APPENDIX 4J

WET WEATHER EVENTS ANALYSIS

Rank	Event #	Month	Date	Year	Total Tunnel Volume[2] (MG)	Combined Sewer Overflow (CSO)	Sanitary Sewer Overflow (SSO)[3]	Wet Weather Event Event Analyzed[4]
1	8	5	10	2004	1522	**yes**	**yes**	N
2	11	6	30	97	1,300	**yes**	**yes**	A
3	14	6	10	99	904	**yes**	**yes**	F
4	31	8	4	98	844	**yes**	**yes**	B
5	2	1	21	99	840	**yes**	*"Trace"*	C
6	30	9	11	2000	825	**yes**	**yes**	I
7	19	7	22	99	790	**yes**	**yes**	G
8	18	6	11	2001	716	**yes**	no	K
9	7	4	21	99	692	**yes**	**yes**	E
10	9	5	17	2000	690	**yes**	**yes**	H
11	17	7	2	2000	690	**yes**	*"Yes"*	
12	2	2	8	2001	673	**yes**	**yes**	J
13	6	4	8	99	667	**yes**	**yes**	D
14	10	6	20	97	657	**yes**	**yes**	A
15	5	4	7	2002	621	**yes**	no	L
16	12	5	31	2000	603	**yes**	*"Trace"*	
17	43	11	9	98	531	**yes**	**yes**	
18	34	10	22	2001	524	no	no	
19	10	5	16	99	507	no	*"Yes"*	
20	23	8	12	2002	481	**yes**	*"Trace"*	M
21	22	8	5	2000	481	**yes**	*"Yes"*	
22	12	5	7	2001	479	no	*"Trace"*	
23	27	9	27	99	458	**yes**	*"Trace"*	
24	6	4	19	2000	442	no	no	
25	2	2	20	97	441	no	*"Trace"*	
26	15	6	3	2002	439	no	**yes**	
27	11	4	8	98	414	no	no	
28	8	5	8	2000	409	no	no	
29	7	4	9	2001	404	no	no	
30	13	4	15	98	393	no	no	
31	27	6	27	98	377	no	no	
32	32	9	22	2000	360	no	no	
33	2	3	4	2004	359	no	no	
34	17	7	9	99	358	no	no	
35	3	2	24	2001	350	no	no	
36	33	10	10	2001	349	no	no	
37	30	11	1	2003	347	no	no	
38	27	8	25	2001	339	**yes**	no	
39	24	8	21	2002	329	no	no	
40	19	7	9	2002	320	no	no	

NOTES:

1) Data presented was developed from yearly rain event data provided in Appendix I, *Rain Events Summary Master Spreadsheet Information.*
2) Total Tunnel Volume is the total volume of flow which was measured entering the ISS tunnel during the duration of a rain event.
3) SSO data in Appendix I, *Rain Events Summary Master Spreadsheet Information* was preliminary. The data shown in italics and quotes was revised to match the data reported by MMSD to the WDNR in quarterly Combined Sewer Overflow and Separate Sewer Overflow Monitoring Reports.
4) Letter values assigned under the "Wet Weather Event Analyzed" column refer to events chosen for more review as listed in Table 4J-6, Wet Weather Events Identified for In-depth Analysis

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TABLE 4J-1

TOP 40 RAIN EVENTS FROM 1997 THROUGH JUNE 30, 2004

2020 TREATMENT REPORT

No.	Date	Volume Per Day (MG)	Total Volume Per Event (MG)	Rank (out of 21)	Wet Weather Event Analyzed
1	06/21/97	1,522.28	1599.08	1	A
	06/22/97	45.51			
	06/23/97	2.09			
	06/24/97	29.2			
2	07/02/97	371.00	383.40	13	A
	07/03/97	5.80			
	07/04/97	6.6			
Total	**1997**		**1982.48**		
3	08/06/98	373.70	476.30	11	B
	08/07/98	91.70			
	08/08/98	10.9			
4	11/10/98	148.80	154.00	17	
	11/11/98	5.2			
Total	**1998**		**630.30**		
5	01/23/99	175.8	214.90	15	C
	01/24/99	39.1			
6	04/09/99	462.7	642.50	9	D
	04/10/99	179.8			
7	04/23/99	510.5	701.40	8	E
	04/24/99	190.9			
8	06/13/99	703.1	902.30	5	F
	06/14/99	199.2			
9	07/21/99	691.1	1125.40	3	G
	07/22/99	89.7			
	07/23/99	235.6			
	07/24/99	109			
10	09/28/99	427.7	518.50	10	
	09/29/99	90.8			
Total	**1999**		**4105.00**		
11	05/17/00	54.1	1539.10	2	H
	05/18/00	1053.4			
	05/19/00	415.3			
	05/20/00	16.3			
12	06/01/00	96.7	194.20	16	
	06/02/00	97.5			

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TABLE 4J-2 SHEET 1 OF 2

CSO EVENTS, 1997 THROUGH JUNE 30, 2004

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J02.07.06.04.cdr

No.	Date	Volume Per Day (MG)	Total Volume Per Event (MG)	Rank (out of 21)	Wet Weather Event Analyzed
13	07/02/00	514.5	791.70	7	
	07/03/00	277.20			
14	08/05/00	111.5	127.20	18	
	08/06/00	15.70			
15	09/11/00	364.5	839.10	6	I
	09/12/00	253.5			
	09/14/00	221.10			
Total	**2000**		**3491.30**		
16	02/09/01	242.70	261.50	14	J
	02/10/01	18.80			
17	06/12/01	44.7	99.40	20	K
	06/13/01	54.7			
18	08/25/01	103.2	103.20	19	
Total	**2001**		**464.10**		
19	04/09/02	24.7	24.70	21	L
20	08/12/02	82.4	414.80	12	M
	08/13/02	329.1			
	08/14/02	3.3			
Total	**2002**		**439.50**		
Total	**2003**		**0.00**		
21	5/13/2004	128.3	**1088.00**	**4**	N
	5/14/2004	958.6			
	5/15/2004	304			
	5/16/2004	5			
	5/17/2004	0.1			
	5/18/2004	65.2			
	5/21/2004	42.3			
	5/22/2004	895.1			
	5/23/2004	922.4			
	5/24/2004	557.5			
	5/25/2004	263.7			
Total	**2004**		**1088.00**		

NOTES:

1) Data presented was developed from CSO data provided to WDNR by MMSD in quarterly Combined Sewer Overflow Monitoring Reports.
2) CSOLOG, the modeling program used to calculated CSO volumes was updated in 2005, which adjusted the volume of CSOs as originally reported. All CSO volumes listed in this table are from the original CSOLOG estimates, except for the May 2004 event. Daily volumes for the May 2004 event shown in red are from the original CSOLOG model estimates. The total volume for the May 2004 event, shown in bold and red, was provided by MMSD from the updated CSOLOG model.
3) Letter values assigned under the "Wet Weather Event Analyzed" column refer to events chosen for more review as listed in Table 4J-6, Wet Weather Events Identified for In-Depth Analysis, in this appendix.

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TABLE 4J-2 SHEET 2 OF 2
CSO EVENTS, 1997 THROUGH JUNE 30, 2004
2020 TREATMENT REPORT
6/04/07 TR_4-A.T4J02.07.06.04.cdr

No.	Date	Volume Per Day (MG)	Total Volume Per Event (MG)	Rank (out of 33)	Wet Weather Event Analyzed
1	2/21/1997	**0.011**	0.011	28	
2	4/30/1997	**0.142**	0.142	16	
3	5/21/1997	**0.002**	0.002	31	
4	6/16/1997	**0.002**	0.002	31	
5	6/21/1997	**202.580**	202.580	2	A
6	7/1/1997	**0.090**	45.413	10	A
	7/2/1997	**45.313**			
	7/3/1997	**0.005**			
	7/8/1997	**0.005**			
Total	**1997**		**248.150**		
7	4/7/1998	**0.029**	0.029	25	
8	8/5/1998	**1.100**	79.460	5	B
	8/6/1998	**54.377**			
	8/7/1998	**23.983**			
9	11/10/1998	**0.042**	0.042	23	
10	12/7/1998	**0.060**	0.060	21	
Total	**1998**		**79.591**		
11	1/23/1999	**0.075**	0.075	19	C
12	2/18/1999	**0.006**	0.006	29	
13	4/9/1999	**41.510**	48.680	9	D
	4/10/1999	**7.170**			
14	4/23/1999	**68.469**	74.501	6	E
	4/24/1999	**6.032**			
15	5/16/1999	**2.206**	2.337	13	
	5/17/1999	**0.131**			
16	6/13/1999	**56.560**	83.855	4	F
	6/14/1999	**27.295**			
17	7/21/1999	**62.023**	62.153	7	G
	7/22/1999	**0.130**			
18	9/28/1999	**0.072**	0.072	20	

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TABLE 4J-3 SHEET 1 OF 2

SSO EVENTS, 1997 THROUGH JUNE 30, 2004

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J03.07.06.04.cdr

No.	Date	Volume Per Day (MG)	Total Volume Per Event (MG)	Rank (out of 33)	Wet Weather Event Analyzed
Total	**1999**		**271.679**		
19	5/17/2000	**0.080**	109.650	3	H
	5/18/2000	**71.580**			
	5/19/2000	**37.990**			
20	6/1/2000	**0.030**	0.030	24	
21	7/2/2000	**2.500**	4.740	12	
	7/3/2000	**2.240**			
22	8/5/2000	**1.990**	1.990	14	
23	9/11/2000	**18.380**	21.130	11	I
	9/12/2000	**2.750**			
Total	**2000**		**137.540**		
24	2/9/2001	**52.340**	55.840	8	J
	2/10/2001	**3.500**			
25	5/14/2001	**0.120**	0.120	17	
26	7/5/2001	**0.013**	0.013	27	
27	7/23/2001	**0.050**	0.086	18	
	7/25/2001	**0.036**			
28	9/18/2001	**0.005**	0.005	30	
29	9/24/2001	**0.005**	0.021	26	
	9/25/2001	**0.016**			
Total	**2001**		**56.085**		
30	1/21/2002	**0.055**	0.055	22	
31	6/3/2002	**0.540**	0.540	15	
32	8/12/2002	**TRACE**	0.000	33	M
Total	**2001**		**0.595**		
33	5/10/2004	**0.455**	473.555	1	N
	5/14/2004	**101.300**			
	5/20/2004	**0.000**			
	5/21/2004	**2.800**			
	5/22/2004	**107.700**			
	5/23/2004	**236.000**			
	5/24/2004	**25.300**			

NOTE:

1) Data presented was developed from SSO data provided in quarterly Separate Sewer Overflow Monitoring Reports sent by MMSD to WDNR.

2) Letter values assigned under the "Wet Weather Event Analyzed" column refer to events chosen for more review as listed in table 4J-6 Wet Weather Events Identified for In-depth Analysis

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TABLE 4J-3 SHEET 2 OF 2

SSO EVENTS, 1997 THROUGH JUNE 30, 2004

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J03.07.06.04.cdr

JIWWTP

Rank	Date	Flow (MGD)	Flow > Maximum Design Day Flow	Wet Weather Event Analyzed	Blending (MG)
1	5/18/00	354	1	H	81.4
2	4/23/99	350	1	E	46
3	2/9/01	321	1	J	22.4
4	2/21/97	320	1		22
5	6/21/97	315	1	A	17
6	9/12/00	312	1	I	28.5
7	6/13/99	311	1	F	67.7
8	4/9/99	310	1	D	58
9	6/22/97	303	1	A	0
10	5/19/00	300		H	16.1
11	4/9/02	297		L	60.2
12	6/1/00	285			37
13	1/23/99	282		C	44
14	5/22/04	279		N	0
15	4/24/99	274		E	0
	6/4/02	274			23
	5/14/04	274		N	16.2
18	2/22/97	269			0
19	5/20/00	268		H	0
20	7/21/99	266		G	13
21	7/2/97	264		A	0
22	3/31/98	263			0
23	9/14/00	261		I	1
24	6/12/01	259		K	0
25	6/2/00	256			6
	6/14/99	256		F	7.1
	8/13/02	256		M	29.3

Average Day Flow Above 300 **9**
Average Day Flow Above 330 **2**

SSWWTP

Rank	Date	Flow (MGD)	Flow > Maximum Design Day Flow	Wet Weather Event Analyzed	Blending (MG)
1	6/22/97	323	1	A	NA[6]
2	6/21/97	311	1	A	50
3	4/23/99	307	1	E	0
	5/23/04	307	1	N	0
4	7/2/00	304	1		0
5	2/12/98	302	1		0
6	6/2/00	301	1		0
	5/22/04	301	1	N	0
	5/24/04	301	1	N	0
9	4/21/00	297	1		0
10	4/24/99	296	1	E	0
11	2/21/97	292	1		60
	5/25/04	292	1	N	0
13	5/19/00	291	1	H	0
	1/23/99	291	1	C	0
15	5/14/04	289	1	N	0
16	4/10/99	287	1	D	0
	8/7/98	287	1	B	0
18	5/20/00	286	1	H	0
	6/14/99	286	1	F	0
20	3/5/04	285	1		0
21	4/9/99	282	1	D	0
	9/28/99	282	1		0
	4/9/98	282	1		0
	3/6/04	282	1		0
25	5/15/04	281	1	N	0
	6/12/04	281	1		0
	4/16/98	280	1		0
	3/29/04	279	1		0
	7/21/99	278	1		0
	7/2/97	276	1		0
	1/24/99	275	1		0
	5/18/00	273	1		0
	4/10/98	271	1		0
	5/19/99	269	1		0
	5/16/04	268	1		0
	2/12/99	266	1		0
	4/20/00	266	1		0
	6/13/99	264	1		0
	5/21/04	263	1		0
	5/18/04	260	1		0
	5/11/04	259	1		0
	3/19/98	257	1		0
	5/17/99	257	1		0
	5/13/04	256	1		0
	4/17/98	255	1		0
	5/19/04	255	1		0
	6/11/04	255	1		0
	11/10/98	252	1		0
	5/31/04	252	1		0
	5/18/99	251	1		0
	5/12/00	251	1		0
	5/11/03	251	1		0

Average Day Flow Above 250 **53**
Average Day Flow Above 300 **9**

NOTES:

1) All daily flows were taken from values reported in the monthly DMRs
2) Only chose to list top 25 daily flow for JIWWTP since flows already below maximum day design flow. SSWWTP flows ranked through top 25 but all flows greater than maximum day design flow are listed.
3) No total WWTP average daily flows from 2002 make it on list. Flow limits were imposed at SSWWTP due to headworks construction.
4) No average daily flows from 2003 for either JIWWTP or SSWWTP made it on the list.
5) Letter values assigned under the "Wet Weather Event Analyzed" column refer to events chosen for more review as listed in Table 4J-6, Wet Weather Events Identified for InDepth Analysis
6) NA - actual blending volume not available according to data presented in Appendix 4D, MMSD/UWS In-plant Diversion Records

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TABLE 4J-4 SHEET 1 OF 2
WWTP AVERAGE DAILY FLOWS, 1997 THROUGH JUNE 30, 2004
2020 TREATMENT REPORT
6/04/07 TR_4-A.T4J04.07.06.04.cdr

Total Daily Flow from Both WWTPs

Rank	Date	JIWWTP Average Daily Flow (MGD)	SSWWTP Average Daily Flow (MGD)	Total Daily Flow from both WWTPs (MGD)	Wet Weather Event Analyzed
1	4/23/99	350	307	**657**	E
2	5/18/00	354	273	**627**	H
3	6/21/97	315	311	**626**	A
	6/22/97	303	323	**626**	A
4	2/21/97	320	292	**612**	
5	4/9/99	310	282	**592**	D
6	5/19/00	300	291	**591**	H
7	5/22/04	279	301	**580**	N
8	6/13/99	311	264	**575**	F
9	1/23/99	282	291	**573**	C
10	4/24/99	274	296	**570**	E
11	5/14/04	274	289	**563**	N
12	5/23/04	251	307	**558**	N
13	6/2/00	256	301	**557**	
14	5/20/00	268	286	**554**	H
15	4/21/00	255	297	**552**	
16	2/9/01	321	225	**546**	J
17	7/21/99	266	278	**544**	G
18	6/14/99	256	286	**542**	F
19	7/2/97	264	276	**540**	A
	4/10/99	253	287	**540**	D
20	8/7/98	240	287	**527**	B
	9/28/99	245	282	**527**	
21	4/16/98	244	280	**524**	
22	9/12/00	312	209	**521**	I
23	2/22/97	269	245	**514**	
24	6/1/00	285	227	**512**	
25	1/24/99	233	275	**508**	C

NOTES:

1) Made the assumption that only those days with top flows from Top 25 days would have the largest total WWTP flows for this list
2) Shaded cells indicate the individual WWTP flow was in the top 25 daily flows for that WWTP
3) No total WWTP average daily flows from 2002 make it on list. Flow limits were imposed at SSWWTP due to headworks construction.
4) No total WWTP average daily flows from 2003 make it on the list -rainfall was below average for the year.
5) Letter values assigned under the "Wet Weather Event Analyzed" column refer to events chosen for more review as listed in Table 4J-6, Wet Weather Events Identified for In-Depth Analysis

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TABLE 4J-4 SHEET 2 OF 2

TOP WWTP AVERAGE DAILY FLOWS, 1997 THROUGH JUNE 30, 2004

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J04.07.06.04.cdr

JIWWTP Peak Flows

	Total Flow MGD	Blending MGD	Type	Full Treatment MGD
2/21/97	320	*60*	PE	260
6/21/97	315	*60*	ISS	255
6/22/97	**303**	**-**	**-**	**303**
4/9/99	310	87	ISS	223
4/23/99	**350**	**40**	**ISS**	**310**
6/13/99	311	40	ISS	271
5/18/00	354	60	ISS	294
9/12/00	312	58	ISS	254
2/9/01	321	40	ISS	281

No. of days that full treatment was above peak hourly design flow: 0
No. of days that full treatment was above maximum daily design flow (shown in bold): 2

SSWWTP Peak Flows

	Total Flow MGD	Blending MGD	Type	Full Treatment MGD
6/22/97	323	*75*	PE	248
6/21/97	311	*75*	PE	236
2/12/98	**302**	**-**	**-**	**302**
4/23/99	**307**	**-**	**-**	**307**
4/24/99	296	-	-	296
4/21/00	297	-	-	297
6/2/00	**301**	**-**	**-**	**301**
7/2/00	**304**	**-**	**-**	**304**
5/22/04	**301**	**-**	**-**	**301**
5/23/04	**307**	**-**	**-**	**307**
5/24/04	**301**	**-**	**-**	**301**

No. of days that full treatment was above peak hourly design flow (shown in bold): 7
No. of days that full treatment was above maximum daily design flow: 50

NOTES:

1) Daily flow through full treatment does not include flow through an in-plant diversion that would have been included in the total plant daily flow reported.
2) Top Total Flows are from monthly DMRs and are included in Table 4J-4, Top JIWWTP and SSWWTP Average Daily Flows, 1997 through June 30, 2004.
3) Blending flows and type are from Table 4D-1, In-Plant Diversions Events 1997 – June, 2004, included in Appendix 4D, *MMSD/UWS In-Plant Diversion Records* . Those flows that were not given were estimated based on allowable flows and information given from other events – estimated flows are shown in italics.
4) Number of days that SSWWTP full treatment was above maximum daily design flow was determined based on the summation shown in Table 4J-4, WWTP Average Daily Flows, 1997 through June 30, 2004 in this Appendix and subtracting those three days that had recorded blending events.

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TABLE 4J-5
WWTP MAXIMUM DAILY FLOW THROUGH FULL TREATMENT, 1997 THROUGH JUNE 30, 2004
2020 TREATMENT REPORT
6/04/07 TR_4-A.T4J05.07.06.04.cdr

Purpose: To limit the number of wet weather events to review but at the same time, identify a range of storm events across the entire time period of the analysis (1997 through June 30, 2004). A number of sources of data collected during wet weather events, as cited in the table, were utilized to identify which events would be chosen for further analysis.

Event	Title	Start Date[1]	Finish Date[1]	Ranks During Event (1997 through June 30, 2004, Time Period)					Reasons Wet Weather Event Selected for Further Analysis
				Total Tunnel Volumes (out of 40)[2]	CSO Volume (out of 21)[3]	SSO Volume (out of 33)[4]	Individual WWTP Daily Flows (out of 25)[5]	Total WWTP Daily Flow (out of 25)[5]	
A[6]	June-July, 1997	6/20/97	7/11/97	2, 14	1, 13	2, 10	• JIWWTP 5, 9, 21 • SSWWTP 1, 2	3 (twice), 19	• **Tunnel Volume:** Large volumes captured by tunnel during event. • **CSO/SSO:** Highest CSO volumes & second highest SSO volumes recorded during analysis time period. • **WWTP Flow:** First and second SSWWTP flows recorded during analysis time period, multiple peak JIWWTP flows.
B	August, 1998	8/4/98	8/10/98	4	11	5	• JIWWTP None • SSWWTP 16	20	• **Tunnel Volume:** Volume captured by tunnel fourth highest recorded during analysis time period. • **CSO/SSO:** CSO and SSO volumes among highest. • **WWTP Flow:** Flows at JIWWTP not among highest recorded but SSWWTP flows among highest.
C	January, 1999	1/21/99	1/28/99	5	15	19	• JIWWTP 13 • SSWWTP 13	9, 25	• **Tunnel Volume:** Volume captured by tunnel fifth highest recorded during analysis time period. • **CSO/SSO:** CSO and SSO occurred. • **WWTP Flow:** High flows at JIWWTP and SSWWTP.
D	1st April, 1999	4/8/99	4/14/99	13	9	9	• JIWWTP 8 • SSWWTP 16, 21	5, 19	• **Tunnel Volume:** Larger tunnel capture volume recorded during analysis time period. • **CSO/SSO:** Larger CSO and SSO volumes. • **WWTP Flow:** High flows at JIWWTP and SSWWTP.
E	2nd April, 1999	4/21/99	4/29/99	9	8	6	• JIWWTP 2, 15 • SSWWTP • 3, 10	1, 10	• **Tunnel Volume:** Larger tunnel capture volume recorded during analysis time period. • **CSO/SSO:** Larger CSO and SSO volumes. • **WWTP Flow:** Total flow to JIWWTP and SSWWTP highest recorded during analysis time period.
F	June, 1999	6/10/99	6/18/99	3	5	4	• JIWWTP 7, 25 • SSWWTP 18	8, 18	• **Tunnel Volume:** Third highest tunnel capture volume recorded during analysis time period. • **CSO/SSO:** Fifth highest CSO and fourth highest SSO volumes recorded during analysis time period. • **WWTP Flows:** High flows at JIWWTP and SSWWTP.

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TABLE 4J-6 SHEET 1 OF 3

WET WEATHER EVENTS IDENTIFIED FOR IN-DEPTH ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J06.07.06.04.cdr

Event	Title	Start Date[1]	Finish Date[1]	Ranks During Event: Total Tunnel Volumes (out of 40)[2]	CSO Volume (out of 21)[3]	SSO Volume (out of 33)[4]	Individual WWTP Daily Flows (out of 25)[5]	Total WWTP Daily Flow (out of 25)[5]	Reasons Wet Weather Event Selected for Further Analysis
G	July, 1999	7/21/99	7/25/99	7	3	7	• JIWWTP 20 • SSWWTP None	17	• **Tunnel Volume:** One of the largest tunnel capture volumes recorded during analysis time period. • **CSO/SSO** Fourth highest CSO and seventh highest SSO volume recorded during analysis time period. • **WWTP Flow:** One of the highest daily flows to JIWWTP but SSWWTP daily flows were not among top 25 during analysis time period.
H[7]	May, 2000	5/17/00	5/23/00	10	2	3	• JIWWTP 1, 10, 19 • SSWWTP 13, 18	2, 6, 14	• **Tunnel Volume:** One of the largest tunnel capture volumes recorded during analysis time period. • **CSO/SSO:** Second highest CSO and third highest SSO volume recorded during analysis time period. • **WWTP Flow:** Second highest total flow to JIWWTP and SSWWTP during the analysis time period, even though SSWWTP under construction.
I[7]	September, 2000	9/11/00	9/16/00	6	6	11	• JIWWTP 6, 23 • SSWWTP None	22	• **Tunnel Volume:** One of the largest tunnel capture volume recorded during analysis time period. • **CSO/SSO:** Larger CSO and SSO volumes recorded during analysis time period. • **WWTP Flow:** High flows at JIWWTP but flow limited at SSWWTP due to construction.
J[7]	February, 2001	2/8/01	2/12/01	12	14	8	• JIWWTP 3 • SSWWTP None	16	• **Tunnel Volume:** One of the largest tunnel capture volume recorded during analysis time period. • **CSO/SSO:** Large CSO and SSO volumes. • **WWTP Flow:** Third highest flow at JIWWTP during analysis time period but flow limited to SSWWTP due to construction.
K[7]	June, 2001	6/11/01	6/19/01	8	20	No SSO	• JIWWTP 24 • SSWWTP None	None	• **Tunnel Volume:** Largest tunnel capture volume recorded during analysis time period which had CSO but no SSO. • **CSO/SSO:** CSO event but no SSO volume recorded. • **WWTP Flow:** One high daily flow recorded at JWWTP but flow limited to SSWWTP due to construction
L[7]	April, 2002	4/7/02	4/14/02	15	21	No SSO	• JIWWTP 11 • SSWWTP None	None	• **Tunnel Volume:** Second largest tunnel capture volume recorded during analysis time period which had CSO but no SSO. • **CSO/SSO:** Smallest CSO event recorded during analysis time period but no SSO event recorded. • **WWTP Flow:** One high daily flow recorded at JWWTP but flow limited to SSWWTP due to construction.
M[7]	August, 2002	8/12/02	8/25/02	20	12	33	• JIWWTP 25 • SSWWTP None	None	• **Tunnel Volume:** One of the largest tunnel capture volume recorded during analysis time period. • **CSO/SSO:** Larger CSO event and trace SSO event recorded during analysis time period. • **WWTP Flow:** JIWWTP flows barely in highest recorded during analysis time period, SSWWTP flows limited due to construction.

Event	Title	Start Date[1]	Finish Date[1]	Ranks During Event: Total Tunnel Volumes (out of 40)[2]	CSO Volume (out of 21)[3]	SSO Volume (out of 33)[4]	Individual WWTP Daily Flows (out of 25)[5]	Total WWTP Daily Flow (out of 25)[5]	Reasons Wet Weather Event Selected for Further Analysis
N	May, 2004	5/9/04	6/1/04	1	4	1	• JIWWTP 14, 15 • SSWWTP 3, 6 (twice), 11, 15, 25	7, 11, 12	• **Tunnel Volume:** Largest tunnel capture volume recorded during analysis time period. • **CSO/SSO:** Third largest CSO and largest SSO volumes recorded during analysis time period. • **WWTP Flow:** JIWWTP flows had two high flow days, SSWWTP had six days in highest ranked during analysis time period.

NOTES:
1) Start and finish dates do not exactly match dates as listed in Appendix 4B, *Storm Event Summary Data*, or in Appendix 4I, *Rain Event Summary Master Spreadsheet Information*. Dates instead were based on the flows occurring at the WWTPs to make sure that all peak flow days were included – sometimes peak flows continued after the end of an event due to flow still pumped out from the ISS or because peak flows to SSWWTP are usually delayed as compared to JIWWTP. Start and Finish dates for the Wet Weather analysis in this Treatment System Report are as follows:
Start date - Flow equaled more than 1.5 times the design Daily Average Flow (as listed in the O&M Manual) of Jones Island WWTP - EXCEPT when rain event started the day before this happened
Finish date - Flow equaled less than 1.5 times the design Daily Average Flow (as listed in the O&M Manual) of the WWTP that had flow that was greater than this limit longer – EXCEPT when available rain event dates indicated event ended later. Note that the finish date was extended for some events because flows increased above the start date flow limit again.
2) Total Tunnel Volume ranks are from Table 4J-1, Top 40 Rain Events from 1997 through June 30, 2004.
3) CSO ranks are from Table 4J-2, CSO Events, 1997 through June 30, 2004.
4) SSO ranks are from Table 4J-3, SSO Events, 1997 through June 30, 2004.
5) Individual and Total WWTP Flows ranks are from Table 4J-4, WWTP Average Daily Flows, 1997 through June 30, 2004. The ranks are for any day included in the specific wet weather event as listed by the start and end dates. More than one day could have the same rank if the flows were equal.
6) Event A is defined as two separate events in Table 4J-1, Top 40 Rain Events from 1997 through June 30, 2004 – one which started on June 20, 1997, and the other that started on June 30, 1997. However, since the JIWWTP and SSWWTP flows never dropped below 1.5 times the annual average for either WWTP as defined under Note 1, these two events are included as one event for this analysis.
7) SSWWTP flow was restricted for a few years due to the Preliminary Treatment Upgrade project; therefore SSWWTP peak flows during wet weather events were below average, except for the May 2000 event which was at the start of the construction according to UWS and CCO monthly reports for the months which the identified wet weather events occurred.

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TABLE 4J-6 SHEET 3 OF 3
WET WEATHER EVENTS IDENTIFIED FOR IN-DEPTH ANALYSIS
2020 TREATMENT REPORT
6/04/07 TR_4-A.T4J06.07.06.04.cdr

Event	Title	Start	End	Event Notes[1]	All Rain Events During Month of Identified Event Start	Captured & Treated[3] (MG)	VRSSI[2] (MG)	CSO Event[4]	Amt (MG)	SSO Event[4]	Amt (MG)	WWTP Blending[5]	WWTP	Type[6]	Amt (MG)
A	June-July, 1997	6/20/1997	7/15/1997		6/20/1997	657	**40**	6/21/1997	1522	6/21/1997	203	6/21/1997	JI	ISS	17
				Treatment plants under separate WPDES permits	6/30/1997	1300	**40**	6/22/1997	46			6/21/1997	SS	PE	50
				during June 1997, switched to one permit in July				6/23/1997	2			6/22/1997	SS	PE	NA
				1997. Treatment plants at maximum capacity on				6/24/1997	29						
				6/21 and 6/22. ISS pumpout operated from 6/20 to						7/1/1997	0.1				
				6/29 and then from 6/30 to 7/11. Secondary				7/2/1997	371	7/2/1997	45				
				clarifier overload occurred for 3 hours on 6/21 and				7/3/1997	6	7/3/1997	0.01				
				for 22 hours on 6/24.				7/4/1997	7						
								7/8/1997		7/8/1997	0.01				
					Total	*1957*		*Total*	*1983*		*248*				
B	August, 1998	8/4/1998	8/10/1998	Aug 4-6 was 100-yr storm, power outage 8/4	8/4/1998	844	**40**			8/5/1998	1	8/6/1998[7]	JI	ISS	21
				caused primary clarifiers to overtop, grab sample	8/14/1998	59	**40**	8/6/1998	374	8/6/1998	54				
				on 8/2 are questionable, gaseous chlorine	8/24/1998	191	**40**	8/7/1998	92	8/7/1998	24				
				disinfection system failing at both plants, especially				8/8/1998	11						
				at SSWWTP.	*Total*	*1094*		*Total*	*476*		*80*				
C	January, 1999	1/21/1999	1/29/1999	Degraded effluent quality due to maximizing	1/16/1999	136	**40**	1/23/1999	176	1/23/1999	0.1	1/22/1999	JI	ISS	16
				capacity, diversion due to peak capacity of 260 at	1/21/1999	840	**40**	1/24/1999	39			1/23/1999	JI	ISS	34
				JIWWTP due to 2 prim clarifiers out. Struggled w/								1/23/1999	JI	PE	10
				grit carryover.	*Total*	*976*		*Total*	*215*		*0.1*				
D	1st April, 1999	4/8/1999	4/14/1999	JIWWTP at 260 MGD due to 2 prim clarifiers out.	4/3/1999	110	40	4/9/1999	463	4/9/1999	42	4/9/1999	JI	ISS	58
				Tried to bring one back on for 2nd storm event but	4/8/1999	667	76	4/10/1999	180	4/10/1999	7	4/10/1999	JI	ISS	12
				failed halfway through event. Exceeded contract				*Total*	*643*		*49*				
E	2nd April, 1999	4/21/1999	4/29/1999	TSS std. of 15 mg/L for month, due to diversions	4/21/1999	692	**76**	4/23/1999	511	4/23/1999	69	4/22/1999	JI	ISS	6
				and high TSS, such as on 4/9 TSS =147, 4/23				4/24/1999	191	4/24/1999	6	4/23/1999	JI	ISS	46
				TSS = 74 mg/L	*Total*	*1469*		*Total*	*701*		*75*				
F	June, 1999	6/10/1999	6/18/1999	Improved reporting procedure began in June 99,	6/6/1999	51	**40**	6/13/1999	703	6/13/1999	57	6/12/1999	JI	ISS	4
				June 10 event caused CS and SS gates to close,	6/10/1999	904	40	6/14/1999	199	6/14/1999	27	6/13/1999	JI	ISS	68
				and ISS diversions to chlorination at JIWWTP, all	6/28/1999	225	**40**					6/14/1999	JI	ISS	7
				permit and contract limits were met.											
					Total	*1180*		*Total*	*902*		*84*				
G	July, 1999	7/21/1999	7/27/1999	Sewer backups reported, ISS filled past crown	7/6/1999	48	**40**	7/21/1999	691	7/21/1999	62				
				twice, sewer backups, 50-yr storm, power	7/9/1999	358	**40**	7/22/1999	90	7/22/1999	0.1				
				interruption at JIWWTP, 2 flap gates were torn off.	7/17/1999	188	**40**	7/23/1999	236						
				Flow pumped straight from ISS to chlorine basin at	7/21/1999	790	40	7/24/1999	109			7/21/1999	JI	ISS	13
				JIWWTP – in-plant diversion.	7/31/1999	25	**40**								
					Total	*1409*		*Total*	*1125*		*62*				
H	May, 2000	5/17/2000	5/24/2000	3rd wettest May of record in Milwaukee, 5/17 storm	5/1/2000	16	**100**	5/17/2000	54	5/17/2000	0.1				
				caused tunnel to close – 200 MGD SS reserve	5/8/2000	409	**100**	5/18/2000	1053	5/18/2000	72	5/17/2000	JI	ISS	3
				capacity was not adequate to capture all SS flow,	5/17/2000	609	200	5/19/2000	415	5/19/2000	38	5/17/2000	JI	ISS	81
				largest ISS diversion to disinf at JIWWTP of	5/27/2000	121	**200**	5/20/2000	16			5/17/2000	JI	ISS	16
				records available, SSWWTP operated at reduced	5/30/2000	33	**200**								
				capacity unless under emergency conditions due											
				to construction.	*Total*	*1189*		*Total*	*1539*		*110*				

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TABLE 4J-7 SHEET 1 OF 3

WET WEATHER EVENTS IDENTIFIED FOR IN-DEPTH ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J07.07.06.04.cdr

Event	Title	Start	End	Event Notes[1]	All Rain Events During Month of Identified Event Start	Captured & Treated[3] (MG)	VRSSI[2] (MG)	CSO Event[4]	Amt (MG)	SSO Event[4]	Amt (MG)	WWTP Blending[5]	WWTP	Type[6]	Amt (MG)
I	September, 2000	9/11/2000	9/18/2000	Loss of communications and computer system, SSWWTP flow cap reduced to 225 mad due to construction. Pumped straight from ISS to chlorine basin at JIWWTP – in-plant diversion.	9/2/2000	172	**150**	9/11/2000	365	9/11/2000	18				
					9/8/2000	77	**150**	9/12/2000	254	9/12/2000	3	9/11/2000	JI	ISS	7
					9/10/2000	69	**150**	9/14/2000	221			9/12/2000	JI	ISS	29
					9/11/2000	825	150/60					9/14/2000	JI	ISS	1
					9/20/2000	20	**60**								
					9/22/2000	360	**60**								
						1522		*Total*	*839*		*21*				
J	February, 2001	2/8/2001	2/14/2001	JIWWTP in-plant diversion on 2/9, SSWWTP w/o 1/4 cap due to constr – 225 MGD, process failures during high flow.	1/29/2001	224	**200**	2/9/2001	243	2/9/2001	52				
					2/8/2001	673	95	2/10/2001	19	2/10/2001	4	2/9/2001	JI	ISS	22
					2/24/2001	350	**200**					2/10/2001	JI	ISS	32
					Total	*1247*		*Total*	*262*		*56*				
K	June, 2001	6/11/2001	6/19/2001	6/11-12 tunnel vol reached 337 MG, no SSO – though CSO did occur. Through June for 2001, total of 2 CSO events and 2 SSO events from tunnel gate closures.	5/31/2001	111	**200**	6/12/2001	45			none			
					6/5/2001	173	**200**	6/13/2001	55						
					6/11/2001	716	150								
					Total	*1000*		*Total*	*99*		*0*				
L	April, 2002	4/7/2002	4/15/2002	4/9 tunnel vol reached 375 MG, there was a CSO but no SSO. Tunnel reserve capacity for SS set at 100 MG and tunnel reached 300 MG the morning of 4/9. There was an in-plant diversion around secondary treatment at JIWWTP. Major equipment failures included 5/6 of JIWWTP grit system, 3 of JIWWTP primary clarifiers and 2 SSWWTP primary clarifiers. SSWWTP capacity set at 141 MGD due to construction improvements.	4/2/2002	23	200	4/9/2002	25			4/8/2002	JI	PE	17
					4/7/2002	621	200					4/9/2002	JI	PE	56
					4/18/2002	15	200					4/10/2002	JI	PE	15
					4/21/2002	41	200					4/8/2002	JI	ISS	1
					4/24/2002	17	200					4/9/2002	JI	ISS	5
					4/27/2002	43	200					4/10/2002	JI	ISS	1
					Total	*737*		*Total*	*25*		*0*				
M	Aug, 2002	8/12/2002	8/25/2002	3 tunnel events for the month, 8/12 event caused overflow due to locally heavy flow combined with construction limits at SSWWTP, 3 bypasses at JIWWTP, JIWWTP split into East & West plants to facilitate Wet Weather Capacity project – created major upset for weeks and was abandoned.	8/4/2002	20	**200**	8/12/2002	82	8/12/2002	Trace	8/12/2002	JI	ISS	1
					8/12/2002	481	125	8/13/2002	329			8/13/2002	JI	ISS	29
					8/21/2002	329	**200**	8/14/2002	3			8/14/2002	JI	ISS	12
												8/13/2002	SS	PE	34
					Total	*830*		*Total*	*415*		*0*				
N	May, 2004	5/9/2004	6/4/2004	One major tunnel event lasting from 5/8/04 into June. May precipitation was 8.18 inches, 5.12 inches above normal: 17 days of measurable precipitation & unofficially more than 10 inches in the northern parts of the MMSD system. Total amount of additional flows treated at both plants was 11.4 BG for the month, 6.1 BG above the 5.3 MG/mo of average dry weather flow treated at both plants. Capital projects at JIWWTP limited capacity – the Wet Weather Improvement Project had 5 EP aeration basins and 2 EP clarifiers out of service, the ISS PS Head Tank project limited pumping capacity to JIWWTP to one pump. During high flow events, no pumping to SSWWTP occurs so ISS pumpout was only 40 MGD to JIWWTP during parts of the month.	5/8/2004	87	**150**			5/10/2004	0.5				
					5/10/2004	1522	**150**	5/13/2004							
								5/14/2004		5/14/2004	101	5/14/2004	JI	PE	16
								5/15/2004							
								5/16/2004							
								5/17/2004							
								5/18/2004							
								5/21/2004		5/21/2004	3				
								5/22/2004		5/22/2004	108				
								5/23/2004		5/23/2004	236				
								5/24/2004		5/24/2004	25				
								5/25/2004							
					Total	*1609*		*Total*[8]	*1088*		*474*				

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TABLE 4J-7 SHEET 2 OF 3

WET WEATHER EVENTS IDENTIFIED FOR IN-DEPTH ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J07.07.06.04.cdr

NOTES:

1) Information under event notes came from the UWS and CCO monthly reports for those months that the events took place and Storm Event Reports, included in Appendix 4B.

2) Volume Reserved for Sanitary Sewer Inflow (VRSSI) – when the tunnel volume reaches the volume at which only the set VRSSI remains available, the combined sewer inflow gates to the tunnel are shut and any remaining combined sewer flow overflows into local waterways

- Assumed to be 40 MG for all events before 9/99 unless noted since policy set reserve at 40 MG, unless operator judgment concluded larger volume needed, in monthly CCO and UWS reports and CCO Annual Summary report.
- From 9/99 until 2004, it appears that the reserve volume was increased to 200 MG, unless operator judgment adjusted volume during event
- From 2004 on, it appears that the reserve volume was decreased to 150 MG, unless operator judgment adjusted volume during event
- Reserve amounts shown in bold are assumed, all other reserve amounts were documented in storm event reports

3) Tunnel Event Captured & Treated Volume taken from information supplied in Appendix 4I,*Rain Event Summary Master Spreadsheet Information* .

4) CSO and SSO data provided in Table 4J-2, *CSO Events, 1997 through June 30, 2004* , and Table 4J-3, *SSO Events, 1997 through June 30, 2004* .

5) Blending data taken from information provided in Appendix 4D,*MMSD/UWS In-plant Diversion Records* .

6) Type refers to the in-plant diversion used during the blending event:

– ISS refers to diversion from ISS System Pump Station to disinfection

– PE refers to diversion of primary effluent after primary treatment to disinfection

7) In-plant diversion event records included in Appendix 4D, *MMSD/UWS In-plant Diversion Records* say 8/8/98 but August 1998 CCO Monthly Report states 8/6 which appears more reasonable.

8) CSOLOG model used to calculate reported CSO volumes was updated in 2005. The total CSO volume as listed for May 2004 Event (Event N) was provided by MMSD from the updated CSOLOG model. Daily volumes listed for Event N were estimated by applying the fraction of the daily volume to the total event volume from the original CSOLOG model daily CSO estimates to the revised total event volume provided by the MMSD.

NOTES on Following Spreadsheets:

1) All data was collected from monthly DMR reports sent to the DNR except for the Blending data, which was taken from data provided in Appendix 4D, MMSD/UWS In-Plant Diversion Records, and CSO and SSO data provided to WDNR by MMSD in quarterly Combined Sewer Overflow Monitoring Reports

NOTE: The CSO daily volumes (shown in bold) listed for Event N are NOT verified. See Table 4J-7, Wet Weather Events Identified for In-depth Analysis for explanation of determination of daily values presented in this table for Event N.

2) Data was collected for a week prior to the start date of an event through a week after the end date.

Start date of an event is the date at which the flow at JIWWTP is greater than 1.5 times the design average daily flow as listed in the Jones Island O&M Manual

End date of an event is the date at which the flow is less than 1.5 times the design daily average flow at the treatment plant that exceeds this limit longer

Flow limits:	1.5 x Design Daily Ave
JIWWTP	184.5 MGD
	169.5 MGD

UNLESS Rain event dates, as set in Appendix 4I *Rain Event Summary Master Spreadsheet Information*, started before or ended after the dates on which the limits listed above occur.

3) All calculated information is shown in columns with headings shaded

4) Contract and Permit monthly limits – values greater than limit values indicated below are highlighted as noted. **NOTE –** these highlighted values do not indicate instances. where the contract or permit were violated, since contract and permit limits are based on weekly averages, monthly averages and/or geometric means. The limits presented here are only the monthly averages.

	BOD (mg/L)	TSS (mg/L)	Fecal Coliform (#/100 mL)	Ammonia Nitrogen (mg/L)	JI Phos (mg/L)	SS Phos (mg/L)
Contract limit value (shown in YELLOW cell)	15	15	100	Variable	0.5	1
Permit limit value (shown in RED cell)	30	30	400	Variable	1	1

Ammonia - only at South Shore, assuming pH = 7.0	
June	16.7
July	11.3
Sept	11.1
August	12.7

Sources for data: Mayor's Independent MMSD Audit Committee Final Report and WPDES Permit

A visual review indicates that the values noted in red and yellow in this table never occurred for enough days nor were they large enough to violate the weekly or month permit limits or the monthly contract limits.

5) Values shown in italics were recorded in DMR as a <# but are assumed for this analysus to be that # exactly to calculate lb/d and % removed

6) Negative percent removal shown as red and in bold - questionable data

Figures listed in Tables 4J-9 through 4J-23 showing flow and water quality for each of the identified events were developed from this information

Event	Date	Jones Island WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
A	6/13/1997	101		277	116.66	280	117.93	9.1	3.83	96.7%	11.5	4.84	95.9%	9000	900	2.24	0.32
	6/14/1997	91		163	61.85	240	91.07	7.8	2.96	95.2%	8.5	3.23	96.5%			0.98	0.26
	6/15/1997	97		178	72.00	192	77.66	7.67	3.10	95.7%	5.5	2.22	97.1%			0.56	0.23
	6/16/1997	226	4	201.75	190.13	338	318.54	24.5	23.09	87.9%	33	31.10	90.2%	800	80	0.7	0.91
	6/17/1997	183		192	146.52	172	131.25	8.15	6.22	95.8%	6.5	4.96	96.2%			1.26	0.21
	6/18/1997	119		309	153.34	316	156.81	6.9	3.42	97.8%	3.5	1.74	98.9%	50	5	0.56	0.19
	6/19/1997	104		399	173.04	324	140.51	6.63	2.88	98.3%	5.5	2.39	98.3%			0.84	0.17
	6/20/1997	189		198	156.05	410	323.13	8.27	6.52	95.8%	14.5	11.43	96.5%	4	0.4	1.4	0.42
	6/21/1997	315	17	57	74.87	380	499.15	23.5	30.87	58.8%	61	80.13	83.9%			0.42	1
	6/22/1997	303		58	73.28	100	126.35	8.75	11.06	84.9%	21	26.53	79.0%			0.34	0.28
	6/23/1997	244		98.5	100.22	110	111.92	4.43	4.51	95.5%	9	9.16	91.8%	50	5	0.34	0.18
	6/24/1997	244		151	153.64	228	231.99	6.95	7.07	95.4%	8.25	8.39	96.4%			0.34	0.2
	6/25/1997	223		139	129.26	148	137.63	8.05	7.49	94.2%	9	8.37	93.9%	22	2.2	0.34	0.23
	6/26/1997	202		165	138.99	144	121.30	6	5.05	96.4%	7.5	6.32	94.8%			0.42	0.2
	6/27/1997	208		138	119.70	158	137.04	6.55	5.68	95.3%	7.5	6.51	95.3%	90	9	0.34	0.18
	6/28/1997	207		147	126.89	156	134.66	8.3	7.16	94.4%	10	8.63	93.6%			0.34	0.18
	6/29/1997	124		35	18.10	180	93.07	4.85	2.51	86.1%	5.5	2.84	96.9%			0.34	0.15
	6/30/1997	181		177	133.59	268	202.28	7.6	5.74	95.7%	10.5	7.93	96.1%	80	8	0.34	0.2
	7/1/1997	183		149	113.70	144	109.89	6.55	5.00	95.6%	7.25	5.53	95.0%			0.34	0.18
	7/2/1997	264		94	103.48	180	198.16	7.1	7.82	92.4%	12	13.21	93.3%	170	17	0.34	0.19
	7/3/1997	215		125	112.07	224	200.83	4.3	3.86	96.6%	11.5	10.31	94.9%	230	23	0.34	0.17
	7/4/1997	202		107	90.13	104	87.60	5.25	4.42	95.1%	7.5	6.32	92.8%			0.34	0.2
	7/5/1997	194		88	71.19	208	168.27	5.35	4.33	93.9%	9	7.28	95.7%			0.34	0.17
	7/6/1997	208		68	58.98	140	121.43	6.7	5.81	90.1%	9	7.81	93.6%			0.34	0.18
	7/7/1997	194		101	81.71	132	106.79	6.6	5.34	93.5%	9	7.28	93.2%	80	8	0.34	0.2
	7/8/1997	203		237	200.62	268	226.86	6.93	5.87	97.1%	10	8.47	96.3%			0.34	0.25
	7/9/1997	195		134	108.96	138	112.21	7.9	6.42	94.1%	8	6.51	94.2%	110	11	0.34	0.25
	7/10/1997	188		144	112.89	156	122.30	8.85	6.94	93.9%	10	7.84	93.6%			0.34	0.29
	7/11/1997	167		157	109.33	188	130.92	8.8	6.13	94.4%	10.5	7.31	94.4%	220	22	0.34	0.25
	7/12/1997	151		162	102.01	160	100.75	7.6	4.79	95.3%	11	6.93	93.1%			0.34	0.24
	7/13/1997	148		114	70.36	112	69.12	5.53	3.41	95.1%	10.5	6.48	90.6%			0.34	0.24
	7/14/1997	159		203	134.60	168	111.39	7.2	4.77	96.5%	10	6.63	94.0%	170	17	0.34	0.3
	7/15/1997	145		164	99.16	160	96.74	7.25	4.38	95.6%	9	5.44	94.4%			0.34	0.23
	7/16/1997	103		361	155.05	300	128.85	7.4	3.18	98.0%	9.5	4.08	96.8%	14	1.4	0.34	0.25
	7/17/1997	104		313.5	135.96	264	114.49	7.75	3.36	97.5%	10	4.34	96.2%			0.34	0.24
	7/18/1997	111			0.00	296	137.01	16.8	7.78	N/A	11	5.09	96.3%	13	1.3	0.34	0.22

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IDENTIFIED WET WEATHER EVENT ANALYSIS

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Event	Date	South Shore WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
A	6/13/1997	81		136	45.94	182	61.47	11	3.72	91.9%	8	2.70	95.6%			5.6	1.2
	6/14/1997	77		147	47.20	214	68.71	15	4.82	89.8%	7	2.25	96.7%			6.4	1.1
	6/15/1997	72		119	35.73	262	78.66	8	2.40	93.3%	5	1.50	98.1%			3.9	0.95
	6/16/1997	204		88	74.86	138	117.39	24	20.42	72.7%	13	11.06	90.6%			4.9	1.1
	6/17/1997	150		82	51.29	96	60.05	14	8.76	82.9%	5	3.13	94.8%	4	0.4	2.2	0.7
	6/18/1997	96		86	34.43	134	53.64	8	3.20	90.7%	3	1.20	97.8%	17	1.7	2.2	0.53
	6/19/1997	90		74	27.77	123	46.16	5	1.88	93.2%	1	0.38	99.2%	2	0.2	3.5	0.58
	6/20/1997	142		107	63.36	134	79.35	8	4.74	92.5%	5	2.96	96.3%			7.3	0.8
	6/21/1997	311	50	24	31.12	138	178.97	43	55.77	-79.2%	67	86.89	51.4%			2.9	1.5
	6/22/1997	323		25	33.67	78	105.06	14	18.86	44.0%	30	40.41	61.5%			0.4	0.68
	6/23/1997	223		33	30.69	64	59.51	8	7.44	75.8%	10	9.30	84.4%			1	0.4
	6/24/1997	194		53	42.88	118	95.46	10	8.09	81.1%	7	5.66	94.1%	170	17	1.8	0.39
	6/25/1997	225		43	40.34	76	71.31	10	9.38	76.7%	7	6.57	90.8%	500	50	0.7	0.44
	6/26/1997	200		48	40.03	78	65.05	7	5.84	85.4%	7	5.84	91.0%	50	5	0.7	0.55
	6/27/1997	171		67	47.78	100	71.31	7	4.99	89.6%	5	3.57	95.0%			0.5	0.52
	6/28/1997	157		39	25.53	82	53.68	9	5.89	76.9%	5	3.27	93.9%			0.8	0.9
	6/29/1997	114		81	38.51	132	62.75	4	1.90	95.1%	5	2.38	96.2%			0.3	0.58
	6/30/1997	149		119	73.94	340	211.25	6	3.73	95.0%	6	3.73	98.2%			0.3	0.51
	7/1/1997	93		107	41.50	308	119.45	14	5.43	86.9%	10	3.88	96.8%	50	5	1.9	0.58
	7/2/1997	85		67	23.75	248	87.90	12	4.25	82.1%	13	4.61	94.8%	500	50	1	0.73
	7/3/1997	80		54	18.01	112	37.36	4	1.33	92.6%	5	1.67	95.5%	14	1.4	0.3	0.57
	7/4/1997	86		80	28.69	98	35.14	3	1.08	96.3%	3	1.08	96.9%			0.3	0.47
	7/5/1997	82		154	52.66	105	35.90	2	0.68	98.7%	5	1.71	95.2%			0.3	0.43
	7/6/1997	85		67	23.75	112	39.70	4	1.42	94.0%	5	1.77	95.5%			0.3	0.42
	7/7/1997	86		74	26.54	156	55.94	4	1.43	94.6%	6	2.15	96.2%			0.3	0.4
	7/8/1997	80		93	31.02	144	48.04	12	4.00	87.1%	9	3.00	93.8%	2400	240	1.3	0.58
	7/9/1997	77		53	17.02	106	34.04	5	1.61	90.6%	4	1.28	96.2%	50	5	0.3	0.48
	7/10/1997	76		73	23.14	118	37.40	4	1.27	94.5%	4	1.27	96.6%	70	7	0.3	0.49
	7/11/1997	80		65	21.68	134	44.70	4	1.33	93.8%	5	1.67	96.3%			0.7	0.56
	7/12/1997	129		79	42.50	126	67.78	8	4.30	89.9%	4	2.15	96.8%			1.4	0.64
	7/13/1997	131		171	93.41	338	184.64	6	3.28	96.5%	4	2.19	98.8%			0.7	0.75
	7/14/1997	91		71	26.94	116	44.02	7	2.66	90.1%	4	1.52	96.6%			0.7	0.56
	7/15/1997	96		80	32.03	162	64.85	8	3.20	90.0%	4	1.60	97.5%	140	14	0.8	0.79
	7/16/1997	97		116	46.92	286	115.68	8	3.24	93.1%	5	2.02	98.3%	21	2.1	0.6	0.91
	7/17/1997	83		153	52.95	384	132.91	5	1.73	96.7%	3	1.04	99.2%	21	2.1	0.8	0.82
	7/18/1997	98		168	68.65	336	137.31	4	1.63	97.6%	5	2.04	98.5%			0.3	0.79

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IDENTIFIED WET WEATHER EVENT ANALYSIS

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Event	Date	Total Daily Flow (MGD)	Total CSO MG	Total SSO MG
A	6/13/1997	182		
	6/14/1997	168		
	6/15/1997	169		
	6/16/1997	430		
	6/17/1997	333		
	6/18/1997	215		
	6/19/1997	194		
	6/20/1997	331		
	6/21/1997	626	1522	203
	6/22/1997	626	46	
	6/23/1997	467	2	
	6/24/1997	438	29	
	6/25/1997	448		
	6/26/1997	402		
	6/27/1997	379		
	6/28/1997	364		
	6/29/1997	238		
	6/30/1997	330		
	7/1/1997	276		0.1
	7/2/1997	349	371	45
	7/3/1997	295	6	0.01
	7/4/1997	288	7	
	7/5/1997	276		
	7/6/1997	293		
	7/7/1997	280		
	7/8/1997	283		0.01
	7/9/1997	272		
	7/10/1997	264		
	7/11/1997	247		
	7/12/1997	280		
	7/13/1997	279		
	7/14/1997	250		
	7/15/1997	241		
	7/16/1997	200		
	7/17/1997	187		
	7/18/1997	209		

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IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

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Event	Date	Jones Island WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
B	7/28/1998	94		398	156.01	444	174.04	4.57	1.79	98.9%	9.25	3.63	97.9%			0.43	0.23
	7/29/1998	93		307.5	119.25	320	124.10	5.75	2.23	98.1%	9.5	3.68	97.0%	50	5	0.34	0.22
	7/30/1998	92		324.5	124.49	228	87.47	5.45	2.09	98.3%	8.5	3.26	96.3%			0.34	0.21
	7/31/1998	95		361.5	143.21	244	96.66	6.8	2.69	98.1%	8.5	3.37	96.5%	33	3.3	0.84	0.21
	8/1/1998	99		236.5	97.63	224	92.47	5.2	2.15	97.8%	9	3.72	96.0%			0.7	0.19
	8/2/1998	72		239	71.76	236	70.86	6.25	1.88	97.4%	6	1.80	97.5%			0.34	0.2
	8/3/1998	90		322.5	121.03	342	128.35	4.1	1.54	98.7%	9	3.38	97.4%	22	2.2	0.34	0.22
	8/4/1998	156		373	242.64	720	468.37	9.38	6.10	97.5%	14	9.11	98.1%			2	0.35
	8/5/1998	175		211	153.98	236	172.22	7.5	5.47	96.4%	14.5	10.58	93.9%	3000	300	1.29	0.28
	8/6/1998	238	21	153	151.85	200	198.49	11.5	11.41	92.5%	18.5	18.36	90.8%			0.77	0.32
	8/7/1998	240		42	42.03	104	104.08	17	17.01	59.5%	26	26.02	75.0%	1400	140	0.46	0.44
	8/8/1998	198		83	68.53	88	72.66	4.34	3.58	94.8%	9.5	7.84	89.2%			0.34	0.2
	8/9/1998	167		135	94.01	184	128.14	14	9.75	89.6%	9	6.27	95.1%			0.69	0.27
	8/10/1998	144		178	106.89	236	141.71	16	9.61	91.0%	9.5	5.70	96.0%	140	14	0.62	0.32
	8/11/1998	152		235.5	149.27	148	93.81	6.1	3.87	97.4%	12	7.61	91.9%	8	0.8	0.48	0.33
	8/12/1998	117		465.5	227.11	1386.67	676.54	5.1	2.49	98.9%	9.5	4.63	99.3%	700	70	0.56	0.66
	8/13/1998	113		395	186.13	296	139.48	4.4	2.07	98.9%	9.5	4.48	96.8%	80	8	0.34	0.4
	8/14/1998	107		298.5	133.19	248	110.66	3.7	1.65	98.8%	8	3.57	96.8%	26	2.6	0.77	0.47
	8/15/1998	135		249	140.17	196	110.34	3.9	2.20	98.4%	8	4.50	95.9%	11	1.1	0.64	0.6
	8/16/1998	95		293	116.07	326	129.14	3.5	1.39	98.8%	6	2.38	98.2%	50	5	0.43	0.24
	8/17/1998	88		248.25	91.10	232	85.13	4.8	1.76	98.1%	4.5	1.65	98.1%	30	3	0.41	0.24

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Event	Date	South Shore WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
B	7/28/1998	77		195	62.61	246	78.99	12	3.85	93.8%	7	2.25	97.2%			15	0.68
	7/29/1998	76		156	49.44	222	70.36	8	2.54	94.9%	6	1.90	97.3%	220	22	16	0.63
	7/30/1998	74		159	49.06	182	56.16	6	1.85	96.2%	4	1.23	97.8%			6.7	0.57
	7/31/1998	74		177	54.62	216	66.65	7	2.16	96.0%	4	1.23	98.1%	800	80	4.8	0.6
	8/1/1998	71		187	55.37	217	64.25	13	3.85	93.0%	6	1.78	97.2%			3.4	0.57
	8/2/1998	69		167	48.05	186	53.52	6	1.73	96.4%	6	1.73	96.8%			2.3	0.53
	8/3/1998	71		159	47.08	210	62.17	6	1.78	96.2%	8	2.37	96.2%	300	30	1.9	0.62
	8/4/1998	105		206	90.20	168	73.56	11	4.82	94.7%	7	3.06	95.8%			5.1	0.76
	8/5/1998	178		124	92.04	285	211.54	13	9.65	89.5%	10	7.42	96.5%	500	50	4.9	0.72
	8/6/1998	240		123	123.10	270	270.22	13	13.01	89.4%	13	13.01	95.2%			2.5	0.61
	8/7/1998	287		48	57.45	112	134.04	8	9.57	83.3%	14	16.76	87.5%	1700	170	0.7	0.58
	8/8/1998	229		50	47.75	68	64.94	6	5.73	88.0%	8	7.64	88.2%			0.3	0.48
	8/9/1998	180		72	54.04	86	64.55	5	3.75	93.1%	9	6.76	89.5%			0.3	0.46
	8/10/1998	159		106	70.28	124	82.22	6	3.98	94.3%	5	3.32	96.0%	1400	140	0.3	0.46
	8/11/1998	122		116	59.01	140	71.22	3	1.53	97.4%	7	3.56	95.0%	1300	130	0.3	0.45
	8/12/1998	118		171	84.14	170	83.65	5	2.46	97.1%	6	2.95	96.5%	500	50	0.7	0.43
	8/13/1998	95		145	57.44	189	74.87	4	1.58	97.2%	6	2.38	96.8%	130	13	0.3	0.65
	8/14/1998	110		246	112.84	380	174.31	5	2.29	98.0%	9	4.13	97.6%	23	2.3	0.5	0.55
	8/15/1998	95		144	57.05	190	75.27	3	1.19	97.9%	8	3.17	95.8%	23	2.3	0.7	0.88
	8/16/1998	89		165	61.24	232	86.10	2	0.74	98.8%	5	1.86	97.8%			0.6	0.86
	8/17/1998	88		183	67.15	284	104.22	2	0.73	98.9%	5	1.83	98.2%	30	3	0.7	0.64

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IDENTIFIED WET WEATHER EVENT ANALYSIS

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Event	Date	Total Daily Flow (MGD)	Total CSO MG	Total SSO MG
B	7/28/1998	171		
	7/29/1998	169		
	7/30/1998	166		
	7/31/1998	169		
	8/1/1998	170		
	8/2/1998	141		
	8/3/1998	161		
	8/4/1998	261		
	8/5/1998	353		1
	8/6/1998	478	374	54
	8/7/1998	527	92	24
	8/8/1998	427	11	
	8/9/1998	347		
	8/10/1998	303		
	8/11/1998	274		
	8/12/1998	235		
	8/13/1998	208		
	8/14/1998	217		
	8/15/1998	230		
	8/16/1998	184		
	8/17/1998	176		

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IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

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Event	Date	Jones Island WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
C	1/14/1999	88		545	199.99	1296	475.58	7.8	2.86	98.6%	9	3.30	99.3%			1.69	0.26
	1/15/1999	88		394	144.58	348	127.70	7.77	2.85	98.0%	11.5	4.22	96.7%	20	2	1.01	0.37
	1/16/1999	97		414	167.46	564	228.13	7.43	3.01	98.2%	11.5	4.65	98.0%			0.91	0.22
	1/17/1999	140		411	239.94	762	444.86	11.5	6.71	97.2%	18	10.51	97.6%			2.73	0.37
	1/18/1999	143		288.25	171.89	312	186.05	9.9	5.90	96.6%	12	7.16	96.2%	4	0.4	3.19	0.34
	1/19/1999	81		414	139.84	280	94.58	8.2	2.77	98.0%	9.75	3.29	96.5%			0.7	0.25
	1/20/1999	80		410	136.78	212	70.72	8.67	2.89	97.9%	7	2.34	96.7%	11	1.1	0.41	0.25
	1/21/1999	91		441	167.35	432	163.93	8.4	3.19	98.1%	23.5	8.92	94.6%			0.92	0.23
	1/22/1999	248	16	297	307.15	700	723.91	41	42.40	86.2%	65.5	67.74	90.6%	700	70	2.84	1.1
	1/23/1999	282	44	173	203.44	168	197.56	20.5	24.11	88.2%	29.5	34.69	82.4%			0.97	0.56
	1/24/1999	233		118	114.65	88	85.50	7.5	7.29	93.6%	8.5	8.26	90.3%			0.41	0.21
	1/25/1999	203		159	134.60	332	281.04	8.2	6.94	94.8%	11	9.31	96.7%	13	1.3	0.98	0.25
	1/26/1999	183		179	136.60	192	146.52	8.15	6.22	95.4%	10	7.63	94.8%			2.18	0.26
	1/27/1999	210		242.5	212.36	276	241.69	9.85	8.63	95.9%	12	10.51	95.7%			2.45	0.26
	1/28/1999	170		290.5	205.94	398	282.14	12	8.51	95.9%	10.5	7.44	97.4%	9	0.9	2.37	0.23
	1/29/1999	122		505	256.91	956	486.36	12	6.10	97.6%	10	5.09	99.0%	11	1.1	1.43	0.24
	1/30/1999	120		353	176.64	796	398.32	7.05	3.53	98.0%	11	5.50	98.6%			1.9	0.18
	1/31/1999	127		299.75	158.74	728	385.54	7.55	4.00	97.5%	7.5	3.97	99.0%			1.86	0.24
	2/1/1999	102		352	149.72	568	241.59	8.1	3.45	97.7%	7	2.98	98.8%	2	0.2	2.34	0.2
	2/2/1999	145		394	238.23	852	515.16	8.05	4.87	98.0%	8.75	5.29	99.0%			3.56	0.26
	2/3/1999	126		368.5	193.62	576	302.64	7.1	3.73	98.1%	8	4.20	98.6%	4	0.4	1.65	0.21
	2/4/1999	150		292	182.65	384	240.19	5.9	3.69	98.0%	11.5	7.19	97.0%			0.78	0.24
D	4/1/1999	93		427	165.59	364	141.16	11.5	4.46	97.3%	12.5	4.85	96.6%			4.68	0.33
	4/2/1999	89		401	148.82	300	111.34	7.4	2.75	98.2%	7.5	2.78	97.5%	6	0.6	2.8	0.26
	4/3/1999	90		371	139.24	154	57.80	9.35	3.51	97.5%	8.5	3.19	94.5%			1.92	0.3
	4/4/1999	126		316.25	166.16	468	245.90	11.5	6.04	96.4%	13	6.83	97.2%			1.04	0.33
	4/5/1999	112		306.5	143.15	268	125.17	9.45	4.41	96.9%	10	4.67	96.3%	220	22	0.46	0.36
	4/6/1999	90		425	159.50	400	150.12	11.5	4.32	97.3%	9.5	3.57	97.6%			1.22	0.24
	4/7/1999	95		375	148.56	336	133.11	9.75	3.86	97.4%	9	3.57	97.3%	42	4.2	0.46	0.23
	4/8/1999	87		353.5	128.25	232	84.17	8.9	3.23	97.5%	8.5	3.08	96.3%			0.52	0.23
	4/9/1999	310	58	172	222.34	372	480.88	65	84.03	62.2%	147	190.03	60.5%	50000	5000	1.12	2.3
	4/10/1999	253	12	73	77.02	144	151.92	13.5	14.24	81.5%	26.5	27.96	81.6%			0.34	0.4
	4/11/1999	229		73	69.71	67	63.98	6.13	5.85	91.6%	14	13.37	79.1%			0.34	0.26
	4/12/1999	179		120	89.57	120	89.57	5.4	4.03	95.5%	7	5.23	94.2%	4	0.4	0.53	0.12
	4/13/1999	126		200	105.08	192	100.88	3.83	2.01	98.1%	7	3.68	96.4%			0.42	0.07
	4/14/1999	142		291	172.31	192	113.69	4.87	2.88	98.3%	7	4.14	96.4%	2	0.2	1.9	0.15
	4/15/1999	96		326	130.50	344	137.71	5	2.00	98.5%	6.5	2.60	98.1%			1.23	0.13
	4/16/1999	116		324	156.73	264	127.70	5.3	2.56	98.4%	9	4.35	96.6%	2	0.2	0.53	0.1
	4/17/1999	92		370.5	142.14	208	79.80	4.1	1.57	98.9%	8	3.07	96.2%			0.34	0.09
	4/18/1999	82		238	81.38	176	60.18	3.5	1.20	98.5%	6	2.05	96.6%			0.91	0.07
	4/19/1999	83		282	97.60	212	73.38	2.8	0.97	99.0%	5.5	1.90	97.4%	2	0.2	1.48	0.13
	4/20/1999	90		355.5	133.42	312	117.09	3.8	1.43	98.9%	4.75	1.78	98.5%			2.23	0.14
	4/21/1999	89		376	139.54	672	249.40	4.9	1.82	98.7%	5	1.86	99.3%	2	0.2	1.33	0.13

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TABLE 4J-8 SHEET 8 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr

Event	Date	South Shore WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
C	1/14/1999	68		217	61.53	204	57.85	5	1.42	97.7%	6	1.70	97.1%			22.2	0.49
	1/15/1999	68		237	67.20	216	61.25	4	1.13	98.3%	11	3.12	94.9%	130	13	21	0.82
	1/16/1999	69		231	66.47	222	63.88	5	1.44	97.8%	9	2.59	95.9%			19.2	0.46
	1/17/1999	81		241	81.40	272	91.87	5	1.69	97.9%	7	2.36	97.4%			17.5	0.43
	1/18/1999	120		185	92.57	240	120.10	10	5.00	94.6%	9	4.50	96.3%	170	17	13.5	0.53
	1/19/1999	94		200	78.40	194	76.04	8	3.14	96.0%	7	2.74	96.4%			15.9	0.46
	1/20/1999	85		212	75.14	250	88.61	6	2.13	97.2%	6	2.13	97.6%	30	3	15.6	0.43
	1/21/1999	97		231	93.44	180	72.81	6	2.43	97.4%	7	2.83	96.1%			18.5	0.67
	1/22/1999	239		131	130.56	178	177.40	22	21.93	83.2%	42	41.86	76.4%	17	1.7	5.6	1.2
	1/23/1999	291		75	91.01	131	158.96	24	29.12	68.0%	47	57.03	64.1%			5.1	1.4
	1/24/1999	275		38	43.58	52	59.63	21	24.08	44.7%	41	47.02	21.2%			4.3	1.1
	1/25/1999	197		119	97.76	92	75.58	4	3.29	96.6%	7	5.75	92.4%	14	1.4	3.6	0.36
	1/26/1999	160		94	62.72	104	69.39	4	2.67	95.7%	6	4.00	94.2%			8.1	0.56
	1/27/1999	148		121	74.68	122	75.29	5	3.09	95.9%	7	4.32	94.3%	13	1.3	9	0.39
	1/28/1999	160		116	77.40	146	97.41	4	2.67	96.6%	6	4.00	95.9%			8.5	0.52
	1/29/1999	144		111	66.65	162	97.28	13	7.81	88.3%	7	4.20	95.7%	13	1.3	8.8	0.5
	1/30/1999	131		127	69.38	122	66.64	6	3.28	95.3%	6	3.28	95.1%			9.1	0.96
	1/31/1999	127		110	58.25	112	59.31	6	3.18	94.5%	6	3.18	94.6%			8.6	0.69
	2/1/1999	126		115	60.42	230	120.85	7	3.68	93.9%	8	4.20	96.5%	8	0.8	9.9	0.55
	2/2/1999	152		87	55.14	122	77.33	8	5.07	90.8%	9	5.70	92.6%			11.3	0.63
	2/3/1999	178		91	67.55	110	81.65	8	5.94	91.2%	8	5.94	92.7%	50	5	8.9	0.58
	2/4/1999	176		75	55.04	116	85.13	7	5.14	90.7%	9	6.61	92.2%			8.8	0.77
D	4/1/1999	94		179	70.16	218	85.45	4	1.57	97.8%	4	1.57	98.2%			13.4	0.49
	4/2/1999	92		168	64.45	262	100.51	5	1.92	97.0%	4	1.53	98.5%	4	0.4	14.1	0.5
	4/3/1999	90		156	58.55	231	86.69	5	1.88	96.8%	3	1.13	98.7%			12.8	0.62
	4/4/1999	109		144	65.45	210	95.45	6	2.73	95.8%	4	1.82	98.1%			10.5	0.58
	4/5/1999	100		150	62.55	198	82.57	6	2.50	96.0%	3	1.25	98.5%	2	0.2	8.6	0.26
	4/6/1999	101		188	79.18	244	102.77	7	2.95	96.3%	4	1.68	98.4%			13.9	0.5
	4/7/1999	94		172	67.42	195	76.44	5	1.96	97.1%	3	1.18	98.5%	6	0.6	14	0.39
	4/8/1999	95		175	69.33	240	95.08	4	1.58	97.7%	2	0.79	99.2%			15.3	0.35
	4/9/1999	282		111	130.53	168	197.56	18	21.17	83.8%	17	19.99	89.9%	110	11	9.7	0.64
	4/10/1999	287		51	61.04	75	89.76	7	8.38	86.3%	13	15.56	82.7%			2.7	0.45
	4/11/1999	248		62	64.12	94	97.21	5	5.17	91.9%	8	8.27	91.5%			2.3	0.24
	4/12/1999	233		86	83.56	102	99.10	7	6.80	91.9%	6	5.83	94.1%	17	1.7	4.6	0.26
	4/13/1999	210		103	90.20	126	110.34	6	5.25	94.2%	5	4.38	96.0%			5.9	0.34
	4/14/1999	123		119	61.04	140	71.81	5	2.56	95.8%	4	2.05	97.1%	4	0.4	6.8	0.23
	4/15/1999	151		122	76.82	138	86.89	5	3.15	95.9%	4	2.52	97.1%			8.2	0.41
	4/16/1999	155		139	89.84	126	81.44	7	4.52	95.0%	6	3.88	95.2%	4	0.4	9.4	0.25
	4/17/1999	144		123	73.86	135	81.06	3	1.80	97.6%	6	3.60	95.6%			7.9	0.19
	4/18/1999	134		105	58.67	112	62.58	5	2.79	95.2%	6	3.35	94.6%			10.7	0.36
	4/19/1999	131		145	79.21	176	96.14	4	2.19	97.2%	4	2.19	97.7%	2	0.2	9.2	0.53
	4/20/1999	126		163	85.64	206	108.24	5	2.63	96.9%	5	2.63	97.6%			9.8	0.45
	4/21/1999	123		171	87.71	184	94.38	5	2.56	97.1%	5	2.56	97.3%	4	0.4	12.5	0.39

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TABLE 4J-8 SHEET 9 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr

Event	Date	Total Daily Flow (MGD)	Total CSO MG	Total SSO MG
C	1/14/1999	156		
	1/15/1999	156		
	1/16/1999	166		
	1/17/1999	221		
	1/18/1999	263		
	1/19/1999	175		
	1/20/1999	165		
	1/21/1999	188		
	1/22/1999	487		
	1/23/1999	573	176	0.1
	1/24/1999	508	39	
	1/25/1999	400		
	1/26/1999	343		
	1/27/1999	358		
	1/28/1999	330		
	1/29/1999	266		
	1/30/1999	251		
	1/31/1999	254		
	2/1/1999	228		
	2/2/1999	297		
	2/3/1999	304		
	2/4/1999	326		
D	4/1/1999	187		
	4/2/1999	181		
	4/3/1999	180		
	4/4/1999	235		
	4/5/1999	212		
	4/6/1999	191		
	4/7/1999	189		
	4/8/1999	182		
	4/9/1999	592	463	42
	4/10/1999	540	180	7
	4/11/1999	477		
	4/12/1999	412		
	4/13/1999	336		
	4/14/1999	265		
	4/15/1999	247		
	4/16/1999	271		
	4/17/1999	236		
	4/18/1999	216		
	4/19/1999	214		
	4/20/1999	216		
	4/21/1999	212		

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TABLE 4J-8 SHEET 10 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr

Event	Date	Jones Island WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
E	4/14/1999	142		291	172.31	192	113.69	4.87	2.88	98.3%	7	4.14	96.4%	2	0.2	1.9	0.15
	4/15/1999	96		326	130.50	344	137.71	5	2.00	98.5%	6.5	2.60	98.1%			1.23	0.13
	4/16/1999	116		324	156.73	264	127.70	5.3	2.56	98.4%	9	4.35	96.6%	2	0.2	0.53	0.1
	4/17/1999	92		370.5	142.14	208	79.80	4.1	1.57	98.9%	8	3.07	96.2%			0.34	0.09
	4/18/1999	82		238	81.38	176	60.18	3.5	1.20	98.5%	6	2.05	96.6%			0.91	0.07
	4/19/1999	83		282	97.60	212	73.38	2.8	0.97	99.0%	5.5	1.90	97.4%	2	0.2	1.48	0.13
	4/20/1999	90		355.5	133.42	312	117.09	3.8	1.43	98.9%	4.75	1.78	98.5%			2.23	0.14
	4/21/1999	89		376	139.54	672	249.40	4.9	1.82	98.7%	5	1.86	99.3%	2	0.2	1.33	0.13
	4/22/1999	223	6	204.5	190.17	304	282.69	22.5	20.92	89.0%	44.5	41.38	85.4%			3.36	0.63
	4/23/1999	350	46	117	170.76	140	204.33	30.5	44.51	73.9%	74	108.00	47.1%	30	3	1.08	0.91
	4/24/1999	274		107	122.26	100	114.26	7.3	8.34	93.2%	11.5	13.14	88.5%			0.42	0.21
	4/25/1999	236		93.5	92.02	82	80.70	5	4.92	94.7%	10	9.84	87.8%			0.42	0.16
	4/26/1999	175		152	110.92	280	204.33	3.6	2.63	97.6%	9	6.57	96.8%	9	0.9	0.91	0.18
	4/27/1999	152		193	122.33	184	116.63	6.25	3.96	96.8%	7	4.44	96.2%			1.54	0.16
	4/28/1999	110		274.5	125.91	216	99.08	6.8	3.12	97.5%	5.5	2.52	97.5%	6	0.6	1.89	0.12
	4/29/1999	106		323.5	142.99	186	82.22	4.7	2.08	98.5%	5	2.21	97.3%			1.39	0.13
	4/30/1999	99		340	140.36	260	107.34	4.4	1.82	98.7%	5	2.06	98.1%	2	0.2	0.56	0.13
	5/1/1999	105		300.25	131.46	176	77.06	3.84	1.68	98.7%	6.5	2.85	96.3%			0.5	0.14
	5/2/1999	99		312.75	129.11	250	103.21	4.2	1.73	98.7%	5	2.06	98.0%			0.98	0.13
	5/3/1999	99		341.5	140.98	312	128.80	4.6	1.90	98.7%	6.5	2.68	97.9%	2	0.2	2.21	0.18
	5/4/1999	108		370	166.63	300	135.11	4.8	2.16	98.7%	6.5	2.93	97.8%			2.77	0.19
	5/5/1999	92		371	142.33	308	118.16	4.4	1.69	98.8%	4	1.53	98.7%	4	0.4	2.38	0.19
	5/6/1999	171		243.5	173.63	308	219.63	12.5	8.91	94.9%	23	16.40	92.5%			3.01	0.47
F	6/3/1999	136		206	116.83	128	72.59	6.6	3.74	96.8%	7.5	4.25	94.1%			0.62	0.19
	6/4/1999	109		289.5	131.59	200	90.91	7.6	3.45	97.4%	8	3.64	96.0%	80	8	0.46	0.24
	6/5/1999	107		304.5	135.86	208	92.81	5.2	2.32	98.3%	6	2.68	97.1%			0.34	0.19
	6/6/1999	113		284.75	134.18	302	142.31	7.4	3.49	97.4%	8	3.77	97.4%			0.43	0.26
	6/7/1999	126		264	138.71	240	126.10	8.45	4.44	96.8%	11	5.78	95.4%	2	0.2	0.99	0.31
	6/8/1999	103		391	167.94	252	108.24	7.7	3.31	98.0%	7.5	3.22	97.0%			1.32	0.3
	6/9/1999	100		335	139.70	240	100.08	8.6	3.59	97.4%	9	3.75	96.3%	2	0.2	1.57	0.3
	6/10/1999	142		259	153.36	282	166.98	12	7.11	95.4%	23	13.62	91.8%			2.98	0.53
	6/11/1999	203		173	146.45	472	399.55	9.8	8.30	94.3%	20.5	17.35	95.7%	110	11	0.84	0.41
	6/12/1999	185	4.2	166	128.06	156	120.35	5.6	4.32	96.6%	10	7.71	93.6%			0.34	0.25
	6/13/1999	311	67.7	172.5	223.71	90	116.72	1.8	2.33	99.0%	32.5	42.15	63.9%			0.34	0.52
	6/14/1999	256	7	64	68.32	88	93.94	2.7	2.88	95.8%	11	11.74	87.5%	170	17	0.34	0.31
	6/15/1999	235		133	130.33	200	195.99	9.23	9.04	93.1%	12	11.76	94.0%			0.34	0.48
	6/16/1999	211		138	121.42	132	116.14	6.8	5.98	95.1%	10	8.80	92.4%	17	1.7	0.34	0.32
	6/17/1999	158		180	118.59	168	110.69	6.7	4.41	96.3%	6.5	4.28	96.1%			0.34	0.22
	6/18/1999	130		181	98.12	140	75.89	6.8	3.69	96.2%	9	4.88	93.6%	110	11	0.34	0.26
	6/19/1999	141		123	72.32	92	54.09	8.2	4.82	93.3%	9.5	5.59	89.7%			0.34	0.26
	6/20/1999	108		131.5	59.22	112	50.44	6.4	2.88	95.1%	9.5	4.28	91.5%			0.34	0.26
	6/21/1999	110		216.5	99.31	192	88.07	6.2	2.84	97.1%	7.5	3.44	96.1%	5000	500	0.34	0.21
	6/22/1999	105		309.5	135.51	356	155.87	6.47	2.83	97.9%	8	3.50	97.8%			0.34	0.28
	6/23/1999	106		259.5	114.70	260	114.93	6	2.65	97.7%	9	3.98	96.5%	5000	500	0.34	0.2
	6/24/1999	115		295	141.47	430	206.21	6.75	3.24	97.7%	8	3.84	98.1%		0	0.34	0.24
	6/25/1999	105		314.5	137.70	200	87.57	5.9	2.58	98.1%	6	2.63	97.0%	170	17	0.34	0.24

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TABLE 4J-8 SHEET 11 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr

Event	Date	South Shore WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
E	4/14/1999	123		119	61.04	140	71.81	5	2.56	95.8%	4	2.05	97.1%	4	0.4	6.8	0.23
	4/15/1999	151		122	76.82	138	86.89	5	3.15	95.9%	4	2.52	97.1%			8.2	0.41
	4/16/1999	155		139	89.84	126	81.44	7	4.52	95.0%	6	3.88	95.2%	4	0.4	9.4	0.25
	4/17/1999	144		123	73.86	135	81.06	3	1.80	97.6%	6	3.60	95.6%			7.9	0.19
	4/18/1999	134		105	58.67	112	62.58	5	2.79	95.2%	6	3.35	94.6%			10.7	0.36
	4/19/1999	131		145	79.21	176	96.14	4	2.19	97.2%	4	2.19	97.7%	2	0.2	9.2	0.53
	4/20/1999	126		163	85.64	206	108.24	5	2.63	96.9%	5	2.63	97.6%			9.8	0.45
	4/21/1999	123		171	87.71	184	94.38	5	2.56	97.1%	5	2.56	97.3%	4	0.4	12.5	0.39
	4/22/1999	209		164	142.93	276	240.54	10	8.72	93.9%	10	8.72	96.4%			11.4	0.54
	4/23/1999	307		42	53.77	82	104.98	17	21.76	59.5%	32	40.97	61.0%	21	2.1	3.8	0.74
	4/24/1999	296		59	72.82	59	72.82	14	17.28	76.3%	22	27.16	62.7%			3.4	0.57
	4/25/1999	250		60	62.55	70	72.98	4	4.17	93.3%	8	8.34	88.6%			4.7	0.36
	4/26/1999	207		119	102.72	148	127.75	4	3.45	96.6%	5	4.32	96.6%	2	0.2	5	0.35
	4/27/1999	192		105	84.07	132	105.68	10	8.01	90.5%	6	4.80	95.5%			6.1	0.24
	4/28/1999	176		109	80.00	137	100.55	4	2.94	96.3%	5	3.67	96.4%	4	0.4	6.7	0.39
	4/29/1999	155		126	81.44	154	99.54	4	2.59	96.8%	5	3.23	96.8%			7.7	0.25
	4/30/1999	136		220	124.77	468	265.41	5	2.84	97.7%	4	2.27	99.1%	6	0.6	6.9	0.32
	5/1/1999	118		131	64.46	257	126.46	5	2.46	96.2%	2	0.98	99.2%			6.7	0.29
	5/2/1999	111		118	54.62	164	75.91	4	1.85	96.6%	4	1.85	97.6%			8.8	0.26
	5/3/1999	104		150	65.05	272	117.96	4	1.73	97.3%	4	1.73	98.5%	2	0.2	7.8	0.28
	5/4/1999	108		156	70.26	234	105.38	4	1.80	97.4%	4	1.80	98.3%			10.3	0.46
	5/5/1999	117		153	74.65	183	89.28	6	2.93	96.1%	5	2.44	97.3%	2	0.2	9.8	0.58
	5/6/1999	149		180	111.84	270	167.76	9	5.59	95.0%	8	4.97	97.0%			10.3	0.52
F	6/3/1999	139		137	79.41	204	118.24	3	1.74	97.8%	5	2.90	97.5%			2.7	0.5
	6/4/1999	110		167	76.60	220	100.91	4	1.83	97.6%	4	1.83	98.2%	2	0.2	2.8	0.45
	6/5/1999	102		150	63.80	169	71.88	4	1.70	97.3%	3	1.28	98.2%			2.7	0.51
	6/6/1999	104		144	62.45	206	89.34	3	1.30	97.9%	4	1.73	98.1%			0.9	0.63
	6/7/1999	146		139	84.63	228	138.81	5	3.04	96.4%	8	4.87	96.5%	4	0.4	0.9	0.43
	6/8/1999	108		165	74.31	236	106.28	3	1.35	98.2%	4	1.80	98.3%			0.5	0.46
	6/9/1999	104		160	69.39	250	108.42	2	0.87	98.8%	4	1.73	98.4%	6	0.6	0.9	0.56
	6/10/1999	121		133	67.11	166	83.76	7	3.53	94.7%	8	4.04	95.2%			1.6	0.38
	6/11/1999	181		112	84.53	122	92.08	9	6.79	92.0%	10	7.55	91.8%	2400	240	2	0.47
	6/12/1999	200		110	91.74	107	89.24	6	5.00	94.5%	9	7.51	91.6%			1.1	0.49
	6/13/1999	264		33	36.33	90	99.08	10	11.01	69.7%	23	25.32	74.4%			0.3	1
	6/14/1999	286		46	54.86	76	90.64		0.00	**100.0%**	16	19.08	78.9%	800	80	0.3	0.63
	6/15/1999	237		72	71.16	138	136.38	8	7.91	88.9%	11	10.87	92.0%			0.5	0.47
	6/16/1999	186		84	65.15	105	81.44	5	3.88	94.0%	7	5.43	93.3%	110	11	0.3	1.2
	6/17/1999	182		91	69.06	106	80.45	5	3.79	94.5%	8	6.07	92.5%			0.3	0.44
	6/18/1999	164		127	86.85	140	95.74	6	4.10	95.3%	9	6.15	93.6%	14	1.4	0.4	0.78
	6/19/1999	151		114	71.78	131	82.49	5	3.15	95.6%	7	4.41	94.7%			0.6	0.59
	6/20/1999	112		106	49.51	162	75.66	5	2.34	95.3%	6	2.80	96.3%			1.1	0.44
	6/21/1999	117		114	55.62	136	66.35	4	1.95	96.5%	5	2.44	96.3%	16000	1600	0.3	0.36
	6/22/1999	111		125	57.86	144	66.65	3	1.39	97.6%	6	2.78	95.8%			0.5	0.42
	6/23/1999	111		168	77.76	190	87.95	3	1.39	98.2%	6	2.78	96.8%	17	1.7	1.8	0.44
	6/24/1999	113		148	69.74	194	91.41	2	0.94	98.6%	5	2.36	97.4%			1.1	0.29
	6/25/1999	103		146	62.71	186	79.89	2	0.86	98.6%	3	1.29	98.4%	14	1.4	1.2	0.37

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TABLE 4J-8 SHEET 12 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr

Event	Date	Total Daily Flow (MGD)	Total CSO MG	Total SSO MG
E	4/14/1999	265		
	4/15/1999	247		
	4/16/1999	271		
	4/17/1999	236		
	4/18/1999	216		
	4/19/1999	214		
	4/20/1999	216		
	4/21/1999	212		
	4/22/1999	432		
	4/23/1999	657	511	69
	4/24/1999	570	191	6
	4/25/1999	486		
	4/26/1999	382		
	4/27/1999	344		
	4/28/1999	286		
	4/29/1999	261		
	4/30/1999	235		
	5/1/1999	223		
	5/2/1999	210		
	5/3/1999	203		
	5/4/1999	216		
	5/5/1999	209		
	5/6/1999	320		
F	6/3/1999	275		
	6/4/1999	219		
	6/5/1999	209		
	6/6/1999	217		
	6/7/1999	272		
	6/8/1999	211		
	6/9/1999	204		
	6/10/1999	263		
	6/11/1999	384		
	6/12/1999	385		
	6/13/1999	575	703	57
	6/14/1999	542	199	27
	6/15/1999	472		
	6/16/1999	397		
	6/17/1999	340		
	6/18/1999	294		
	6/19/1999	292		
	6/20/1999	220		
	6/21/1999	227		
	6/22/1999	216		
	6/23/1999	217		
	6/24/1999	228		
	6/25/1999	208		

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TABLE 4J-8 SHEET 13 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr

Event	Date	Jones Island WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
G	7/14/1999	102		288	122.50	240	102.08	6.4	2.72	97.8%	5.5	2.34	97.7%	30	3	2.24	0.23
	7/15/1999	102		292	124.20	248	105.48	6.1	2.59	97.9%	6.5	2.76	97.4%		0	1.96	0.17
	7/16/1999	95		345.5	136.87	204	80.81	7	2.77	98.0%	6	2.38	97.1%	4	0.4	1.69	0.18
	7/17/1999	160		184	122.76	292	194.82	8.65	5.77	95.3%	10.5	7.01	96.4%		0	1.36	0.26
	7/18/1999	137		132.5	75.70	100	57.13	4.9	2.80	96.3%	7	4.00	93.0%		0	0.55	0.17
	7/19/1999	134		161	89.96	172	96.11	4.8	2.68	97.0%	8.5	4.75	95.1%	23	2.3	0.35	0.35
	7/20/1999	98		262	107.07	220	89.91	4.75	1.94	98.2%	5.25	2.15	97.6%		0	0.42	0.13
	7/21/1999	266	13	152	168.60	392	434.81	9.2	10.20	93.9%	17	18.86	95.7%	50	5	1.23	0.31
	7/22/1999	222		82	75.91	104	96.28	5	4.63	93.9%	11	10.18	89.4%		0	0.73	0.73
	7/23/1999	214		62	55.33	96	85.67	4.8	4.28	92.3%	12	10.71	87.5%	50	5	1.12	0.31
	7/24/1999	176		153	112.29	96	70.46	4.5	3.30	97.1%	9	6.61	90.6%		0	0.7	0.28
	7/25/1999	167		73	50.84	80	55.71	2.73	1.90	96.3%	7.5	5.22	90.6%		0	0.34	0.42
	7/26/1999	168		115	80.56	116	81.26	3.1	2.17	97.3%	7	4.90	94.0%	17	1.7	0.43	0.15
	7/27/1999	126		207	108.76	276	145.02	5.15	2.71	97.5%	5.75	3.02	97.9%		0	0.89	0.22
	7/28/1999	97		154	62.29	176	71.19	9.5	3.84	93.8%	6.5	2.63	96.3%	80	8	1.51	0.18
	7/29/1999	105		176	77.06	320	140.11	5	2.19	97.2%	7	3.06	97.8%		0	1.54	0.13
	7/30/1999	110		226	103.67	144	66.05	7	3.21	96.9%	6	2.75	95.8%	300	30	1.25	0.14
	7/31/1999	135		178	100.21	320	180.14	5.9	3.32	96.7%	8.5	4.79	97.3%		0	1.25	0.18
	8/1/1999	85		179.5	63.62	180	63.80	4	1.42	97.8%	5.5	1.95	96.9%		0	1.18	0.14
H	5/10/2000	131		255	139.30	156	85.22	8.3	4.53	96.7%	8	4.37	94.9%	9	0.9	0.53	0.17
	5/11/2000	126		272.5	143.18	184	96.68	8.35	4.39	96.9%	8	4.20	95.7%			0.34	0.17
	5/12/2000	215		156	139.86	332	297.65	8.35	7.49	94.6%	11	9.86	96.7%	2200	220	1.4	0.26
	5/13/2000	195		150	121.97	512	416.33	10	8.13	93.3%	8.5	6.91	98.3%			0.84	0.23
	5/14/2000	122		196.5	99.97	170	86.49	8.1	4.12	95.9%	6	3.05	96.5%			0.45	0.13
	5/15/2000	102		411	174.81	216	91.87	7.7	3.28	98.1%	6	2.55	97.2%	500	50	0.42	0.17
	5/16/2000	103		374.5	160.85	256	109.95	8.95	3.84	97.6%	8	3.44	96.9%			2.46	0.23
	5/17/2000	137	2.5	330	188.53	416	237.66	15.5	8.85	95.3%	15.5	8.85	96.3%	22	2.2	3	0.37
	5/18/2000	354	81.4	154	227.33	212	312.95	27.5	40.59	82.1%	49	72.33	76.9%			1.75	0.65
	5/19/2000	300	16.1	52	65.05	86	107.59	10.5	13.14	79.8%	17.5	21.89	79.7%	3000	300	0.34	0.3
	5/20/2000	268		78	87.17	98	109.52	7.57	8.46	90.3%	10.5	11.73	89.3%			0.34	0.23
	5/21/2000	246		71	72.83	78	80.01	7	7.18	90.1%	8.5	8.72	89.1%			0.34	0.14
	5/22/2000	214		129.5	115.56	208	185.62	8	7.14	93.8%	9	8.03	95.7%	130	13	0.34	0.18
	5/23/2000	169		191	134.60	236	166.32	9.8	6.91	94.9%	7.25	5.11	96.9%			1.27	0.25
	5/24/2000	129		252.5	135.83	224	120.50	9	4.84	96.4%	9.5	5.11	95.8%	8	0.8	1.41	0.24
	5/25/2000	110		277.5	127.29	210	96.33	8.95	4.11	96.8%	10.5	4.82	95.0%			2.17	0.25
	5/26/2000	101		371	156.25	228	96.03	8.6	3.62	97.7%	8	3.37	96.5%	11	1.1	1.19	0.16
	5/27/2000	141		275	161.69	428	251.65	9.55	5.62	96.5%	11	6.47	97.4%			1.01	0.24
	5/28/2000	174		149.5	108.47	82	59.50	7.5	5.44	95.0%	9.5	6.89	88.4%			0.34	0.24
	5/29/2000	127		270	142.99	156	82.62	5.4	2.86	98.0%	5.5	2.91	96.5%	80	8	0.55	0.13
	5/30/2000	125		256.5	133.70	232	120.93	6.75	3.52	97.4%	7.5	3.91	96.8%			0.87	0.14

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TABLE 4J-8 SHEET 14 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr

Event	Date	South Shore WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
G	7/14/1999	88		806	295.77		0.00	7	2.57	99.1%	4	1.47	N/A	8	0.8	1.9	0.75
	7/15/1999	86		516	185.05	230	82.48	2	0.72	99.6%	3	1.08	98.7%			0.7	0.64
	7/16/1999	89		157	58.27	160	59.38	3	1.11	98.1%	3	1.11	98.1%	11	1.1	0.9	1.1
	7/17/1999	147		153	93.79	205	125.66	5	3.06	96.7%	6	3.68	97.1%			1	0.7
	7/18/1999	145		85	51.40	154	93.12	5	3.02	94.1%	7	4.23	95.5%			0.7	0.53
	7/19/1999	129		173	93.06	238	128.03	3	1.61	98.3%	4	2.15	98.3%	23	2.3	0.6	2.6
	7/20/1999	129		138	74.23	208	111.89	4	2.15	97.1%	5	2.69	97.6%			1.2	0.72
	7/21/1999	278		68	78.83	191	221.42	5	5.80	92.6%	9	10.43	95.3%	500	50	1.3	1.2
	7/22/1999	217		46	41.62	96	86.87	3	2.71	93.5%	6	5.43	93.8%			0.4	0.77
	7/23/1999	187		103	80.32	156	121.65	2	1.56	98.1%	5	3.90	96.8%	50	5	0.7	0.47
	7/24/1999	187		83	64.72	109	85.00	3	2.34	96.4%	7	5.46	93.6%			0.7	0.45
	7/25/1999	161		68	45.65	114	76.54	3	2.01	95.6%	5	3.36	95.6%			0.3	0.69
	7/26/1999	157		166	108.68	210	137.48	3	1.96	98.2%	7	4.58	96.7%	26	2.6	0.6	0.49
	7/27/1999	136		184	104.35	178	100.95	4	2.27	97.8%	3	1.70	98.3%			0.6	0.71
	7/28/1999	105		198	86.69	296	129.60	3	1.31	98.5%	3	1.31	99.0%	30	3	0.4	0.58
	7/29/1999	105		130	56.92	148	64.80	2	0.88	98.5%	2	0.88	98.6%			0.3	0.48
	7/30/1999	105		598	261.83	770	337.14	3	1.31	99.5%	4	1.75	99.5%	130	13	0.4	0.49
	7/31/1999	115		151	72.41	118	56.59	3	1.44	98.0%	5	2.40	95.8%			0.5	0.49
	8/1/1999	93		143	55.46	150	58.17	3	1.16	97.9%	4	1.55	97.3%			0.6	0.48
H	5/10/2000	197		128	105.15	170	139.65	13	10.68	89.8%	15	12.32	91.2%	22	2.2	2.1	0.5
	5/11/2000	145		99	59.86	68	41.12	6	3.63	93.9%	5	3.02	92.6%			0.7	0.68
	5/12/2000	251		36	37.68	14	14.65	10	10.47	72.2%	7	7.33	50.0%	130	13	0.7	0.43
	5/13/2000	197		60	49.29	78	64.08	8	6.57	86.7%	6	4.93	92.3%			0.4	0.42
	5/14/2000	137		105	59.99	108	61.70	4	2.29	96.2%	4	2.29	96.3%			0.4	0.29
	5/15/2000	119		143	70.96	90	44.66	4	1.98	97.2%	3	1.49	96.7%	2	0.2	1.1	0.37
	5/16/2000	118		122	60.03	144	70.86	4	1.97	96.7%	4	1.97	97.2%			1.5	0.4
	5/17/2000	111		142	65.73	160	74.06	6	2.78	95.8%	5	2.31	96.9%	4	0.4	2.9	0.67
	5/18/2000	273		66	75.14	130	147.99	15	17.08	77.3%	12	13.66	90.8%			1.8	0.86
	5/19/2000	291		38	46.11	92	111.64	11	13.35	71.1%	20	24.27	78.3%	130	13	0.3	0.51
	5/20/2000	286		58	69.17	103	122.84	8	9.54	86.2%	11	13.12	89.3%			0.3	0.4
	5/21/2000	244		44	44.77	48	48.84	6	6.10	86.4%	7	7.12	85.4%			0.3	0.75
	5/22/2000	202		63	53.07	48	40.43	5	4.21	92.1%	7	5.90	85.4%	17	1.7	0.3	0.74
	5/23/2000	166		89	61.61	118	81.68	5	3.46	94.4%	5	3.46	95.8%			0.3	0.57
	5/24/2000	149		101	62.75	152	94.44	4	2.49	96.0%	4	2.49	97.4%	14	1.4	0.3	1
	5/25/2000	122		65	33.07	104	52.91	4	2.03	93.8%	5	2.54	95.2%			0.3	1.2
	5/26/2000	117		267	130.27	496	241.99	4	1.95	98.5%	3	1.46	99.4%	23	2.3	0.3	0.92
	5/27/2000	140		139	81.15	226	131.94	5	2.92	96.4%	4	2.34	98.2%			0.3	0.5
	5/28/2000	176		75	55.04	140	102.75	6	4.40	92.0%	4	2.94	97.1%			0.3	0.36
	5/29/2000	172		51	36.58	68	48.77	5	3.59	90.2%	5	3.59	92.6%	110	11	0.3	0.23
	5/30/2000	145		81	48.98	114	68.93	4	2.42	95.1%	3	1.81	97.4%			0.3	0.39

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TABLE 4J-8 SHEET 15 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr

Event	Date	Total Daily Flow (MGD)	Total CSO MG	Total SSO MG
G	7/14/1999	190		
	7/15/1999	188		
	7/16/1999	184		
	7/17/1999	307		
	7/18/1999	282		
	7/19/1999	263		
	7/20/1999	227		
	7/21/1999	544	691	62
	7/22/1999	439	90	0.1
	7/23/1999	401	236	
	7/24/1999	363	109	
	7/25/1999	328		
	7/26/1999	325		
	7/27/1999	262		
	7/28/1999	202		
	7/29/1999	210		
	7/30/1999	215		
	7/31/1999	250		
	8/1/1999	178		
H	5/10/2000	328		
	5/11/2000	271		
	5/12/2000	466		
	5/13/2000	392		
	5/14/2000	259		
	5/15/2000	221		
	5/16/2000	221		
	5/17/2000	248	54	0.1
	5/18/2000	627	1053	72
	5/19/2000	591	415	38
	5/20/2000	554	16	
	5/21/2000	490		
	5/22/2000	416		
	5/23/2000	335		
	5/24/2000	278		
	5/25/2000	232		
	5/26/2000	218		
	5/27/2000	281		
	5/28/2000	350		
	5/29/2000	299		
	5/30/2000	270		

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TABLE 4J-8 SHEET 16 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr

Event	Date	Jones Island WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
I	9/4/2000	100		291	121.35	312	130.10	5.8	2.42	98.0%	10.5	4.38	96.6%	30	3	0.34	0.38
	9/5/2000	86		358	128.39	244	87.50	5	1.79	98.6%	8	2.87	96.7%		0	0.34	0.36
	9/6/2000	91		341.5	129.59	300	113.84	6.2	2.35	98.2%	9	3.42	97.0%	4	0.4	0.55	0.31
	9/7/2000	89		336	124.70	236	87.59	5.75	2.13	98.3%	9	3.34	96.2%		0	0.41	0.29
	9/8/2000	131		244.5	133.56	290	158.42	7.9	4.32	96.8%	16.5	9.01	94.3%	8	0.8	0.42	0.42
	9/9/2000	120		289.5	144.87	248	124.10	6	3.00	97.9%	12.5	6.26	95.0%		0	0.34	0.37
	9/10/2000	145		185.5	112.16	364	220.09	6.8	4.11	96.3%	13.5	8.16	96.3%		0	0.39	0.43
	9/11/2000	210	7.5	95	83.19	428	374.80	9.45	8.28	90.1%	22.5	19.70	94.7%	1300	130	0.34	0.52
	9/12/2000	312	28.5	82	106.69	136	176.94	8.75	11.38	89.3%	17.25	22.44	87.3%		0	0.34	0.39
	9/13/2000	229		191	182.39	164	156.61	5.6	5.35	97.1%	8	7.64	95.1%	170	17	0.34	0.22
	9/14/2000	261	1	94	102.31	182	198.08	6.6	7.18	93.0%	11.5	12.52	93.7%		0	0.34	0.28
	9/15/2000	214		126	112.44	160	142.78	5.4	4.82	95.7%	9.5	8.48	94.1%	2400	240	1.16	0.27
	9/16/2000	178		162	120.25	296	219.71	5.4	4.01	96.7%	7	5.20	97.6%		0	0.92	0.18
	9/17/2000	169		111.5	78.58	162	114.17	5.6	3.95	95.0%	9.5	6.69	94.1%		0	0.34	0.24
	9/18/2000	144		187	112.29	204	122.50	7.1	4.26	96.2%	9	5.40	95.6%	30	3	0.34	0.4
	9/19/2000	116		282.5	136.65	172	83.20	5.1	2.47	98.2%	8.25	3.99	95.2%		0	1.65	0.36
	9/20/2000	99		253	104.45	516	213.02	7.8	3.22	96.9%	14	5.78	97.3%	2	0.2	2.1	0.43
	9/21/2000	151		353	222.27	424	266.98	7.35	4.63	97.9%	11	6.93	97.4%		0	0.73	0.36
	9/22/2000	153		180	114.84	332	211.82	12.5	7.98	93.1%	31.5	20.10	90.5%	4	0.4	1.97	0.93
	9/23/2000	227	30	75	70.99	148	140.10	11	10.41	85.3%	35	33.13	76.4%		0	0.38	0.74
J	2/1/2001	119		320	158.79	140	69.47	13	6.45	95.9%	10	4.96	92.9%		0	5.2	0.39
	2/2/2001	119		290	143.91	220	109.17	13	6.45	95.5%	14	6.95	93.6%	11	1.1	4.2	0.48
	2/3/2001	122		250	127.19	140	71.22	16	8.14	93.6%	15	7.63	89.3%		0	5.4	0.38
	2/4/2001	126		180	94.58	120	63.05	12	6.31	93.3%	14	7.36	88.3%		0	6.3	0.3
	2/5/2001	103		290	124.56	180	77.31	12	5.15	95.9%	8.5	3.65	95.3%	2	0.2	7.5	0.42
	2/6/2001	109		360	163.63	240	109.09	14	6.36	96.1%	12	5.45	95.0%		0	7.4	0.51
	2/7/2001	106		370	163.55	450	198.91	21	9.28	94.3%	14	6.19	96.9%	5000	500	7.2	0.49
	2/8/2001	198		290	239.44	500	412.83	40	33.03	86.2%	56	46.24	88.8%		0	7.7	1.6
	2/9/2001	321	22.4	100	133.86	260	348.03	38	50.87	62.0%	88	117.79	66.2%	1100	110	3	1.5
	2/10/2001	247	31.6	100	103.00	130	133.90	20	20.60	80.0%	31	31.93	76.2%		0	2.3	0.57
	2/11/2001	218		130	118.18	64	58.18	13	11.82	90.0%	18	16.36	71.9%		0	3.6	0.56
	2/12/2001	173		150	108.21	120	86.57	8.9	6.42	94.1%	10	7.21	91.7%		0	3.9	0.23
	2/13/2001	170		190	134.69	120	85.07	10	7.09	94.7%	11	7.80	90.8%		0	5.2	0.43
	2/14/2001	130		300	162.63	200	108.42	9.4	5.10	96.9%	8.5	4.61	95.8%	17	1.7	5.1	0.33
	2/15/2001	133		290	160.84	160	88.74	9.3	5.16	96.8%	9.5	5.27	94.1%	23	2.3	6.2	0.47
	2/16/2001	142		300	177.64	180	106.59	12	7.11	96.0%	11	6.51	93.9%	14	1.4	8	0.41
	2/17/2001	125		290	151.16	190	99.04	11	5.73	96.2%	9	4.69	95.3%		0	7	0.28
	2/18/2001	124		220	113.76	140	72.39	10	5.17	95.5%	9	4.65	93.6%		0	5.8	0.2
	2/19/2001	105		260	113.84	260	113.84	7.7	3.37	97.0%	5	2.19	98.1%	23	2.3	6.6	0.3

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TABLE 4J-8 SHEET 17 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr

Event	Date	South Shore WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
I	9/4/2000	81		132	44.59	160	54.04	5	1.69	96.2%	6	2.03	96.3%	30	3	2.7	0.72
	9/5/2000	83		153	52.95	308	106.60	15	5.19	90.2%	8	2.77	97.4%			3.1	0.77
	9/6/2000	78		171	55.62	176	57.25	7	2.28	95.9%	9	2.93	94.9%	30	3	4.9	1.1
	9/7/2000	85		180	63.80	192	68.05	7	2.48	96.1%	6	2.13	96.9%			6.8	0.6
	9/8/2000	122		167	84.96	296	150.59	8	4.07	95.2%	8	4.07	97.3%	2400	240	7	0.58
	9/9/2000	81		187	63.16	186	62.83	8	2.70	95.7%	7	2.36	96.2%			5.5	0.55
	9/10/2000	74		166	51.22	148	45.67	12	3.70	92.8%	12	3.70	91.9%			6.8	0.63
	9/11/2000	113		115	54.19	240	113.09	16	7.54	86.1%	12	5.65	95.0%	130	13	5.9	0.72
	9/12/2000	209		54	47.06	132	115.04	18	15.69	66.7%	26	22.66	80.3%			2	0.88
	9/13/2000	209		61	53.16	88	76.69	8	6.97	86.9%	14	12.20	84.1%	2	0.2	1.9	0.66
	9/14/2000	227		73	69.10	62	58.69	2	1.89	97.3%	2	1.89	96.8%			0.5	0.09
	9/15/2000	211		65	57.19	124	109.10	8	7.04	87.7%	10	8.80	91.9%	280	28	2.1	0.47
	9/16/2000	148		83	51.22	112	69.12	5	3.09	94.0%	8	4.94	92.9%			2.7	0.36
	9/17/2000	151		100	62.97	180	113.34	5	3.15	95.0%	7	4.41	96.1%			2.5	0.33
	9/18/2000	142		95	56.25	108	63.95	7	4.14	92.6%	5	2.96	95.4%	170	17	2.7	0.42
	9/19/2000	106		149	65.86	248	109.62	5	2.21	96.6%	6	2.65	97.6%			3.4	0.47
	9/20/2000	111		141	65.26	152	70.36	9	4.17	93.6%	9	4.17	94.1%	230	23	4.7	0.81
	9/21/2000	121		176	88.80	126	63.58	12	6.05	93.2%	9	4.54	92.9%			5	0.86
	9/22/2000	100		157	65.47	274	114.26	7	2.92	95.5%	11	4.59	96.0%	50	5	3.8	0.71
	9/23/2000	224		80	74.73	202	188.68	10	9.34	87.5%	15	14.01	92.6%			4.4	1.2
J	2/1/2001	129		140	75.31	120	64.55	7.5	4.03	94.6%	10	5.38	91.7%			8	0.51
	2/2/2001	118		160	78.73	200	98.41	8	3.94	95.0%	13	6.40	93.5%	30	3	10	0.45
	2/3/2001	103		120	51.54	160	68.72	6.7	2.88	94.4%	11	4.72	93.1%			11	0.46
	2/4/2001	91		130	49.33	150	56.92	6.4	2.43	95.1%	9	3.42	94.0%			8.3	0.5
	2/5/2001	94		120	47.04	180	70.56	6.5	2.55	94.6%	8	3.14	95.6%	2	0.2	8.9	0.81
	2/6/2001	90		150	56.30	210	78.81	5.9	2.21	96.1%	6	2.25	97.1%			13	0.5
	2/7/2001	87		190	68.93	170	61.67	7.5	2.72	96.1%	9	3.27	94.7%	7	0.7	12	0.73
	2/8/2001	106		190	83.98	180	79.56	8.4	3.71	95.6%	10	4.42	94.4%			14	0.76
	2/9/2001	225		67	62.86	190	178.27	14	13.14	79.1%	18	16.89	90.5%	30	3	9.5	0.86
	2/10/2001	224		60	56.04	92	85.94	6.6	6.16	89.0%	15	14.01	83.7%			3.2	0.59
	2/11/2001	180		110	82.57	92	69.06	6.1	4.58	94.5%	12	9.01	87.0%			4.2	0.58
	2/12/2001	141		75	44.10	120	70.56	6.1	3.59	91.9%	8	4.70	93.3%	2	0.2	5	0.48
	2/13/2001	127		200	105.92	120	63.55	4.3	2.28	97.9%	7	3.71	94.2%			8	0.37
	2/14/2001	152		160	101.41	240	152.12	5.2	3.30	96.8%	5	3.17	97.9%	2	0.2	9.6	0.63
	2/15/2001	140		110	64.22	140	81.73	10	5.84	90.9%	13	7.59	90.7%			11	0.64
	2/16/2001	111		140	64.80	200	92.57	4	1.85	97.1%	9	4.17	95.5%	27	2.7	8.2	0.5
	2/17/2001	98		150	61.30	160	65.39	6.2	2.53	95.9%	7	2.86	95.6%			8.5	0.48
	2/18/2001	92		160	61.38	160	61.38	7.9	3.03	95.1%	7	2.69	95.6%			8.7	0.5
	2/19/2001	105		200	87.57	240	105.08	7.4	3.24	96.3%	8	3.50	96.7%	2	0.2	9.5	0.54

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TABLE 4J-8 SHEET 18 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr

Event	Date	Total Daily Flow (MGD)	Total CSO MG	Total SSO MG
I	9/4/2000	181		
	9/5/2000	169		
	9/6/2000	169		
	9/7/2000	174		
	9/8/2000	253		
	9/9/2000	201		
	9/10/2000	219		
	9/11/2000	323	365	18
	9/12/2000	521	254	3
	9/13/2000	438		
	9/14/2000	488	221	
	9/15/2000	425		
	9/16/2000	326		
	9/17/2000	320		
	9/18/2000	286		
	9/19/2000	222		
	9/20/2000	210		
	9/21/2000	272		
	9/22/2000	253		
	9/23/2000	451		
J	2/1/2001	248		
	2/2/2001	237		
	2/3/2001	225		
	2/4/2001	217		
	2/5/2001	197		
	2/6/2001	199		
	2/7/2001	193		
	2/8/2001	304		
	2/9/2001	546	243	52
	2/10/2001	471	19	4
	2/11/2001	398		
	2/12/2001	314		
	2/13/2001	297		
	2/14/2001	282		
	2/15/2001	273		
	2/16/2001	253		
	2/17/2001	223		
	2/18/2001	216		
	2/19/2001	210		

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TABLE 4J-8 SHEET 19 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr

Event	Date	Jones Island WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
K	6/4/2001	97		230	93.03	250	101.12	5	2.02	97.8%	4.5	1.82	98.2%	80	8	0.34	0.23
	6/5/2001	145		270	163.26	400	241.86	7.4	4.47	97.3%	8.5	5.14	97.9%		0	0.34	0.24
	6/6/2001	146		260	158.29	280	170.47	6.8	4.14	97.4%	6.5	3.96	97.7%	170	17	0.34	0.21
	6/7/2001	134		270	150.87	270	150.87	5.6	3.13	97.9%	5.5	3.07	98.0%		0	0.34	0.22
	6/8/2001	113		380	179.06	440	207.33	7.5	3.53	98.0%	5	2.36	98.9%	500	50	0.34	0.21
	6/9/2001	129		360	193.65	430	231.31	4.9	2.64	98.6%	5	2.69	98.8%		0	0.34	0.22
	6/10/2001	112		350	163.46	520	242.86	5.6	2.62	98.4%	5	2.34	99.0%		0	0.56	0.22
	6/11/2001	104		690	299.24	680	294.90	5.3	2.30	99.2%	4	1.73	99.4%	7	0.7	0.34	0.24
	6/12/2001	259		290	313.21	540	583.22	14	15.12	95.2%	15	16.20	97.2%		0	0.56	0.38
	6/13/2001	228		110	104.58	180	171.14	6.2	5.89	94.4%	9.5	9.03	94.7%	50	5	0.34	0.26
	6/14/2001	217		190	171.93	220	199.08	6.5	5.88	96.6%	7	6.33	96.8%		0	0.34	0.29
	6/15/2001	193		180	144.87	240	193.15	8	6.44	95.6%	16	12.88	93.3%	8	0.8	0.34	0.27
	6/16/2001	159		170	112.72	200	132.61	6	3.98	96.5%	8	5.30	96.0%		0	0.34	0.24
	6/17/2001	156		180	117.09	160	104.08	7.5	4.88	95.8%	5.5	3.58	96.6%		0	0.34	0.23
	6/18/2001	209		200	174.31	410	357.33	8.4	7.32	95.8%	9.5	8.28	97.7%	300	30	0.34	0.13
	6/19/2001	153		220	140.36	290	185.02	6.3	4.02	97.1%	5.5	3.51	98.1%		0	0.34	0.11
	6/20/2001	117		310	151.25	310	151.25	7	3.42	97.7%	6.5	3.17	97.9%	2	0.2	0.34	0.1
	6/21/2001	118		330	162.38	440	216.51	8.6	4.23	97.4%	6.5	3.20	98.5%		0	1.4	0.1
	6/22/2001	102		340	144.62	380	161.63	8.7	3.70	97.4%	7.5	3.19	98.0%	170	17	0.42	0.1
	6/23/2001	104		300	130.10	360	156.12	8.5	3.69	97.2%	7	3.04	98.1%		0	0.56	0.1
	6/24/2001	96		350	140.11	1100	440.35	8.2	3.28	97.7%	7.5	3.00	99.3%		0	1	0.15
	6/25/2001	88		420	154.12	560	205.50	5.9	2.17	98.6%	8	2.94	98.6%	70	7	0.34	0.25
	6/26/2001	99		360	148.62	440	181.65	9	3.72	97.5%	8.5	3.51	98.1%		0	1.3	0.26
L	3/31/2002	77															
	4/1/2002	95		350	138.65	440	174.31	8.9	3.53	97.5%	5	1.98	98.9%	230	23	0.42	0.33
	4/2/2002	129		260	139.86	220	118.34	18	9.68	93.1%	19	10.22	91.4%	22	2.2	1.3	0.5
	4/3/2002	98		330	134.86	210	85.82	10	4.09	97.0%	5.5	2.25	97.4%	50	5	0.6	0.35
	4/4/2002	89		390	144.74	260	96.49	12	4.45	96.9%	4	1.48	98.5%	11	1.1	1.1	0.39
	4/5/2002	82		420	143.61	290	99.16	10	3.42	97.6%	4.5	1.54	98.4%	13	1.3	1.4	0.32
	4/6/2002	91		280	106.25	200	75.89	8.8	3.34	96.9%	5	1.90	97.5%	17	1.7	0.77	0.29
	4/7/2002	133		220	122.01	250	138.65	11	6.10	95.0%	7	3.88	97.2%	20	2	0.6	0.37
	4/8/2002	199	18.8	120	99.58	150	124.47	20	16.60	83.3%	23	19.09	84.7%	70	7	0.46	0.47
	4/9/2002	297	60.2	120	148.62	100	123.85	36	44.59	70.0%	29	35.92	71.0%	220	22	0.52	0.57
	4/10/2002	253	15.9	180	189.90	100	105.50	25	26.38	86.1%	13	13.72	87.0%	280	28	0.36	0.41
	4/11/2002	222		170	157.38	77	71.28	11	10.18	93.5%	7.5	6.94	90.3%	27	2.7	< 0.19	0.27
	4/12/2002	201		180	150.87	140	117.34	8.9	7.46	95.1%	9.5	7.96	93.2%	110	11	< 0.19	0.28
	4/13/2002	172		140	100.41	100	71.72	8.2	5.88	94.1%	8.5	6.10	91.5%	4	0.4	< 0.19	0.21
	4/14/2002	159		210	139.24	210	139.24	8.5	5.64	96.0%	5	3.32	97.6%	50	5	0.25	0.2
	4/15/2002	97		260	105.17	340	137.53	6.1	2.47	97.7%	5	2.02	98.5%	8	0.8	< 0.19	0.28
	4/16/2002	100		330	137.61	280	116.76	5.3	2.21	98.4%	4	1.67	98.6%	130	13	< 0.19	0.22
	4/17/2002	105		500	218.93	220	96.33	8.9	3.90	98.2%	4.5	1.97	98.0%	50	5	0.98	0.27
	4/18/2002	123		300	153.87	250	128.23	8.6	4.41	97.1%	6.5	3.33	97.4%	2200	220	0.84	0.32
	4/19/2002	138		160	92.07	160	92.07	10	5.75	93.8%	13	7.48	91.9%	13	1.3	< 0.19	0.37
	4/20/2002	92		200	76.73	220	84.40	5	1.92	97.5%	7	2.69	96.8%	12	1.2	< 0.19	0.3
	4/21/2002	95		230	91.11	220	87.15	7.2	2.85	96.9%	5.5	2.18	97.5%	50	5	0.27	0.27

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TABLE 4J-8 SHEET 20 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr

Event	Date	South Shore WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
K	6/4/2001	136		110	62.38	180	102.08	8.2	4.65	92.5%	7	3.97	96.1%	4	0.4	9.2	0.41
	6/5/2001	131		170	92.87	250	136.57	12	6.56	92.9%	6	3.28	97.6%	27	2.7	11	0.43
	6/6/2001	142		120	71.06	140	82.90	6.1	3.61	94.9%	8	4.74	94.3%	14	1.4	11	0.38
	6/7/2001	138		120	69.06	200	115.09	5.6	3.22	95.3%	7	4.03	96.5%	50	5	9	0.4
	6/8/2001	134		120	67.05	110	61.47	7.2	4.02	94.0%	5	2.79	95.5%	110	11	8.2	0.36
	6/9/2001	121		130	65.59	200	100.91	5.9	2.98	95.5%	6	3.03	97.0%			8.2	0.38
	6/10/2001	127		170	90.03			6.2	3.28	96.4%	4	2.12	N/A			8.3	0.38
	6/11/2001	111		140	64.80	210	97.20	6.4	2.96	95.4%	6	2.78	97.1%	8	0.8	8.4	0.41
	6/12/2001	181		130	98.12	220	166.05	8.7	6.57	93.3%	6	4.53	97.3%			8.4	0.53
	6/13/2001	188		60	47.04	110	86.24	8.9	6.98	85.2%	9	7.06	91.8%	50	5	3.2	0.43
	6/14/2001	183		99	75.55	96	73.26	5.8	4.43	94.1%	6	4.58	93.8%			4.2	0.43
	6/15/2001	180		110	82.57	280	210.17	6.4	4.80	94.2%	11	8.26	96.1%	110	11	4.7	0.37
	6/16/2001	156		110	71.56	130	84.57	6.4	4.16	94.2%	9	5.85	93.1%			4.2	0.37
	6/17/2001	122		130	66.14	110	55.96	4.9	2.49	96.2%	5	2.54	95.5%			3.7	0.39
	6/18/2001	167		130	90.53	140	97.49	5.7	3.97	95.6%	8	5.57	94.3%	5000	500	3.4	0.24
	6/19/2001	161		140	93.99	300	201.41	4.7	3.16	96.6%	5	3.36	98.3%			5.3	0.24
	6/20/2001	127		230	121.81	520	275.39	4.3	2.28	98.1%	5	2.65	99.0%	23	2.3	2.5	0.29
	6/21/2001	117		240	117.09	470	229.31	4.1	2.00	98.3%	3	1.46	99.4%			2.4	0.23
	6/22/2001	111		360	166.63	680	314.75	4	1.85	98.9%	4	1.85	99.4%	80	8	2	0.18
	6/23/2001	95		400	158.46	830	328.80	4.4	1.74	98.9%	4	1.58	99.5%			1.5	0.25
	6/24/2001	95			0.00		0.00	4	1.58	N/A	3	1.19	N/A			0.5	0.19
	6/25/2001	96			0.00		0.00	4	1.60	N/A	4	1.60	N/A	11	1.1	0.6	0.32
	6/26/2001	98			0.00		0.00	4	1.63	N/A	4	1.63	N/A			1.2	0.31
L	3/31/2002	87															
	4/1/2002	118		200	98.41	230	113.17	9.3	4.58	95.4%	7.5	3.69	96.7%	110	11	< 0.19	1
	4/2/2002	116		190	91.91	220	106.42	16	7.74	91.6%	9.5	4.60	95.7%	8	0.8	2.4	1.2
	4/3/2002	124		170	87.90	170	87.90	20	10.34	88.2%	8.5	4.40	95.0%	23	2.3	1.6	1
	4/4/2002	135		200	112.59	280	157.63	17	9.57	91.5%	6.5	3.66	97.7%	2	0.2	1.9	0.99
	4/5/2002	113		190	89.53	230	108.38	12	5.65	93.7%	8.5	4.01	96.3%	23	2.3	0.98	0.97
	4/6/2002	103		180	77.31	220	94.49	10	4.30	94.4%	8	3.44	96.4%	19	1.9	0.6	0.99
	4/7/2002	108		210	94.58	240	108.09	11	4.95	94.8%	8.5	3.83	96.5%	27	2.7	0.31	0.93
	4/8/2002	123		130	66.68	160	82.07	11	5.64	91.5%	9.5	4.87	94.1%	1100	110	< 0.19	0.53
	4/9/2002	111		79	36.57	110	50.92	7	3.24	91.1%	4.5	2.08	95.9%	50	5	< 0.19	0.38
	4/10/2002	121		92	46.42	93	46.93	7	3.53	92.4%	7.5	3.78	91.9%	230	23	< 0.19	0.4
	4/11/2002	190		98	77.65	110	87.15	8.3	6.58	91.5%	6	4.75	94.5%	1300	130	< 0.19	0.32
	4/12/2002	152		120	76.06	140	88.74	6.5	4.12	94.6%	7	4.44	95.0%	300	30	< 0.19	0.43
	4/13/2002	123		110	56.42	150	76.94	9.1	4.67	91.7%	9	4.62	94.0%	170	17	< 0.19	0.48
	4/14/2002	101		130	54.75	150	63.18	8.4	3.54	93.5%	4	1.68	97.3%	130	13	< 0.19	0.38
	4/15/2002	160		150	100.08	180	120.10	7.7	5.14	94.9%	7	4.67	96.1%	170	17	< 0.19	0.46
	4/16/2002	166		150	103.83	190	131.52	7.2	4.98	95.2%	7.5	5.19	96.1%	23	2.3	< 0.19	0.48
	4/17/2002	143		180	107.34	230	137.15	8.9	5.31	95.1%	5.5	3.28	97.6%	26	2.6	0.25	0.56
	4/18/2002	140		180	105.08	200	116.76	8.3	4.85	95.4%	6.5	3.79	96.8%	13	1.3	0.8	0.62
	4/19/2002	117		160	78.06	220	107.34	12	5.85	92.5%	8.5	4.15	96.1%	30	3	1.2	0.75
	4/20/2002	109		160	72.72	170	77.27	8.9	4.05	94.4%	7	3.18	95.9%	11	1.1	< 0.19	0.77
	4/21/2002	122		170	86.49	230	117.01	11	5.60	93.5%	7	3.56	97.0%	60	6	0.32	0.68

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TABLE 4J-8 SHEET 21 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

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Event	Date	Total Daily Flow (MGD)	Total CSO MG	Total SSO MG
K	6/4/2001	233		
	6/5/2001	276		
	6/6/2001	288		
	6/7/2001	272		
	6/8/2001	247		
	6/9/2001	250		
	6/10/2001	239		
	6/11/2001	215		
	6/12/2001	440	45	
	6/13/2001	416	55	
	6/14/2001	400		
	6/15/2001	373		
	6/16/2001	315		
	6/17/2001	278		
	6/18/2001	376		
	6/19/2001	314		
	6/20/2001	244		
	6/21/2001	235		
	6/22/2001	213		
	6/23/2001	199		
	6/24/2001	191		
	6/25/2001	184		
	6/26/2001	197		
L	3/31/2002	164		
	4/1/2002	213		
	4/2/2002	245		
	4/3/2002	222		
	4/4/2002	224		
	4/5/2002	195		
	4/6/2002	194		
	4/7/2002	241		
	4/8/2002	322		
	4/9/2002	408	25	
	4/10/2002	374		
	4/11/2002	412		
	4/12/2002	353		
	4/13/2002	295		
	4/14/2002	260		
	4/15/2002	257		
	4/16/2002	266		
	4/17/2002	248		
	4/18/2002	263		
	4/19/2002	255		
	4/20/2002	201		
	4/21/2002	217		

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IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

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Event	Date	Jones Island WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
M	8/6/2002	76		250	79.23	260	82.40	5.9	1.87	97.6%	8	2.54	96.9%	500	50	< 0.19	0.51
	8/7/2002	77		380	122.01	270	86.69	4	1.28	98.9%	4	1.28	98.5%	300	30	0.34	0.53
	8/8/2002	77		450	144.49	200	64.22	13	4.17	97.1%	28	8.99	86.0%	5000	500	0.39	0.84
	8/9/2002	94		450	176.39	220	86.24	5.2	2.04	98.8%	5	1.96	97.7%		0	0.45	0.35
	8/10/2002	103		560	240.53	170	73.02	6.6	2.83	98.8%	5.5	2.36	96.8%	50	5	< 0.19	0.35
	8/11/2002	77		400	128.44	240	77.06	6.4	2.05	98.4%	5	1.61	97.9%	8	0.8	0.57	0.39
	8/12/2002	110	1	330	151.37	270	123.85	17	7.80	94.8%	12	5.50	95.6%	500	50	1.7	0.58
	8/13/2002	256	29.3	110	117.43	99	105.68	9.9	10.57	91.0%	18	19.22	81.8%	300	30	0.94	0.64
	8/14/2002	235	12	150	146.99	82	80.36	6.5	6.37	95.7%	9.5	9.31	88.4%	170	17	0.57	0.26
	8/15/2002	203		200	169.30	79	66.87	6.7	5.67	96.7%	4	3.39	94.9%	50	5	< 0.19	0.22
	8/16/2002	174		210	152.37	130	94.33	5.4	3.92	97.4%	7	5.08	94.6%	17	1.7	< 0.19	0.22
	8/17/2002	135		210	118.22	190	106.96	*4*	2.25	98.1%	5.5	3.10	97.1%	11	1.1	< 0.19	0.2
	8/18/2002	72		220	66.05	160	48.04	*4*	1.20	98.2%	3	0.90	98.1%	8	0.8	< 0.19	0.21
	8/19/2002	94		270	105.83	250	98.00	*4*	1.57	98.5%	5	1.96	98.0%	4	0.4	< 0.19	0.48
	8/20/2002	92		340	130.44	240	92.07	*4*	1.53	98.8%	4	1.53	98.3%	17	1.7	< 0.19	0.46
	8/21/2002	104		330	143.11	380	164.80	*4*	1.73	98.8%	3	1.30	99.2%	2	0.2	0.66	0.5
	8/22/2002	256		100	106.75	89	95.01	11	11.74	89.0%	17	18.15	80.9%	80	8	0.7	0.34
	8/23/2002	178		150	111.34	120	89.07	4.2	3.12	97.2%	6	4.45	95.0%	30	3	< 0.19	0.42
	8/24/2002	173		140	101.00	78	56.27	4.2	3.03	97.0%	5	3.61	93.6%	230	23	< 0.19	0.44
	8/25/2002	127		230	121.81	180	95.33	4.7	2.49	98.0%	5	2.65	97.2%	26	2.6	< 0.19	0.34
	8/26/2002	79		250	82.36	380	125.18	4	1.32	98.4%	4.5	1.48	98.8%	11	1.1	< 0.19	0.25
	8/27/2002	97		450	182.02	550	222.47	4.7	1.90	99.0%	6.5	2.63	98.8%	80	8	0.31	0.34
	8/28/2002	88		390	143.11	340	124.77	4.8	1.76	98.8%	5.5	2.02	98.4%	17	1.7	1	0.36
	8/29/2002	85		460	163.05	240	85.07	4.8	1.70	99.0%	5	1.77	97.9%	17	1.7	1.9	0.32
	8/30/2002	96		350	140.11	200	80.06	*4*	1.60	98.9%	5.5	2.20	97.3%	130	13	0.71	0.23
	8/31/2002	88		340	124.77	210	77.06	*4*	1.47	98.8%	6.5	2.39	96.9%	80	8	1.1	0.32
	9/1/2002	75			0.00		0.00		0.00			0.00			0		

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IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

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Event	Date	South Shore WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
M	8/6/2002	73		300	91.32	310	94.37	7.6	2.31	97.5%	4.5	1.37	98.5%	30	3	1.7	1.1
	8/7/2002	80		290	96.74	270	90.07	8.3	2.77	97.1%	4	1.33	98.5%	50	5	2.8	1.4
	8/8/2002	66		280	77.06	300	82.57	14	3.85	95.0%	7	1.93	97.7%	2400	240	4.7	1.6
	8/9/2002	77		290	93.12	390	125.23	16	5.14	94.5%	6	1.93	98.5%	230	23	5.2	1.2
	8/10/2002	71		220	65.14	380	112.51	9.8	2.90	95.5%	5.5	1.63	98.6%	170	17	3.1	0.69
	8/11/2002	68		220	62.38	270	76.56	10	2.84	95.5%	5	1.42	98.1%	70	7	2.4	0.66
	8/12/2002	73		200	60.88	420	127.85	11	3.35	94.5%	7	2.13	98.3%	130	13	1.6	0.73
	8/13/2002	208	34	160	138.78	130	112.76	65	56.38	59.4%	95	82.40	26.9%	24000	2400	3.1	2.2
	8/14/2002	192		98	78.46	110	88.07	26	20.82	73.5%	27	21.62	75.5%	130	13	2.4	0.85
	8/15/2002	136		150	85.07	160	90.74	10	5.67	93.3%	7.5	4.25	95.3%	130	13	1.1	0.45
	8/16/2002	99		170	70.18	160	66.05	8.3	3.43	95.1%	7	2.89	95.6%	80	8	1.8	0.49
	8/17/2002	93		180	69.81	210	81.44	5.8	2.25	96.8%	6.5	2.52	96.9%	80	8	0.5	0.46
	8/18/2002	84		190	66.55	290	101.58	4	1.40	97.9%	2.5	0.88	99.1%	30	3	< 0.19	0.5
	8/19/2002	84		200	70.06	230	80.56	6.6	2.31	96.7%	5	1.75	97.8%	130	13		0.68
	8/20/2002	83		210	72.68	260	89.99	9.4	3.25	95.5%	6	2.08	97.7%	80	8	1.8	0.96
	8/21/2002	81		220	74.31	240	81.06	9.7	3.28	95.6%	6	2.03	97.5%	30	3	2	1
	8/22/2002	200		140	116.76	140	116.76	8.9	7.42	93.6%	12	10.01	91.4%	170	17	1.5	0.8
	8/23/2002	199		130	107.88	180	149.37	5.6	4.65	95.7%	11	9.13	93.9%	230	23	0.36	1.8
	8/24/2002	116		150	72.56	160	77.40	4	1.93	97.3%	4.5	2.18	97.2%	30	3	1	2.1
	8/25/2002	100		160	66.72	110	45.87	4	1.67	97.5%	5	2.09	95.5%	13	1.3		0.63
	8/26/2002	95		170	67.35	170	67.35	4	1.58	97.6%	4	1.58	97.6%	21	2.1		0.53
	8/27/2002	91		250	94.87	280	106.25	4	1.52	98.4%	4.5	1.71	98.4%	14	1.4	0.5	0.7
	8/28/2002	89		220	81.65	260	96.49	4	1.48	98.2%	3.5	1.30	98.7%	9	0.9	1.6	0.64
	8/29/2002	84		190	66.55	220	77.06	4	1.40	97.9%	3.5	1.23	98.4%	17	1.7	0.81	0.57
	8/30/2002	83		220	76.14	250	86.53	4	1.38	98.2%	5	1.73	98.0%	14	1.4	0.48	0.51
	8/31/2002	79		210	69.18	300	98.83	4	1.32	98.1%	5.5	1.81	98.2%	13	1.3	0.52	0.56
	9/1/2002	74			0.00		0.00		0.00			0.00					

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TABLE 4J-8 SHEET 24 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

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Event	Date	Total Daily Flow (MGD)	Total CSO MG	Total SSO MG
M	8/6/2002	149		
	8/7/2002	157		
	8/8/2002	143		
	8/9/2002	171		
	8/10/2002	174		
	8/11/2002	145		
	8/12/2002	183	82	
	8/13/2002	464	329	
	8/14/2002	427	3	
	8/15/2002	339		
	8/16/2002	273		
	8/17/2002	228		
	8/18/2002	156		
	8/19/2002	178		
	8/20/2002	175		
	8/21/2002	185		
	8/22/2002	456		
	8/23/2002	377		
	8/24/2002	289		
	8/25/2002	227		
	8/26/2002	174		
	8/27/2002	188		
	8/28/2002	177		
	8/29/2002	169		
	8/30/2002	179		
	8/31/2002	167		
	9/1/2002	149		

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TABLE 4J-8 SHEET 25 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr

Event	Date	Jones Island WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	Blending (MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
N	5/2/2004	76		280	88.74	180	57.05	10	3.17	96.4%	5.4	1.71	97.0%	8	0.8	0.99	0.29
	5/3/2004	76		300	95.08	290	91.91	8.8	2.79	97.1%	5.8	1.84	98.0%	8	0.8	0.46	0.29
	5/4/2004	79		380	125.18	250	82.36	7.3	2.40	98.1%	4.8	1.58	98.1%	5	0.5	0.52	0.31
	5/5/2004	80		410	136.78	250	83.40	14	4.67	96.6%	6	2.00	97.6%	8	0.8	1.3	0.53
	5/6/2004	75		440	137.61	220	68.81	13	4.07	97.0%	6.6	2.06	97.0%	25	2.5	1.7	0.71
	5/7/2004	74		430	132.69	210	64.80	13	4.01	97.0%	7.4	2.28	96.5%	18	1.8	1.9	0.65
	5/8/2004	83		350	121.14	370	128.06	13	4.50	96.3%	6.4	2.22	98.3%	98	9.8	1.7	0.42
	5/9/2004	123		220	112.84	280	143.61	10	5.13	95.5%	8	4.10	97.1%	170	17	0.74	0.31
	5/10/2004	151		230	144.82	220	138.53	12	7.56	94.8%	8.2	5.16	96.3%	13	1.3	0.95	0.3
	5/11/2004	153		240	153.12	160	102.08	7.8	4.98	96.8%	7	4.47	95.6%	42	4.2	0.64	0.26
	5/12/2004	145		240	145.12	140	84.65	5.8	3.51	97.6%	4.6	2.78	96.7%	20	2	0.48	0.22
	5/13/2004	228		140	133.11	150	142.61	30	28.52	78.6%	11	10.46	92.7%	66	6.6	0.27	0.39
	5/14/2004	274	16.2	80	91.41	160	182.81	25	28.56	68.8%	26	29.71	83.8%	130	13	0.69	0.58
	5/15/2004	207		110	94.95	120	103.58	6.3	5.44	94.3%	5.8	5.01	95.2%	200	20	0.19	0.25
	5/16/2004	173		110	79.36	88	63.48	5.7	4.11	94.8%	4.2	3.03	95.2%	78	7.8	0.25	0.24
	5/17/2004	161		170	114.13	140	93.99	15	10.07	91.2%	6.4	4.30	95.4%	29	2.9	0.7	0.29
	5/18/2004	194		120	97.08	120	97.08	9.3	7.52	92.3%	5.2	4.21	95.7%	20	2	1.2	0.32
	5/19/2004	147		280	171.64	300	183.90	9.8	6.01	96.5%	4.8	2.94	98.4%	29	2.9	0.81	0.35
	5/20/2004	159		180	119.35	200	132.61	11	7.29	93.9%	6.6	4.38	96.7%	24	2.4	0.95	0.37
	5/21/2004	192		130	104.08	160	128.10	9.4	7.53	92.8%	8.2	6.57	94.9%	40	4	0.62	0.31
	5/22/2004	279		99	115.18	120	139.61	6.4	7.45	93.5%	8.2	9.54	93.2%	82	8.2	0.45	0.26
	5/23/2004	251		0	0.00	94	98.39	5.4	5.65	**#DIV/0!**	5.2	5.44	94.5%	560	56	0.19	0.26
	5/24/2004	193		120	96.58	100	80.48	5.2	4.19	95.7%	4.8	3.86	95.2%	570	57	0.19	0.2
	5/25/2004	182		160	121.43	100	75.89	5.7	4.33	96.4%	4.2	3.19	95.8%	54	5.4	0.19	0.21
	5/26/2004	164		210	143.61	130	88.90	6.5	4.45	96.9%	4.6	3.15	96.5%	97	9.7	0.19	0.23
	5/27/2004	151		230	144.82	180	113.34	6.8	4.28	97.0%	3.6	2.27	98.0%	13	1.3	0.19	0.22
	5/28/2004	141		210	123.47	160	94.08	5.1	3.00	97.6%	4.4	2.59	97.3%	23	2.3	0.19	0.19
	5/29/2004	150		200	125.10	220	137.61	6.6	4.13	96.7%	5.6	3.50	97.5%	6	0.6	0.19	0.22
	5/30/2004	171		100	71.31	120	85.57	6.2	4.42	93.8%	5.8	4.14	95.2%	140	14	0.19	0.25
	5/31/2004	162		100	67.55	100	67.55	3.8	2.57	96.2%	3	2.03	97.0%	62	6.2	0.42	0.19
	6/1/2004	143		130	77.52	110	65.59	2.8	1.67	97.8%	3.2	1.91	97.1%	84	8.4	0.19	0.24
	6/2/2004	123		250	128.23	210	107.71	4.2	2.15	98.3%	2.6	1.33	98.8%	12	1.2	0.19	0.25
	6/3/2004	112		310	144.78	200	93.41	8.6	4.02	97.2%	2.8	1.31	98.6%	21	2.1	0.45	0.33
	6/4/2004	113		340	160.21	250	117.80	8.8	4.15	97.4%	4.4	2.07	98.2%	18	1.8	0.6	0.33
	6/5/2004	104		250	108.42	240	104.08	7.1	3.08	97.2%	4	1.73	98.3%	56	5.6	0.45	0.32
	6/6/2004	93		290	112.46	200	77.56	6.6	2.56	97.7%	4	1.55	98.0%	19	1.9	0.71	0.28
	6/7/2004	93		490	190.03	220	85.32	7.9	3.06	98.4%	5.6	2.17	97.5%	5	0.5	0.55	0.27
	6/8/2004	96		320	128.10	200	80.06	8.8	3.52	97.3%	4.4	1.76	97.8%	10	1	0.81	0.31

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TABLE 4J-8 SHEET 26 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr

Event	Date	South Shore WWTP															
				Influent				Effluent									
		Daily Flow (MGD)	(MG)	BOD (mg/L)	BOD (ton/d)	TSS (mg/L)	TSS (ton/d)	BOD (mg/L)	BOD (ton/d)	BOD % Removal	TSS (mg/L)	TSS (ton/d)	TSS % Removal	Fecal Coliform (# / 100 mL)	Fecal Coliform (# / 10 mL)	Ammonia (mg/L)	Phosphorus (mg/L)
N	5/2/2004	99	Blending	160	66.05	230	94.95	5.9	2.44	96.3%	3.6	1.49	98.4%	6	0.6	0.19	0.56
	5/3/2004	107		210	93.70	270	120.47	4.1	1.83	98.0%	5.2	2.32	98.1%	490	49	0.19	0.58
	5/4/2004	96		190	76.06	310	124.10	5.3	2.12	97.2%	3.2	1.28	99.0%	72	7.2	0.19	0.59
	5/5/2004	94		190	74.48	270	105.83	5.6	2.20	97.1%	3.2	1.25	98.8%	4	0.4	0.19	0.58
	5/6/2004	106		200	88.40	280	123.77	6.9	3.05	96.6%	3.2	1.41	98.9%	20	2	0.83	0.67
	5/7/2004	109		210	95.45	380	172.72	16	7.27	92.4%	4.6	2.09	98.8%	2	0.2	3.5	0.75
	5/8/2004	118		220	108.25	310	152.54	9.6	4.72	95.6%	4.6	2.26	98.5%	8	0.8	2.7	0.71
	5/9/2004	160		160	106.75	250	166.80	8.8	5.87	94.5%	4.6	3.07	98.2%	23	2.3	0.98	0.63
	5/10/2004	145		180	108.84	270	163.26	4.8	2.90	97.3%	5	3.02	98.1%	5	0.5	0.39	0.42
	5/11/2004	259		100	108.00	190	205.21	12	12.96	88.0%	10	10.80	94.7%	13	1.3	0.97	0.52
	5/12/2004	206		110	94.49	140	120.26	5	4.30	95.5%	4.8	4.12	96.6%	100	10	0.19	0.41
	5/13/2004	256		110	117.43	140	149.45	7.6	8.11	93.1%	7.2	7.69	94.9%	12	1.2	0.19	0.54
	5/14/2004	289		78	94.00	140	168.72	8.3	10.00	89.4%	12	14.46	91.4%	58	5.8	0.2	0.59
	5/15/2004	281		66	77.34	120	140.61	8.3	9.73	87.4%	12	14.06	90.0%	120	12	0.19	0.57
	5/16/2004	268		80	89.40	92	102.82	7.4	8.27	90.8%	11	12.29	88.0%	130	13	0.19	0.58
	5/17/2004	217		74	66.96	130	117.64	4.1	3.71	94.5%	4.6	4.16	96.5%	27	2.7	0.19	0.53
	5/18/2004	260		85	92.16	110	119.26	7.2	7.81	91.5%	8.4	9.11	92.4%	11	1.1	0.19	0.53
	5/19/2004	255		160	170.14	260	276.47	6.7	7.12	95.8%	7.4	7.87	97.2%	100	10	0.19	0.56
	5/20/2004	229		100	95.49	170	162.34	7.1	6.78	92.9%	6.8	6.49	96.0%	18	1.8	0.76	0.55
	5/21/2004	263		120	131.61	200	219.34	8.1	8.88	93.3%	10	10.97	95.0%	7	0.7	0.48	0.6
	5/22/2004	301		110	138.07	140	175.72	11	13.81	90.0%	17	21.34	87.9%	52	5.2	0.19	0.78
	5/23/2004	307		0	0.00	80	102.42	11	14.08	**#DIV/0!**	20	25.60	75.0%	160	16	0.19	0.75
	5/24/2004	301		70	87.86	62	77.82	8.1	10.17	88.4%	13	16.32	79.0%	110	11	0.19	0.5
	5/25/2004	292		110	133.94	100	121.76	8.7	10.59	92.1%	8.2	9.98	91.8%	120	12	0.19	0.56
	5/26/2004	247		92	94.76	150	154.50	4.2	4.33	95.4%	6	6.18	96.0%	42	4.2	0.19	0.34
	5/27/2004	215		120	107.59	140	125.52	3.2	2.87	97.3%	3.2	2.87	97.7%	17	1.7	0.19	0.32
	5/28/2004	191		130	103.54	150	119.47	3.4	2.71	97.4%	4	3.19	97.3%	37	3.7	0.19	0.4
	5/29/2004	178		130	96.49	190	141.03	3.4	2.52	97.4%	4.4	3.27	97.7%	26	2.6	0.19	0.45
	5/30/2004	166		170	117.68	170	117.68	3.6	2.49	97.9%	3.6	2.49	97.9%	24	2.4	0.19	0.42
	5/31/2004	252		110	115.59	120	126.10	3.4	3.57	96.9%	4.8	5.04	96.0%	120	12	0.42	0.43
	6/1/2004	243		82	83.09142	170	172.2627	3.6	3.647916	95.6%	4.4	4.46	97.4%	94	9.4	0.19	0.52
	6/2/2004	167		63	43.87	130	90.53	2.5	1.74	96.0%	1.6	1.11	98.8%	50	5	0.19	0.51
	6/3/2004	152		300	190.15	180	114.09	3.6	2.28	98.8%	2.6	1.65	98.6%	44	4.4	0.19	0.64
	6/4/2004	136		170	96.41	220	124.77	3.2	1.81	98.1%	2.6	1.47	98.8%	94	9.4	0.19	0.6
	6/5/2004	126		170	89.32	200	105.08	4.3	2.26	97.5%	2.4	1.26	98.8%	38	3.8	0.38	0.64
	6/6/2004	114		140	66.55	200	95.08	3.6	1.71	97.4%	1.6	0.76	99.2%	15	1.5	0.19	0.63
	6/7/2004	115		160	76.73	240	115.09	4.2	2.01	97.4%	2	0.96	99.2%	170	17	0.19	0.51
	6/8/2004	124		140	72.39	200	103.42	5.2	2.69	96.3%	3.2	1.65	98.4%	2	0.2	0.43	0.48

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TABLE 4J-8 SHEET 27 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr

Event	Date	Total Daily Flow (MGD)	Total CSO MG	Total SSO MG
N	5/2/2004	175		
	5/3/2004	183		
	5/4/2004	175		
	5/5/2004	174		
	5/6/2004	181		
	5/7/2004	183		
	5/8/2004	201		
	5/9/2004	283		
	5/10/2004	296		0.5
	5/11/2004	412		
	5/12/2004	351		
	5/13/2004	484	**34**	
	5/14/2004	563	**252**	101
	5/15/2004	488	**80**	
	5/16/2004	441	**1**	
	5/17/2004	378	**0**	
	5/18/2004	454	**17**	
	5/19/2004	402		
	5/20/2004	388		
	5/21/2004	455	**11**	3
	5/22/2004	580	**235**	108
	5/23/2004	558	**242**	236
	5/24/2004	494	**146**	25
	5/25/2004	474	**69**	
	5/26/2004	411		
	5/27/2004	366		
	5/28/2004	332		
	5/29/2004	328		
	5/30/2004	337		
	5/31/2004	414		
	6/1/2004	386		
	6/2/2004	290		
	6/3/2004	264		
	6/4/2004	249		
	6/5/2004	230		
	6/6/2004	207		
	6/7/2004	208		
	6/8/2004	220		

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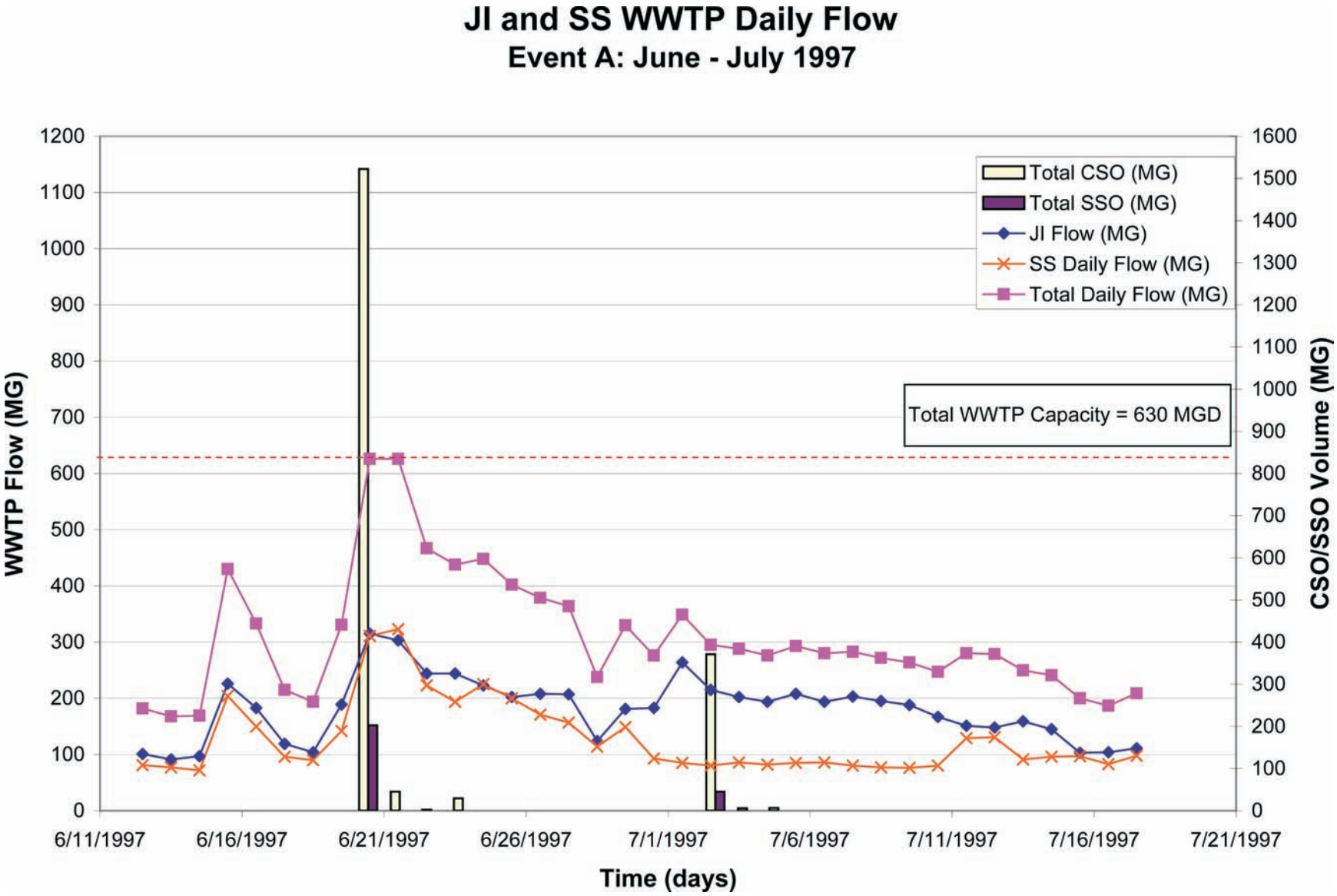
TABLE 4J-8 SHEET 28 OF 28

IDENTIFIED WET WEATHER EVENT ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J08.07.06.04.cdr



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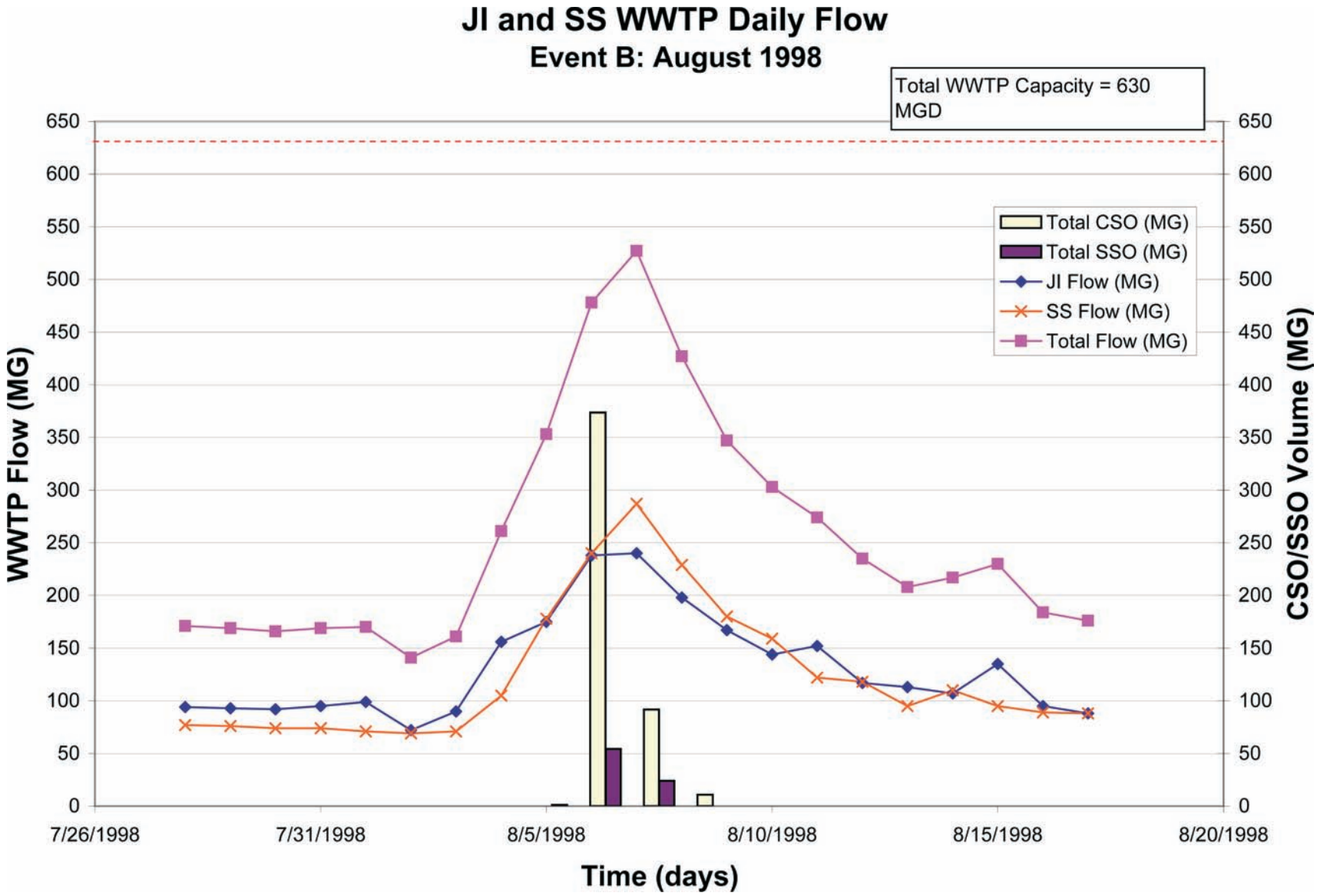
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events.

TABLE 4J-9 SHEET 1 OF 14

EVENT FLOW FIGURES

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J09.07.06.04.cdr



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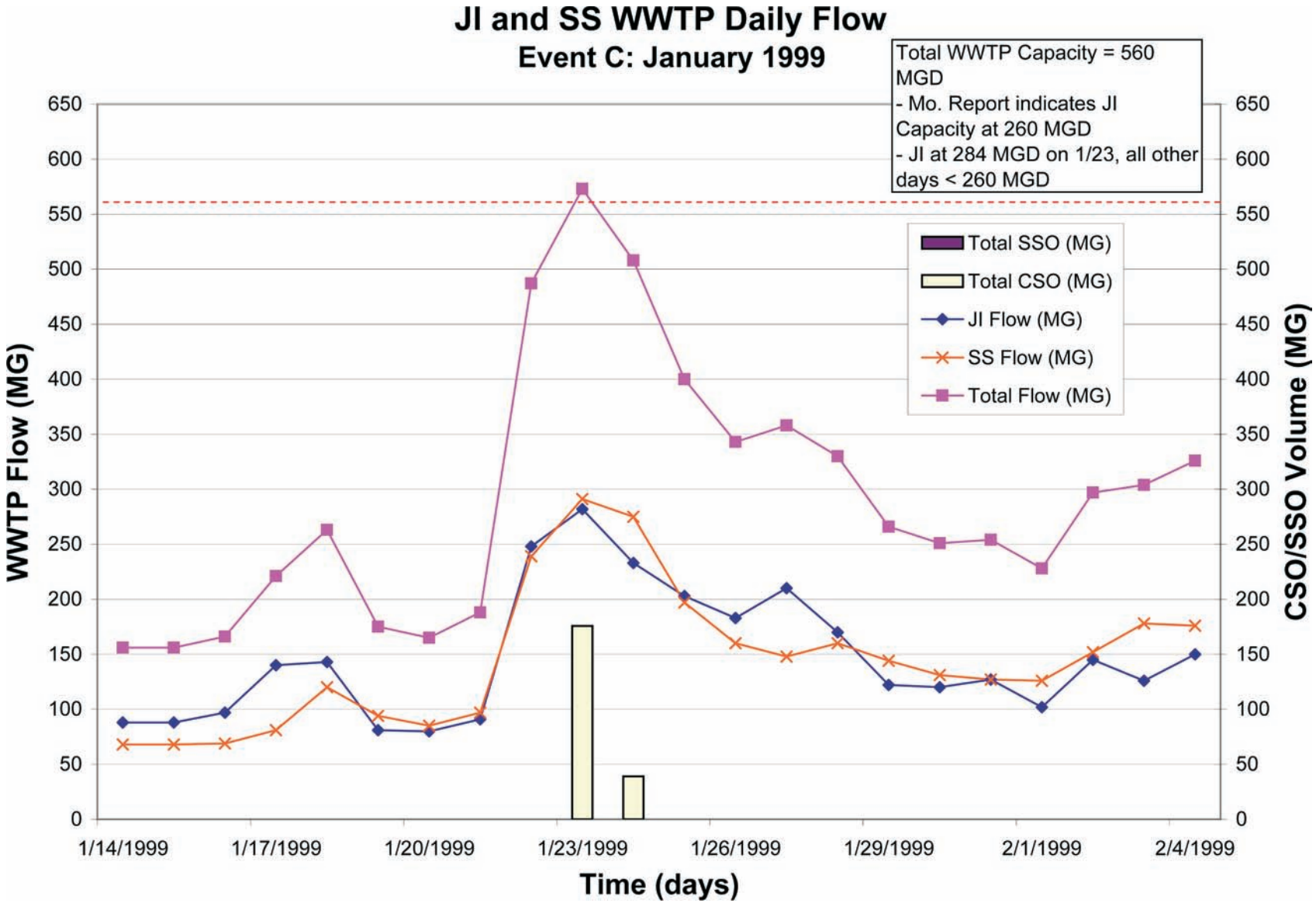
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events.

TABLE 4J-9 SHEET 2 OF 14
EVENT FLOW FIGURES
2020 TREATMENT REPORT
6/04/07 TR_4-A.T4J09.07.06.04.cdr



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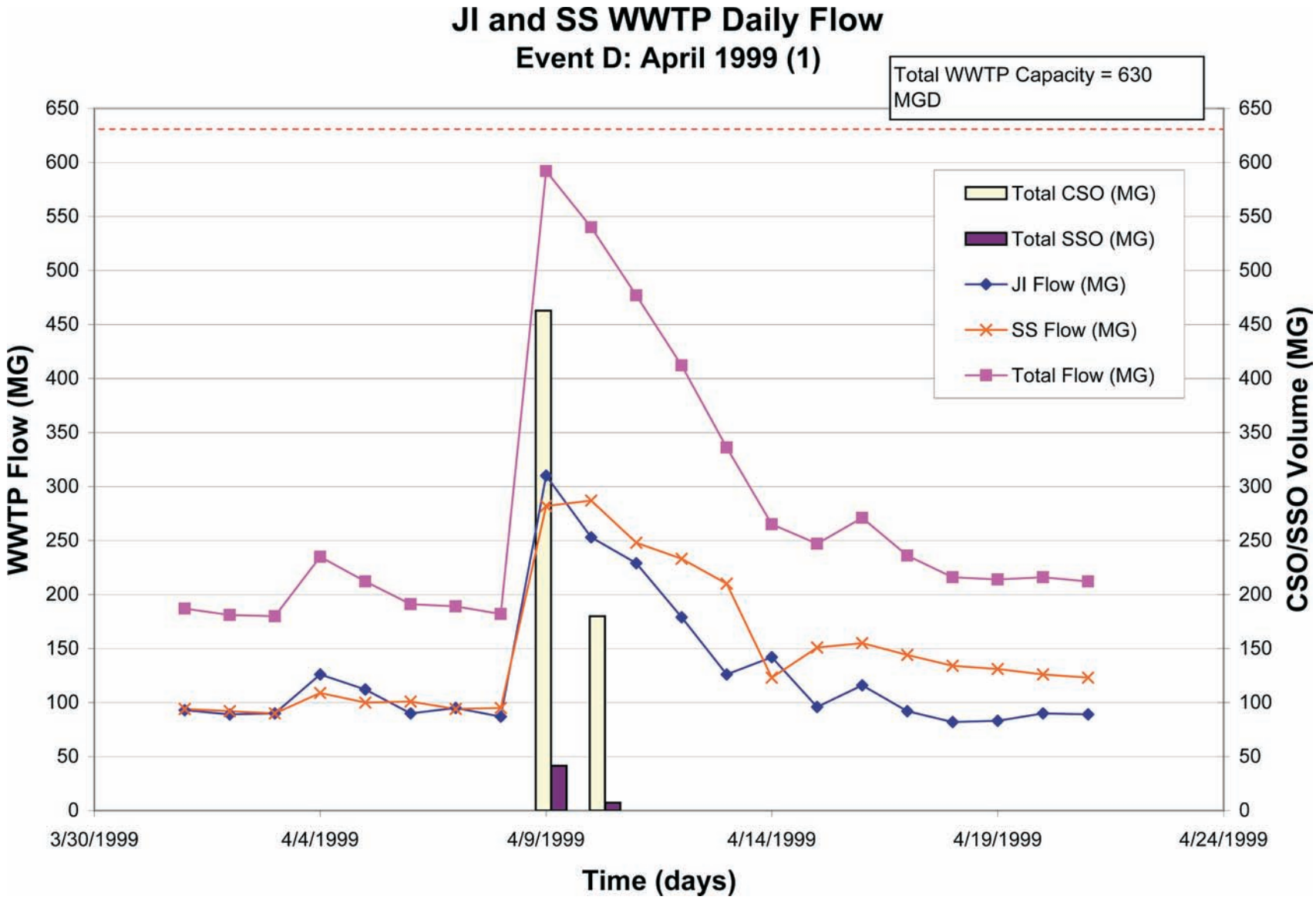
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events.

TABLE 4J-9 SHEET 3 OF 14
EVENT FLOW FIGURES
2020 TREATMENT REPORT
6/04/07 TR_4-A.T4J09.07.06.04.cdr



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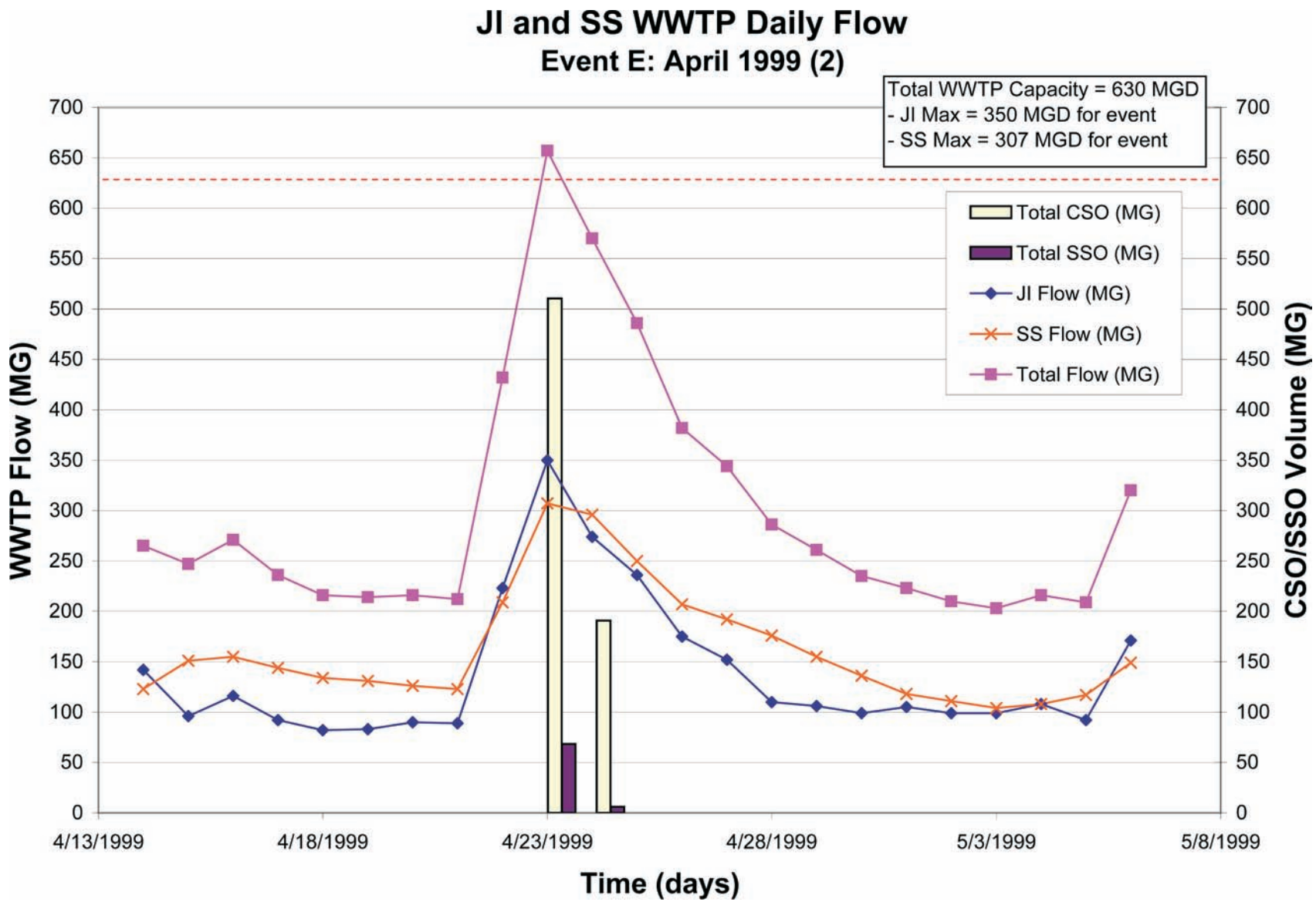
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events.

TABLE 4J-9 SHEET 4 OF 14
EVENT FLOW FIGURES
2020 TREATMENT REPORT
6/04/07 TR_4-A.T4J09.07.06.04.cdr



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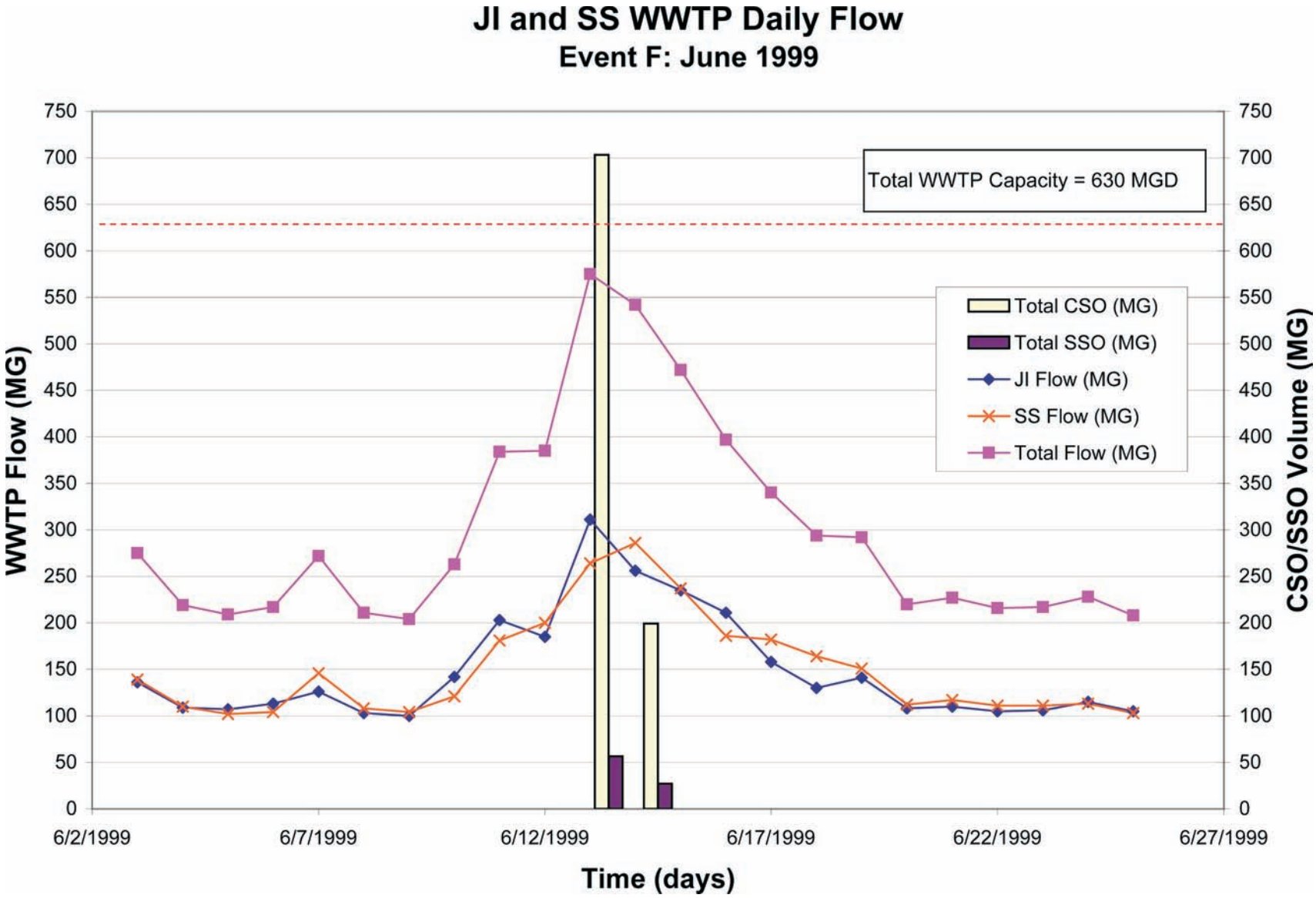
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events.

TABLE 4J-9 SHEET 5 OF 14
EVENT FLOW FIGURES
2020 TREATMENT REPORT
6/04/07 TR_4-A.T4J09.07.06.04.cdr



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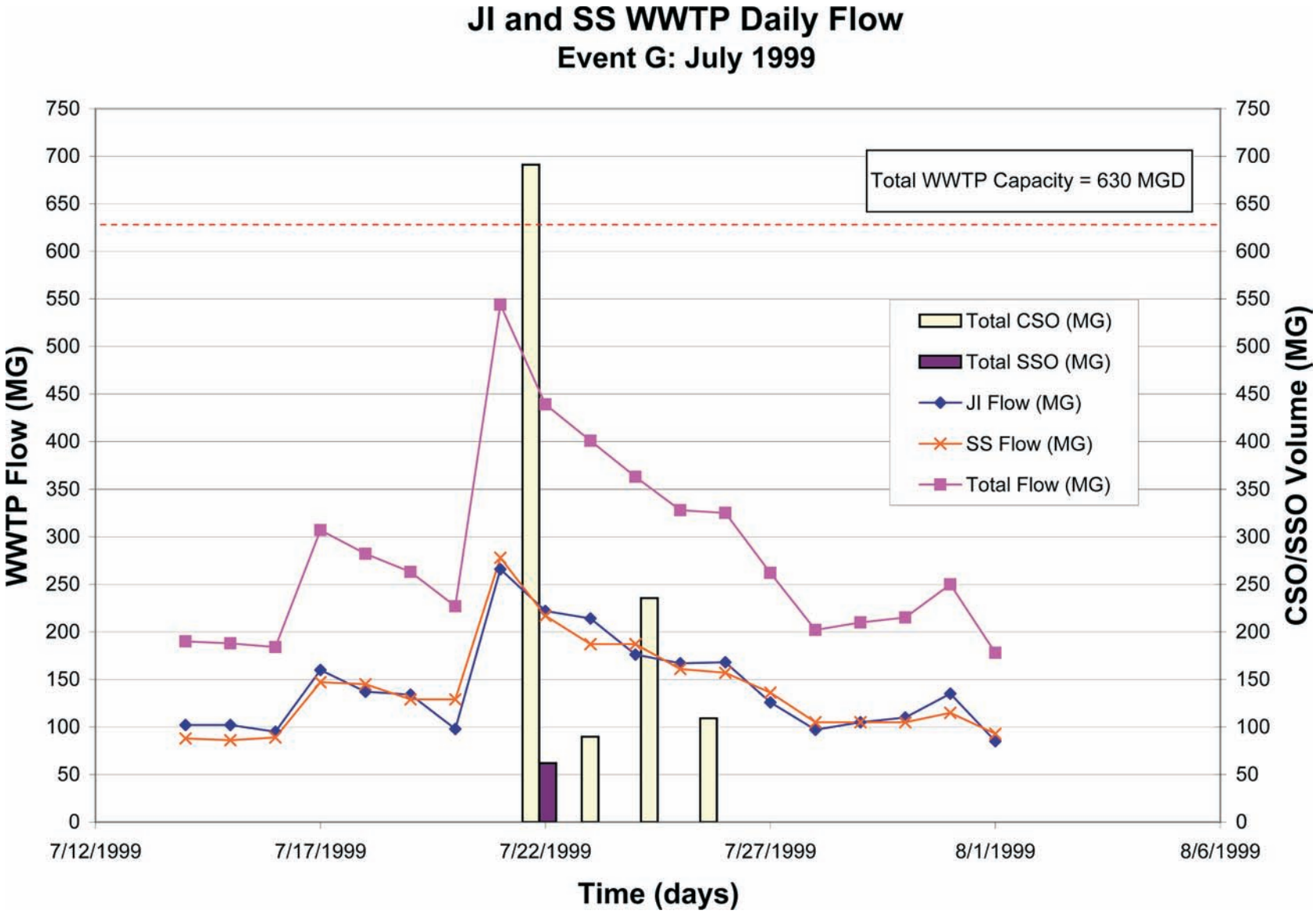
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events.

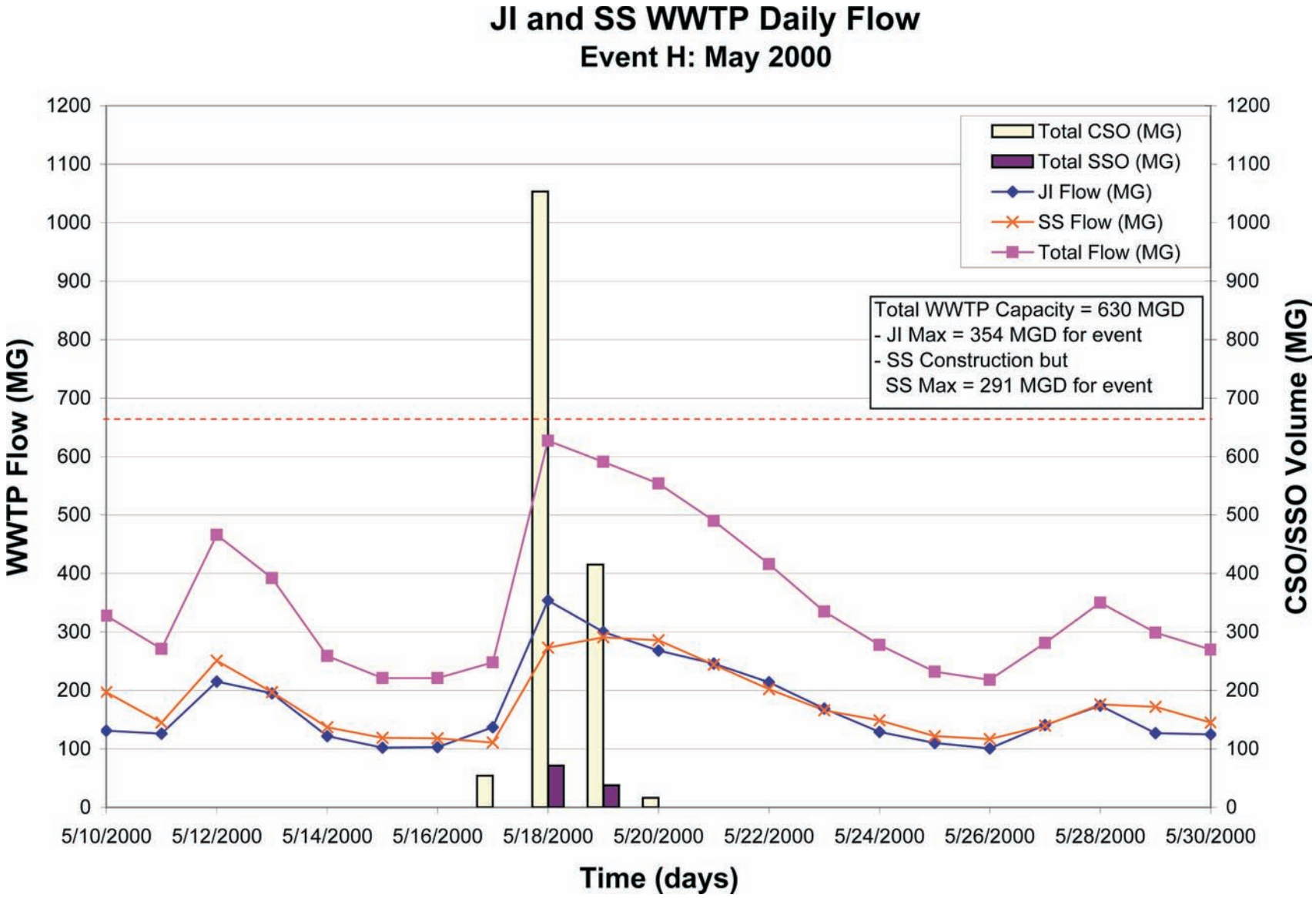
TABLE 4J-9 SHEET 6 OF 14
EVENT FLOW FIGURES
2020 TREATMENT REPORT
6/04/07 TR_4-A.T4J09.07.06.04.cdr



Preserving The Environment • Improving Water Quality

Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events.

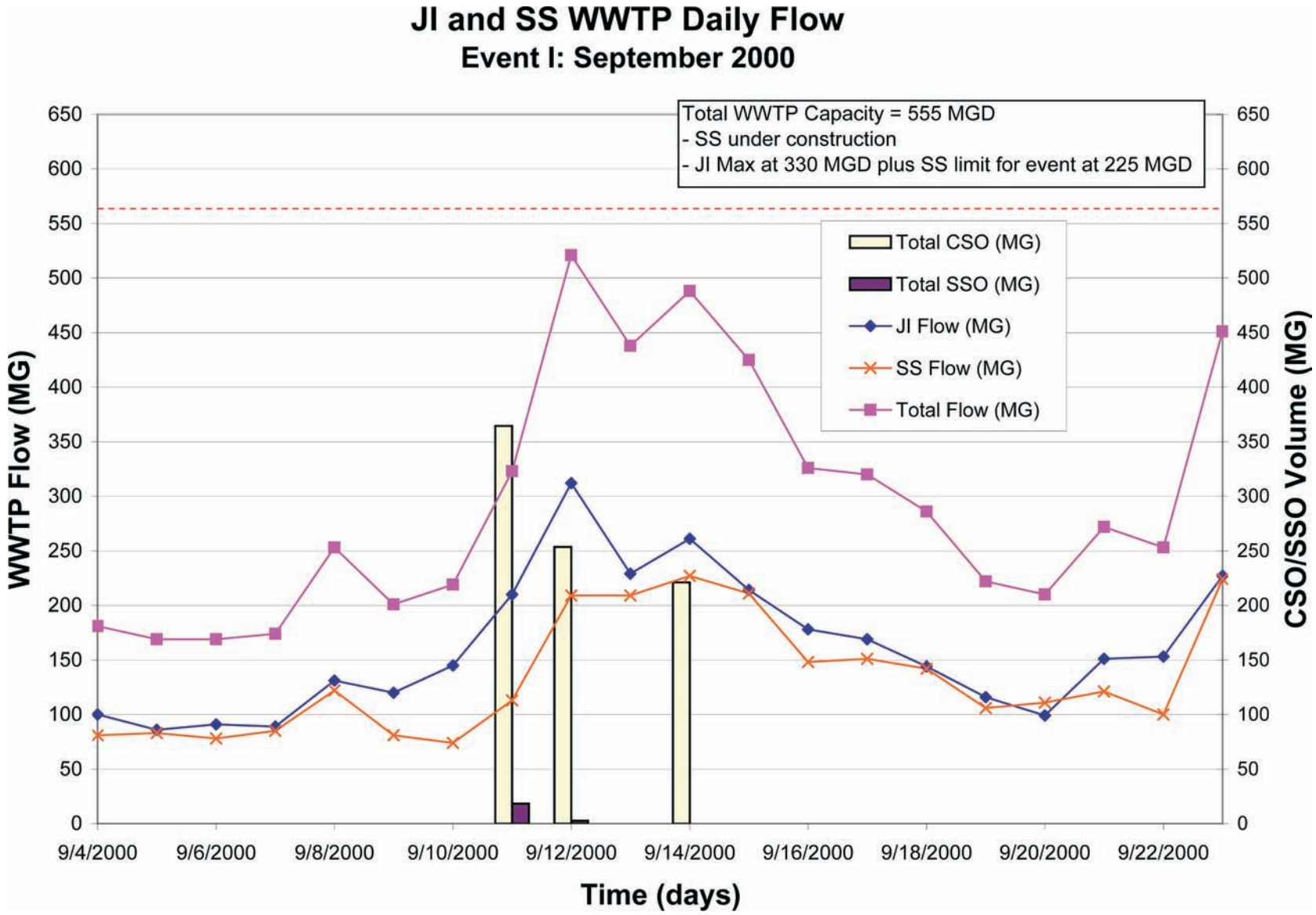
TABLE 4J-9 SHEET 7 OF 14
EVENT FLOW FIGURES
2020 TREATMENT REPORT
6/04/07 TR_4-A.T4J09.07.06.04.cdr



Preserving The Environment • Improving Water Quality

Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events.

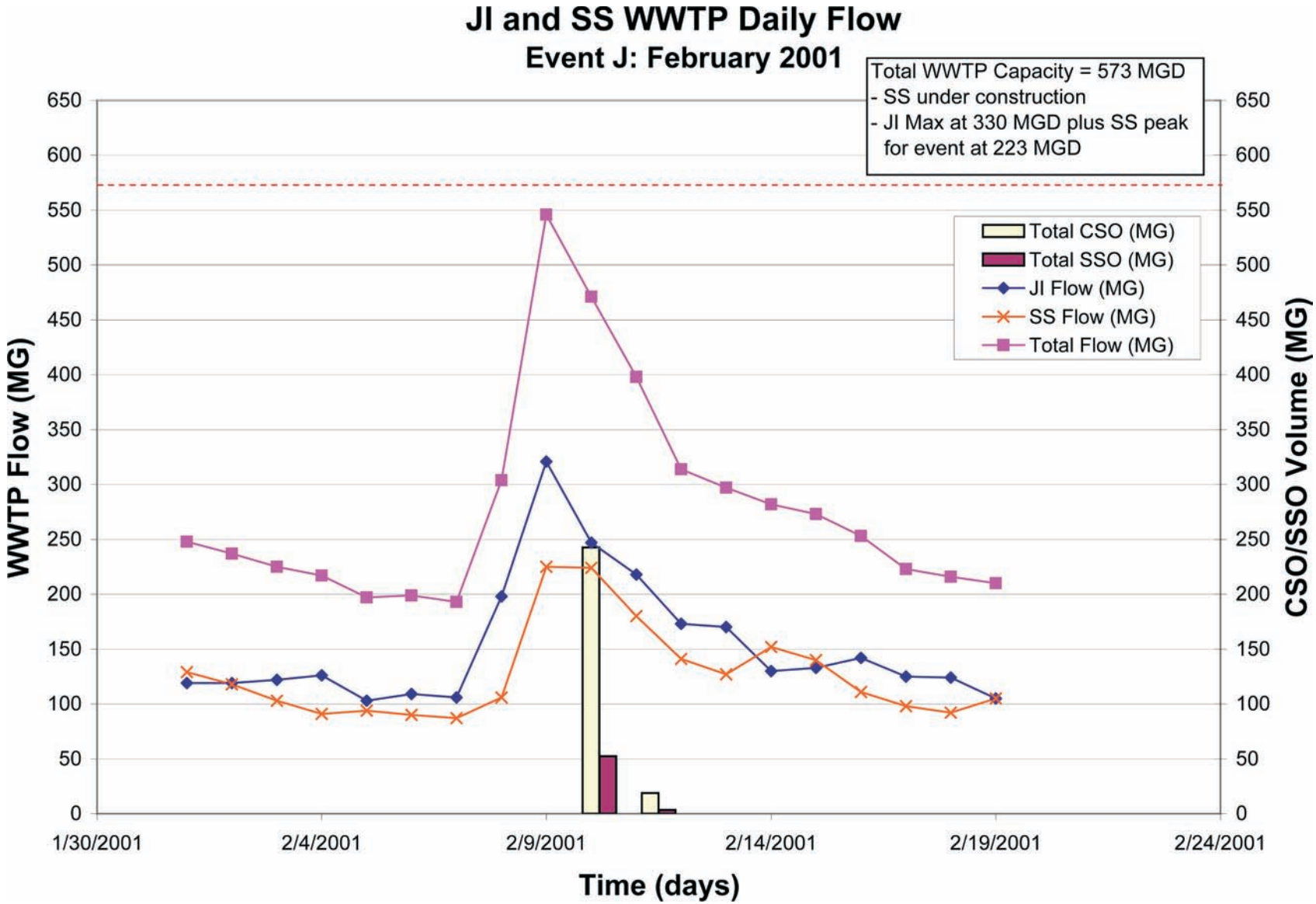
TABLE 4J-9 SHEET 8 OF 14
EVENT FLOW FIGURES
2020 TREATMENT REPORT
6/04/07 TR_4-A.T4J09.07.06.04.cdr



Preserving The Environment • Improving Water Quality

Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events.

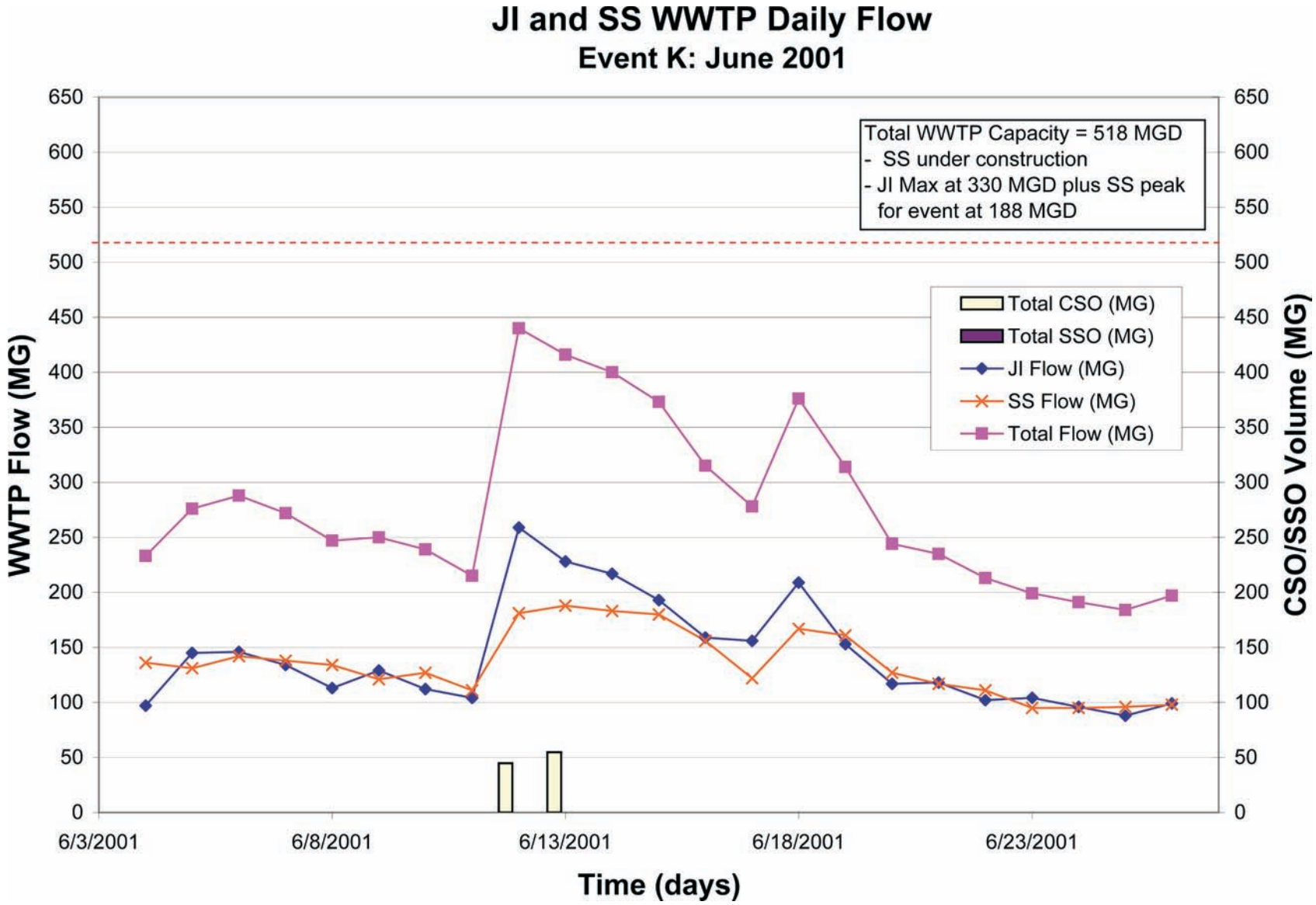
TABLE 4J-9 SHEET 9 OF 14
EVENT FLOW FIGURES
2020 TREATMENT REPORT
6/04/07 TR_4-A.T4J09.07.06.04.cdr



Preserving The Environment • Improving Water Quality

Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events.

TABLE 4J-9 SHEET 10 OF 14
EVENT FLOW FIGURES
2020 TREATMENT REPORT
6/04/07 TR_4-A.T4J09.07.06.04.cdr



Preserving The Environment • Improving Water Quality

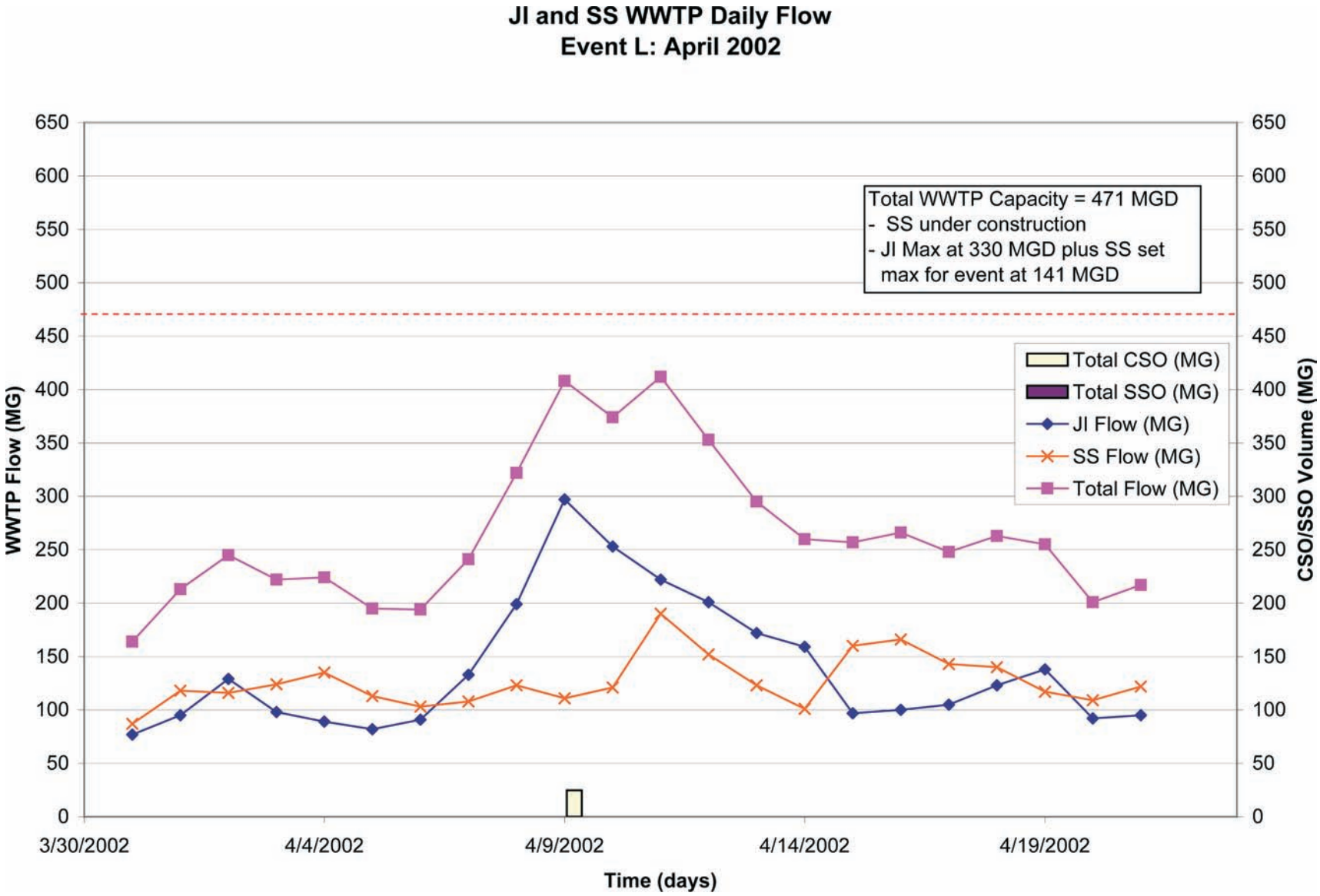
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events.

TABLE 4J-9 SHEET 11 OF 14

EVENT FLOW FIGURES

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J09.07.06.04.cdr



Preserving The Environment • Improving Water Quality

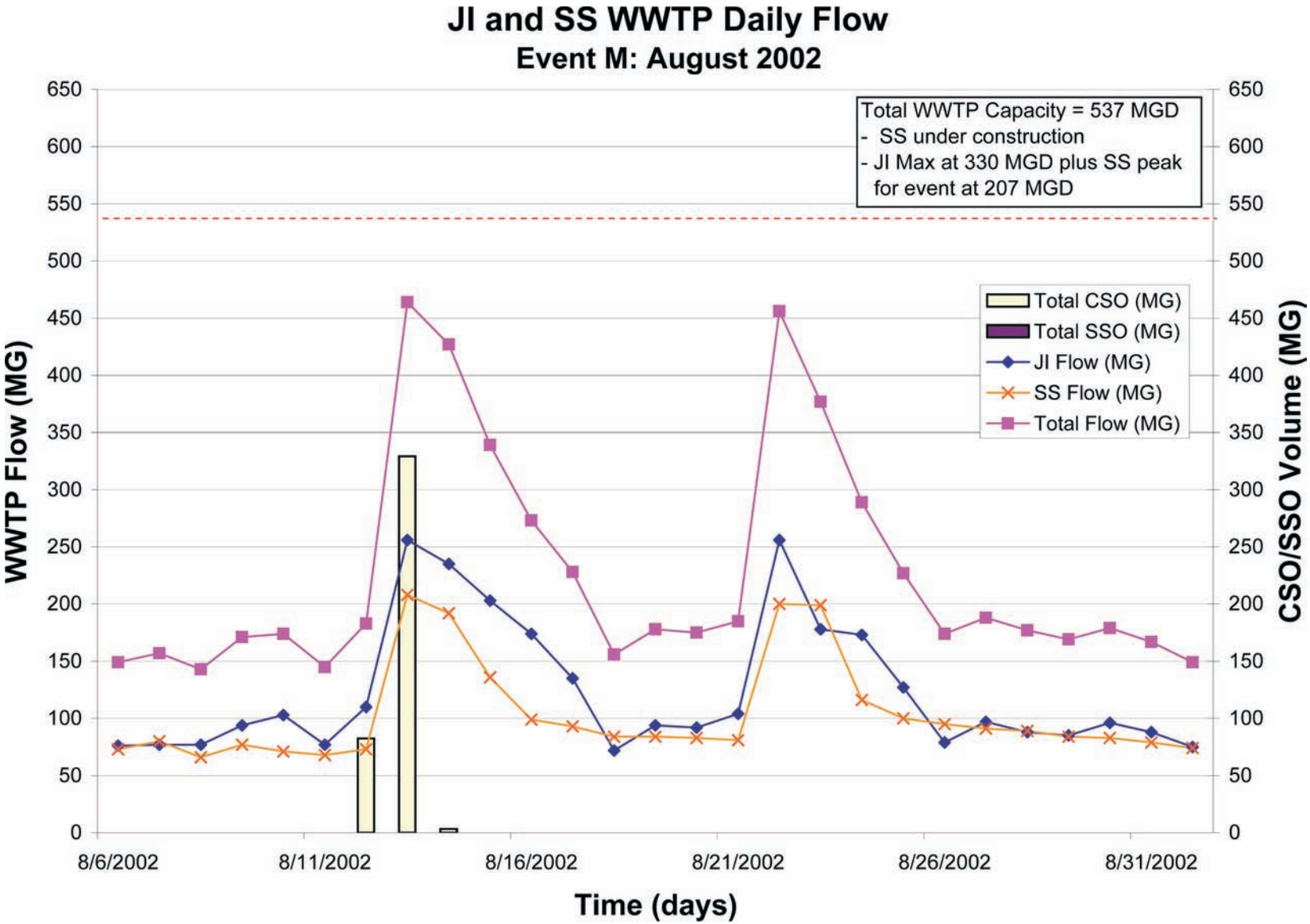
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events.

TABLE 4J-9 SHEET 12 OF 14

EVENT FLOW FIGURES

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J09.07.06.04.cdr



Preserving The Environment • Improving Water Quality

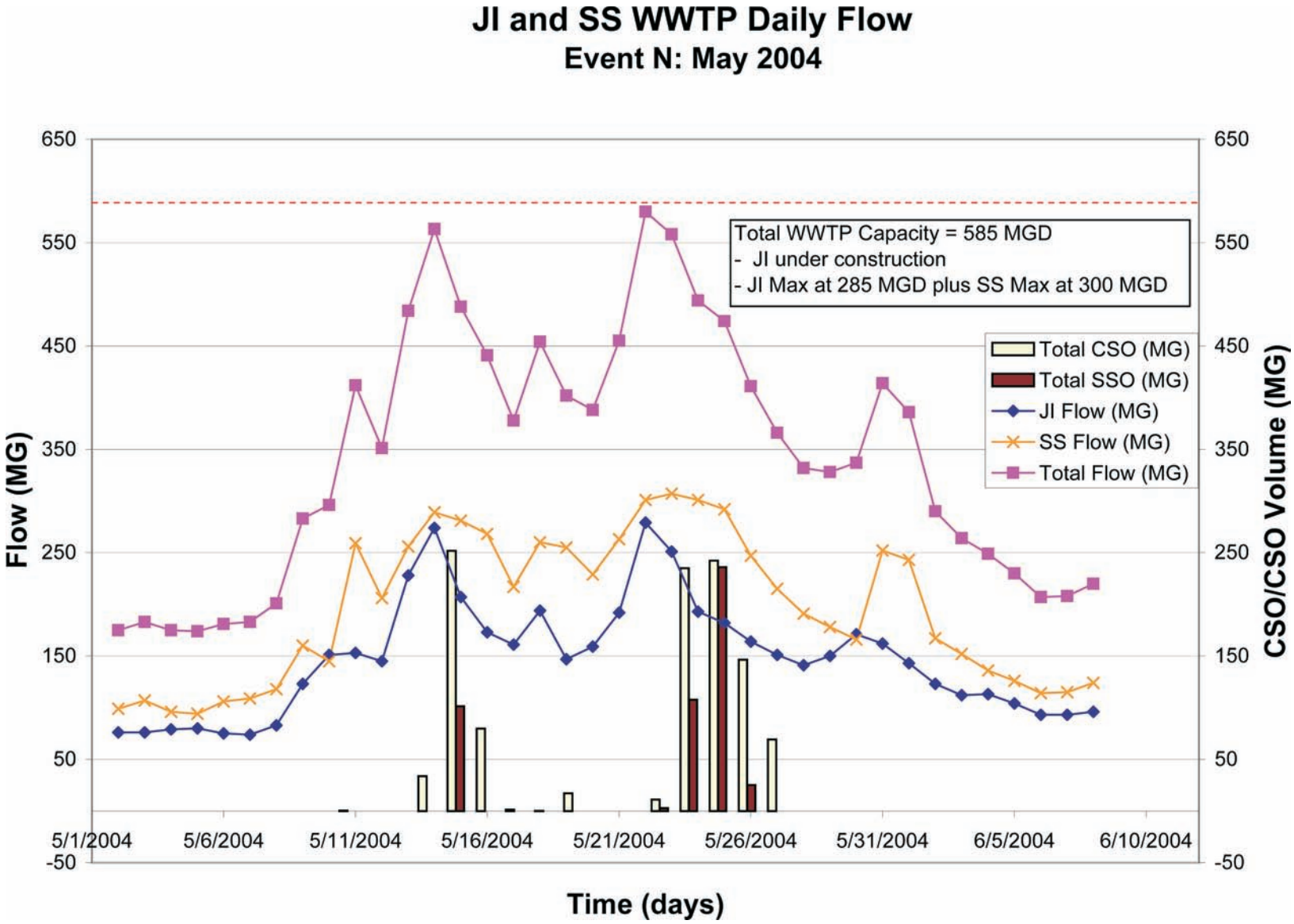
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events.

TABLE 4J-9 SHEET 13 OF 14

EVENT FLOW FIGURES

2020 TREATMENT REPORT

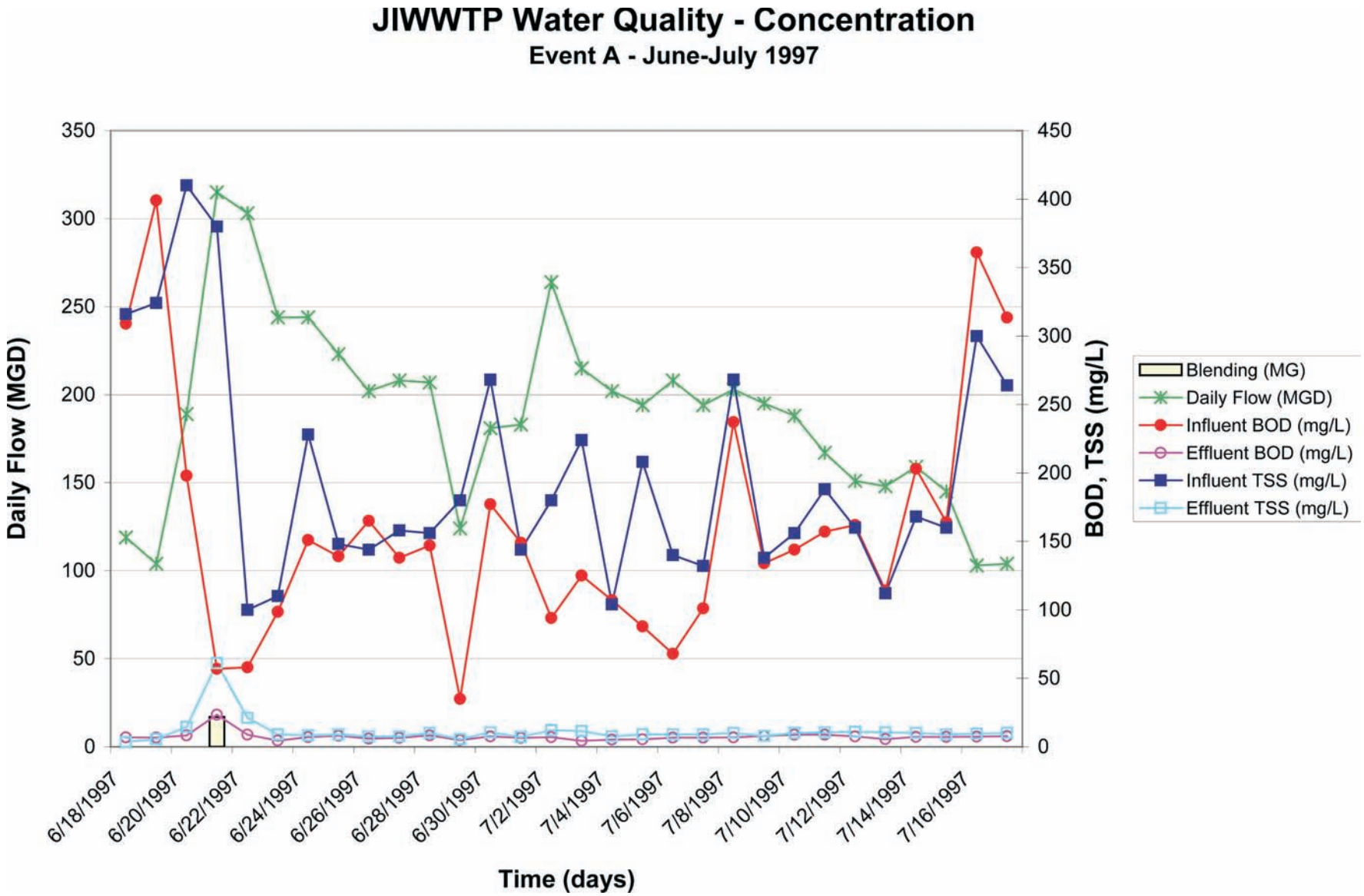
6/04/07 TR_4-A.T4J09.07.06.04.cdr



Preserving The Environment • Improving Water Quality

Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events.

TABLE 4J-9 SHEET 14 OF 14
EVENT FLOW FIGURES
2020 TREATMENT REPORT
6/04/07 TR_4-A.T4J09.07.06.04.cdr



Preserving The Environment • Improving Water Quality

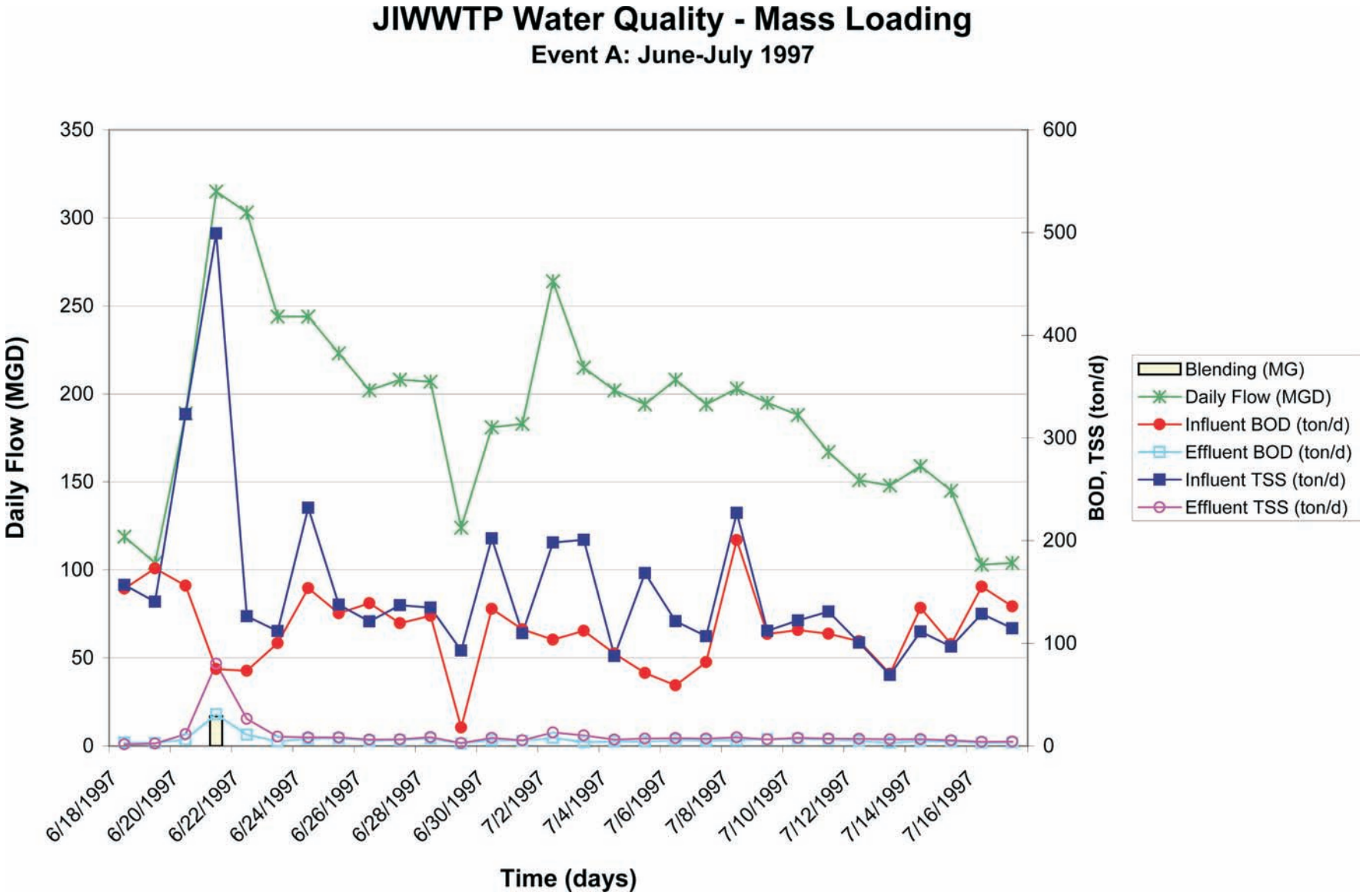
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-10 SHEET 1 OF 6

EVENT A WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J10.07.06.04.cdr



Preserving The Environment • Improving Water Quality

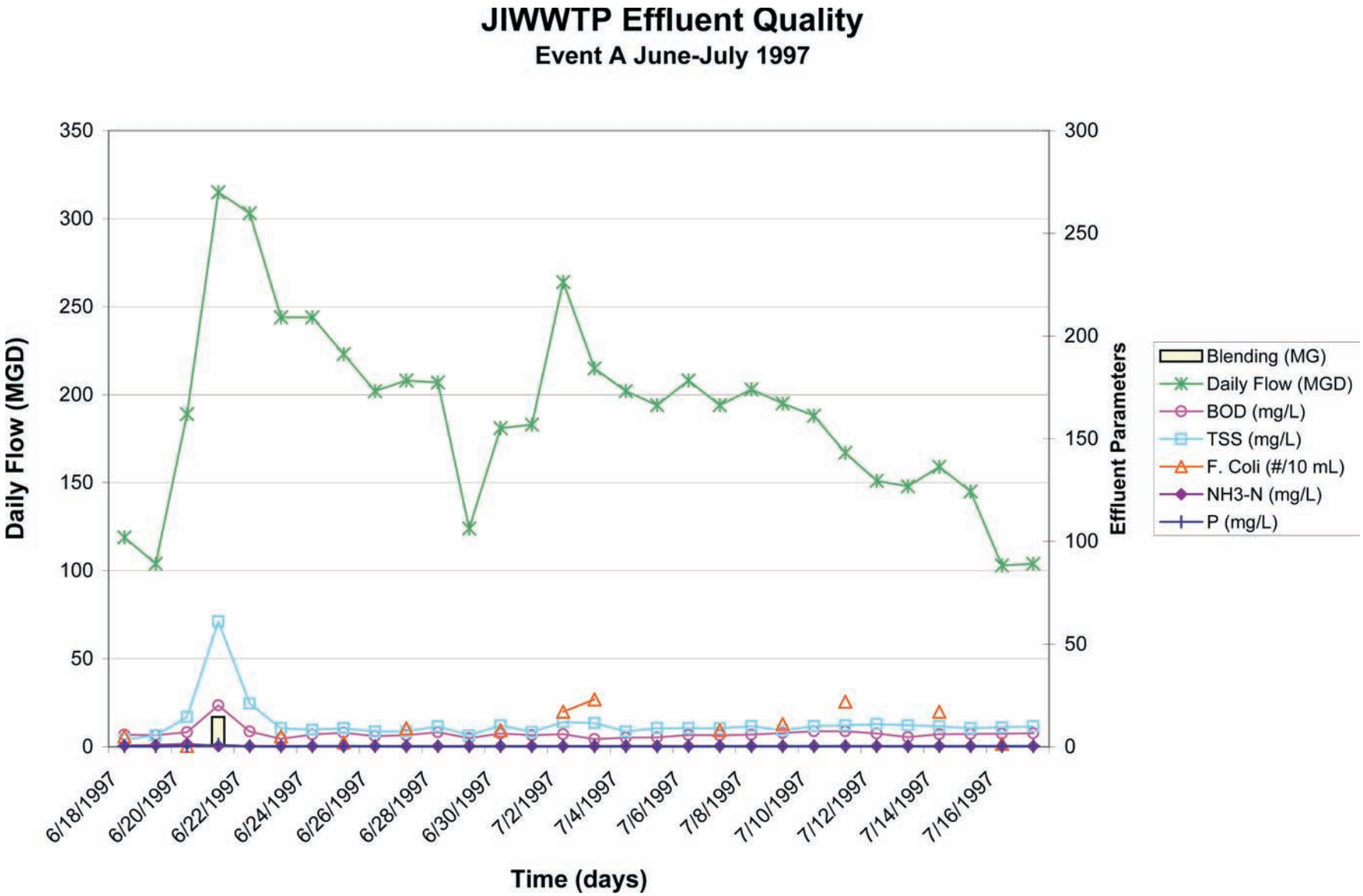
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-10 SHEET 2 OF 6

EVENT A WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J10.07.06.04.cdr



Preserving The Environment • Improving Water Quality

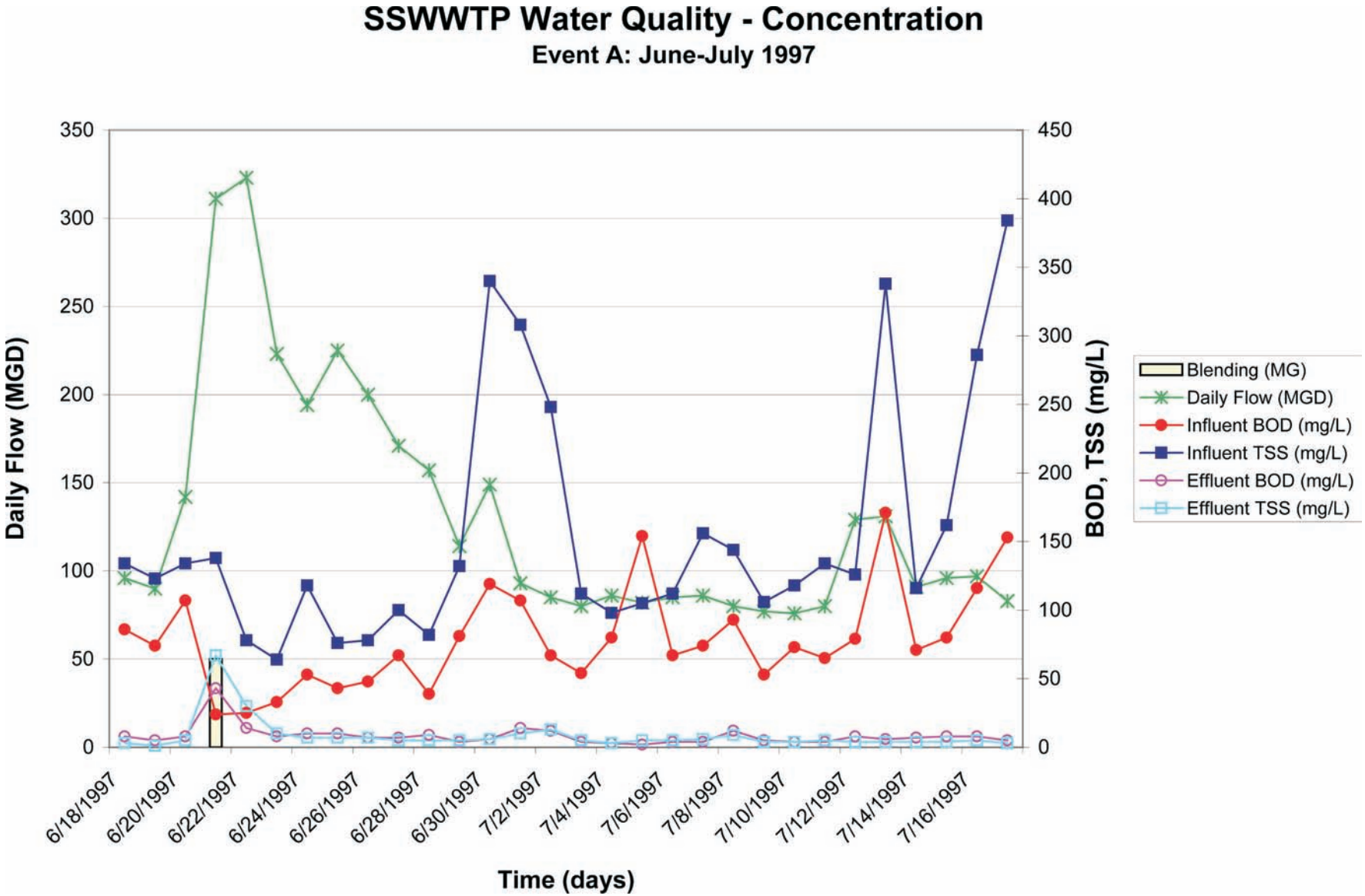
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-10 SHEET 3 OF 6

EVENT A WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J10.07.06.04.cdr



Preserving The Environment • Improving Water Quality

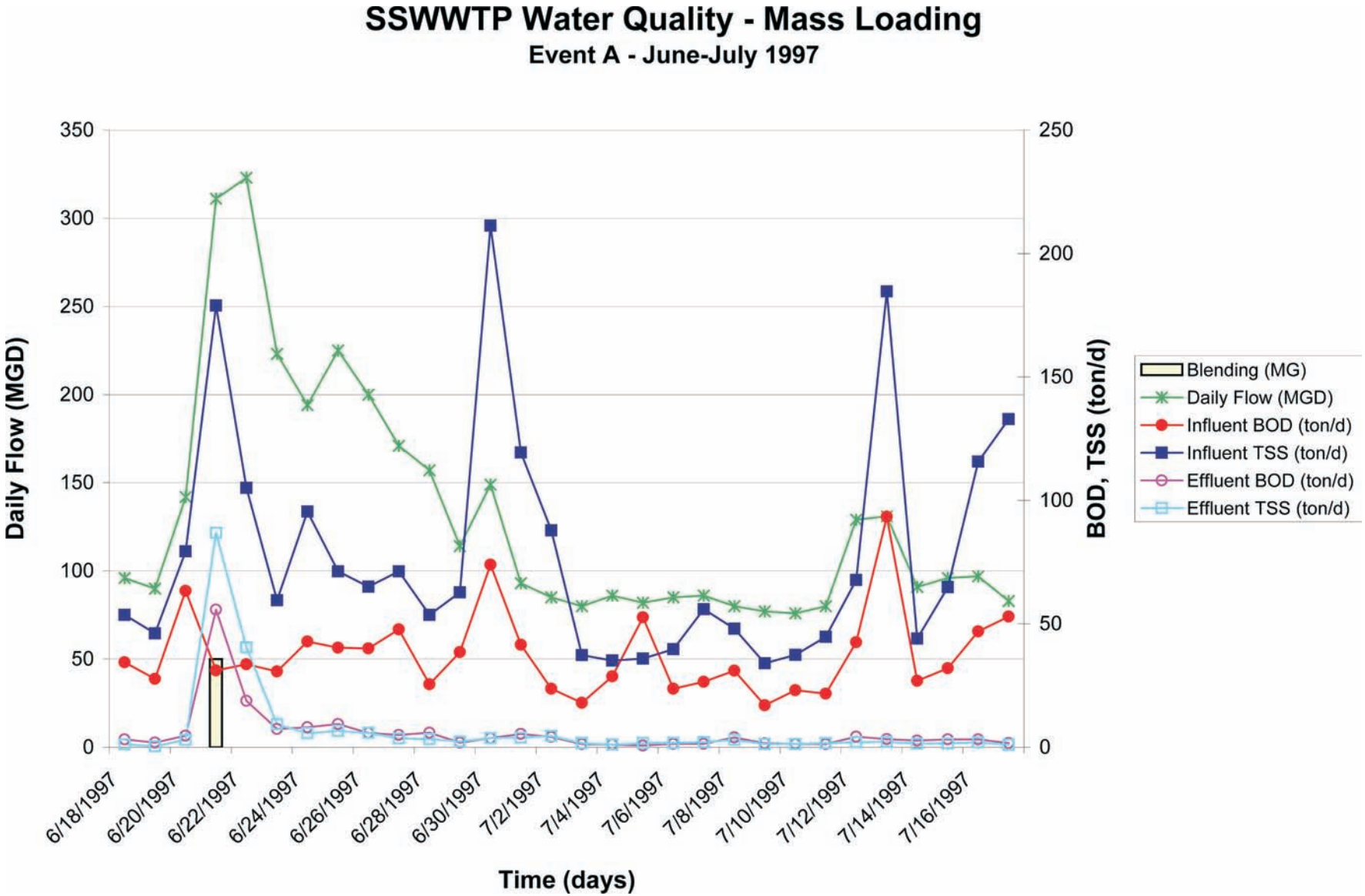
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-10 SHEET 4 OF 6

EVENT A WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J10.07.06.04.cdr



Preserving The Environment • Improving Water Quality

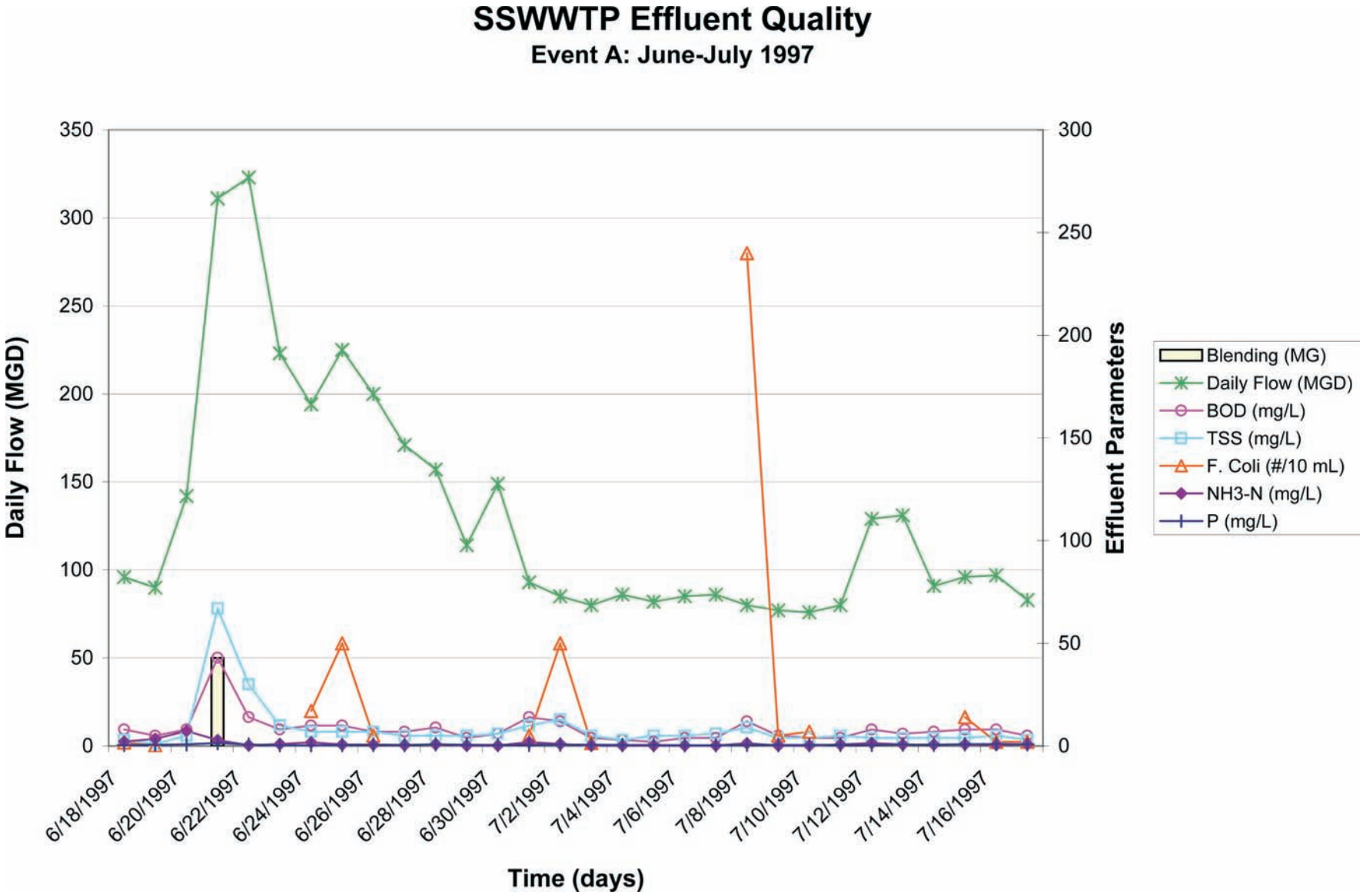
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-10 SHEET 5 OF 6

EVENT A WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J10.07.06.04.cdr



Preserving The Environment • Improving Water Quality

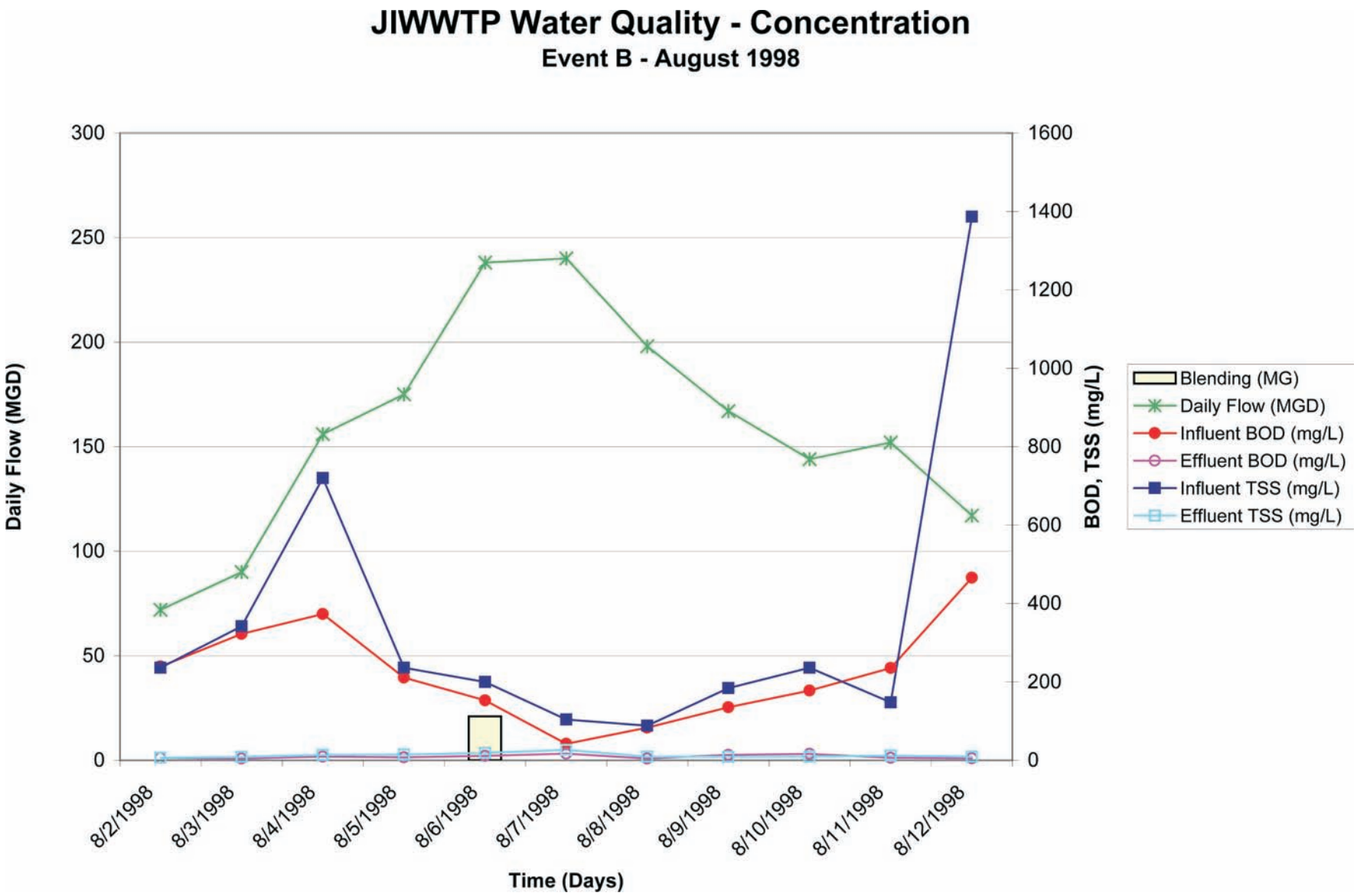
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-10 SHEET 6 OF 6

EVENT A WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J10.07.06.04.cdr



Preserving The Environment • Improving Water Quality

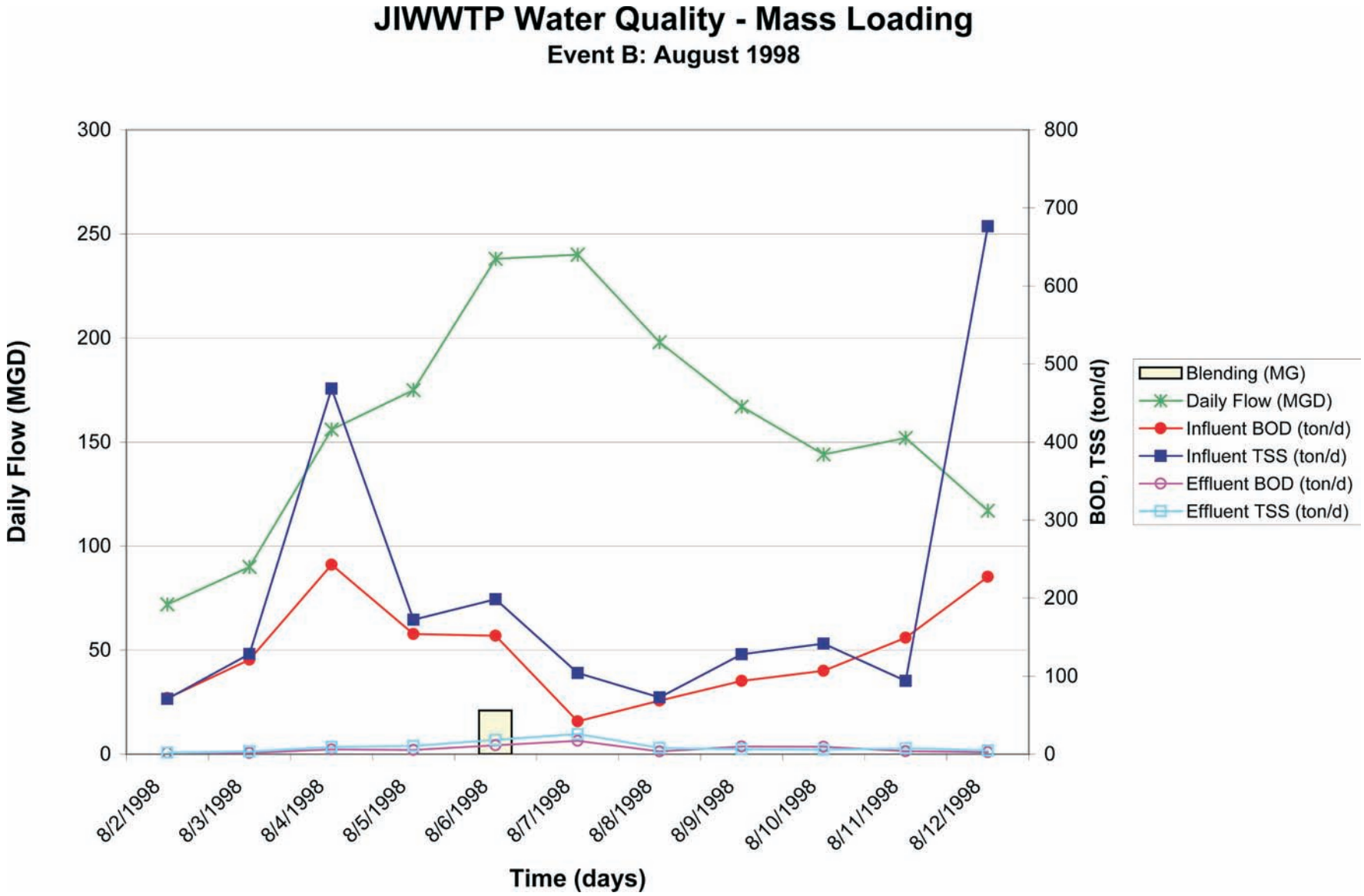
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-11 SHEET 1 OF 6

EVENT B WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J11.07.06.04.cdr



Preserving The Environment • Improving Water Quality

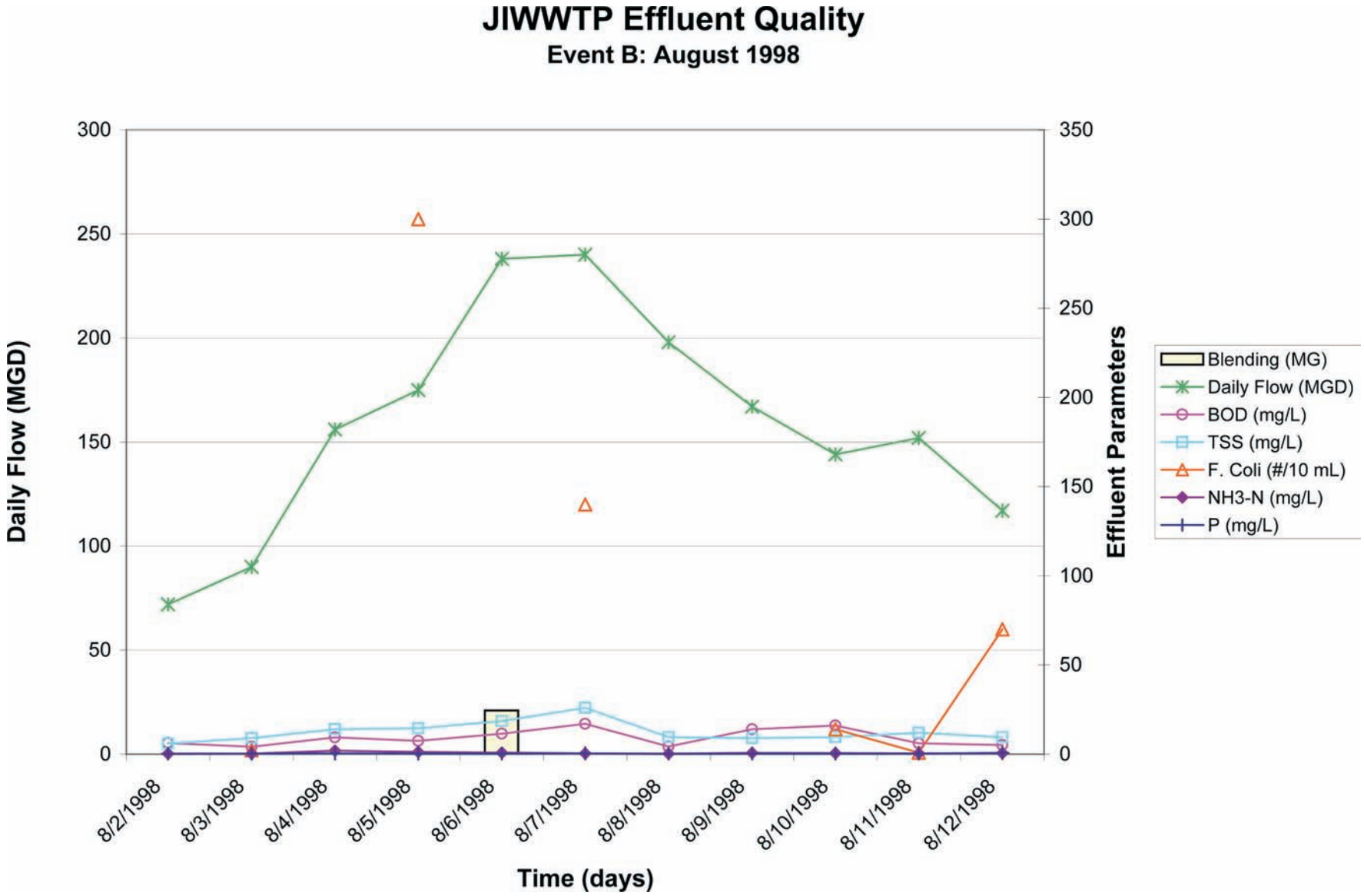
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-11 SHEET 2 OF 6

EVENT B WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J11.07.06.04.cdr



Preserving The Environment • Improving Water Quality

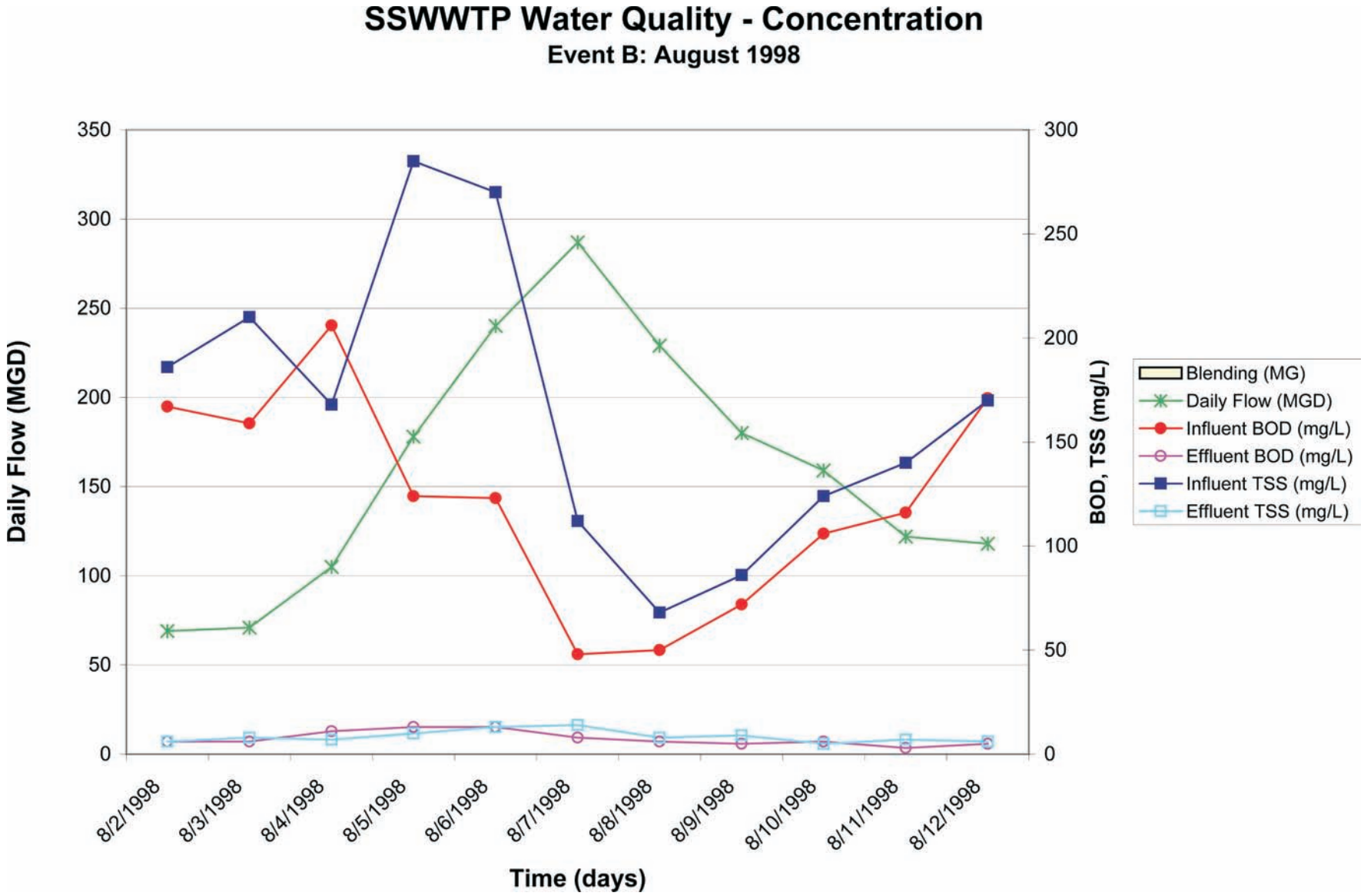
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-11 SHEET 3 OF 6

EVENT B WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J11.07.06.04.cdr



Preserving The Environment • Improving Water Quality

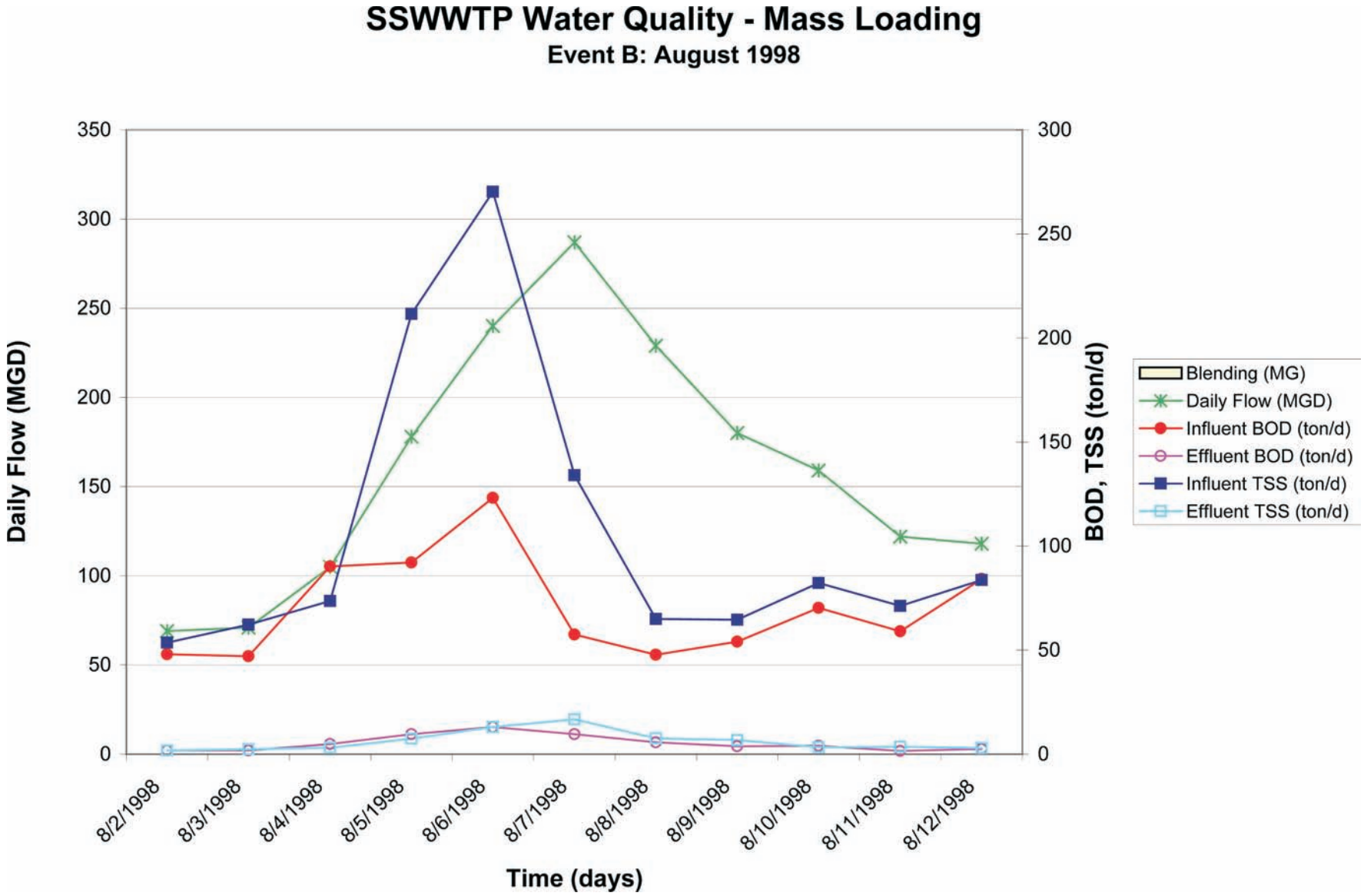
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-11 SHEET 4 OF 6

EVENT B WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J11.07.06.04.cdr



Preserving The Environment • Improving Water Quality

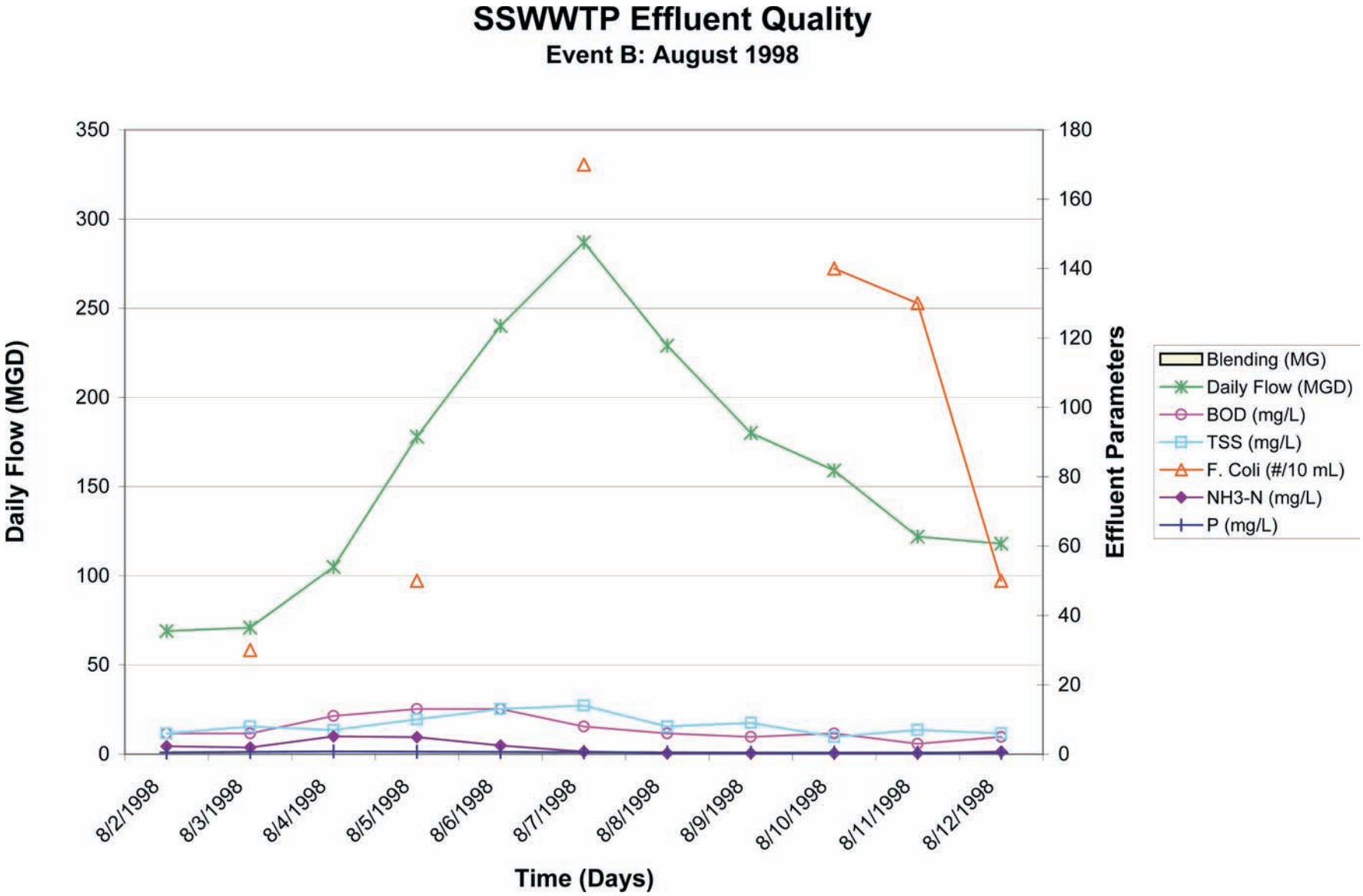
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-11 SHEET 5 OF 6

EVENT B WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J11.07.06.04.cdr



Preserving The Environment • Improving Water Quality

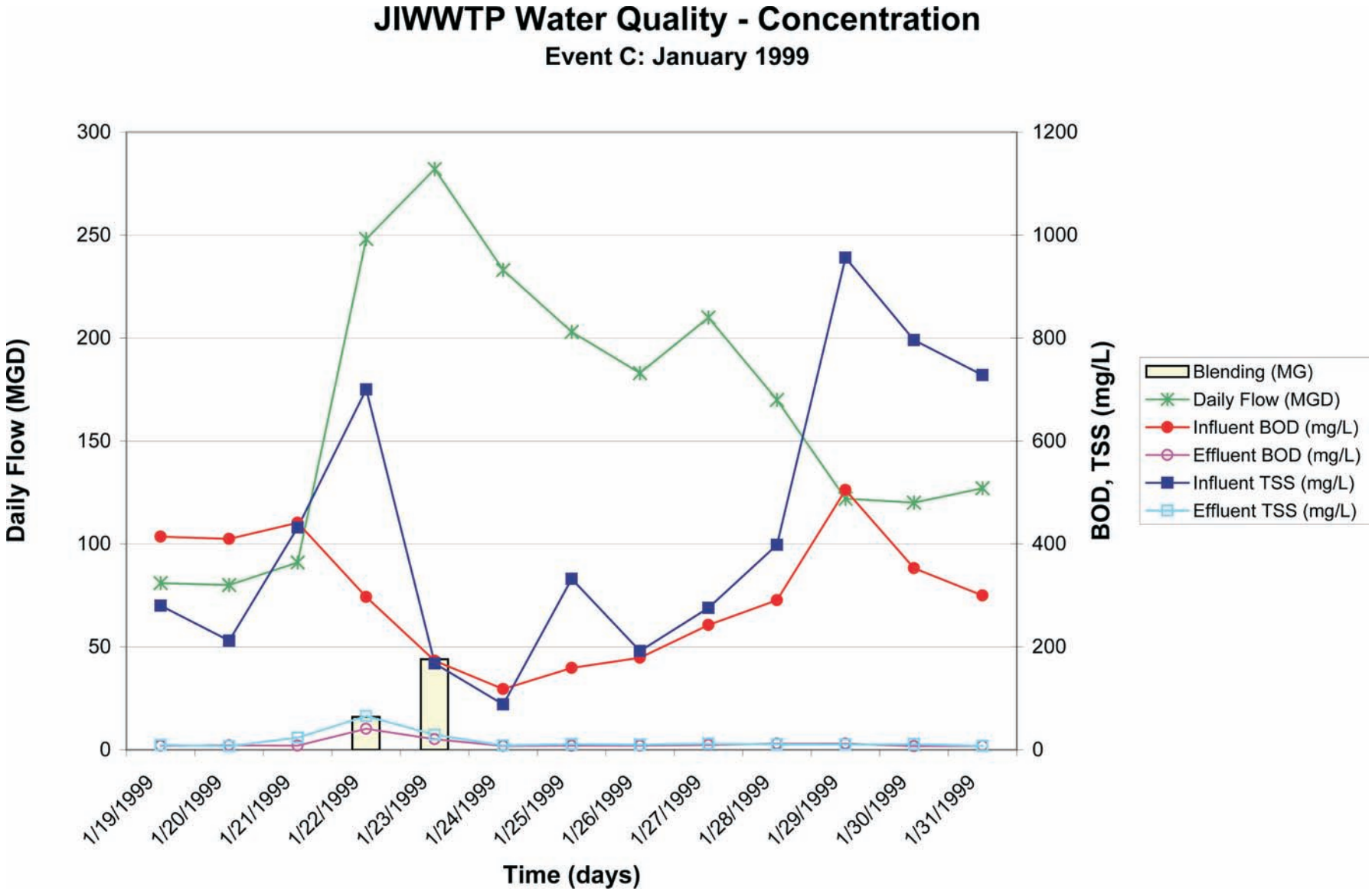
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-11 SHEET 6 OF 6

EVENT B WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J11.07.06.04.cdr



Preserving The Environment • Improving Water Quality

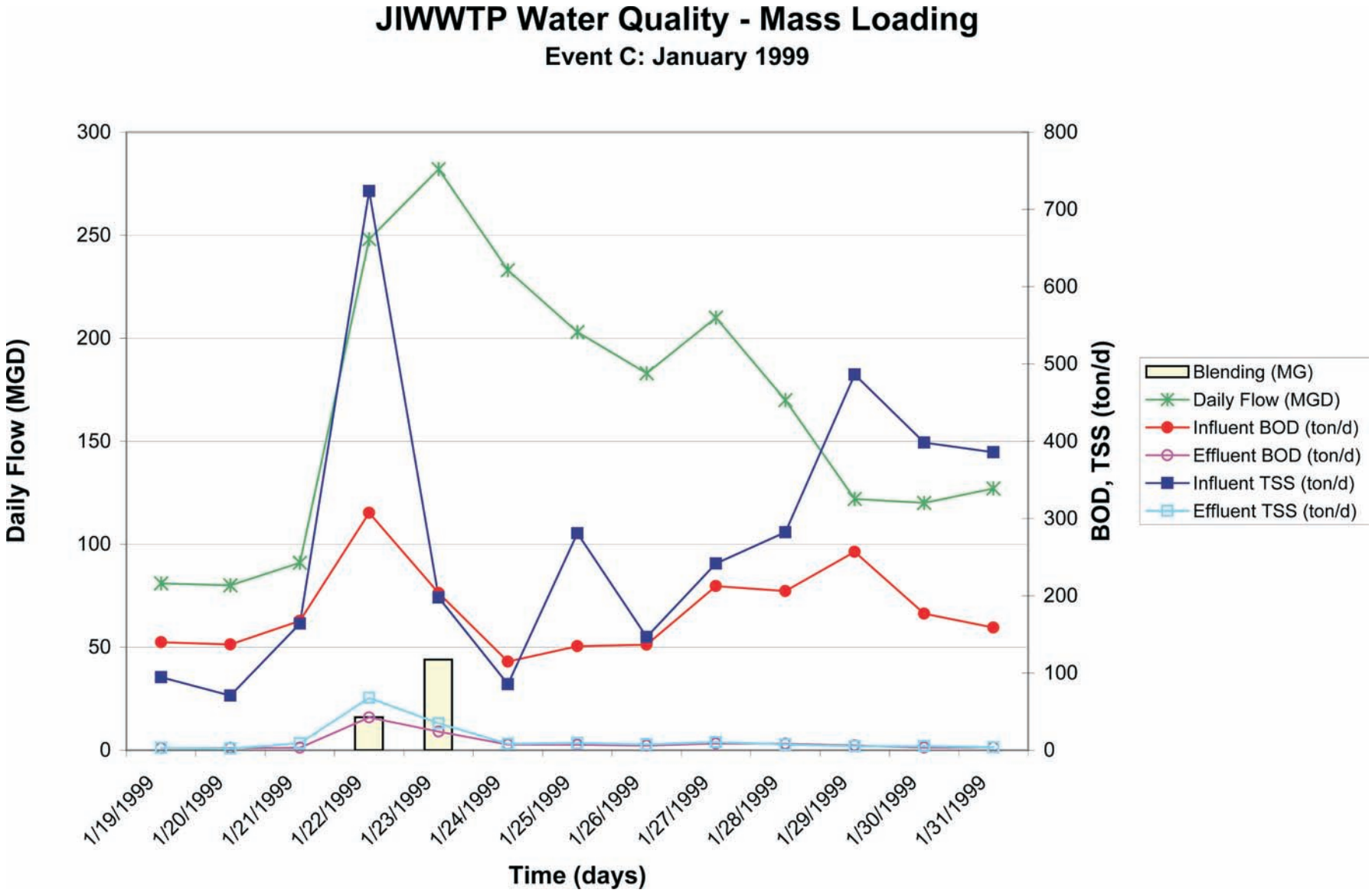
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-12 SHEET 1 OF 6

EVENT C WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J12.07.06.04.cdr



Preserving The Environment • Improving Water Quality

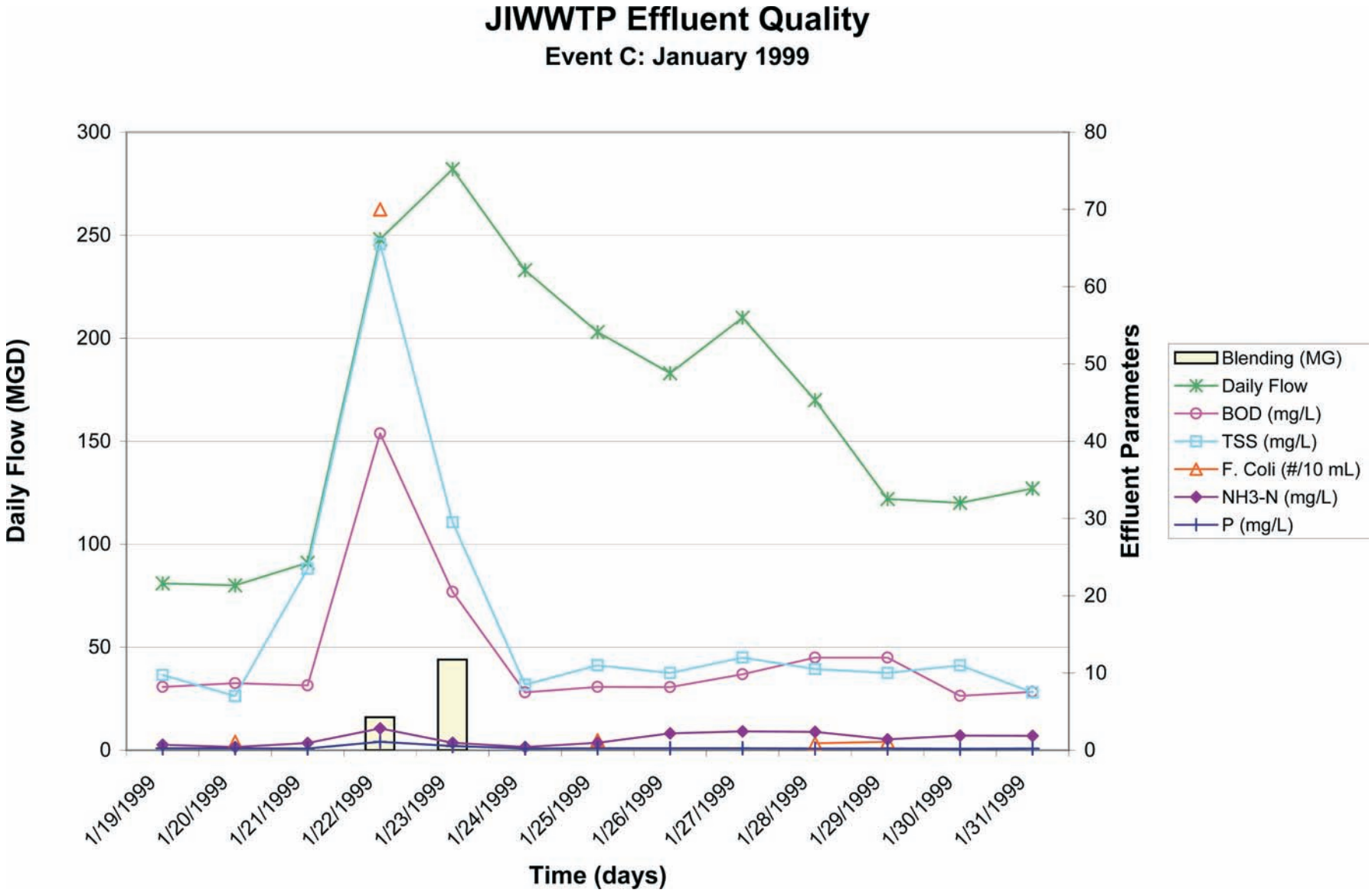
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-12 SHEET 2 OF 6

EVENT C WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J12.07.06.04.cdr



Preserving The Environment • Improving Water Quality

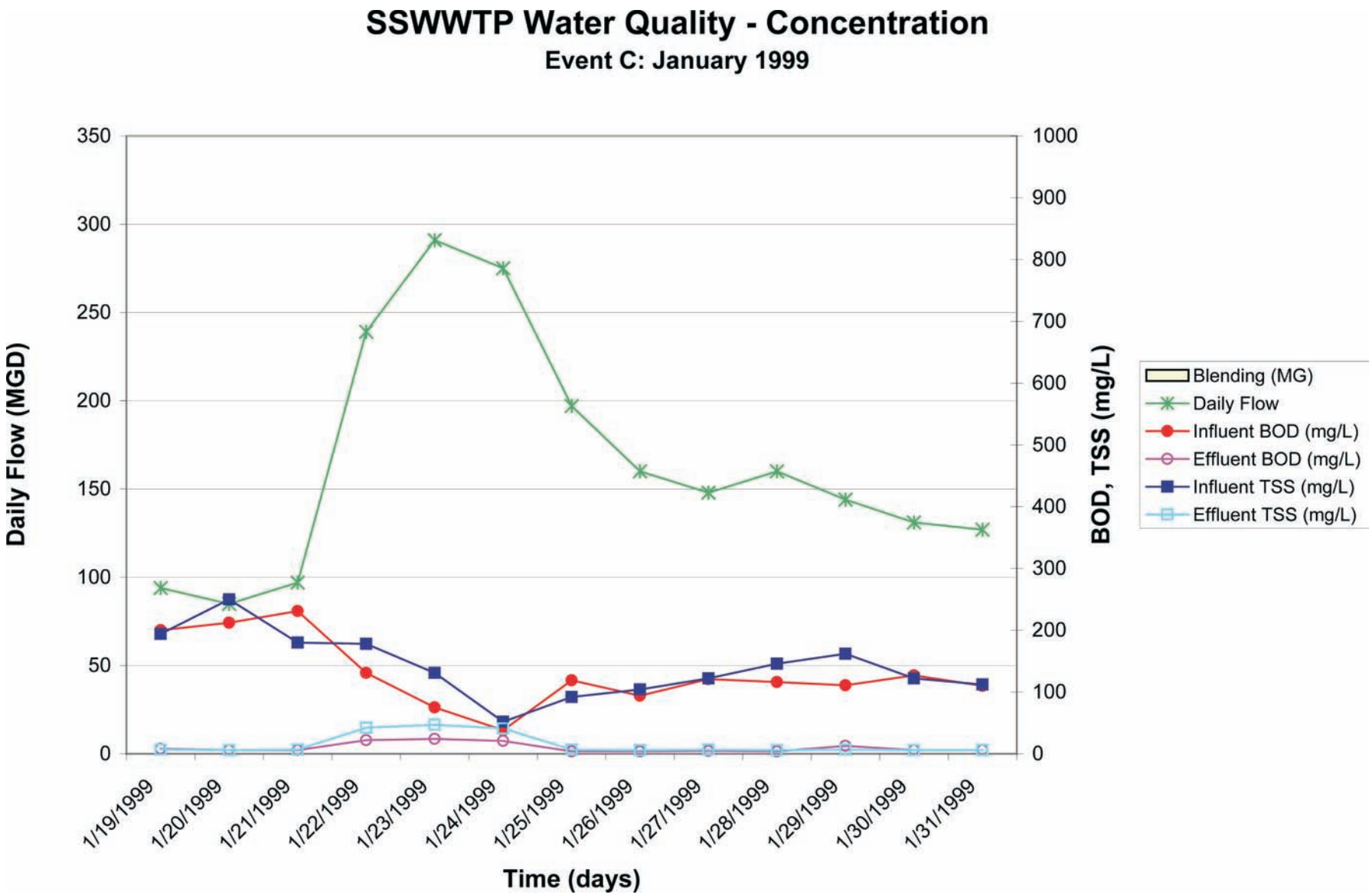
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-12 SHEET 3 OF 6

EVENT C WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J12.07.06.04.cdr



Preserving The Environment • Improving Water Quality

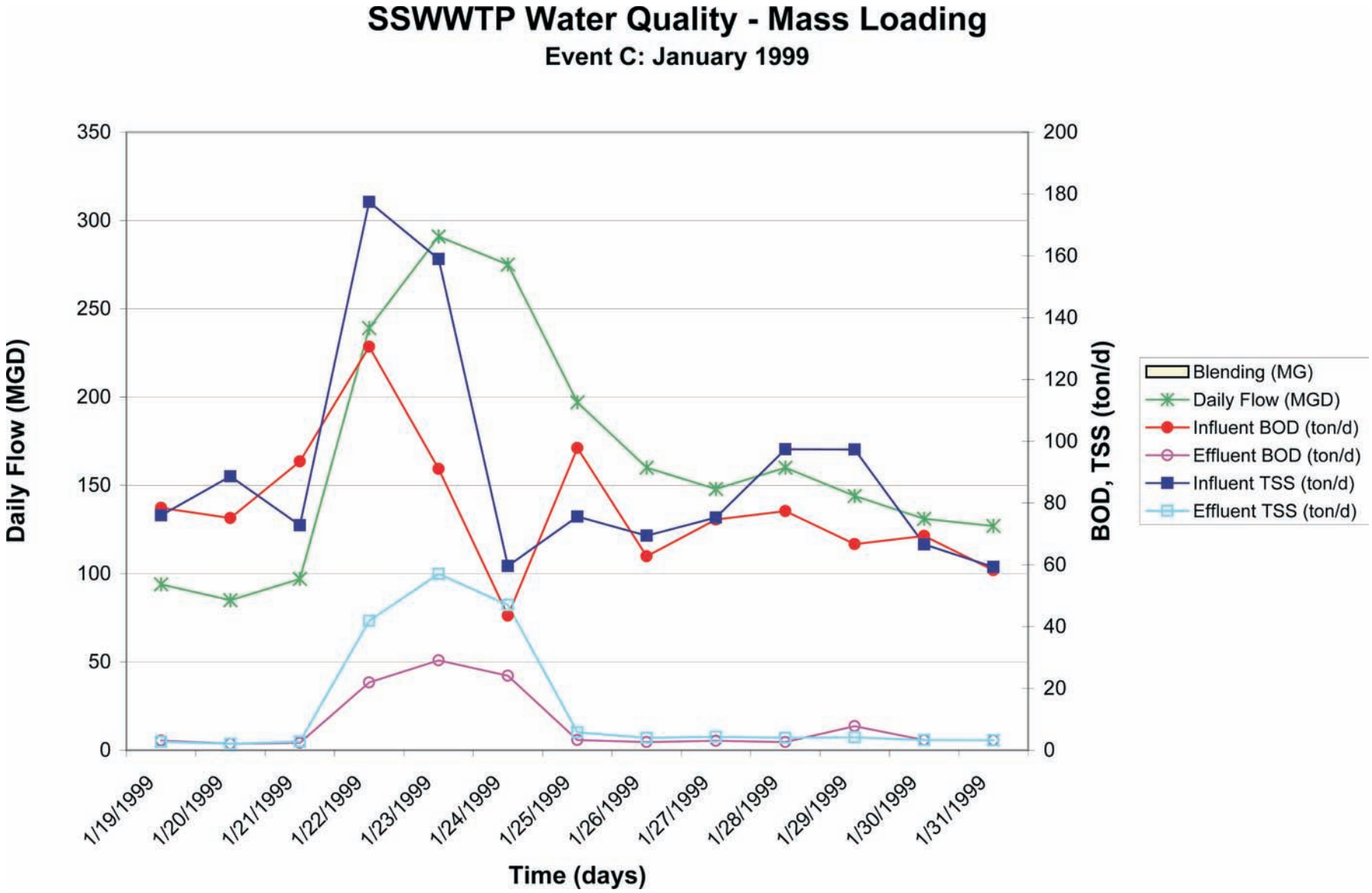
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-12 SHEET 4 OF 6

EVENT C WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J12.07.06.04.cdr



Preserving The Environment • Improving Water Quality

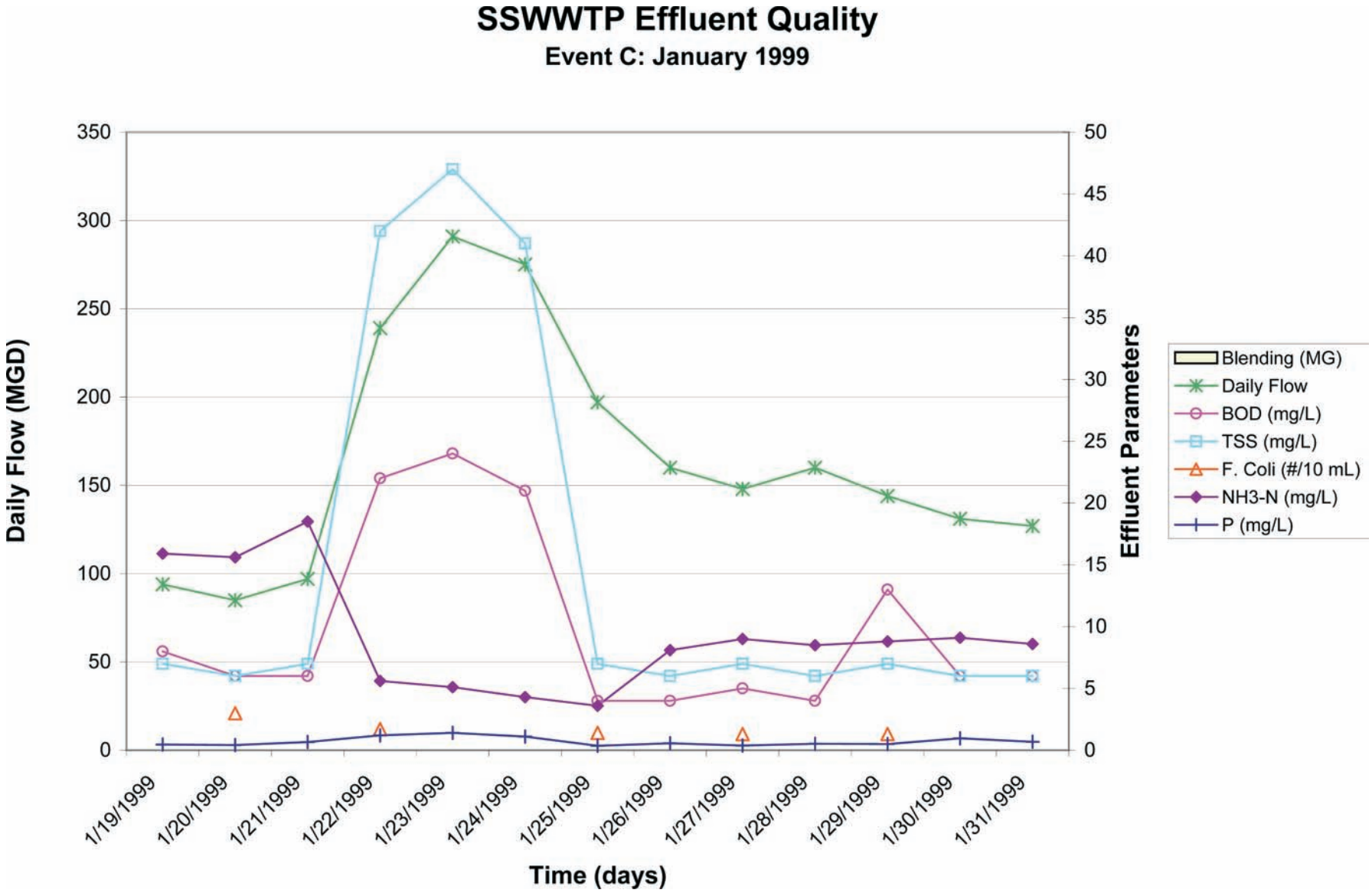
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-12 SHEET 5 OF 6

EVENT C WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J12.07.06.04.cdr



Preserving The Environment • Improving Water Quality

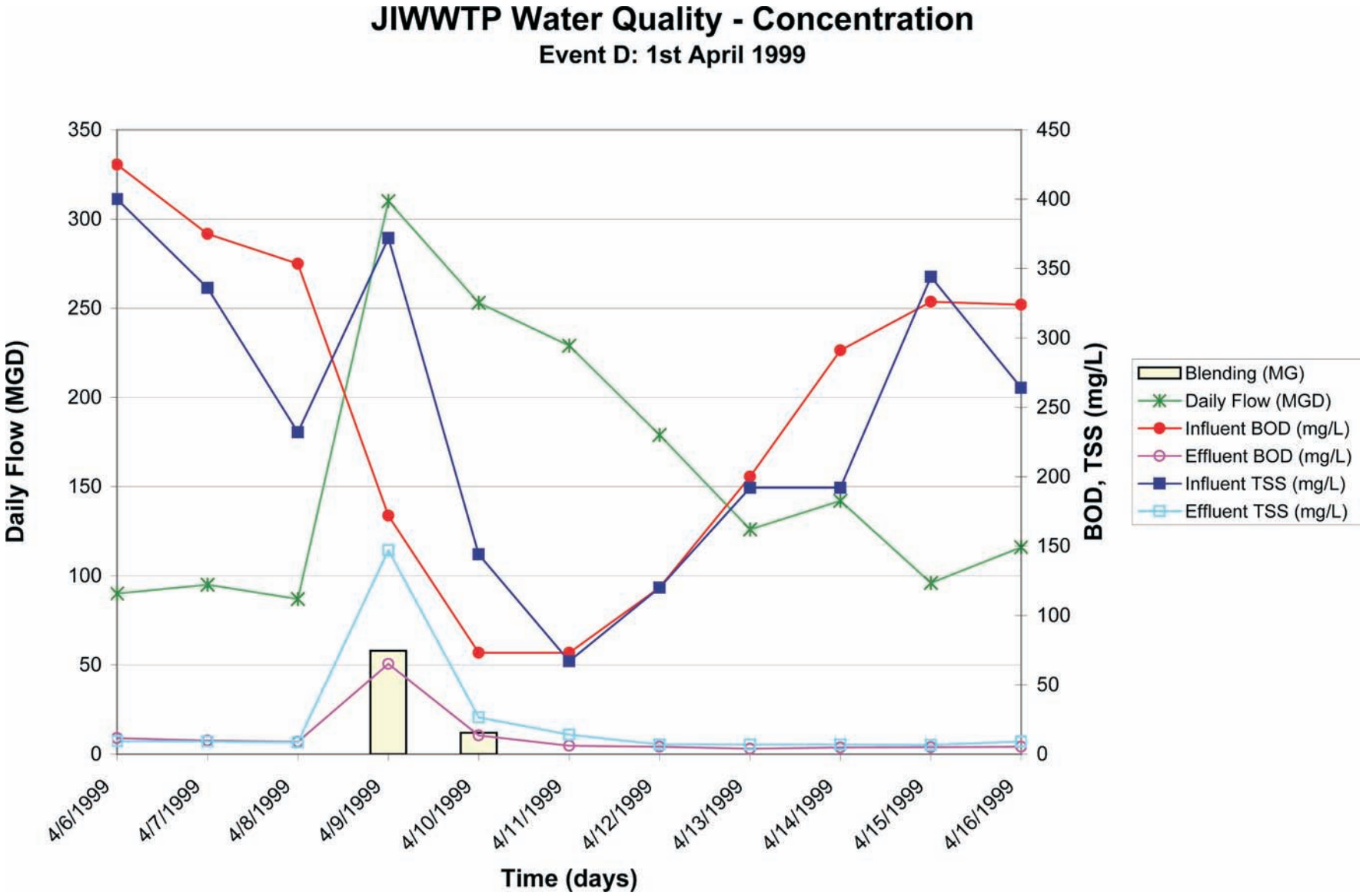
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-12 SHEET 6 OF 6

EVENT C WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J12.07.06.04.cdr



Preserving The Environment • Improving Water Quality

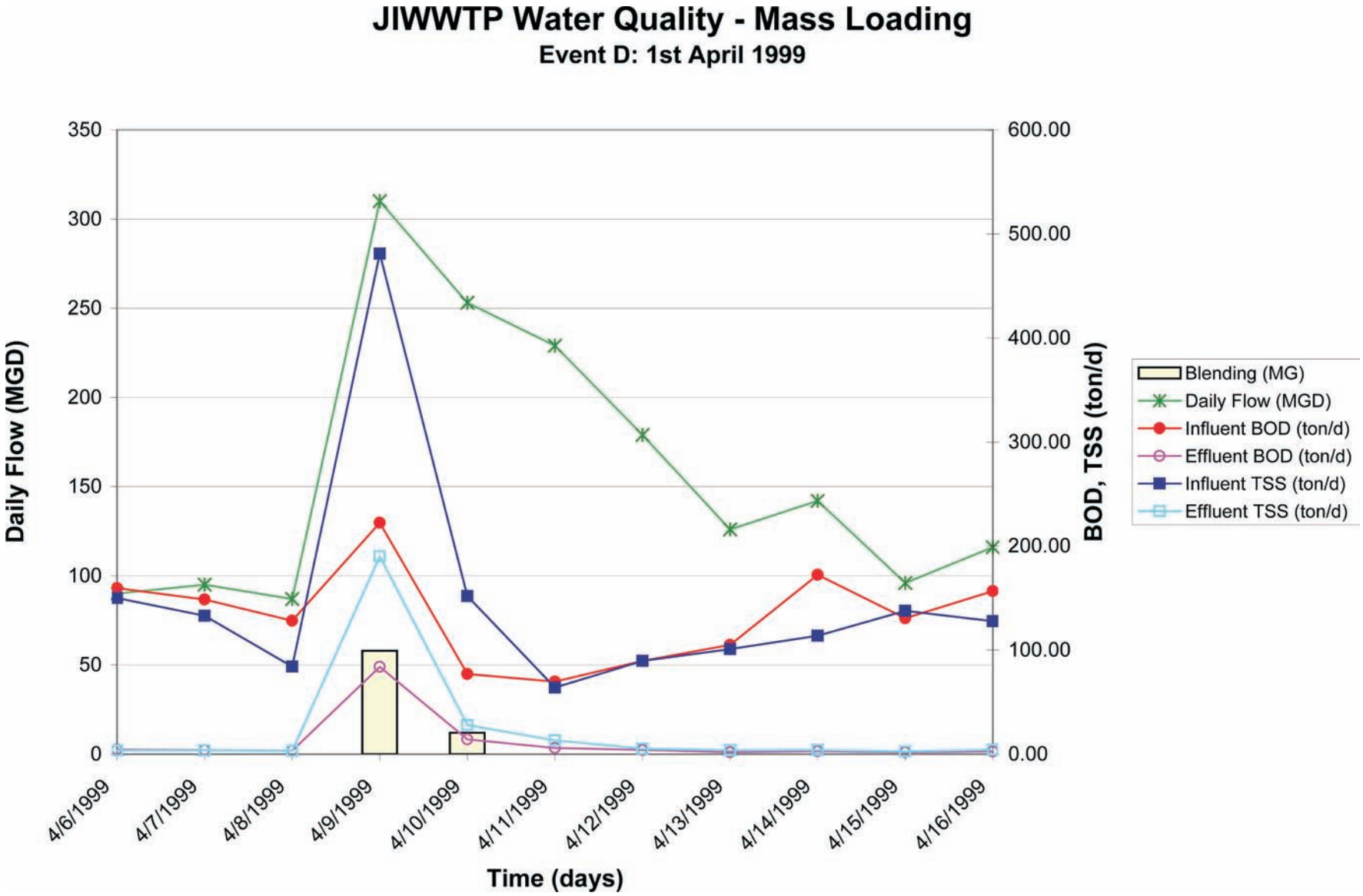
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-13 SHEET 1 OF 6

EVENT D WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J13.07.06.04.cdr



Preserving The Environment • Improving Water Quality

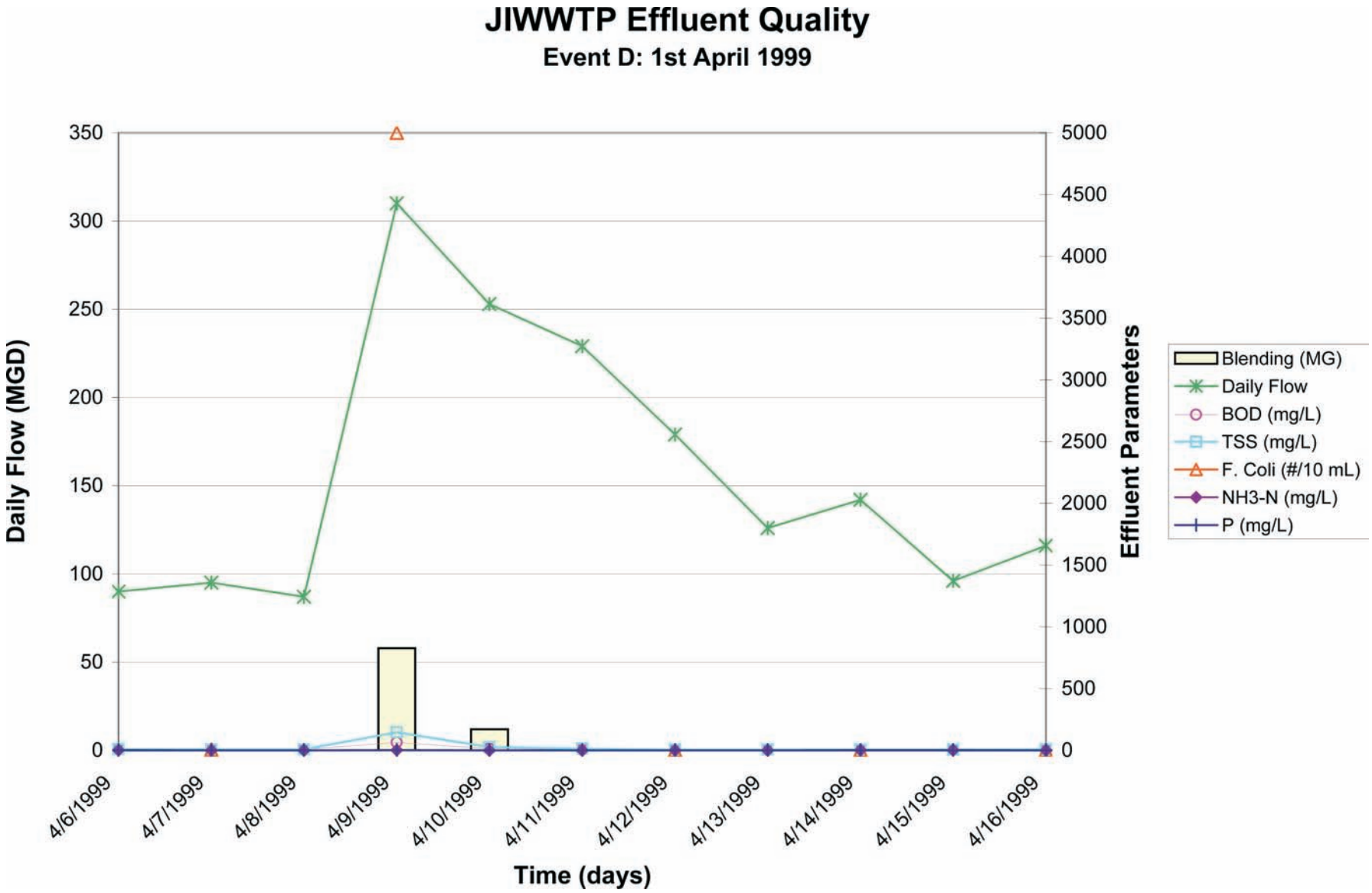
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-13 SHEET 2 OF 6

EVENT D WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J13.07.06.04.cdr



Preserving The Environment • Improving Water Quality

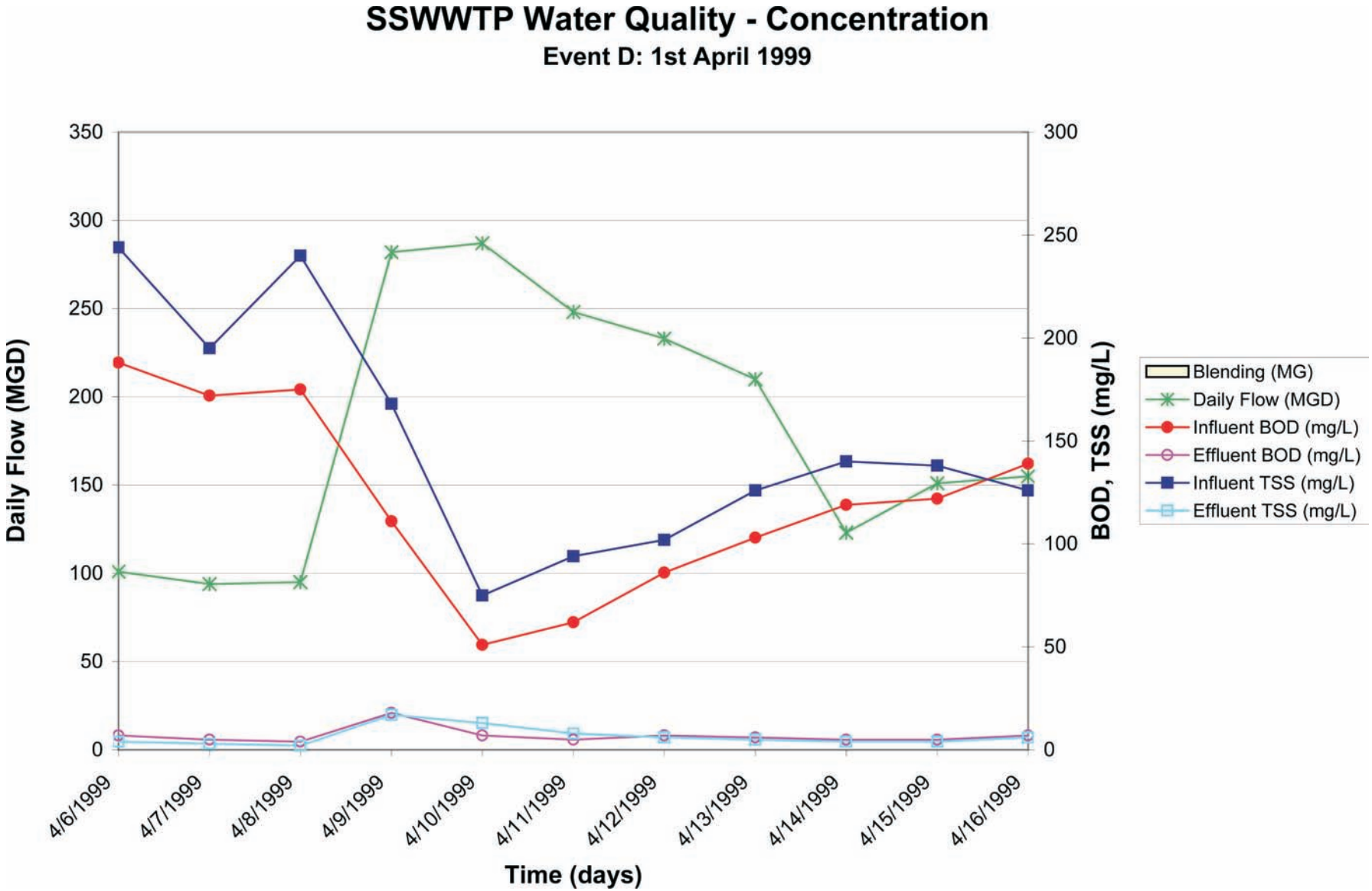
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-13 SHEET 3 OF 6

EVENT D WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J13.07.06.04.cdr



Preserving The Environment • Improving Water Quality

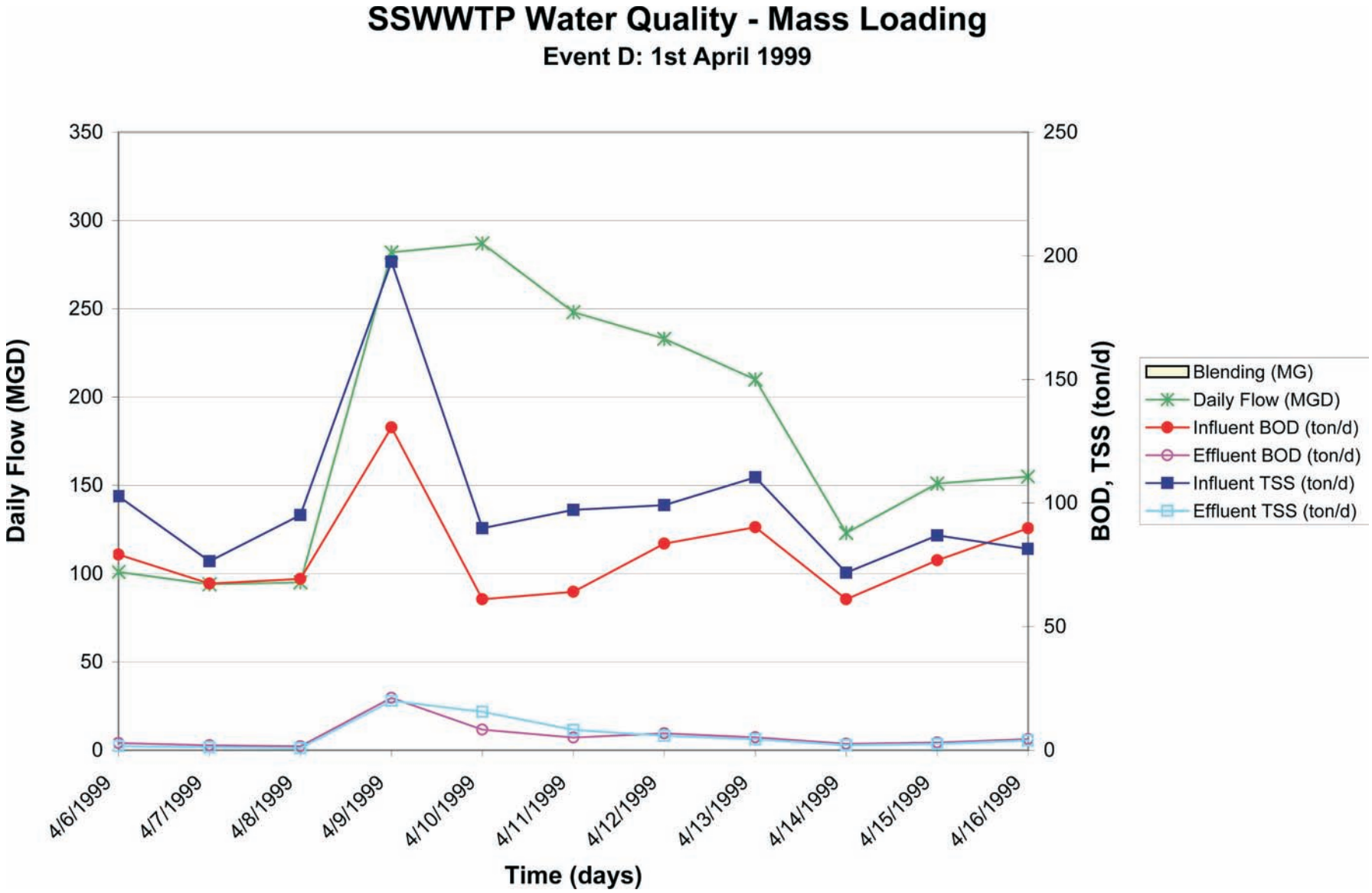
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-13 SHEET 4 OF 6

EVENT D WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J13.07.06.04.cdr



Preserving The Environment • Improving Water Quality

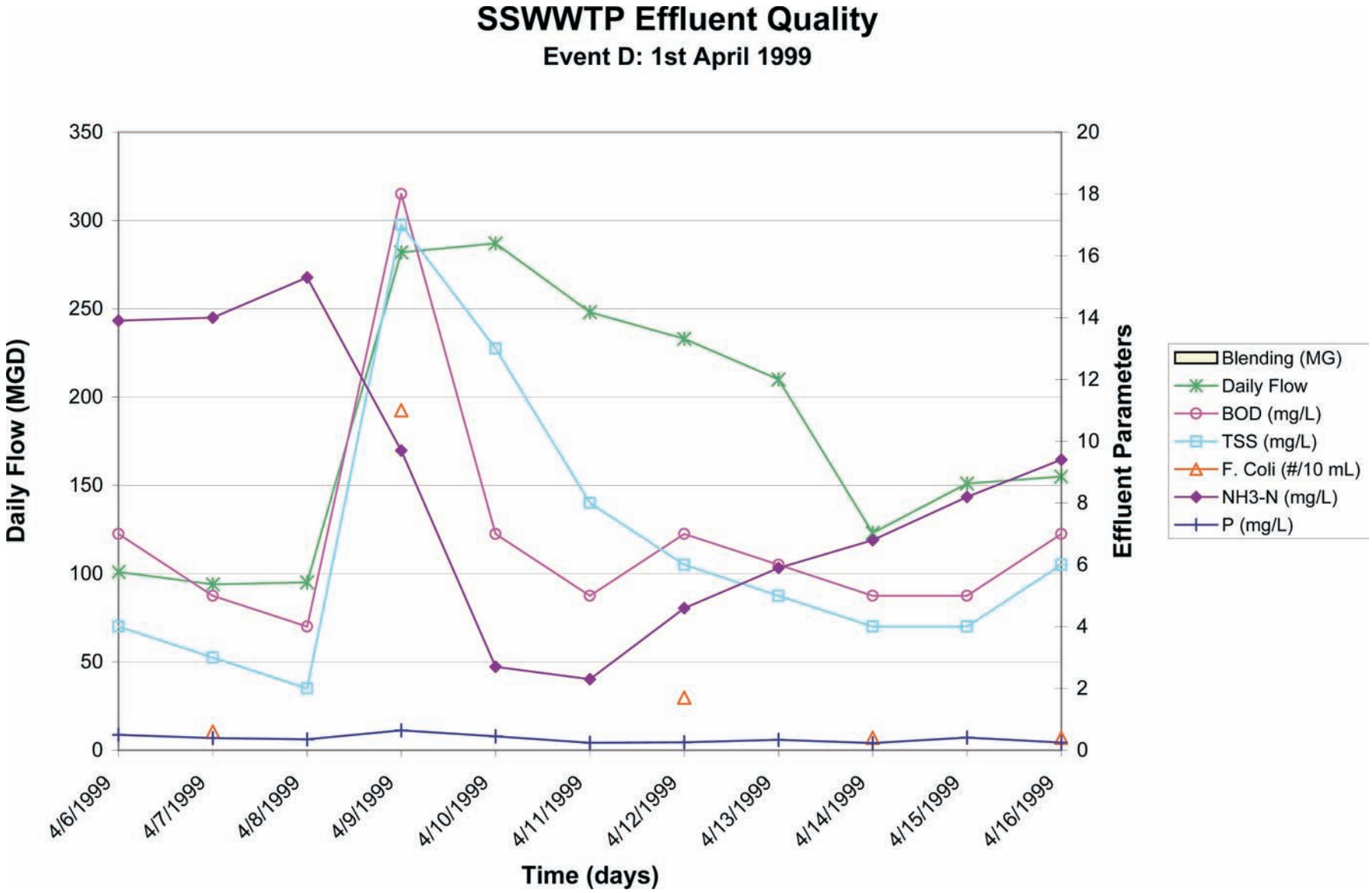
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-13 SHEET 5 OF 6

EVENT D WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J13.07.06.04.cdr



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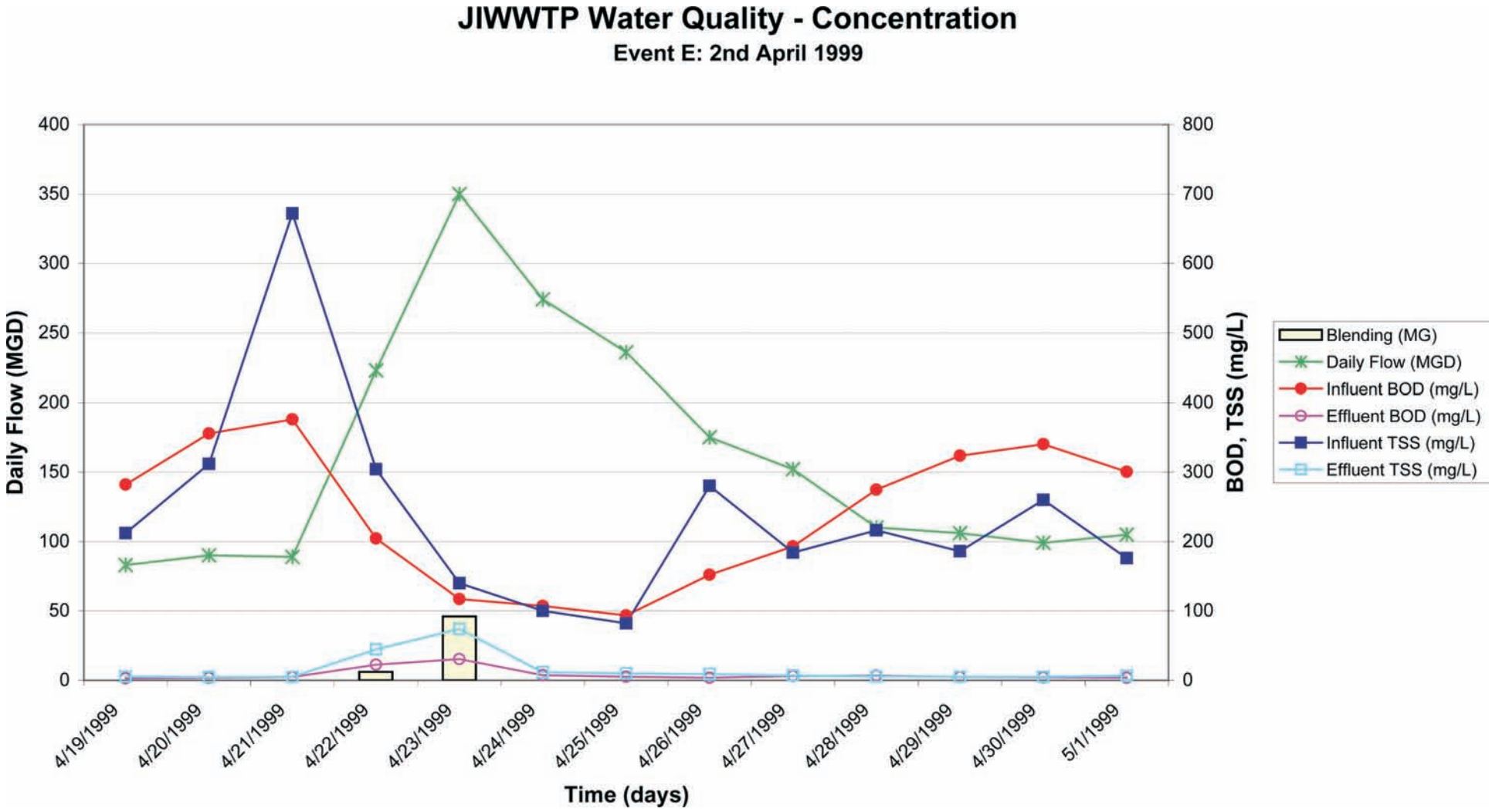
Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

TABLE 4J-13 SHEET 6 OF 6

EVENT D WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J13.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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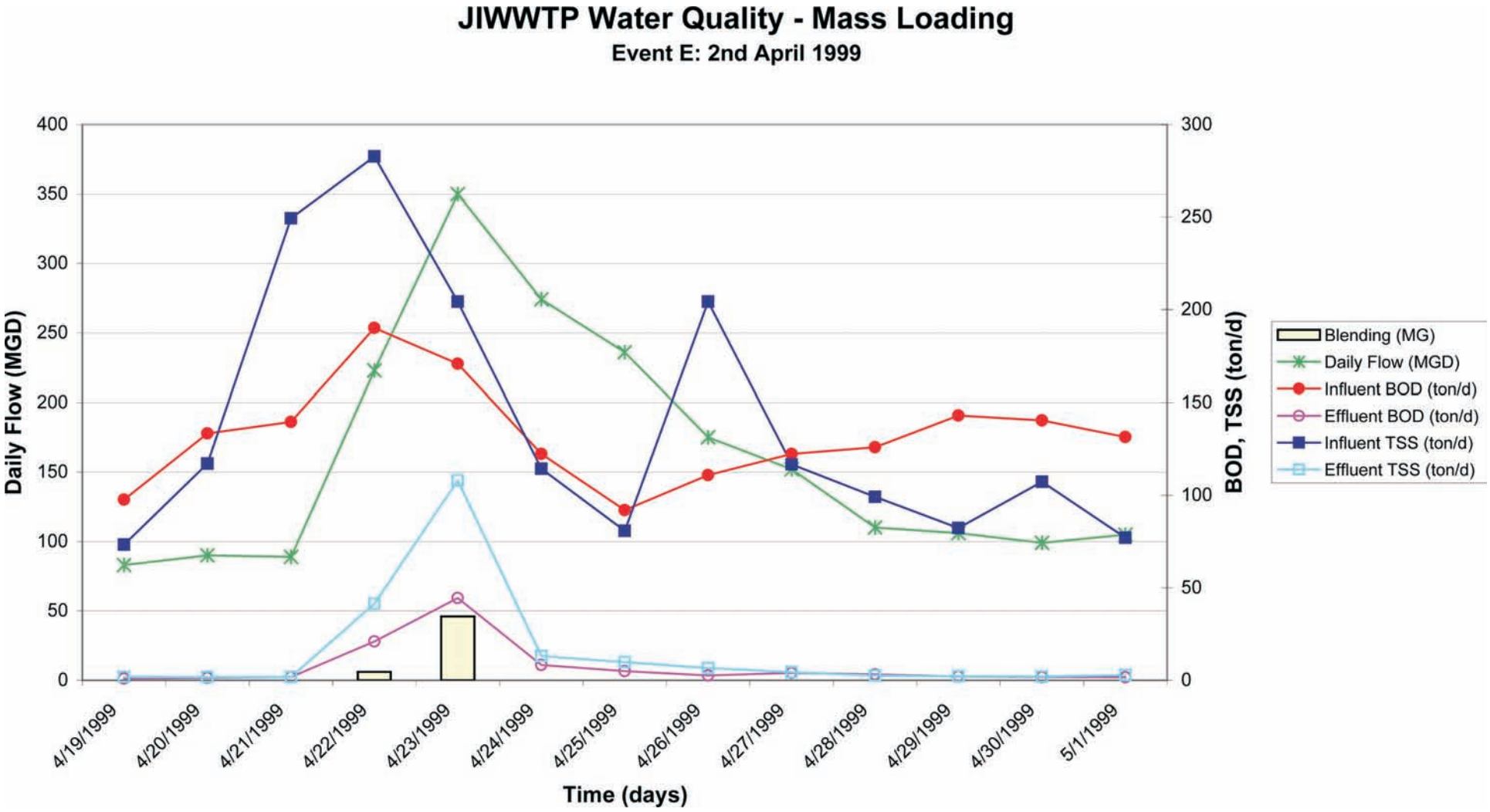
TABLE 4J-14 SHEET 1 OF 6

EVENT E WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07 TR_4-A.T4J14.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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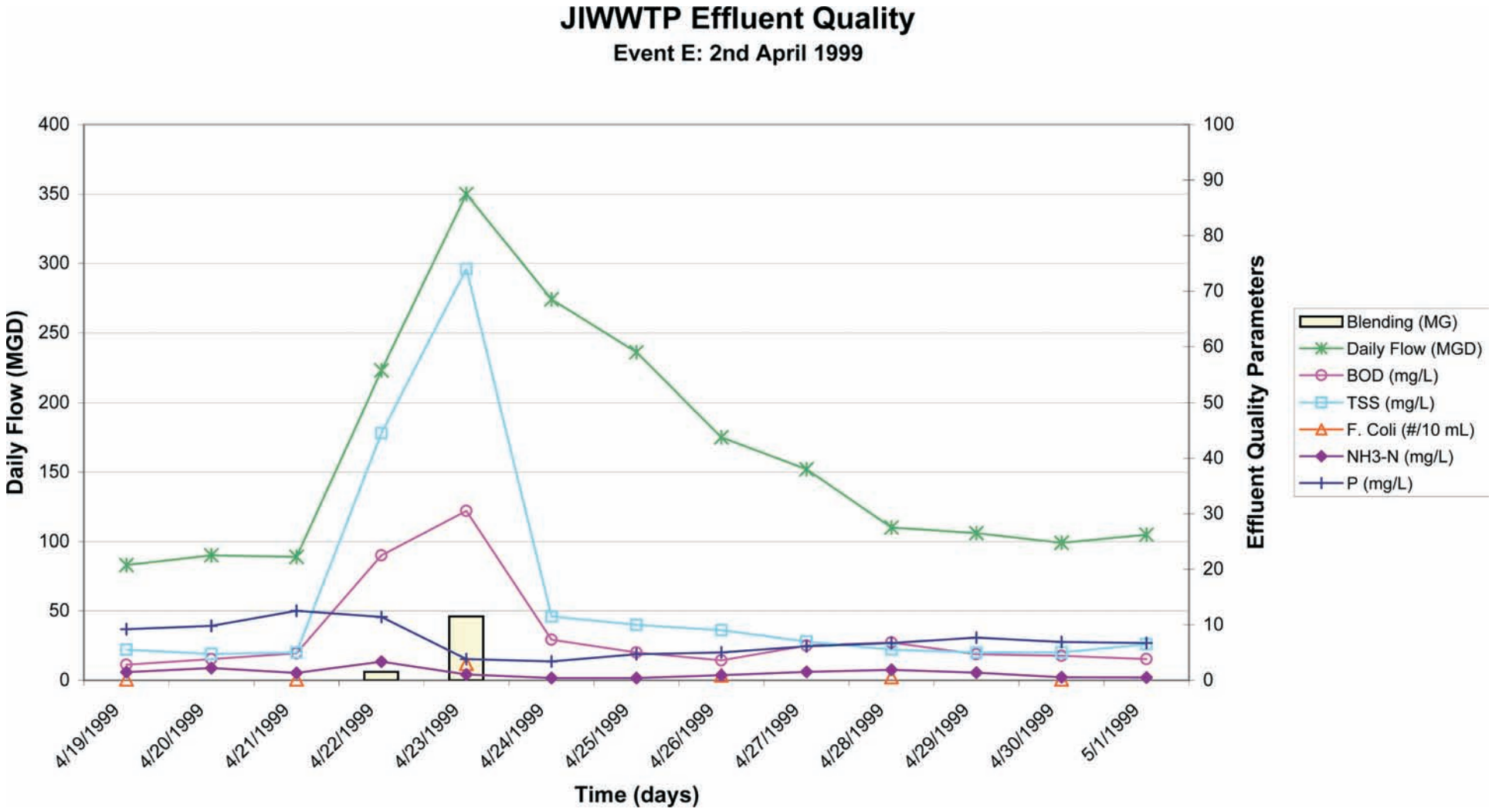
TABLE 4J-14 SHEET 2 OF 6

EVENT E WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07 TR_4-A.T4J14.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

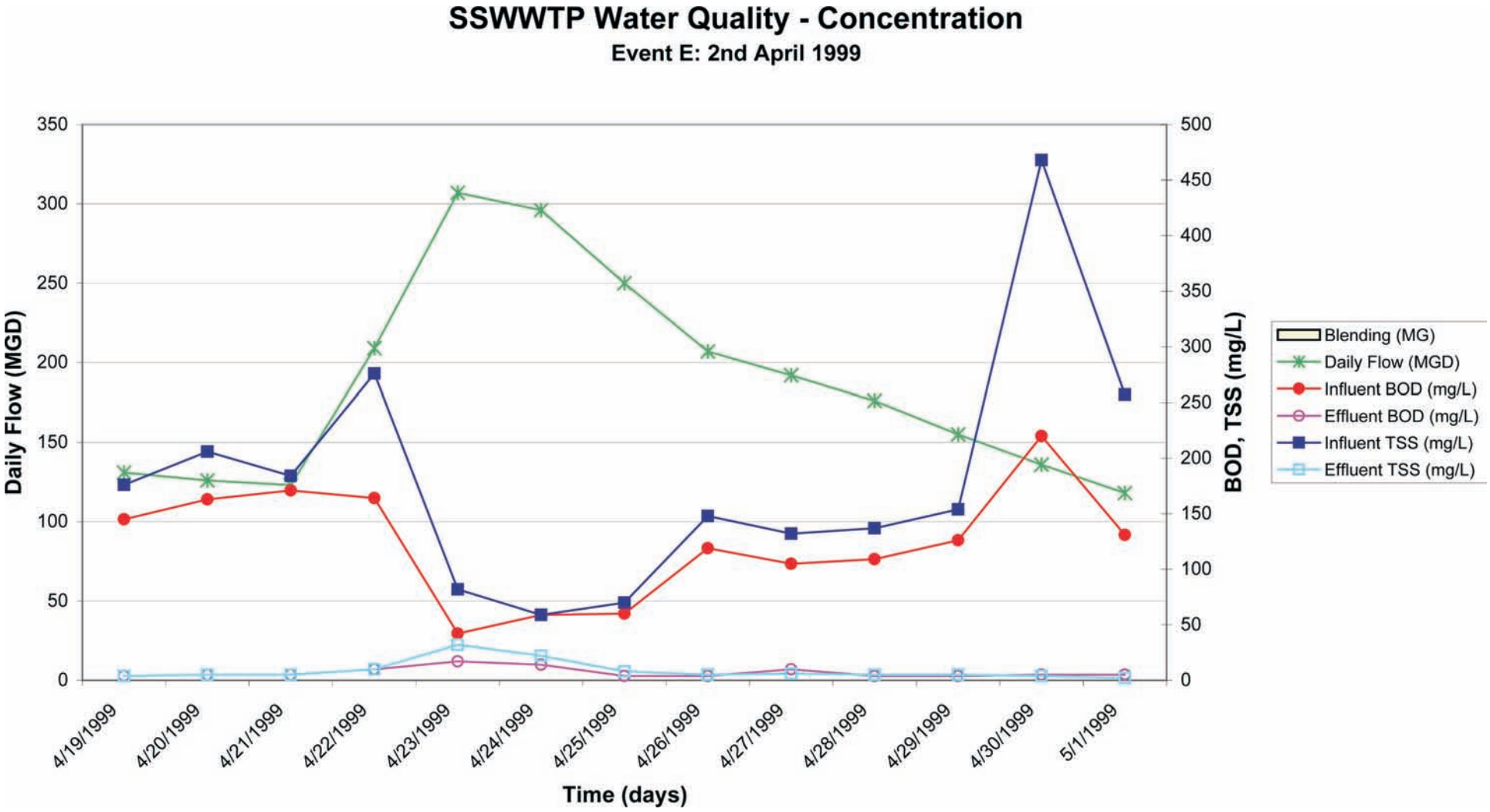
Preserving The Environment • Improving Water Quality

TABLE 4J-14 SHEET 3 OF 6

EVENT E WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07 TR_4-A.T4J14.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

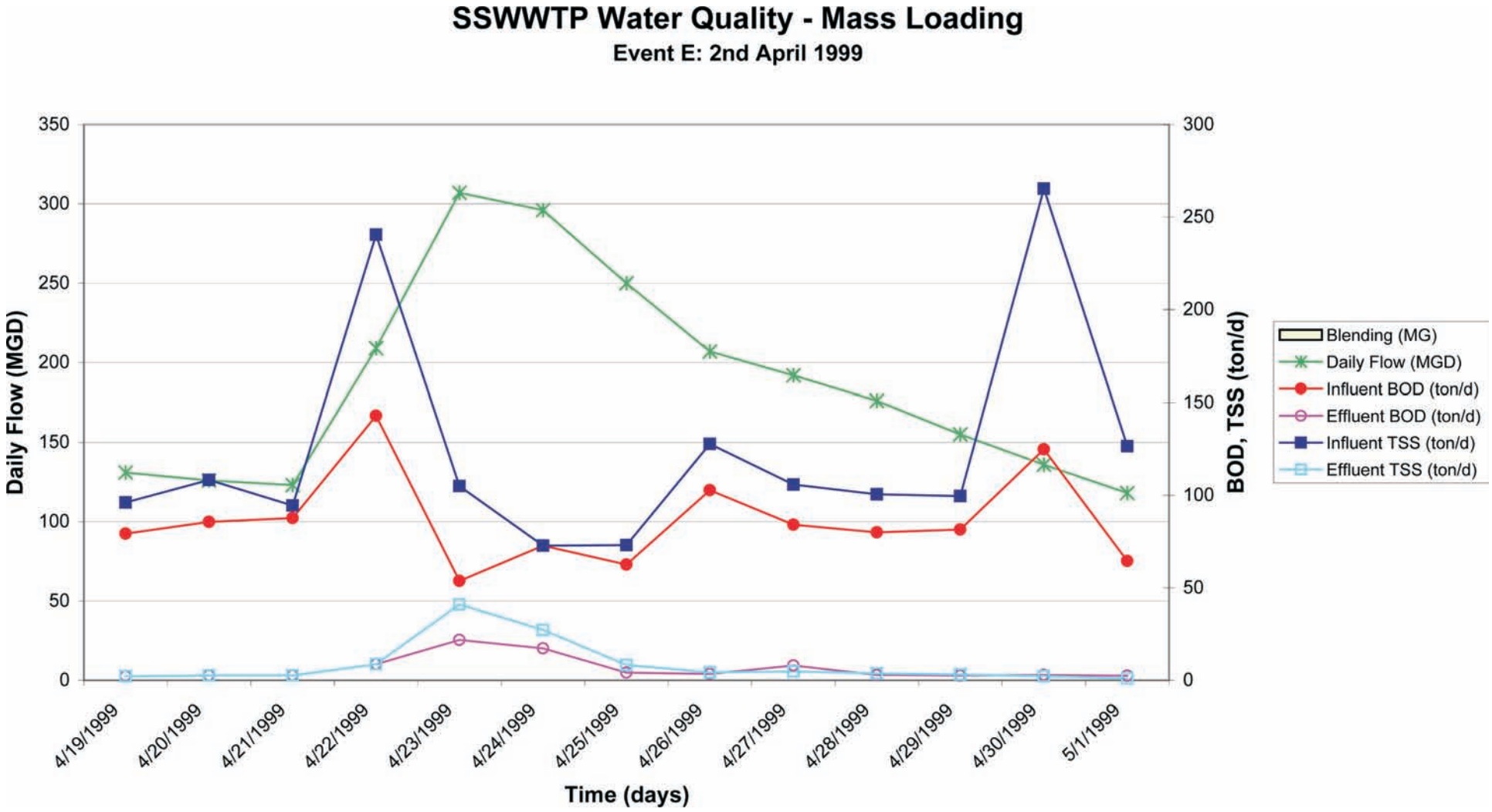
Preserving The Environment • Improving Water Quality

TABLE 4J-14 SHEET 4 OF 6

EVENT E WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07 TR_4-A.T4J14.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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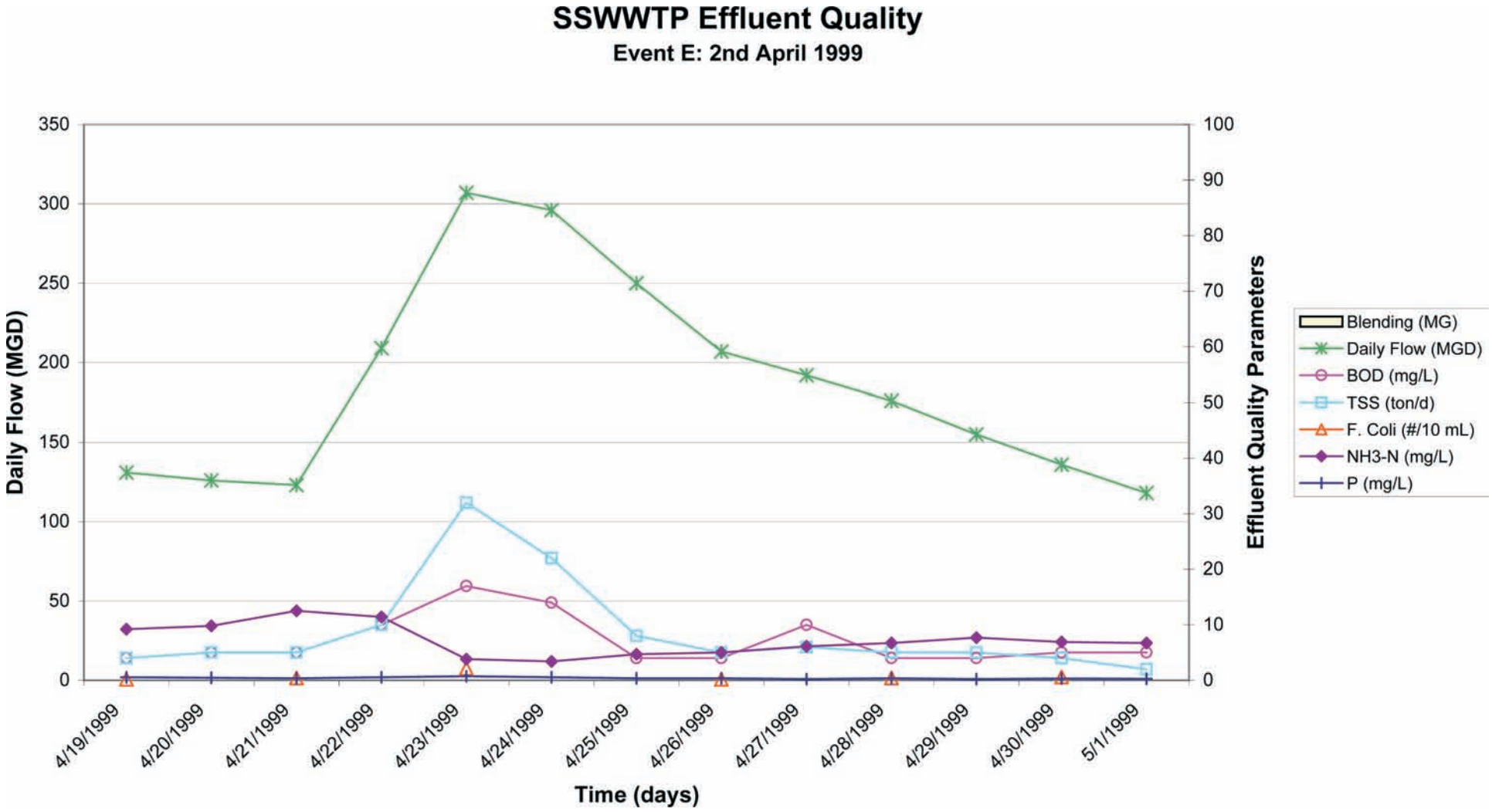
TABLE 4J-14 SHEET 5 OF 6

EVENT E WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07 TR_4-A.T4J14.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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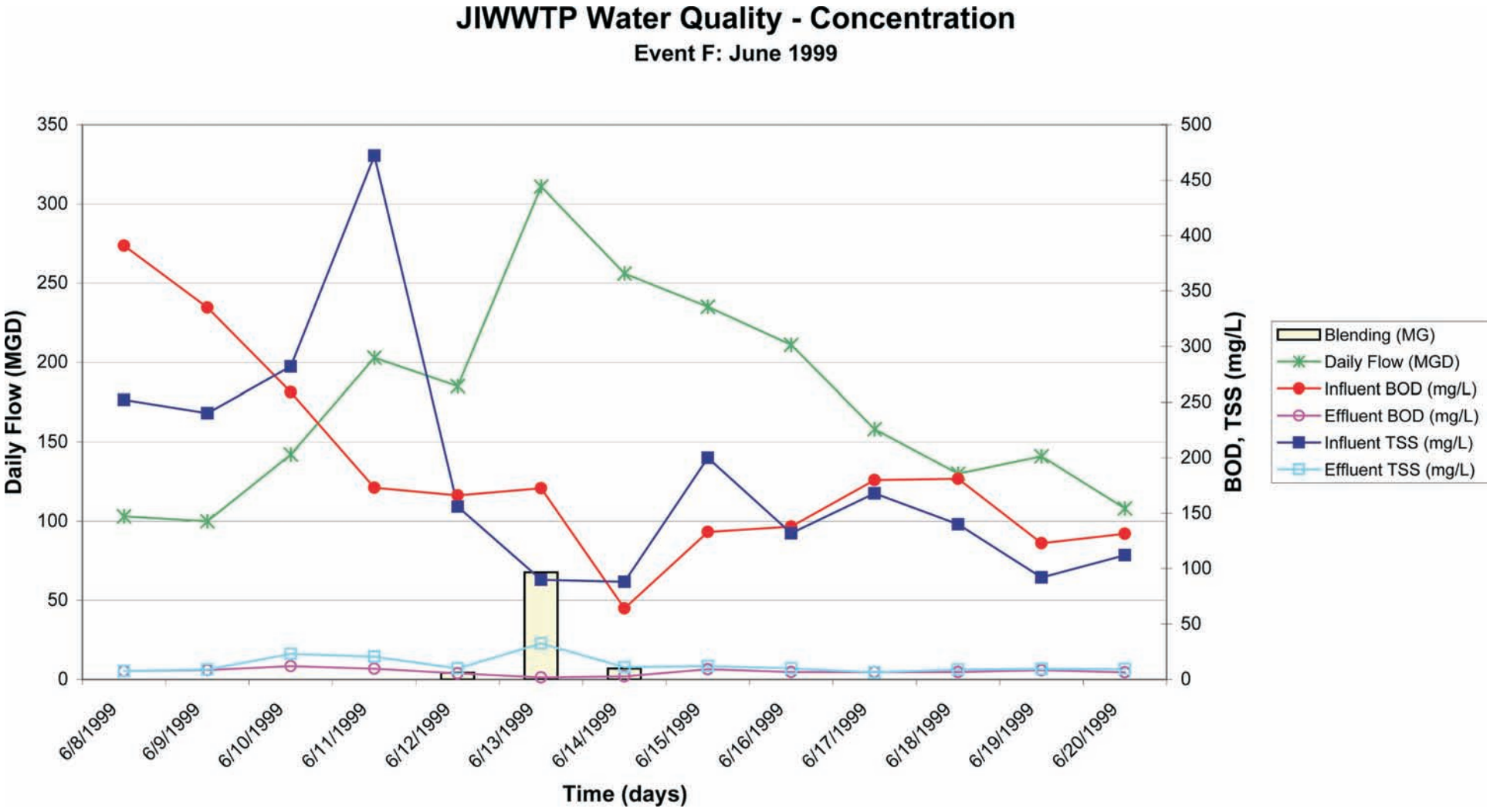
TABLE 4J-14 SHEET 6 OF 6

EVENT E WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07 TR_4-A.T4J14.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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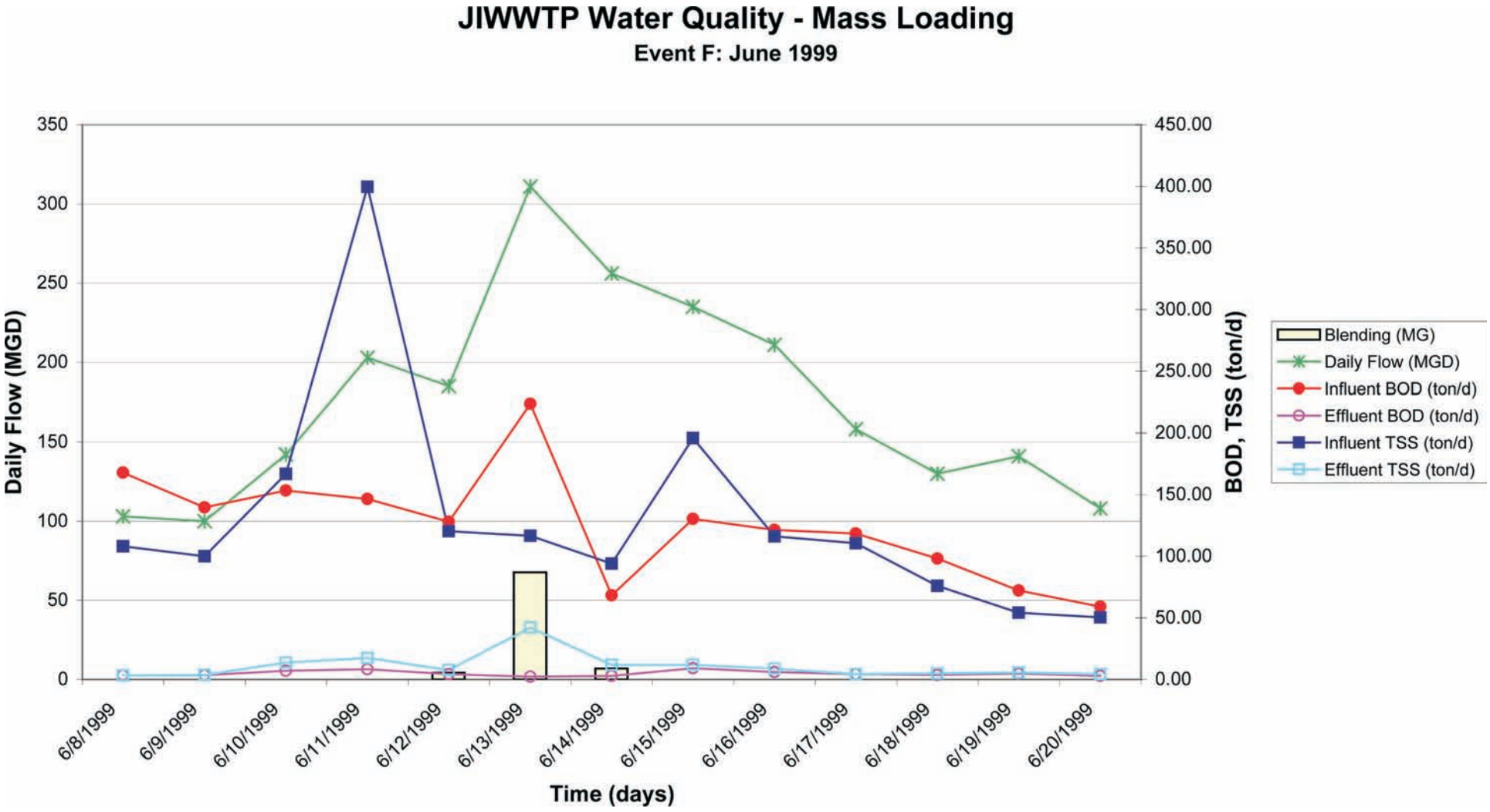
TABLE 4J-15 SHEET 1 OF 6

EVENT F WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07 TR_4-A.T4J15.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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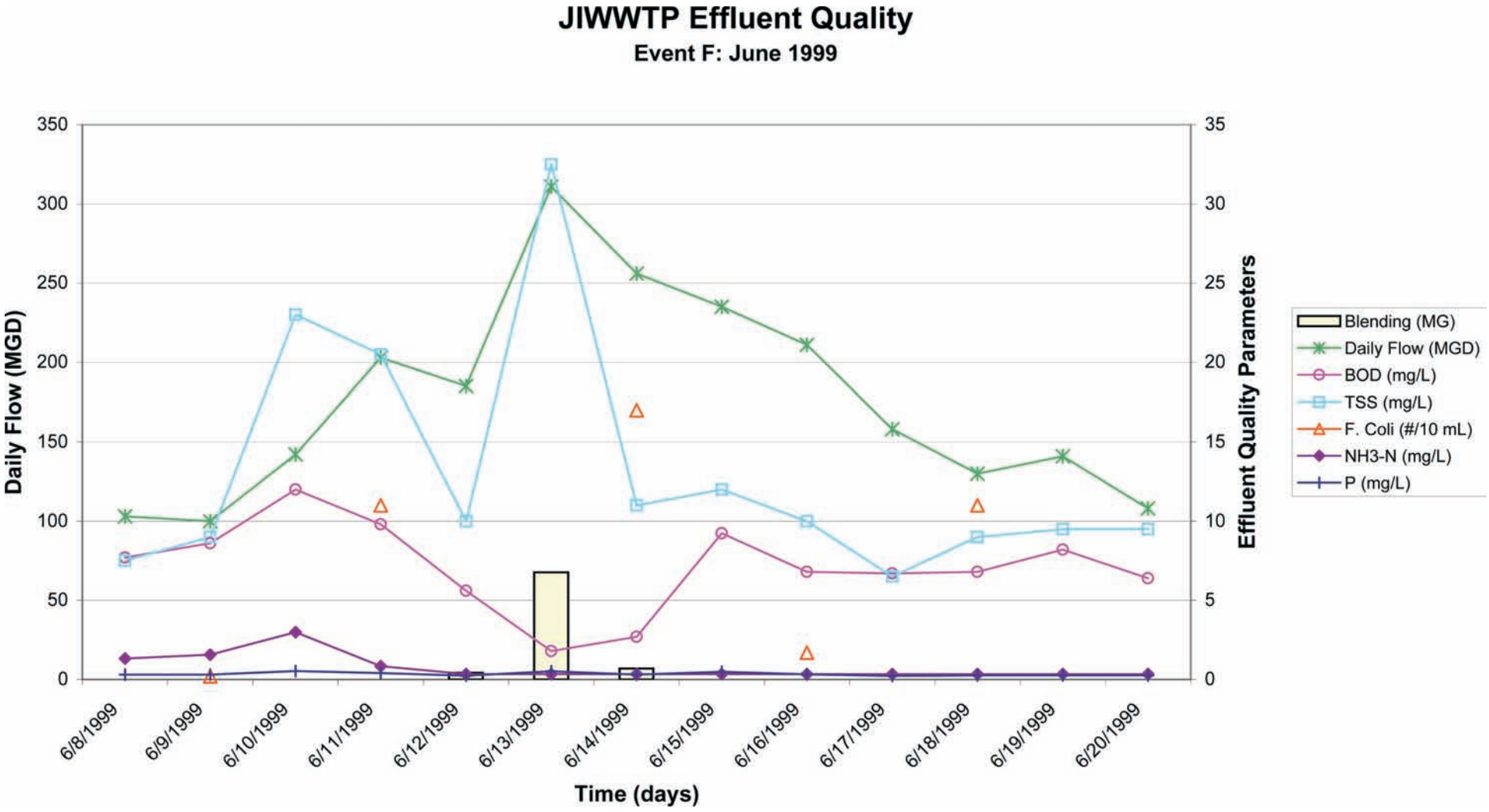
TABLE 4J-15 SHEET 2 OF 6

EVENT F WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07

TR_4-A.T4J15.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

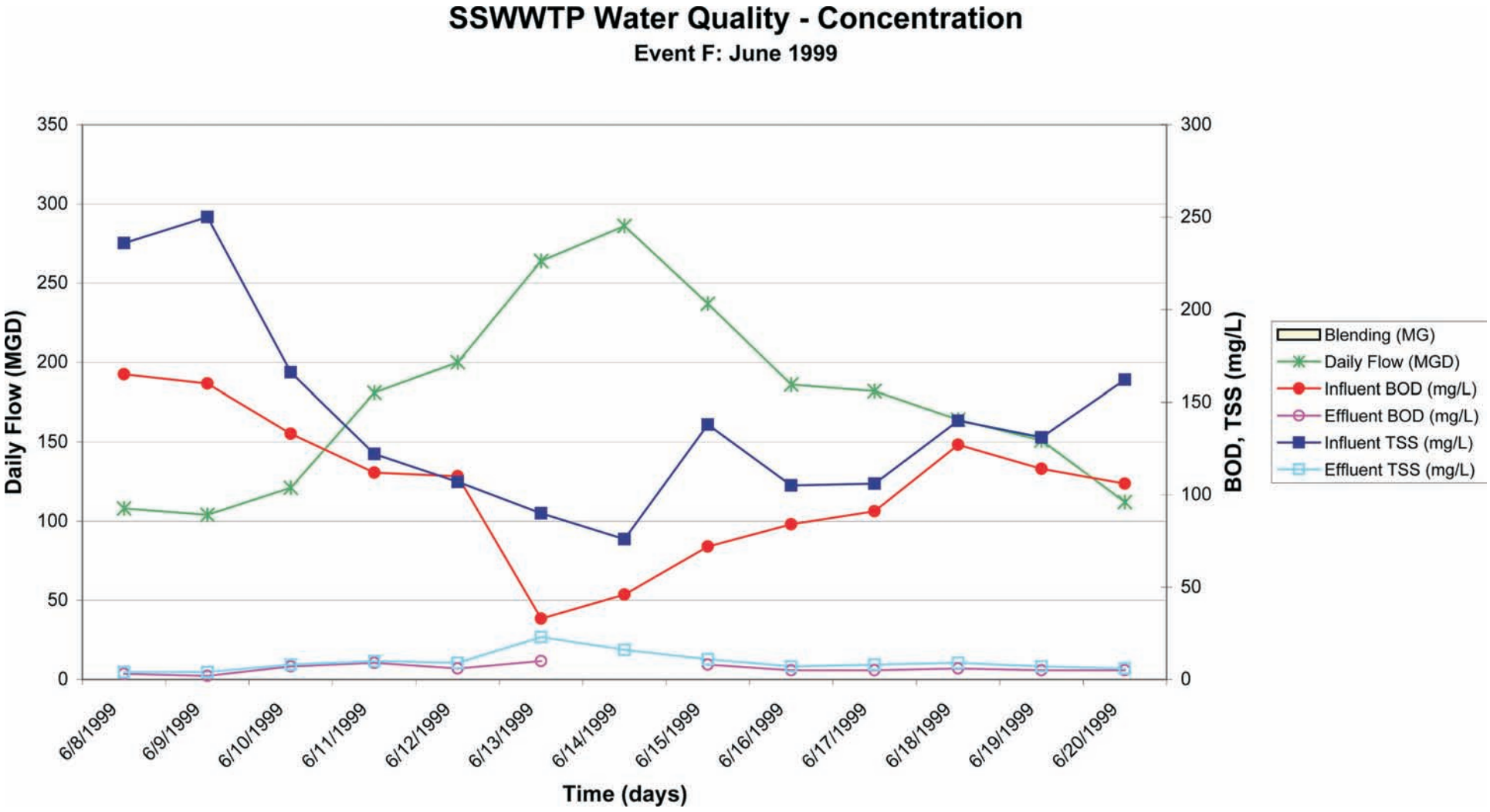
Preserving The Environment • Improving Water Quality

TABLE 4J-15 SHEET 3 OF 6

EVENT F WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07 TR_4-A.T4J15.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

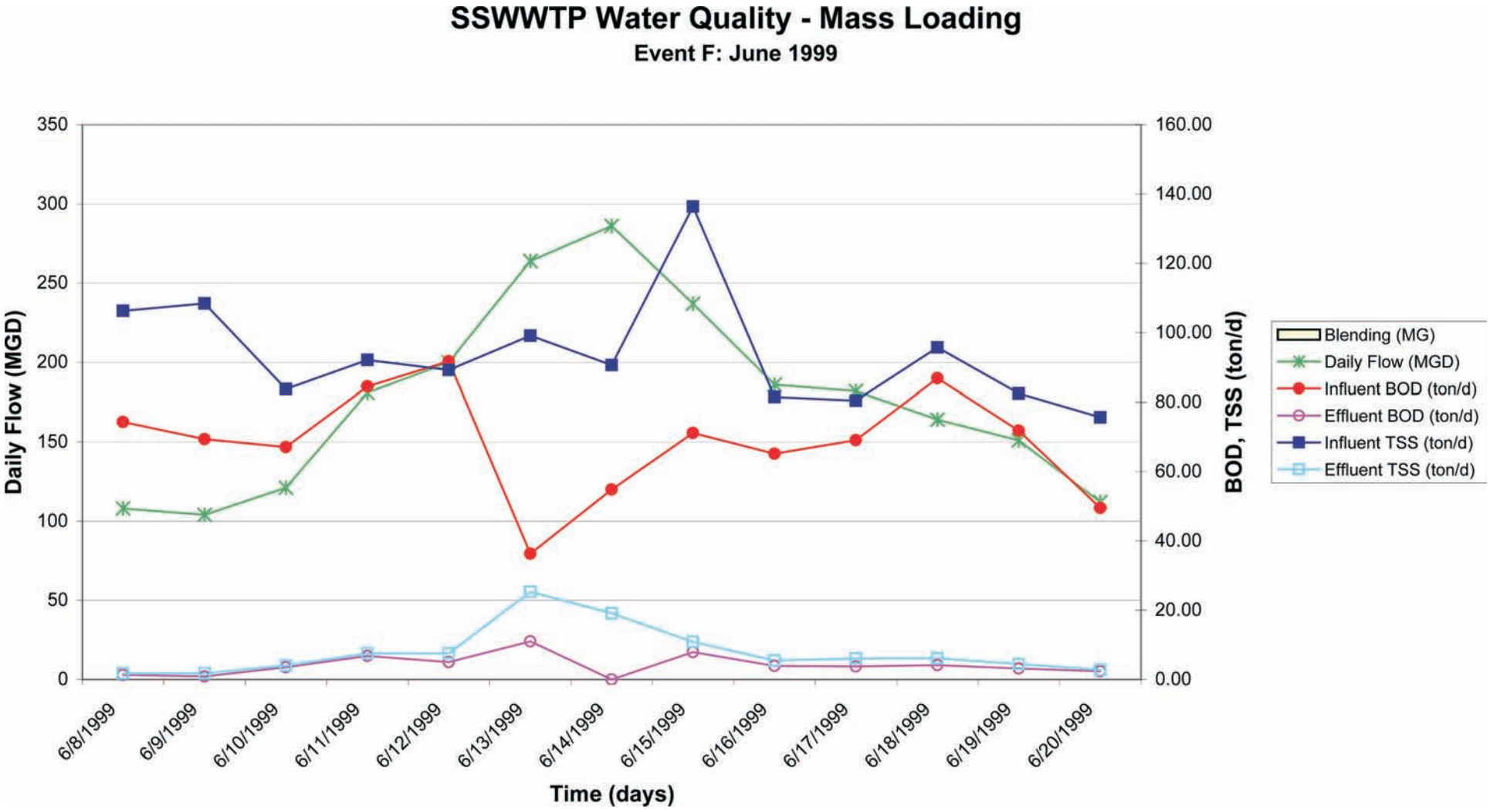
Preserving The Environment • Improving Water Quality

TABLE 4J-15 SHEET 4 OF 6

EVENT F WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07 TR_4-A.T4J15.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

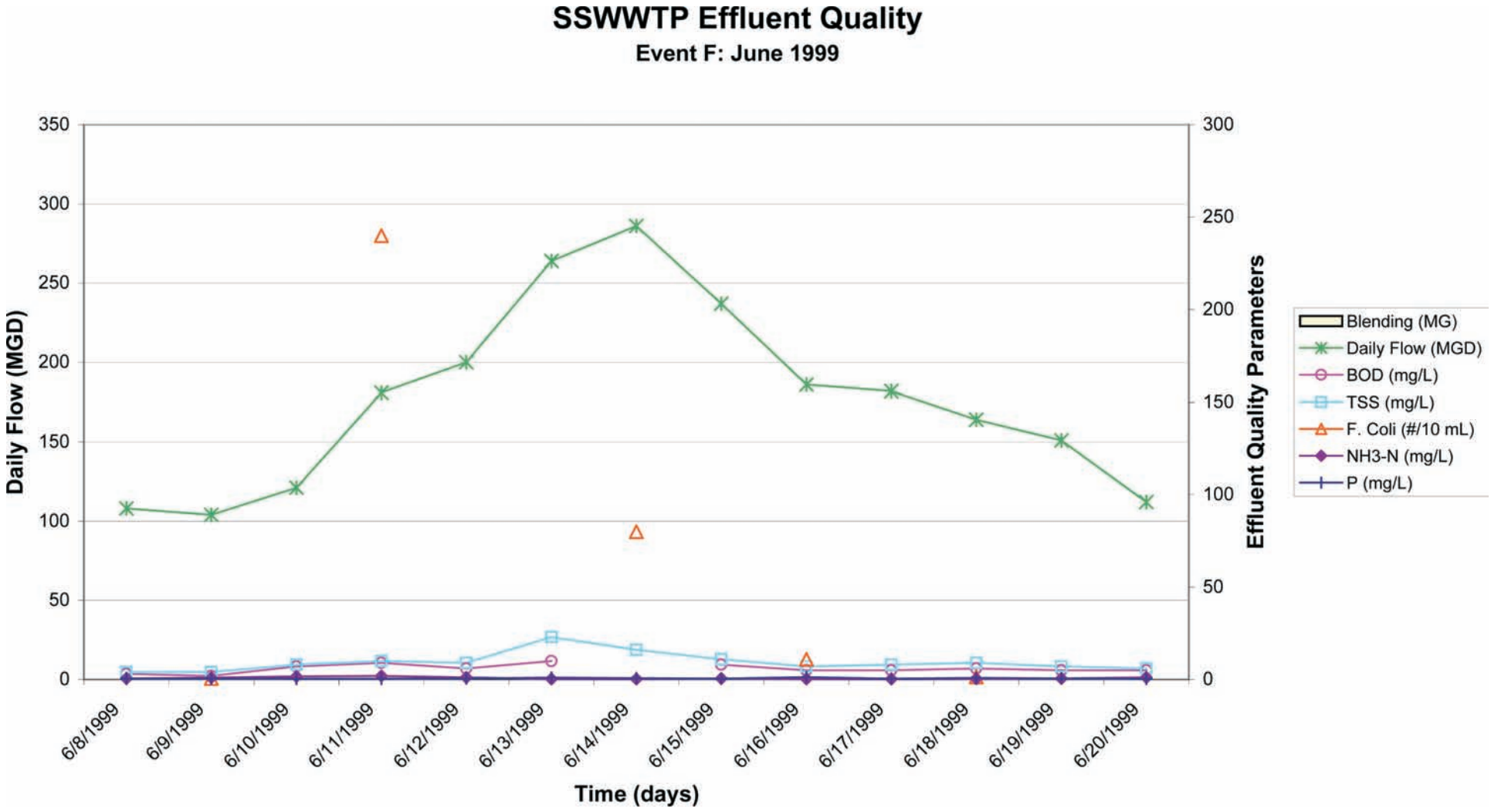
Preserving The Environment • Improving Water Quality

TABLE 4J-15 SHEET 5 OF 6

EVENT F WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07 TR_4-A.T4J15.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

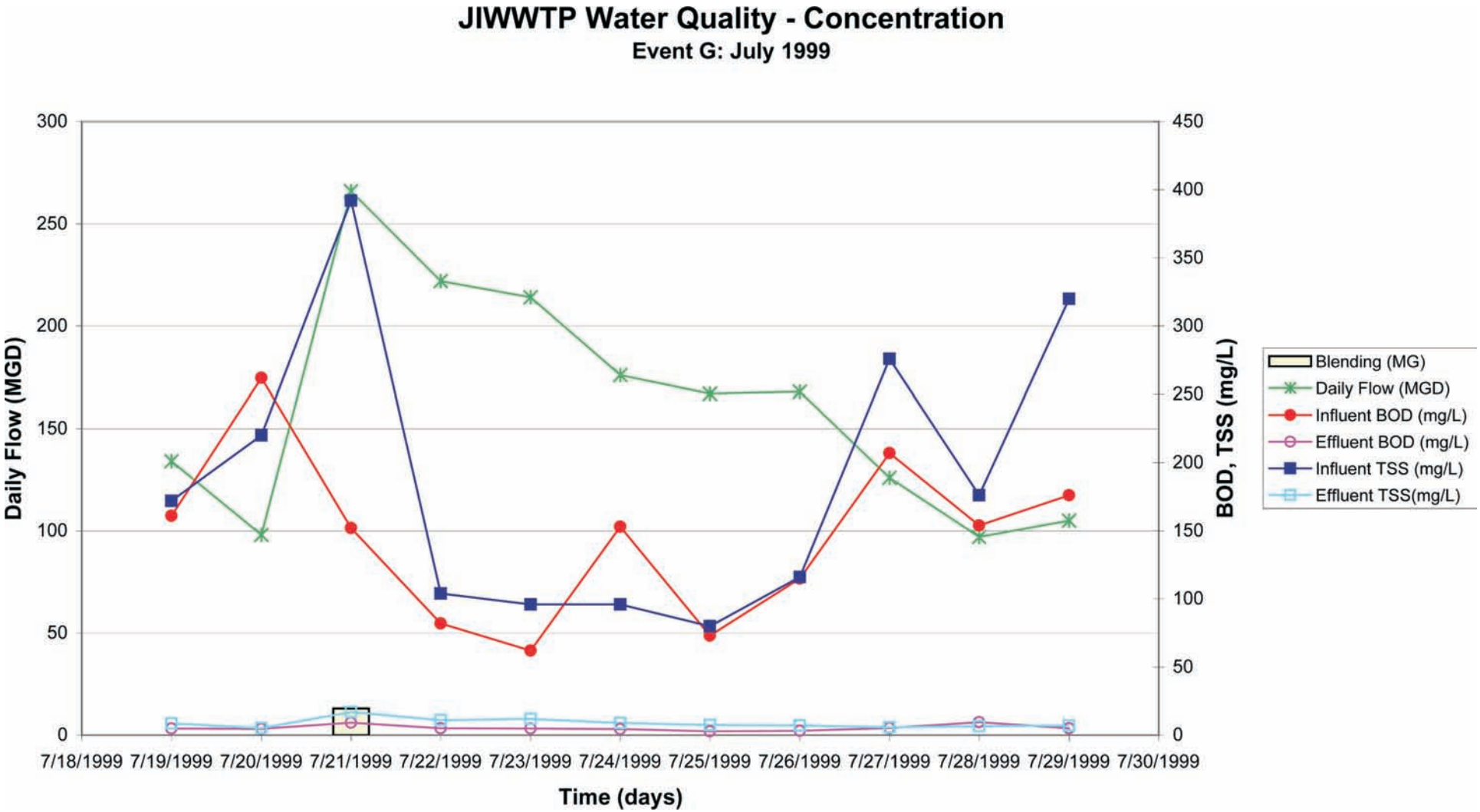
Preserving The Environment • Improving Water Quality

TABLE 4J-15 SHEET 6 OF 6

EVENT F WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07 TR_4-A.T4J15.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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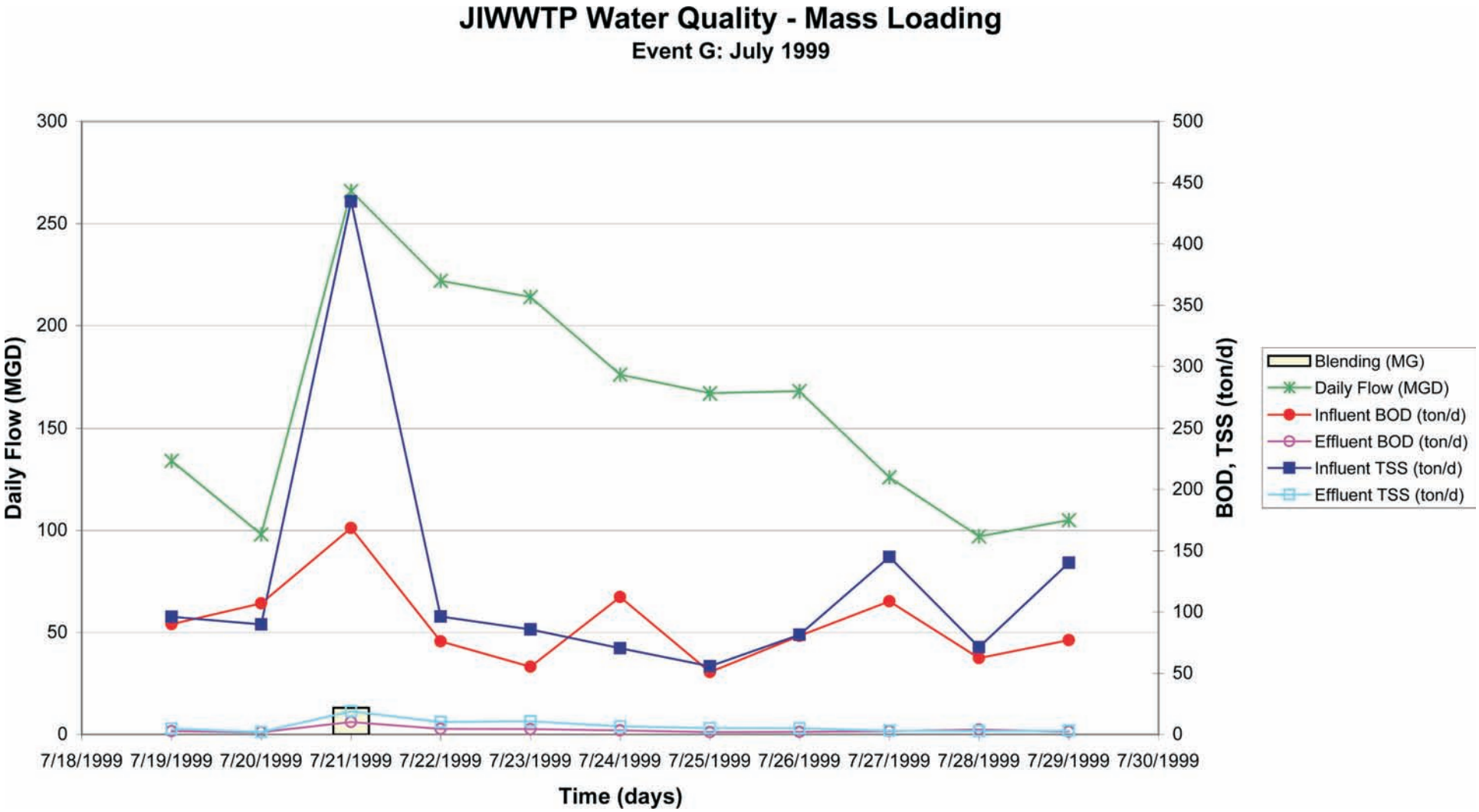
TABLE 4J-16 SHEET 1 OF 6

EVENT G WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J16.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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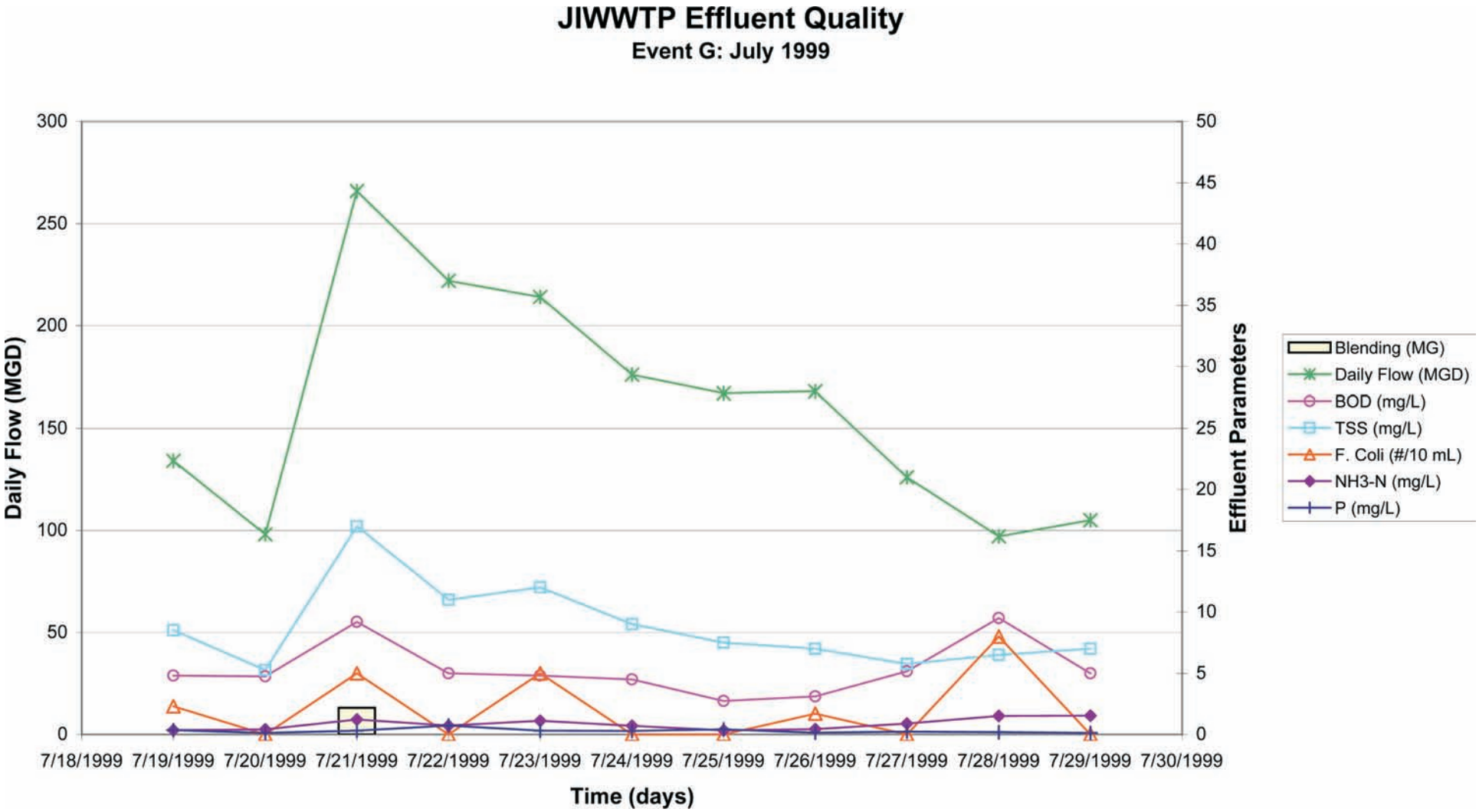
TABLE 4J-16 SHEET 2 OF 6

EVENT G WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J16.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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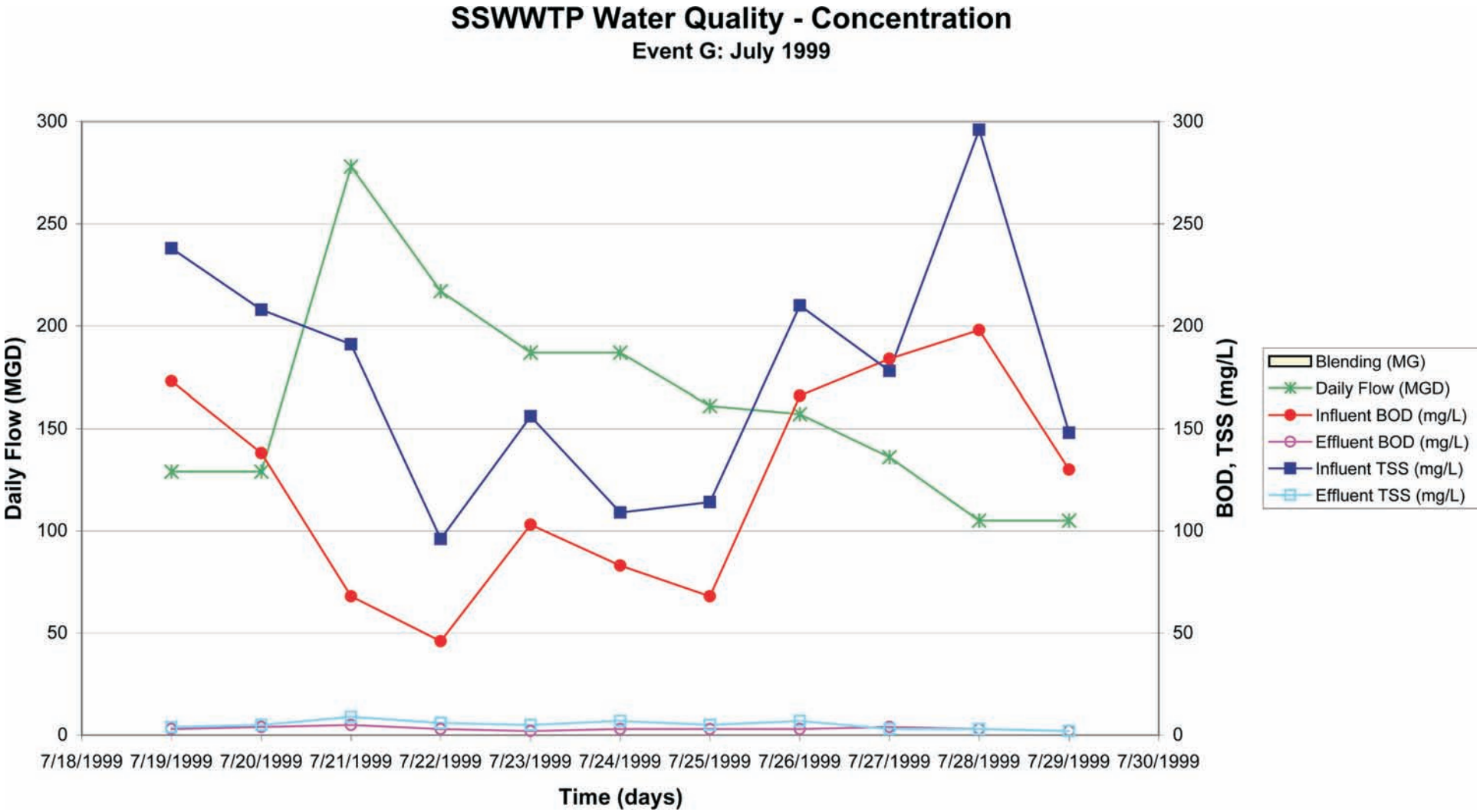
TABLE 4J-16 SHEET 3 OF 6

EVENT G WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J16.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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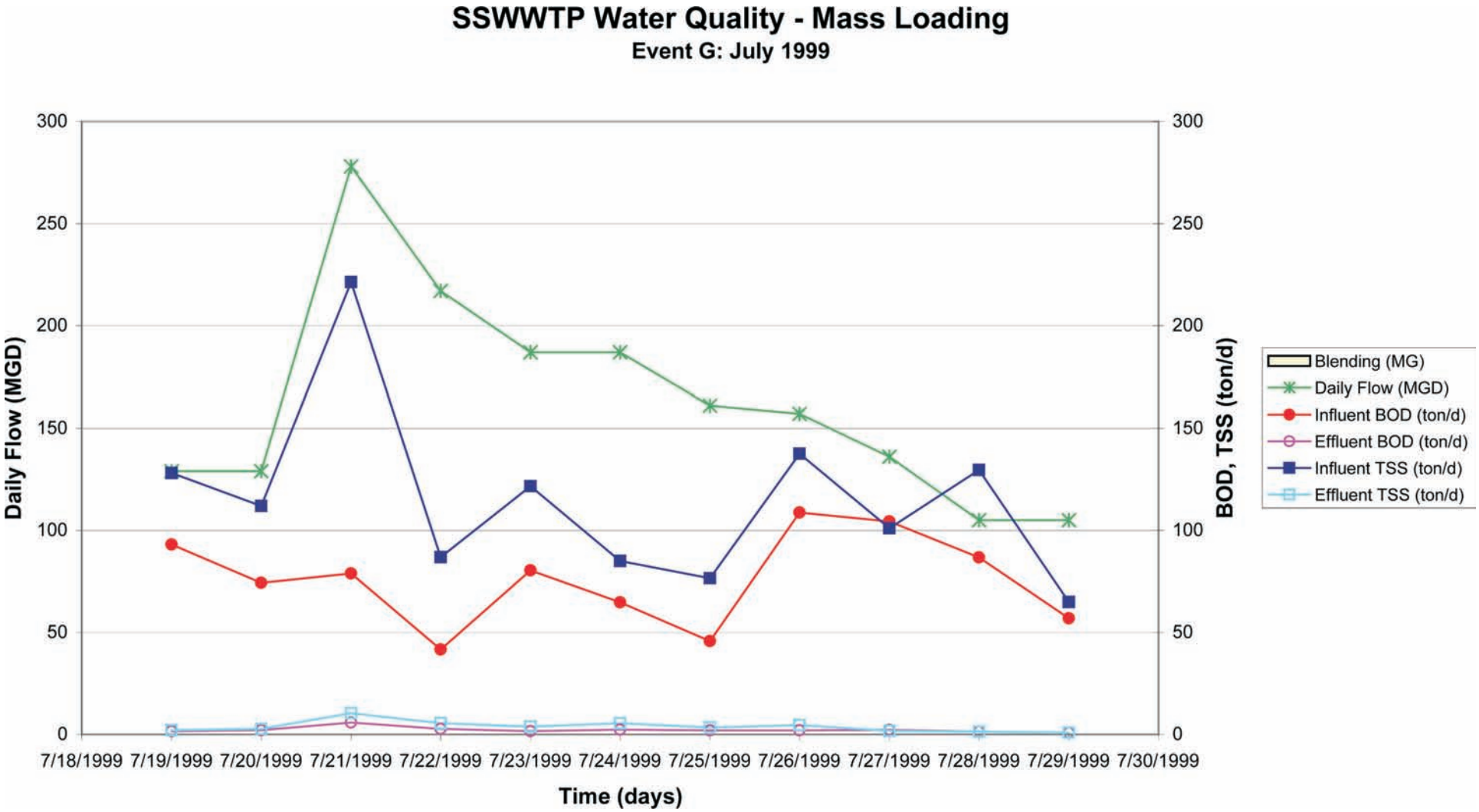
TABLE 4J-16 SHEET 4 OF 6

EVENT G WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J16.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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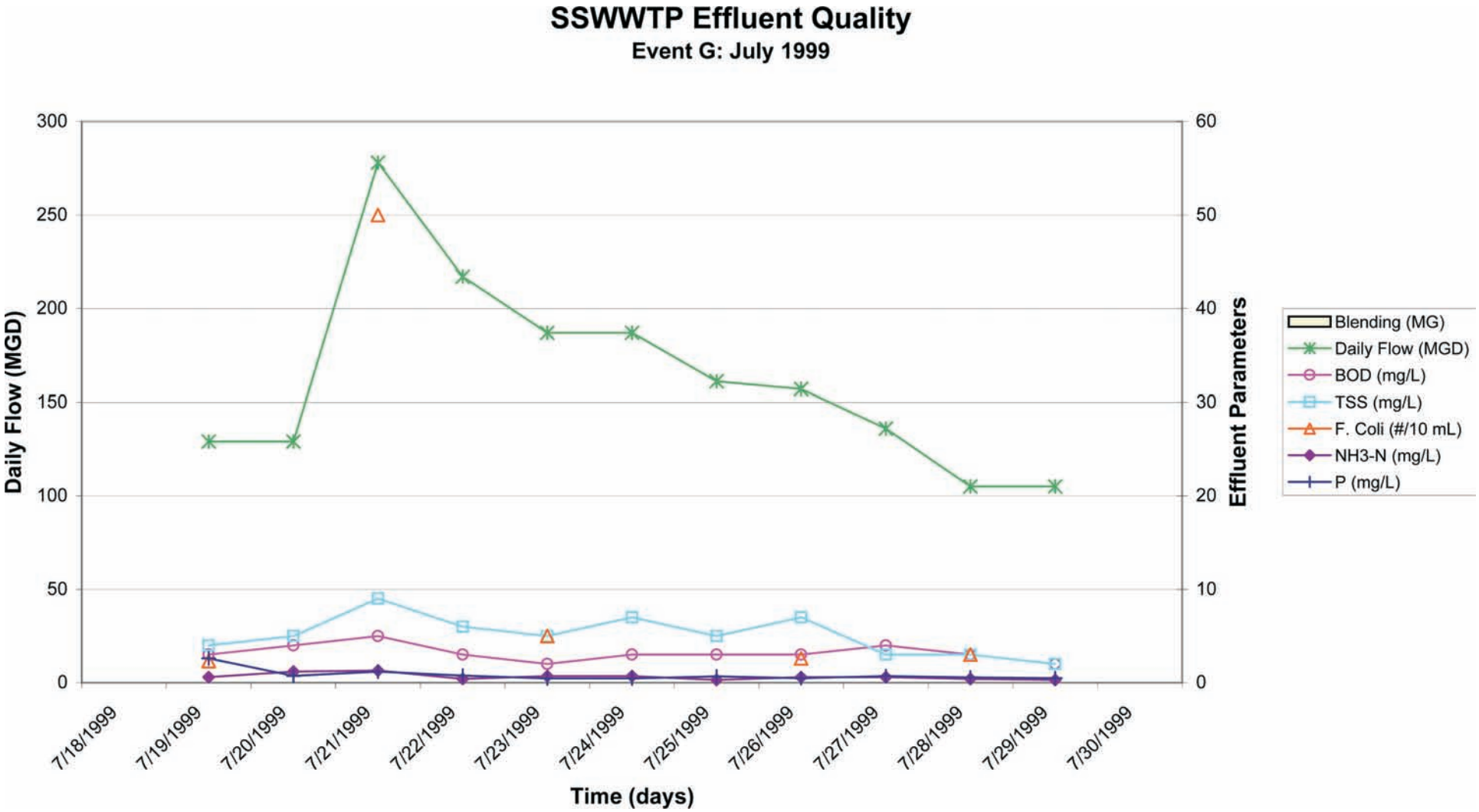
TABLE 4J-16 SHEET 5 OF 6

EVENT G WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J16.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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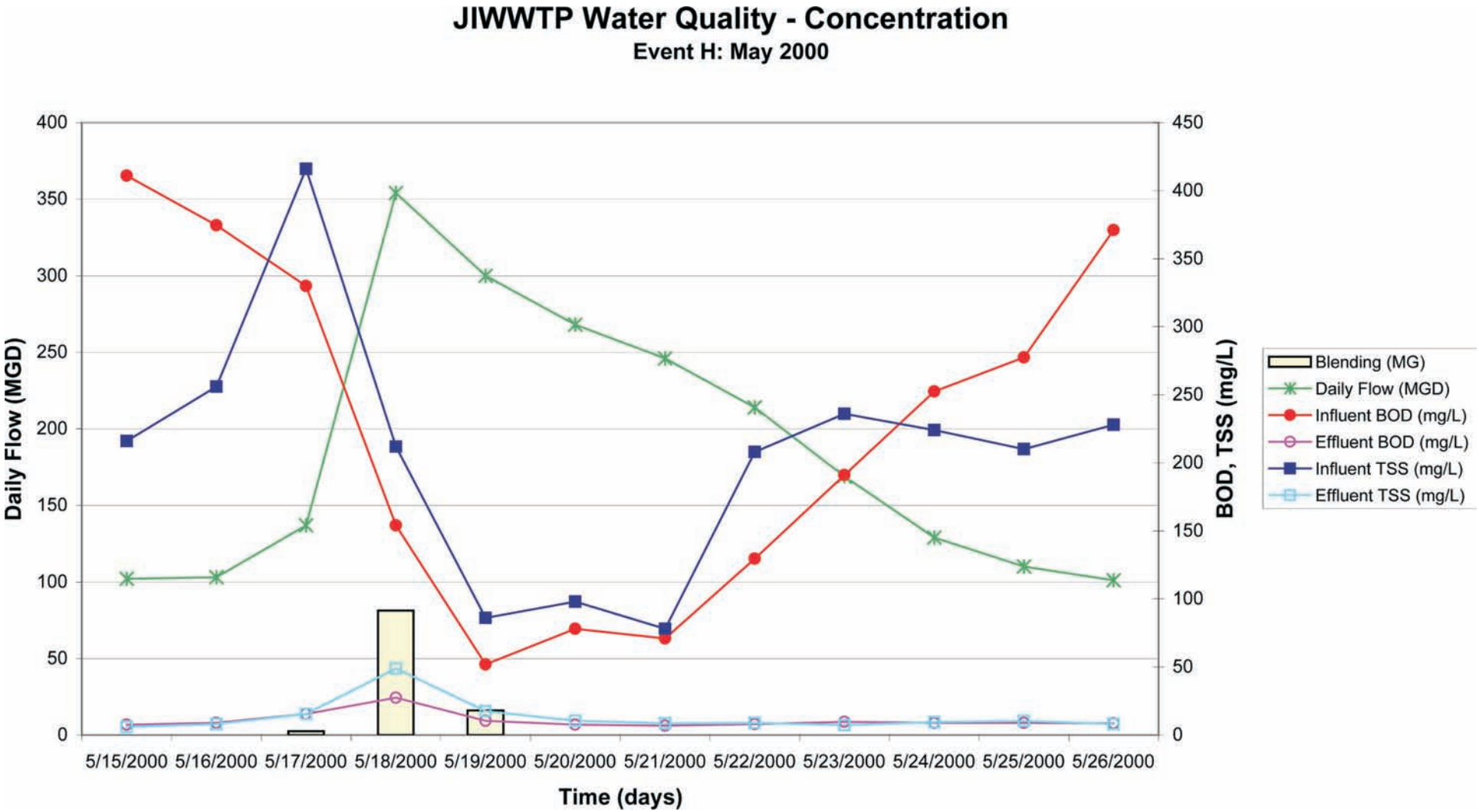
TABLE 4J-16 SHEET 6 OF 6

EVENT G WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J16.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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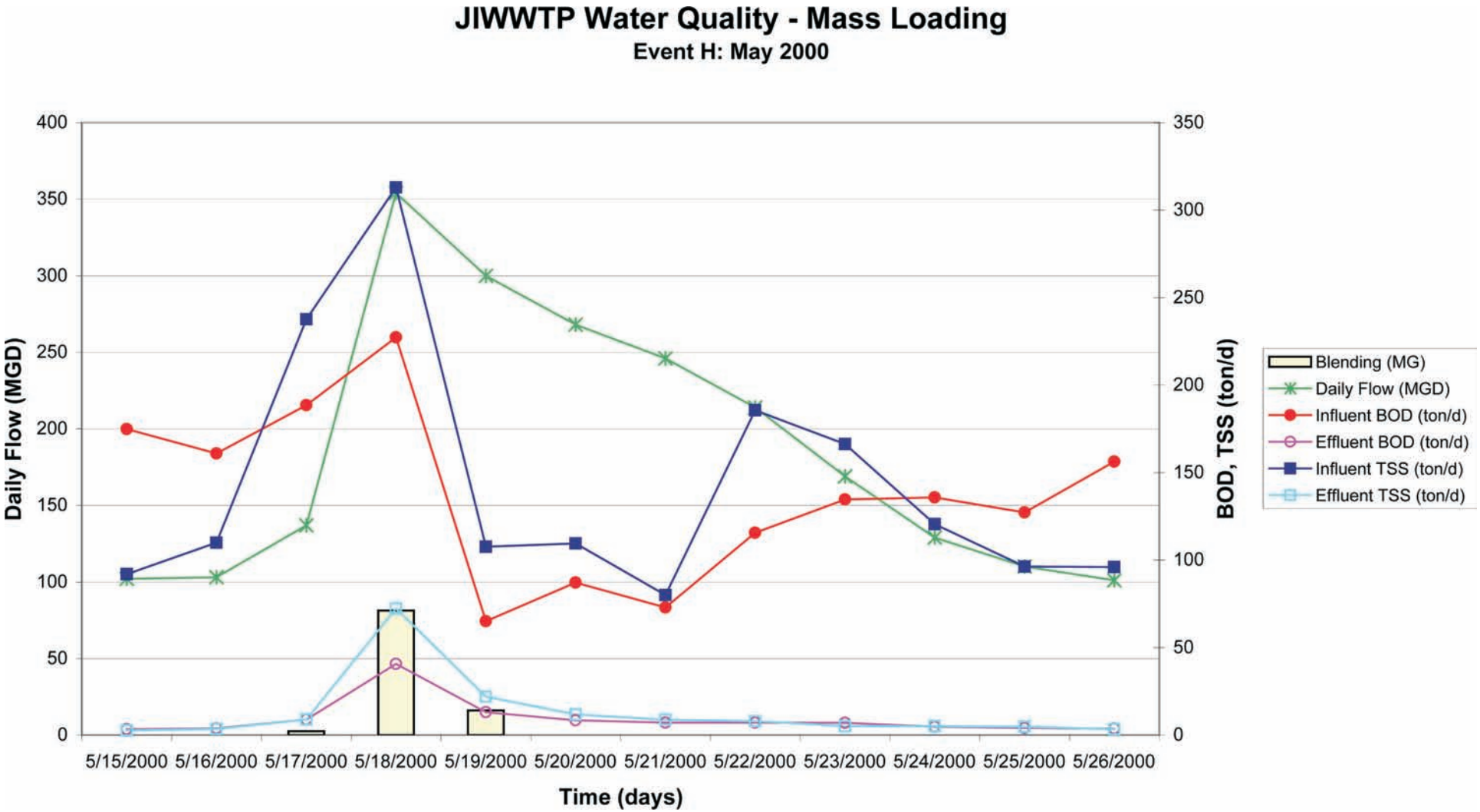
TABLE 4J-17 SHEET 1 OF 6

EVENT H WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J17.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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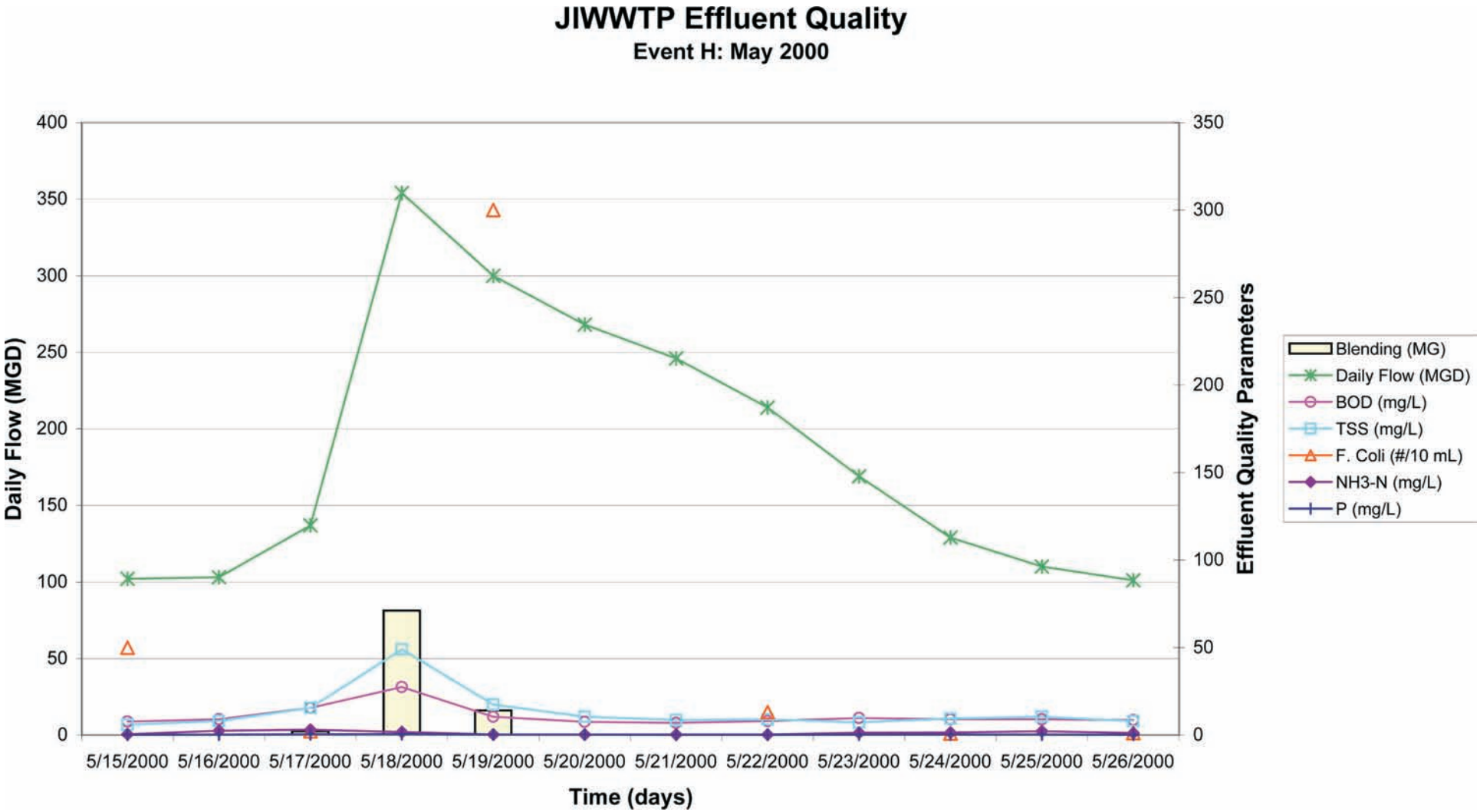
TABLE 4J-17 SHEET 2 OF 6

EVENT H WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J17.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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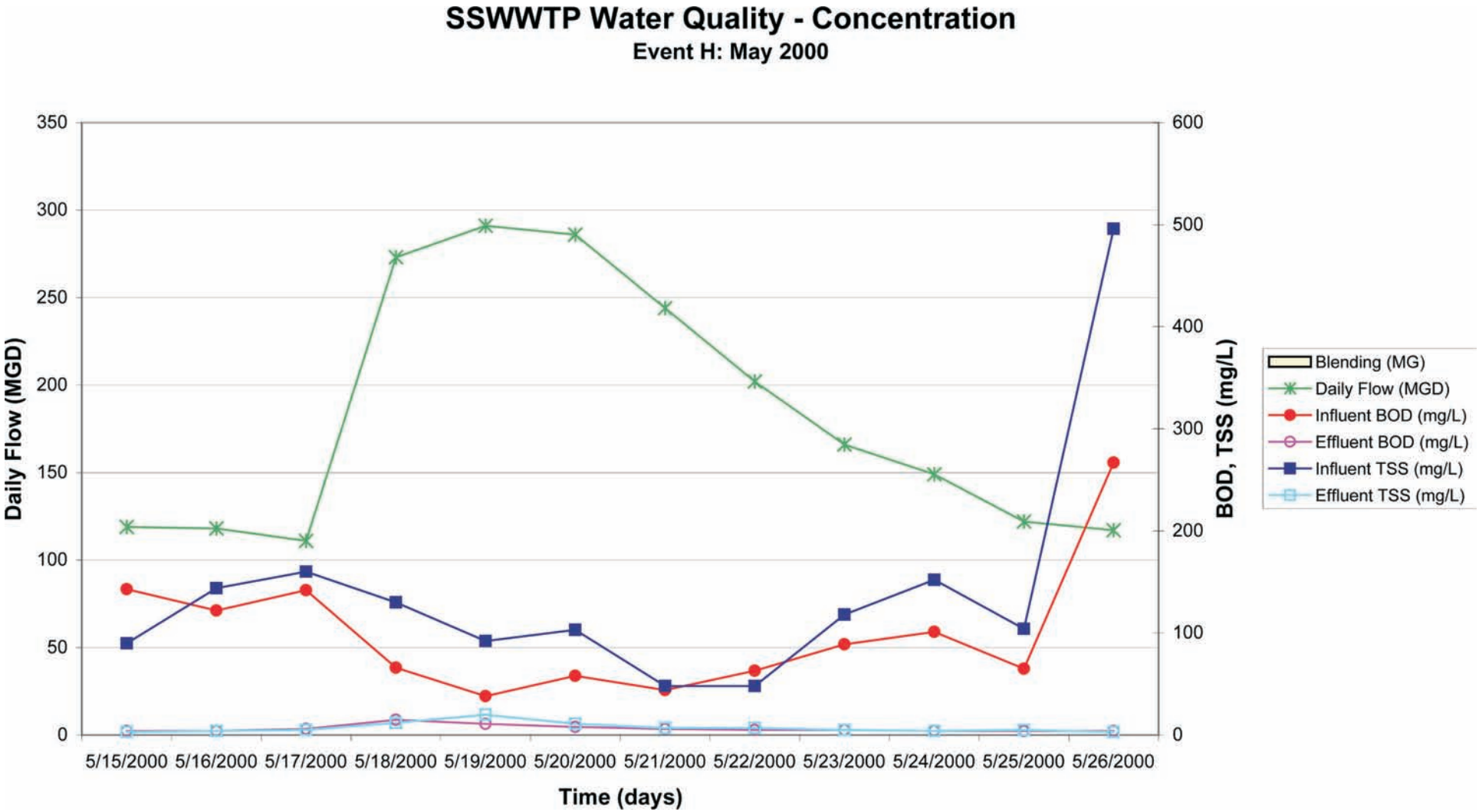
TABLE 4J-17 SHEET 3 OF 6

EVENT H WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J17.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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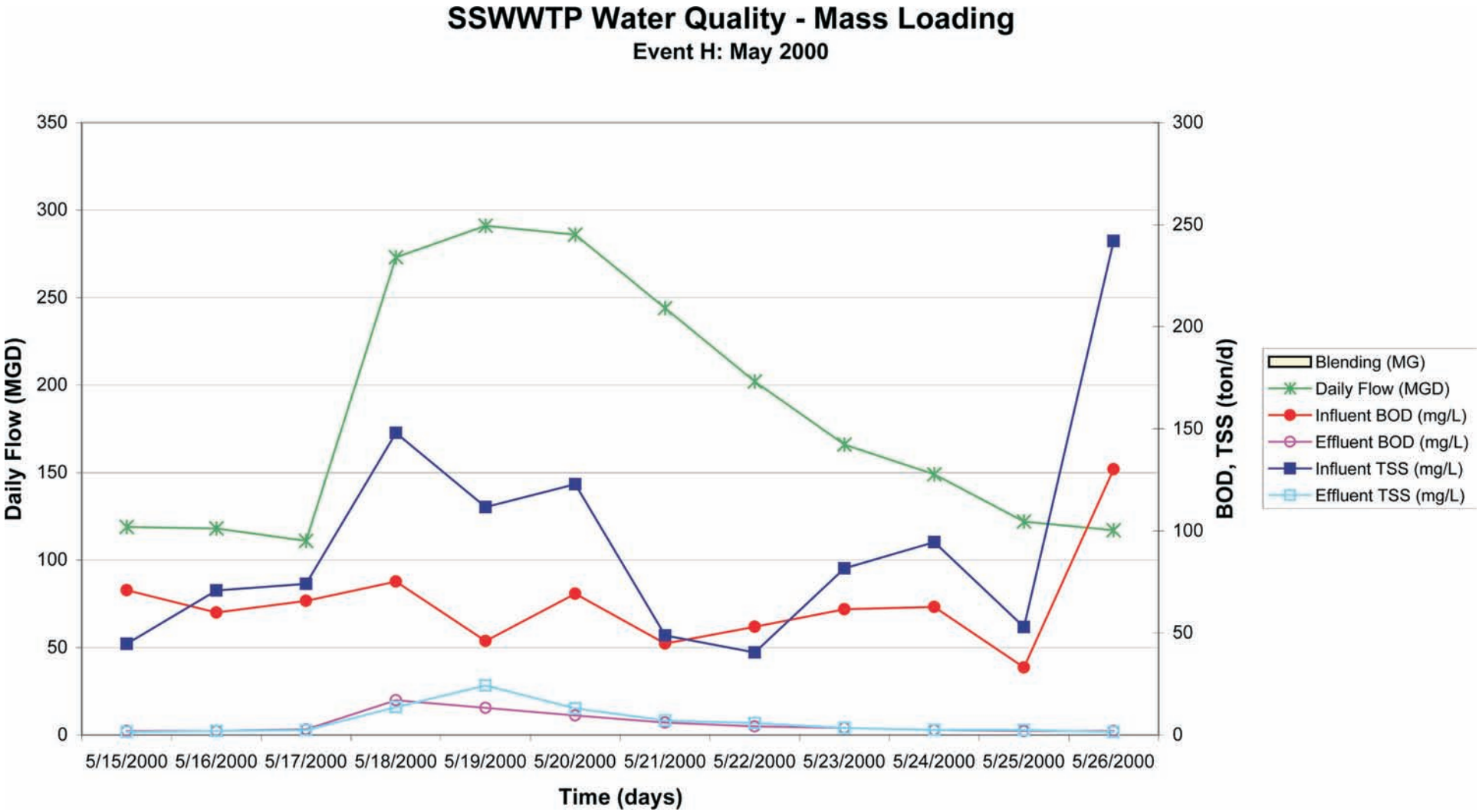
TABLE 4J-17 SHEET 4 OF 6

EVENT H WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J17.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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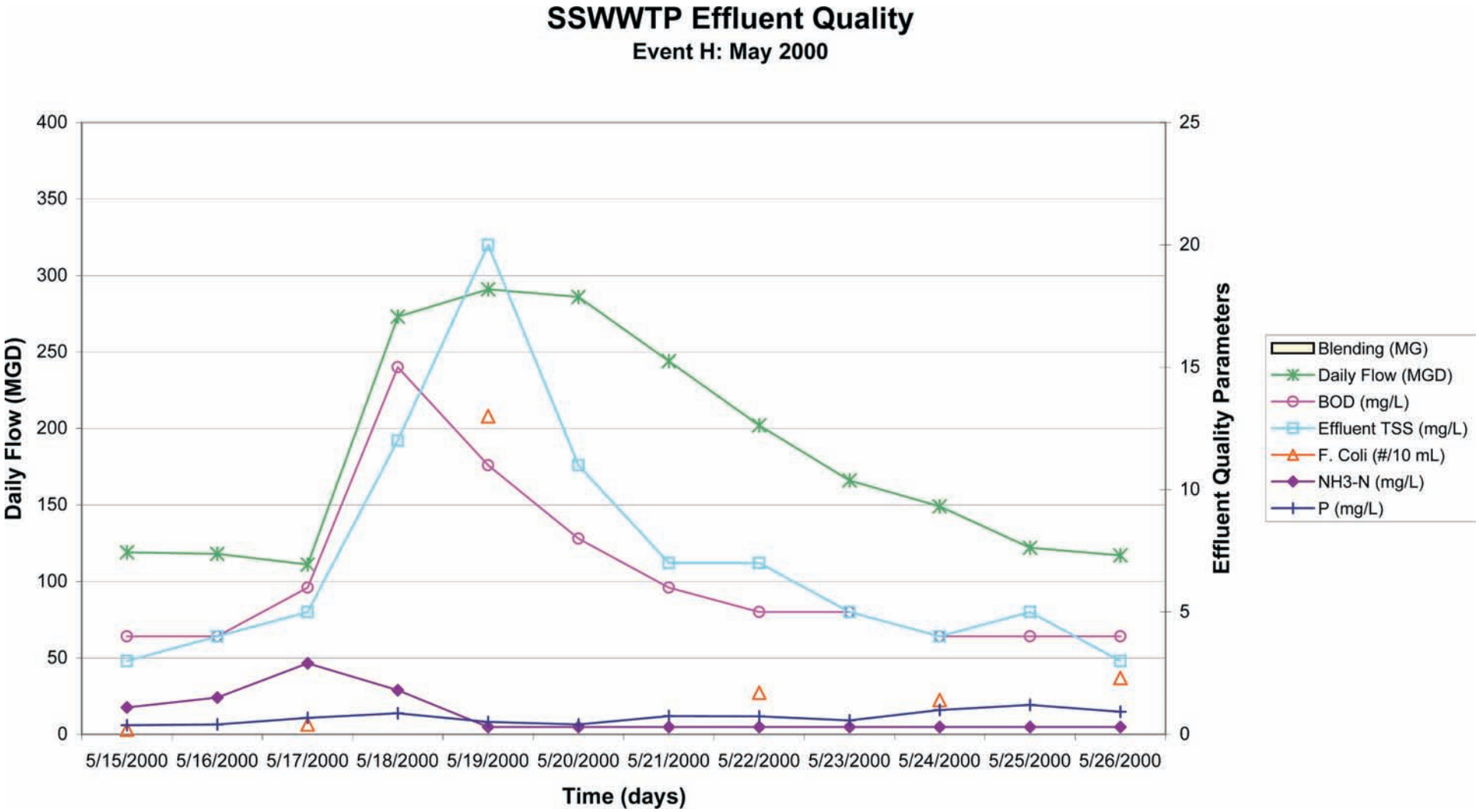
TABLE 4J-17 SHEET 5 OF 6

EVENT H WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J17.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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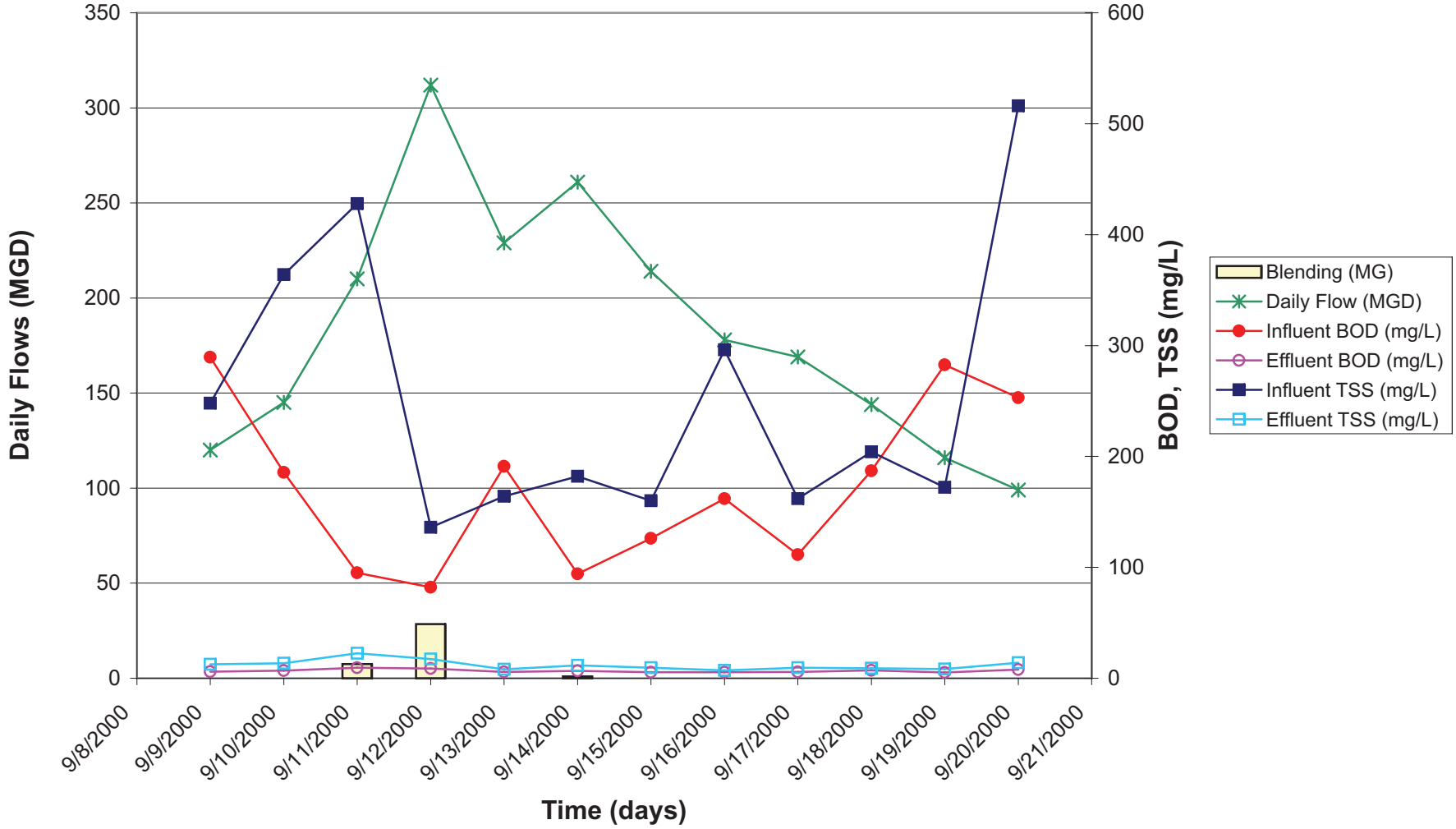
TABLE 4J-17 SHEET 6 OF 6

EVENT H WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J17.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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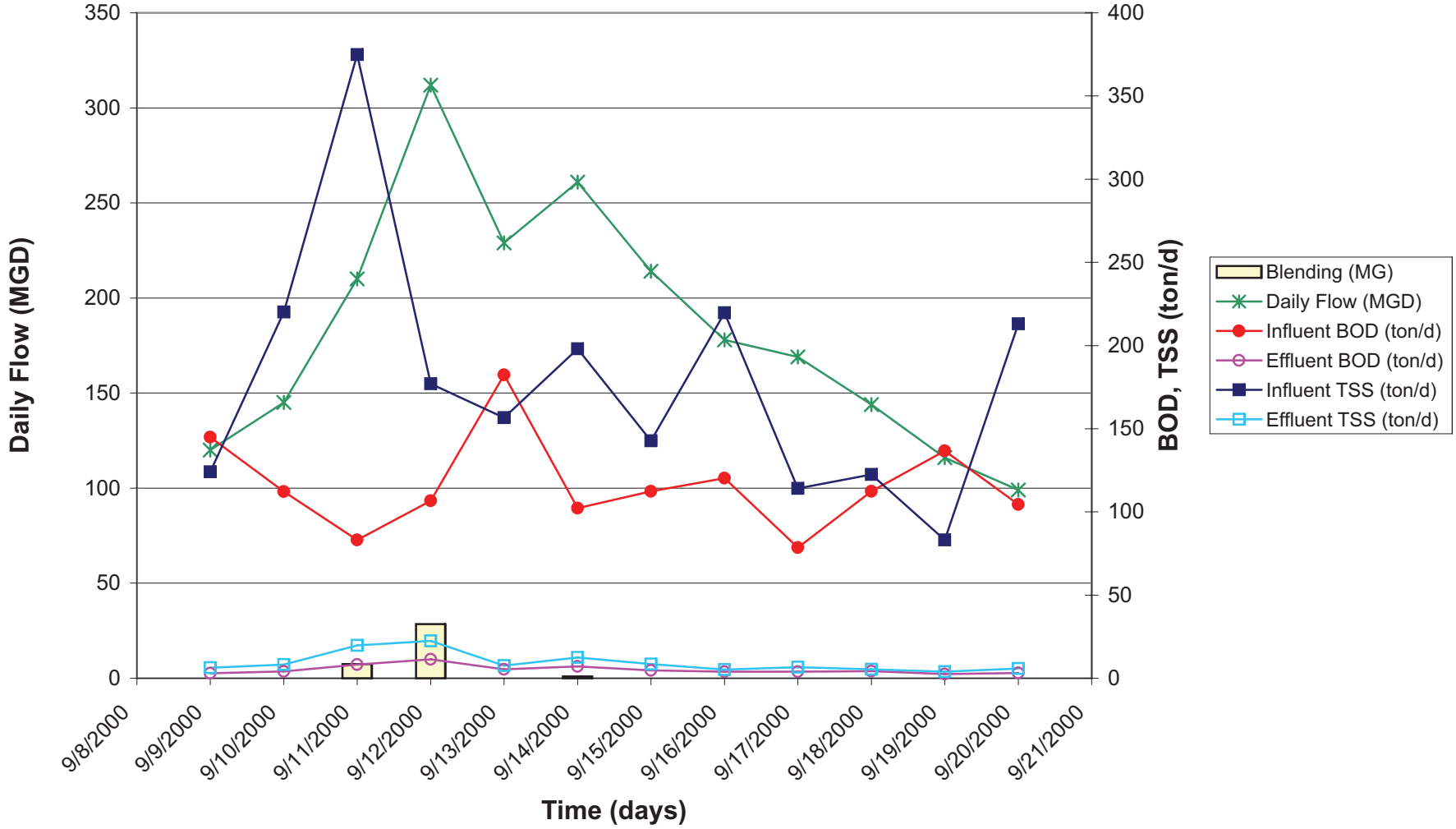
TABLE 4J-18 SHEET 1 OF 6

EVENT I WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07 TR_4-A.T4J18.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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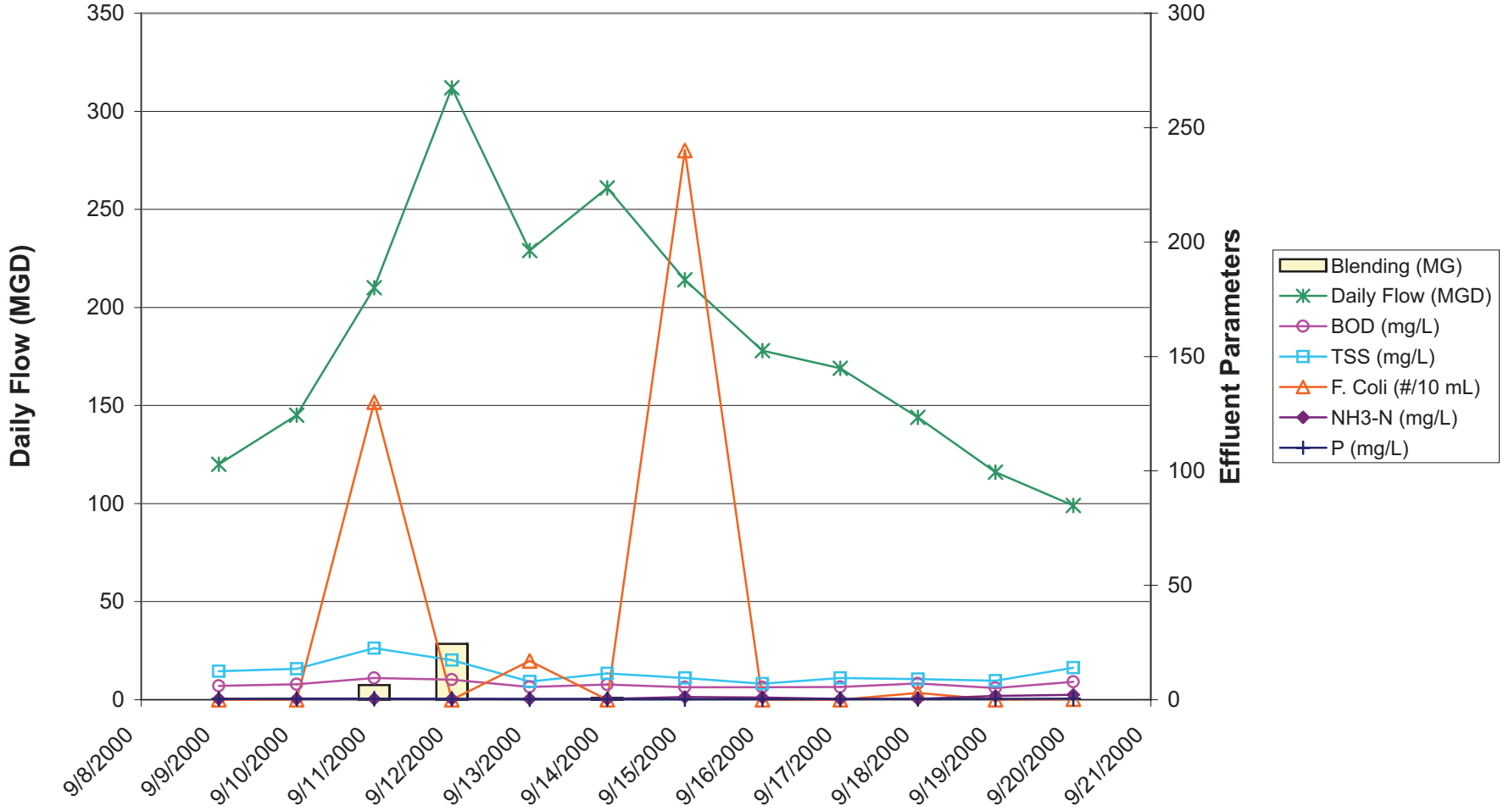
TABLE 4J-18 SHEET 2 OF 6

EVENT I WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07 TR_4-A.T4J18.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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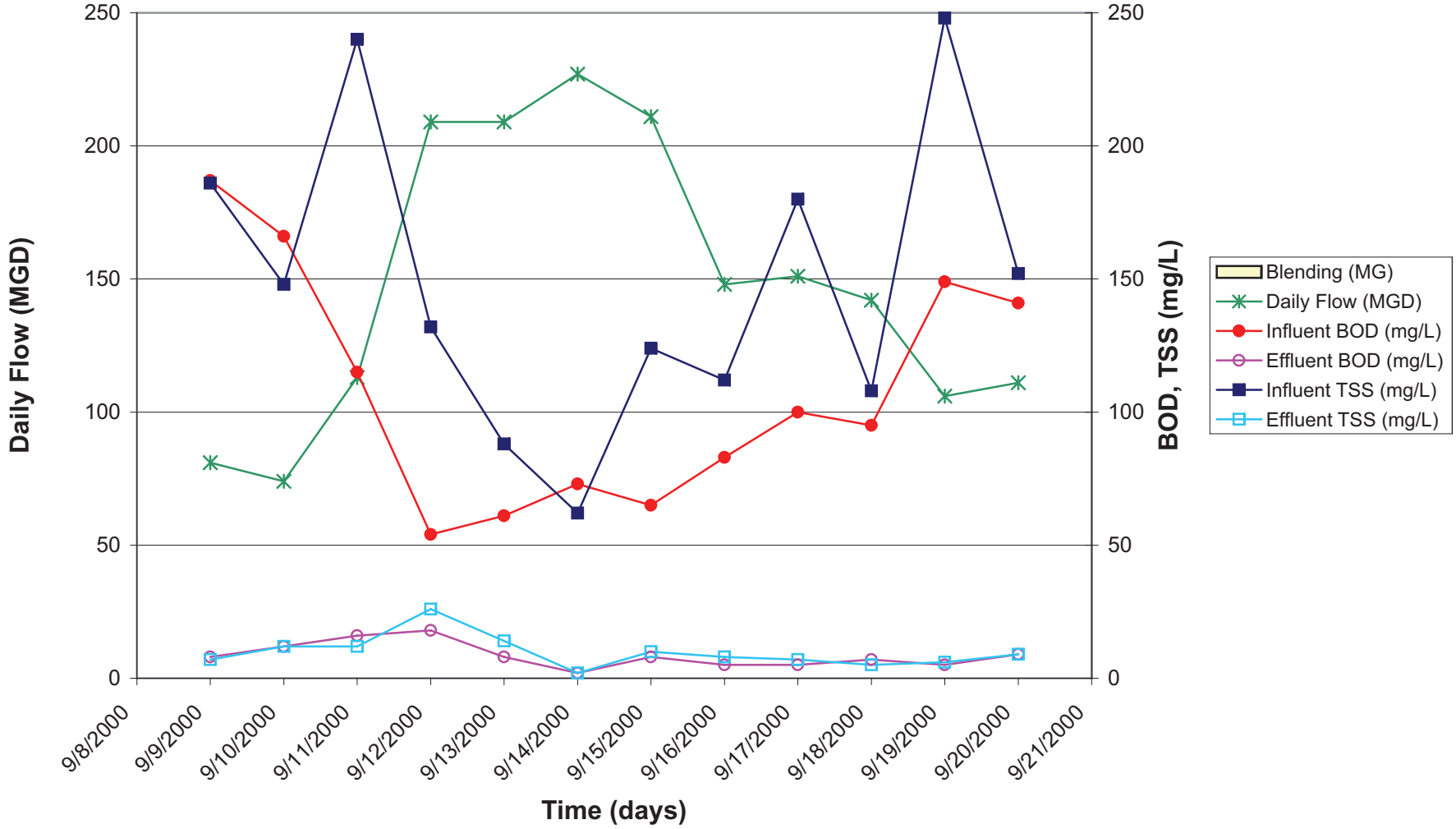
TABLE 4J-18 SHEET 3 OF 6

EVENT I WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07 TR_4-A.T4J18.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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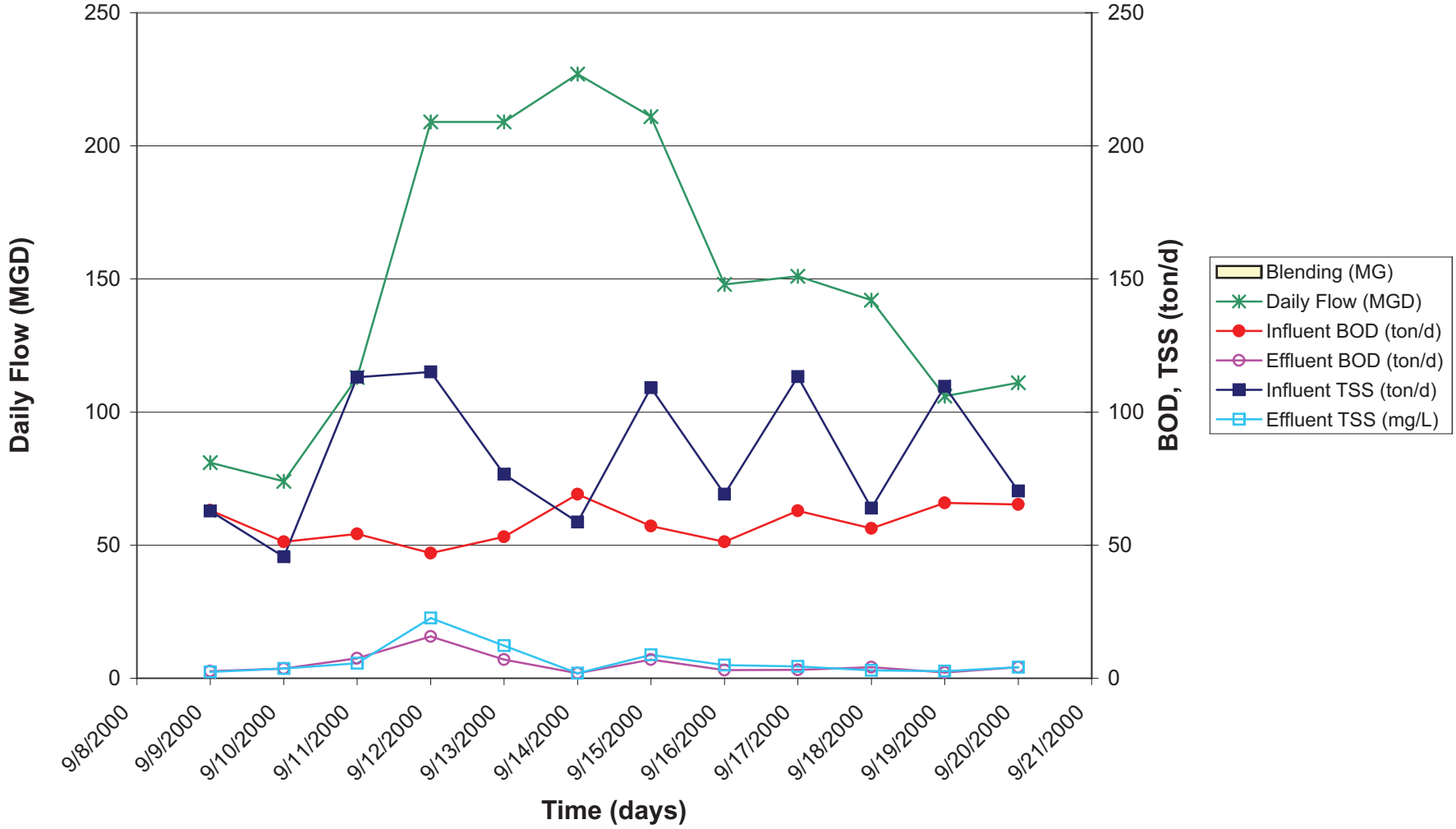
TABLE 4J-18 SHEET 4 OF 6

EVENT I WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07 TR_4-A.T4J18.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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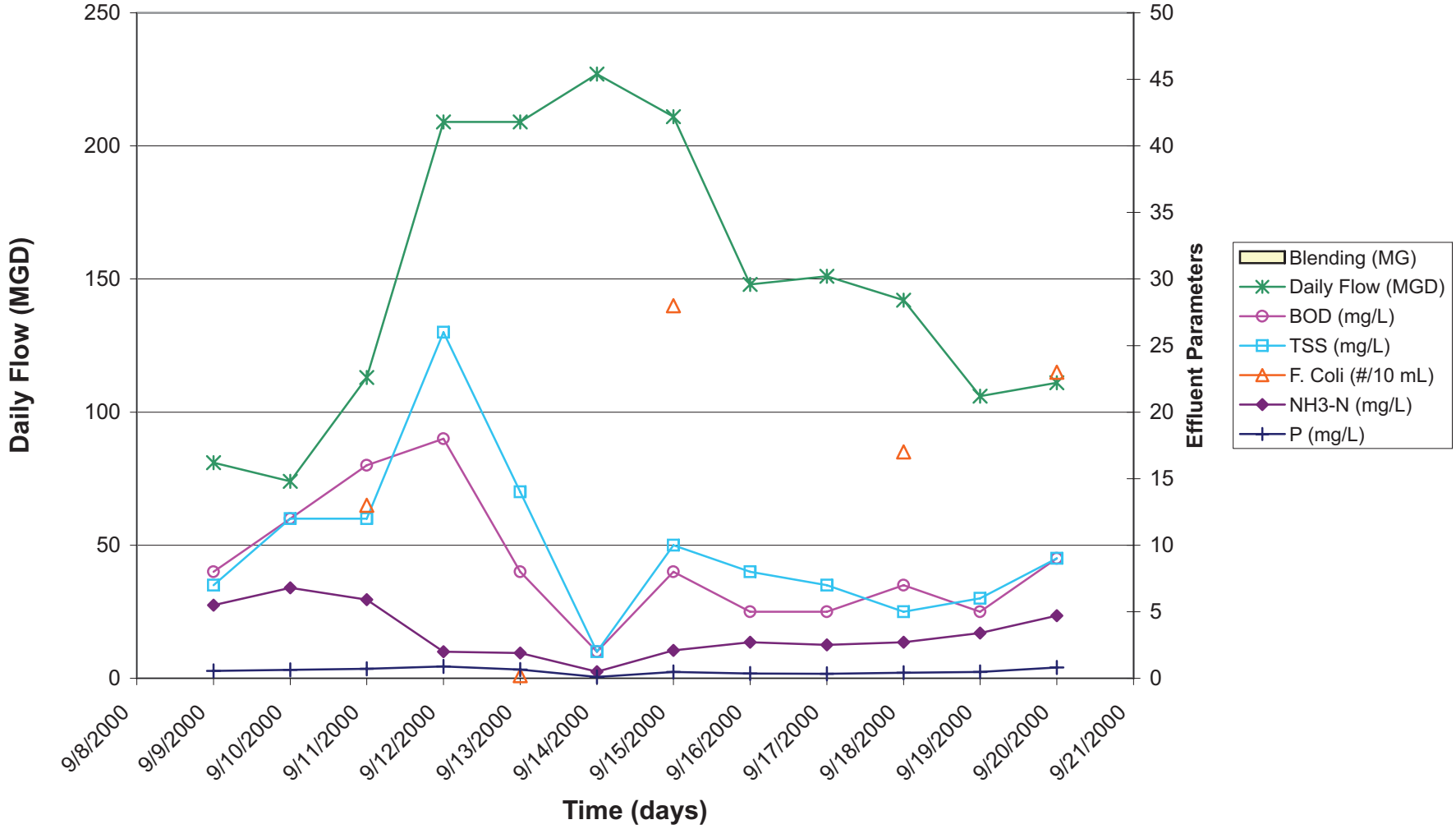
TABLE 4J-18 SHEET 5 OF 6

EVENT I WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07 TR_4-A.T4J18.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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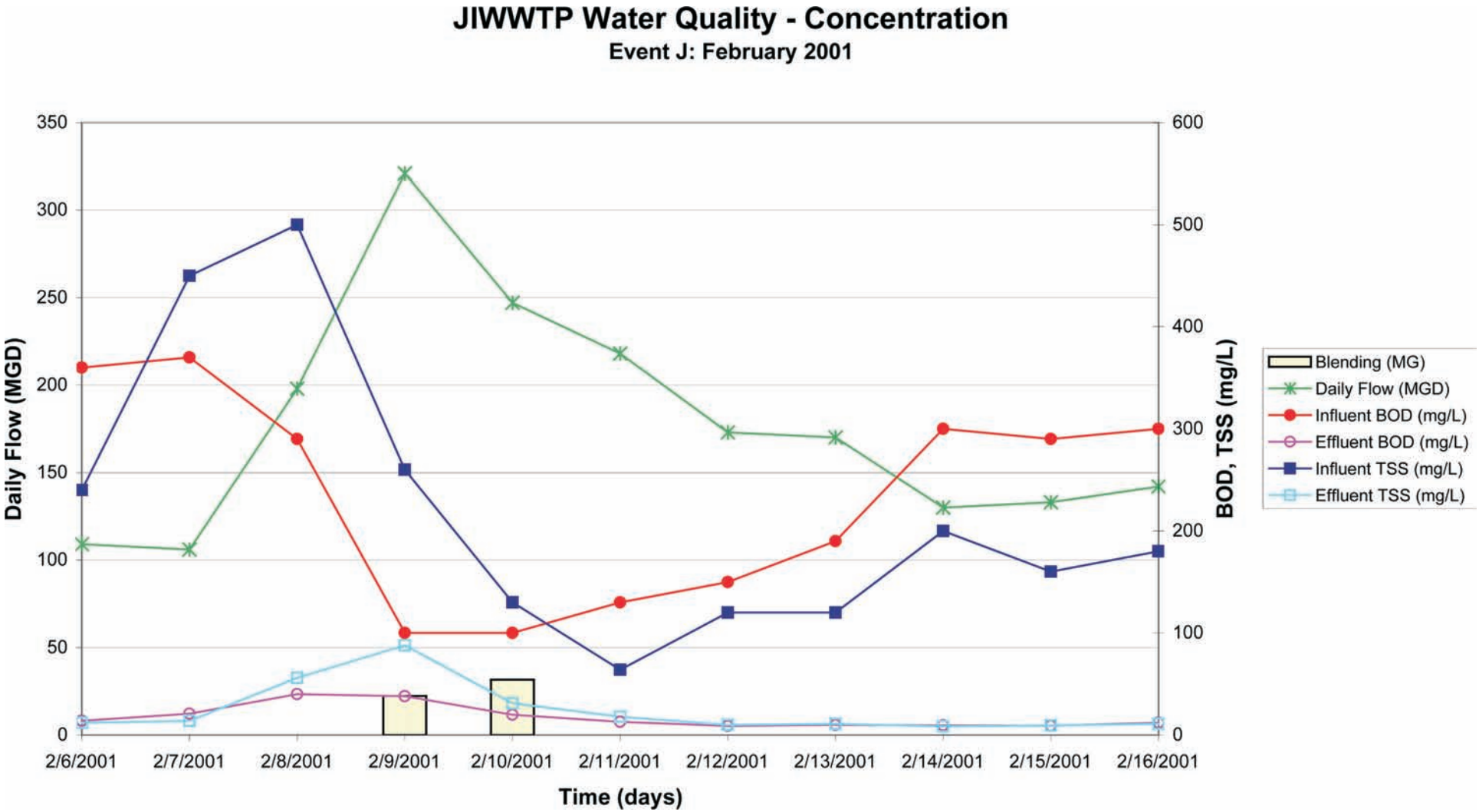
TABLE 4J-18 SHEET 6 OF 6

EVENT I WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/4/07

TR_4-A.T4J18.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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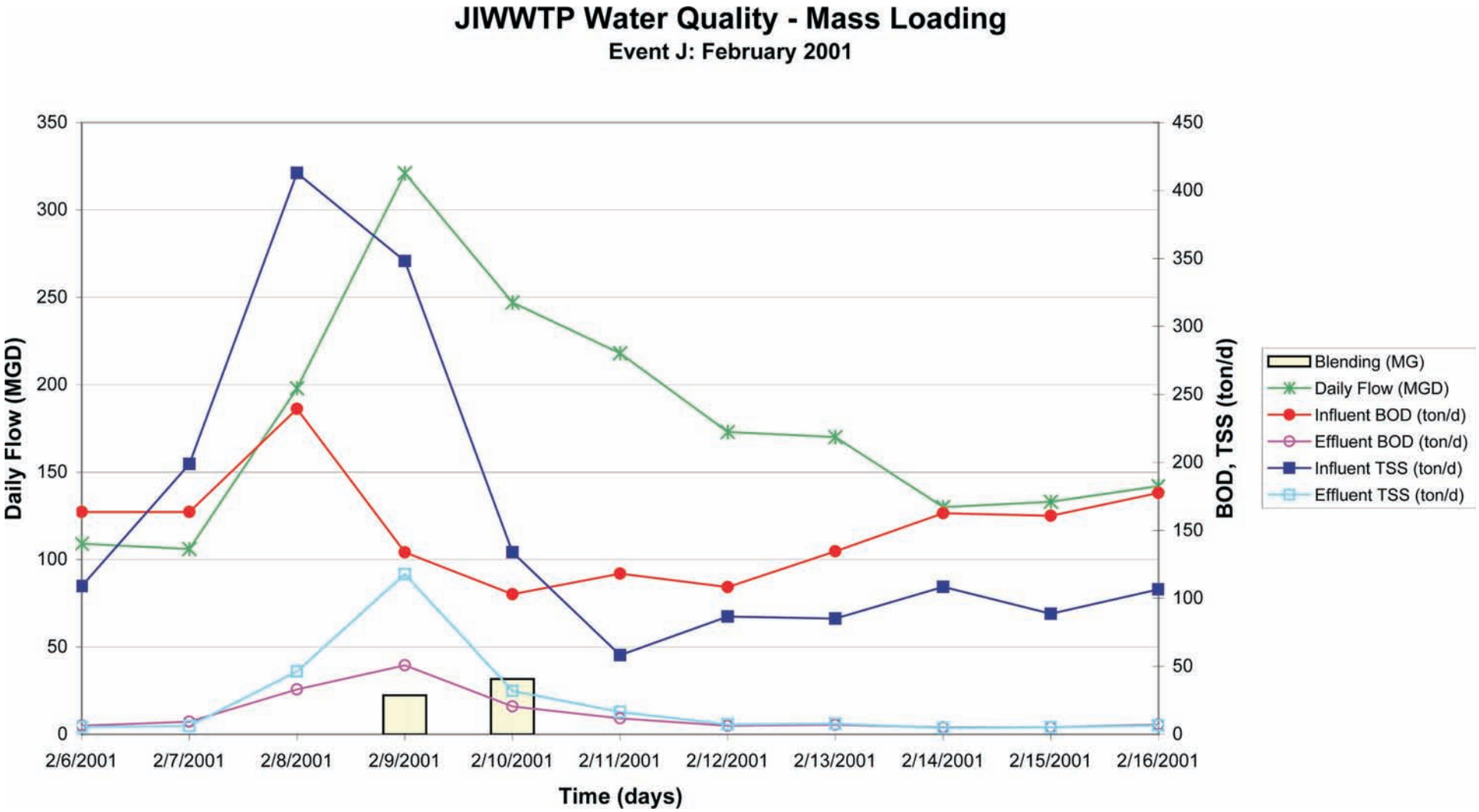
TABLE 4J-19 SHEET 1 OF 6

EVENT J WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J19.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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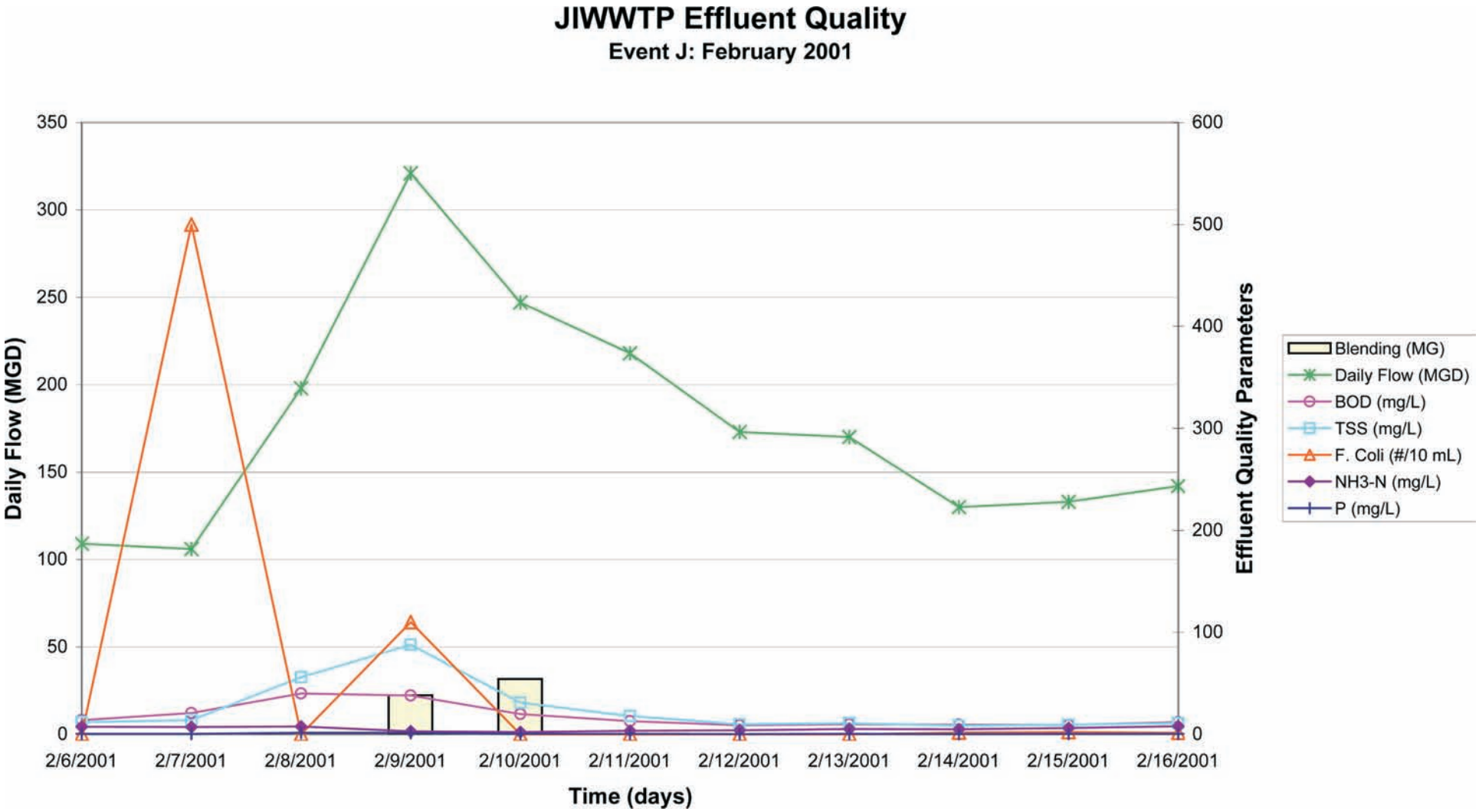
TABLE 4J-19 SHEET 2 OF 6

EVENT J WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J19.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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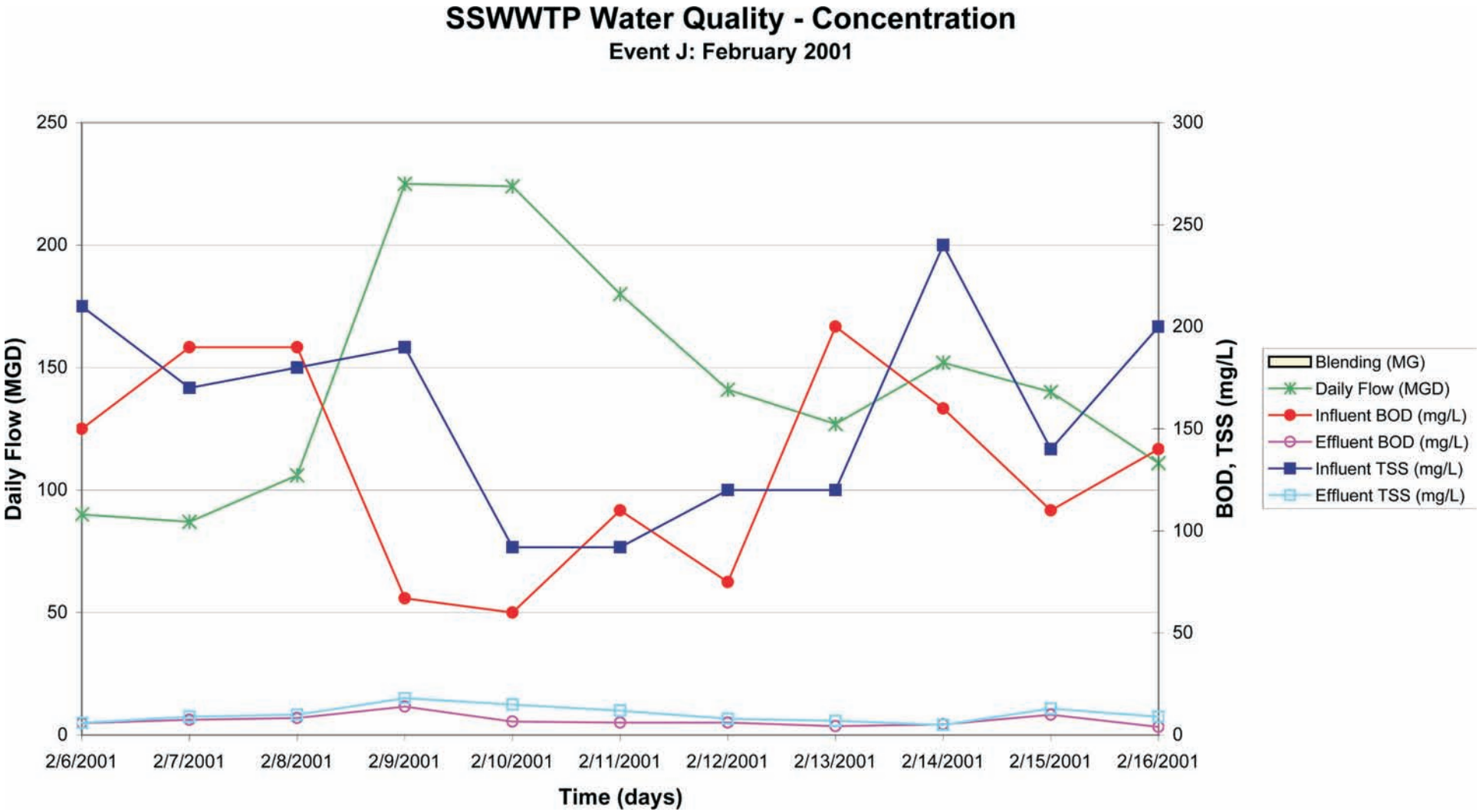
TABLE 4J-19 SHEET 3 OF 6

EVENT J WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J19.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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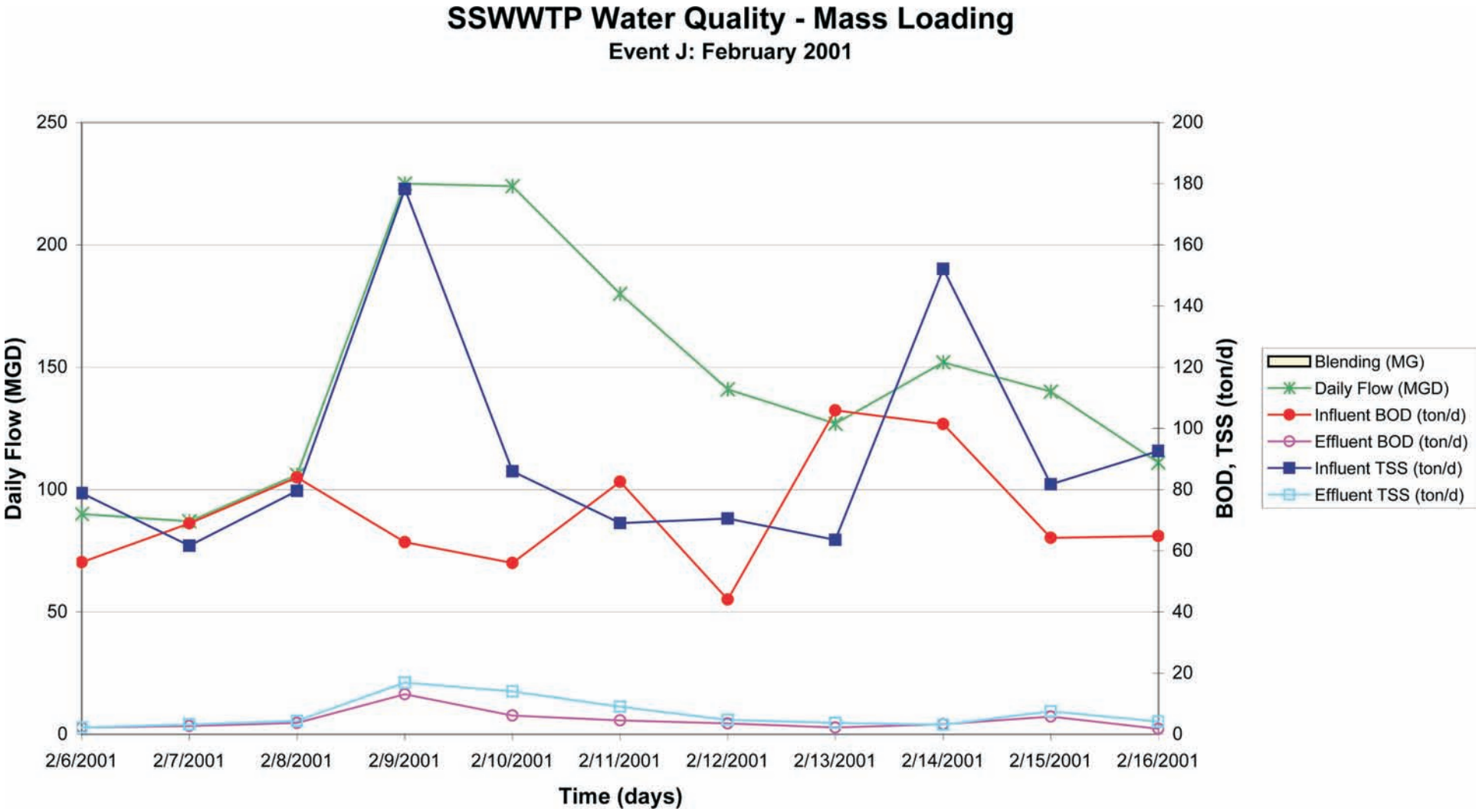
TABLE 4J-19 SHEET 4 OF 6

EVENT J WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J19.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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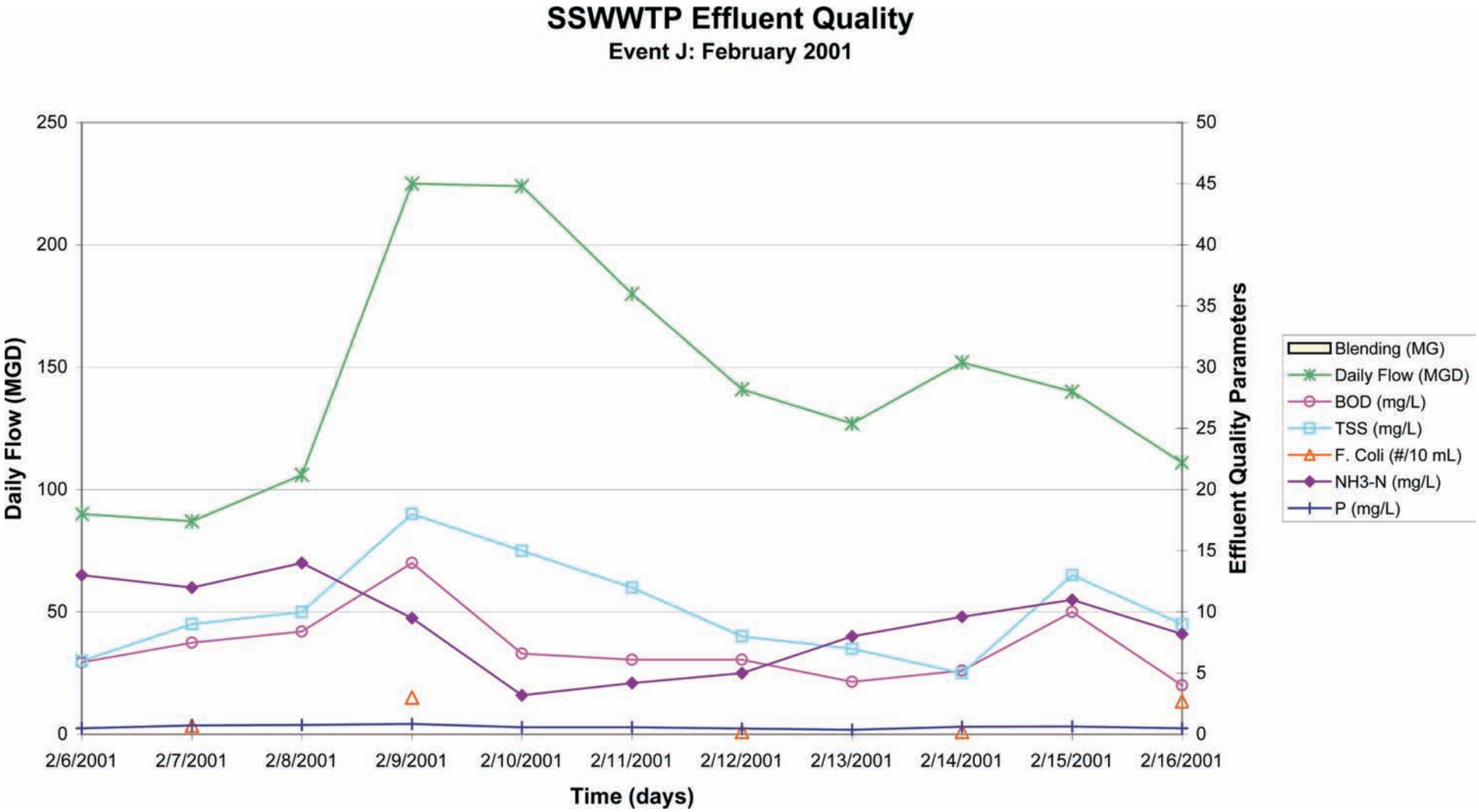
TABLE 4J-19 SHEET 5 OF 6

EVENT J WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J19.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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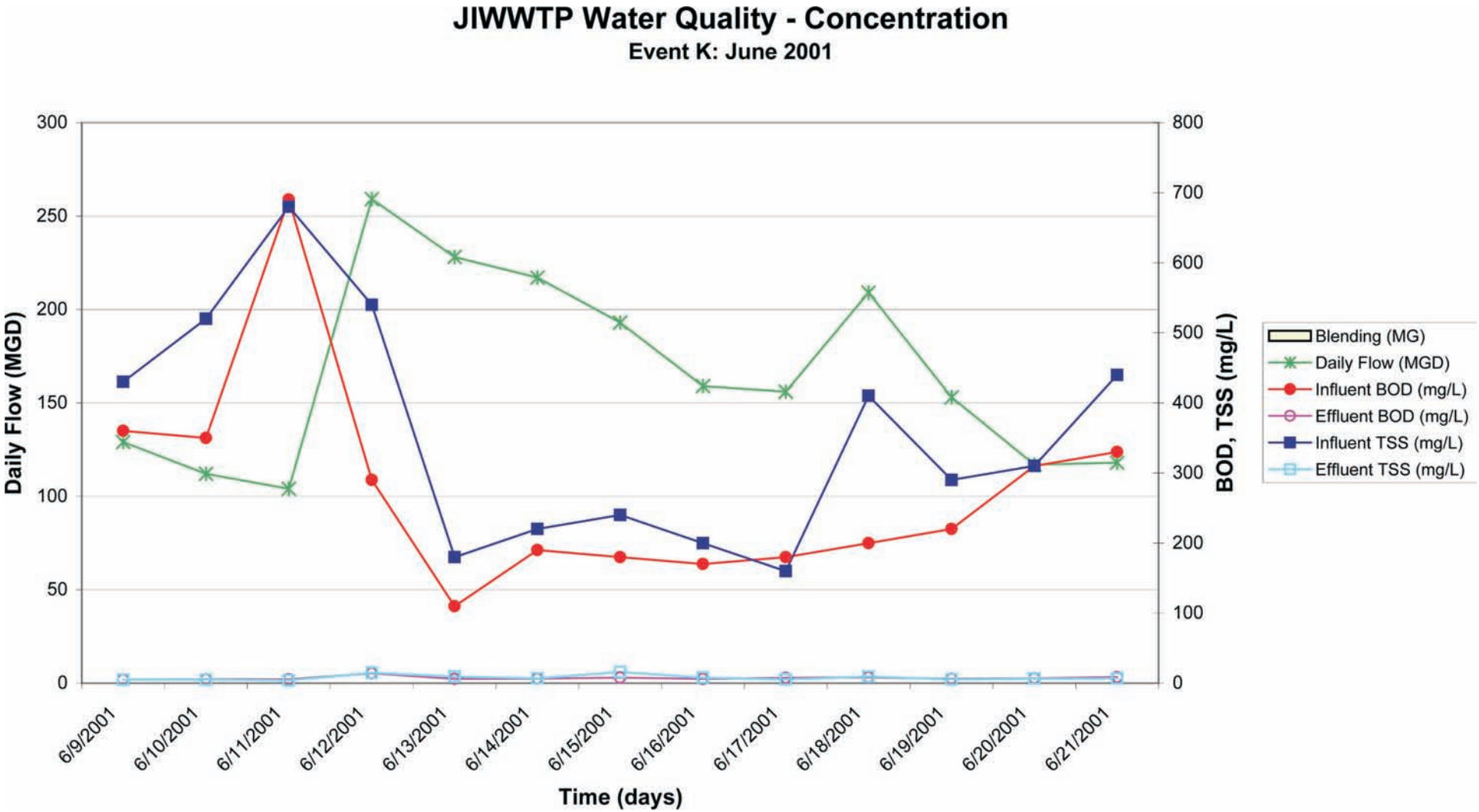
TABLE 4J-19 SHEET 6 OF 6

EVENT J WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J19.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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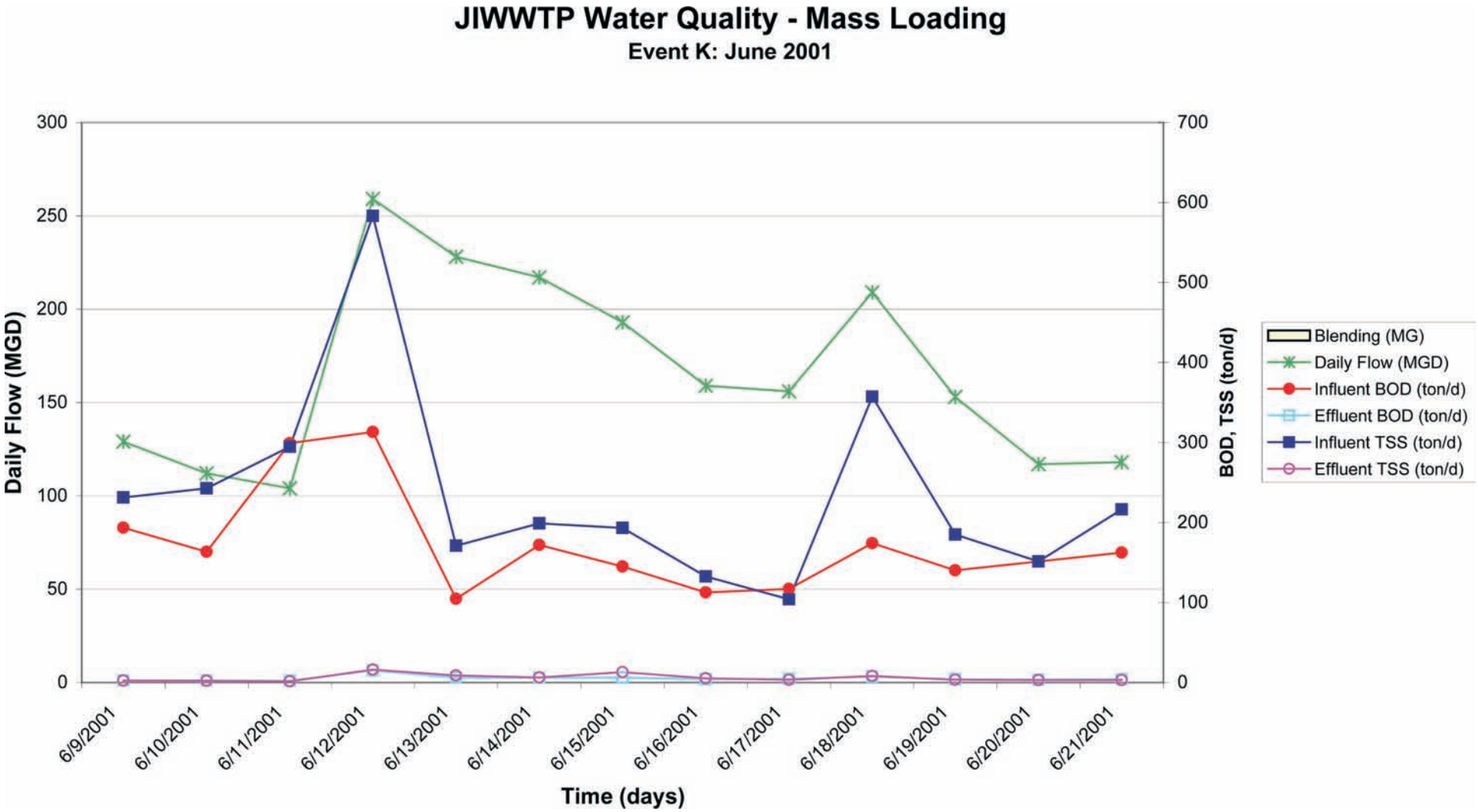
TABLE 4J-20 SHEET 1 OF 6

EVENT K WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J20.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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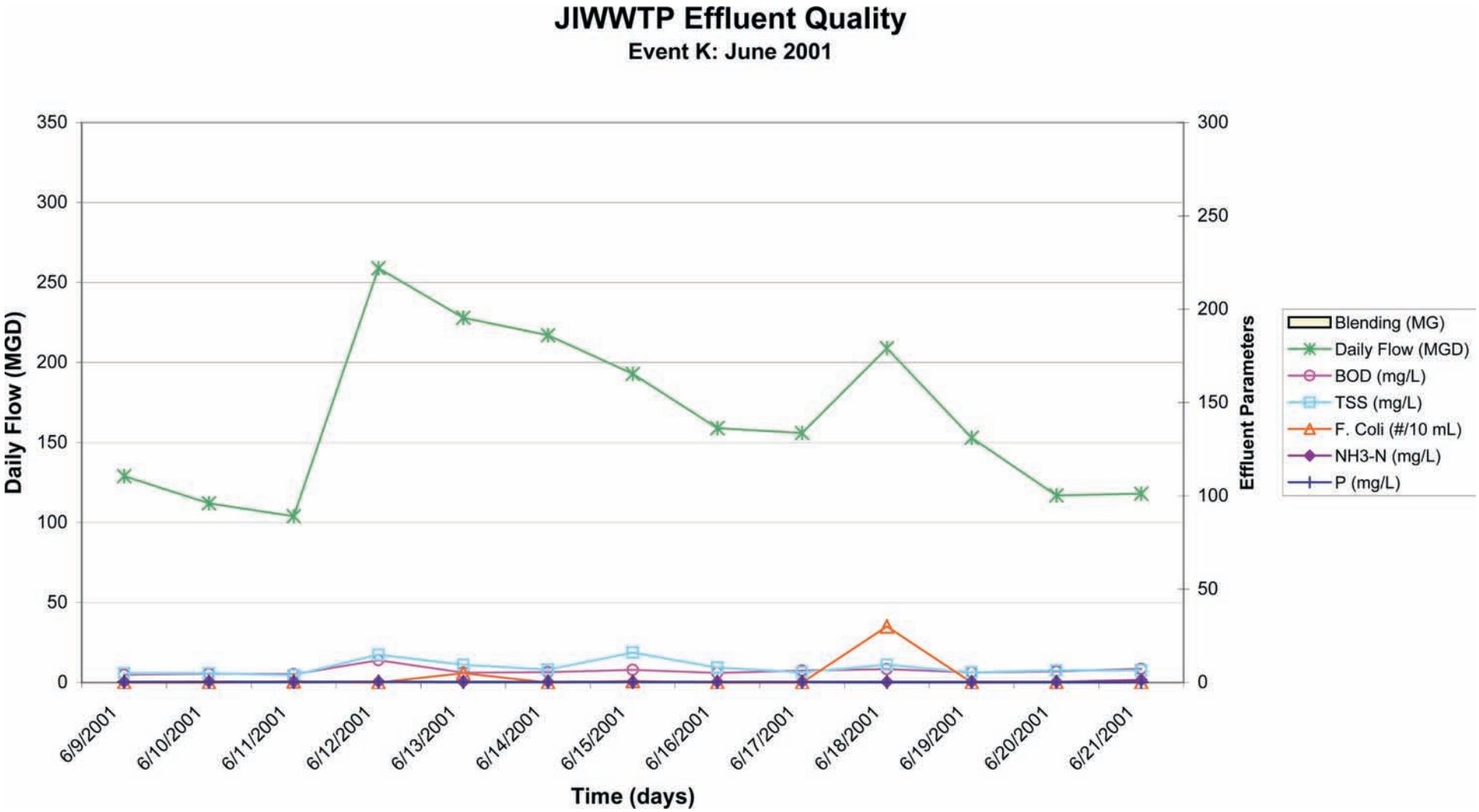
TABLE 4J-20 SHEET 2 OF 6

EVENT K WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J20.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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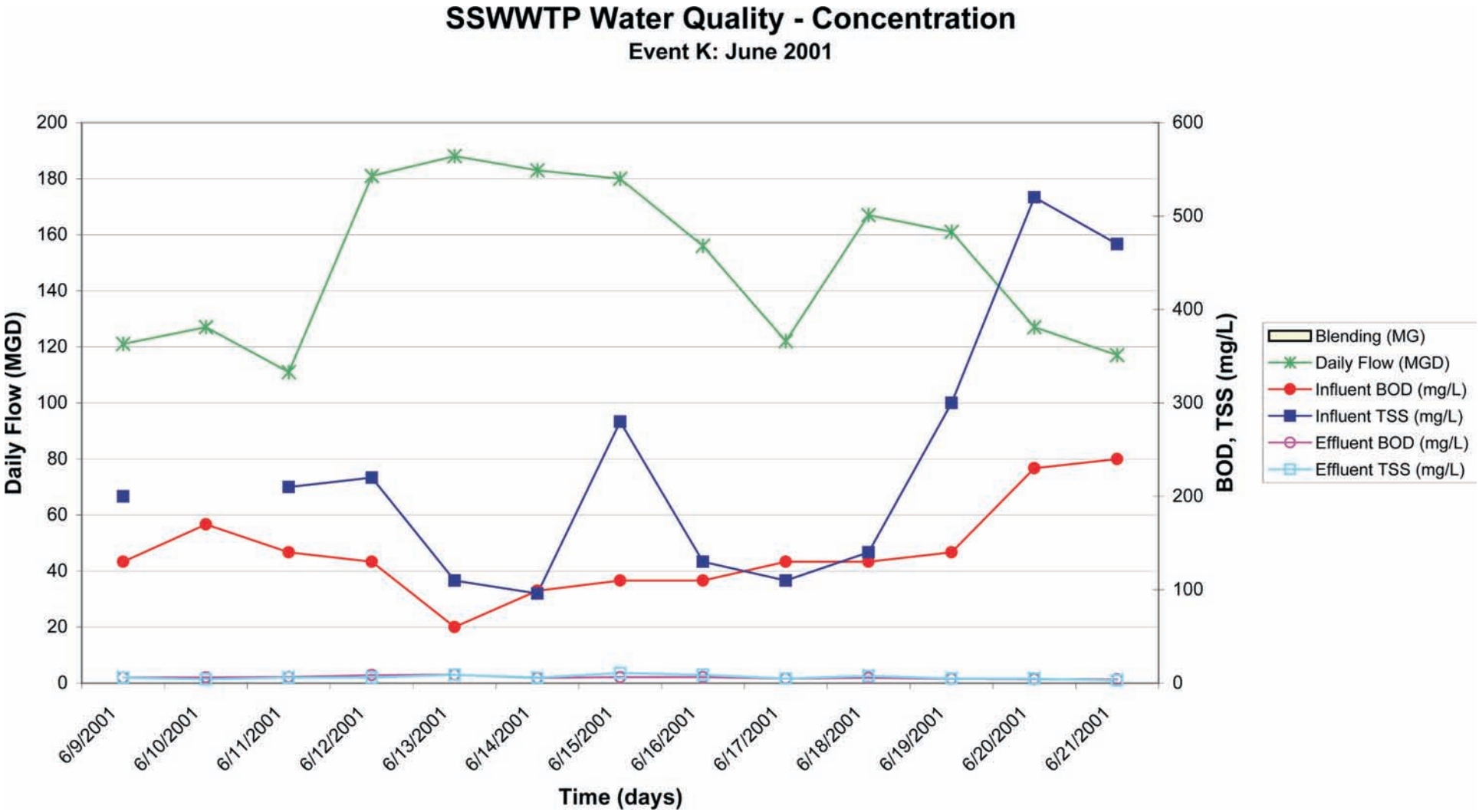
TABLE 4J-20 SHEET 3 OF 6

EVENT K WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J20.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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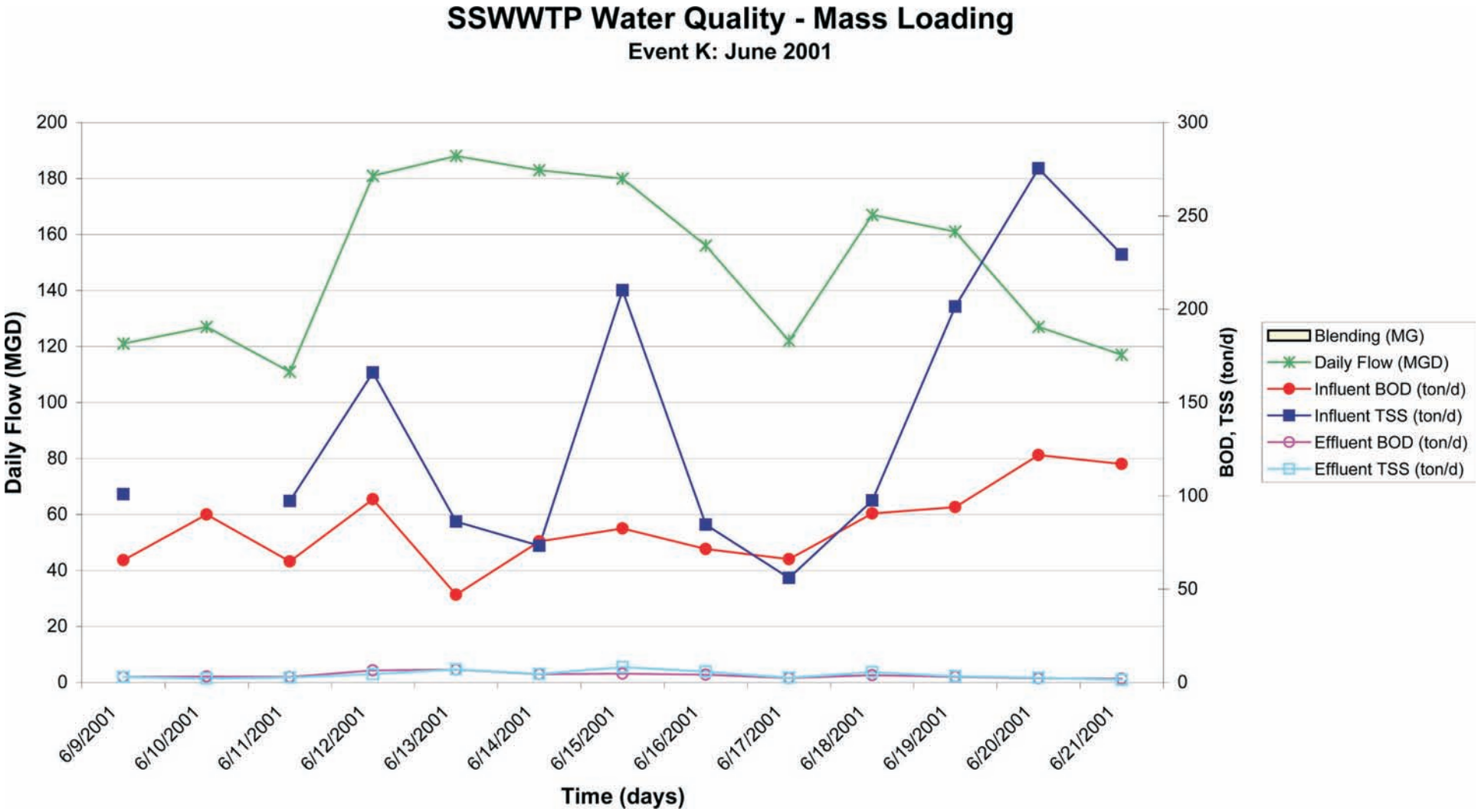
TABLE 4J-20 SHEET 4 OF 6

EVENT K WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J20.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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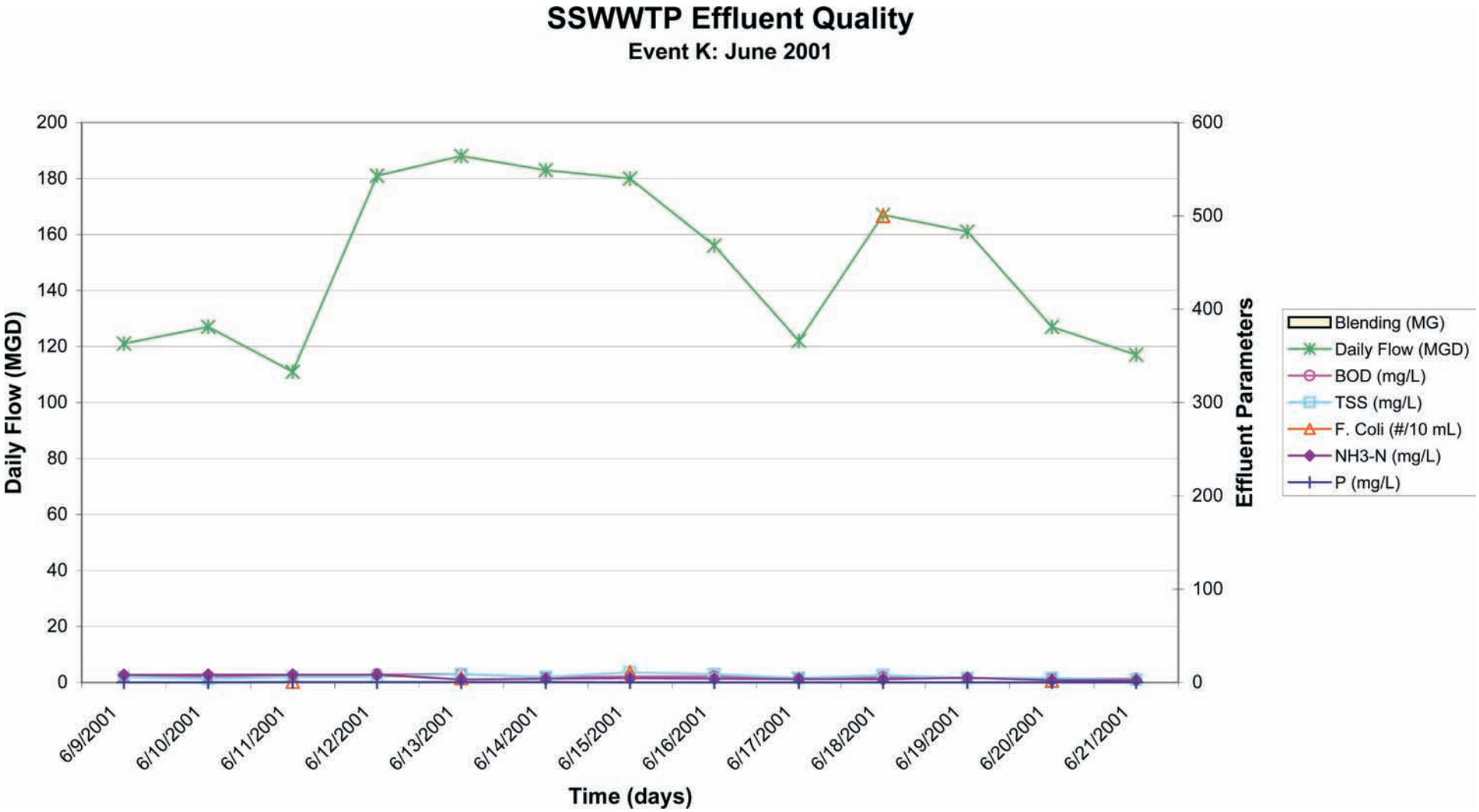
TABLE 4J-20 SHEET 5 OF 6

EVENT K WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J20.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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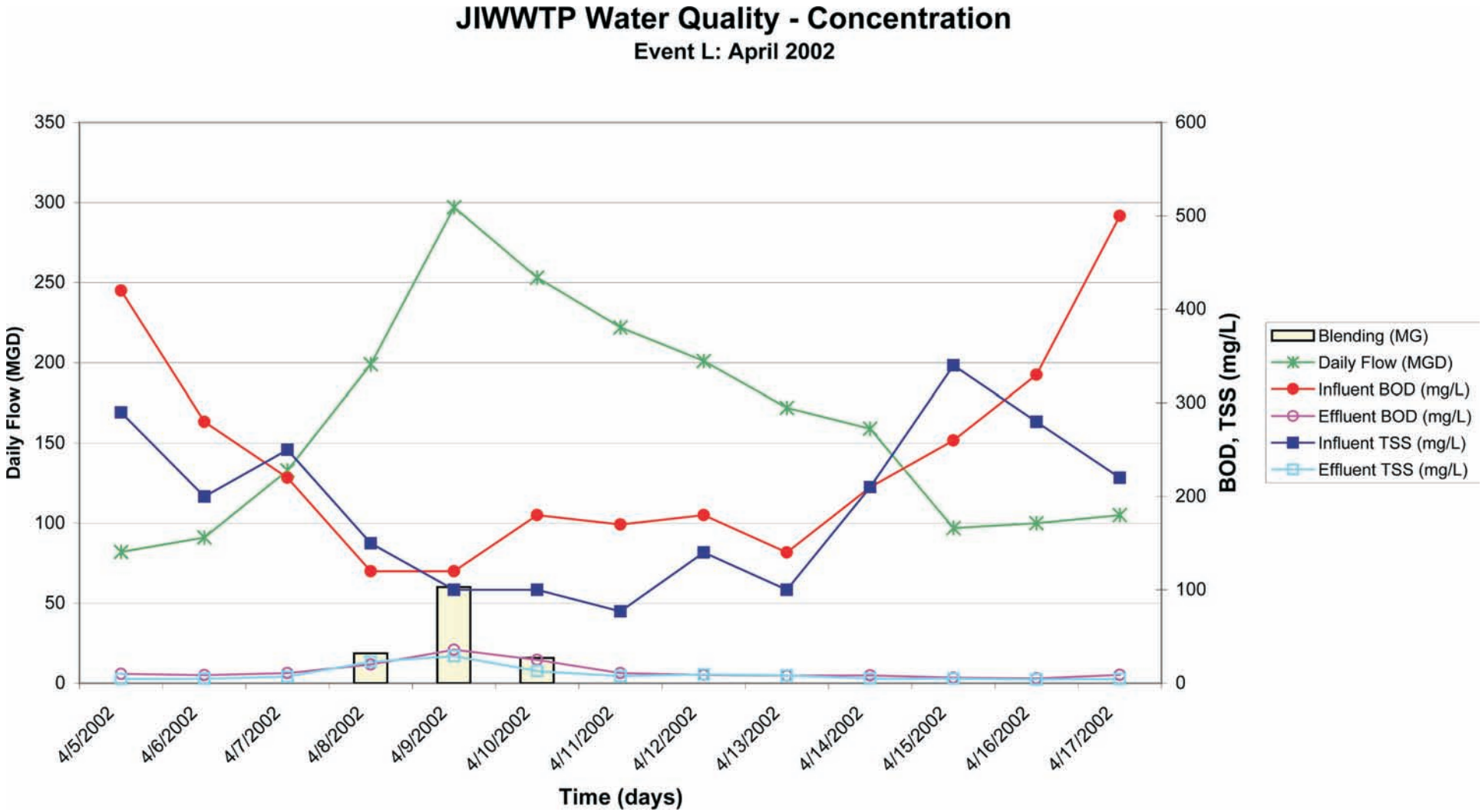
TABLE 4J-20 SHEET 6 OF 6

EVENT K WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J20.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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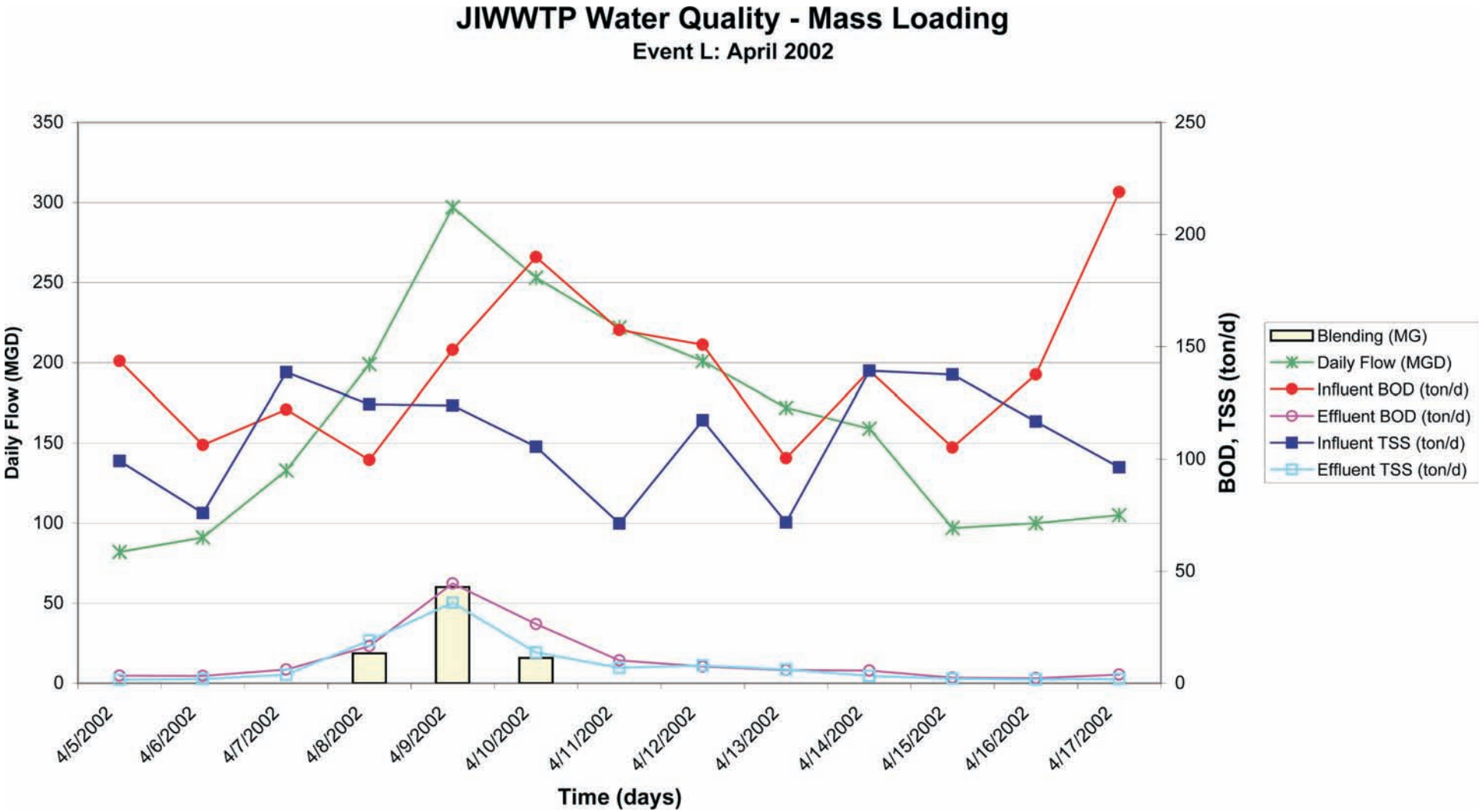
TABLE 4J-21 SHEET 1 OF 6

EVENT L WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J21.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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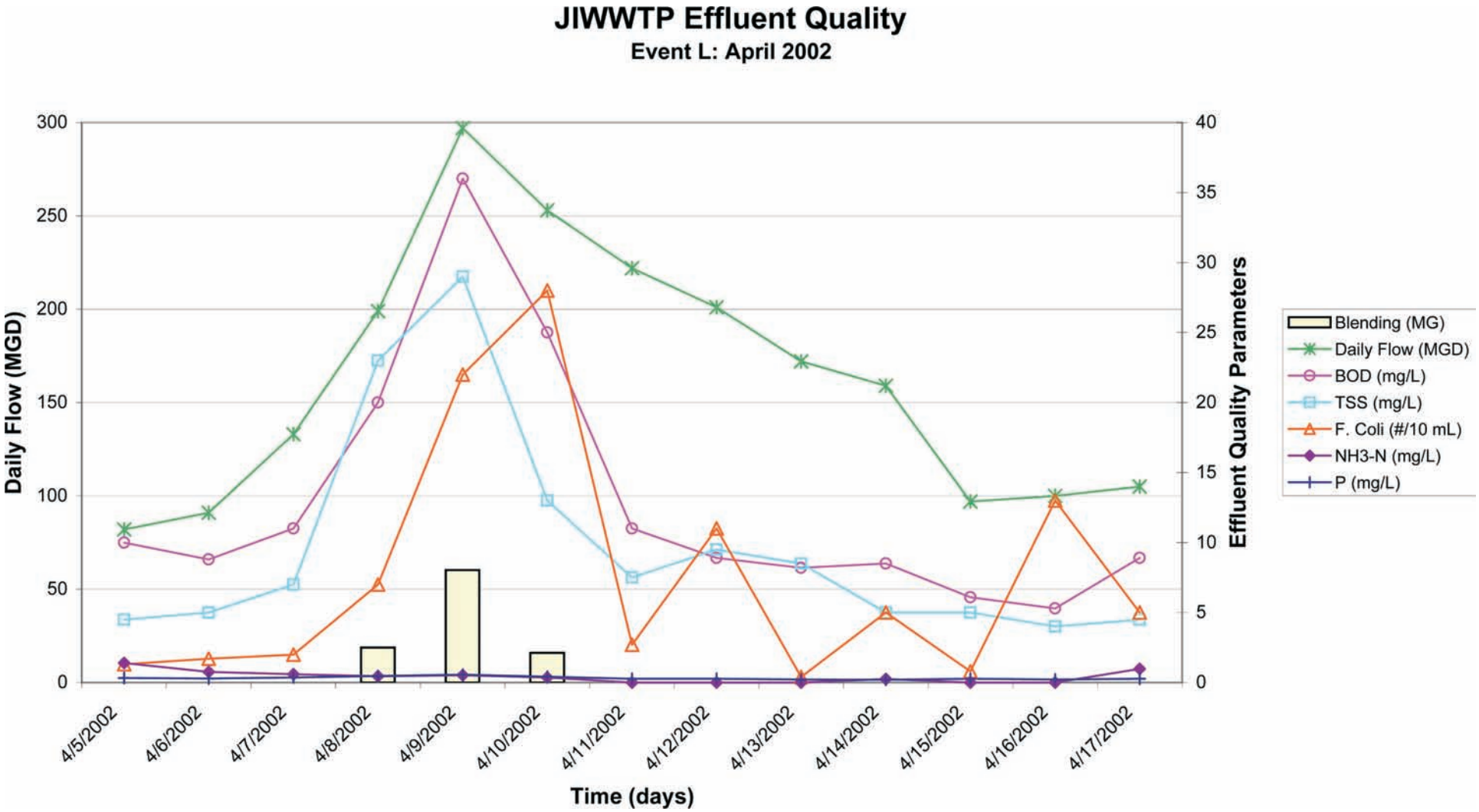
TABLE 4J-21 SHEET 2 OF 6

EVENT L WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J21.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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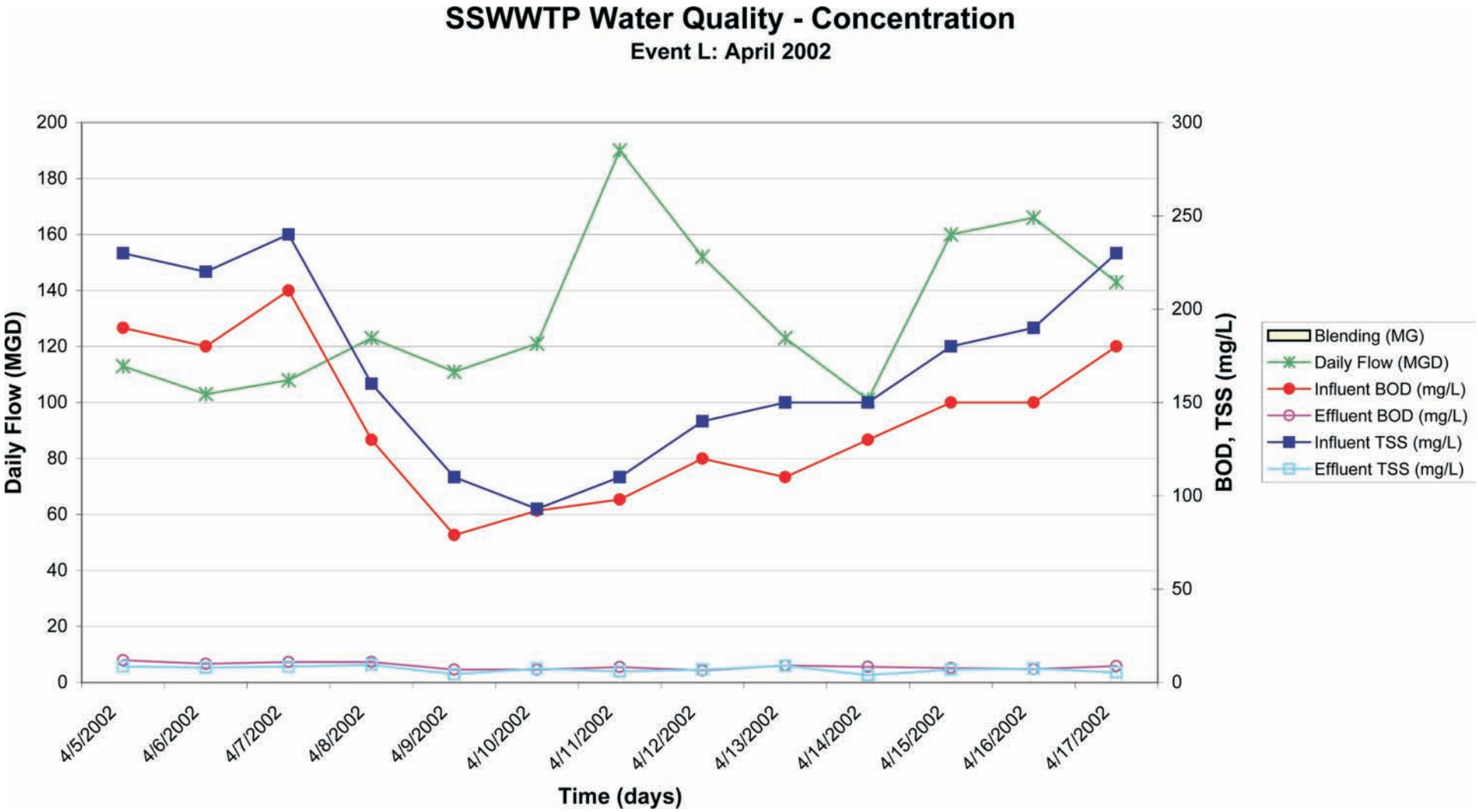
TABLE 4J-21 SHEET 3 OF 6

EVENT L WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J21.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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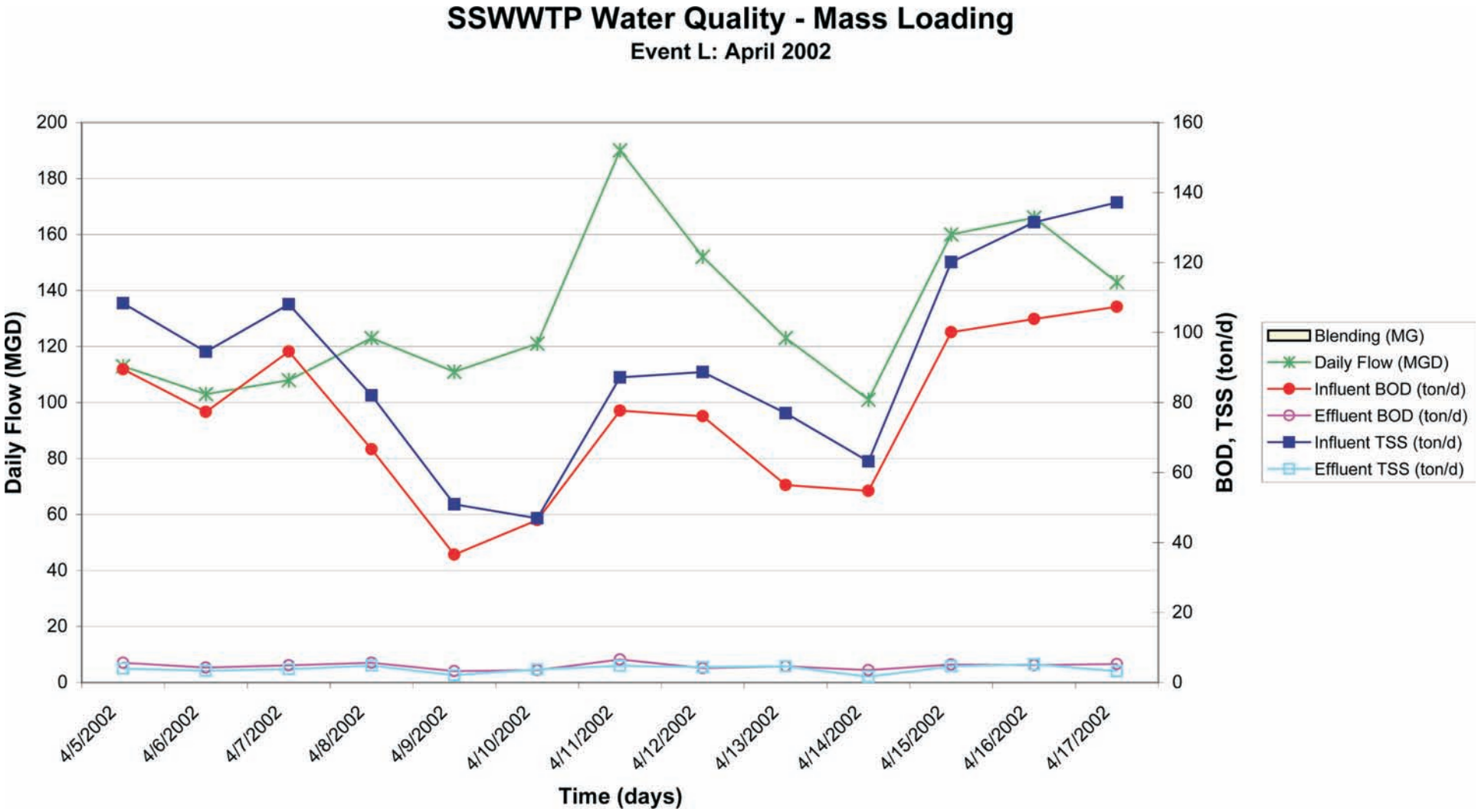
TABLE 4J-21 SHEET 4 OF 6

EVENT L WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J21.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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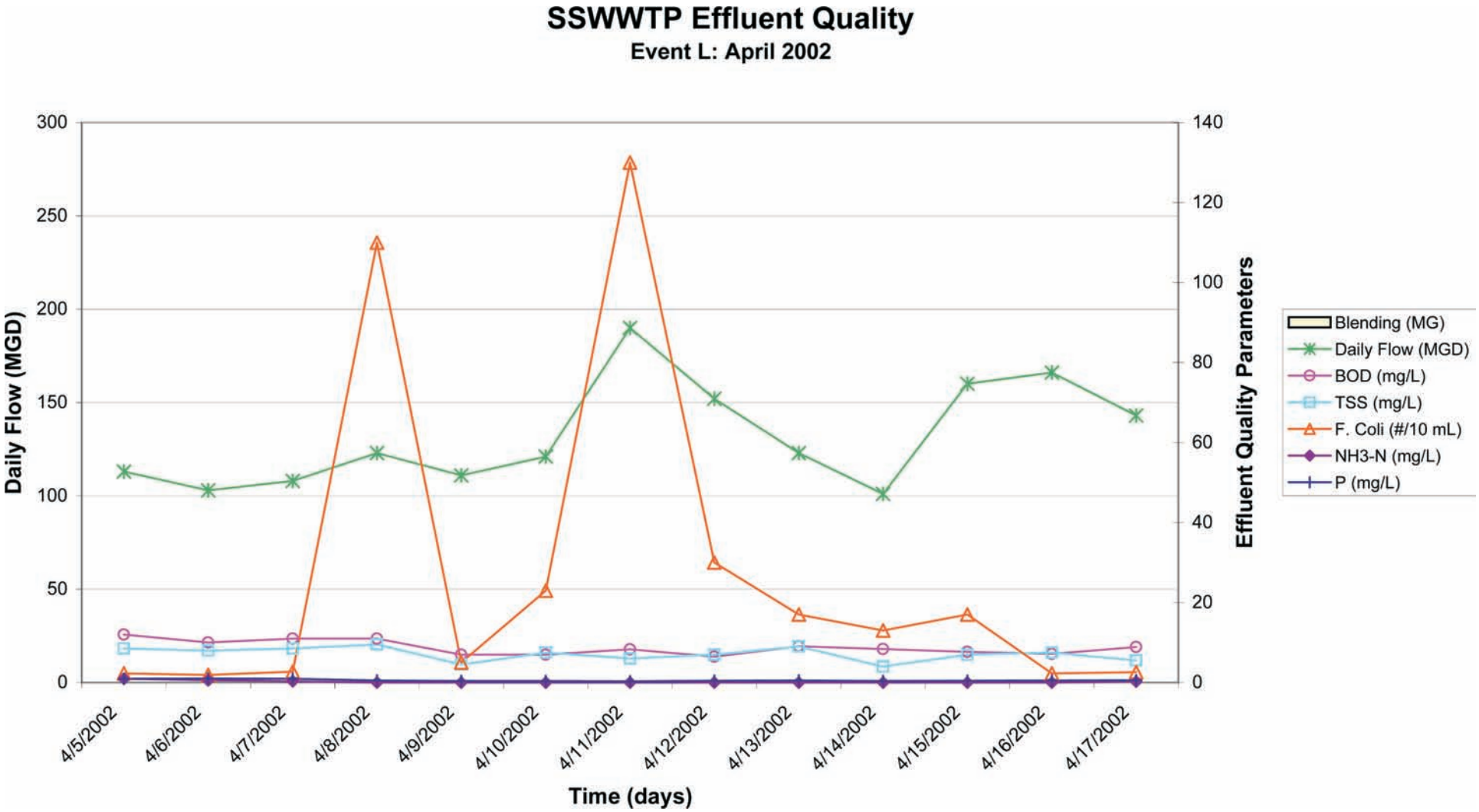
TABLE 4J-21 SHEET 5 OF 6

EVENT L WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J21.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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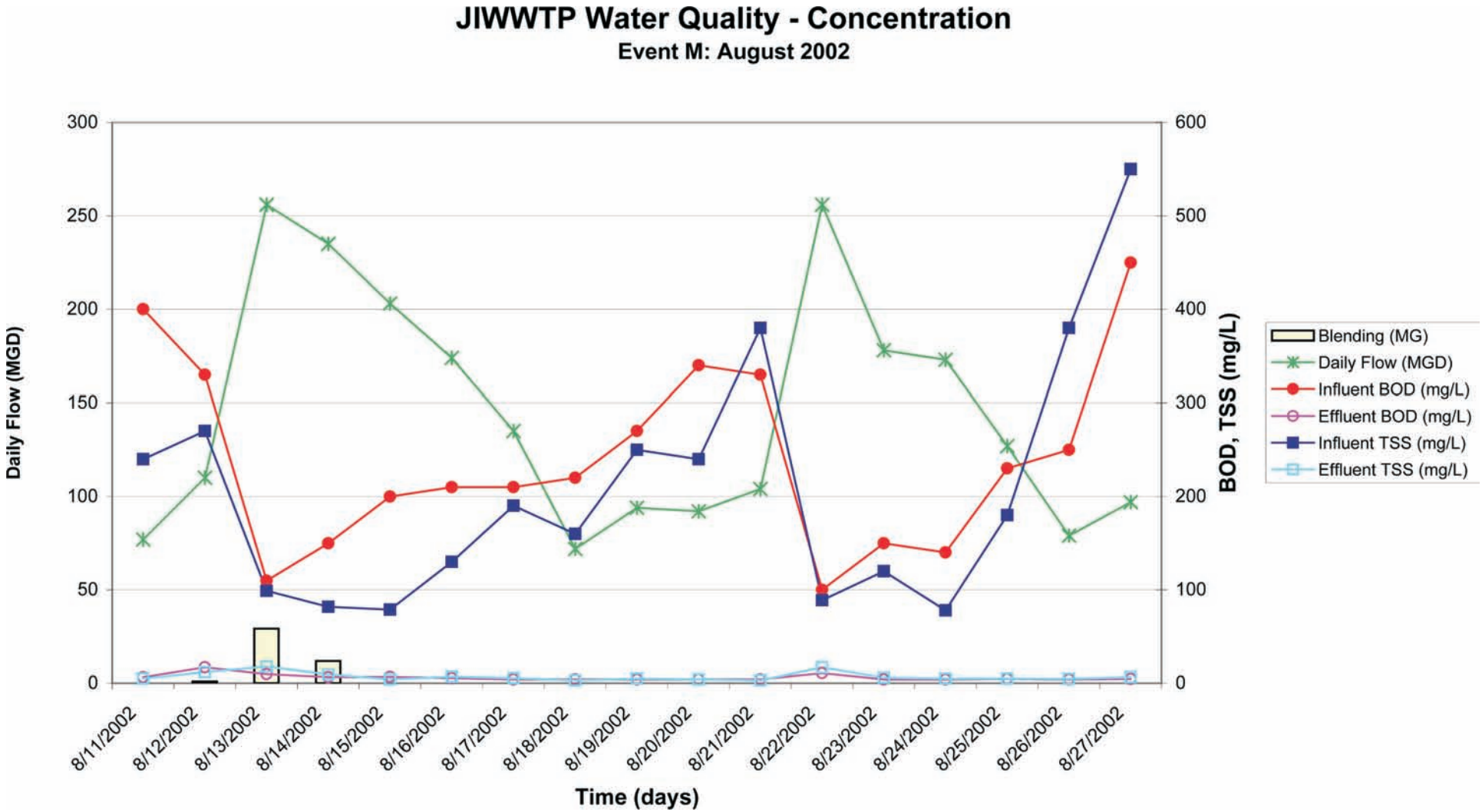
TABLE 4J-21 SHEET 6 OF 6

EVENT L WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J21.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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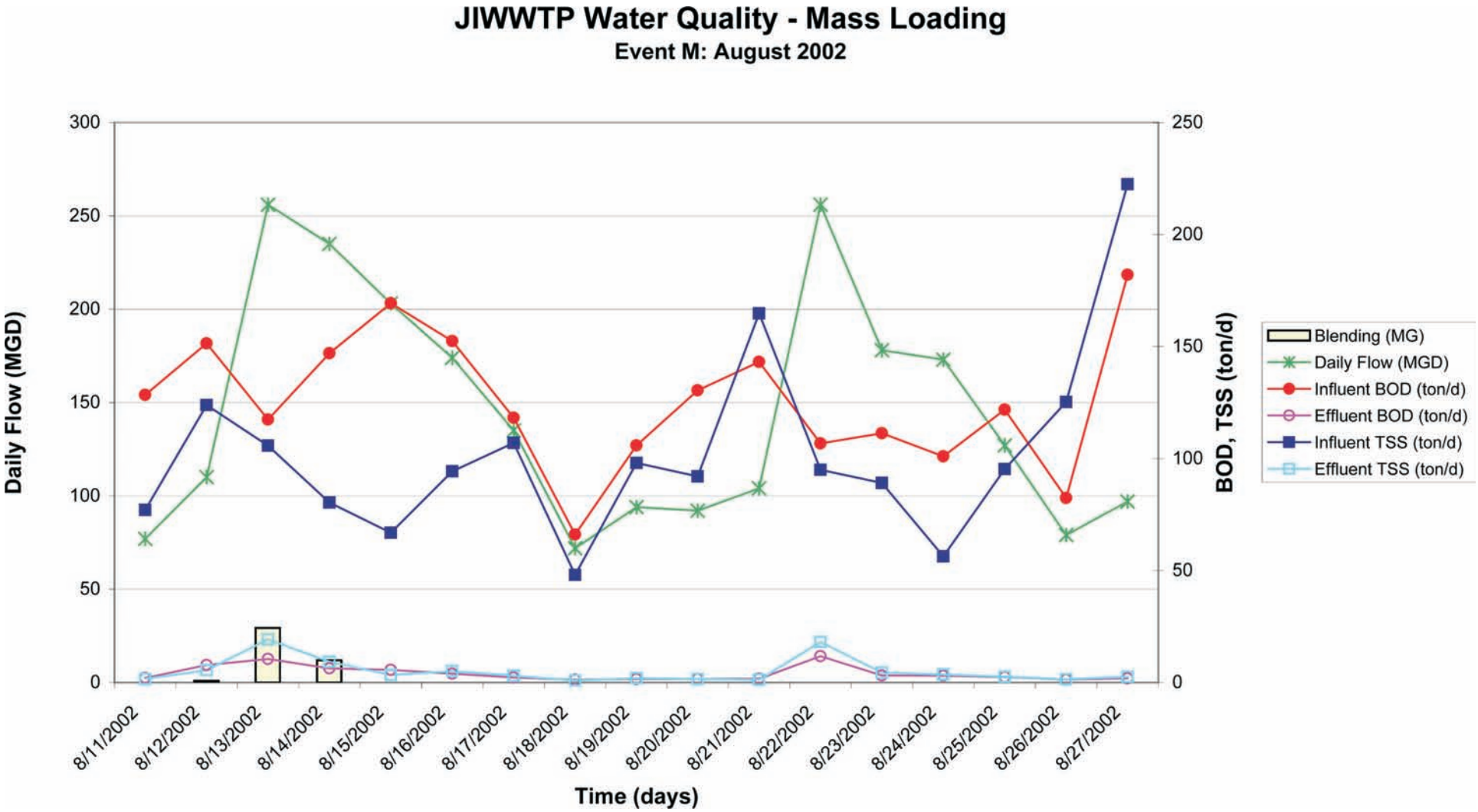
TABLE 4J-22 SHEET 1 OF 6

EVENT M WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J22.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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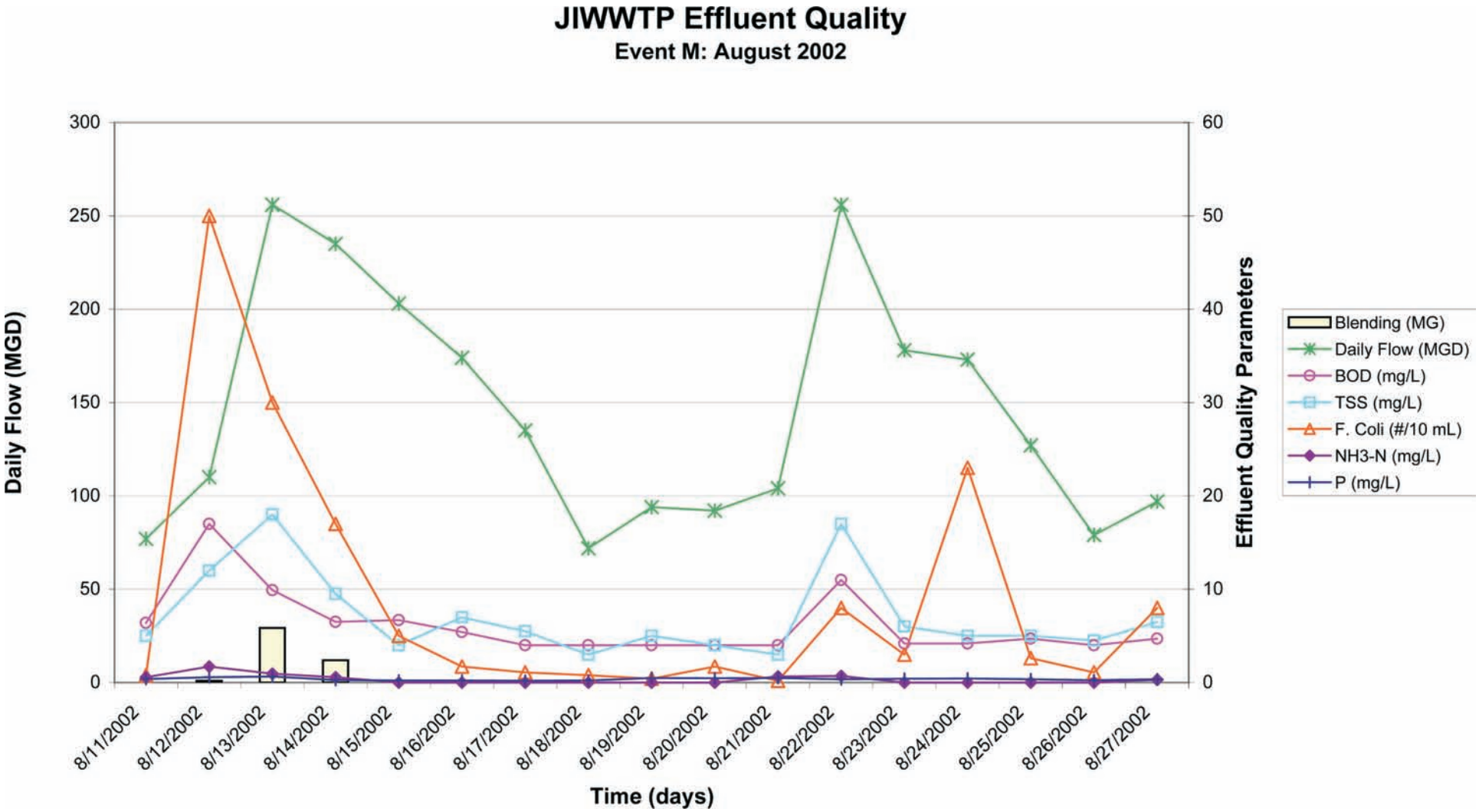
TABLE 4J-22 SHEET 2 OF 6

EVENT M WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J22.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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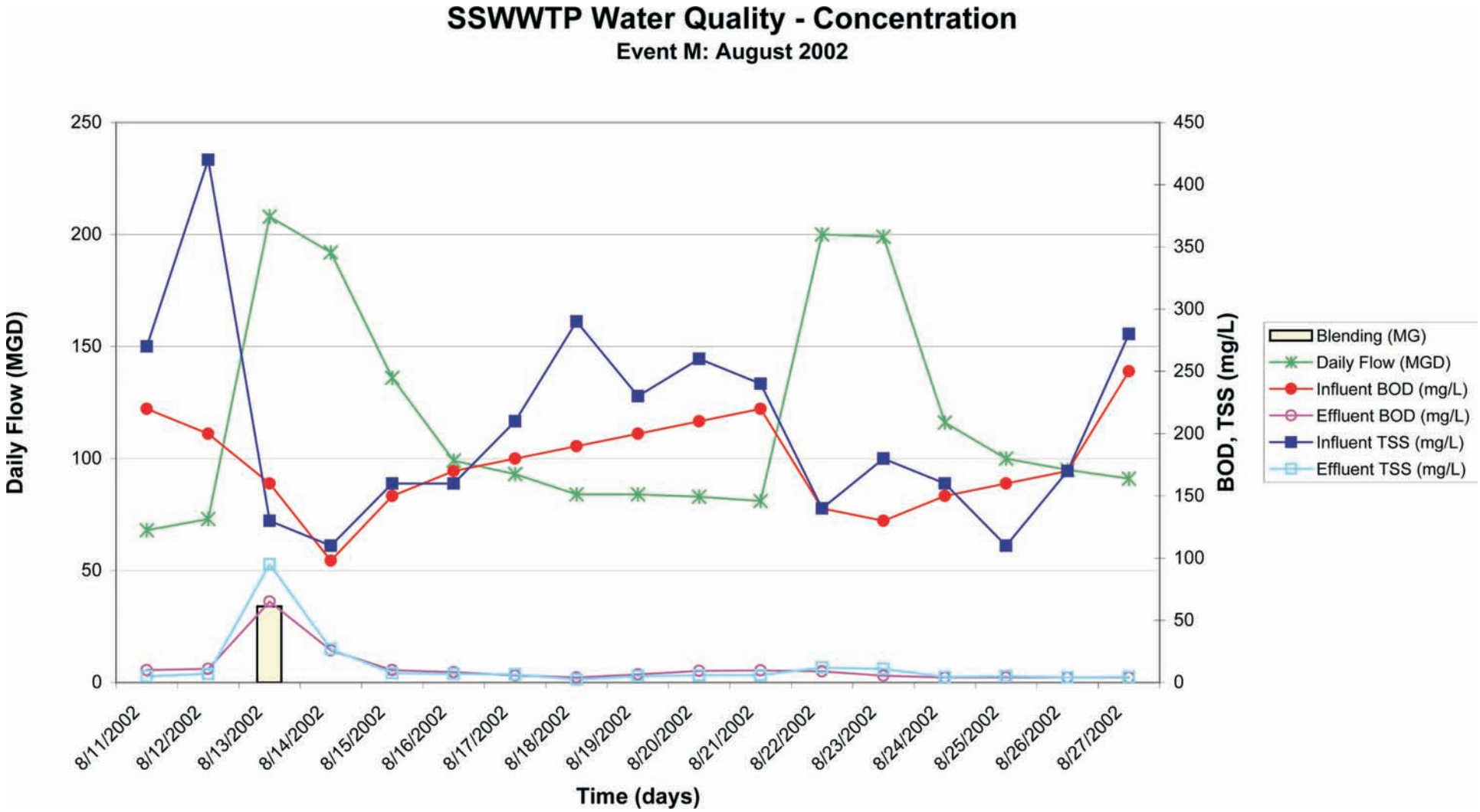
TABLE 4J-22 SHEET 3 OF 6

EVENT M WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J22.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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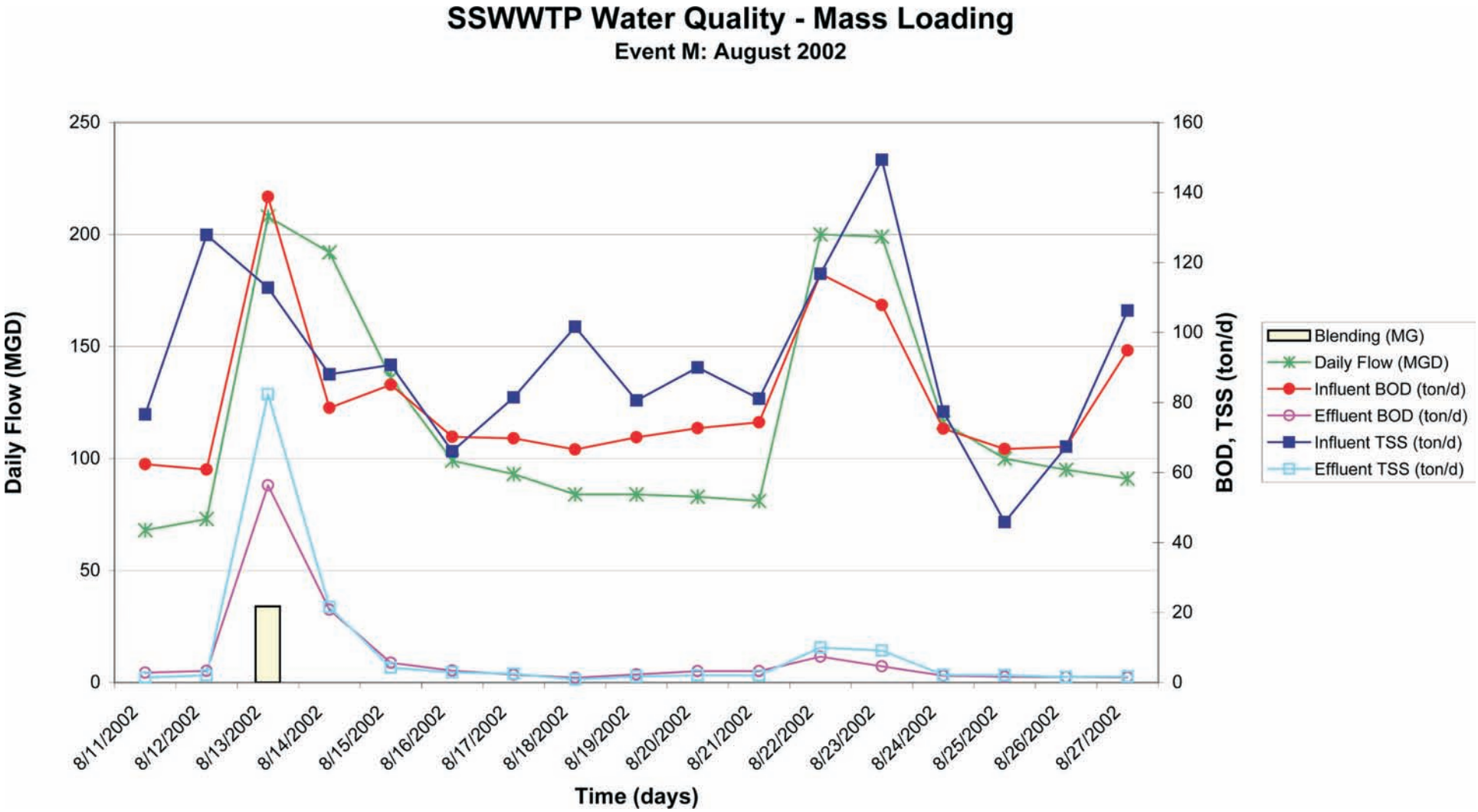
TABLE 4J-22 SHEET 4 OF 6

EVENT M WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J22.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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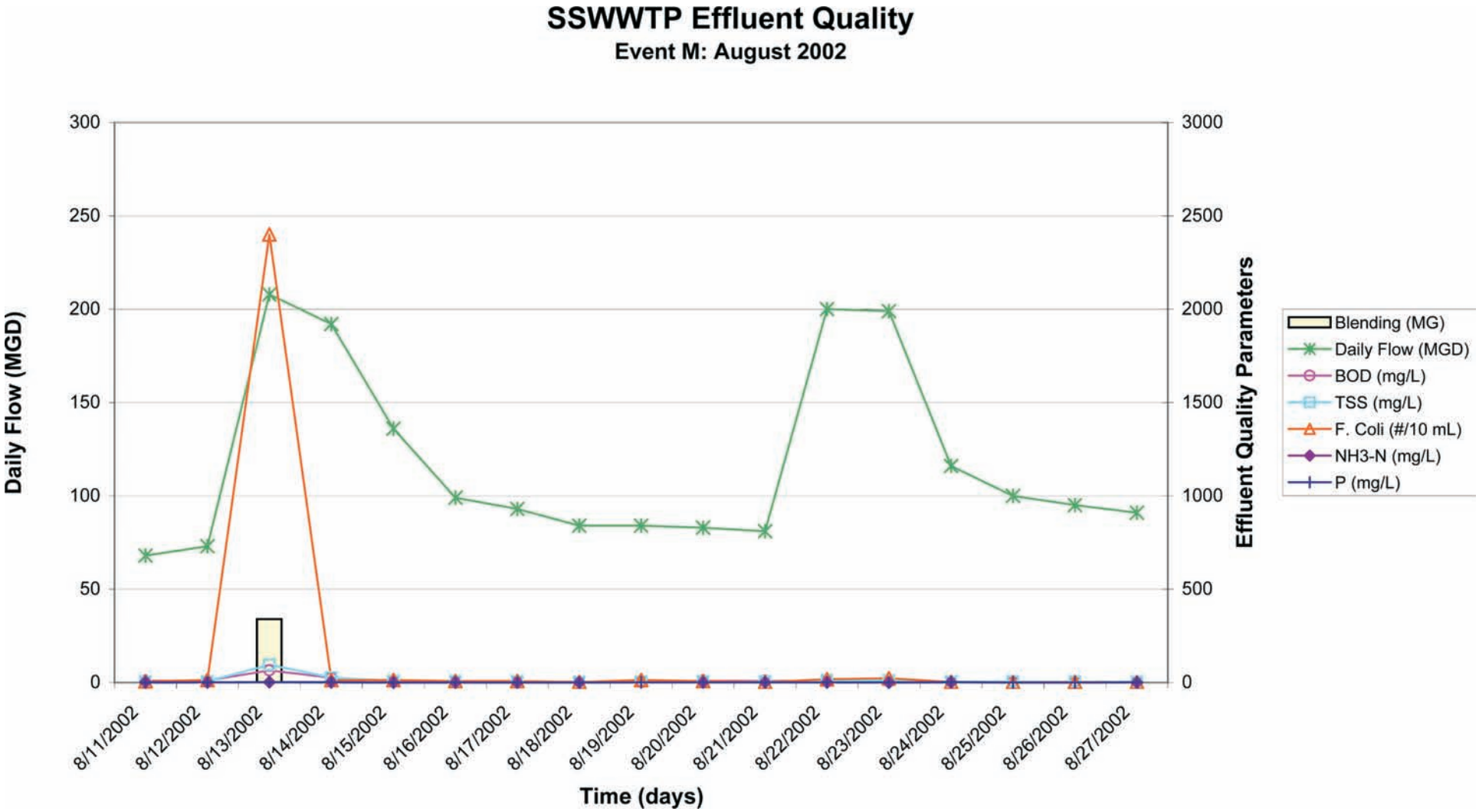
TABLE 4J-22 SHEET 5 OF 6

EVENT M WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J22.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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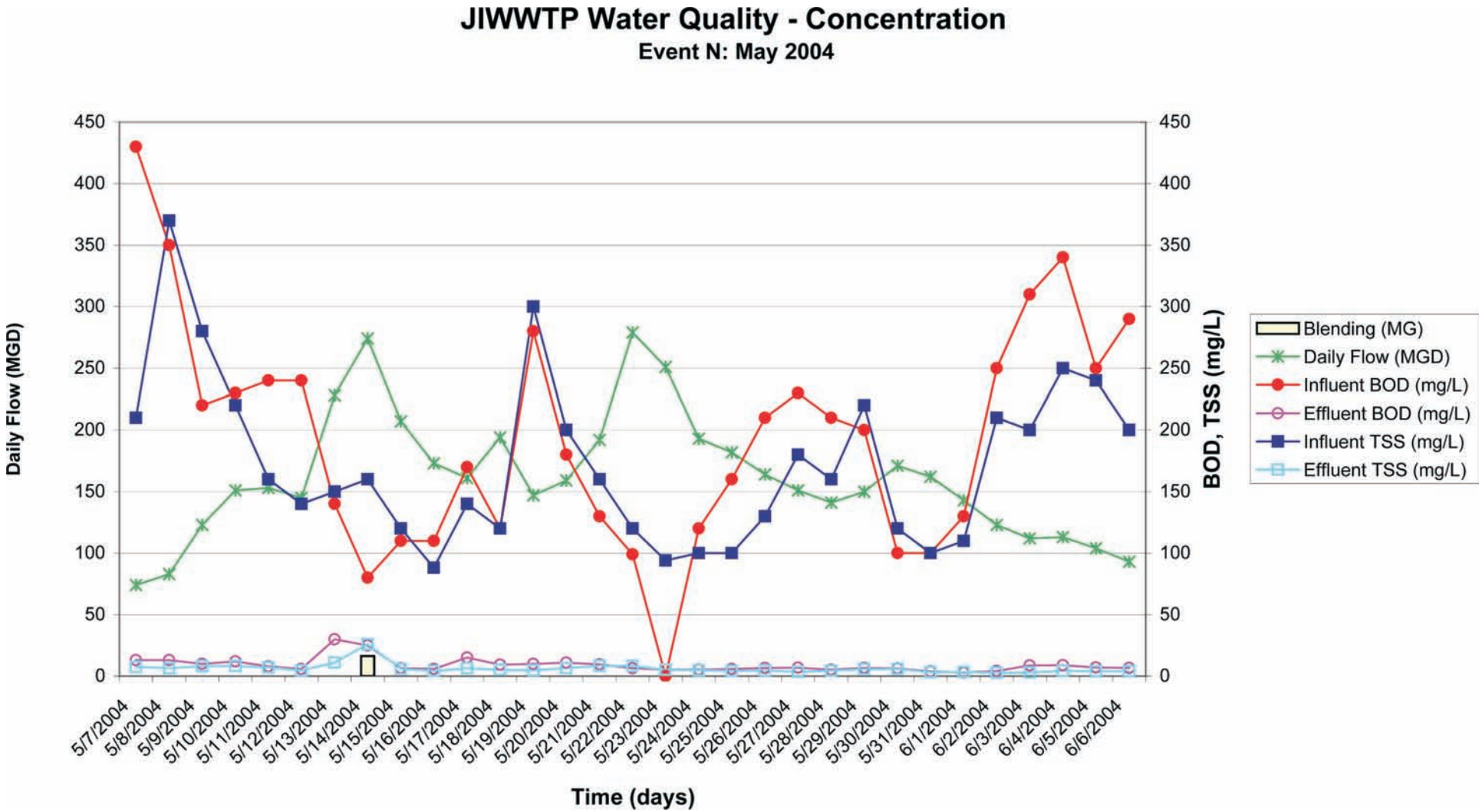
TABLE 4J-22 SHEET 6 OF 6

EVENT M WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J22.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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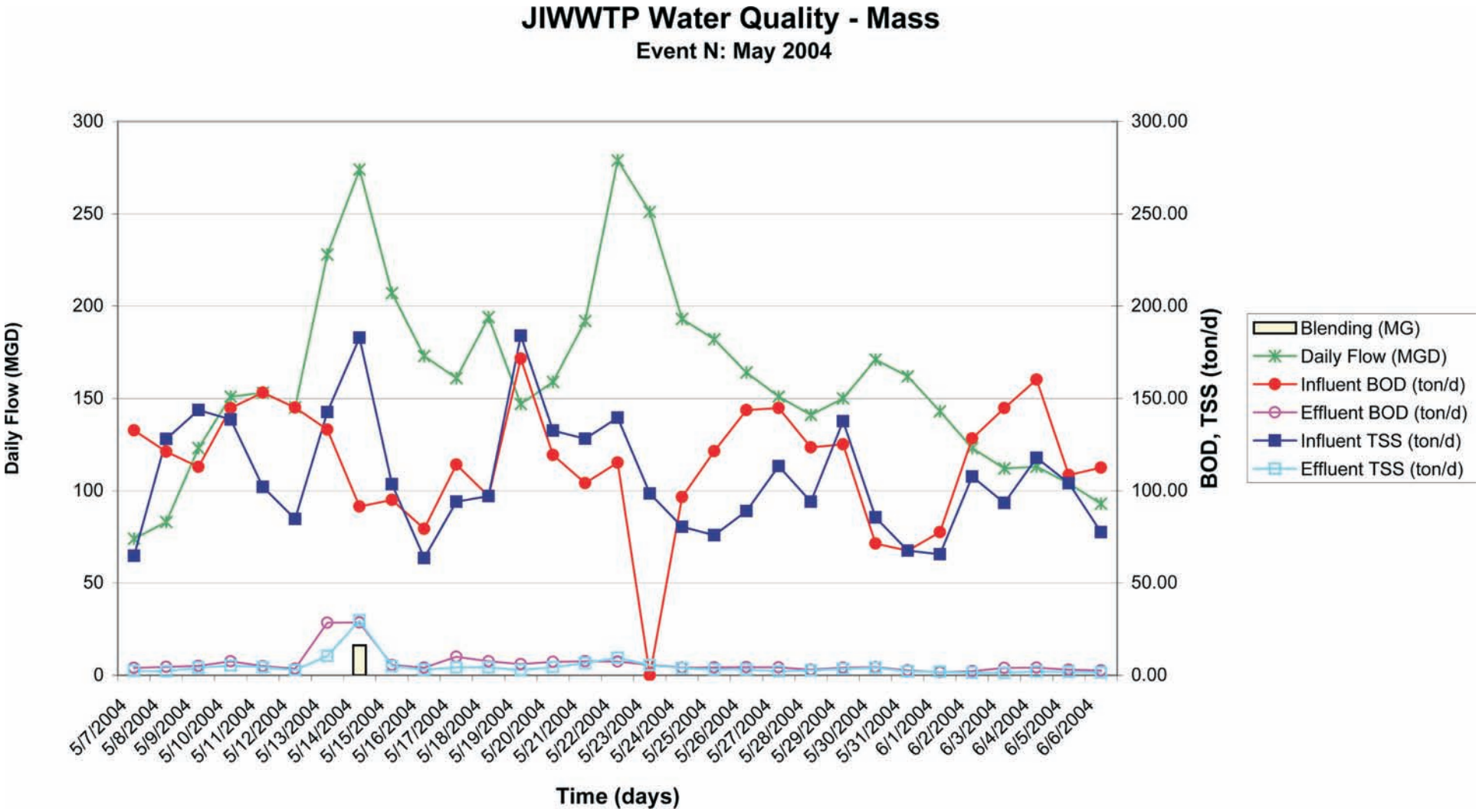
TABLE 4J-23 SHEET 1 OF 6

EVENT N WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J23.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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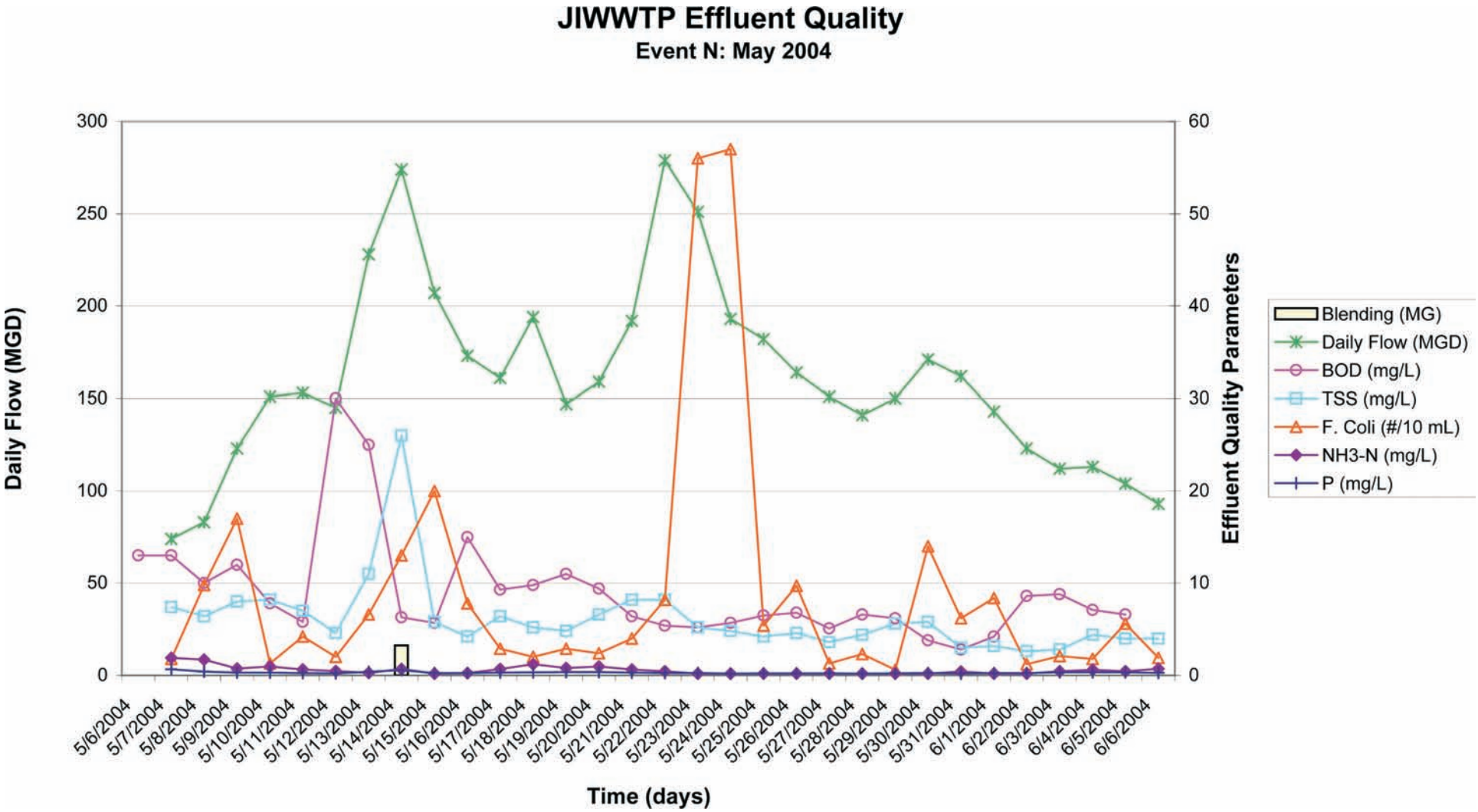
TABLE 4J-23 SHEET 2 OF 6

EVENT N WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J23.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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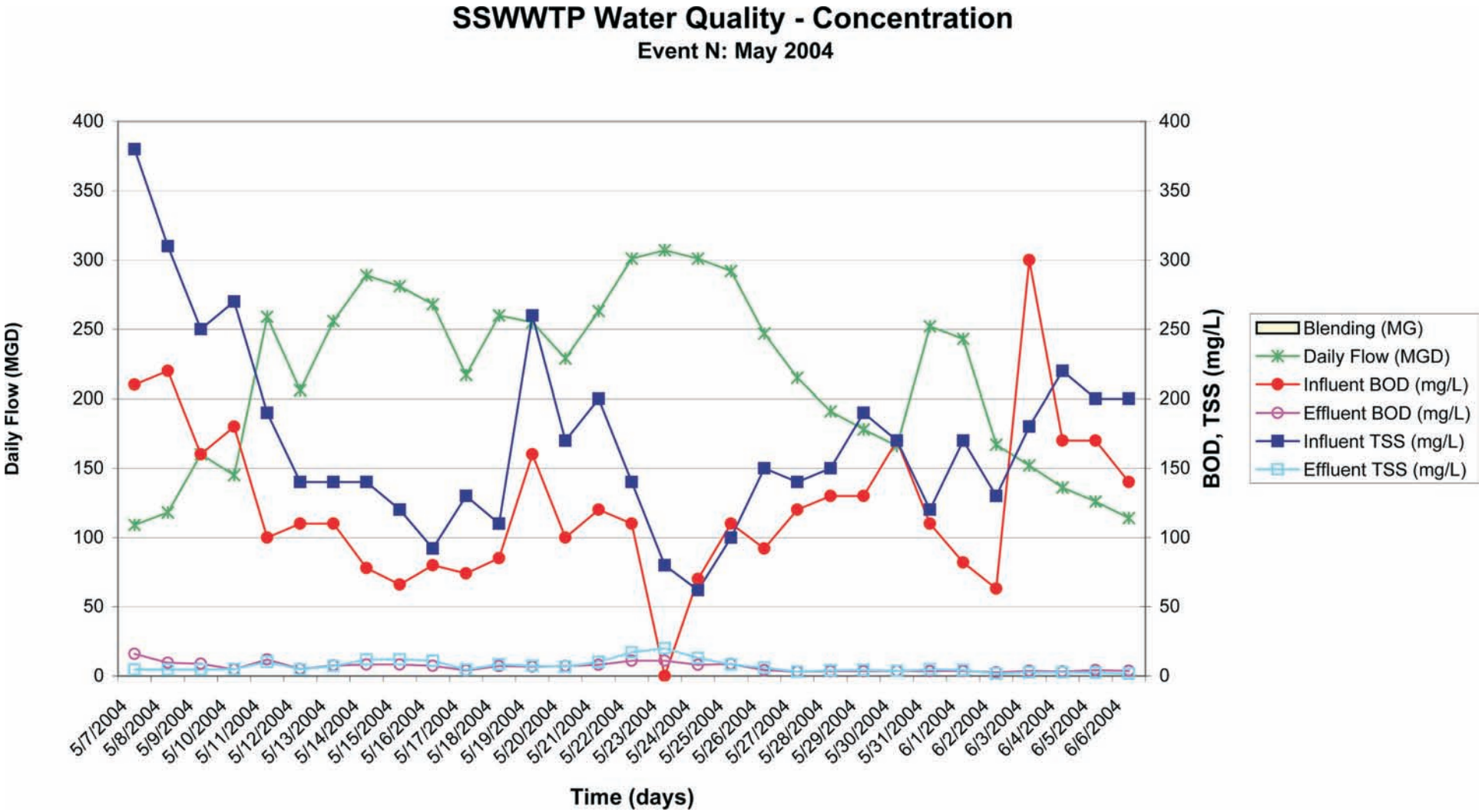
TABLE 4J-23 SHEET 3 OF 6

EVENT N WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J23.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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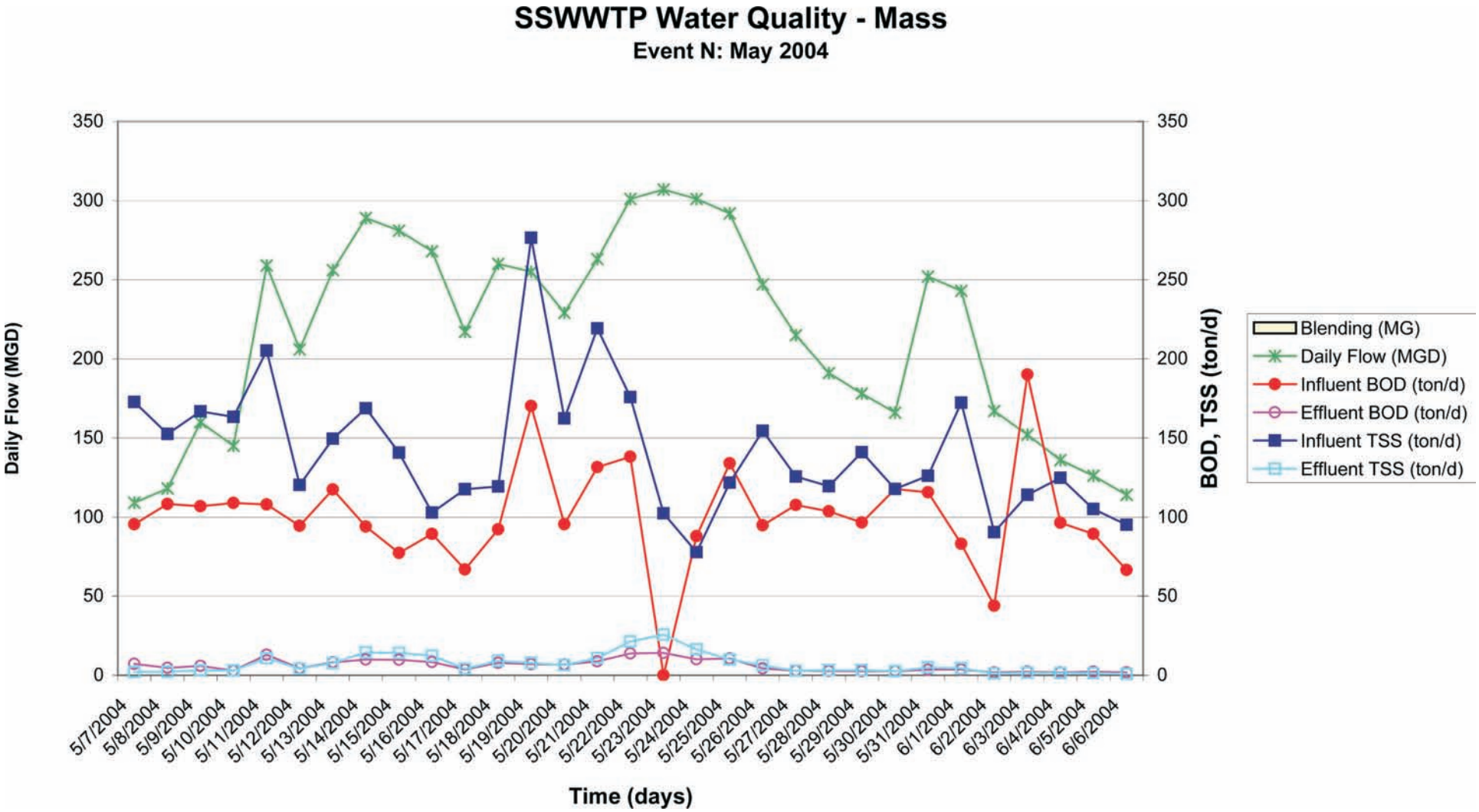
TABLE 4J-23 SHEET 4 OF 6

EVENT N WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J23.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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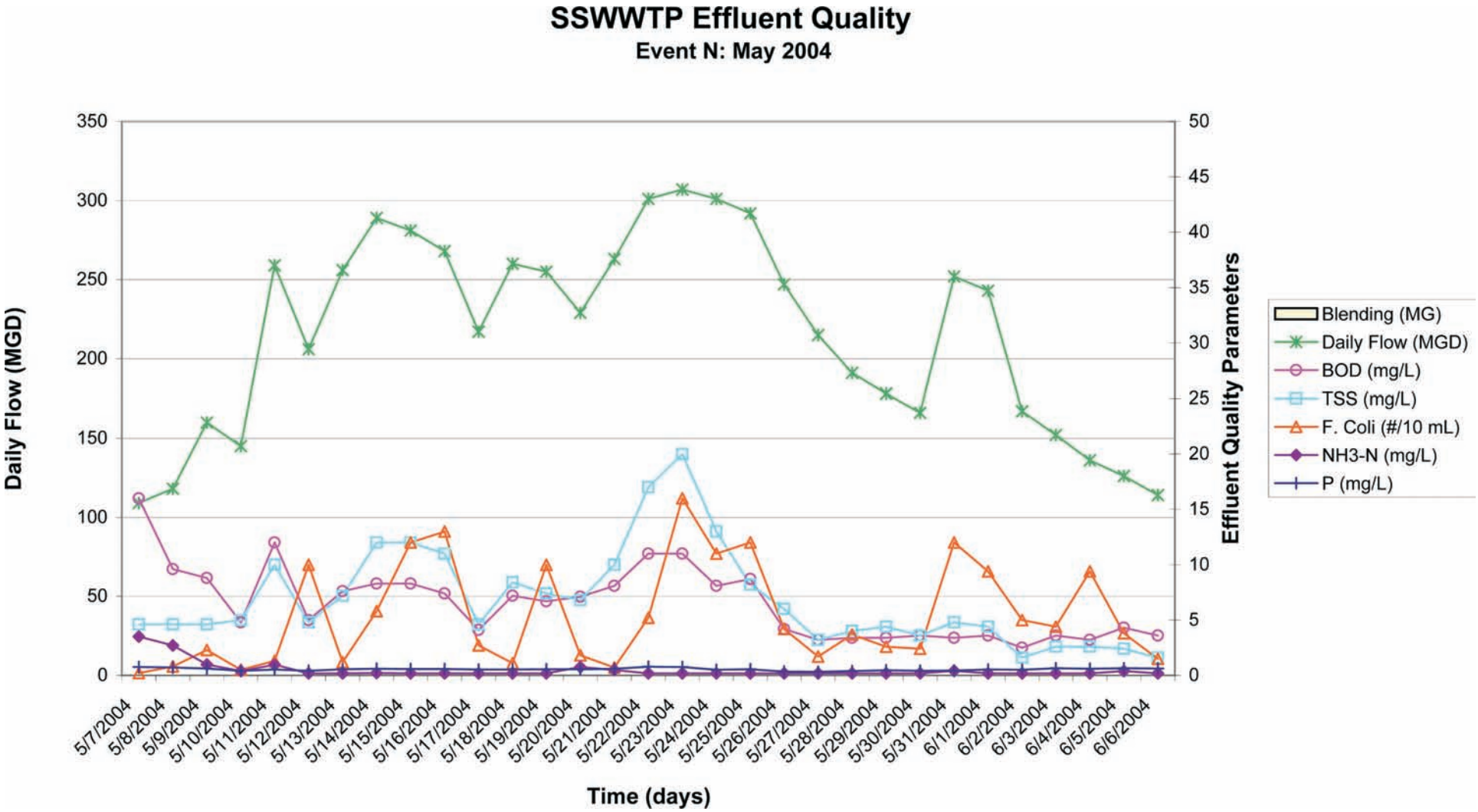
TABLE 4J-23 SHEET 5 OF 6

EVENT N WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J23.07.06.04.cdr



Note: For all data, see Table 4J-8, Daily Flow and Effluent Quality Data for Identified Wet Weather Events

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TABLE 4J-23 SHEET 6 OF 6

EVENT N WET WEATHER ANALYSIS

2020 TREATMENT REPORT

6/04/07

TR_4-A.T4J23.07.06.04.cdr

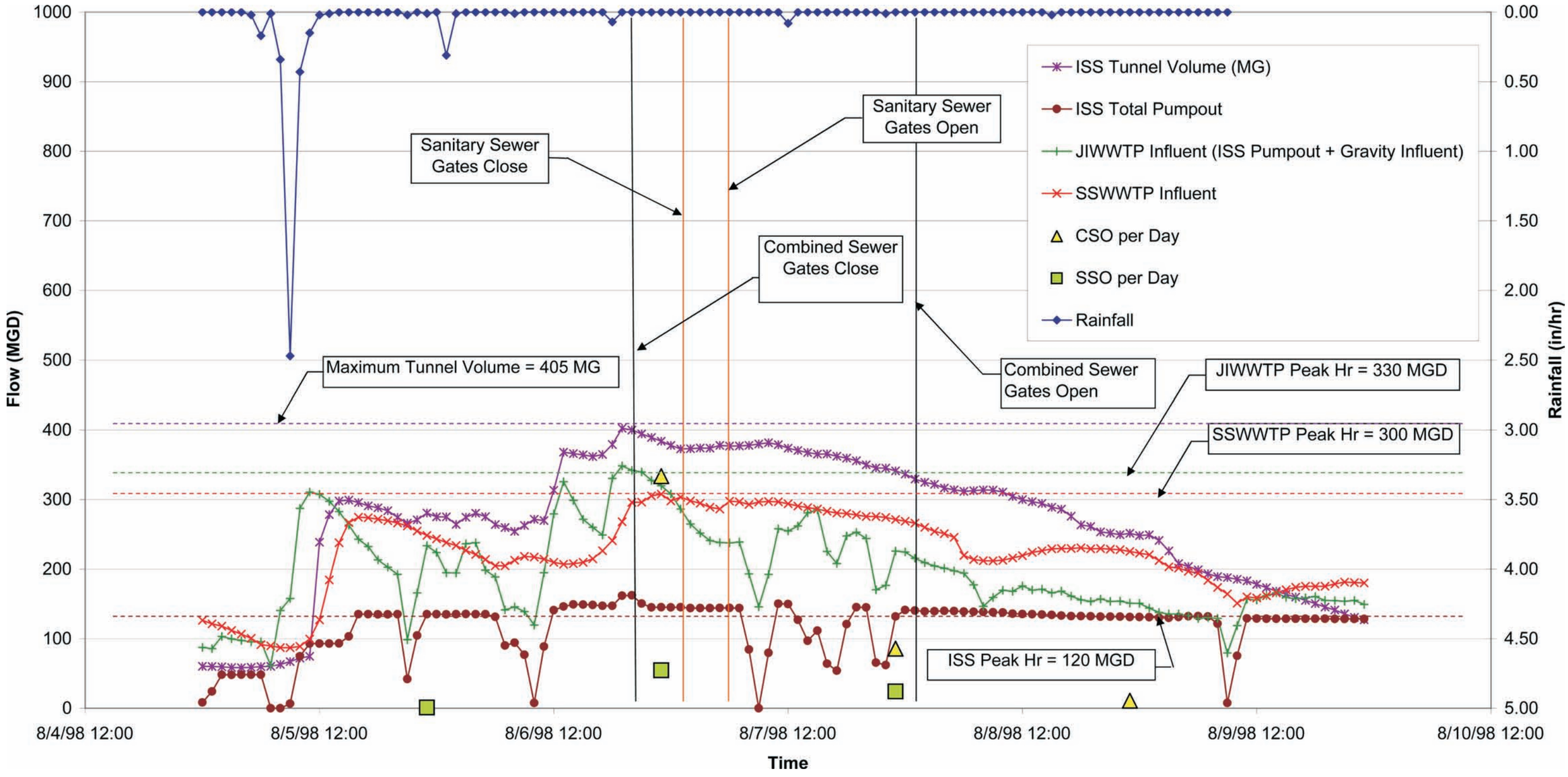

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TABLE 4J-24 SHEET 1 OF 2
EVENT B: AUGUST, 1998
IN-DEPTH ANALYSIS
2020 TREATMENT REPORT
6/04/07 TR_4-A.T4J24.07.06.04.cdr

NOTES:
NO TUNNEL EVENT REPORT FOR EVENT - Data compilation of metered flows not verified

- Total WWTP Capacity = 630 MGD
  - JIWWTP Max = 350 MGD for event
  - SSWWTP Max = 307 MGD for event
- JIWWTP In-plant Diversion:
  - 21 MG total volume reported
  - Records indicate flow rate of 21.6 MGD from 8/7/98 at 10:00 to 8/10/98 at 07:00 for a total volume of 63 MGD
- ISS Volume Reserved for Separate Sewer Inflow (VRSSI): Not known for this storm
  - ASSUMED VRSSI = 40 MG
  - ASSUMED Combined Sewer gates shut and reopened when volume in tunnel = 365 MG
  - ASSUMED Separate Sewer gates shut when tunnel full and reopened 6 hrs later
- ISS Inflow
  - Highest peak at 979 MGD reached 8 hrs into storm
  - ISS inflows were up and down throughout storm
- ISS Pumpout
  - Pumps dropped from full capacity five separate times during main event time frame

Data taken from:
- Appendix 4B, *Storm Event Summary Data*
- Hourly rain data from Mitchell Airport Rain Gauge, provided by Brown & Caldwell, 02/05
- Table 4J-2, CSO Events, 1997 through June 30, 2004
- Table 4J-3, SSO Events, 1997 through June 30, 2004
- UWS and CCO Monthly Reports, August 1998.

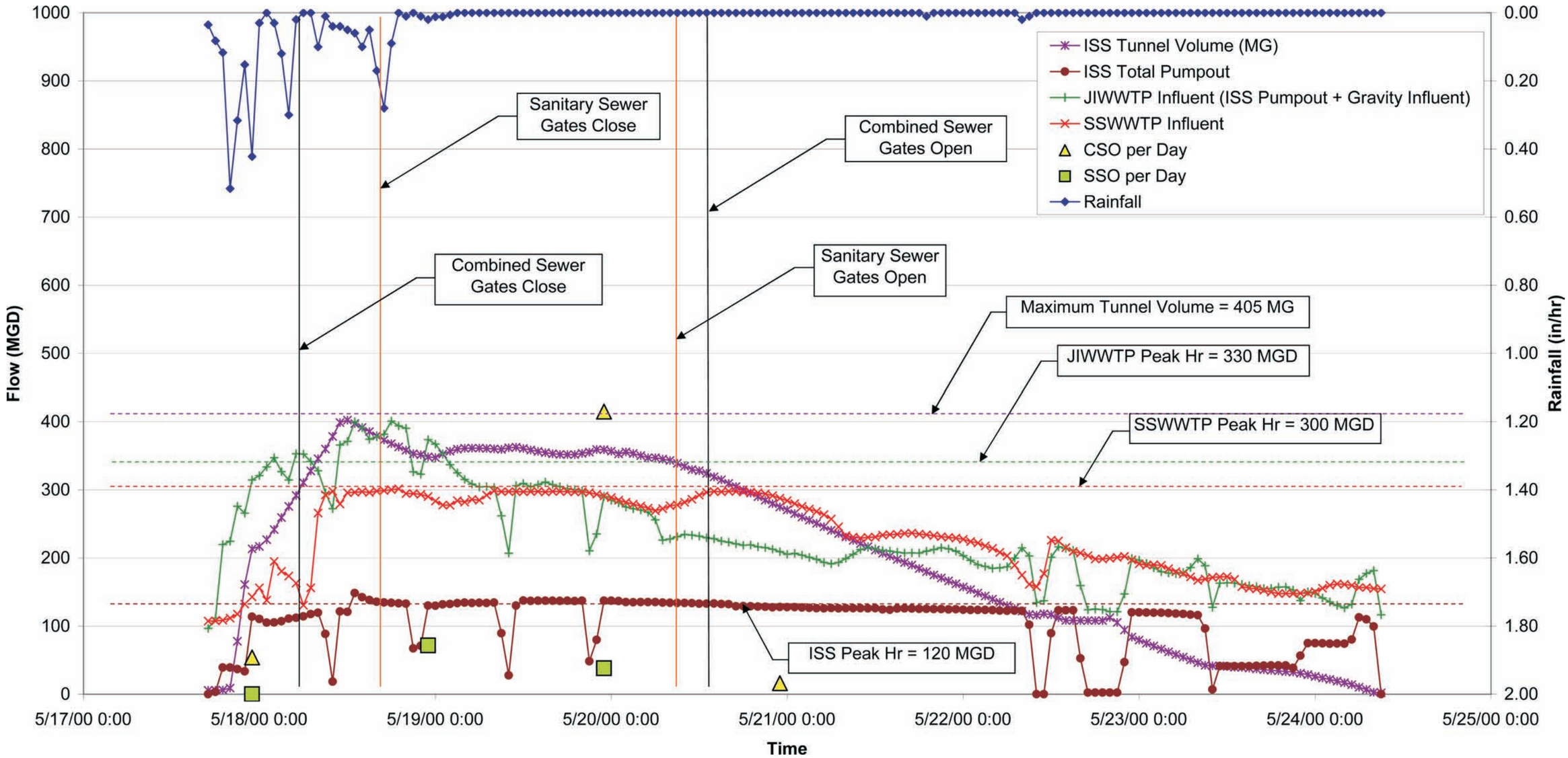

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TABLE 4J-25 SHEET 1 OF 2
EVENT H: MAY, 2000
IN-DEPTH ANALYSIS
2020 TREATMENT REPORT
6/04/07 TR_4-A.T4J25.07.06.04.cdr

NOTES:

- Total WWTP Capacity = 630 MGD
  - JIWWTP Max = 354 MGD for event
  - SSWWTP under construction
    Max = 300 MGD for event but peak flows not achieved until hr 16 of event
    Emergency plan to increase plant capacity during events
- JIWWTP In-plant Diversion:
  - 100 MG total volume
  - Flow rate of 60 MGD from 5/17/00 at 23:15 to 5/19/00 at 4:45
- ISS Volume Reserved for Separate Sewer Inflow (VRSSI)
  - May 2000 - VRSSI = 200 MG
  - Combined Sewer gates shut when volume in tunnel = 205 MG
- ISS Inflow
  - Highest peak at 1674 MGD reached 5 hrs into storm
  - Sustained flows above 200 MGD for 16 hrs
- ISS Pumpout
  - Only Pump #2 running for first 5 hrs and took #2 two hours to reach max flow
  - Pump #1 & #3 kicked on in hr 6
  - Pumps dropped from full capacity four separate times during main event time frame

Data taken from:
- Appendix 4B, *Storm Event Summary Data*
- Hourly rain data from Mitchell Airport Rain Gauge, provided by Brown & Caldwell, 02/05
- Table 4J-2, CSO Events, 1997 through June 30, 2004
- Table 4J-3, SSO Events, 1997 through June 30, 2004
- UWS and CCO Monthly Reports, August 1998.

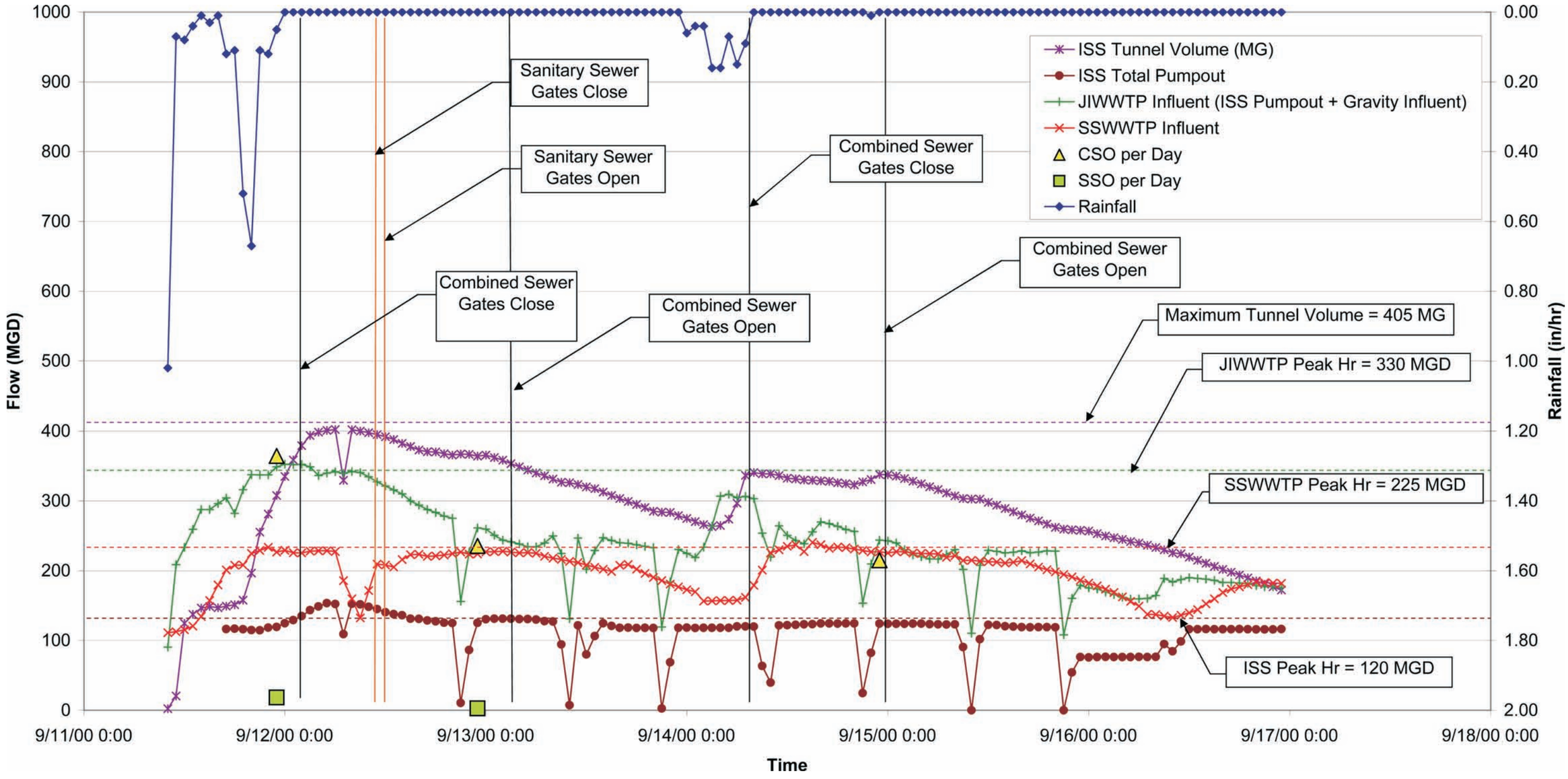

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TABLE 4J-26 SHEET 1 OF 2

EVENT I: SEPTEMBER, 2000

IN-DEPTH ANALYSIS

2020 TREATMENT REPORT

6/04/07 TR_4-A.T4J26.07.06.04.cdr

NOTES:

- Total WWTP Capacity = 555 MGD
  - JIWWTP Maximum = 352 MGD for event
    JIWWTP Gravity Flow Maximum = 233 MGD for event
  - SSWWTP under construction
    Maximum = 240 MGD for event
- JIWWTP In-plant Diversion:
  - 35 MG total volume
  - 3 separate diversions - main diversion 9/11-9/12 for 8 hrs, 2 others on 9/14 - 0.5 and 1 hr
- ISS Volume Reserved for Separate Sewer Inflow (VRSSI)
  - September 2000 - VRSSI = 150 MG for first part of event, dropped to 60 MG before 9/14 rain
  - Combined Sewer gates shut on 9/11 when volume in tunnel = 255 MG
  - Combined Sewer gates shut on 9/14 when volume in tunnel = 340 MG
- ISS Inflow
  - Highest peak at 1940 MGD reached 1 hr into storm
  - ISS shot back up over 1500 MGD 10 hrs into storm
  - Tunnel volume did not reach half full until ten hours into storm - indicates peak initial flows overwhelmed MIS system before could be stored
- ISS Pumpout
  - All three pumps kicked in at 4 hrs into storm event
  - Tunnel volume was only 134 MG when pumps came on
  - Pumps dropped from full capacity seven separate times during event
- Overflows
  - Assume SSO on 9/12 occurred due to peak flow overwhelming conveyance system
  - Assume SSO on 9/13 occurred when SS gates were shut

Conclusions

- Initial intense rains created initial conveyance system limitations contributing to CSOs & SSOs
- JIWWTP Gravity Flow limitation, ISS pumpout capacity limitation and SSWWTP construction capacity limitation all contributed to overflows
- ISS Pump Station reached design capacity, capacity limits ability to assist JIWWTP in continuing to treat to full capacity for full length of storm event

Data taken from:

- Appendix 4B, *Storm Event Summary Data*
- Hourly rain data from Mitchell Airport Rain Gauge, provided by Brown & Caldwell, 02/05
- Table 4J-2, CSO Events, 1997 through June 30, 2004
- Table 4J-3, SSO Events, 1997 through June 30, 2004
- UWS and CCO Monthly Reports, August 1998.