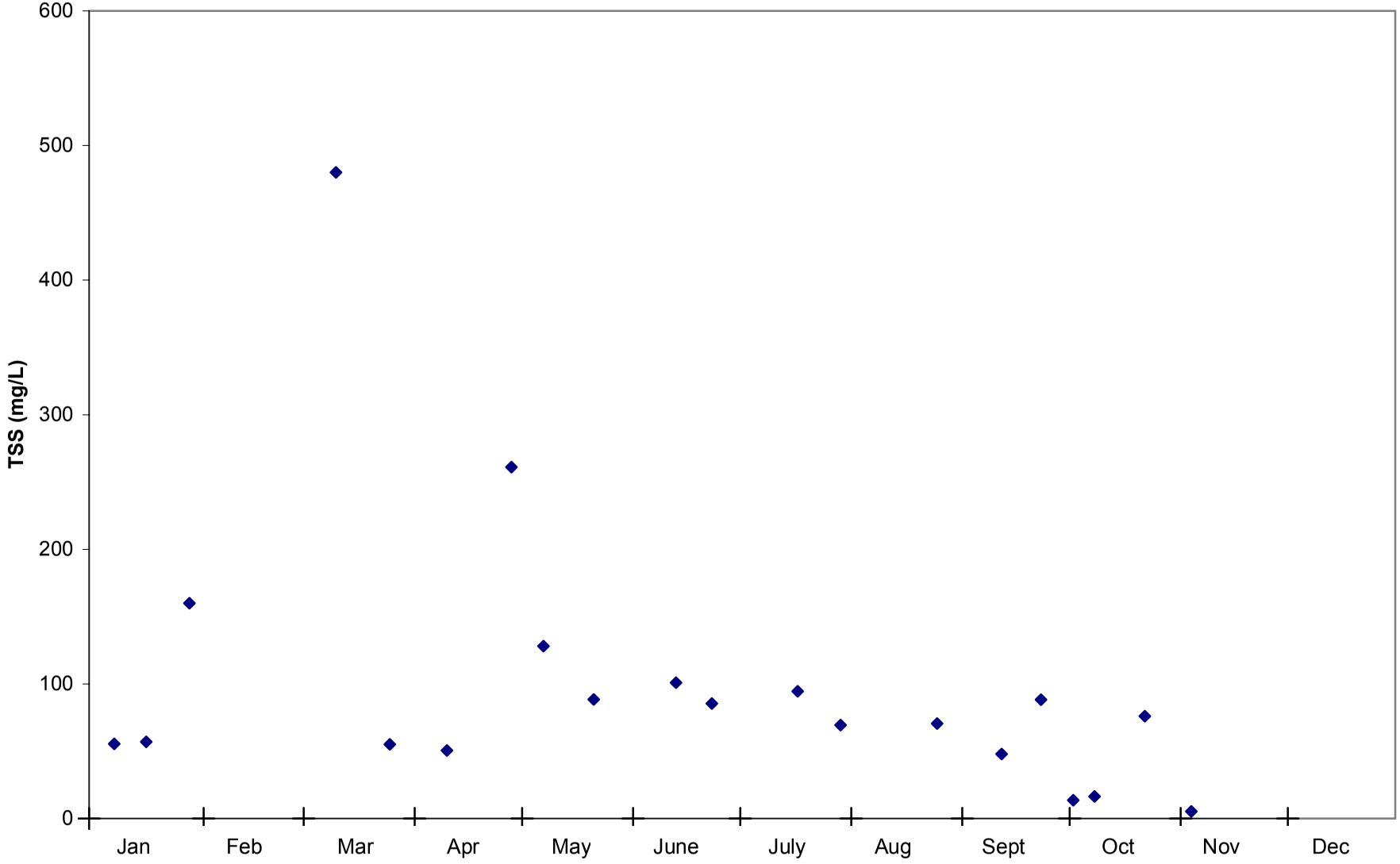
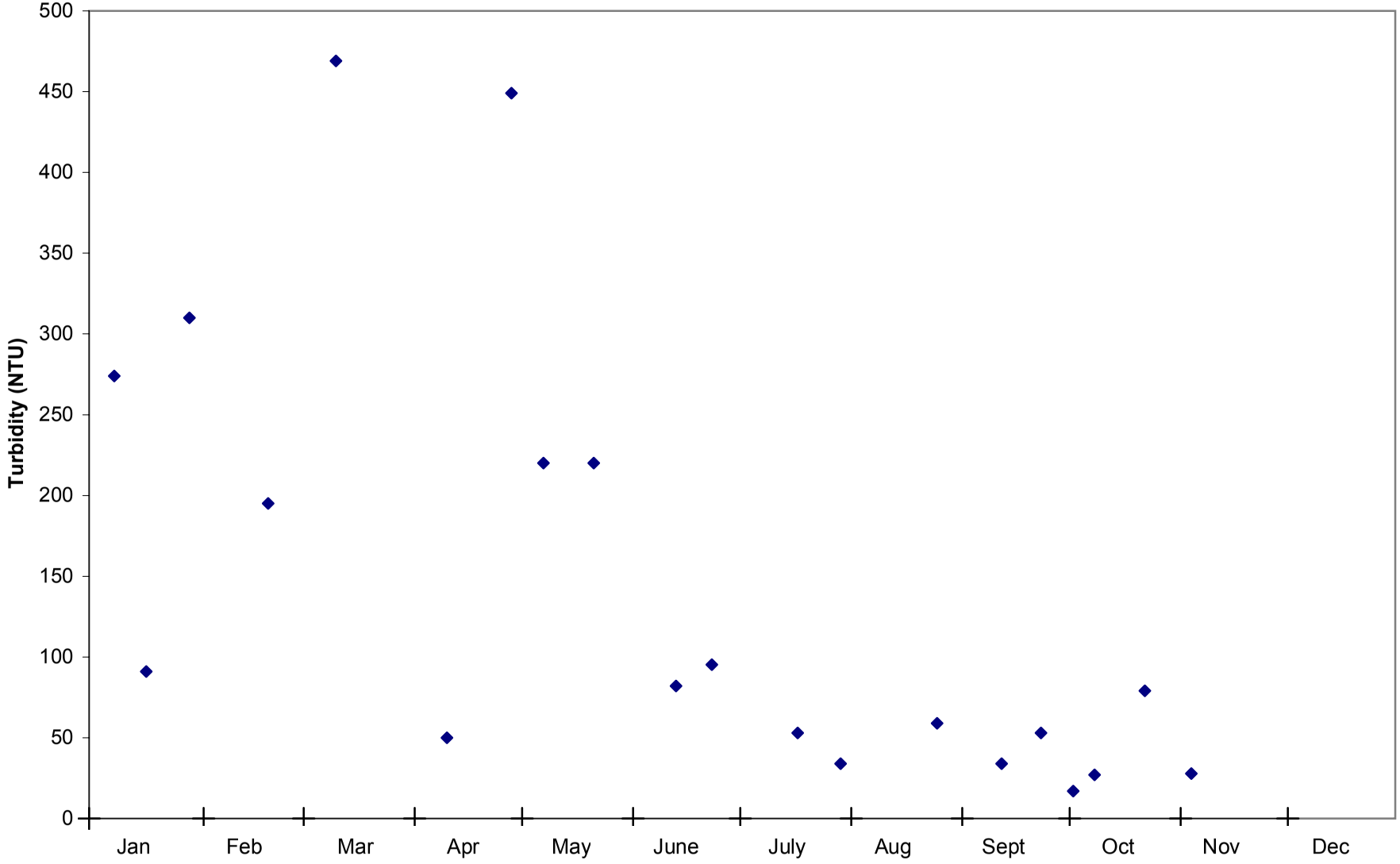


Figure C.12. Observed Seasonal Turbidity for Cache River near Hwy 412 (CHR0004)



APPENDIX D

Plots of Turbidity and TSS vs Flow

Figure D.1. TSS vs flow for Bayou DeView at Hwy 64 (BDV0002)

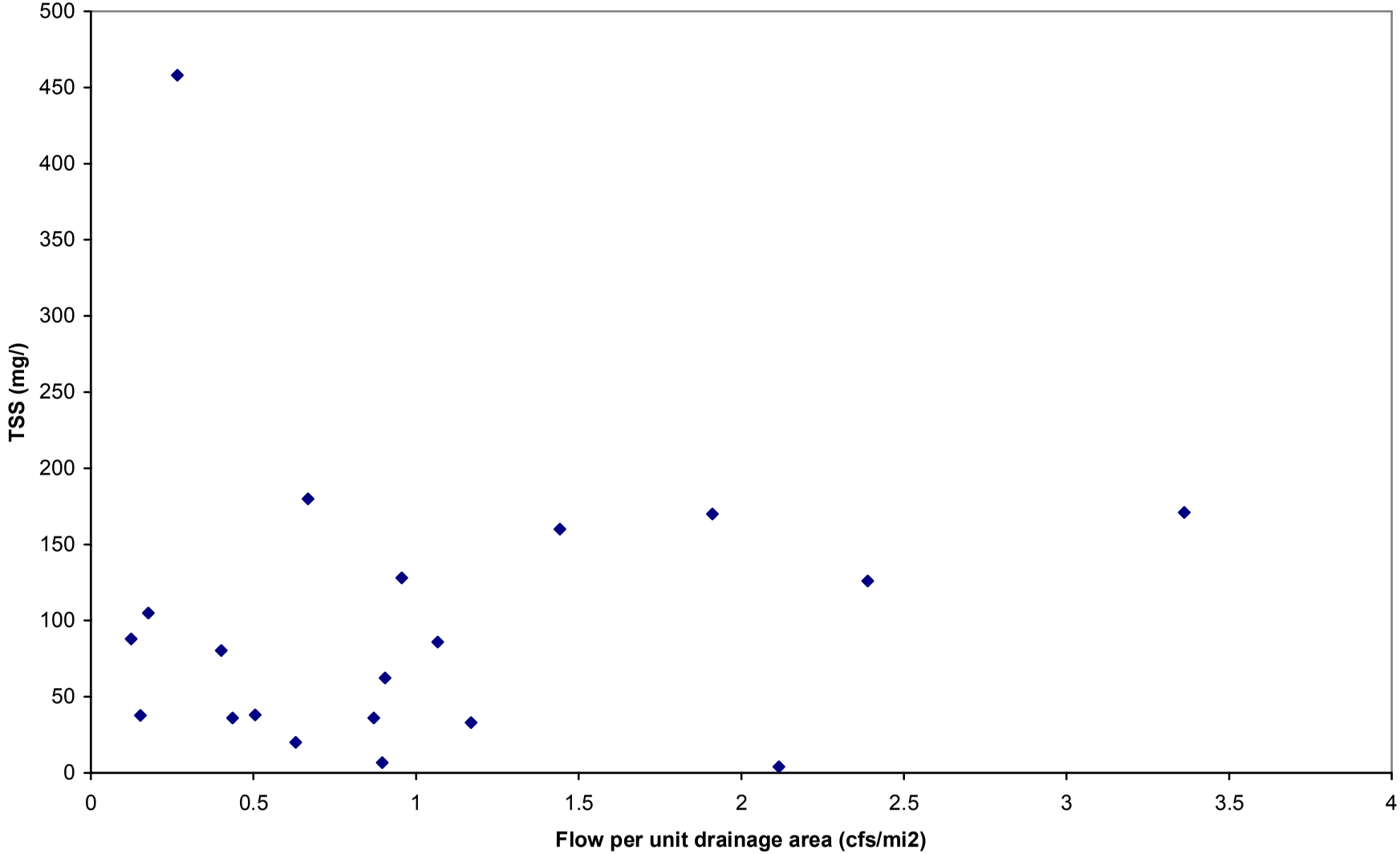


Figure D.2. Turbidity vs flow for Bayou DeView at Hwy 64 (BDV0002)

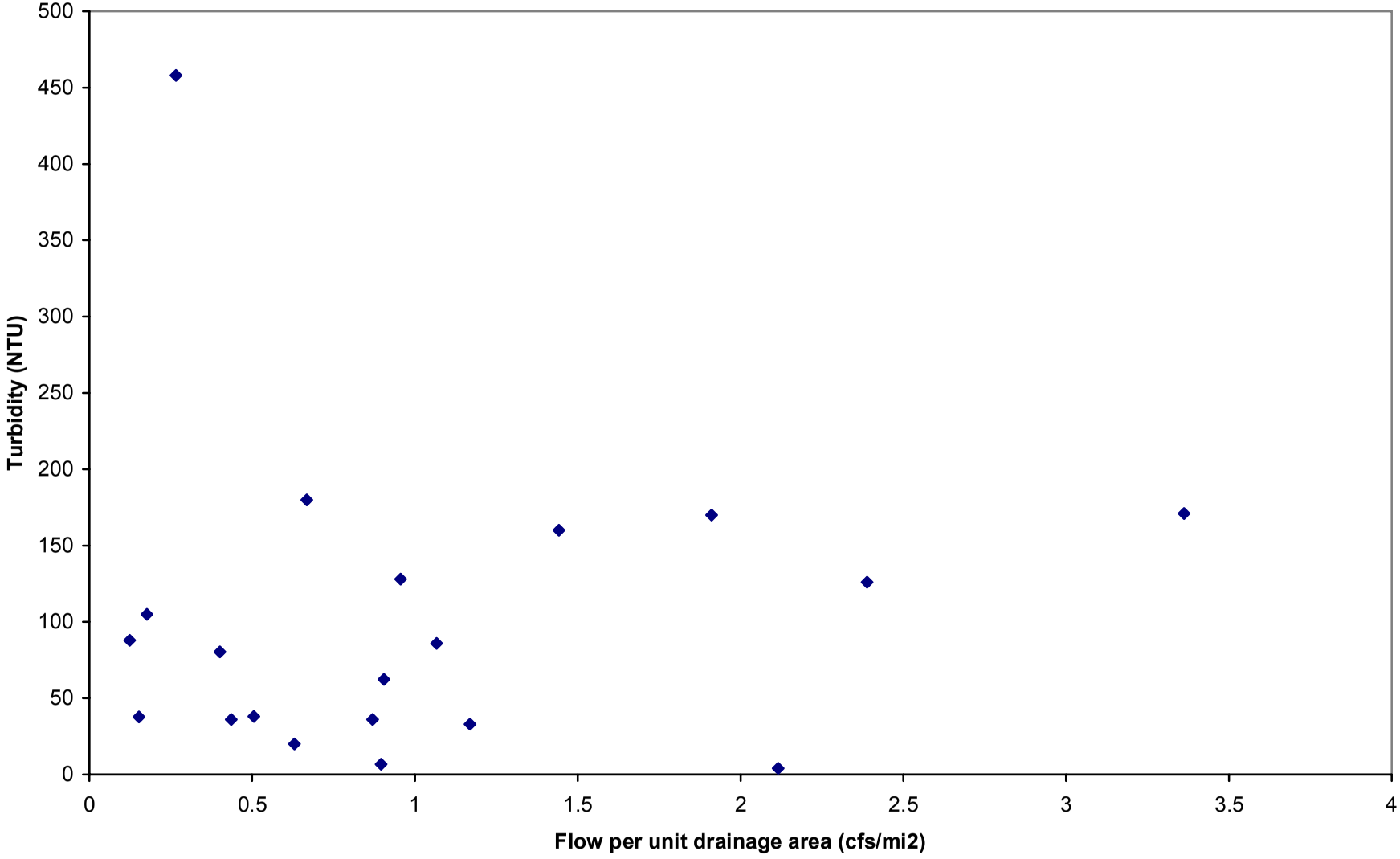


Figure D.3. TSS vs. flow for Bayou DeView West of Gibson, AR (WHI0026)

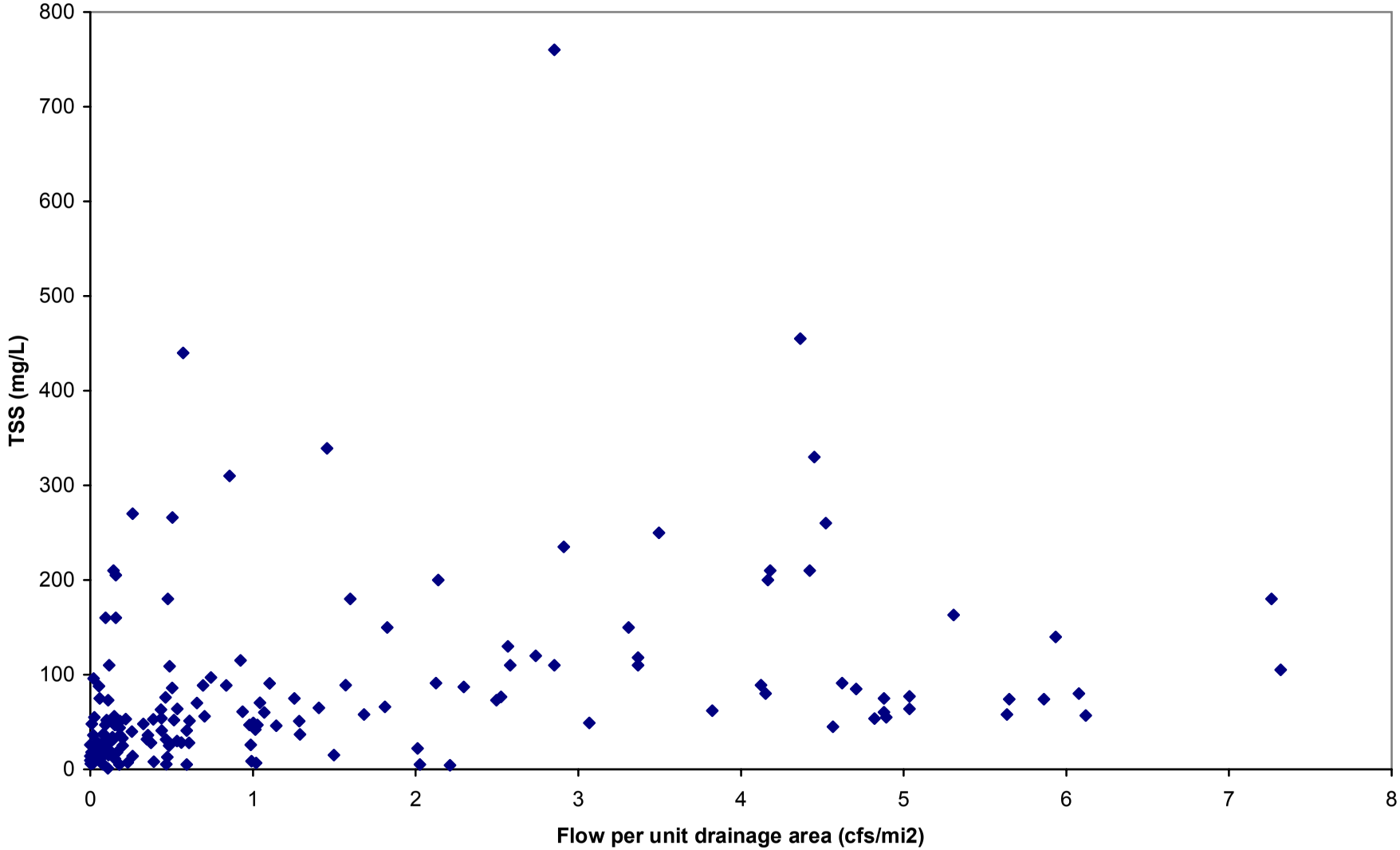


Figure D.4. Turbidity vs flow for Bayou DeView West of Gibson, AR (WHI0026)

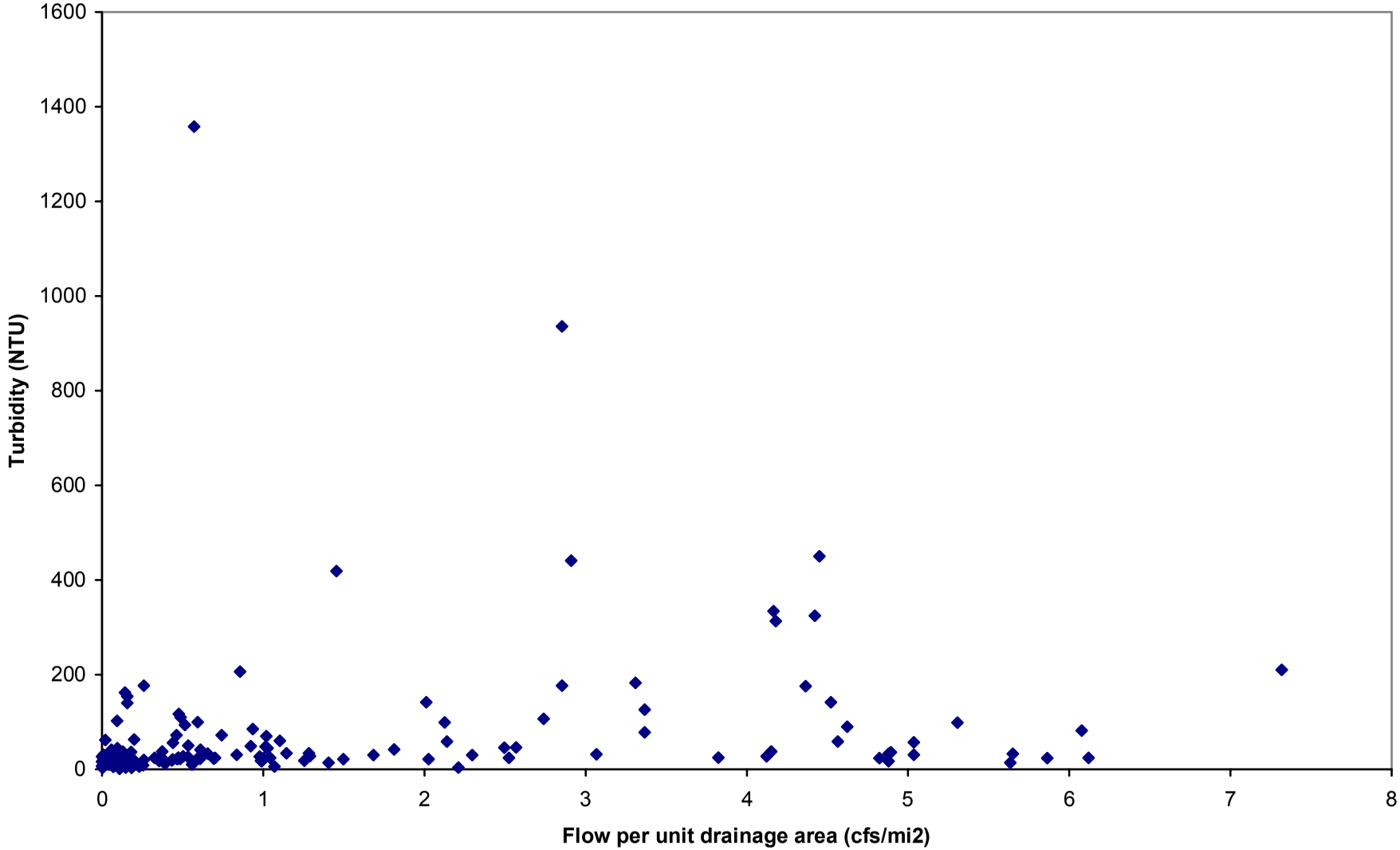


Figure D.5. TSS vs flow for Cache River near Brasfield, AR (WHI0032)

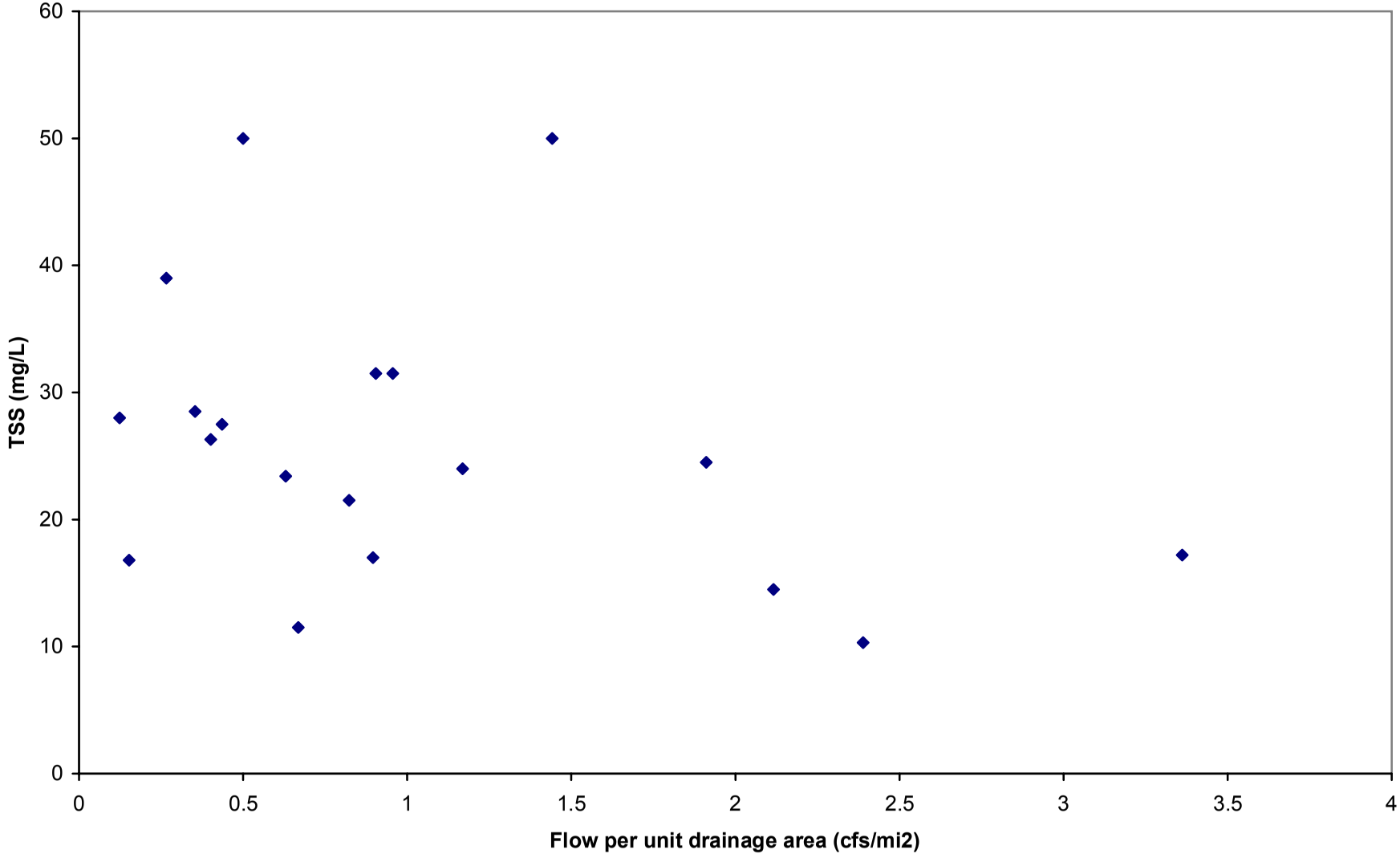


Figure D.6. Turbidity vs flow for Cache River near Brasfield, AR (WHI0032)

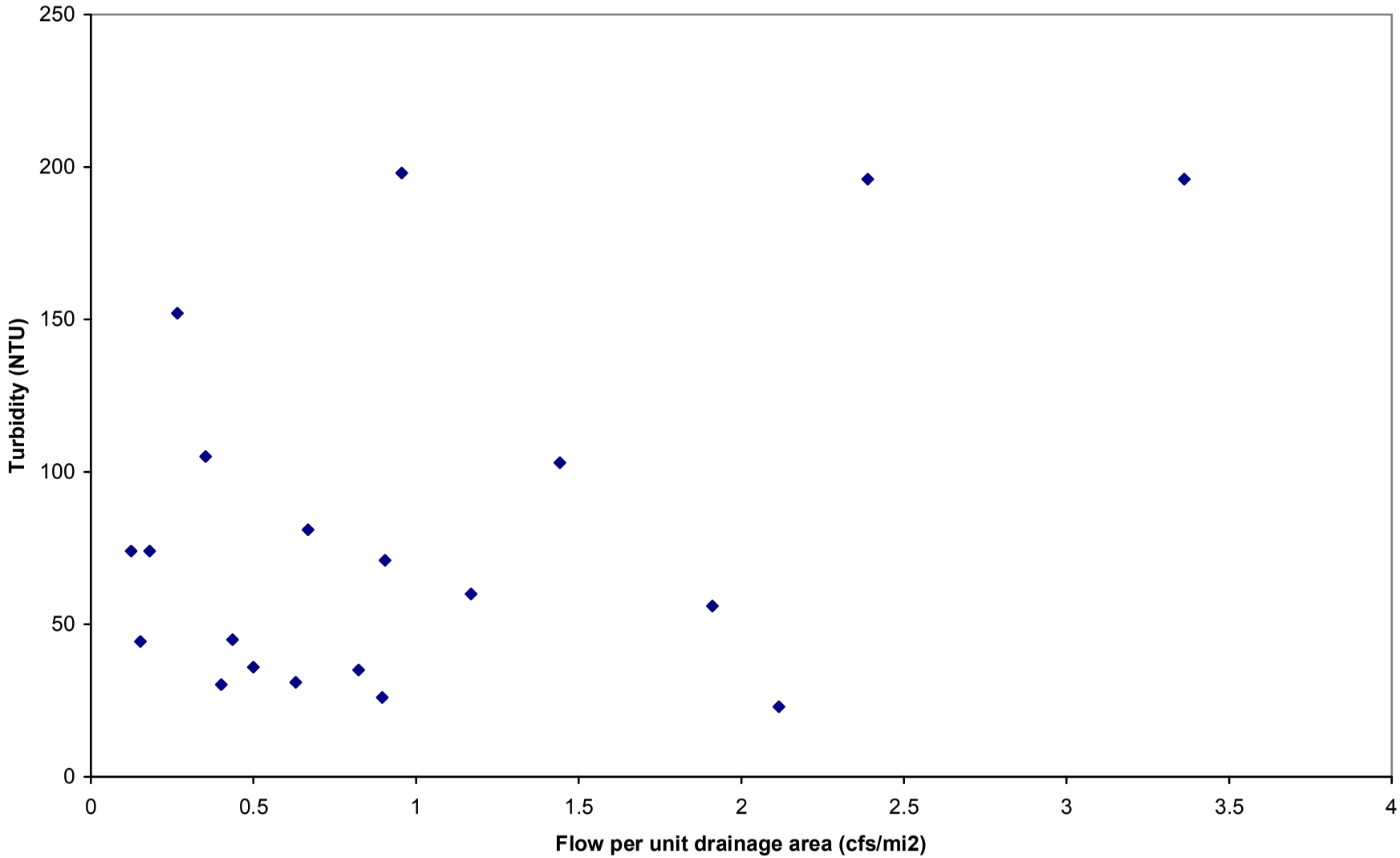


Figure D.7. TSS vs flow for Cache River near Peterson, AR (CHR0002)

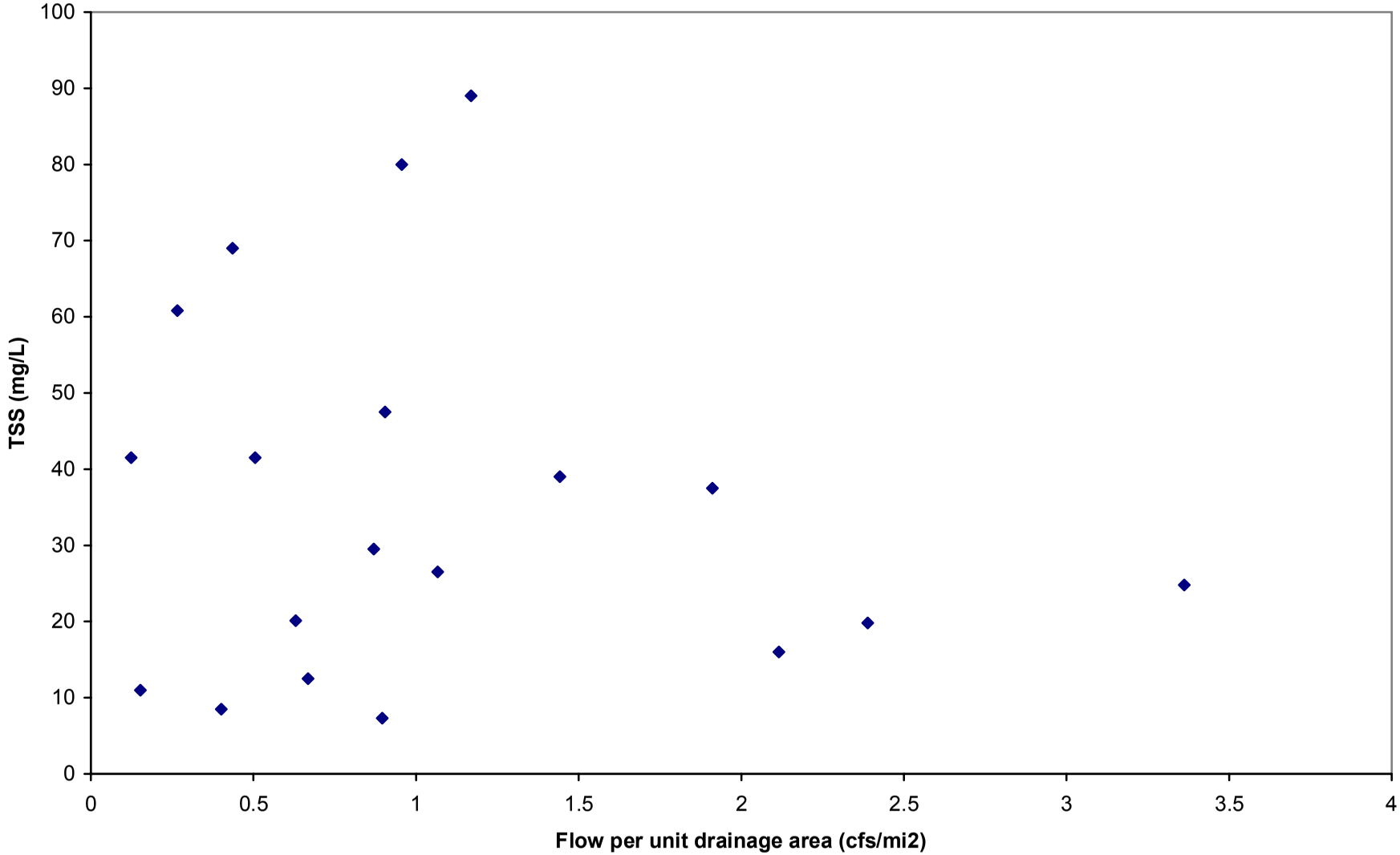


Figure D.8. Turbidity vs flow for Cache River near Peterson, AR (CHR0002)

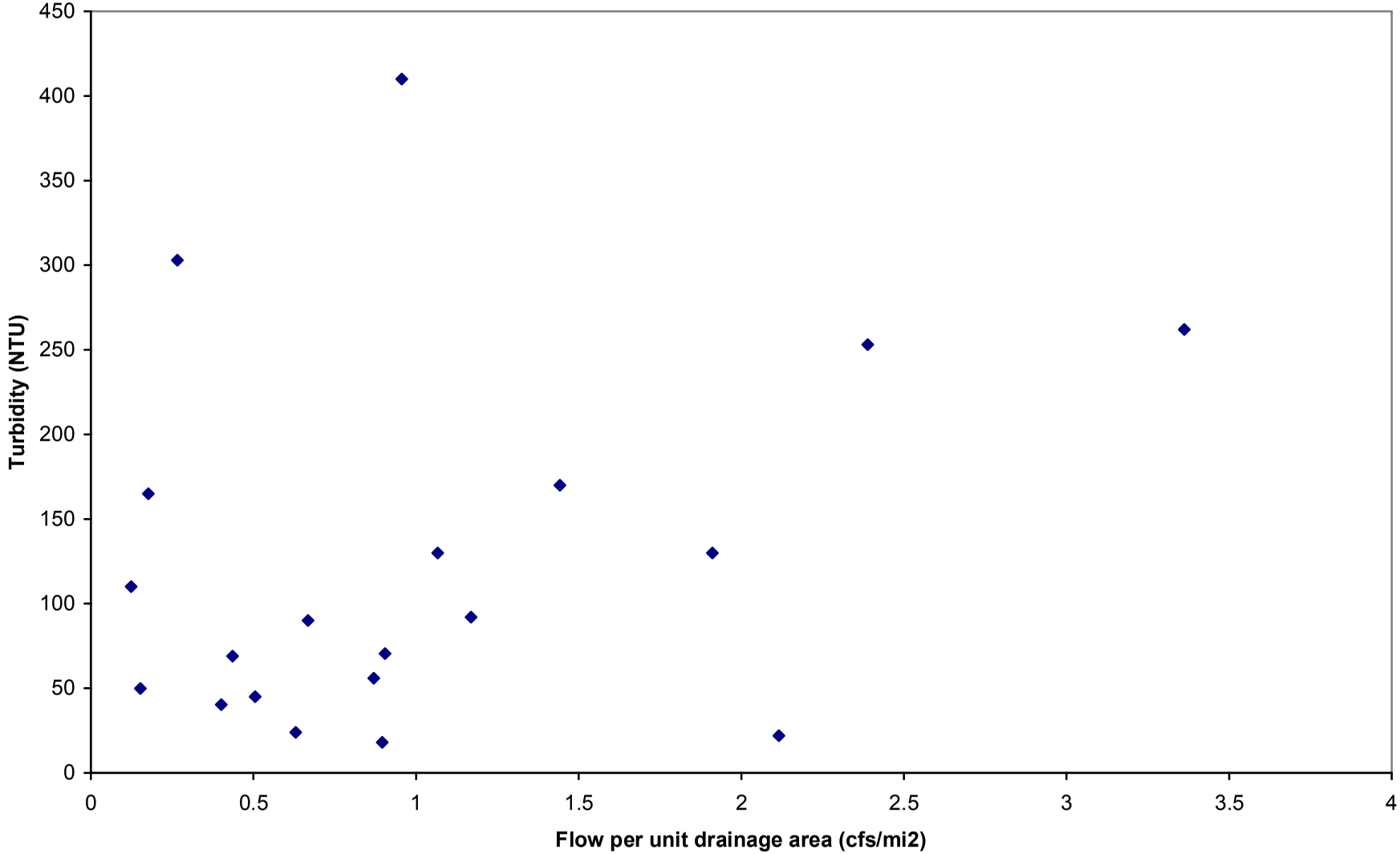


Figure D.9. TSS vs flow for Cache River near Hwy 18 (CHR0003)

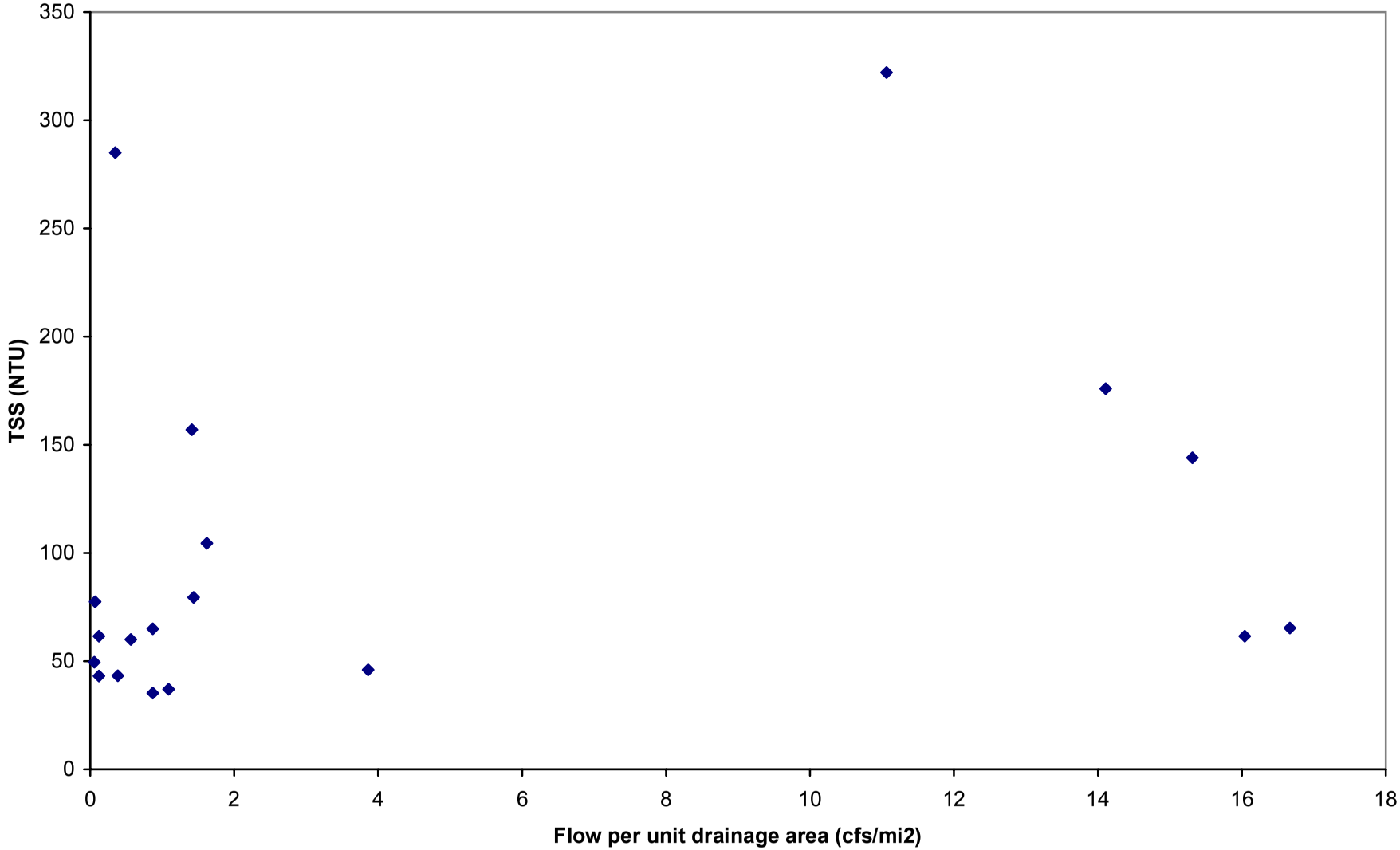


Figure D.10. Turbidity vs flow for Cache River near Hwy 18 (CHR0003)

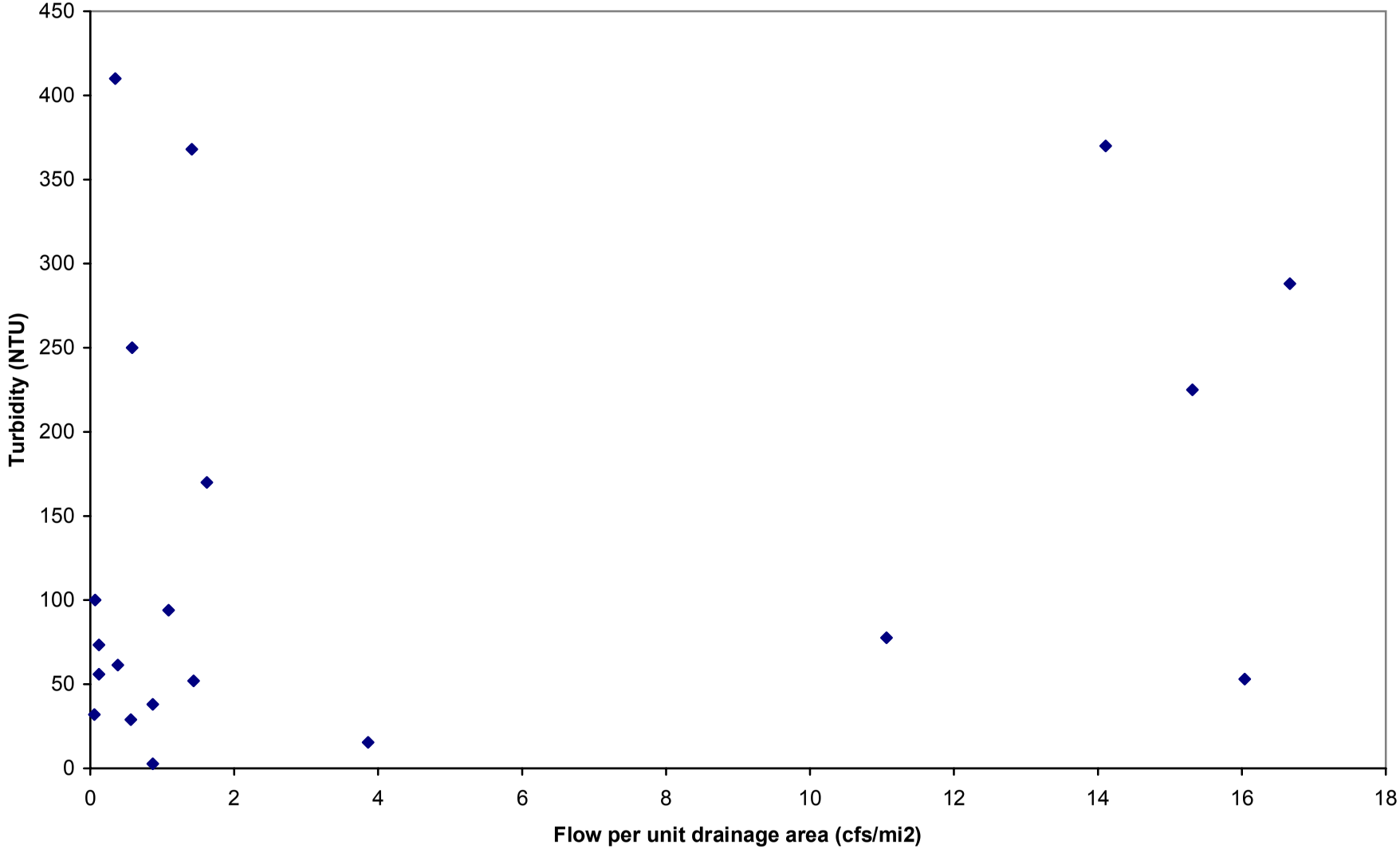


Figure D.11. TSS vs flow for Cache River at Hwy 412 (CHR0004)

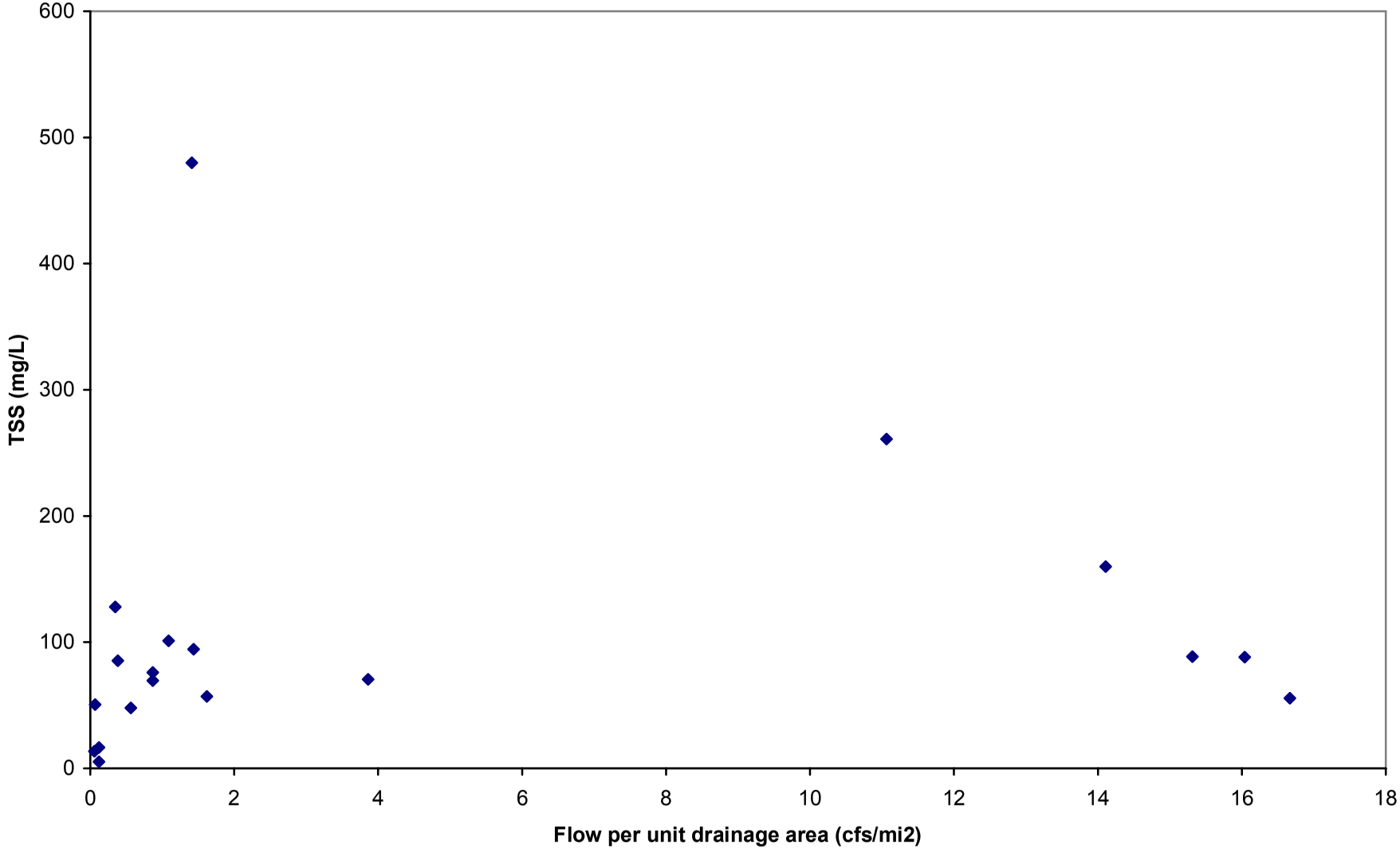
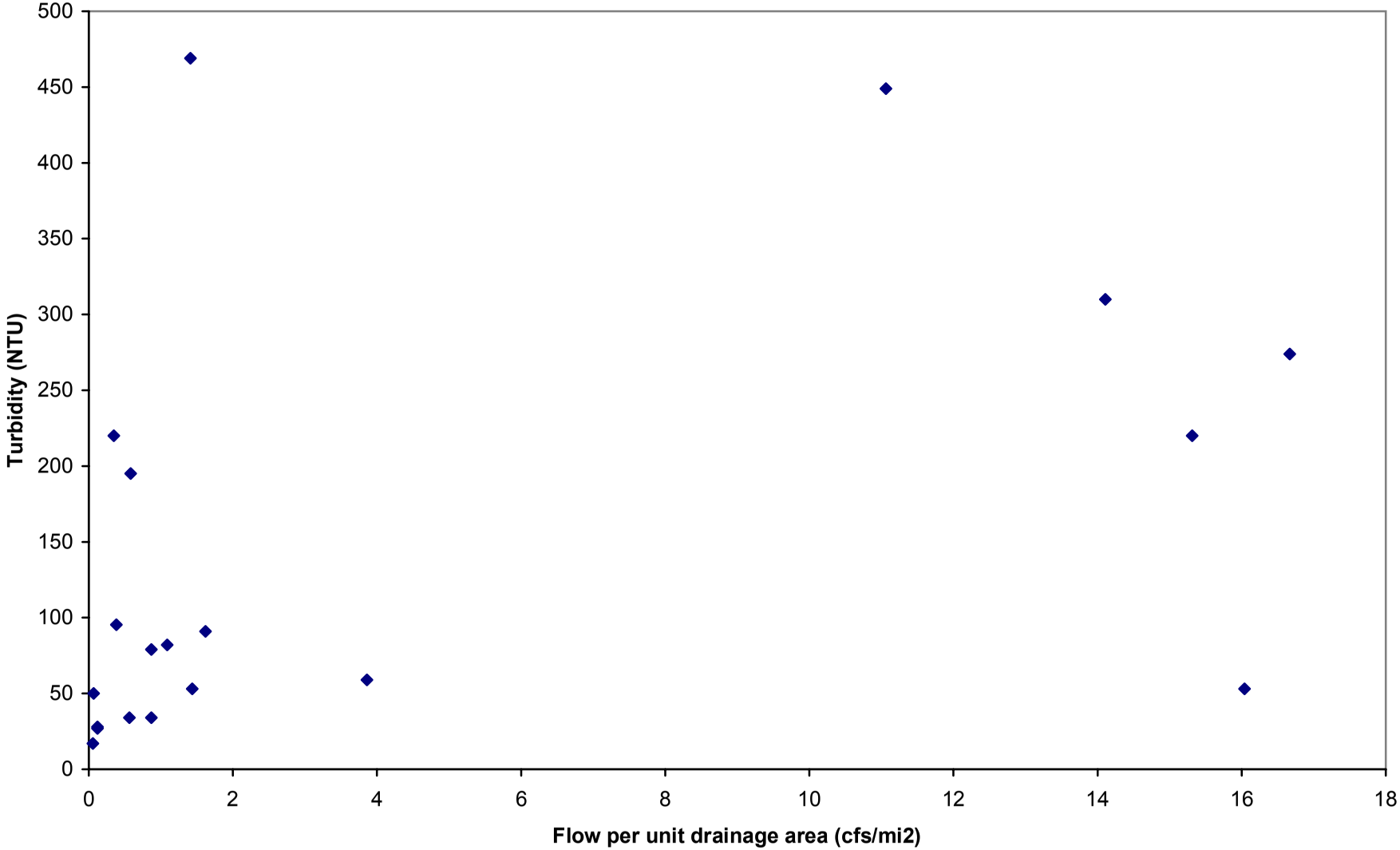


Figure D.12. Turbidity vs flow for Cache River at Hwy 412 (CHR0004)



APPENDIX E

Plots of TSS vs Turbidity

Figure E.1. Base flow regression for TSS vs Turbidity for Bayou DeView (BDV0002)

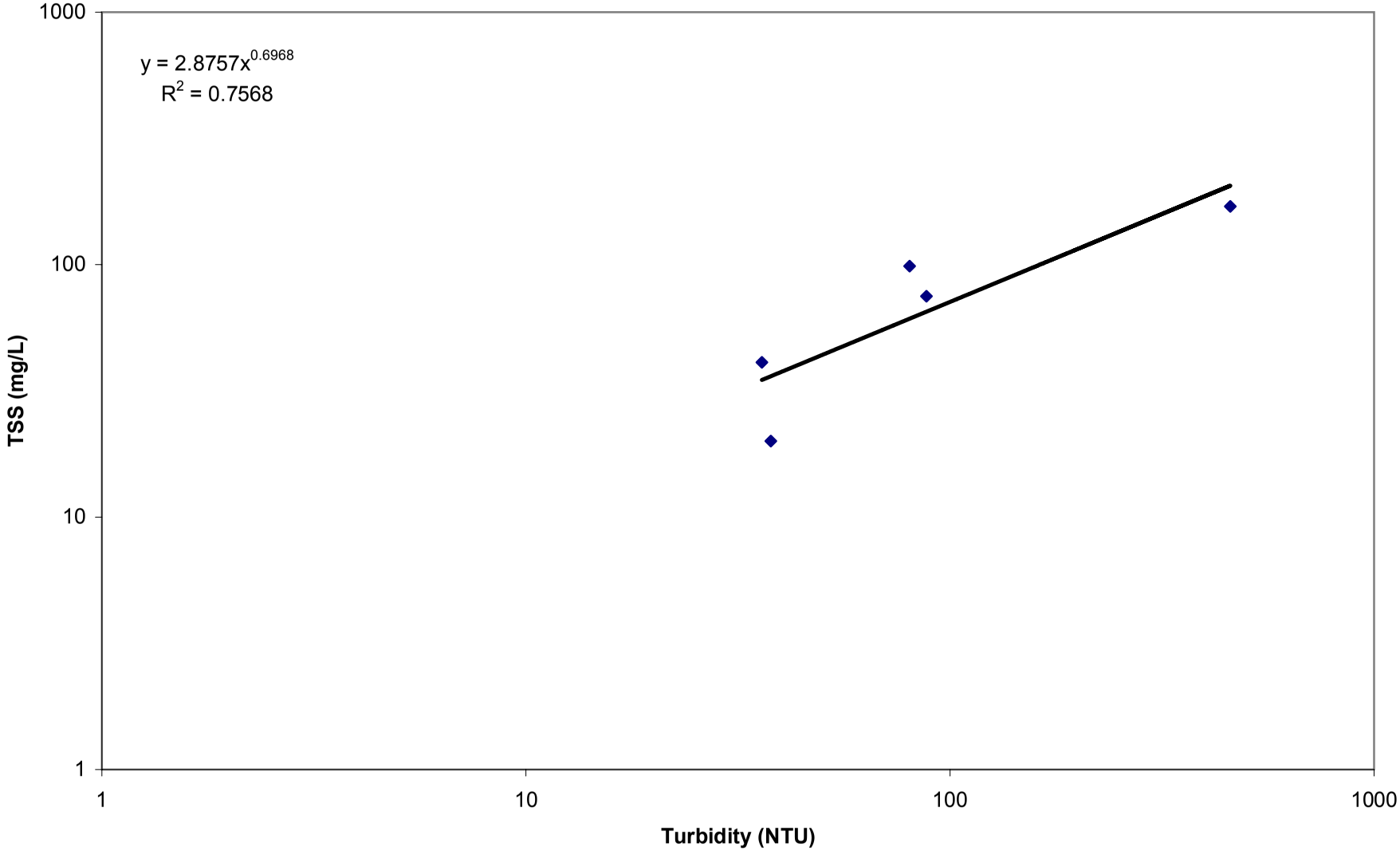


Figure E.2. Storm flow regression for TSS for Bayou DeView at Hwy 64 (BDV0002)

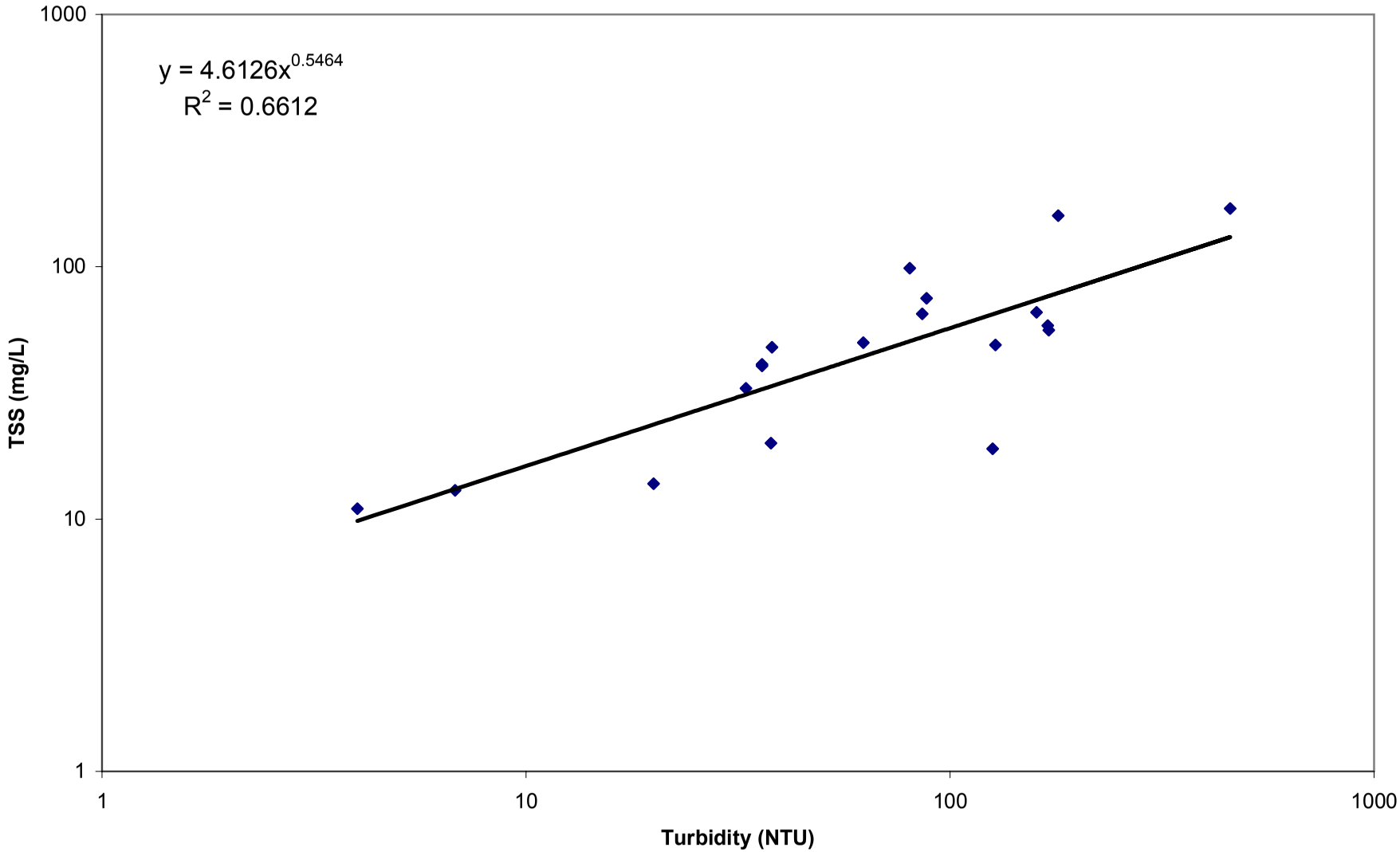


Figure E.3. Base flow regression for TSS vs Turbidity for Bayou DeView (WHI0026)

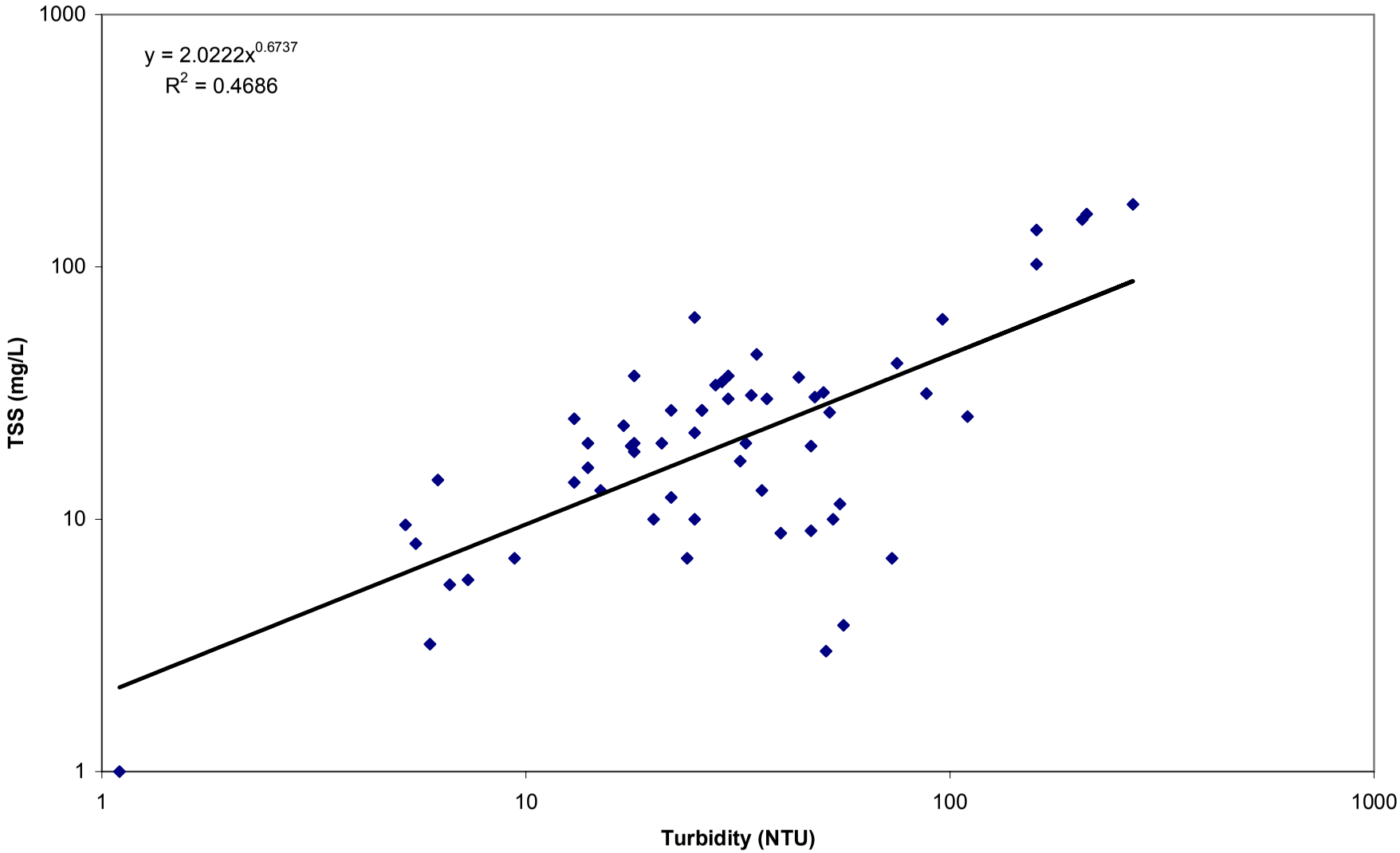


Figure E.4. Storm flow regression for Turbidity vs TSS for Bayou DeView AR (WHI0026)

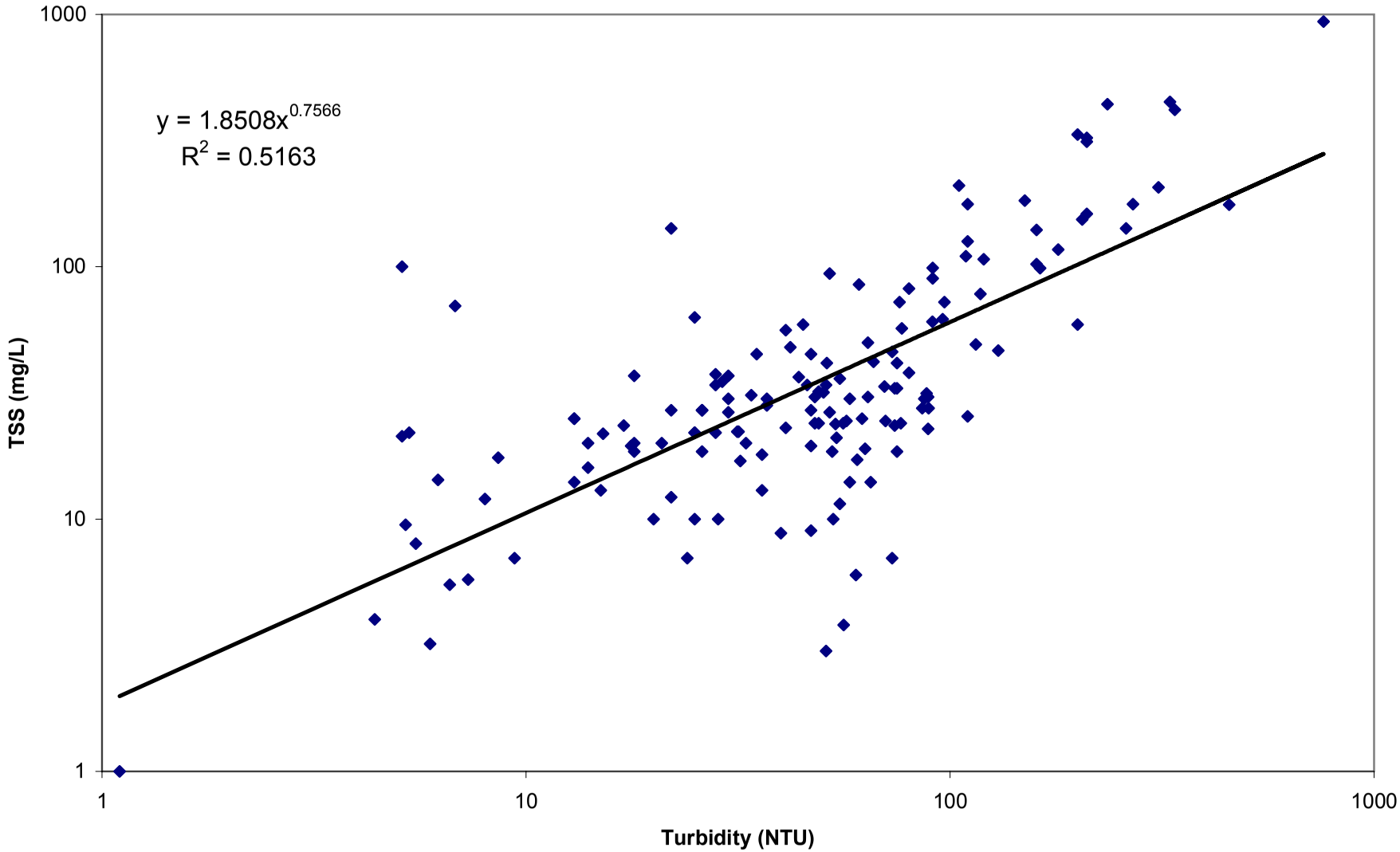


Figure E.5. Base flow regression for TSS vs Turbidity for Cache River near Brasfield (WHI0032)

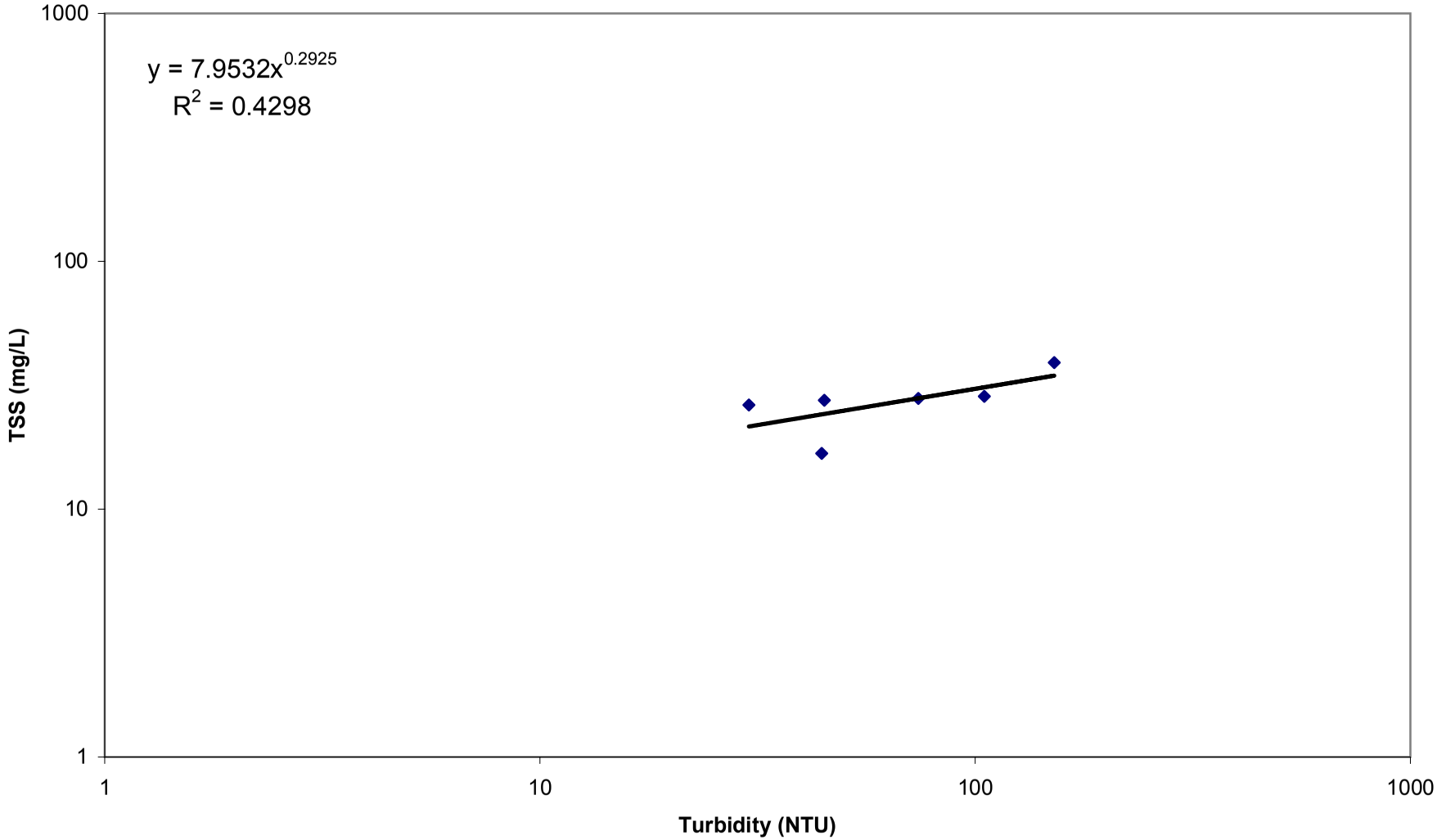


Figure E.6. Storm flow regression for TSS vs Turbidity for Cache River near Brasfield (WHI0032)

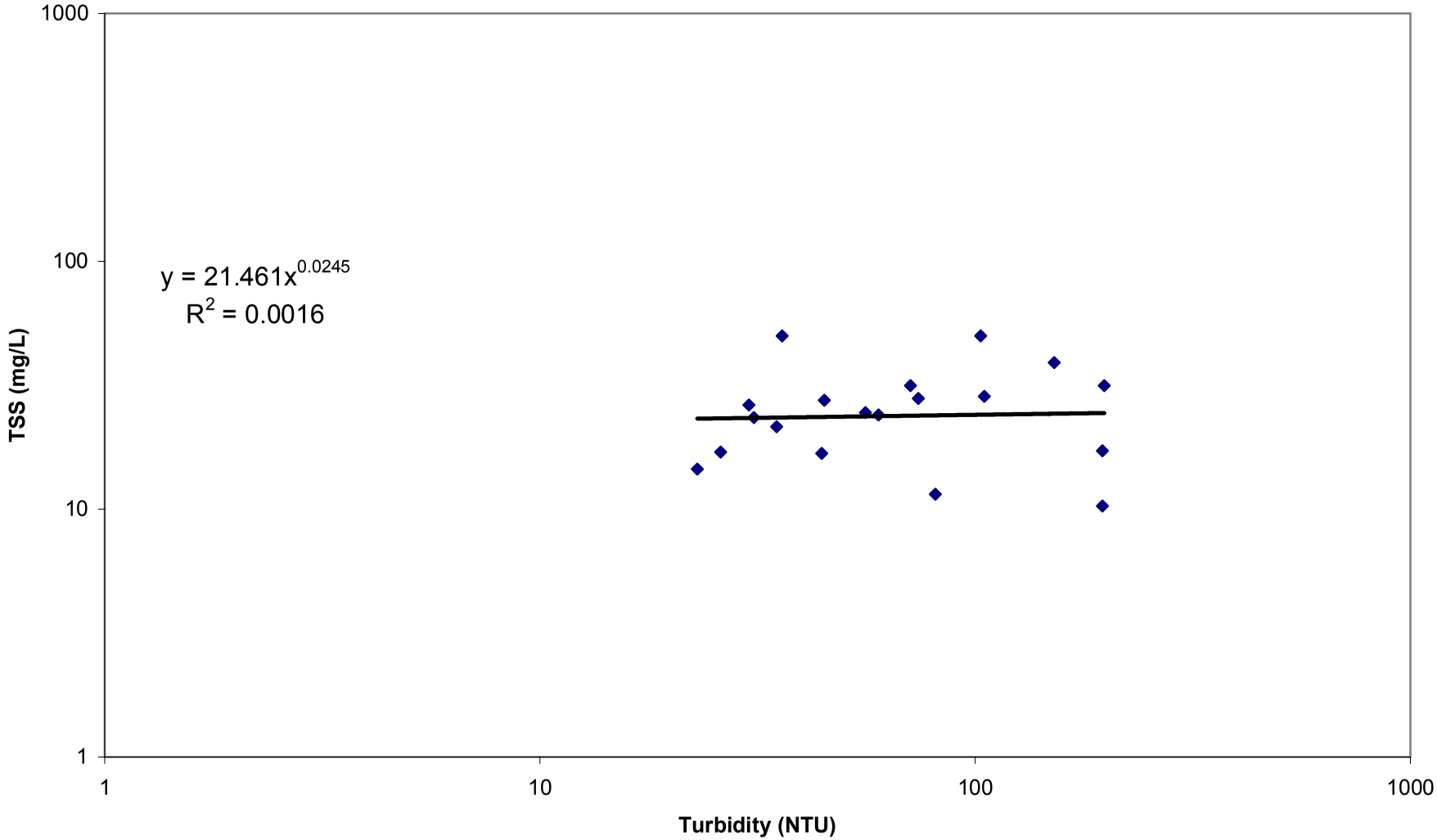


Figure E.7. Base flow regression for Turbidity vs TSS for Cache River (CHR0002)

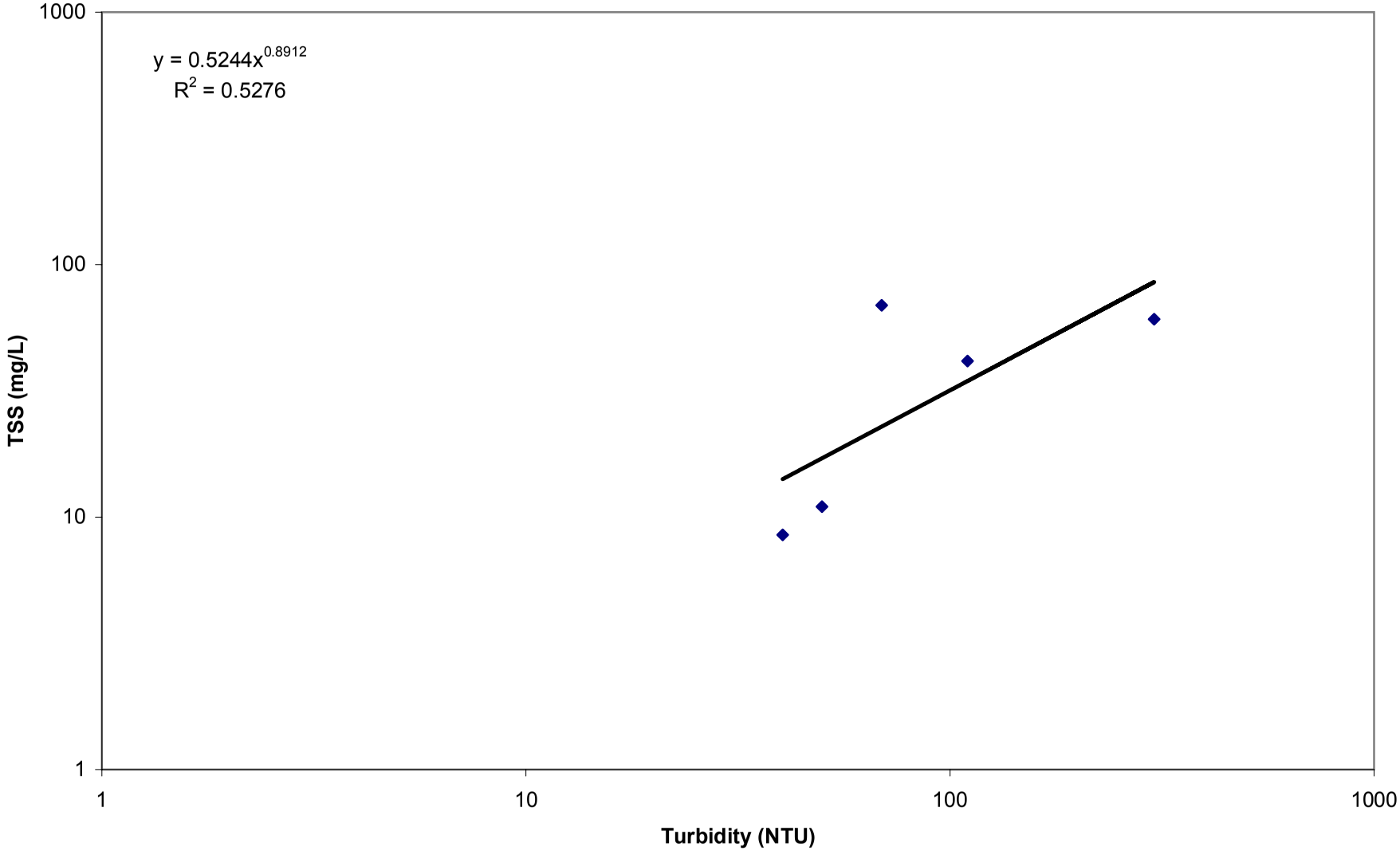


Figure E.8. Storm flow regression for TSS vs Turbidity for Cache River (CHR0002)

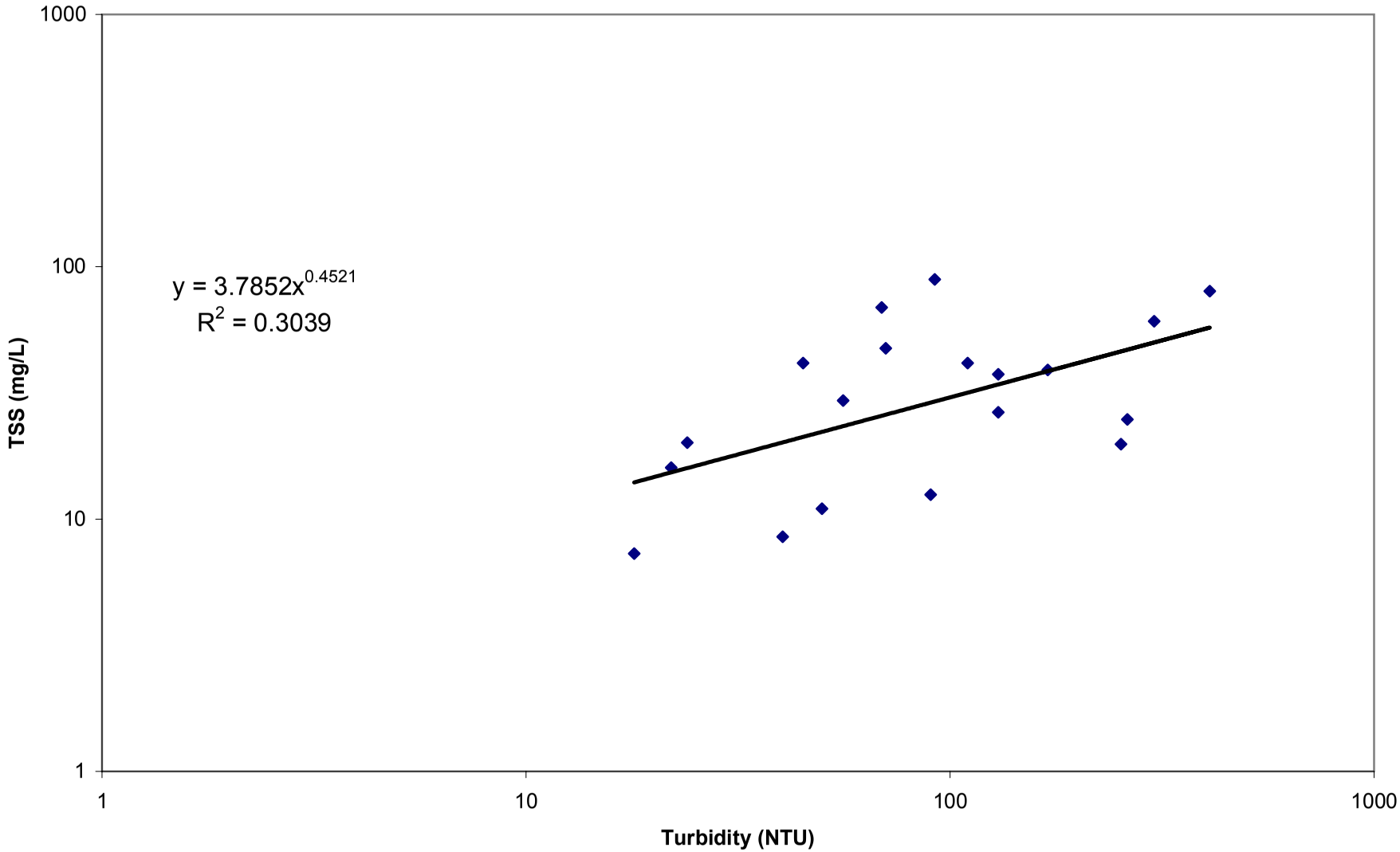


Figure E.9. Base flow TSS vs Turbidity for Cache River near Hwy 18 (CHR0003)

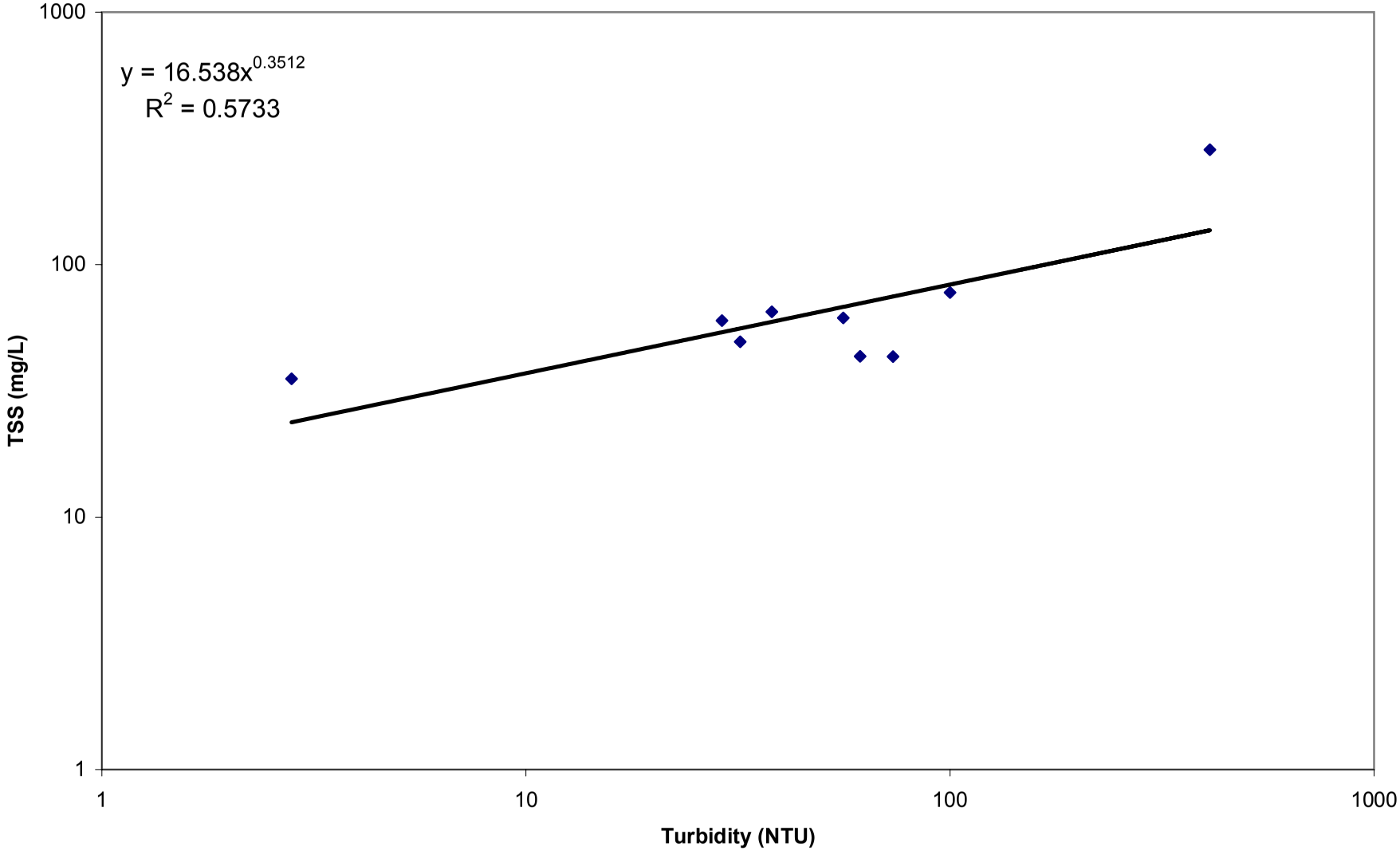


Figure E.10. Storm flow TSS vs Turbidity for Cache River near Hwy 18 (CHR0003)

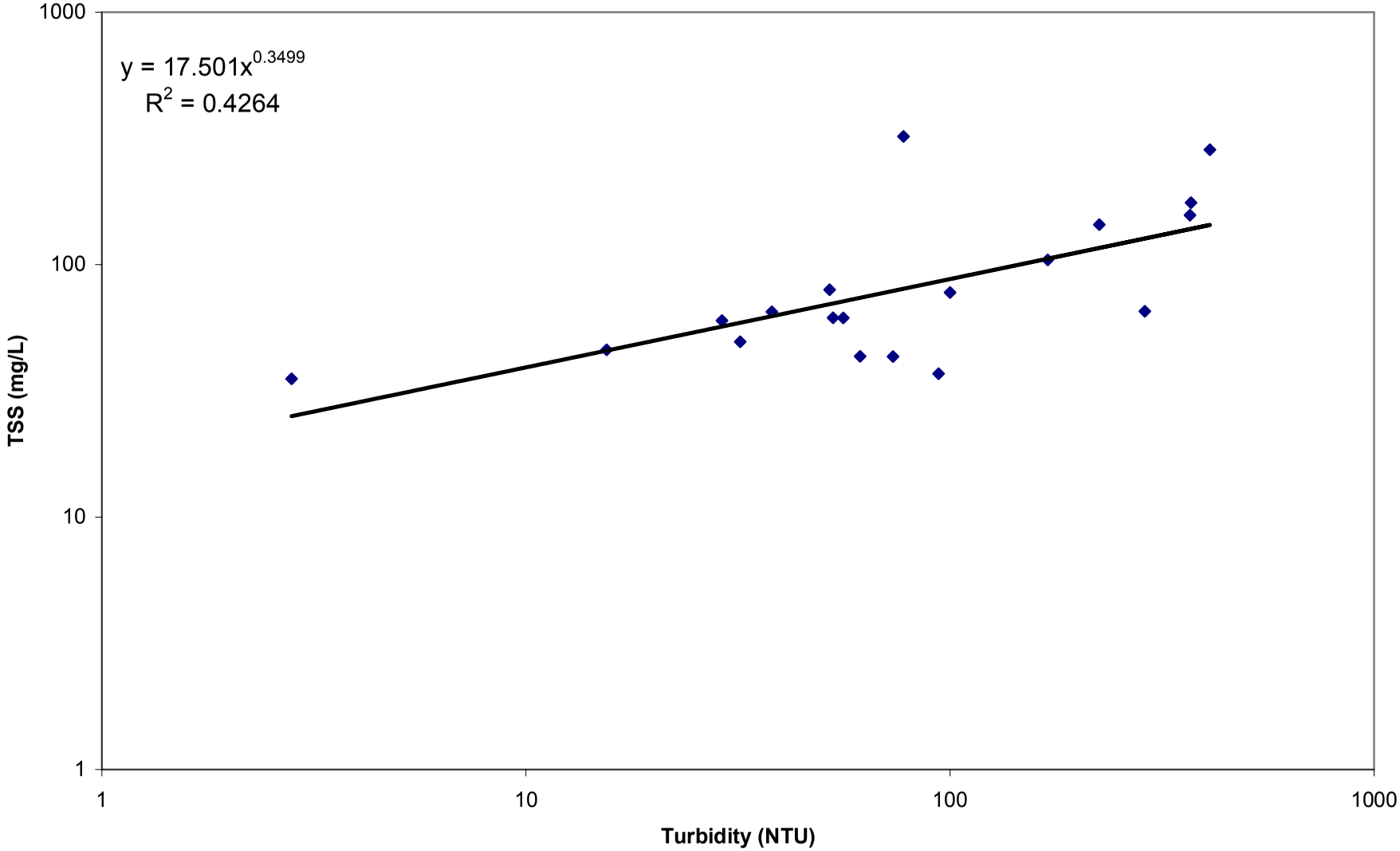


Figure E.11. Base flow regression for TSS vs Turbidity for Cache River (CHR0004)

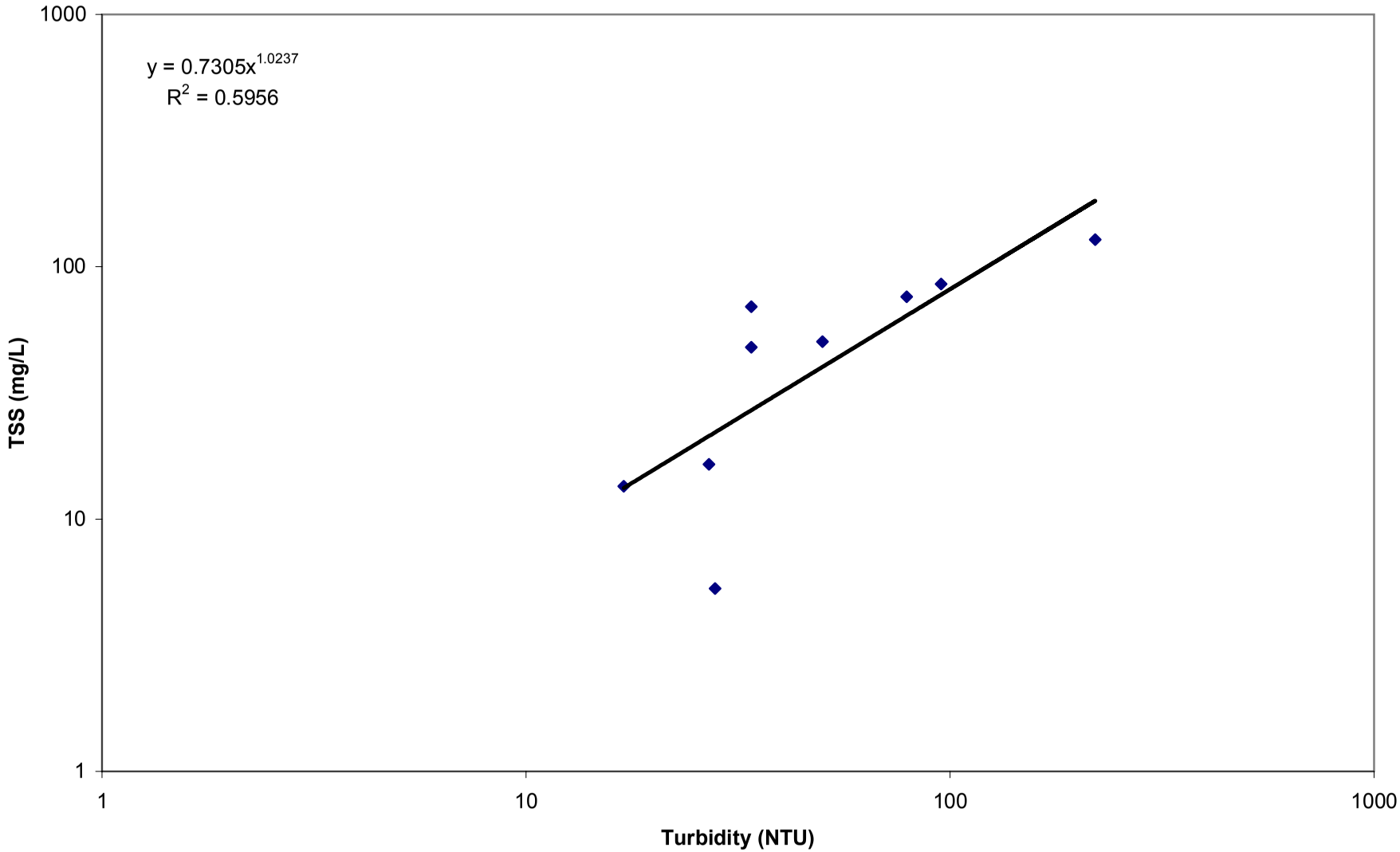
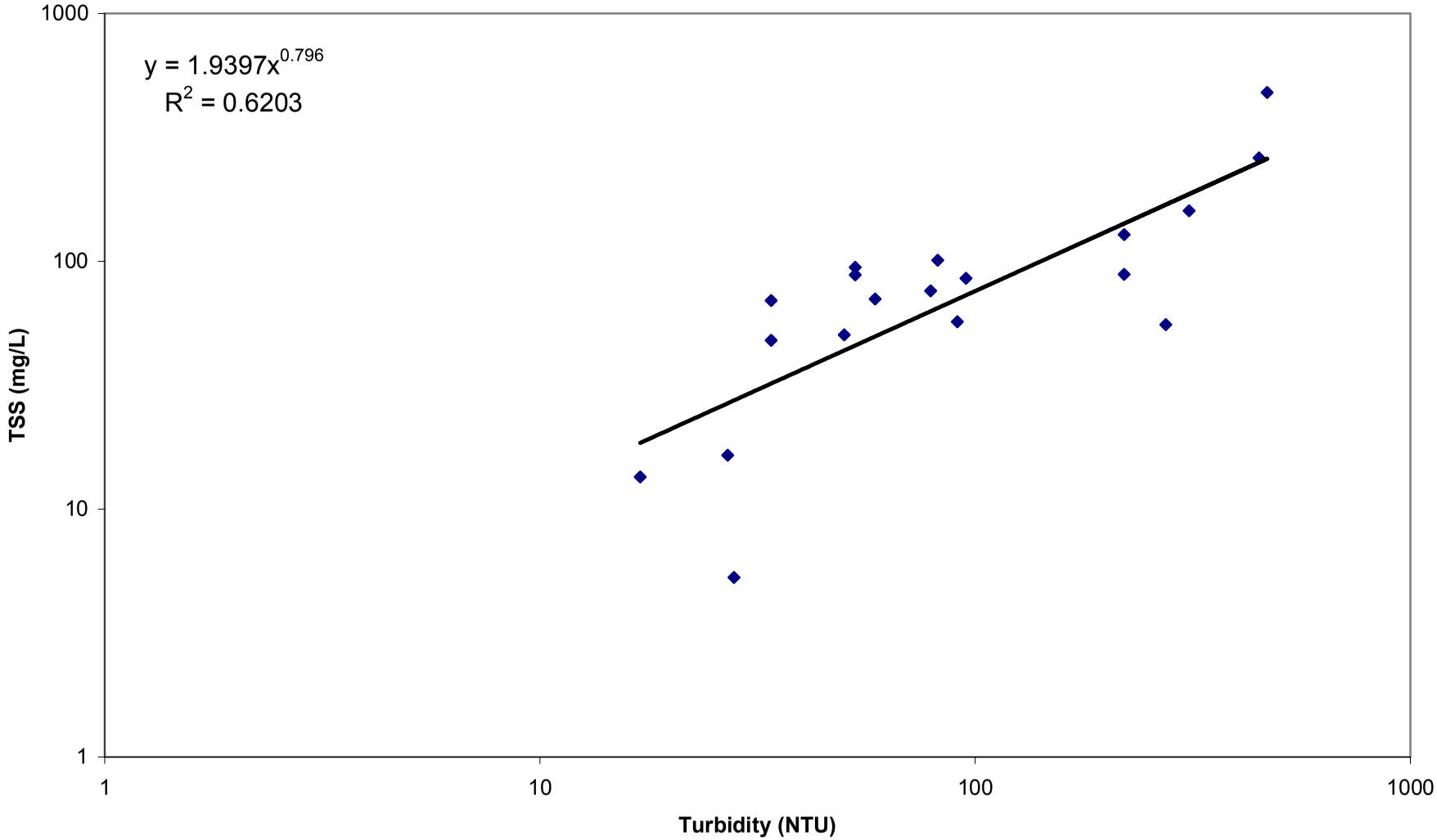


Figure E.12. Storm flow regression for Turbidity verse TSS for Cache River at Hwy 412 (CHR0004)



APPENDIX F

Load Duration Curves and TMDL Calculations

Figure F.1. Flow Duration Curve for Cache River near Cotton Plant (07077555)

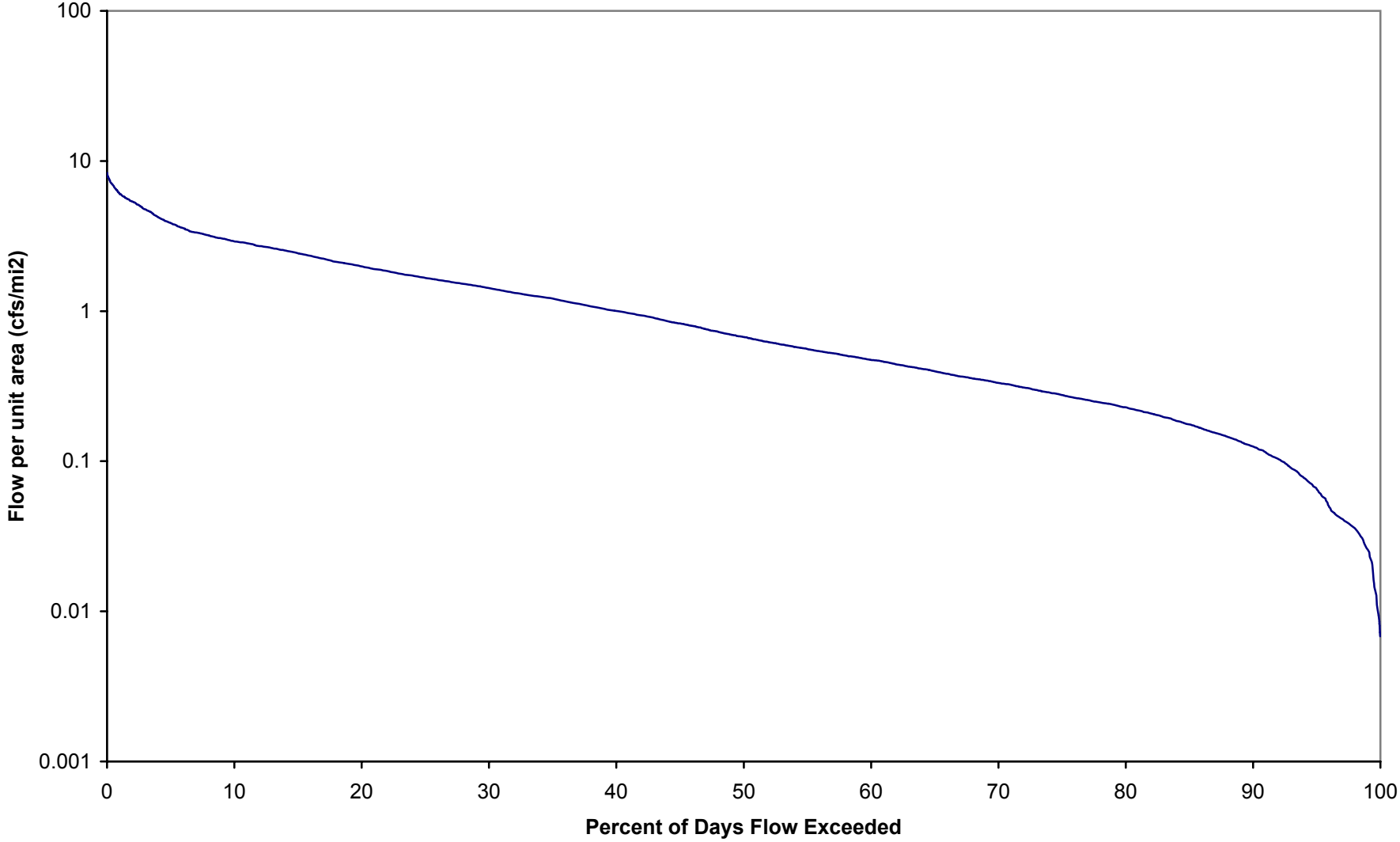


Figure F.2. Flow Duration Curve for Cache River at Egypt (07077380)

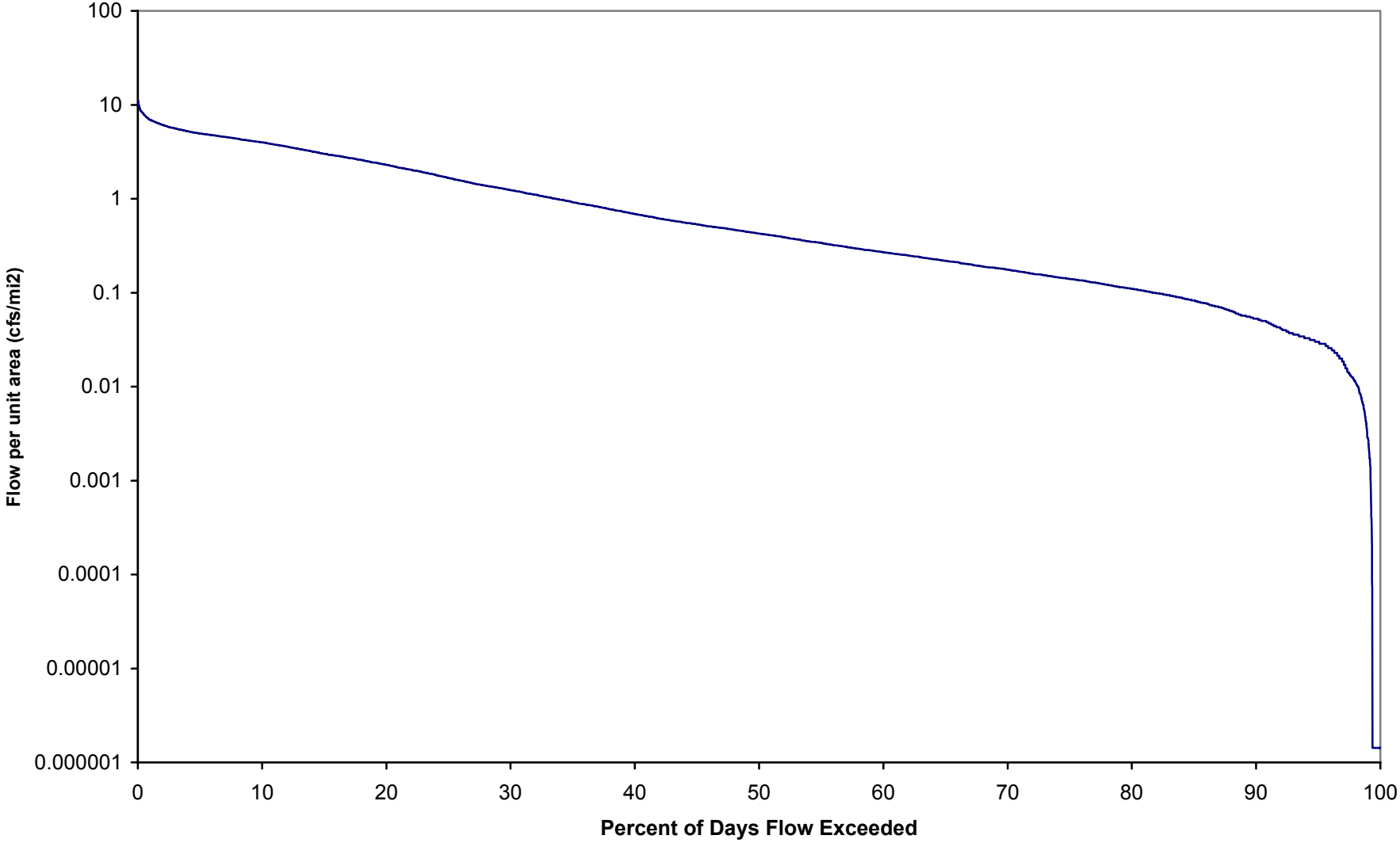


Figure F.3. Storm-Flow load Duration Curve for Bayou DeView (BDV0002)

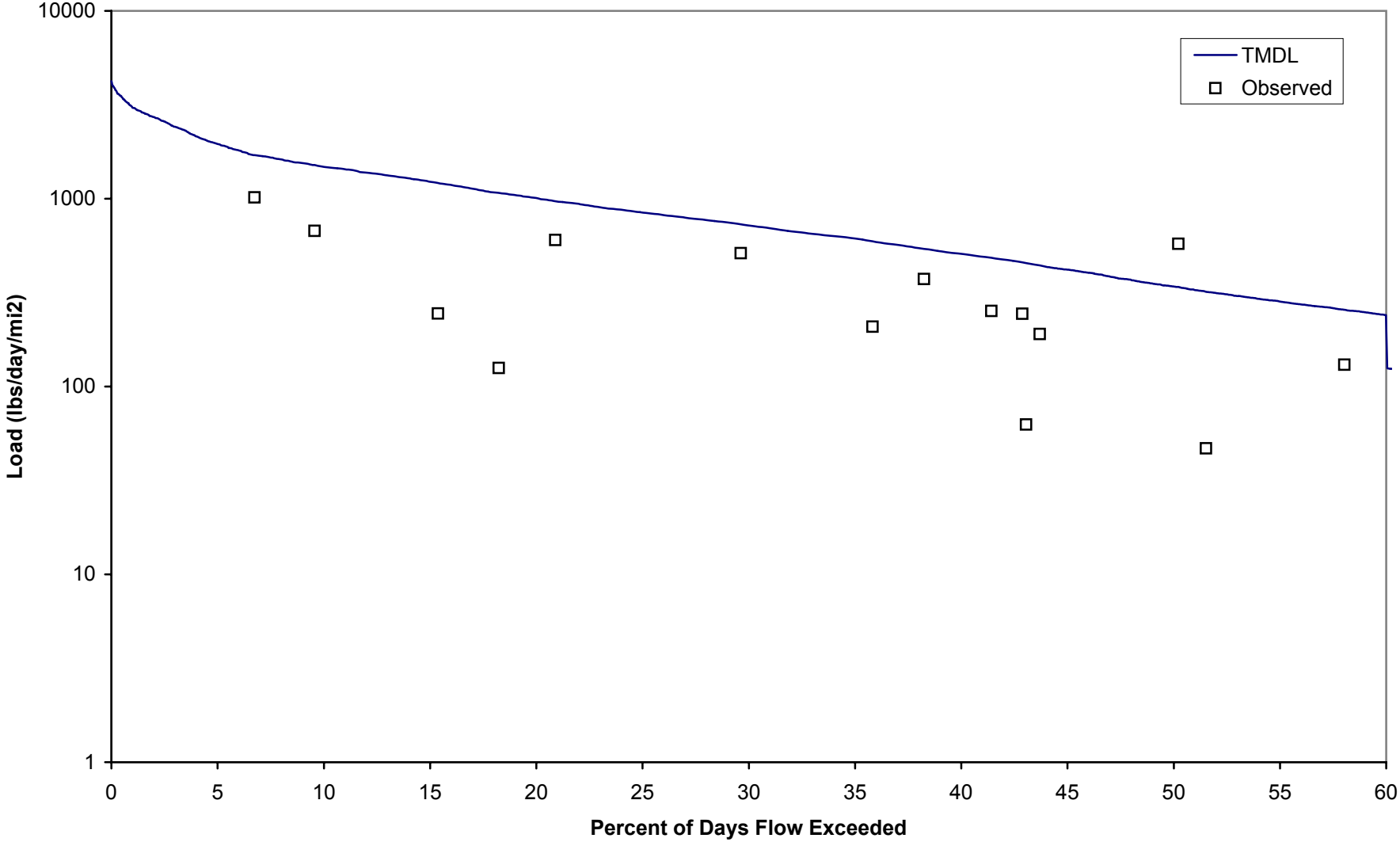


Figure F.4. Base Flow Load Duration Curve For Bayou DeView (BDV0002)

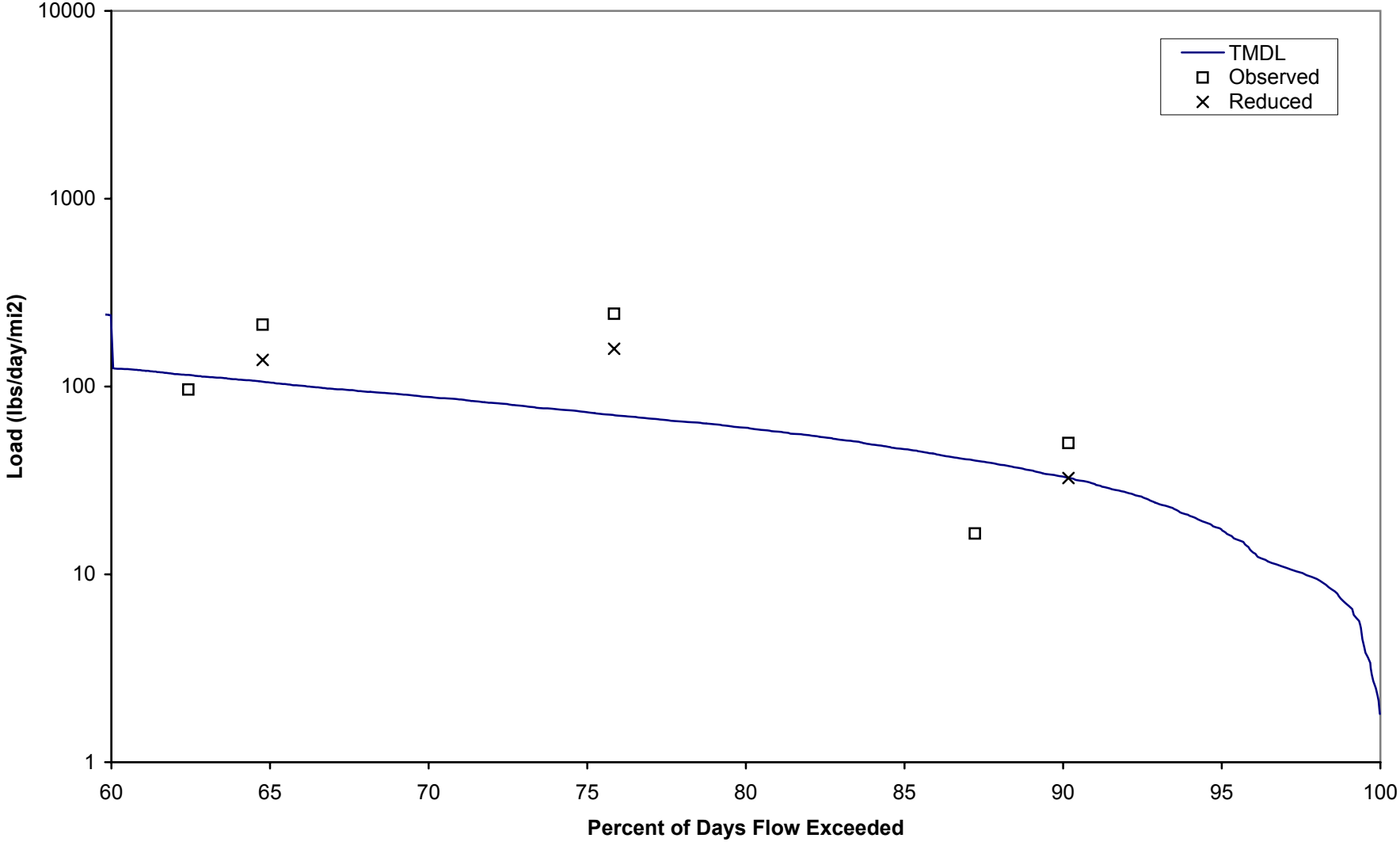


Figure F.5. Storm-Flow load Duration Curve for Bayou DeView (WHI0026)

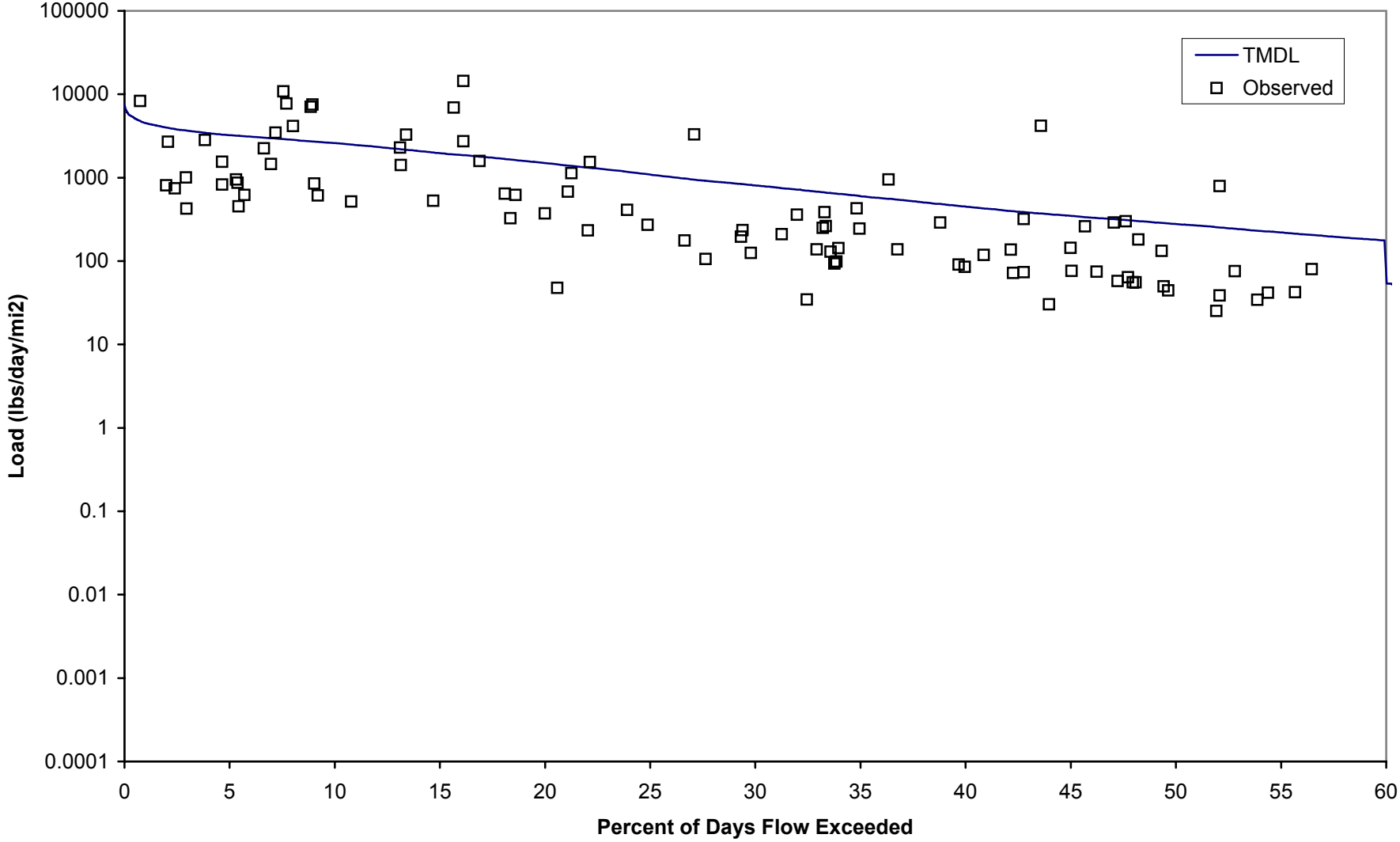


Figure F.6. Base Flow load Duration Curve for Bayou DeView (WHI0026)

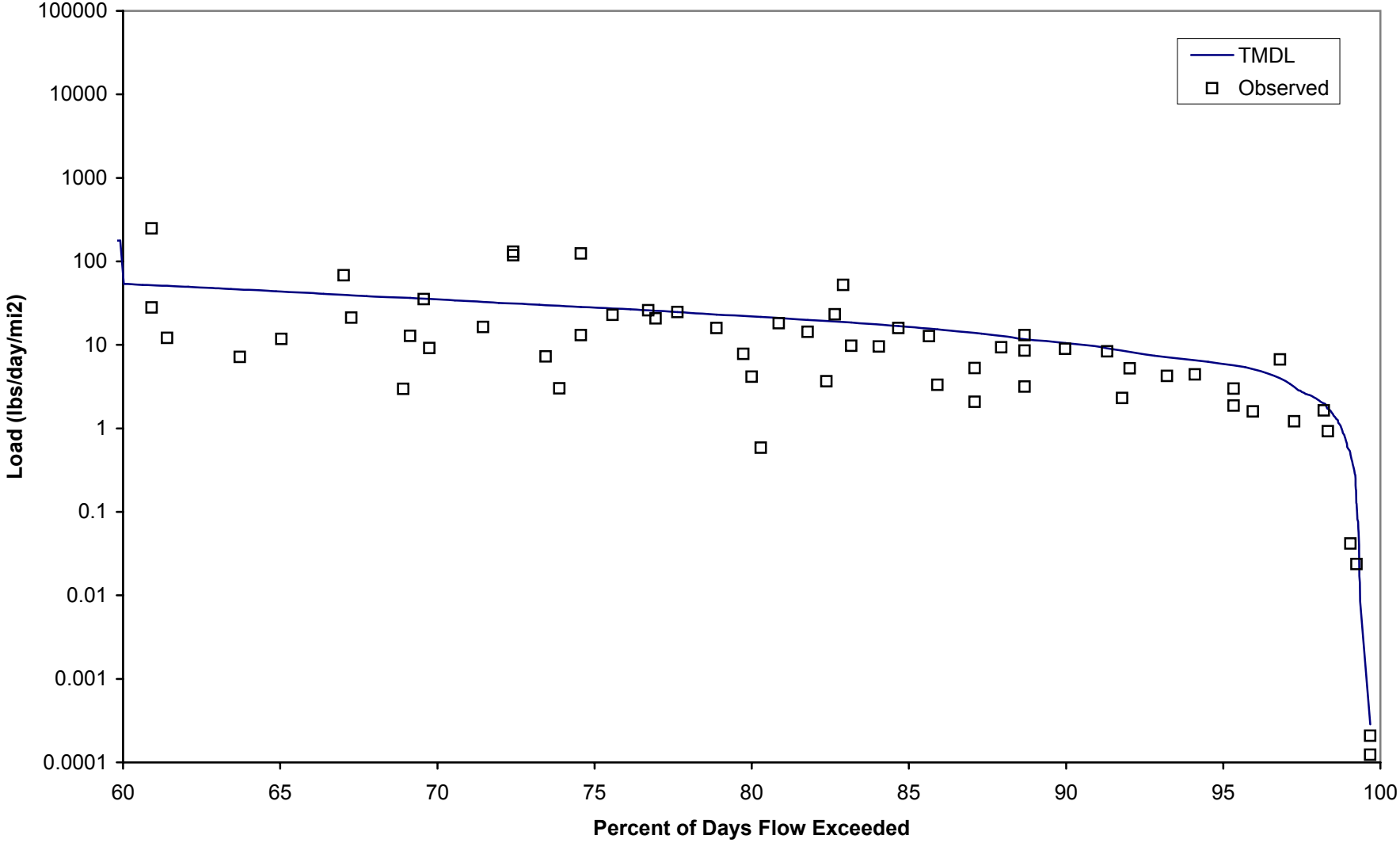


Figure F.7. Storm-Flow Load Duration Curve for Cache River at CHR0002

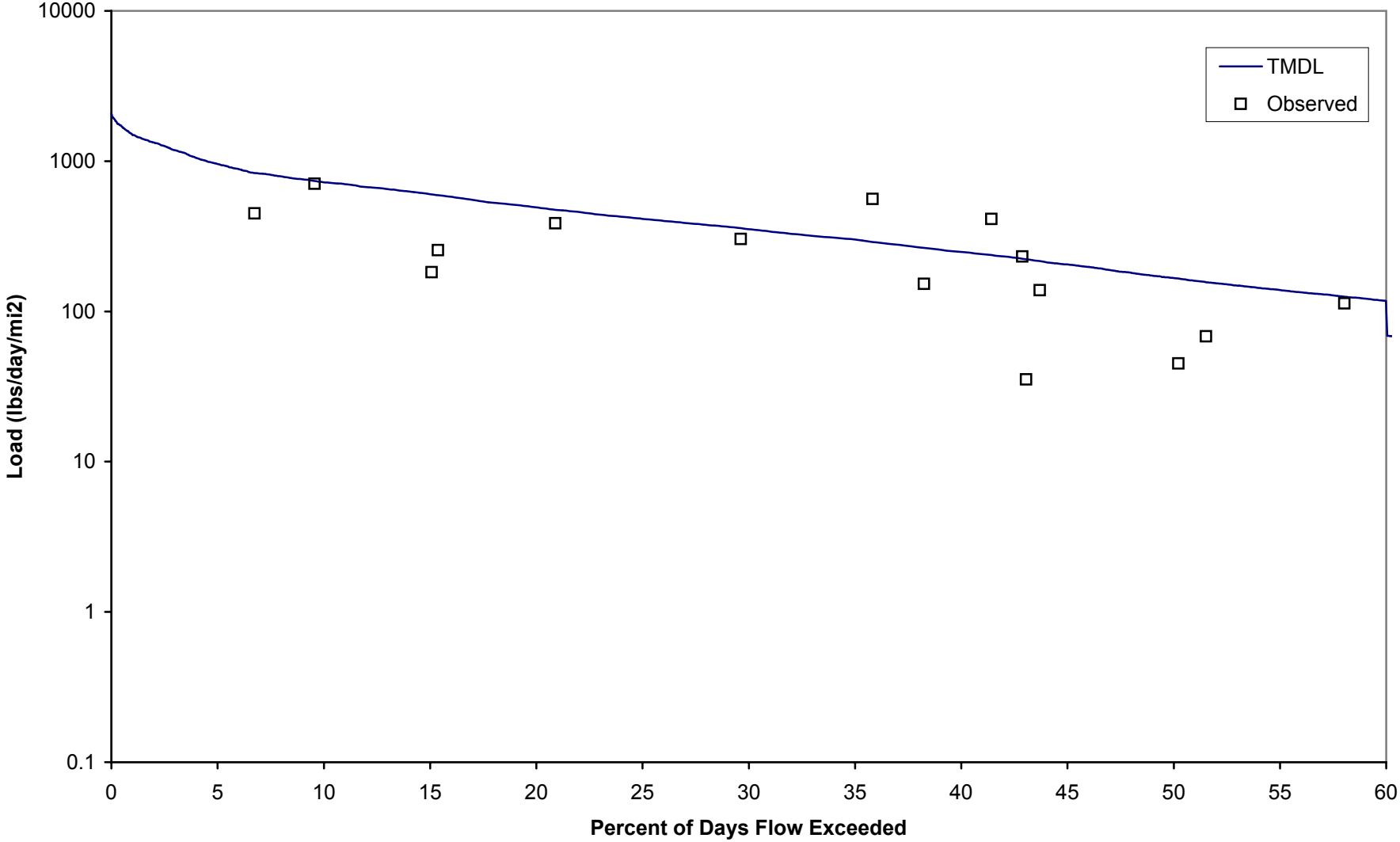


Figure F.8. Base Flow Load Duration Curve For Cache River at CHR0002

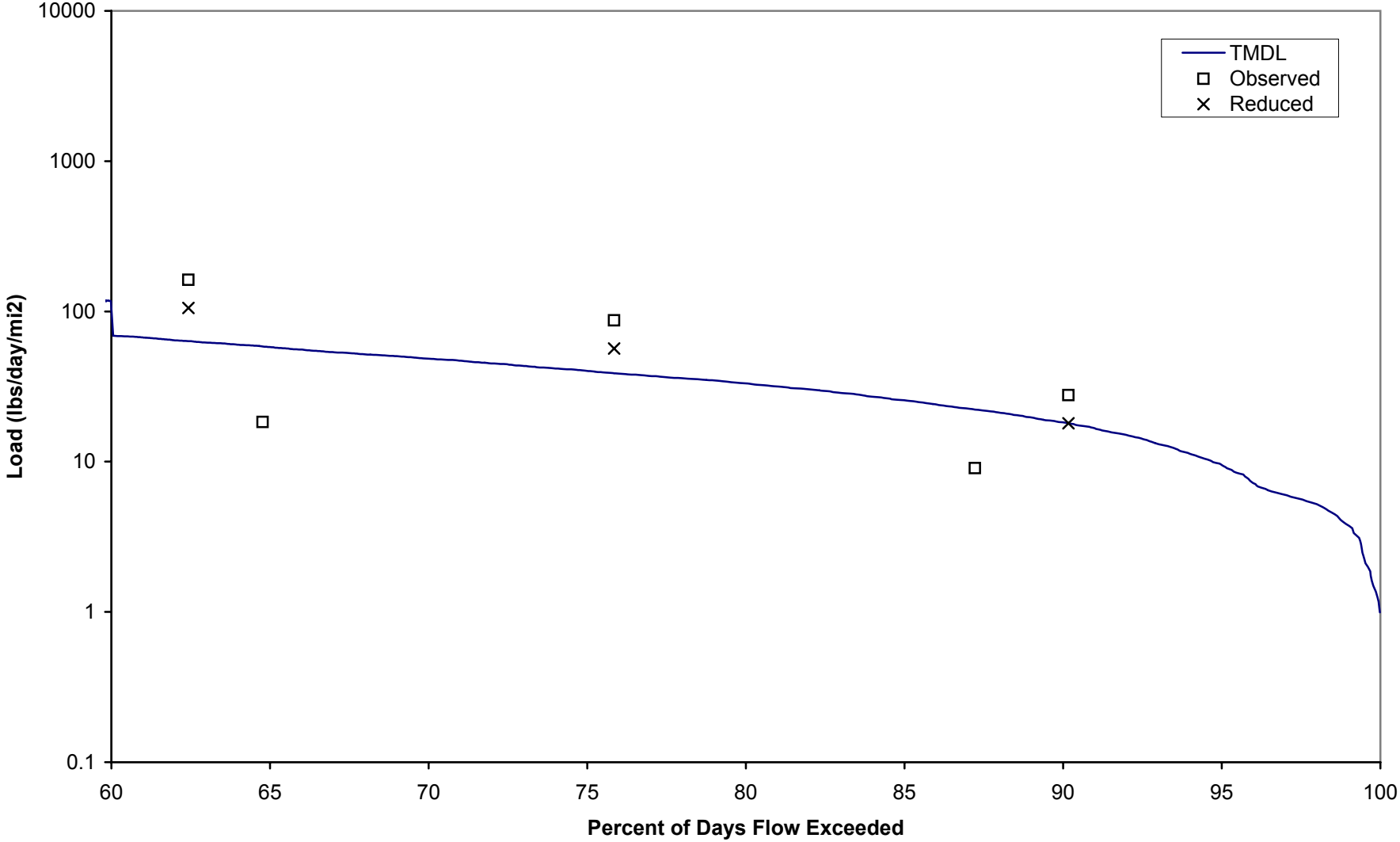


Figure F.9. Storm-Flow Load Duration Curve for Cache River (CHR0003)

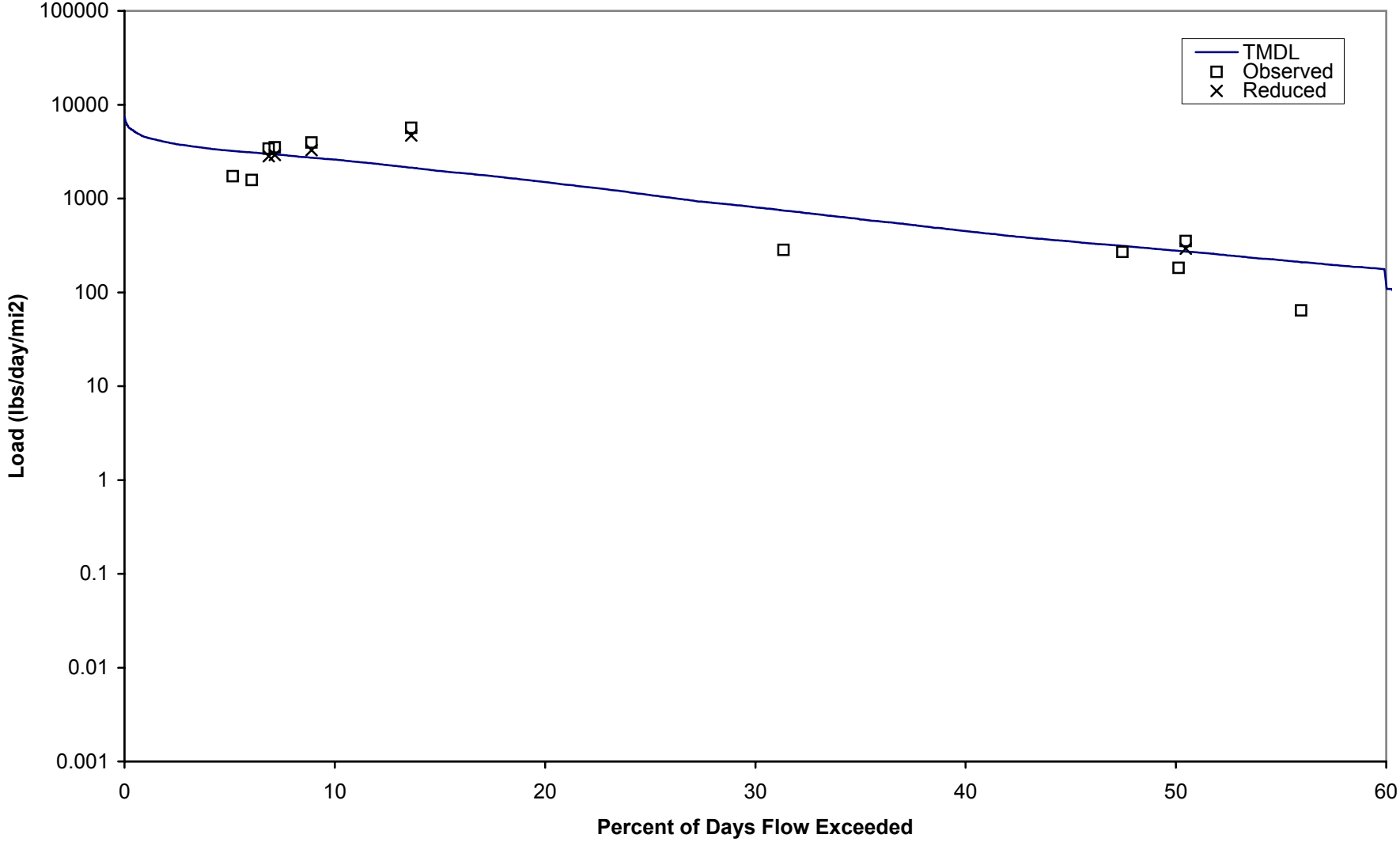


Figure F.10. Base Flow Load Duration Curve For Cache River (CHR0003)

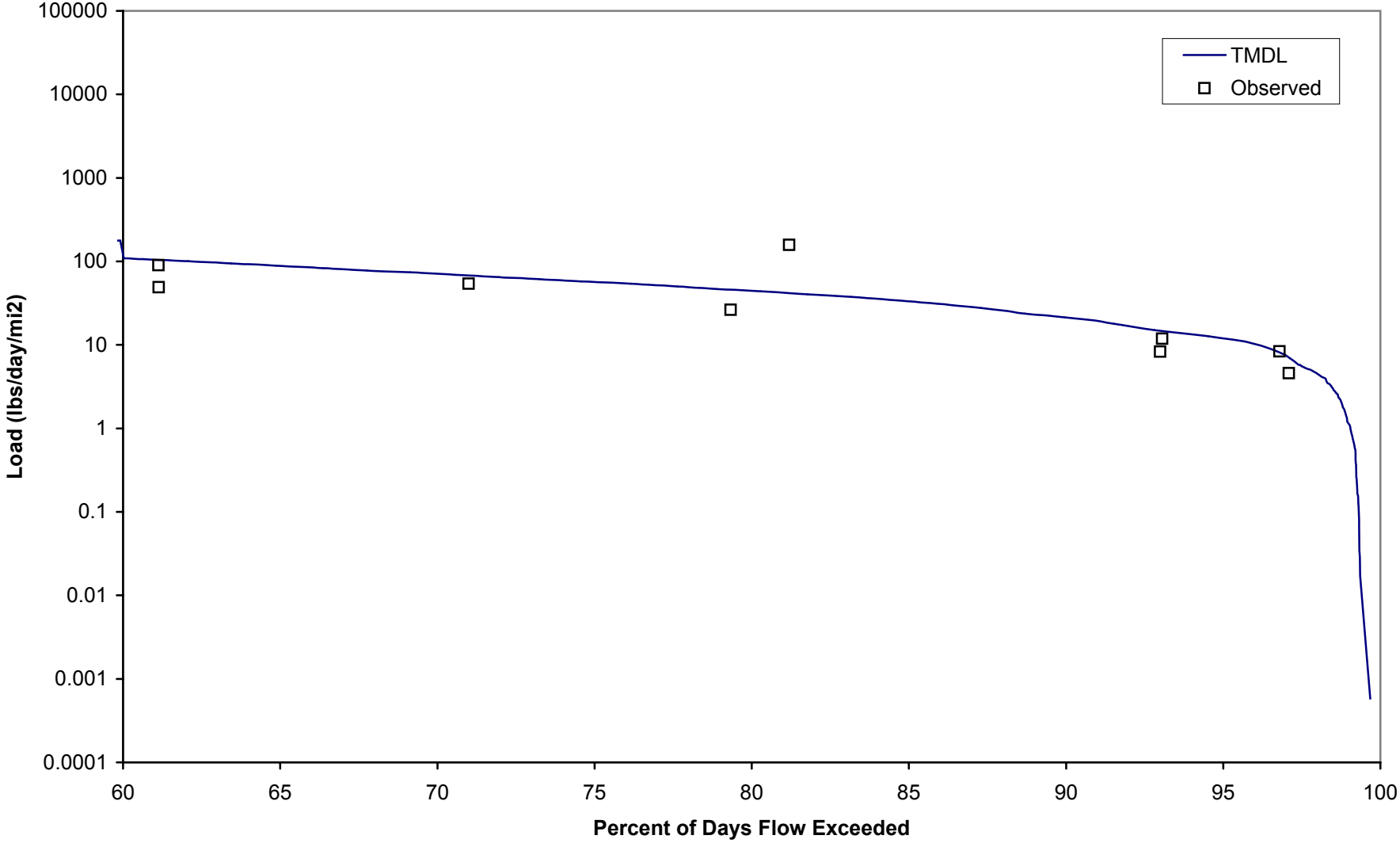


Figure F.11. Storm-Flow Load Duration Curve For Cache River (CHR0004)

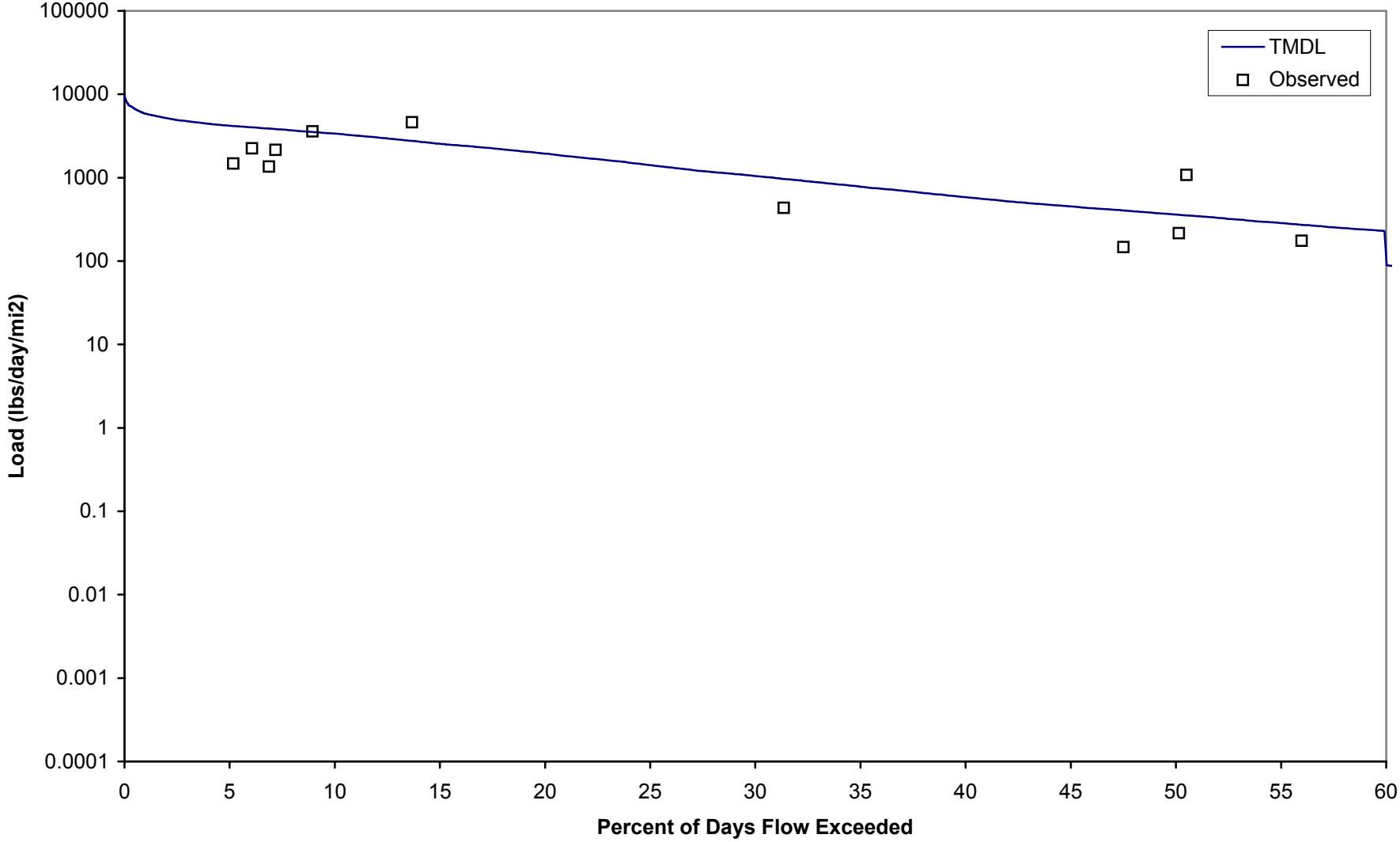


Figure F.12. Base Flow Load Duration Curve For Cache River (CHR0004)

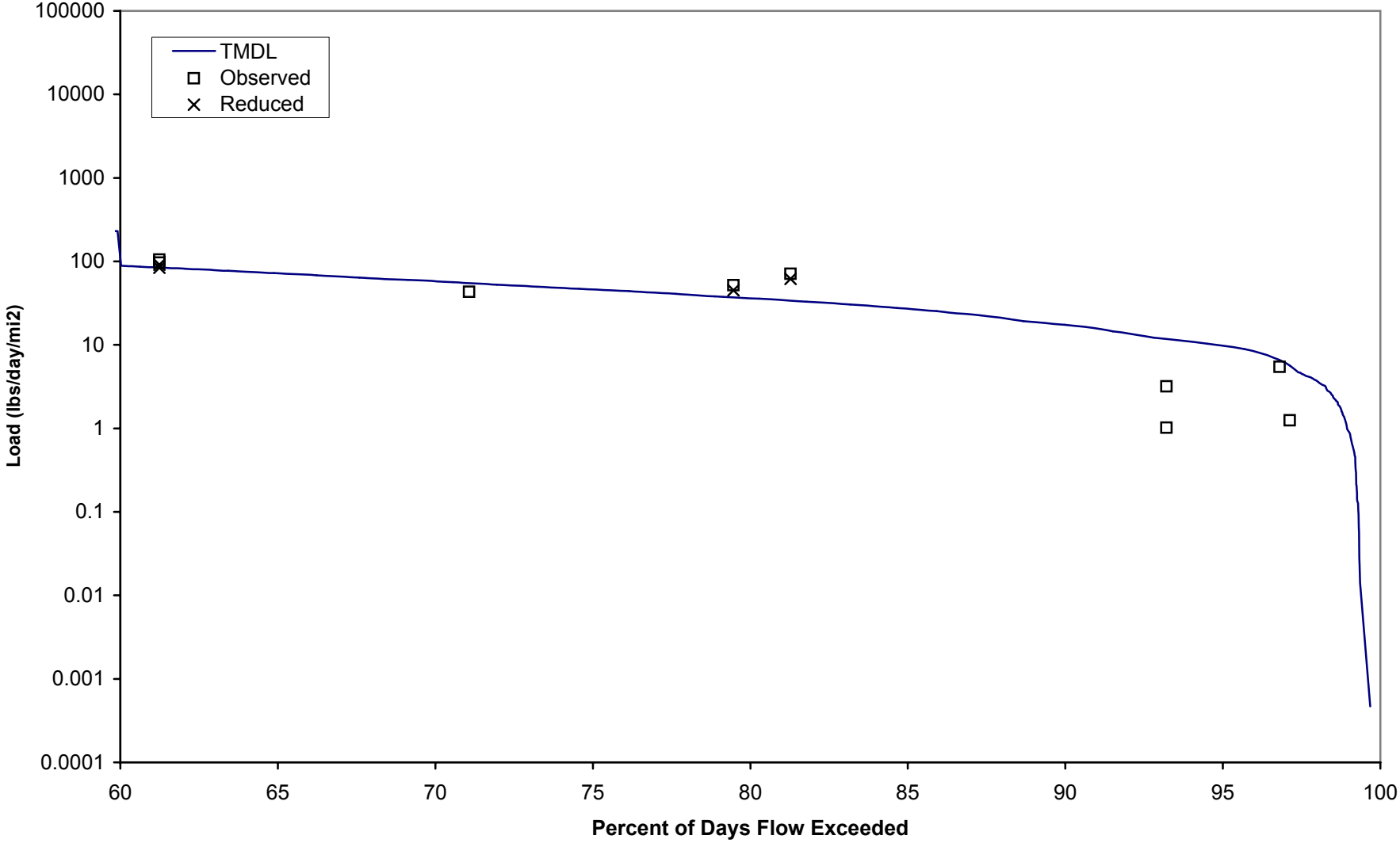


Table F.1. Calcuations for allowable TSS load for Bayou DeView (BDV0002).
drainage area at USGS flow gage = 1172 mi2, (Cache River near Cotton plant)

Date	Flow at gage (cfs)	Flow (cfs/mi2)	Percent of days flow exceeded	WQ Standard type	WQ Standard (NTU)	Target TSS (mg/L)	Allowable TSS load (lbs/day/mi2)
12/2/1999	8	6.83E-03	99.98%	Base flow	75	49	1.80E+00
12/1/1999	8.5	7.25E-03	99.96%	Base flow	75	49	1.92E+00
11/22/1999	9.4	8.02E-03	99.95%	Base flow	75	49	2.12E+00
The rows between 99.95 and 80.06 percent flow exceedances are not shown for the sake of brevity.							
10/14/1996	267	2.28E-01	80.06%	Base flow	75	49	6.02E+01
5/27/2000	267	2.28E-01	80.06%	Base flow	75	49	6.02E+01
8/23/2000	267	2.28E-01	80.06%	Base flow	75	49	6.02E+01
The rows between 80.06 and 60.05 percent flow exceedances are not shown for the sake of brevity.							
8/21/1994	554	4.73E-01	60.05%	Base flow	75	49	1.25E+02
4/9/1996	554	4.73E-01	60.05%	Base flow	75	49	1.25E+02
7/27/1998	554	4.73E-01	60.05%	Base flow	75	49	1.25E+02
5/22/1989	555	4.74E-01	59.98%	Storm-flow	250	94	2.40E+02
6/13/1992	555	4.74E-01	59.98%	Storm-flow	250	94	2.40E+02
9/14/1994	555	4.74E-01	59.98%	Storm-flow	250	94	2.40E+02
The rows between 59.98 and 30.12 percent flow exceedances are not shown for the sake of brevity.							
6/26/2000	1660	1.42E+00	30.12%	Storm-flow	250	94	7.18E+02
12/4/2001	1660	1.42E+00	30.12%	Storm-flow	250	94	7.18E+02
2/19/2003	1660	1.42E+00	30.12%	Storm-flow	250	94	7.18E+02
The rows between 30.12 and 0.04 percent flow exceedances are not shown for the sake of brevity.							
12/30/1987	9380	8.00E+00	0.04%	Storm-flow	250	94	4.06E+03
12/29/1987	9730	8.30E+00	0.02%	Storm-flow	250	94	4.21E+03
12/28/1987	9770	8.34E+00	0.00%	Storm-flow	250	94	4.23E+03

Flow per unit area in middle of base flow range (80% exceedance) =	0.228	cfs/mi2
Cumulative drainage area at downstream end of reach 004 =	505.2	mi2
Flow at downstream end of reach 004 for base flow conditions =	115	cfs
Target TSS for base flow conditions for reach 004 =	49	mg/L
Allowable TSS load for base flow conditions for reach 004 =	15.2	tons/day
Flow in middle of stormwater range (30% exceedance) =	1.416	cfs/mi2
Cumulative drainage area at downstream end of reach 004 =	505.2	mi2
Flow at downstream end of reach 004 for stormwater conditions =	716	cfs
Target TSS for stormwater conditions for reach 004 =	94	mg/L
Allowable TSS load for stormwater conditions for reach 004 =	181	tons/day
Flow per unit area in middle of base flow range (80% exceedance) =	0.229	cfs/mi2
Cumulative drainage area at downstream end of reach 005 =	402.5	mi2
Flow at downstream end of reach 005 for base flow conditions =	92	cfs

Target TSS for base flow conditions for reach 005 =	49	mg/L
Allowable TSS load for base flow conditions for reach 005 =	12.2	tons/day
Flow in middle of stormwater range (30% exceedance) =	1.433	cfs/mi2
Cumulative drainage area at downstream end of reach 005 =	402.5	mi2
Flow at downstream end of reach 005 for stormwater conditions =	577	cfs
Target TSS for stormwater conditions for reach 005 =	94	mg/L
Allowable TSS load for stormwater conditions for reach 005 =	146	tons/day
Flow per unit area in middle of base flow range (80% exceedance) =	0.231	cfs/mi2
Cumulative drainage area at downstream end of reach 006 =	352.9	mi2
Flow at downstream end of reach 006 for base flow conditions =	82	cfs
Target TSS for base flow conditions for reach 006 =	49	mg/L
Allowable TSS load for base flow conditions for reach 006 =	10.8	tons/day
Flow in middle of stormwater range (30% exceedance) =	1.442	cfs/mi2
Cumulative drainage area at downstream end of reach 006 =	352.9	mi2
Flow at downstream end of reach 006 for stormwater conditions =	509	cfs
Target TSS for stormwater conditions for reach 006 =	94	mg/L
Allowable TSS load for stormwater conditions for reach 006 =	129	tons/day

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Table F.1. Allowable Load Calculations BDV0002

Table F.2. Calcuations for allowable TSS load for Bayou DeView (WHI0026).
drainage area at USGS flow gage = 701 mi2, at (Cache River at Egypt)

Date	Flow at gage (cfs)	Flow (cfs/mi2)	Percent of days flow exceeded	WQ Standard type	WQ Standard (NTU)	Target TSS (mg/L)	Allowable TSS load (lbs/day/mi2)
1982-11-06	1.00E-03	1.43E-06	99.68%	Base flow	75	37	2.85E-04
1982-11-07	1.00E-03	1.43E-06	99.68%	Base flow	75	37	2.85E-04
1982-11-08	1.00E-03	1.43E-06	99.68%	Base flow	75	37	2.85E-04
The rows between 99.68 and 80.00 percent flow exceedances are not shown for the sake of brevity.							
1998-09-12	7.70E+01	1.10E-01	80.00%	Base flow	75	37	2.19E+01
2000-12-29	7.70E+01	1.10E-01	80.00%	Base flow	75	37	2.19E+01
2001-03-25	7.70E+01	1.10E-01	80.00%	Base flow	75	37	2.19E+01
The rows between 80.00 and 60.03 percent flow exceedances are not shown for the sake of brevity.							
1995-11-04	1.89E+02	2.70E-01	60.03%	Base flow	75	37	5.38E+01
1997-07-10	1.89E+02	2.70E-01	60.03%	Base flow	75	37	5.38E+01
2003-03-13	1.89E+02	2.70E-01	60.03%	Base flow	75	37	5.38E+01
1971-08-02	1.90E+02	2.71E-01	59.91%	Storm-flow	250	121	1.77E+02
1974-09-19	1.90E+02	2.71E-01	59.91%	Storm-flow	250	121	1.77E+02
1975-01-28	1.90E+02	2.71E-01	59.91%	Storm-flow	250	121	1.77E+02
The rows between 59.91 and 30.00 percent flow exceedances are not shown for the sake of brevity.							
1977-04-13	8.66E+02	1.24E+00	30.00%	Storm-flow	250	121	8.06E+02
1982-05-10	8.66E+02	1.24E+00	30.00%	Storm-flow	250	121	8.06E+02
1985-12-08	8.66E+02	1.24E+00	30.00%	Storm-flow	250	121	8.06E+02
The rows between 30.00 and 0.01 percent flow exceedances are not shown for the sake of brevity.							
1973-04-24	7.70E+03	1.10E+01	0.01%	Storm-flow	250	121	7.17E+03
1973-04-26	7.91E+03	1.13E+01	0.01%	Storm-flow	250	121	7.36E+03
1973-04-25	7.94E+03	1.13E+01	0.00%	Storm-flow	250	121	7.39E+03

Flow per unit area in middle of base flow range (80% exceedance) =	0.110	cfs/mi2
Cumulative drainage area at downstream end of reach 007 =	277.7	mi2
Flow at downstream end of reach 007 for base flow conditions =	31	cfs
Target TSS for base flow conditions for reach 007 =	37	mg/L
Allowable TSS load for base flow conditions for reach 007 =	3.04	tons/day
Flow in middle of stormwater range (30% exceedance) =	1.24	cfs/mi2
Cumulative drainage area at downstream end of reach 007 =	277.7	mi2
Flow at downstream end of reach 007 for stormwater conditions =	343	cfs
Target TSS for stormwater conditions for reach 007 =	121	mg/L
Allowable TSS load for stormwater conditions for reach 007 =	112	tons/day
Flow per unit area in middle of base flow range (80% exceedance) =	0.110	cfs/mi2
Cumulative drainage area at downstream end of reach 009 =	171.7	mi2
Flow at downstream end of reach 009 for base flow conditions =	19	cfs

Target TSS for base flow conditions for reach 009 =	37	mg/L
Allowable TSS load for base flow conditions for reach 009 =	1.88	tons/day
Flow in middle of stormwater range (30% exceedance) =	1.24	cfs/mi2
Cumulative drainage area at downstream end of reach 009 =	171.7	mi2
Flow at downstream end of reach 009 for stormwater conditions =	212	cfs
Target TSS for stormwater conditions for reach 009 =	121	mg/L
Allowable TSS load for stormwater conditions for reach 009 =	69.2	tons/day

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Table F.3. Calcuations for allowable load for Cache River at CHR0002.
drainage area at USGS flow gage = 1172 mi2, (Cache River near Cotton Plant)

Date	Flow at gage (cfs)	Flow (cfs/mi2)	Percent of days flow exceeded	WQ Standard type	WQ Standard (NTU)	Target TSS (mg/L)	Allowable TSS load (lbs/day/mi2)
12/02/99	8	6.83E-03	99.98%	Base flow	75	27	9.94E-01
12/01/99	8.5	7.25E-03	99.96%	Base flow	75	27	1.06E+00
11/22/99	9.4	8.02E-03	99.95%	Base flow	75	27	1.17E+00
The rows between 99.95 and 80.06 percent flow exceedances are not shown for the sake of brevity.							
10/14/96	267	2.28E-01	80.06%	Base flow	75	27	3.32E+01
05/27/00	267	2.28E-01	80.06%	Base flow	75	27	3.32E+01
08/23/00	267	2.28E-01	80.06%	Base flow	75	27	3.32E+01
The rows between 80.06 and 60.05 percent flow exceedances are not shown for the sake of brevity.							
08/21/94	554	4.73E-01	60.05%	Base flow	75	27	6.88E+01
04/09/96	554	4.73E-01	60.05%	Base flow	75	27	6.88E+01
07/27/98	554	4.73E-01	60.05%	Base flow	75	27	6.88E+01
05/22/89	555	4.74E-01	59.98%	Storm-flow	250	46	1.17E+02
06/13/92	555	4.74E-01	59.98%	Storm-flow	250	46	1.17E+02
09/14/94	555	4.74E-01	59.98%	Storm-flow	250	46	1.17E+02
The rows between 59.98 and 30.12 percent flow exceedances are not shown for the sake of brevity.							
06/26/00	1660	1.42E+00	30.12%	Storm-flow	250	46	3.51E+02
12/04/01	1660	1.42E+00	30.12%	Storm-flow	250	46	3.51E+02
02/19/03	1660	1.42E+00	30.12%	Storm-flow	250	46	3.51E+02
The rows between 30.12 and 0.04 percent flow exceedances are not shown for the sake of brevity.							
12/30/87	9380	8.00E+00	0.04%	Storm-flow	250	46	1.99E+03
12/29/87	9730	8.30E+00	0.02%	Storm-flow	250	46	2.06E+03
12/28/87	9770	8.34E+00	0.00%	Storm-flow	250	46	2.07E+03

Flow per unit area in middle of base flow range (80% exceedance) =	0.228	cfs/mi2
Cumulative drainage area at downstream end of reach 016 =	1282.5	mi2
Flow at downstream end of reach 016 for base flow conditions =	292	cfs
Target TSS for base flow conditions for reach 016 =	27	mg/L
Allowable TSS load for base flow conditions for reach 016 =	21.3	tons/day
Flow in middle of stormwater range (30% exceedance) =	1.416	cfs/mi2
Cumulative drainage area at downstream end of reach 016 =	1282.5	mi2
Flow at downstream end of reach 016 for stormwater conditions =	1817	cfs
Target TSS for stormwater conditions for reach 016 =	46	mg/L
Allowable TSS load for stormwater conditions for reach 016 =	225	tons/day
Flow per unit area in middle of base flow range (80% exceedance) =	0.228	cfs/mi2
Cumulative drainage area at downstream end of reach 017 =	1168.1	mi2
Flow at downstream end of reach 017 for base flow conditions =	266.112	cfs

Target TSS for base flow conditions for reach 017 =	27	mg/L
Allowable TSS load for base flow conditions for reach 017 =	19.4	tons/day
Flow in middle of stormwater range (30% exceedance) =	1.416	cfs/mi2
Cumulative drainage area at downstream end of reach 017 =	1168.1	mi2
Flow at downstream end of reach 017 for stormwater conditions =	1654	cfs
Target TSS for stormwater conditions for reach 017 =	46	mg/L
Allowable TSS load for stormwater conditions for reach 017 =	205	tons/day
Flow per unit area in middle of base flow range (80% exceedance) =	0.228	cfs/mi2
Cumulative drainage area at downstream end of reach 018 =	1151.5	mi2
Flow at downstream end of reach 018 for base flow conditions =	262	cfs
Target TSS for base flow conditions for reach 018 =	27	mg/L
Allowable TSS load for base flow conditions for reach 018 =	19.1	tons/day
Flow in middle of stormwater range (30% exceedance) =	1.416	cfs/mi2
Cumulative drainage area at downstream end of reach 018 =	1151.5	mi2
Flow at downstream end of reach 018 for stormwater conditions =	1631	cfs
Target TSS for stormwater conditions for reach 018 =	46	mg/L
Allowable TSS load for stormwater conditions for reach 018 =	202	tons/day
Flow per unit area in middle of base flow range (80% exceedance) =	0.228	cfs/mi2
Cumulative drainage area at downstream end of reach 019 =	1007.2	mi2
Flow at downstream end of reach 019 for base flow conditions =	229	cfs
Target TSS for base flow conditions for reach 019 =	27	mg/L
Allowable TSS load for base flow conditions for reach 019 =	16.7	tons/day
Flow in middle of stormwater range (30% exceedance) =	1.416	cfs/mi2
Cumulative drainage area at downstream end of reach 019 =	1007.2	mi2
Flow at downstream end of reach 019 for stormwater conditions =	1427	cfs
Target TSS for stormwater conditions for reach 019 =	46	mg/L
Allowable TSS load for stormwater conditions for reach 019 =	176.9	tons/day

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Table F.4. Calcuations for allowable load for Cache River (CHR0003).
drainage area at USGS flow gage = 701 mi2, (Cache River at Egpyt)

Date	Flow at gage (cfs)	Flow (cfs/mi2)	Percent of days flow exceeded	WQ Standard type	WQ Standard (NTU)	Target TSS (mg/L)	Allowable TSS load (lbs/day/mi2)
1982-11-06	0.001	1.43E-06	99.68%	Base flow	75	75	5.77E-04
1982-11-07	0.001	1.43E-06	99.68%	Base flow	75	75	5.77E-04
1982-11-08	0.001	1.43E-06	99.68%	Base flow	75	75	5.77E-04
The rows between 99.68 and 80.00 percent flow exceedances are not shown for the sake of brevity.							
1998-09-12	77	1.10E-01	80.00%	Base flow	75	75	4.44E+01
2000-12-29	77	1.10E-01	80.00%	Base flow	75	75	4.44E+01
2001-03-25	77	1.10E-01	80.00%	Base flow	75	75	4.44E+01
The rows between 80.00 and 60.03 percent flow exceedances are not shown for the sake of brevity.							
1995-11-04	189	2.70E-01	60.03%	Base flow	75	75	1.09E+02
1997-07-10	189	2.70E-01	60.03%	Base flow	75	75	1.09E+02
2003-03-13	189	2.70E-01	60.03%	Base flow	75	75	1.09E+02
1971-08-02	190	2.71E-01	59.91%	Storm-flow	250	121	1.77E+02
1974-09-19	190	2.71E-01	59.91%	Storm-flow	250	121	1.77E+02
1975-01-28	190	2.71E-01	59.91%	Storm-flow	250	121	1.77E+02
The rows between 59.91 and 30.04 percent flow exceedances are not shown for the sake of brevity.							
1975-03-09	864	1.23E+00	30.04%	Storm-flow	250	121	8.04E+02
1985-03-26	865	1.23E+00	30.02%	Storm-flow	250	121	8.05E+02
1999-08-09	865	1.23E+00	30.02%	Storm-flow	250	121	8.05E+02
The rows between 30.02 and 0.01 percent flow exceedances are not shown for the sake of brevity.							
1973-04-24	7700	1.10E+01	0.01%	Storm-flow	250	121	7.17E+03
1973-04-26	7910	1.13E+01	0.01%	Storm-flow	250	121	7.36E+03
1973-04-25	7940	1.13E+01	0.00%	Storm-flow	250	121	7.39E+03

Flow per unit area in middle of base flow range (80% exceedance) =	0.110	cfs/mi2
Cumulative drainage area at downstream end of reach 020 =	863.3	mi2
Flow at downstream end of reach 020 for base flow conditions =	95	cfs
Target TSS for base flow conditions for reach 020 =	75	mg/L
Allowable TSS load for base flow conditions for reach 020 =	19.3	tons/day
Flow in middle of stormwater range (30% exceedance) =	1.23	cfs/mi2
Cumulative drainage area at downstream end of reach 020 =	863.3	mi2
Flow at downstream end of reach 020 for stormwater conditions =	1064	cfs
Target TSS for stormwater conditions for reach 020 =	121	mg/L
Allowable TSS load for stormwater conditions for reach 020 =	347	tons/day
Flow per unit area in middle of base flow range (80% exceedance) =	0.110	cfs/mi2
Cumulative drainage area at downstream end of reach 021 =	773.7	mi2
Flow at downstream end of reach 021 for base flow conditions =	85	cfs

Date	Flow at gage (cfs)	Flow (cfs/mi2)	Percent of days flow exceeded	WQ Standard type	WQ Standard (NTU)	Target TSS (mg/L)	Allowable TSS load (lbs/day/mi2)
Target TSS for base flow conditions for reach 021 =						75	mg/L
Allowable TSS load for base flow conditions for reach 021 =						17.3	tons/day
Flow in middle of stormwater range (30% exceedance) =						1.23	cfs/mi2
Cumulative drainage area at downstream end of reach 021 =						773.7	mi2
Flow at downstream end of reach 021 for stormwater conditions =						954	cfs
Target TSS for stormwater conditions for reach 021 =						121	mg/L
Allowable TSS load for stormwater conditions for reach 021 =						311	tons/day

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Table F.5. Calcuations for allowable load for Cache River (CHR0004).
drainage area at USGS flow gage = 701 mi2, (Cache River at Egypt)

Date	Flow at gage (cfs)	Flow (cfs/mi2)	Percent of days flow exceeded	WQ Standard type	WQ Standard (NTU)	Target TSS (mg/L)	Allowable TSS load (lbs/day/mi2)
1982-11-06	0.001	1.43E-06	99.68%	Base flow	75	61	4.69E-04
1982-11-07	0.001	1.43E-06	99.68%	Base flow	75	61	4.69E-04
1982-11-08	0.001	1.43E-06	99.68%	Base flow	75	61	4.69E-04
The rows between 99.68 and 80.00 percent flow exceedances are not shown for the sake of brevity.							
1998-09-12	77	1.10E-01	80.00%	Base flow	75	61	3.61E+01
2000-12-29	77	1.10E-01	80.00%	Base flow	75	61	3.61E+01
2001-03-25	77	1.10E-01	80.00%	Base flow	75	61	3.61E+01
The rows between 80.00 and 60.03 percent flow exceedances are not shown for the sake of brevity.							
1995-11-04	189	2.70E-01	60.03%	Base flow	75	61	8.87E+01
1997-07-10	189	2.70E-01	60.03%	Base flow	75	61	8.87E+01
2003-03-13	189	2.70E-01	60.03%	Base flow	75	61	8.87E+01
1971-08-02	190	2.71E-01	59.91%	Storm-flow	250	157	2.29E+02
1974-09-19	190	2.71E-01	59.91%	Storm-flow	250	157	2.29E+02
1975-01-28	190	2.71E-01	59.91%	Storm-flow	250	157	2.29E+02
The rows between 59.91 and 30.04 percent flow exceedances are not shown for the sake of brevity.							
1975-03-09	864	1.23E+00	30.04%	Storm-flow	250	157	1.04E+03
1985-03-26	865	1.23E+00	30.02%	Storm-flow	250	157	1.04E+03
1999-08-09	865	1.23E+00	30.02%	Storm-flow	250	157	1.04E+03
The rows between 30.02 and 0.01 percent flow exceedances are not shown for the sake of brevity.							
1973-04-24	7700	1.10E+01	0.01%	Storm-flow	250	157	9.30E+03
1973-04-26	7910	1.13E+01	0.01%	Storm-flow	250	157	9.55E+03
1973-04-25	7940	1.13E+01	0.00%	Storm-flow	250	157	9.59E+03

Flow per unit area in middle of base flow range (80% exceedance) =	0.110	cfs/mi2
Cumulative drainage area at downstream end of Reach 027 =	581.5	mi2
Flow at downstream end of Reach 027 for base flow conditions =	64	cfs
Target TSS for base flow conditions for Reach 027 =	61	mg/L
Allowable TSS load for base flow conditions for Reach 027 =	10.5	tons/day
Flow in middle of stormwater range (30% exceedance) =	1.23	cfs/mi2
Cumulative drainage area at downstream end of Reach 027 =	581.5	mi2
Flow at downstream end of Reach 027 for stormwater conditions =	718	cfs
Target TSS for stormwater conditions for Reach 027 =	157	mg/L
Allowable TSS load for stormwater conditions for Reach 027 =	304	tons/day
Flow per unit area in middle of base flow range (80% exceedance) =	0.110	cfs/mi2
Cumulative drainage area at downstream end of reach 028 =	510.2	mi2
Flow at downstream end of reach 028 for base flow conditions =	56	cfs

Target TSS for base flow conditions for reach 028 =	61	mg/L
Allowable TSS load for base flow conditions for reach 028 =	9.22	tons/day
Flow in middle of stormwater range (30% exceedance) =	1.23	cfs/mi2
Cumulative drainage area at downstream end of reach 028 =	510.2	mi2
Flow at downstream end of reach 028 for stormwater conditions =	630	cfs
Target TSS for stormwater conditions for reach 028 =	157	mg/L
Allowable TSS load for stormwater conditions for reach 028 =	267	tons/day
Flow per unit area in middle of base flow range (80% exceedance) =	0.110	cfs/mi2
Cumulative drainage area at downstream end of reach 029 =	455.2	mi2
Flow at downstream end of reach 029 for base flow conditions =	50	cfs
Target TSS for base flow conditions for reach 029 =	61	mg/L
Allowable TSS load for base flow conditions for reach 029 =	8.22	tons/day
Flow in middle of stormwater range (30% exceedance) =	1.23	cfs/mi2
Cumulative drainage area at downstream end of reach 029 =	455.2	mi2
Flow at downstream end of reach 029 for stormwater conditions =	562	cfs
Target TSS for stormwater conditions for reach 029 =	157	mg/L
Allowable TSS load for stormwater conditions for reach 029 =	238	tons/day
Flow per unit area in middle of base flow range (80% exceedance) =	0.110	cfs/mi2
Cumulative drainage area at downstream end of reach 031 =	413.3	mi2
Flow at downstream end of reach 031 for base flow conditions =	45.4	cfs
Target TSS for base flow conditions for reach 031 =	61	mg/L
Allowable TSS load for base flow conditions for reach 031 =	7.47	tons/day
Flow in middle of stormwater range (30% exceedance) =	1.23	cfs/mi2
Cumulative drainage area at downstream end of reach 031 =	413.3	mi2
Flow at downstream end of reach 031 for stormwater conditions =	510	cfs
Target TSS for stormwater conditions for reach 031 =	157	mg/L
Allowable TSS load for stormwater conditions for reach 031 =	216	tons/day
Flow per unit area in middle of base flow range (80% exceedance) =	0.110	cfs/mi2
Cumulative drainage area at downstream end of reach 032 =	355.7	mi2
Flow at downstream end of reach 032 for base flow conditions =	39	cfs
Target TSS for base flow conditions for reach 032 =	61	mg/L
Allowable TSS load for base flow conditions for reach 032 =	6.43	tons/day
Flow in middle of stormwater range (30% exceedance) =	1.23	cfs/mi2
Cumulative drainage area at downstream end of reach 032 =	355.7	mi2
Flow at downstream end of reach 032 for stormwater conditions =	439	cfs
Target TSS for stormwater conditions for reach 032 =	157	mg/L
Allowable TSS load for stormwater conditions for reach 032 =	186	tons/day

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TABLE F.6. CALCULATIONS FOR PERCENT REDUCTION FOR STORM-FLOW CONDITIONS
FOR BAYOU DEVIEW (STATION BDV00002)

Storm-flow target TSS conc. = 94 mg/L
Percent reduction needed = 0%

Error check for reduction is / is not needed: ok
Error check for less or more reduction needed: ok

Category	Date	Observed TSS at BDV0002 (mg/L)	Flow per unit area on sampling day (cfs/mi2)	Percent exceedance for flow on sampling day	Current TSS load (lbs/day)/mi2	Reduced TSS load (lbs/day)/mi2	Allowable TSS load (lbs/day)/mi2	Reduced load less than or equal to allow. load?
Storm-flow	9/12/1994	48	0.51	58.03%	130.8	130.8	256.1	Yes
Storm-flow	9/23/2002	13.8	0.63	51.52%	46.9	46.9	319.2	Yes
Storm-flow	1/16/1995	159.5	0.67	50.22%	574.7	574.7	338.7	No
Storm-flow	10/7/1996	40.5	0.87	43.69%	190.1	190.1	441.2	Yes
Storm-flow	10/22/2001	13	0.90	43.06%	62.8	62.8	454.2	Yes
Storm-flow	6/23/2003	50	0.90	42.88%	243.9	243.9	458.5	Yes
Storm-flow	5/6/1996	49	0.96	41.41%	252.5	252.5	484.4	Yes
Storm-flow	6/13/1994	65	1.07	38.25%	373.9	373.9	540.7	Yes
Storm-flow	7/17/1995	33	1.17	35.82%	208.0	208.0	592.6	Yes
Storm-flow	5/21/2002	66	1.44	29.62%	513.2	513.2	731.0	Yes
Storm-flow	1/28/2002	58.5	1.91	20.89%	603.0	603.0	968.9	Yes
Storm-flow	7/29/2002	11	2.12	18.23%	125.5	125.5	1072.7	Yes
Storm-flow	1/7/2003	19	2.39	15.37%	244.8	244.8	1211.1	Yes
Storm-flow	3/25/2002	42	2.98	9.57%	674.5	674.5	1509.6	Yes
Storm-flow	3/10/2003	56	3.36	6.74%	1015.3	1015.3	1704.2	Yes

Total number of values =	15
Allowable % of exceedances =	20%
Allowable no. of exceedances =	3
No. of exceedances before reductions =	1
No. of exceedances after reductions =	1

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TABLE F.7. CALCULATIONS FOR PERCENT REDUCTION FOR BASE FLOW CONDITIONS
FOR BAYOU DEVIEW (STATION BDV00002)

Base flow target TSS conc. = 49 mg/L
Percent reduction needed = 35%

Error check for reduction is / is not needed: ok
Error check for less or more reduction needed: ok

Category	Date	Observed TSS at BDV0002 (mg/L)	Flow per unit area on sampling day (cfs/mi2)	Percent exceedance for flow on sampling day	Current TSS load (lbs/day)/mi2	Reduced TSS load (lbs/day)/mi2	Allowable TSS load (lbs/day)/mi2	Reduced load less than or equal to allow. load?
Base flow	4/10/1995	75	0.12	90.17%	50.0	32.5	32.7	Yes
Base flow	11/4/2002	20	0.15	87.22%	16.5	10.7	40.4	Yes
Base flow	4/28/2003	170	0.27	75.85%	244.1	158.6	70.3	No
Base flow	8/25/2003	98.6	0.40	64.77%	213.2	138.6	106.0	No
Base flow	10/2/1995	41	0.44	62.43%	96.4	62.7	115.2	Yes

Total number of values =	5
Allowable % of exceedances =	25%
Allowable no. of exceedances =	2
No. of exceedances before reductions =	3
No. of exceedances after reductions =	2

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TABLE F.8. CALCULATIONS FOR PERCENT REDUCTION FOR STORM-FLOW CONDITIONS
FOR BAYOU DEVIEW (STATION WHI0026)

Storm-flow target TSS conc. = 121 mg/L
Percent reduction needed = 0%

Error check for reduction is / is not needed: ok
Error check for less or more reduction needed: ok

Category	Date	Observed TSS at WHI0026 (mg/L)	Flow per unit area on sampling day (cfs/mi2)	Percent exceedance for flow on sampling day	Current TSS load (lbs/day)/mi2	Reduced TSS load (lbs/day)/mi2	Allowable TSS load (lbs/day)/mi2	Reduced load less than or equal to allow. load?
Storm-flow	8/6/1996	47.0	0.32	56.47%	79.91	79.91	205.72	Yes
Storm-flow	3/22/1994	24.0	0.33	55.66%	42.28	42.28	213.17	Yes
Storm-flow	8/3/2004	22.2	0.35	54.37%	41.67	41.67	227.13	Yes
Storm-flow	1/21/1992	18.0	0.35	53.88%	34.34	34.34	230.86	Yes
Storm-flow	8/16/1994	37.5	0.37	52.80%	75.59	75.59	243.89	Yes
Storm-flow	10/21/2003	18.5	0.39	52.09%	38.71	38.71	253.20	Yes
Storm-flow	8/29/1995	12.0	0.39	51.92%	25.30	25.30	255.06	Yes
Storm-flow	3/23/1999	19.0	0.43	49.63%	44.44	44.44	282.98	Yes
Storm-flow	2/13/2001	21.0	0.44	49.42%	49.60	49.60	285.78	Yes
Storm-flow	9/3/1996	56.0	0.44	49.33%	132.69	132.69	286.71	Yes
Storm-flow	8/1/1995	72.5	0.46	48.22%	180.71	180.71	301.60	Yes
Storm-flow	8/19/2003	22.2	0.47	48.08%	55.68	55.68	303.46	Yes
Storm-flow	7/20/1999	22.0	0.47	47.95%	55.51	55.51	305.33	Yes
Storm-flow	7/18/2000	25.0	0.47	47.72%	63.85	63.85	309.05	Yes
Storm-flow	8/13/1991	117.0	0.48	47.61%	300.63	300.63	310.91	Yes
Storm-flow	6/1/1993	22.0	0.49	47.23%	57.54	57.54	316.50	Yes
Storm-flow	6/9/1992	110.0	0.49	47.05%	289.42	289.42	318.36	Yes
Storm-flow	10/1/1996	27.5	0.50	46.23%	74.68	74.68	328.60	Yes
Storm-flow	3/22/2005	290.0	0.50	52.09%	789.78	789.78	329.53	No
Storm-flow	9/11/1990	94.0	0.51	45.68%	261.06	261.06	336.04	Yes
Storm-flow	7/23/2002	26.5	0.53	45.04%	76.25	76.25	348.15	Yes
Storm-flow	4/9/1991	50.0	0.53	44.99%	144.25	144.25	349.08	Yes
Storm-flow	11/12/2002	10.0	0.56	43.96%	30.16	30.16	364.90	Yes
Storm-flow	3/16/1993	1358.0	0.57	43.58%	4178.92	4178.92	372.35	No

Category	Date	Observed TSS at WHI0026 (mg/L)	Flow per unit area on sampling day (cfs/mi2)	Percent exceedance for flow on sampling day	Current TSS load (lbs/day)/mi2	Reduced TSS load (lbs/day)/mi2	Allowable TSS load (lbs/day)/mi2	Reduced load less than or equal to allow. load?
Storm-flow	7/16/1996	100.0	0.59	42.76%	320.03	320.03	387.24	Yes
Storm-flow	7/16/1996	23.0	0.59	42.76%	73.61	73.61	387.24	Yes
Storm-flow	8/24/1999	22.0	0.61	42.26%	72.10	72.10	396.55	Yes
Storm-flow	5/27/2003	41.5	0.61	42.15%	136.65	136.65	398.41	Yes
Storm-flow	2/19/2002	33.5	0.65	40.86%	118.29	118.29	427.27	Yes
Storm-flow	1/6/2004	22.8	0.69	39.96%	85.25	85.25	452.40	Yes
Storm-flow	1/23/2001	24.0	0.70	39.67%	90.84	90.84	457.99	Yes
Storm-flow	6/11/1996	72.5	0.74	38.79%	290.03	290.03	484.05	Yes
Storm-flow	3/2/2004	30.5	0.84	36.76%	137.50	137.50	545.49	Yes
Storm-flow	10/12/1999	206.5	0.86	36.33%	953.18	953.18	558.52	No
Storm-flow	2/3/2004	49.2	0.92	34.96%	244.89	244.89	602.27	Yes
Storm-flow	1/6/1998	85.0	0.94	34.82%	428.97	428.97	610.65	Yes
Storm-flow	5/28/2002	27.0	0.98	33.95%	142.49	142.49	638.58	Yes
Storm-flow	9/18/2001	18.5	0.99	33.86%	98.35	98.35	643.23	Yes
Storm-flow	5/8/2001	17.5	0.99	33.77%	93.57	93.57	646.96	Yes
Storm-flow	2/23/1993	24.0	1.00	33.59%	129.80	129.80	654.40	Yes
Storm-flow	9/10/1991	48.0	1.01	33.35%	262.55	262.55	661.85	Yes
Storm-flow	8/4/1992	70.0	1.02	33.29%	385.04	385.04	665.57	Yes
Storm-flow	8/10/1993	45.0	1.03	33.21%	249.26	249.26	670.23	Yes
Storm-flow	12/2/2003	24.5	1.04	32.92%	137.78	137.78	680.47	Yes
Storm-flow	9/21/1993	6.0	1.07	32.45%	34.62	34.62	698.15	Yes
Storm-flow	7/22/2003	60.6	1.10	31.98%	360.38	360.38	719.56	Yes
Storm-flow	9/1/1992	34.0	1.14	31.26%	209.78	209.78	746.56	Yes
Storm-flow	5/10/1994	18.5	1.26	29.79%	125.24	125.24	819.17	Yes
Storm-flow	4/13/1993	34.0	1.28	29.39%	235.41	235.41	837.78	Yes
Storm-flow	4/16/2002	28.2	1.29	29.31%	196.12	196.12	841.51	Yes
Storm-flow	1/23/1996	14.0	1.41	27.64%	106.09	106.09	916.91	Yes
Storm-flow	11/18/2003	419.0	1.46	27.09%	3287.90	3287.90	949.49	No
Storm-flow	8/27/2002	21.8	1.50	26.64%	176.10	176.10	977.41	Yes
Storm-flow	2/11/1997	30.0	1.68	24.88%	272.34	272.34	1098.43	Yes

Table F.8. Storm-flow percent reductions
WHI0026

Category	Date	Observed TSS at WHI0026 (mg/L)	Flow per unit area on sampling day (cfs/mi2)	Percent exceedance for flow on sampling day	Current TSS load (lbs/day)/mi2	Reduced TSS load (lbs/day)/mi2	Allowable TSS load (lbs/day)/mi2	Reduced load less than or equal to allow. load?
Storm-flow	7/6/2004	42.0	1.81	23.90%	410.35	410.35	1182.21	Yes
Storm-flow	9/22/1992	142.0	2.01	22.14%	1540.32	1540.32	1312.53	No
Storm-flow	1/8/2002	21.3	2.03	22.03%	232.69	232.69	1321.84	Yes
Storm-flow	1/21/1997	99.0	2.13	21.26%	1134.82	1134.82	1387.00	Yes
Storm-flow	12/19/1995	59.0	2.14	21.09%	680.84	680.84	1396.31	Yes
Storm-flow	5/7/1991	4.0	2.21	20.58%	47.70	47.70	1442.85	Yes
Storm-flow	10/25/1993	30.0	2.30	19.99%	371.58	371.58	1498.70	Yes
Storm-flow	1/26/1993	46.0	2.50	18.59%	619.30	619.30	1629.02	Yes
Storm-flow	3/4/2003	24.0	2.52	18.36%	326.80	326.80	1647.64	Yes
Storm-flow	11/15/1994	46.5	2.57	18.09%	643.92	643.92	1675.57	Yes
Storm-flow	2/25/1992	107.0	2.74	16.88%	1580.48	1580.48	1787.27	Yes
Storm-flow	1/25/1994	177.0	2.85	16.11%	2723.37	2723.37	1861.74	No
Storm-flow	2/22/1994	936.0	2.85	16.11%	14401.57	14401.57	1861.74	No
Storm-flow	3/12/2002	441.0	2.91	15.66%	6921.06	6921.06	1898.98	No
Storm-flow	11/14/2000	32.0	3.07	14.68%	529.29	529.29	2001.37	Yes
Storm-flow	7/7/1992	183.0	3.31	13.40%	3266.20	3266.20	2159.62	No
Storm-flow	2/8/2005	78.0	3.37	13.14%	1416.15	1416.15	2196.85	Yes
Storm-flow	4/21/1992	126.0	3.37	13.10%	2287.63	2287.63	2196.85	No
Storm-flow	10/16/2001	25.0	3.82	10.78%	515.44	515.44	2494.73	Yes
Storm-flow	11/5/1996	27.5	4.12	9.20%	611.41	611.41	2690.22	Yes
Storm-flow	7/5/1994	38.0	4.15	9.02%	850.71	850.71	2708.83	Yes
Storm-flow	4/12/1994	334.0	4.17	8.94%	7502.97	7502.97	2718.14	No
Storm-flow	12/18/1990	313.0	4.18	8.86%	7055.31	7055.31	2727.45	No
Storm-flow	11/9/2004	176.0	4.37	8.01%	4143.22	4143.22	2848.46	No
Storm-flow	4/6/1999	324.5	4.42	7.71%	7738.92	7738.92	2885.70	No
Storm-flow	6/7/1994	450.0	4.45	7.55%	10801.18	10801.18	2904.32	No
Storm-flow	1/4/2000	142.0	4.52	7.18%	3462.99	3462.99	2950.86	No
Storm-flow	10/9/1990	59.0	4.56	6.96%	1452.47	1452.47	2978.79	Yes
Storm-flow	11/23/1992	90.0	4.62	6.63%	2243.32	2243.32	3016.02	Yes
Storm-flow	5/4/2004	23.8	4.82	5.71%	618.87	618.87	3146.34	Yes

Table F.8. Storm-flow percent reductions
WHI0026

Category	Date	Observed TSS at WHI0026 (mg/L)	Flow per unit area on sampling day (cfs/mi2)	Percent exceedance for flow on sampling day	Current TSS load (lbs/day)/mi2	Reduced TSS load (lbs/day)/mi2	Allowable TSS load (lbs/day)/mi2	Reduced load less than or equal to allow. load?
Storm-flow	1/18/2005	17.2	4.88	5.43%	452.54	452.54	3183.58	Yes
Storm-flow	11/5/1991	33.0	4.88	5.38%	868.25	868.25	3183.58	Yes
Storm-flow	4/15/1997	36.0	4.89	5.30%	949.95	949.95	3192.89	Yes
Storm-flow	3/10/1998	30.5	5.04	4.64%	828.28	828.28	3285.97	Yes
Storm-flow	5/12/1998	57.0	5.04	4.64%	1547.94	1547.94	3285.97	Yes
Storm-flow	12/7/2004	98.7	5.31	3.83%	2824.65	2824.65	3462.84	Yes
Storm-flow	12/11/2001	14.0	5.63	2.95%	425.43	425.43	3676.94	Yes
Storm-flow	3/6/2001	33.0	5.65	2.92%	1005.34	1005.34	3686.25	Yes
Storm-flow	12/13/1994	23.5	5.86	2.40%	743.04	743.04	3825.88	Yes
Storm-flow	12/7/1993	82.0	6.08	2.07%	2687.37	2687.37	3965.51	Yes
Storm-flow	12/3/1996	24.5	6.12	1.99%	808.59	808.59	3993.44	Yes
Storm-flow	1/15/1991	210.0	7.32	0.75%	8287.83	8287.83	4775.37	No

Total number of values =	96
Allowable % of exceedances =	20%
Allowable no. of exceedances =	20
No. of exceedances before reductions =	17
No. of exceedances after reductions =	17

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Table F.8. Storm-flow percent reductions
WHI0026

TABLE F.9. CALCULATIONS FOR PERCENT REDUCTION FOR BASE FLOW CONDITIONS
FOR BAYOU DEVIEW (STATION WHI0026)

Base flow target TSS conc. = 37 mg/L
Percent reduction needed = 0%

Error check for reduction is / is not needed: ok
Error check for less or more reduction needed: ok

Category	Date	Observed TSS at WHI0026 (mg/L)	Flow per unit area on sampling day (cfs/mi2)	Percent exceedance for flow on sampling day	Current TSS load (lbs/day)/mi2	Reduced TSS load (lbs/day)/mi2	Allowable TSS load (lbs/day)/mi2	Reduced load less than or equal to allow. load?
Base flow	10/23/1995	16.0	0.00	99.68%	0.00	0.00	0.00	Yes
Base flow	10/17/2000	27.0	0.00	99.68%	0.00	0.00	0.00	Yes
Base flow	11/13/2001	7.0	0.00	99.25%	0.02	0.02	0.13	Yes
Base flow	10/5/2004	3.2	0.00	99.05%	0.04	0.04	0.48	Yes
Base flow	11/2/1999	20.0	0.01	98.33%	0.92	0.92	1.71	Yes
Base flow	10/18/1994	30.5	0.01	98.20%	1.64	1.64	1.99	Yes
Base flow	6/12/2001	14.3	0.02	97.26%	1.21	1.21	3.13	Yes
Base flow	10/27/1992	62.0	0.02	96.81%	6.68	6.68	3.99	No
Base flow	11/9/1998	11.5	0.03	95.95%	1.59	1.59	5.12	Yes
Base flow	10/8/2002	12.2	0.03	95.33%	1.88	1.88	5.69	Yes
Base flow	4/22/2003	19.5	0.03	95.33%	3.00	3.00	5.69	Yes
Base flow	5/20/1997	25.0	0.03	94.10%	4.42	4.42	6.55	Yes
Base flow	3/12/1991	22.0	0.04	93.21%	4.23	4.23	7.12	Yes
Base flow	9/21/1999	23.5	0.04	92.03%	5.24	5.24	8.25	Yes
Base flow	11/9/1993	10.0	0.04	91.79%	2.31	2.31	8.54	Yes
Base flow	9/19/2000	34.0	0.05	91.31%	8.37	8.37	9.11	Yes
Base flow	12/15/1998	31.5	0.05	89.97%	8.97	8.97	10.53	Yes
Base flow	10/1/1991	27.0	0.06	88.68%	8.52	8.52	11.67	Yes
Base flow	3/14/2000	10.0	0.06	88.68%	3.15	3.15	11.67	Yes
Base flow	6/24/2003	41.5	0.06	88.68%	13.09	13.09	11.67	No
Base flow	6/11/1991	27.0	0.06	87.94%	9.35	9.35	12.81	Yes
Base flow	9/23/1997	14.0	0.07	87.09%	5.28	5.28	13.95	Yes
Base flow	9/30/2003	5.5	0.07	87.09%	2.07	2.07	13.95	Yes
Base flow	12/7/1999	8.0	0.08	85.91%	3.32	3.32	15.37	Yes

Category	Date	Observed TSS at WHI0026 (mg/L)	Flow per unit area on sampling day (cfs/mi2)	Percent exceedance for flow on sampling day	Current TSS load (lbs/day)/mi2	Reduced TSS load (lbs/day)/mi2	Allowable TSS load (lbs/day)/mi2	Reduced load less than or equal to allow. load?
Base flow	5/21/1996	30.0	0.08	85.64%	12.69	12.69	15.66	Yes
Base flow	4/18/1995	35.0	0.08	84.67%	15.89	15.89	16.79	Yes
Base flow	4/6/2004	20.0	0.09	84.05%	9.54	9.54	17.65	Yes
Base flow	9/26/1995	19.5	0.09	83.17%	9.75	9.75	18.50	Yes
Base flow	10/14/1997	102.5	0.09	82.91%	52.04	52.04	18.79	No
Base flow	9/20/1994	45.0	0.10	82.65%	23.19	23.19	19.07	No
Base flow	2/23/1999	7.0	0.10	82.38%	3.66	3.66	19.36	Yes
Base flow	5/11/1999	26.5	0.10	81.79%	14.27	14.27	19.93	Yes
Base flow	3/25/2003	31.8	0.11	80.86%	18.10	18.10	21.06	Yes
Base flow	2/1/2000	1.0	0.11	80.29%	0.58	0.58	21.63	Yes
Base flow	12/9/1997	7.0	0.11	80.00%	4.15	4.15	21.92	Yes
Base flow	4/11/2000	13.0	0.11	79.73%	7.80	7.80	22.20	Yes
Base flow	3/21/1995	25.5	0.12	78.88%	15.89	15.89	23.06	Yes
Base flow	6/20/1995	37.0	0.12	77.64%	24.76	24.76	24.76	Yes
Base flow	7/9/1991	30.0	0.13	76.95%	20.77	20.77	25.62	Yes
Base flow	5/12/1992	37.0	0.13	76.71%	25.90	25.90	25.90	Yes
Base flow	6/24/1997	31.0	0.14	75.58%	22.89	22.89	27.33	Yes
Base flow	11/12/1997	17.0	0.14	74.56%	13.08	13.08	28.46	Yes
Base flow	9/17/2002	162.0	0.14	74.56%	124.63	124.63	28.46	No
Base flow	1/21/2003	3.8	0.15	73.88%	3.01	3.01	29.32	Yes
Base flow	11/20/1995	9.0	0.15	73.45%	7.27	7.27	29.89	Yes
Base flow	2/20/1996	154.0	0.16	72.42%	130.32	130.32	31.31	No
Base flow	3/26/1996	140.0	0.16	72.42%	118.47	118.47	31.31	No
Base flow	4/10/2001	18.5	0.16	71.45%	16.37	16.37	32.73	Yes
Base flow	7/17/2001	9.5	0.18	69.75%	9.14	9.14	35.58	Yes
Base flow	5/9/2000	36.5	0.18	69.57%	35.38	35.38	35.87	Yes
Base flow	2/3/1998	13.0	0.18	69.13%	12.80	12.80	36.43	Yes
Base flow	1/3/1995	3.0	0.18	68.92%	2.98	2.98	36.72	Yes
Base flow	2/12/1991	20.0	0.20	67.26%	21.23	21.23	39.28	Yes
Base flow	7/6/1993	63.0	0.20	67.02%	67.85	67.85	39.85	No

Table F.9. Base flow percent reductions
WHI0026

Category	Date	Observed TSS at WHI0026 (mg/L)	Flow per unit area on sampling day (cfs/mi2)	Percent exceedance for flow on sampling day	Current TSS load (lbs/day)/mi2	Reduced TSS load (lbs/day)/mi2	Allowable TSS load (lbs/day)/mi2	Reduced load less than or equal to allow. load?
Base flow	2/6/1995	10.0	0.22	65.03%	11.77	11.77	43.55	Yes
Base flow	8/7/2001	5.8	0.23	63.71%	7.17	7.17	46.11	Yes
Base flow	12/10/2002	8.8	0.26	61.40%	12.12	12.12	50.95	Yes
Base flow	3/17/1992	20.0	0.26	60.91%	28.00	28.00	51.81	Yes
Base flow	3/17/1992	177.0	0.26	60.91%	247.83	247.83	51.81	No

Total number of values =	59
Allowable % of exceedances =	25%
Allowable no. of exceedances =	15
No. of exceedances before reductions =	9
No. of exceedances after reductions =	9

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Table F.9. Base flow percent reductions
WHI0026

TABLE F.10. CALCULATIONS FOR PERCENT REDUCTION FOR STORM-FLOW CONDITIONS
FOR CACHE RIVER (STATION CHR0002)

Storm-flow target TSS conc. = 46 mg/L
Percent reduction needed = 0%

Error check for reduction is / is not needed: ok
Error check for less or more reduction needed: ok

Category	Date	Observed TSS at CHR0002 (mg/L)	Flow per unit area on sampling day (cfs/mi2)	Percent exceedance for flow on sampling day	Current TSS load (lbs/day)/mi2	Reduced TSS load (lbs/day)/mi2	Allowable TSS load (lbs/day)/mi2	Reduced load less than or equal to allow. load?
Storm-flow	9/12/1994	41.5	0.51	58.03%	113.05	113.05	125.31	Yes
Storm-flow	9/23/2002	20.1	0.63	51.52%	68.26	68.26	156.21	Yes
Storm-flow	1/16/1995	12.5	0.67	50.22%	45.04	45.04	165.73	Yes
Storm-flow	10/7/1996	29.5	0.87	43.69%	138.46	138.46	215.90	Yes
Storm-flow	10/22/2001	7.3	0.90	43.06%	35.27	35.27	222.25	Yes
Storm-flow	6/23/2003	47.5	0.90	42.88%	231.68	231.68	224.37	No
Storm-flow	5/6/1996	80	0.96	41.41%	412.29	412.29	237.07	No
Storm-flow	6/13/1994	26.5	1.07	38.25%	152.42	152.42	264.58	Yes
Storm-flow	7/17/1995	89	1.17	35.82%	561.05	561.05	289.98	No
Storm-flow	5/21/2002	39	1.44	29.62%	303.28	303.28	357.72	Yes
Storm-flow	1/28/2002	37.5	1.91	20.89%	386.52	386.52	474.13	Yes
Storm-flow	1/7/2003	19.8	2.39	15.37%	255.10	255.10	592.67	Yes
Storm-flow	7/29/2002	16	2.12	15.07%	182.59	182.59	524.93	Yes
Storm-flow	3/25/2002	44	2.98	9.57%	706.60	706.60	738.72	Yes
Storm-flow	3/10/2003	24.8	3.36	6.74%	449.62	449.62	833.97	Yes

Total number of values = 15
Allowable % of exceedances = 20%
Allowable no. of exceedances = 3
No. of exceedances before reductions = 3
No. of exceedances after reductions = 3

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TABLE F.11. CALCULATIONS FOR PERCENT REDUCTION FOR BASE FLOW CONDITIONS
FOR CACHE RIVER (STATION CHR0002)

Base flow target TSS conc. = 27 mg/L
Percent reduction needed = 35%

Error check for reduction is / is not needed: ok
Error check for less or more reduction needed: ok

Category	Date	Observed TSS at CHR0002 (mg/L)	Flow per unit area on sampling day (cfs/mi2)	Percent exceedance for flow on sampling day	Current TSS load (lbs/day)/mi2	Reduced TSS load (lbs/day)/mi2	Allowable TSS load (lbs/day)/mi2	Reduced load less than or equal to allow. load?
Base flow	4/10/1995	41.5	0.12	90.17%	27.69	18.00	18.01	Yes
Base flow	11/4/2002	11	0.15	87.22%	9.06	5.89	22.24	Yes
Base flow	4/28/2003	60.8	0.27	75.85%	87.29	56.74	38.76	No
Base flow	8/25/2003	8.5	0.40	64.77%	18.38	11.95	58.39	Yes
Base flow	10/2/1995	69	0.44	62.43%	162.24	105.46	63.49	No

Total number of values =	5
Allowable % of exceedances =	25%
Allowable no. of exceedances =	2
No. of exceedances before reductions =	3
No. of exceedances after reductions =	2

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TABLE F.12. CALCULATIONS FOR PERCENT REDUCTION FOR STORM-FLOW CONDITIONS
FOR CACHE RIVER (STATION CHR0003)

Storm-flow target TSS conc. = 121 mg/L
Percent reduction needed = 17%

Error check for reduction is / is not needed: ok
Error check for less or more reduction needed: ok

Category	Date	Observed TSS at CHR0003 (mg/L)	Flow per unit area on sampling day (cfs/mi2)	Percent exceedance for flow on sampling day	Current TSS load (lbs/day)/mi2	Reduced TSS load (lbs/day)/mi2	Allowable TSS load (lbs/day)/mi2	Reduced load less than or equal to allow. load?
Storm-flow	6/13/1994	37	0.32	55.95	64.05	53.16	209.12	Yes
Storm-flow	3/10/2003	157	0.42	50.47	352.68	292.73	271.39	No
Storm-flow	7/17/1995	79.5	0.42	50.13	181.65	150.77	276.03	Yes
Storm-flow	1/16/1995	104.5	0.48	47.46	269.32	223.53	311.35	Yes
Storm-flow	8/25/2003	46	1.14	31.34	282.75	234.69	742.60	Yes
Storm-flow	4/28/2003	322	3.27	13.63	5672.77	4708.40	2128.34	No
Storm-flow	1/28/2002	176	4.17	8.89	3953.66	3281.54	2713.87	No
Storm-flow	5/21/2002	144	4.52	7.15	3511.77	2914.77	2946.22	Yes
Storm-flow	3/25/2002	138	4.58	6.86	3407.91	2828.57	2983.40	Yes
Storm-flow	9/23/2002	61.6	4.74	6.05	1573.34	1305.87	3085.63	Yes
Storm-flow	1/7/2003	65.3	4.92	5.15	1733.15	1438.51	3206.46	Yes

Total number of values = 11
Allowable % of exceedances = 20%
Allowable no. of exceedances = 3
No. of exceedances before reductions = 5
No. of exceedances after reductions = 3

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TABLE F.13. CALCULATIONS FOR PERCENT REDUCTION FOR BASE FLOW CONDITIONS
FOR CACHE RIVER (STATION CHR0003)

Base flow target TSS conc. = 75 mg/L
Percent reduction needed = 0%

Error check for reduction is / is not needed: ok
Error check for less or more reduction needed: ok

Category	Date	Observed TSS at CHR0003 (mg/L)	Flow per unit area on sampling day (cfs/mi2)	Percent exceedance for flow on sampling day	Current TSS load (lbs/day)/mi2	Reduced TSS load (lbs/day)/mi2	Allowable TSS load (lbs/day)/mi2	Reduced load less than or equal to allow. load?
Base flow	10/2/1995	49.5	0.02	97.09	4.57	4.57	6.95	Yes
Base flow	4/10/1995	77.5	0.02	96.79	8.35	8.35	8.11	No
Base flow	10/7/1996	61.5	0.04	93.06	11.83	11.83	14.49	Yes
Base flow	11/4/2002	43.2	0.04	92.99	8.31	8.31	14.49	Yes
Base flow	5/6/1996	285	0.10	81.19	157.86	157.86	41.73	No
Base flow	6/23/2003	43.3	0.11	79.33	26.32	26.32	45.79	Yes
Base flow	9/12/1994	60	0.17	71.00	54.01	54.01	67.81	Yes
Base flow	10/22/2001	35.3	0.26	61.13	48.88	48.88	104.32	Yes
Base flow	7/29/2002	65	0.26	61.13	90.01	90.01	104.32	Yes

Total number of values =	9
Allowable % of exceedances =	25%
Allowable no. of exceedances =	3
No. of exceedances before reductions =	2
No. of exceedances after reductions =	2

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TABLE F.14. CALCULATIONS FOR PERCENT REDUCTION FOR STORM-FLOW CONDITIONS
FOR CACHE RIVER (STATION CHR0004)

Storm-flow target TSS conc. = 157 mg/L
Percent reduction needed = 0%

Error check for reduction is / is not needed: ok
Error check for less or more reduction needed: ok

Category	Date	Observed TSS at CHR0004 (mg/L)	Flow per unit area on sampling day (cfs/mi2)	Percent exceedance for flow on sampling day	Current TSS load (lbs/day)/mi2	Reduced TSS load (lbs/day)/mi2	Allowable TSS load (lbs/day)/mi2	Reduced load less than or equal to allow. load?
Storm-flow	6/13/1994	101	3.210E-01	55.98%	174.83	174.83	271.76	Yes
Storm-flow	3/10/2003	480	4.165E-01	50.51%	1,078.27	1,078.27	352.68	No
Storm-flow	7/17/1995	94.5	4.237E-01	50.15%	215.92	215.92	358.72	Yes
Storm-flow	1/16/1995	57	4.779E-01	47.51%	146.90	146.90	404.62	Yes
Storm-flow	8/25/2003	70.5	1.140E+00	31.36%	433.35	433.35	965.05	Yes
Storm-flow	4/28/2003	261	3.267E+00	13.67%	4,598.12	4,598.12	2,765.92	No
Storm-flow	1/28/2002	160	4.165E+00	8.94%	3,594.24	3,594.24	3,526.85	No
Storm-flow	5/21/2002	88.5	4.522E+00	7.18%	2,158.27	2,158.27	3,828.80	Yes
Storm-flow	3/25/2002	55	4.579E+00	6.88%	1,358.22	1,358.22	3,877.11	Yes
Storm-flow	9/23/2002	88.2	4.736E+00	6.07%	2,252.74	2,252.74	4,009.98	Yes
Storm-flow	1/7/2003	55.5	4.922E+00	5.18%	1,473.05	1,473.05	4,166.99	Yes

Total number of values =	11
Allowable % of exceedances =	20%
Allowable no. of exceedances =	3
No. of exceedances before reductions =	3
No. of exceedances after reductions =	3

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TABLE F.15. CALCULATIONS FOR PERCENT REDUCTION FOR BASE FLOW CONDITIONS
FOR CACHE RIVER (STATION CHR0004)

Base flow target TSS conc. = 61 mg/L
Percent reduction needed = 13%

Error check for reduction is / is not needed: ok
Error check for less or more reduction needed: ok

Category	Date	Observed TSS at CHR0004 (mg/L)	Flow per unit area on sampling day (cfs/mi2)	Percent exceedance for flow on sampling day	Current TSS load (lbs/day)/mi2	Reduced TSS load (lbs/day)/mi2	Allowable TSS load (lbs/day)/mi2	Reduced load less than or equal to allow. load?
Base flow	10/2/1995	13.5	1.712E-02	97.12%	1.25	1.08	5.63	Yes
Base flow	4/10/1995	50.5	1.997E-02	96.81%	5.44	4.73	6.57	Yes
Base flow	10/7/1996	16.5	3.566E-02	93.21%	3.17	2.76	11.73	Yes
Base flow	11/4/2002	5.3	3.566E-02	93.21%	1.02	0.89	11.73	Yes
Base flow	5/6/1996	128	1.027E-01	81.28%	70.90	61.68	33.79	No
Base flow	6/23/2003	85.4	1.127E-01	79.46%	51.90	45.16	37.07	No
Base flow	9/12/1994	48	1.669E-01	71.07%	43.20	37.59	54.91	Yes
Base flow	10/22/2001	76	2.568E-01	61.24%	105.24	91.56	84.47	No
Base flow	7/29/2002	69.5	2.568E-01	61.24%	96.24	83.73	84.47	Yes

Total number of values = 9
Allowable % of exceedances = 25%
Allowable no. of exceedances = 3
No. of exceedances before reductions = 4
No. of exceedances after reductions = 3

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