

APPENDIX C: GRAVITY MAIN SYSTEM DATA

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Table C-2. Previous Gravity Main Inspections

Table C-3. Gravity Main SSOs

Inflow/Infiltration Hydrographs

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Table C-5. Gravity Main Prioritization

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Table C-1. HRSD Gravity Mains (Updated May 2010)

Line Number	Primary Jurisdiction	Downstream HRSD PS# or TP	Downstream HRSD PS Name (or other facility)	Length (Feet)	Diameter (Inches)	Material	Number of Manholes
NG-034	Newport News	220	Normandy Lane	2,228	24	ESVC	10
NG-035	Newport News	220	Normandy Lane	970	18	ESVC	6
NG-044	Newport News	207	Center Avenue	3,168	18	VC	15
NG-045	Newport News	207	Center Avenue	3,498	21	VC	13
NG-052	Newport News	219	Newmarket	662	15, 18	ESVC	2
NG-053	Newport News	219	Newmarket	6,277	15, 18	ESVC	35
NG-054	Newport News	207	Center Avenue	2,143	21	RCP	10
NG-056	Newport News	207	Center Avenue	281	10	ESVC	1
NG-057	Newport News	219	Newmarket	5,666	15	*TBD*	28
NG-062	Hampton	217	Langley Circle	119	12	VC	1
NG-063	Hampton	217	Langley Circle	3,298	12	VC	18
NG-064	Hampton	217	Langley Circle	739	8, 20, 21	ESVC	2
NG-067	Hampton	223	Washington	2,860	15, 18, 20, 24	VC	5
NG-070	Hampton	Hampton PS	None	2,995	18	VC	*TBD*
NG-078	Hampton	223	Washington	2,362	18	VC	13
NG-082	Hampton	223	Washington	3,459	18	RCP	25
NG-083	Hampton	223	Washington	930	15	RCP	7
NG-084	Hampton	223	Washington	829	24, 30	RCP	4
NG-086	Hampton	224	Woodland Road	3,754	15	CIP	22
NG-087	Hampton	224	Woodland Road	1,311	18	ESVC	7
NG-088	Hampton	204	Bloxom's Corner	4,023	10, 12	VC	25
NG-092	Hampton	224	Woodland Road	1,152	16, 18, 24	AC	5
NG-094	Hampton	203	Bay Shore	1,277	15, 18	ESVC	7
NG-095	Hampton	203	Bay Shore	2,752	18	ESVC	19
NG-098	Newport News	207	Center Avenue	4,651	18, 21, 24	ESVC	6
NG-099	Newport News	219	Newmarket	3,089	18	*TBD*	11
NG-101	Newport News	TP	Boat Harbor	612	18, 21	VC	4
NG-102	Newport News	207	Center Avenue	332	18	RCP	2
NG-103	Newport News	TP	Boat Harbor	3,831	27	CIP, RCP	21
NG-104	Newport News	207	Center Avenue	888	21	RCP	9
NG-106	Newport News	TP	Boat Harbor	3,610	8, 27, 36	RCP	11
NG-108	Newport News	TP	Boat Harbor	4,630	36	RCP	31
NG-109	Newport News	209	Copeland Park	6,280	6, 10, 24	ESVC	29
NG-110	Newport News	TP	Boat Harbor	2,601	39, 42	RCP	8
NG-111	Newport News	TP	Boat Harbor	1,697	15	RCP	9
NG-112	Newport News	TP	Boat Harbor	911	24	RCP	3
NG-114	Newport News	TP	Boat Harbor	986	42	RCP	3
NG-115	Newport News	TP	Boat Harbor	719	24	RCP	4
NG-116	Newport News	TP	Boat Harbor	680	18	RCP	2

Table C-1. HRSD Gravity Mains (Updated May 2010)

Line Number	Primary Jurisdiction	Downstream HRSD PS# or TP	Downstream HRSD PS Name (or other facility)	Length (Feet)	Diameter (Inches)	Material	Number of Manholes
NG-117	Newport News	TP	Boat Harbor	398	18	RCP	3
NG-118	Newport News	TP	Boat Harbor	400	18	RCP	1
NG-123	Newport News	201	25th Street	1,019	8, 12	RCP	10
NG-124	Newport News	TP	Boat Harbor	4,348	48	RCP	18
NG-125	Newport News	TP	Boat Harbor	2,884	48	PCCP	11
NG-126	Newport News	TP	Boat Harbor	428	18	CIP	2
NG-127	Newport News	219	Newmarket	4,012	18, 24, 30	DIP, ESVC	17
NG-129	Newport News	213	Jefferson Avenue	203	18, 20	CIP	8
NG-130X	Newport News	TP	Boat Harbor	1,063	30	DIP	*TBD*
NG-134	Hampton	206	Bridge Street	475	42	RCP, PCCP	3
NG-135	Hampton	206	Bridge Street	175	42	RCP	8
NG-136	Hampton	206	Bridge Street	1,120	42	CIP	4
NG-137	Hampton	206	Bridge Street	832	24, 30	CIP	2
NG-138	Hampton	206	Bridge Street	829	42	RCP	6
NG-141	Hampton	208	Claremont	1,249	18	VC	5
NG-142	Hampton	208	Claremont	4,110	18	VC	18
NG-143	Hampton	208	Claremont	5,127	8, 10, 24	RCP	23
NG-146	Hampton	208	Claremont	126	24	CIP	1
NG-147	Hampton	208	Claremont	2,305	24	RCP	9
NG-148	Hampton	208	Claremont	3,303	24	RCP	8
NG-149	Hampton	208	Claremont	110	24	RCP	2
NG-150	Hampton	208	Claremont	1,479	24	RCP	6
NG-151	Hampton	208	Claremont	48	24	RCP	1
NG-152	Hampton	208	Claremont	1,832	24	RCP	7
NG-157	Hampton	225	Willard Avenue	613	15	RCP	2
NG-159	Hampton	225	Willard Avenue	3,772	24, 30	RCP	18
NG-160	Hampton	225	Willard Avenue	1,457	24	RCP	7
NG-164	Newport News	202	33rd Street	468	8	RCP	3
NG-166	Newport News	202	33rd Street	254	25, 20	RCP	8
NG-167	Newport News	202	33rd Street	100	20	RCP	10
NG-168	Newport News	202	33rd Street	752	20	RCP	12
NG-169	Newport News	TP	Boat Harbor	4,760	42, 54	*TBD*	9
NG-174	Newport News	TP	Boat Harbor	1,538	24, 27	PCCP	7
NG-175	Newport News	207	Center Avenue	1,242	18, 21	DIP	8
NG-176	Newport News	207	Center Avenue	477	21	DIP	3
SG-001	Norfolk	TP	Army Base	6,311	20, 24, 30, 36	RCP	12
SG-003	Norfolk	TP	Army Base	2,581	42, 54	RCP	12

Table C-1. HRSD Gravity Mains (Updated May 2010)

Line Number	Primary Jurisdiction	Downstream HRSD PS# or TP	Downstream HRSD PS Name (or other facility)	Length (Feet)	Diameter (Inches)	Material	Number of Manholes
SG-033	Portsmouth	104	Cedar Lane	1,408	18	ESVC	6
SG-034	Portsmouth	104	Cedar Lane	2,034	27	ESVC	7
SG-035	Portsmouth	104	Cedar Lane	1,518	18	ESVC	7
SG-041	Norfolk	114	Monroe Place	958	8, 12	CIP	3
SG-044	Norfolk	122	Powhatan Avenue	1,074	10	VC	10
SG-045	Virginia Beach	TP	Virginia Initiative TP	4,305	8, 12	CIP	*TBD*
SG-047	Virginia Beach	TP	Virginia Initiative TP	3,404	54	RCP	13
SG-048	Virginia Beach	TP	Virginia Initiative TP	962	18	VC	4
SG-049	Virginia Beach	TP	Virginia Initiative TP	805	30	CIP	3
SG-050	Virginia Beach	TP	Virginia Initiative TP	4,307	48, 54	RCP	11
SG-053	Virginia Beach	TP	Virginia Initiative TP	1,108	42	RCP	4
SG-054	Virginia Beach	TP	Virginia Initiative TP	270	48	RCP	4
SG-055	Virginia Beach	TP	Virginia Initiative TP	838	30	RCP	4
SG-056	Virginia Beach	TP	Virginia Initiative TP	200	54	RCP	1
SG-061	Norfolk	107	Colley Avenue	3,360	24, 30	ESVC	*TBD*
SG-063	Norfolk	106	City Park	2,342	10	VC	13
SG-067	Norfolk	113	Luxembourg Avenue	1,595	12	VC	14
SG-068	Norfolk	113	Luxembourg Avenue	995	8	VC	6
SG-068X	Norfolk	113	Luxembourg Avenue	230	8	VC	*TBD*
SG-071	Norfolk	105	Chesapeake Blvd	769	12	VC	3
SG-072	Norfolk	105	Chesapeake Blvd	599	10	VC	4
SG-073	Norfolk	105	Chesapeake Blvd	1,463	15	VC	12
SG-074	Norfolk	105	Chesapeake Blvd	2,813	21	VC	12
SG-075	Norfolk	105	Chesapeake Blvd	1,798	12	VC	9
SG-077	Norfolk	105	Chesapeake Blvd	161	18	VC	1
SG-078	Norfolk	Norfolk PS 44	None	859	12	ESVC	7
SG-079	Norfolk	Norfolk PS 44	None	1,785	10	ESVC	5
SG-088	Norfolk	116	Norchester	3,382	27	CIP	21
SG-089	Norfolk	116	Norchester	3,706	24	CIP	19
SG-096	Norfolk	127	State Street	4,203	30	RCP	16
SG-098	Norfolk	127	State Street	3,133	24, 30	RCP	15
SG-102	Norfolk	128	Steamboat Creek	1,918	10	VCP	9
SG-104	Norfolk	128	Steamboat Creek	1,642	10	VCP	7
SG-105	Norfolk	128	Steamboat Creek	1,101	8	VCP	8
SG-107	Norfolk	Norfolk PS 44	None	390	8	ESVC	2
SG-108	Norfolk	Norfolk PS 44	None	663	12	ESVC	4
SG-112	Norfolk	115	Newtown Road	793	18	ESVC	6
SG-113	Norfolk	115	Newtown Road	5,236	12, 16, 18, 24	CIP	24
SG-145	Norfolk	103	Bainbridge	1,293	12	VC	7

Table C-1. HRSD Gravity Mains (Updated May 2010)

Line Number	Primary Jurisdiction	Downstream HRSD PS# or TP	Downstream HRSD PS Name (or other facility)	Length (Feet)	Diameter (Inches)	Material	Number of Manholes
SG-148	Norfolk	123	Quail Avenue	3,520	21	CIP	17
SG-149	Chesapeake	119	Park Avenue	3,427	24	CIP, ESVC	16
SG-151	Norfolk	123	Quail Avenue	5,408	18	DIP	16
SG-152	Norfolk	123	Quail Avenue	1,289	18	VCPE	6
SG-153	Chesapeake	119	Park Avenue	2,863	18	CIP, ESVC	18
SG-155	Chesapeake	119	Park Avenue	8	6	CIP	*TBD*
SG-157	Chesapeake	110	Ferebee	2,171	18	ESVC	11
SG-161	Chesapeake	131	Washington District	2,992	18	VCP	14
SG-162	Chesapeake	131	Washington District	1,126	15	VCP	3
SG-191	Suffolk	135	Suffolk	5,467	24	ESVC	31
SG-192	Suffolk	135	Suffolk	140	18	CIP	2
SG-193	Suffolk	135	Suffolk	16,109	18	RCP	83
SG-196	Norfolk	TP	Army Base	1,651	36	RCP	7
SG-201	Norfolk	107	Colley Avenue	285	8	ESVC	*TBD*
SG-202	Norfolk	127	State Street	1,874	12	CIP	11
SG-205	Norfolk	124	Richmond Crescent	857	6, 8, 10	CIP	7
SG-207	Norfolk	147	Chesterfield	325	12	VC	2

TBD – To be determined during Condition Assessment Activities

Table C-2. Previous Gravity Main Inspections*					
Line #	Jurisdiction	From Sta.	To Sta.	CCTV Ft.	Date
NG-034	Newport News	18+48	19+96	148	10/3/2005
		19+96	22+96	300	10/3/2005
		22+96	24+17	122	10/3/2005
		24+17	26+98	281	10/3/2005
		30+01	34+00	399	10/3/2005
		34+00	35+06	106	10/3/2005
NG-044	Newport News	55+57	52+79	318	4/4/2006
		58+98	55+57	319	4/4/2006
		61+76	58+98	278	3/29/2006
		64+47	61+76	271	4/3/2006
		67+21	64+47	274	3/27/2006
		69+44	67+21	223	3/27/2006
		71+67	69+44	223	3/27/2006
		73+70	71+67	203	3/14/2006
		75+74	73+70	204	3/14/2006
		77+95	75+74	221	3/14/2006
		79+29	77+95	134	3/14/2006
		80+65	79+29	136	3/14/2006
		81+66	80+65	101	3/14/2006
		82+24	81+66	58	5/27/2004
84+00	82+24	176	1/7/2005		
NG-045	Newport News	1+23	0+00	123	4/24/2006
		10+25	7+25	300	4/24/2006
		13+28	10+25	303	4/21/2006
		16+28	13+28	305	4/21/2006
		18+33	16+28	213	4/21/2006
		22+03	18+33	377	4/21/2006
		25+69	22+03	389	4/21/2006
		27+50	25+69	224	4/28/2006
		31+02	27+50	352	4/3/2006
		34+48	31+02	350	4/20/2006
		4+25	1+23	302	4/24/2006
7+25	4+25	300	4/24/2006		
NG-053	Hampton	8+70	11+00	230	5/1/2009
NG-054	Newport News	1+78	0+00	178	4/25/2006
		101+16	98+49	267	4/26/2006
		103+80	101+16	264	4/26/2006
		104+23	103+80	43	4/26/2006
		106+35	104+23	212	4/26/2006
		108+63	106+35	228	4/26/2006
		109+98	108+63	135	4/26/2006
		91+20	88+47	280	5/1/2006

Table C-2. Previous Gravity Main Inspections*					
Line #	Jurisdiction	From Sta.	To Sta.	CCTV Ft.	Date
		93+96	91+20	283	5/1/2006
		96+70	93+96	283	5/1/2006
		98+49	96+70	187	5/1/2006
NG-056	Newport News	0+00	2+78	278	4/25/2006
NG-086	Hampton	12+25	9+48	277	5/10/2006
		13+85	12+25	160	5/10/2006
		14+83	13+85	98	5/10/2006
		18+62	17+83	79	5/10/2006
		2+20	0+00	225	5/12/2006
		2+80	0+00	280	6/6/2006
		20+36	18+62	174	5/10/2006
		22+03	20+36	167	5/10/2006
		23+23	22+03	120	5/10/2006
		24+64	23+23	141	5/10/2006
		25+72	24+64	108	5/10/2006
		28+83	25+72	311	5/10/2006
		5+40	2+80	278	6/6/2006
		6+48	3+45	303	5/12/2006
		7+40	5+40	207	5/12/2006
		7+86	6+48	146	5/12/2006
9+48	7+86	161	5/12/2006		
NG-087	Hampton	0+00	2+23	223	6/8/2006
		1+80	0+00	169	6/8/2006
		10+34	8+13	221	6/6/2006
		13+06	10+34	272	6/6/2006
		13+31	13+06	25	6/6/2006
		14+41	13+31	100	6/6/2006
		2+92	1+80	139	6/8/2006
		4+48	2+92	146	6/8/2006
		6+23	4+48	175	6/6/2006
8+13	6+23	190	6/6/2006		
NG-092	Hampton	47+79	47+65	14	6/8/2006
		50+08	47+79	229	6/8/2006
		52+50	50+08	242	6/8/2006
		55+17	52+50	267	6/8/2006
NG-098	Newport News	1+47	0+00	147	10/24/2006
		75+83	72+84	299	5/5/2006
		78+32	75+83	260	5/2/2006
		80+96	78+32	264	5/2/2006
		83+42	80+96	253	5/2/2006
		85+94	83+42	252	5/2/2006
		88+47	85+94	253	5/2/2006

Table C-2. Previous Gravity Main Inspections*					
Line #	Jurisdiction	From Sta.	To Sta.	CCTV Ft.	Date
NG-101	Newport News	1+33	0+05	97.7	1/14/2008
		2+27	1+33	94	1/14/2008
		48+12	44+40	343.1	1/14/2008
NG-102	Newport News	70+65	69+55	110	5/5/2006
		72+84	70+65	219	5/5/2006
NG-103	Newport News	1+68	0+00	168	2/6/2008
		11+29	9+40	110	1/22/2008
		14+11	11+29	282	1/22/2008
		17+09	14+11	298	1/22/2008
		2+81	1+68	113	1/31/2008
		20+14	17+09	313	1/22/2008
		22+29	20+14	215	1/22/2008
		25+40	22+29	311	1/22/2008
		27+51	25+40	211	1/15/2008
		29+62	27+51	211	1/15/2008
		31+46	29+62	184	1/15/2008
		34+01	31+46	255	1/15/2008
		36+03	34+01	202	1/15/2008
		38+03	36+03	200	1/15/2008
		39+93	38+62	131	1/15/2008
		4+76	2+81	195	1/31/2008
		40+03	39+93	10	1/15/2008
		6+51	4+76	175	1/31/2008
8+51	6+51	200	1/22/2008		
9+40	8+51	168	1/22/2008		
NG-104	Newport News	61+76	60+83	75	5/9/2006
		62+79	61+76	97	5/9/2006
		63+64	62+79	75	5/9/2006
		64+95	63+64	131	5/9/2006
		66+18	64+95	132	5/9/2006
		67+85	66+18	167	5/5/2006
		69+55	67+85	170	5/5/2006
NG-106	Newport News	104+00	99+90	410	2/26/2008
		84+40	80+70	370	7/23/2008
		87+60	84+40	320	5/6/2008
		90+72	87+60	313	4/17/2008
		92+10	90+72	138	4/8/2008
		96+37	92+10	424	3/31/2008
		99+90	96+37	353	3/4/2008
NG-108	Newport News	49+20	44+20	466	7/31/2008
		52+88	49+20	368	7/31/2008
NG-111	Newport News	1+42	0+00	142	12/17/2008

Table C-2. Previous Gravity Main Inspections*					
Line #	Jurisdiction	From Sta.	To Sta.	CCTV Ft.	Date
		11+64	8+79	285	12/17/2008
		12+50	11+64	86	12/17/2008
		13+50	12+50	100	12/17/2008
		15+86	13+50	236	12/17/2008
		16+99	15+86	113	12/17/2008
		17+36	16+99	37	12/17/2008
		3+00	1+42	158	12/17/2008
		5+90	3+00	290	12/17/2008
		8+79	5+90	289	12/17/2008
NG-112	Newport News	126+36	121+75	460	2/24/2009
		121+75	117+25	450	2/24/2009
NG-115	Newport News	3+60	1+74	186	12/12/2008
		5+70	3+60	210	12/12/2008
		8+63	5+70	293	12/12/2008
		8+98	8+63	35	12/12/2008
NG-125	Newport News	38+23	33+53	470	1/5/2009
NG-126	Newport News	44+39	41+48	281.3	1/14/2008
NG-127	Newport News	36+58	33+40	320	3/4/2009
NG-130	Newport News	13+51	10+00	354	1/5/2009
		18+02	13+51	446	1/5/2009
NG-159	Hampton	220+80	220+34	46	10/20/2005
		223+25	220+80	245	10/20/2005
		225+75	223+25	250	10/20/2005
		227+88	225+75	213	10/20/2005
		230+88	227+88	300	10/18/2005
		233+17	230+88	256	10/18/2005
		235+48	233+17	231	10/18/2005
		237+93	235+48	245	10/18/2005
		240+42	237+93	249	10/18/2005
		243+18	240+42	276	10/18/2005
		244+18	243+18	100	10/18/2005
		246+16	244+18	198	10/18/2005
248+21	246+16	205	10/18/2005		
NG-174	Newport News	10+80	14+75	395	12/18/2008
		14+75	116+10	390	2/18/2009
		18+30	18+40	10	12/18/2008
		18+40	20+10	170	12/18/2008
		20+10	373+75	28	12/18/2008
		370+35	10+80	187	12/18/2008
		373+75	370+35	340	12/18/2008
NG-175	Newport News	41+85	39+22	227	4/11/2006
		42+22	41+85	60	4/11/2006

Table C-2. Previous Gravity Main Inspections*					
Line #	Jurisdiction	From Sta.	To Sta.	CCTV Ft.	Date
		44+92	42+22	270	4/11/2006
		46+32	44+92	140	4/11/2006
		48+18	46+32	186	4/11/2006
		49+88	48+18	170	4/13/2006
		52+03	49+88	215	4/4/2006
		52+79	52+27	52	4/4/2006
NG-176	Newport News	37+55	34+48	367	4/20/2006
		39+22	37+55	124	4/28/2006
SG-001	Norfolk	00+42	00+00	42	6/19/2007
		10+00	5+00	500	6/19/2007
		15+00	10+00	500	6/19/2007
		18+17	15+00	331	6/19/2007
		20+00	18+17	183	6/19/2007
		22+70	20+00	270	6/19/2007
		25+95	22+70	325	6/19/2007
		27+50	25+95	185	6/19/2007
		33+51	27+50	575	6/18/2007
		39+52	33+51	601	6/18/2007
		45+00	39+52	575	6/18/2007
		5+00	00+42	478	6/19/2007
		50+00	45+00	500	6/13/2007
SG-003	Norfolk	12+07	10+00	207	6/21/2007
		17+91	12+07	359	6/21/2007
		22+30	17+91	439	6/21/2007
		23+11	22+30	81	6/21/2007
		26+57	23+11	360	6/20/2007
		29+50	26+57	300	6/20/2007
		32+60	29+50	310	6/20/2007
		35+65	32+60	31	6/20/2007
		0+47	0+00	47	7/22/2009
		10+40	6+30	410	7/22/2009
		14+50	10+40	410	7/22/2009
		17+82	14+50	332	7/22/2009
		3+80	0+47	333	7/22/2009
6+30	3+80	250	7/22/2009		
SG-044	Norfolk	10+57	9+84	73	6/25/2007
		10+76	10+57	19	6/25/2007
		3+72	3+65	7	6/25/2007
		7+07	3+72	360	6/25/2007
		9+84	7+07	277	6/25/2007
SG-049	Norfolk	PS	10+76	32	6/25/2007
		1+93	0+00	165	6/23/2006

Table C-2. Previous Gravity Main Inspections*					
Line #	Jurisdiction	From Sta.	To Sta.	CCTV Ft.	Date
SG-067	Norfolk	6+00	1+93	424	6/23/2006
		8+37	6+00	237	6/23/2006
		13+52	12+52	100	6/27/2007
		14+45	13+52	93	6/27/2007
		15+49	14+45	6	6/27/2007
SG-068	Norfolk	17+95	15+49	261	6/27/2007
		20+45	17+95	250	6/27/2007
		25+40	23+60	180	6/27/2007
SG-071	Norfolk	7+68	4+98	278	8/14/2006
SG-072	Norfolk	0+39	0+00	43	8/14/2006
		13+00	10+46	254	8/17/2006
		3+36	0+39	297	8/14/2006
		5+33	3+36	205	8/14/2006
		6+01	5+33	65	8/14/2006
		8+52	7+95	57	11/15/2006
SG-073	Norfolk	7+95	5+17	286	11/15/2006
SG-074A	Norfolk	10+60	9+45	115	8/7/2006
		14+00	10+60	350	8/7/2006
		17+40	14+00	352	8/7/2006
		20+80	17+40	340	8/7/2006
		23+85	20+80	312	8/7/2006
		25+20	23+85	141	8/7/2006
		26+34	25+20	114	8/7/2006
		4+95	2+50	251	8/8/2006
		7+20	4+95	225	8/8/2006
		9+45	7+20	230	8/7/2006
SG-074B	Norfolk	2+50	0+00	250	11/15/2006
SG-075	Norfolk	0+50	0+00	50	8/14/2006
		11+78	9+58	226	8/8/2006
		14+01	11+78	226	8/8/2006
		16+14	14+01	213	8/8/2006
		18+00	16+14	186	8/8/2006
		2+81	0+50	237	8/14/2006
		5+16	2+81	223	8/10/2006
		7+40	5+16	224	3/27/2006
		9+58	7+40	218	8/10/2006
SG-077	Norfolk	27+95	26+34	161	11/15/2006
SG-078	Norfolk	13+11	10+19	292	10/31/2006
		13+50	13+11	40	10/31/2006
		16+10	13+50	220	10/31/2006
		19+16	16+10	306	10/13/2006
SG-079	Norfolk	23+00	19+16	402	9/29/2006

Table C-2. Previous Gravity Main Inspections*					
Line #	Jurisdiction	From Sta.	To Sta.	CCTV Ft.	Date
		27+03	23+00	403	9/29/2006
		29+67	27+03	270	9/29/2006
		33+32	29+67	376	9/29/2006
		37+00	33+32	378	9/29/2006
SG-088	Norfolk	1+66	0+00	133	7/18/2006
		10+56	8+93	163	6/22/2006
		12+08	10+56	152	6/22/2006
		14+66	12+08	258	6/22/2006
		14+84	14+66	18	6/22/2006
		15+91	14+84	107	6/22/2006
		16+20	15+91	29	6/22/2006
		19+10	16+20	290	6/22/2006
		19+42	19+10	46	6/21/2006
		22+39	19+42	304	6/21/2006
		25+55	22+39	305	6/21/2006
		29+12	25+55	386	6/21/2006
		32+41	29+12	329	6/21/2006
		33+79	32+41	138	6/21/2006
		4+58	1+66	292	7/18/2006
		7+55	4+58	297	6/23/2006
8+93	7+55	143	6/22/2006		
SG-089	Norfolk	35+86	34+10	176	8/3/2006
		38+92	35+86	306	8/3/2006
		42+17	38+92	332	8/3/2006
		42+25	42+17	9	8/3/2006
		45+73	42+25	359	8/3/2006
		51+09	45+73	551	8/3/2006
		56+08	51+09	499	8/1/2006
		57+47	56+08	139	8/1/2006
		59+41	57+47	194	8/1/2006
		62+75	59+41	343	8/1/2006
		63+45	62+75	70	7/20/2006
		64+90	63+45	145	7/20/2006
		66+99	64+90	209	7/20/2006
		68+99	66+99	200	7/20/2006
		69+74	68+99	75	7/20/2006
		71+15	69+74	141	7/18/2006
71+56	71+15	33	7/18/2006		
SG-098	Norfolk	71+44	68+45	299	4/19/2007
		74+85	71+44	341	4/19/2007
		77+71	74+85	286	4/19/2007
		78+18	77+71	47	4/19/2007

Table C-2. Previous Gravity Main Inspections*					
Line #	Jurisdiction	From Sta.	To Sta.	CCTV Ft.	Date
SG-102	Norfolk	1+95	0+80	115	7/1/2009
		10+40	7+35	305	7/1/2009
		13+33	10+40	293	7/1/2009
		16+49	13+33	316	7/1/2009
		19+49	16+49	300	7/1/2009
		4+51	1+95	256	7/1/2009
		7+35	4+51	284	7/1/2009
SG-104	Norfolk	104+36	101+57	180	7/27/2009
		105+89	104+36	128	7/27/2009
		11+69	9+20	252	7/27/2009
		5+85	105-89	288	7/27/2009
		8+76	5+85	289	7/27/2009
		9+20	8+76	41	7/27/2009
SG-105	Norfolk	12+15	11+69	46	7/9/2009
		14+24	12+15	209	7/9/2009
		14+51	14+24	27	7/9/2009
		17+26	14+51	275	7/9/2009
		19+18	17+26	192	7/9/2009
		20+00	19+18	82	7/9/2009
		22+71	20+00	271	7/9/2009
SG-107	Norfolk	3+15	0+00	315	9/29/2006
		3+90	3+15	75	9/29/2006
SG-108	Norfolk	1+92	0+85	107	11/14/2006
		3+78	1+92	186	11/14/2006
		4+68	3+78	90	11/14/2006
		7+48	4+68	280	11/14/2006
SG-112	Norfolk	52+50	49+18	332	12/12/2006
		55+27	52+50	277	12/12/2006
		57+87	55+27	260	12/12/2006
		58+98	57+87	111	12/12/2006
		59+35	58+98	38	12/12/2006
SG-113	Norfolk	22+96	19+94	302	12/13/2006
		23+29	22+96	33	12/13/2006
		25+82	23+29	253	12/13/2006
		26+45	25+82	63	12/13/2006
		26+71	26+45	26	12/13/2006
		28+95	26+71	224	12/12/2006
		32+74	28+95	379	12/12/2006
		36+47	32+74	373	12/12/2006
		36+87	36+47	40	12/12/2006
		39+61	36+87	274	12/12/2006
		42+19	39+61	258	12/12/2006

Table C-2. Previous Gravity Main Inspections*					
Line #	Jurisdiction	From Sta.	To Sta.	CCTV Ft.	Date
		45+67	42+19	353	12/12/2006
		49+18	45+67	344	12/13/2006
SG-145	Norfolk	0+45	0+00	45	10/18/2006
		11+47	8+47	300	9/26/2006
		13+02	11+47	155	9/26/2006
		2+97	0+45	252	10/18/2006
		5+47	2+97	250	10/18/2006
		8+47	5+47	300	11/3/2006
SG-157	Chesapeake	0+40	0+00	40	11/28/2007
		1+20	0+40	80	11/28/2007
		10+49	8+51	171	12/14/2007
		12+66	10+49	217	12/6/2007
		15+66	12+66	300	12/5/2007
		18+83	15+66	317	11/29/2007
		22+06	18+83	323	9/14/2007
		4+30	1+20	310	12/14/2007
		6+95	4+30	265	12/14/2007
8+51	6+95	156	12/14/2007		
SG-196	Norfolk	55+02	50+00	361	6/13/2007
		60+00	55+02	485	6/13/2007
		65+03	60+00	594	6/13/2007
		70+03	65+03	596	6/13/2007
		74+78	70+03	494	6/13/2007
SG-207	Norfolk	3+25	6+29	304	7/19/2006

* Inspections from September 2005 to July 2009.

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Table C-3. Gravity Main SSOs

Line No.	Occurrences	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
NG-063	7	4/7/2003	2003-T-1944	North King St/Macalva St	Hampton	2.80" of rain on 4/7.	2625
		4/9/2003	2003-T-1964	North King Street & 5 Macalva Drive manhole	Hampton	2.29" of rain on 4/7	53500
		4/9/2003	2003-T-1990	North King St and Gilbert MH	Hampton	2.29" of rain on 4/7	55875
		4/10/2003	2003-T-2020	North King St/Macalva St	Hampton	2.29" of rain on 4/7 and 1.99" of rain on 4/9	19860
		12/14/2003	2004-T-1229	North King St/Macalva St	Hampton	1.47" of rainfall on 12/14. 1.26" in 8.5 hours.	25800
		3/8/2006	2006-T-100541	North King Street & Macalva Street	Hampton	Force main failure near Marcella Avenue. Flow was diverted to make repairs to the force main which caused manhole to overflow.	250
		9/12/2007	2008-T-101275	North King Street at MacAlva & Gilbert	Hampton	Two manholes a block apart overflowed intermittently due to Langley PS being turned off as part of valving operation. Pump station was turned off in order to divert flow from force main break at Hollywood Blvd (SSOR 101269).	10625
NG-070	1	11/17/2002	2003-T-0914	MH @ Freeman Dr & Armistead Ave (@ Pine Chapel PS)	Hampton	Hampton personnel operated HRSD valve, sending flow to Pine Chapel PS	32760
NG-104	7	4/9/2003	2003-T-1989	42 Franklin St	Newport News	2.29" of rain on 4/7	94500
		4/10/2003	2003-T-2018	321 North Ave	Newport News	2.29" of rain on 4/7 & 1.99" of rain on 4/9	6500
		4/10/2003	2003-T-2019	42 Franklin St	Newport News	2.29" of rain on 4/7 & 1.99" of rain on 4/9	57000
		4/10/2003	2003-T-2017	320 North Ave MH	Newport News	2.29" of rain on 4/7 and 1.99" of rain on 4/9	14800
		8/8/2003	2004-T-0274	320 North Ave MH	Newport News	6.29" Aug 5-8 (1.03" in 1-hr period before event)	3950
		8/11/2003	2004-T-0288	320 North Ave MH	Newport News	7.53" Aug 2-11; 0.72" in 90-min 8/11	720
		6/23/2006	2006-T-100675	42 Franklin Street	Newport News	Torrential rains caused excessive I/I over whelming sanitary sewer system. 2.56 inches of rain received at Williamsburg PS within period of 1.5 hours.	3600
NG-138	7	4/9/2003	2003-T-1993	Bridge St Tide Gate	Hampton	2.80" of rain on 4/7	50450

Table C-3. Gravity Main SSOs

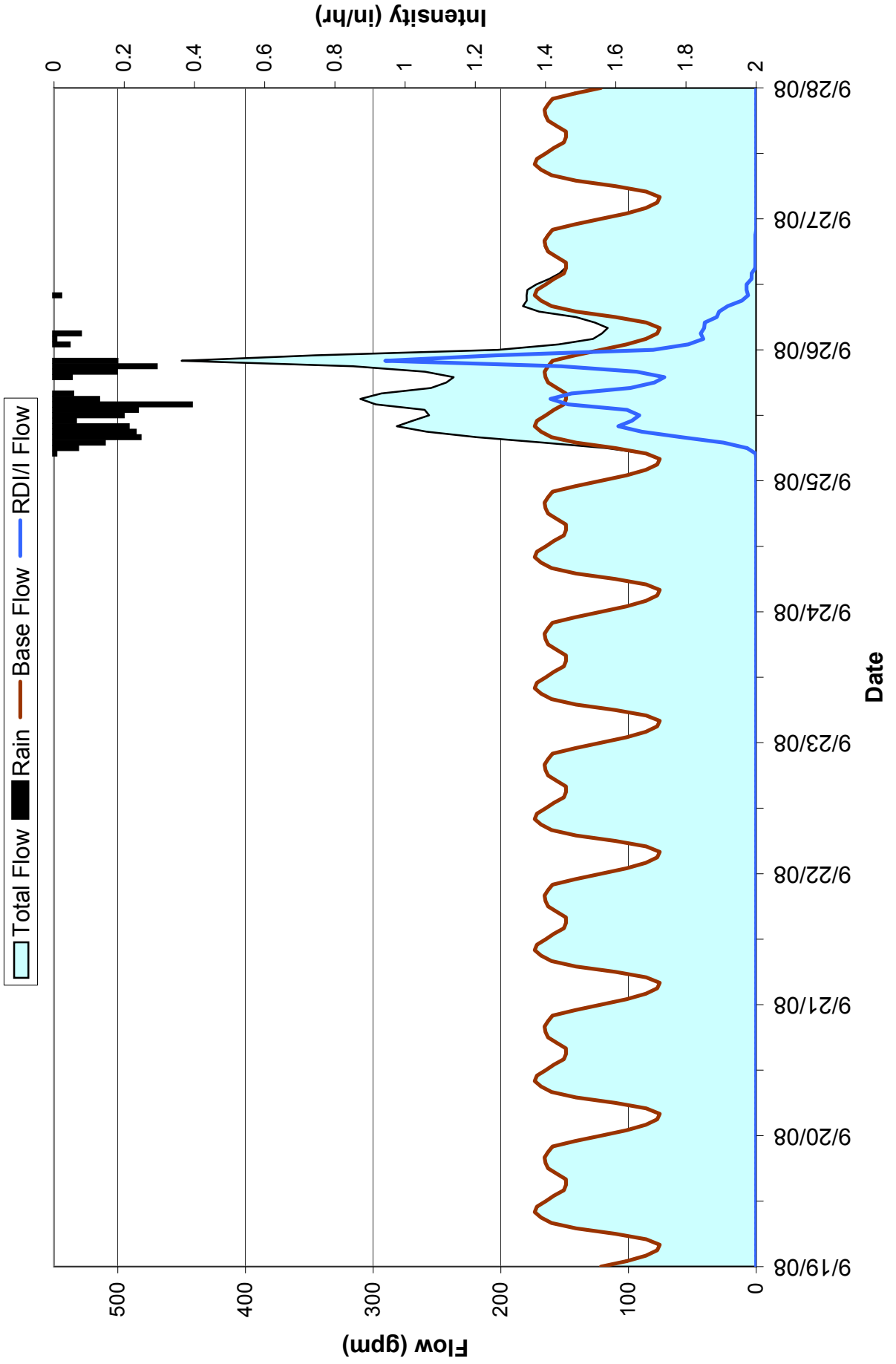
Line No.	Occurrences	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
		4/10/2003	2003-T-2023	Bridge St Tide Gate	Hampton	2.29" of rain on 4/7 and 1.99" of rain on 4/9	79600
		10/29/2003	2004-T-0940	Bridge St Tide Gate	Hampton	2.90" of rain in 16-hr period prior to event.	17150
		6/27/2006	2006-T-100679	4701 Victoria Boulevard	Hampton	Refer to SSOR 100678. Pump station was shut down in order to reduce flow at force main break on 3721 Victoria Blvd so that repairs could be made. PS has tidal gate which discharges overflow to river.	190400
		6/28/2006	2006-T-100680	4701 Victoria Blvd	Hampton	Mechanical problems with a by-pass pump caused the system to backup and by-pass at the Bridge St. Tide Gate for 1 hour and 50 minutes at 20 gpm.	2200
		6/29/2006	2007-T-100683	4701 Victoria Blvd.	Hampton	Overflow produced when by-pass pump was unable to keep up with increase in flow caused by combination of rainfall and I&I to the Pump Station. Overflow occurred at 10 gpm for 3 hours and 45 minutes.	2250
		6/30/2006	2007-T-100684	4701 Victoria Blvd.	Hampton	Overflow produced when by-pass pump was unable to keep up with increase in flow caused by combination of heavy rainfall and I&I to the pump station. Overflow occurred for 3 hours and 21 minutes at a flow rate of 10 gpm.	2010
		4/9/2003	2003-T-1994	Ivy Home Rd/Victoria Blvd	Hampton	2.80" of rain on 4/7	3550
NG-142	3	4/22/2008	2008-T-101498	LaSalle Avenue & Ervin Street	Hampton	HRSD notified by City personnel that manhole was overflowing. Area received large amounts of rain in the past 48 hours. Flow rate estimated at 25 gpm. Originally reported that cause of manhole overflow was due to excessive I/I. Investigation of incident revealed that Hampton City personnel opened the incorrect valve at City PS #1 which	6000

Table C-3. Gravity Main SSOs							
Line No.	Occurrences	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
						caused the overflow. Start time of incident was changed from 9:00 am to 8:30 am due to receipt of more information concerning notification.	
		4/22/2008	2008-T-101497	Ivy Home Road & Victoria Blvd	Hampton	Originally reported that cause of manhole overflow was due to I/I. Area had received large amounts of rain in the past 48 hours. Flow rate estimated at 10 gpm. Investigation of incident revealed that Hampton City personnel opened the incorrect valve at City PS#1 which caused overflow.	1800
NG-143	5	4/9/2003	2003-T-1991	3802 Chesapeake Ave	Hampton	2.80" of rain on 4/7	13700
		4/9/2003	2003-T-1992	3847 Chesapeake Ave	Hampton	2.80" of rain on 4/7	13800
		4/10/2003	2003-T-2021	3802 Chesapeake Ave	Hampton	2.29" of rain on 4/7 and 1.99" of rain on 4/9	10650
		4/10/2003	2003-T-2022	3816 Chesapeake Ave	Hampton	2.29" of rain on 4/7 and 1.99" of rain on 4/9	8550
		12/3/2008	2009-T-101740	Sunset Road & Kecoughtan road	Hampton	Grease buildup inside of manhole caused flow to back up and overflow manhole.	1050
SG-047	3	3/8/2005	2005-T-100217	41st-43rd Streets and Powhatan Avenue	Norfolk	Two of the three influent pumps at the Virginia Initiative Plant tripped out briefly causing the flow level in the junction box to rise. The wastewater backed up in the system and overflowed two manholes upstream of the plant.	-1
		12/10/2004	2005-T-100089	43rd St between Powhatan Ave & Hampton Blvd	Norfolk	Heavy rainfall in the area created excessive I/I. The incoming gravity line to VIP backed up due to the high water elevation in the raw influent junction box. This caused the manhole upstream to overflow.	-1

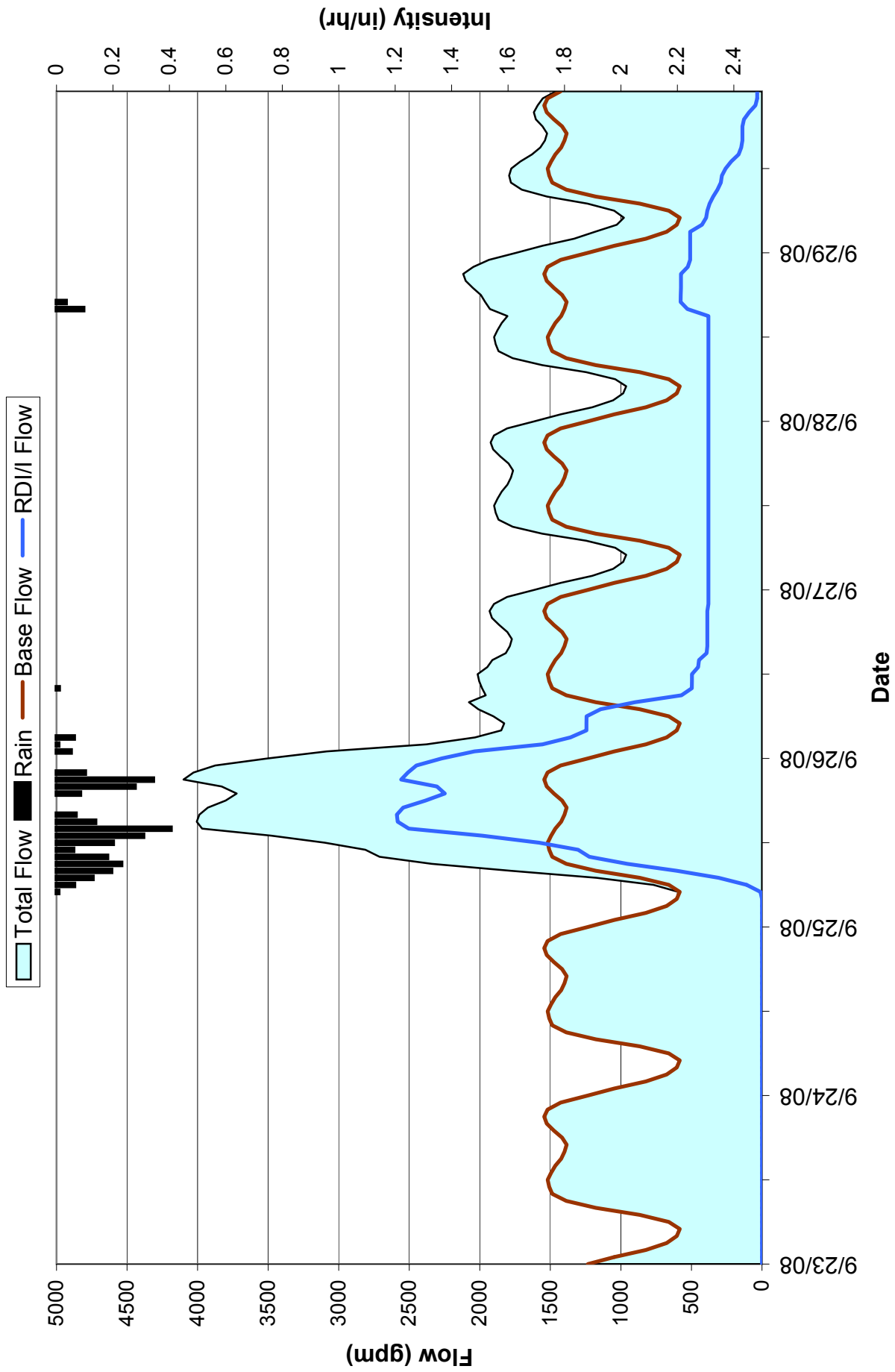
Table C-3. Gravity Main SSOs							
Line No.	Occurrences	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
		1/14/2005	2005-T-100142	38th, 39th, 42nd, and 43rd Streets in Norfolk	Norfolk	HRSD received report of manholes overflowing near the VIP STP location. Upon arrival at site, HRSD did not observe any overflows but the manhole lids were slightly out of place indicating that the force main flow level had risen in the pipe.	-1
SG-089	3	7/14/2003	2004-T-0067	Ballentine/Va Beach Blvds Manhole	Norfolk	2.92" of rain in 8 hours on 7/14	9500
		8/4/2003	2004-T-0215	Ballentine/Va Beach Blvds Manhole	Norfolk	2.25" in 90 minutes on 8/4.	1650
		9/15/2004	2005-T-0604	Norchester	Norfolk	Excessive I/I 1.79" of rain for one hour prior to event	140
SG-098	1	7/14/2003	2004-T-0068	Craig/Whitehead Streets	Norfolk	2.92" of rain in 8 hours on 7/14	4360
SG-153	1	7/28/2008	2009-T-101626	Right of Way beside Bainbridge Boulevard near Southgate Plaza	Chesapeake	The cradle holding an 18" gravity line through the swamp failed. Two sections of the line sagged which caused a breach in manhole #23. An estimated 2 gpm was leaking into the swamp which drains to Jones Creek. Leak was discovered during inspection by HRSD personnel.	430

¹ Source: HRSD Records and SSORS, period September 2002 to December 2008.

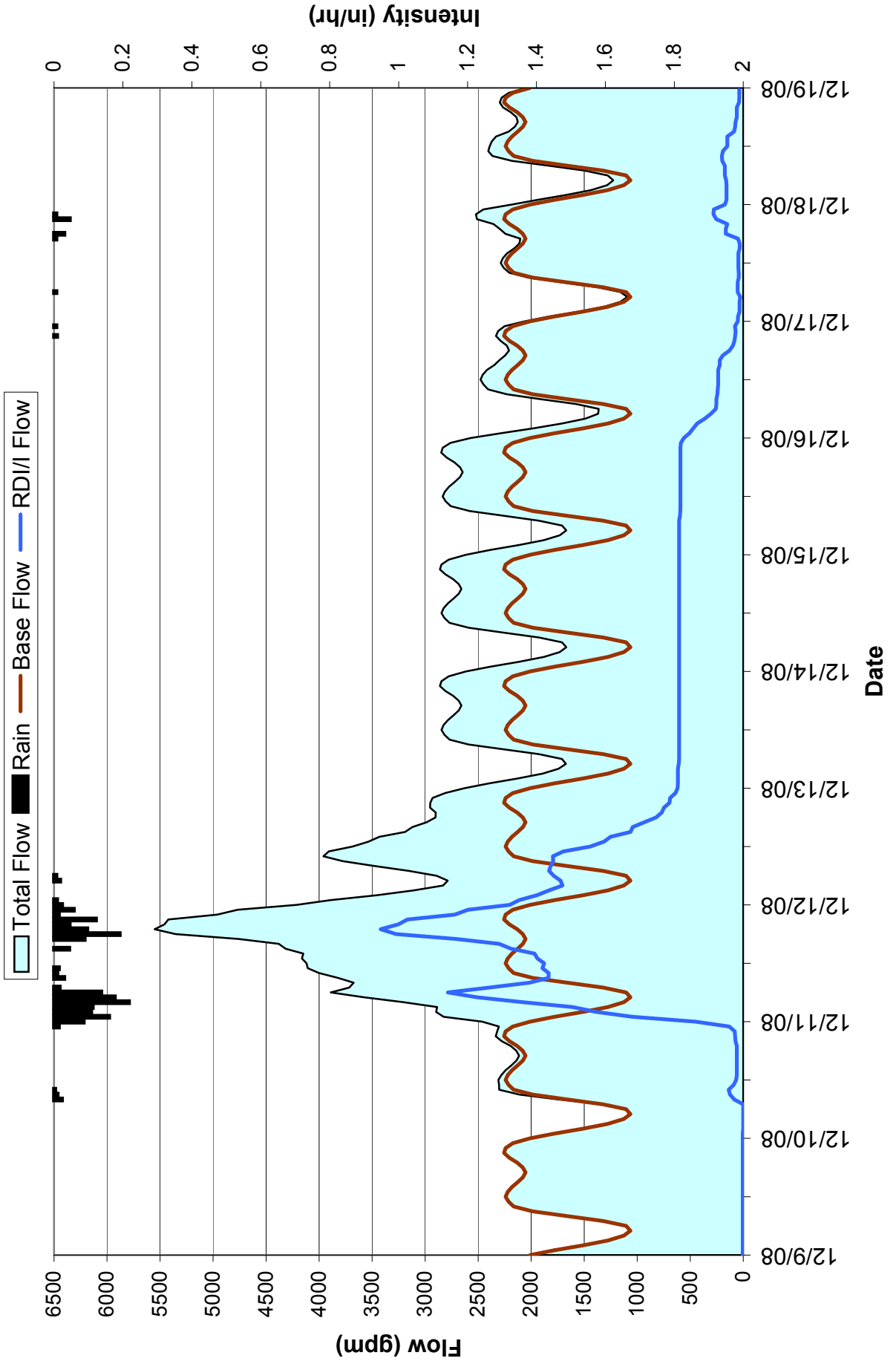
HRSD Gravity Flow Monitoring Program
Site 1 (6065 Jefferson Avenue)
Hydrograph Decomposition
9/19/08 - 9/28/08



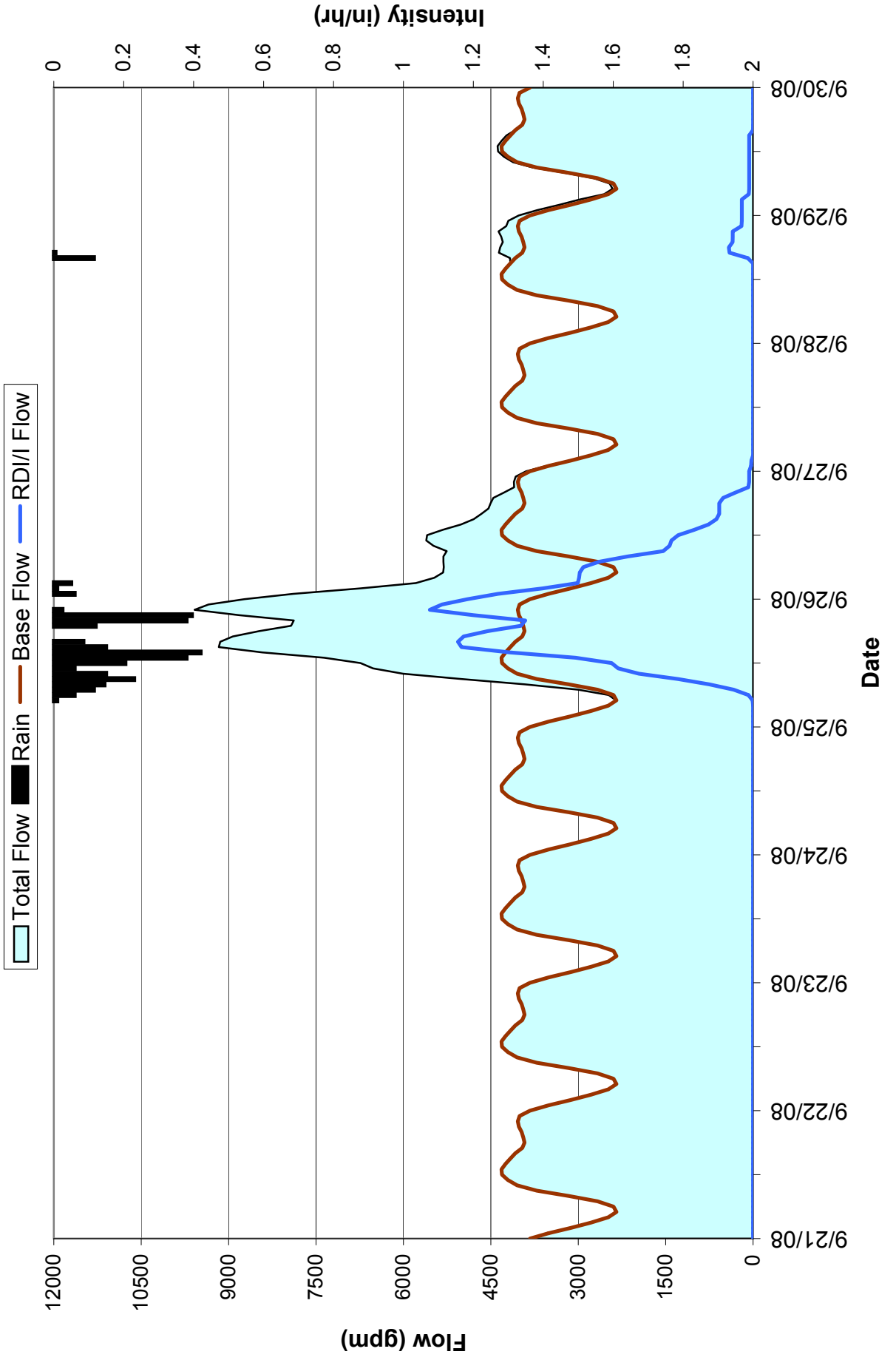
HRSD Gravity Flow Monitoring Program
Site 2 (Temple Lane & Jefferson Avenue)
Hydrograph Decomposition
9/23/08 - 9/29/08



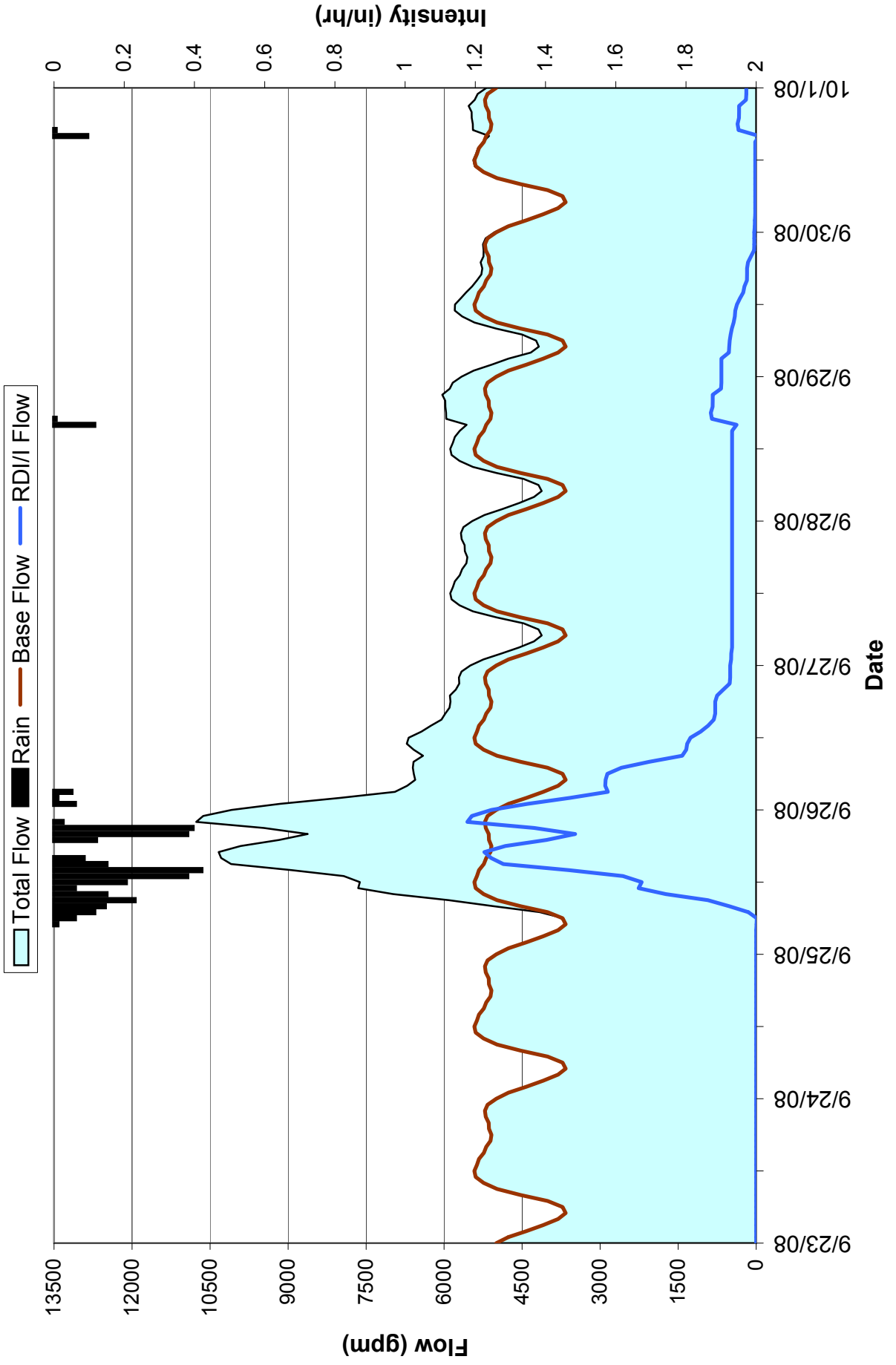
HRSD Gravity Flow Monitoring Program
Site 3 (44th Street & Jefferson Avenue)
Hydrograph Decomposition
12/9/08 - 12/19/08



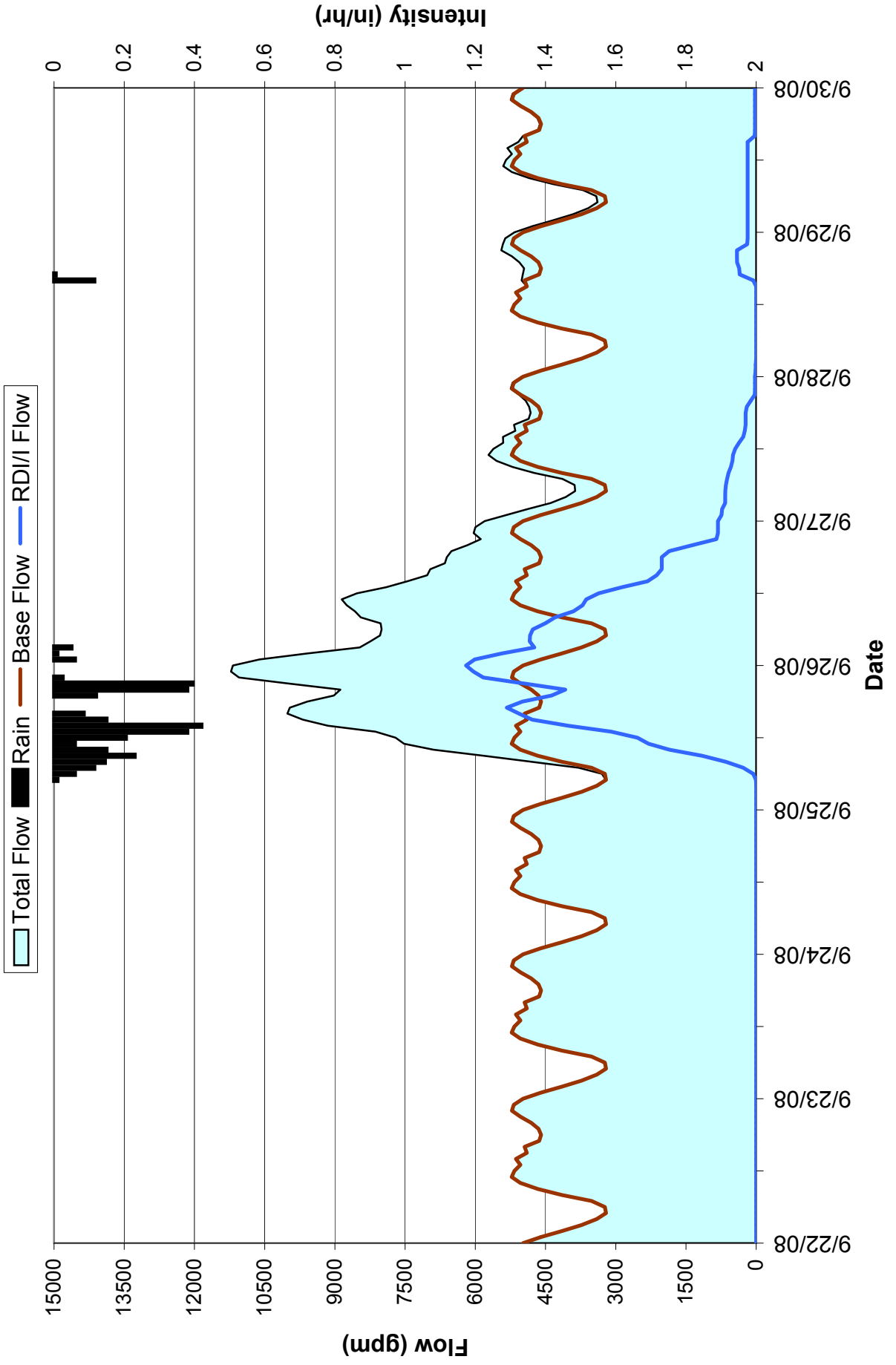
HRSD Gravity Flow Monitoring Program
Site 4 (2316 Terminal Avenue)
Hydrograph Decomposition
9/21/08 - 9/30/08



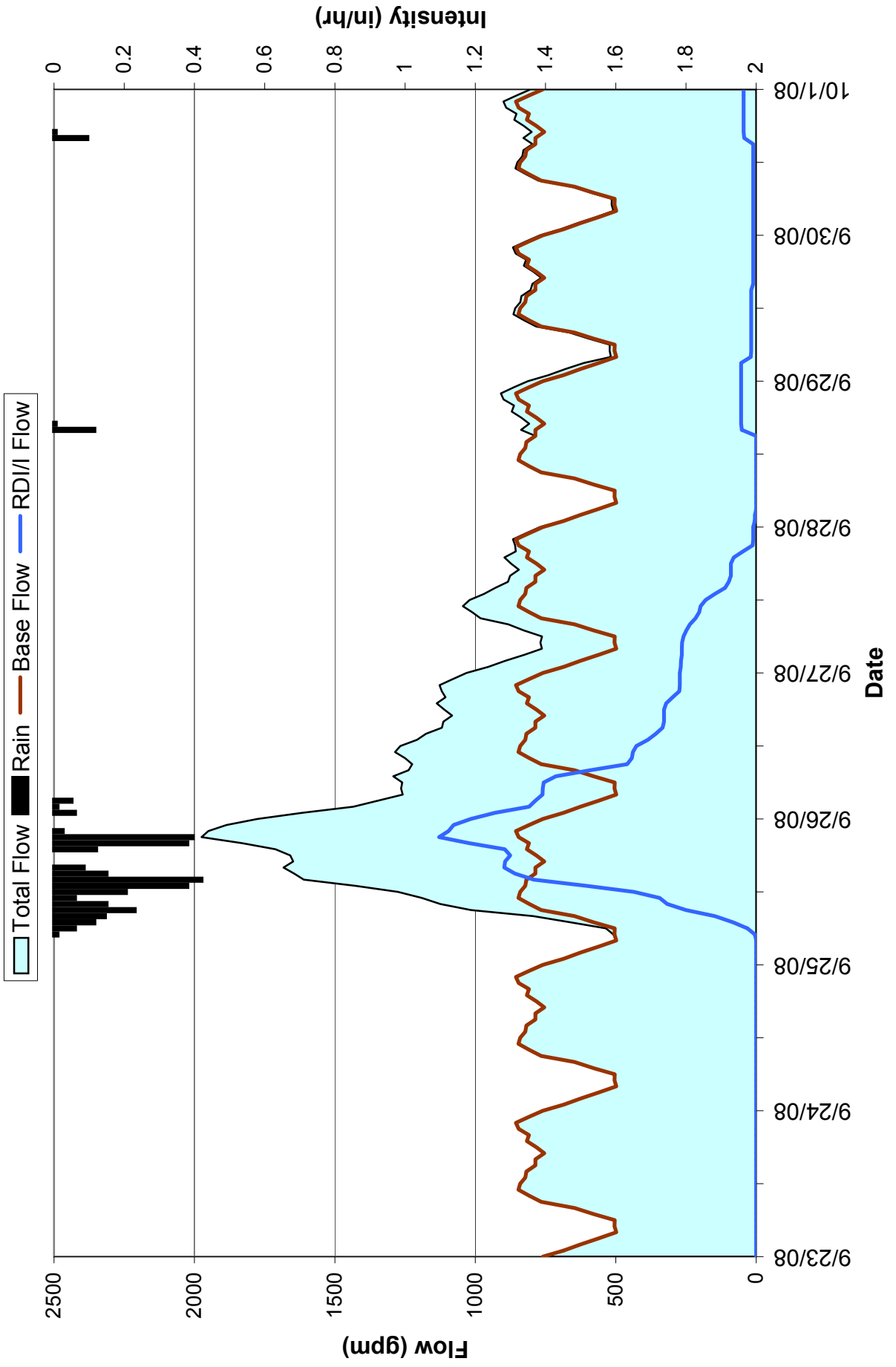
HRSD Gravity Flow Monitoring Program
Site 5 (550 Terminal Avenue - Boat Harbor Wastewater Treatment Plant)
Hydrograph Decomposition
9/23/08 - 10/1/08



HRSD Gravity Flow Monitoring Program
Site 5A (550 Terminal Avenue - Boat Harbor Wastewater Treatment Plant)
Hydrograph Decomposition
9/22/08 - 9/30/08



HRSD Gravity Flow Monitoring Program
Site 6 (1210 Chesapeake Avenue - Claremont Pump Station #208)
Hydrograph Decomposition
9/23/08 - 10/1/08

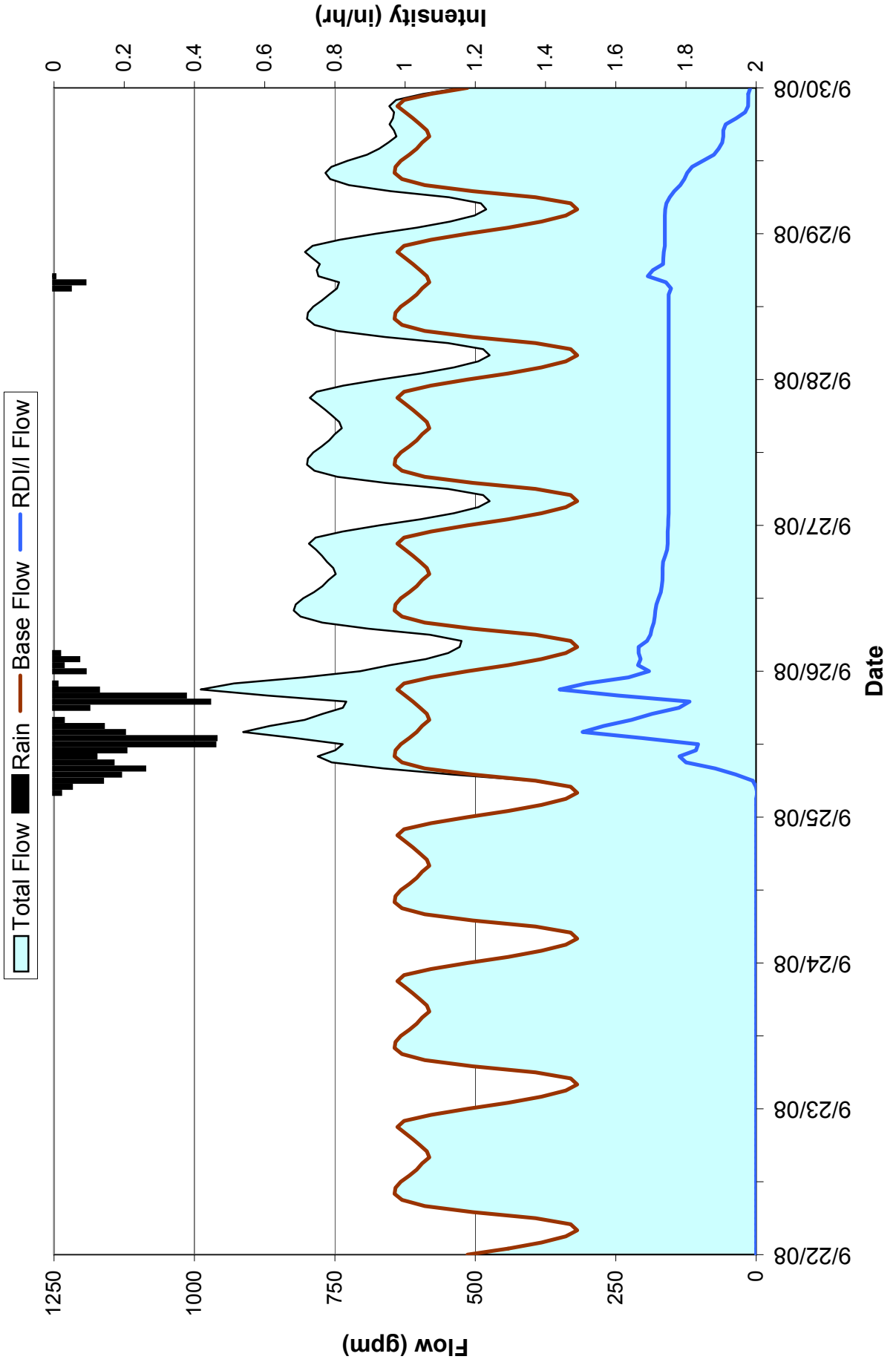


HRSD Gravity Flow Monitoring Program

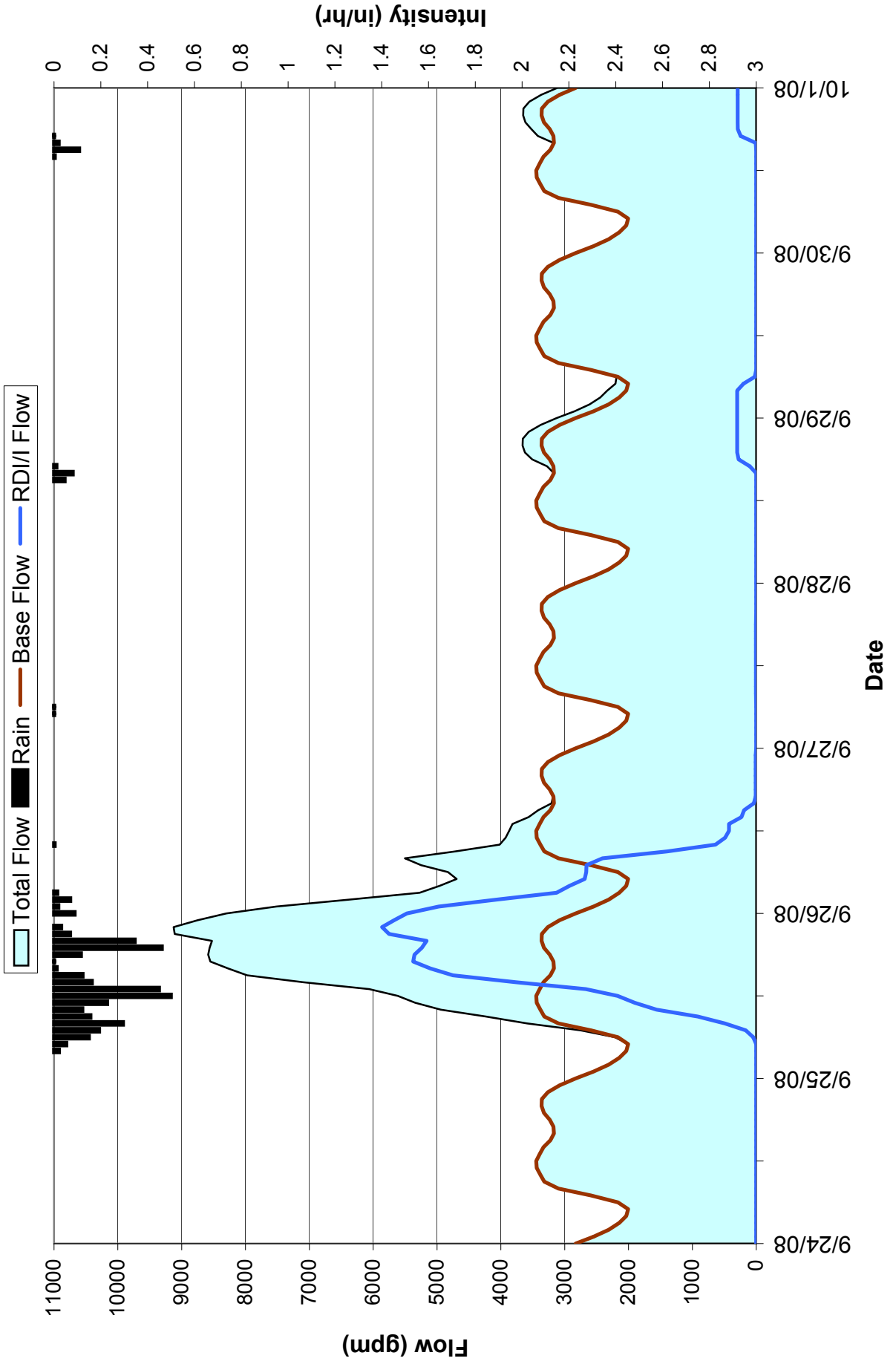
Site 7 (347 Ivy Home Road)

Hydrograph Decomposition

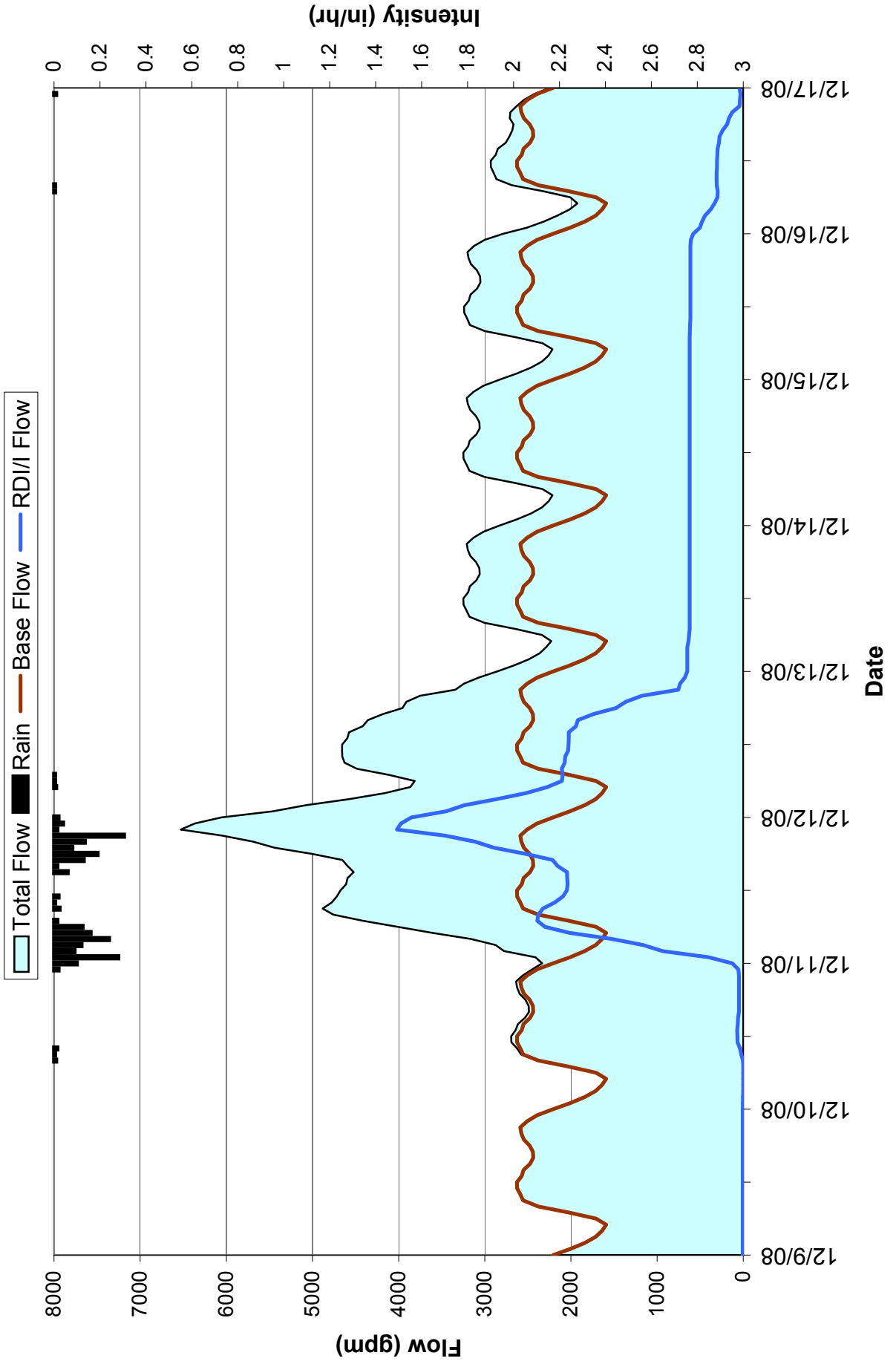
9/22/08 - 9/30/08



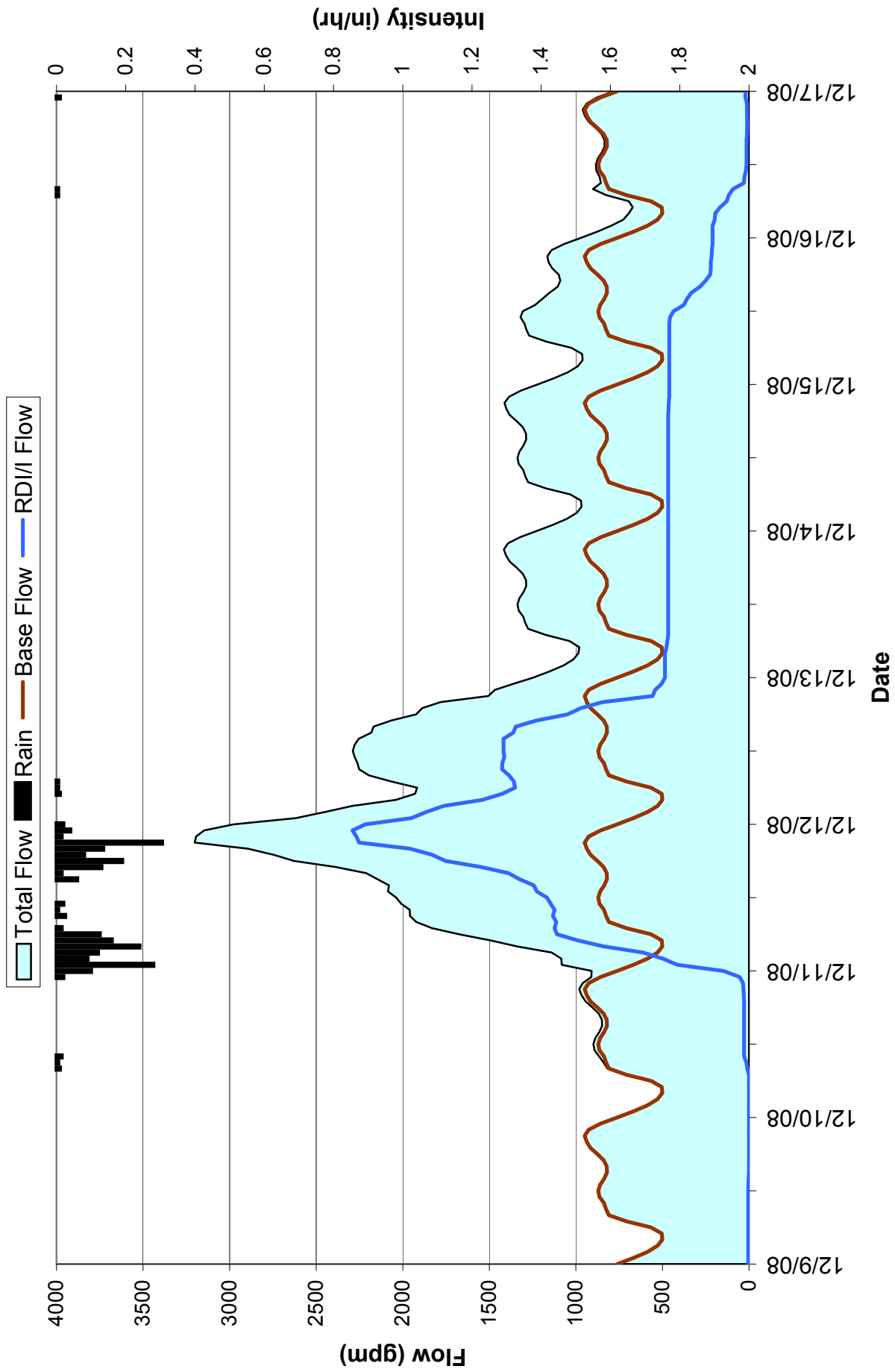
HRSD Gravity Flow Monitoring Program
Site 8 (4701 Victoria Boulevard - Bridge Street Pump Station # 206)
Hydrograph Decomposition
9/24/08 - 10/1/08



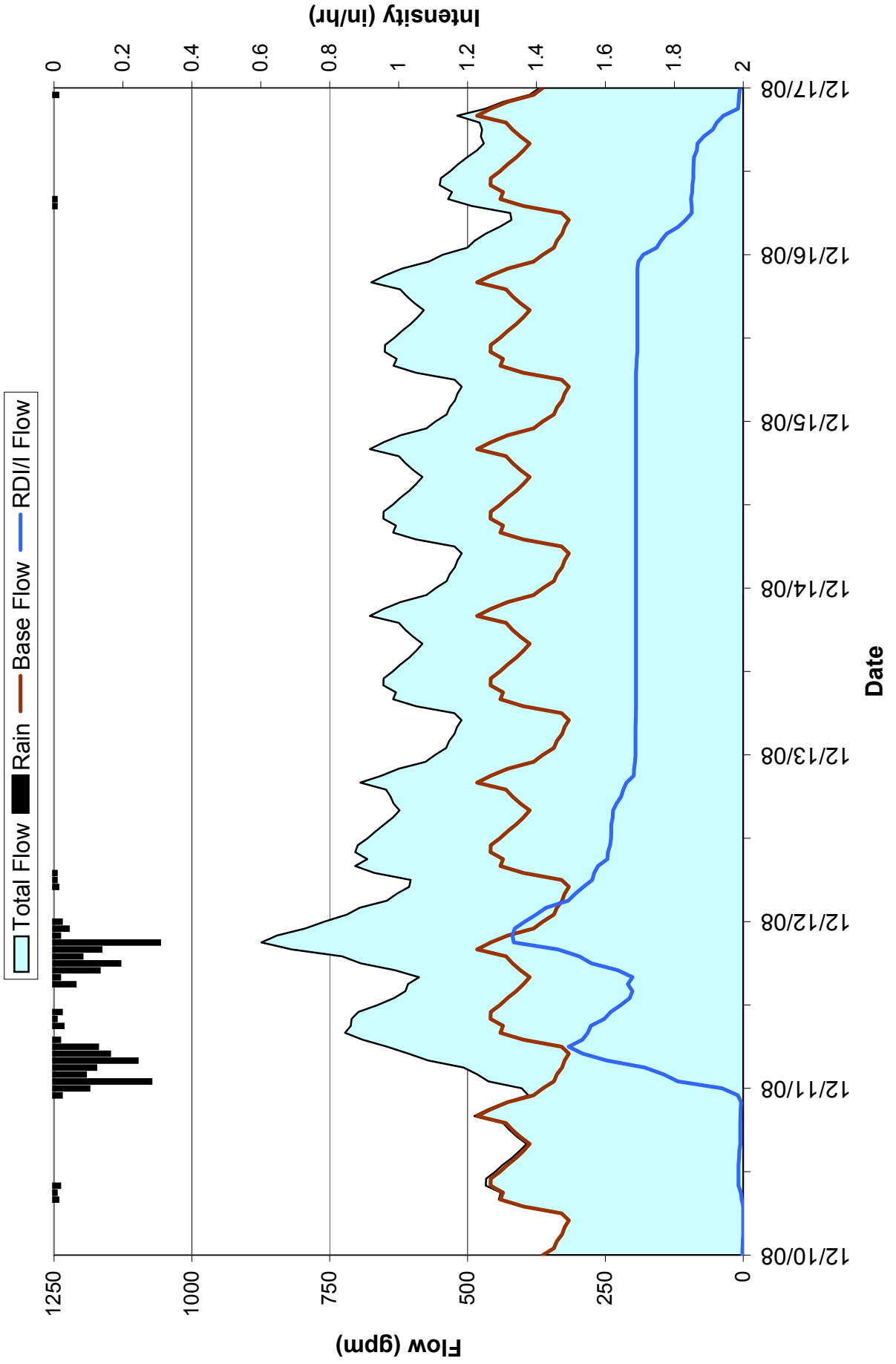
HRSD Gravity Flow Monitoring Program
Site 8A (4701 Victoria Boulevard - Bridge Street Pump Station # 206)
Hydrograph Decomposition
12/9/08 - 12/17/08



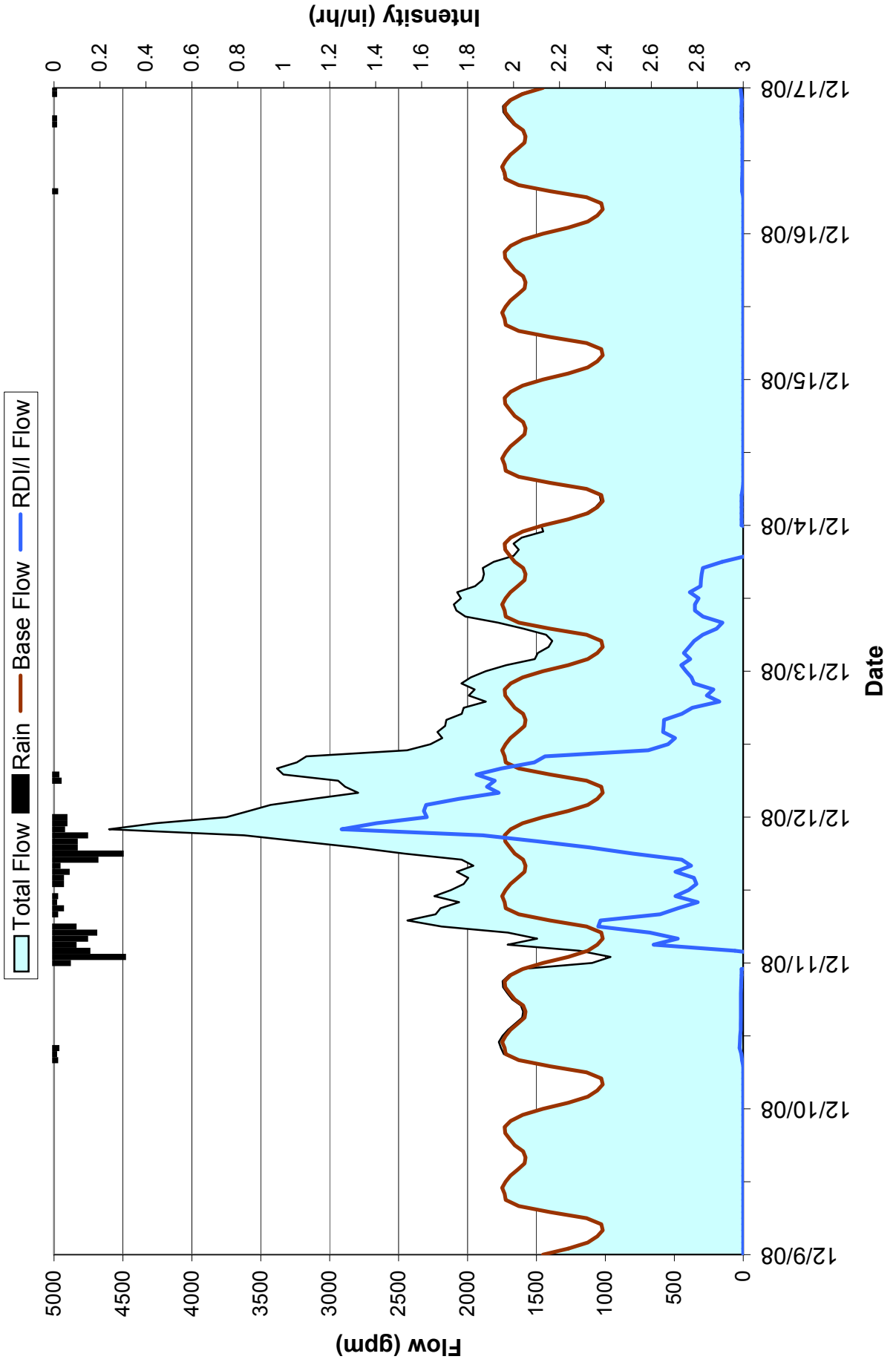
HRSD Gravity Flow Monitoring Program
Site 9 (217 Washington Street - Washington Street Pump Station # 223)
Hydrograph Decomposition
12/9/08 - 12/17/08



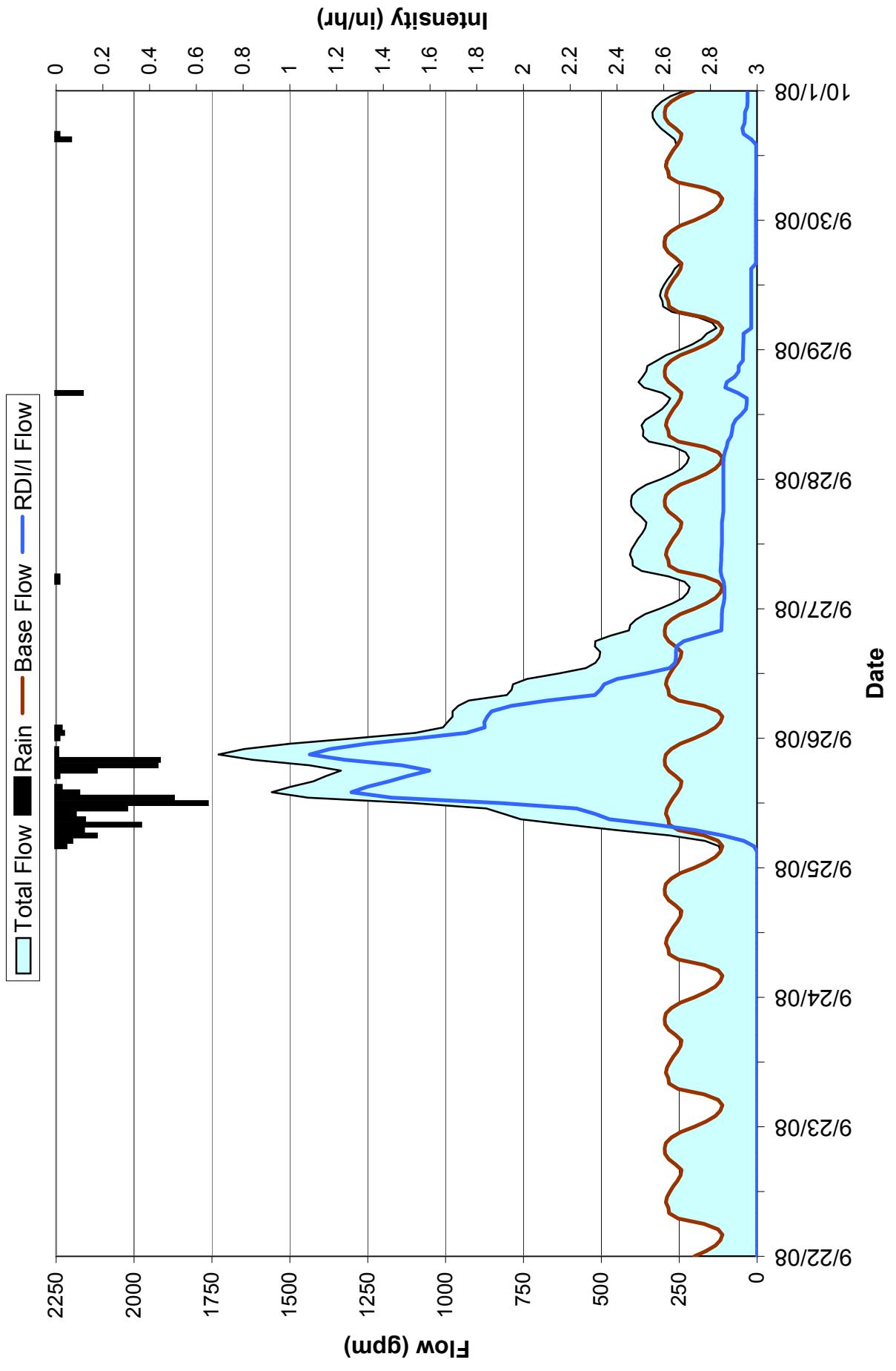
HRSD Gravity Flow Monitoring Program
Site 10 (7 Thornrose Avenue - Langley Circle Pump Station # 217)
Hydrograph Decomposition
12/10/08 - 12/17/08



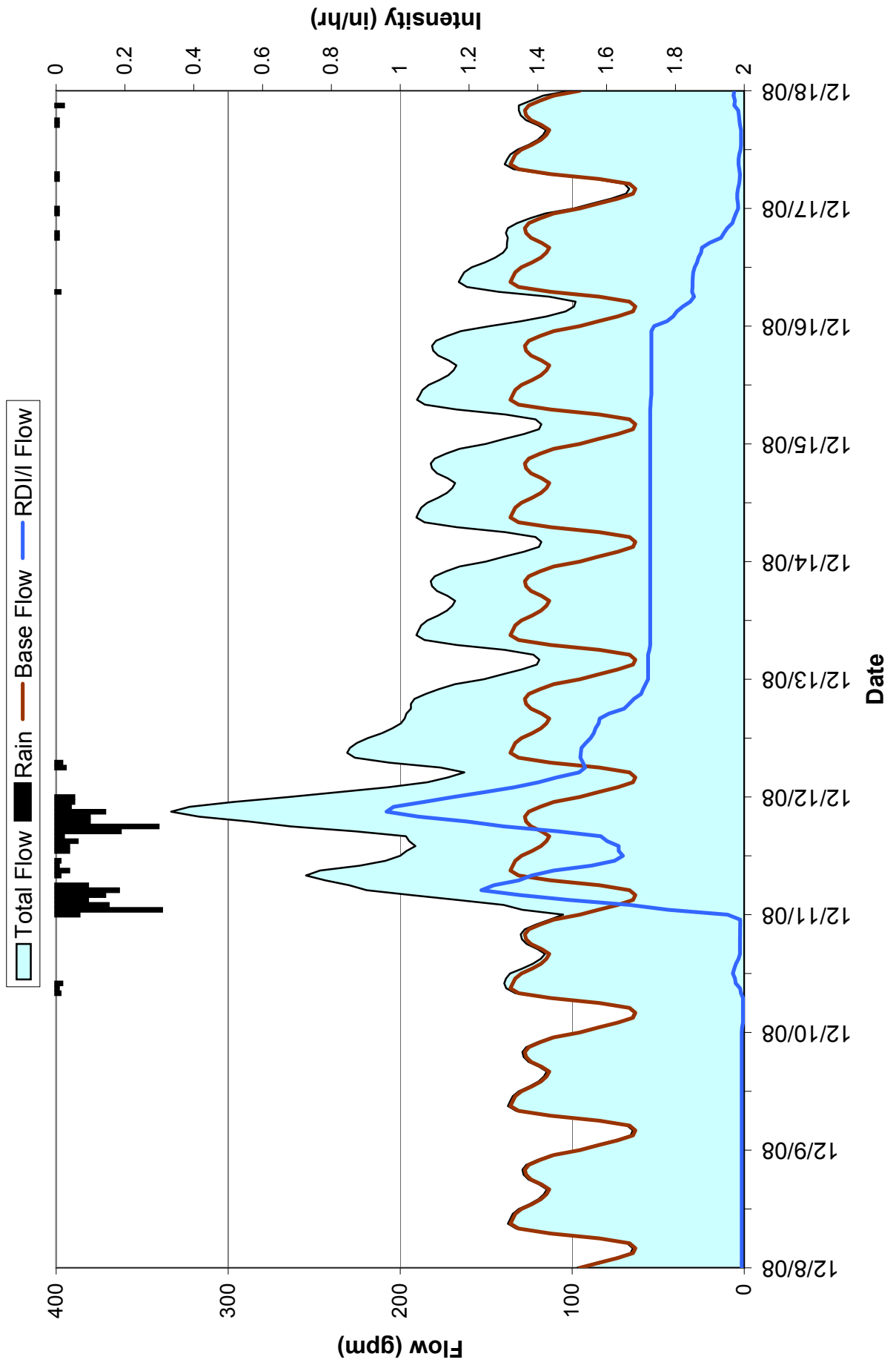
HRSD Gravity Flow Monitoring Program
Site 12 (219 National Avenue - Willard Avenue Pump Station #225)
Hydrograph Decomposition
12/9/08 - 12/17/08



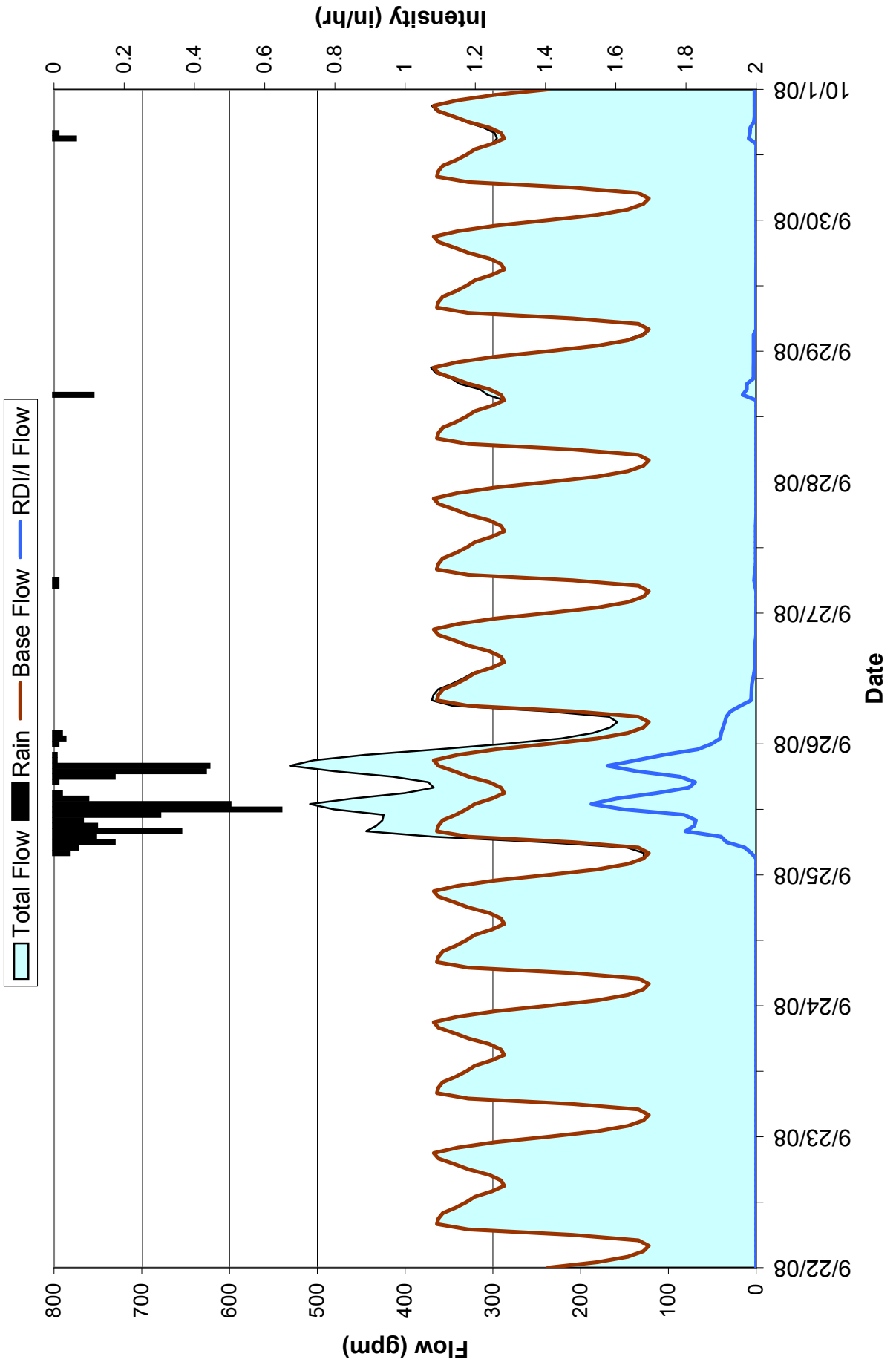
HRSD Gravity Flow Monitoring Program
Site 13 (720 Bayshore Lane - Bayshore Pump Station # 203)
Hydrograph Decomposition
9/22/08 - 10/1/08



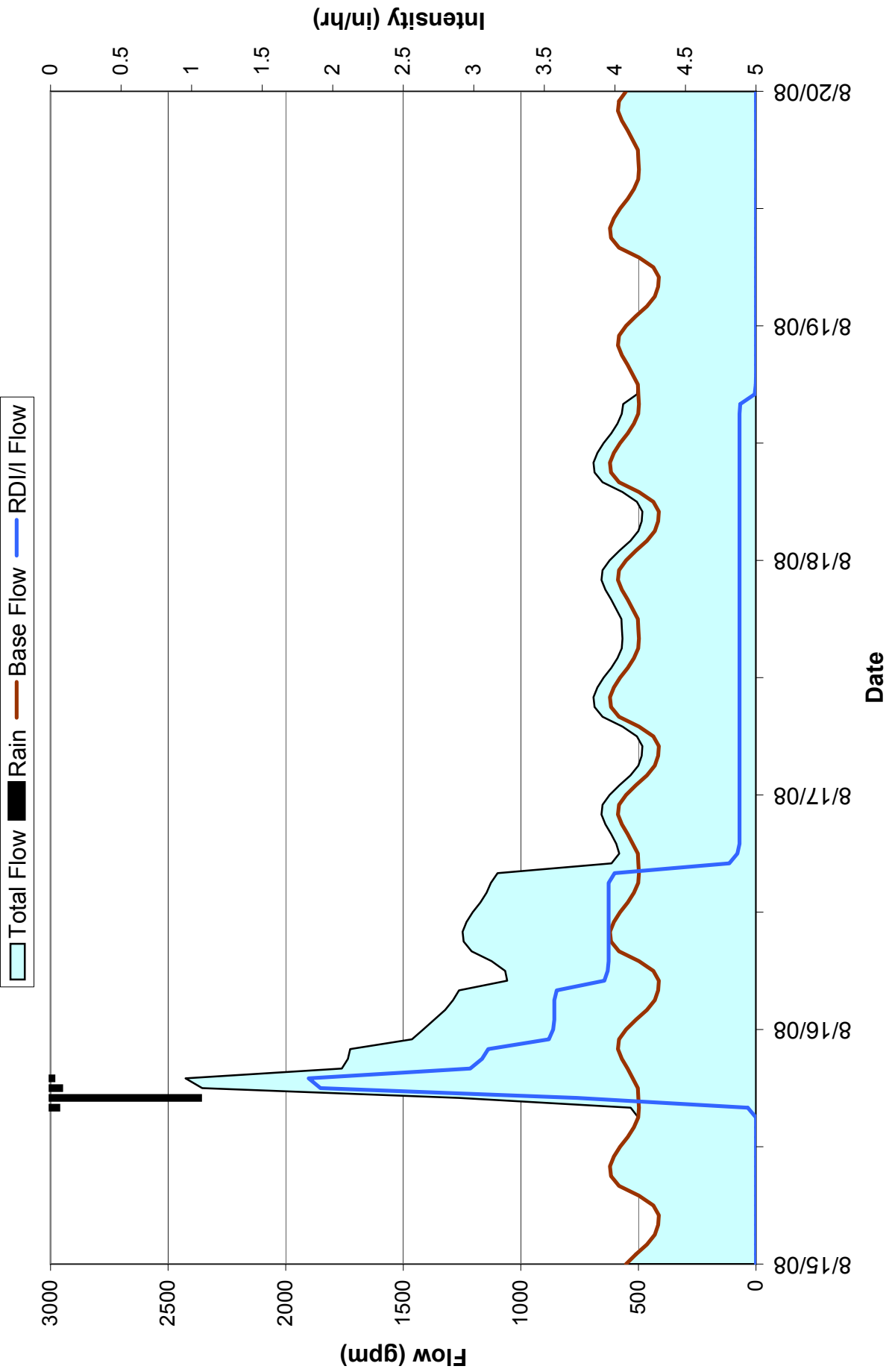
HRSD Gravity Flow Monitoring Program
Site 14 Isco (Bloxoms Corner Pump Station # 204)
Hydrograph Decomposition
12/8/08 - 12/18/08



HRSD Gravity Flow Monitoring Program
Site 15 (704 LeMaster Avenue - Philips Elementary School)
Hydrograph Decomposition
9/22/08 - 10/1/08



HRSD Gravity Flow Monitoring Program
Site 16 (4401 City Line Road - Copeland Park Pump Station #209)
Hydrograph Decomposition
8/15/08 - 8/20/08

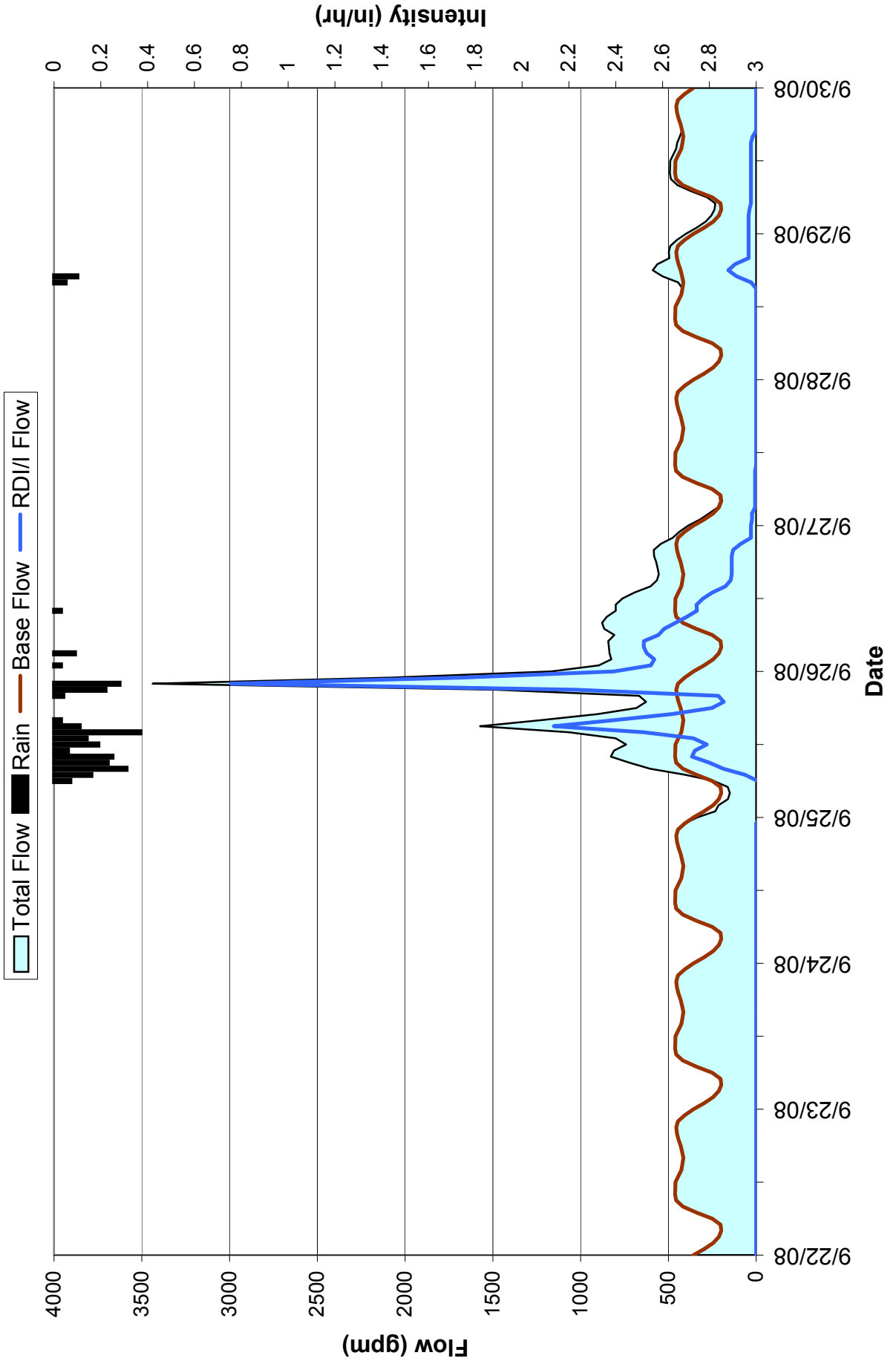


HRSD Gravity Flow Monitoring Program

Site 17 (42 Woodfin Road)

Hydrograph Decomposition

9/22/08 - 9/30/08

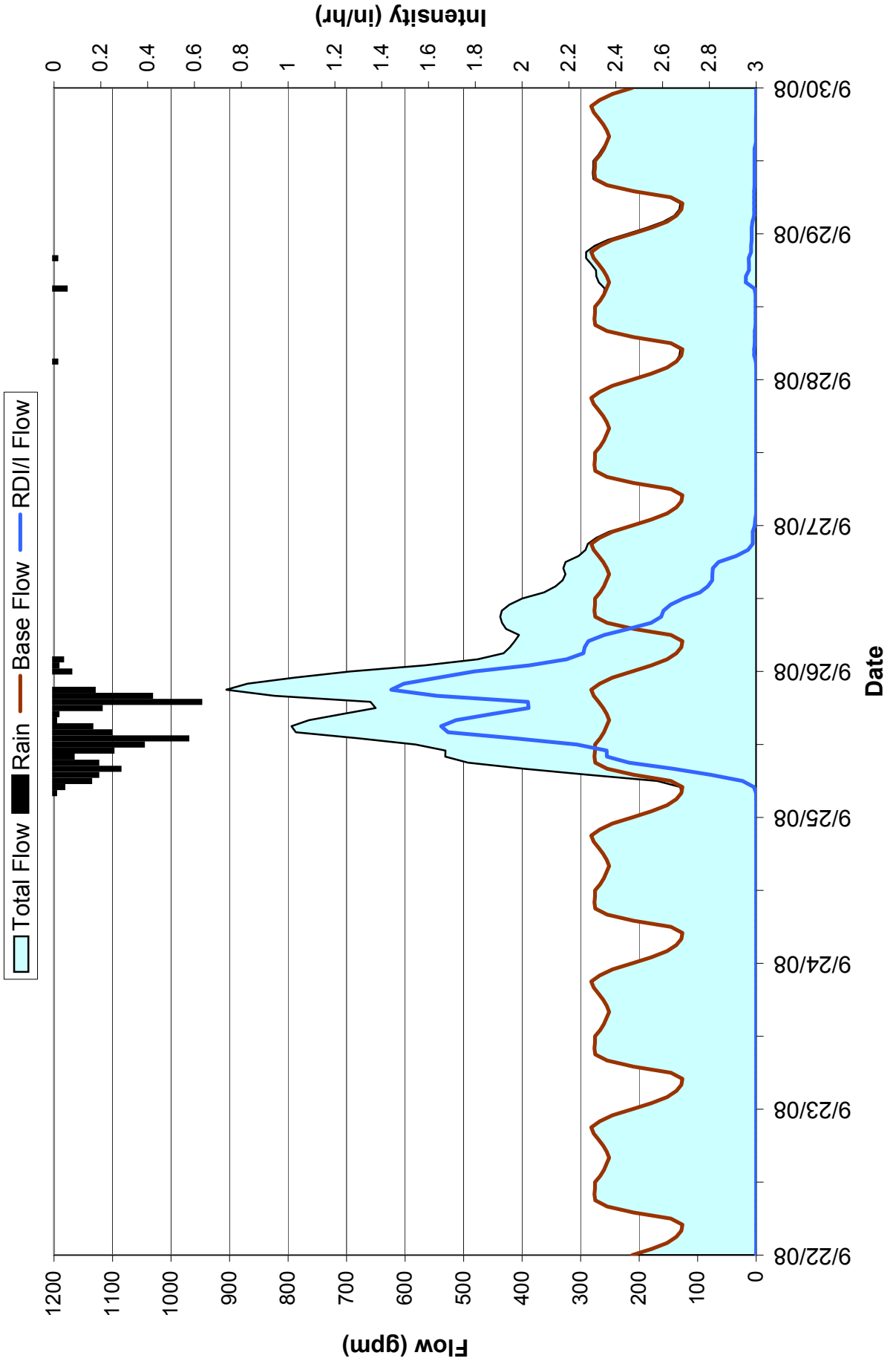


HRSD Gravity Flow Monitoring Program

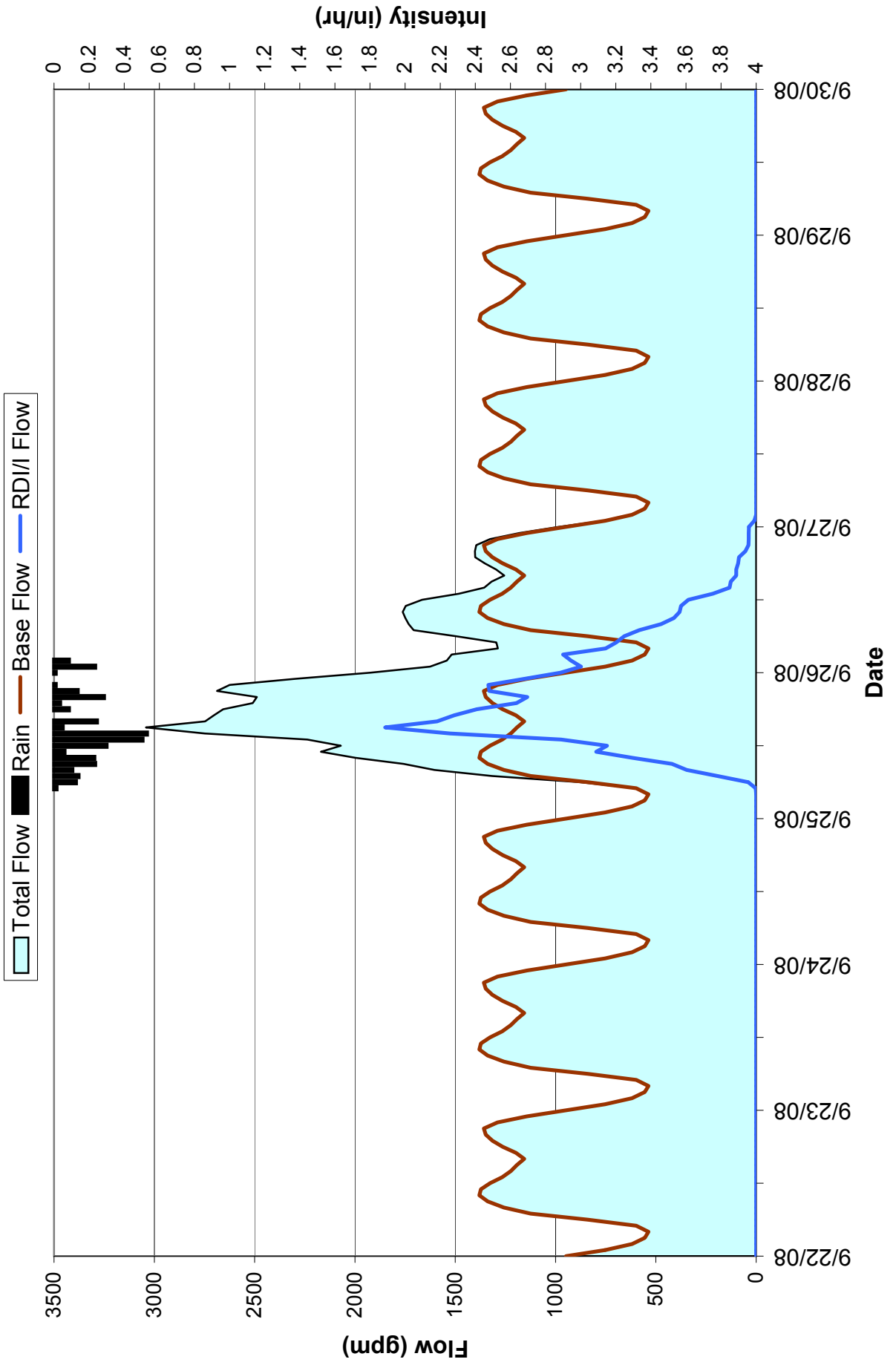
Site 18 (404 River Road)

Hydrograph Decomposition

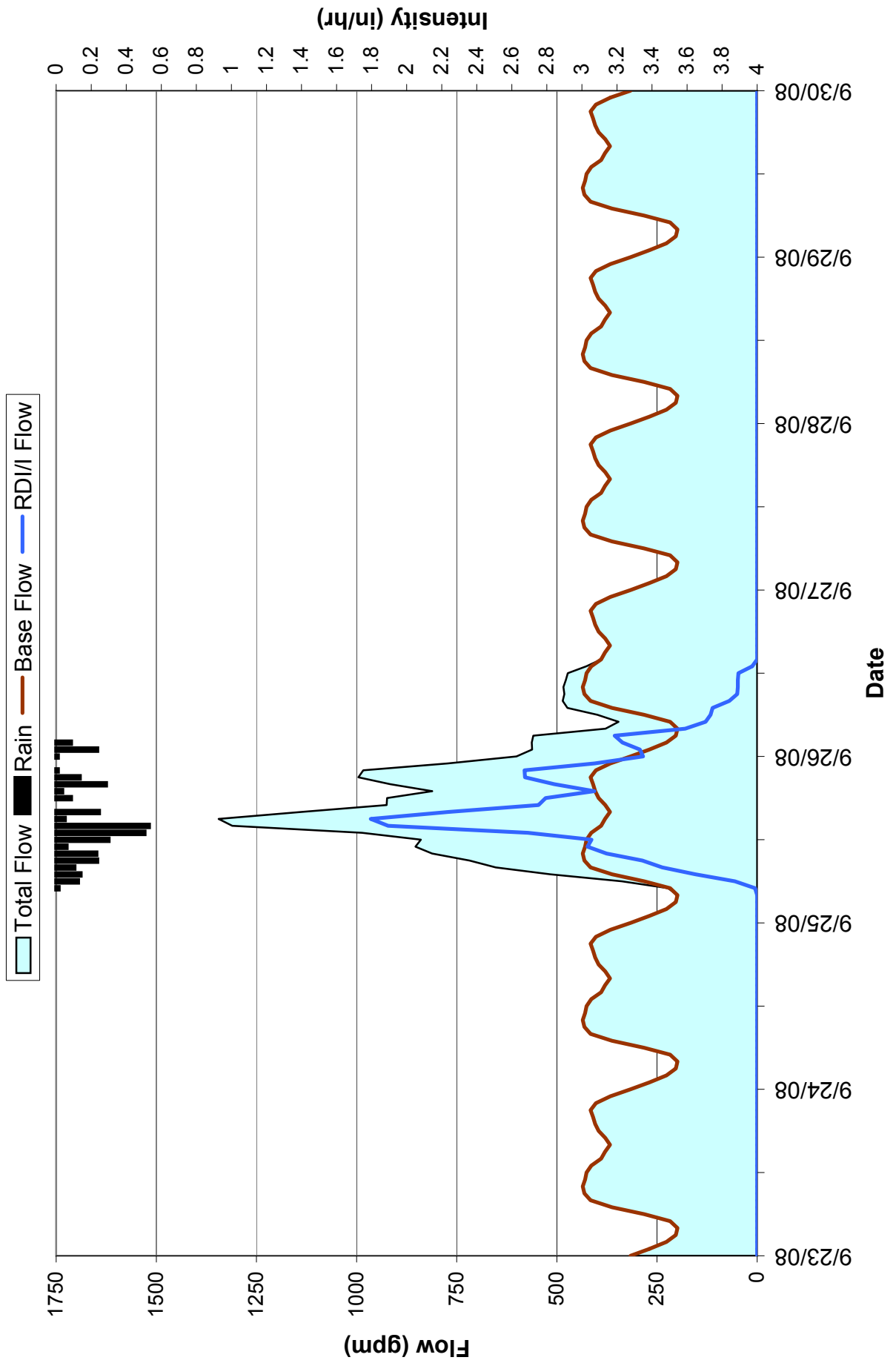
9/22/08 - 9/30/08



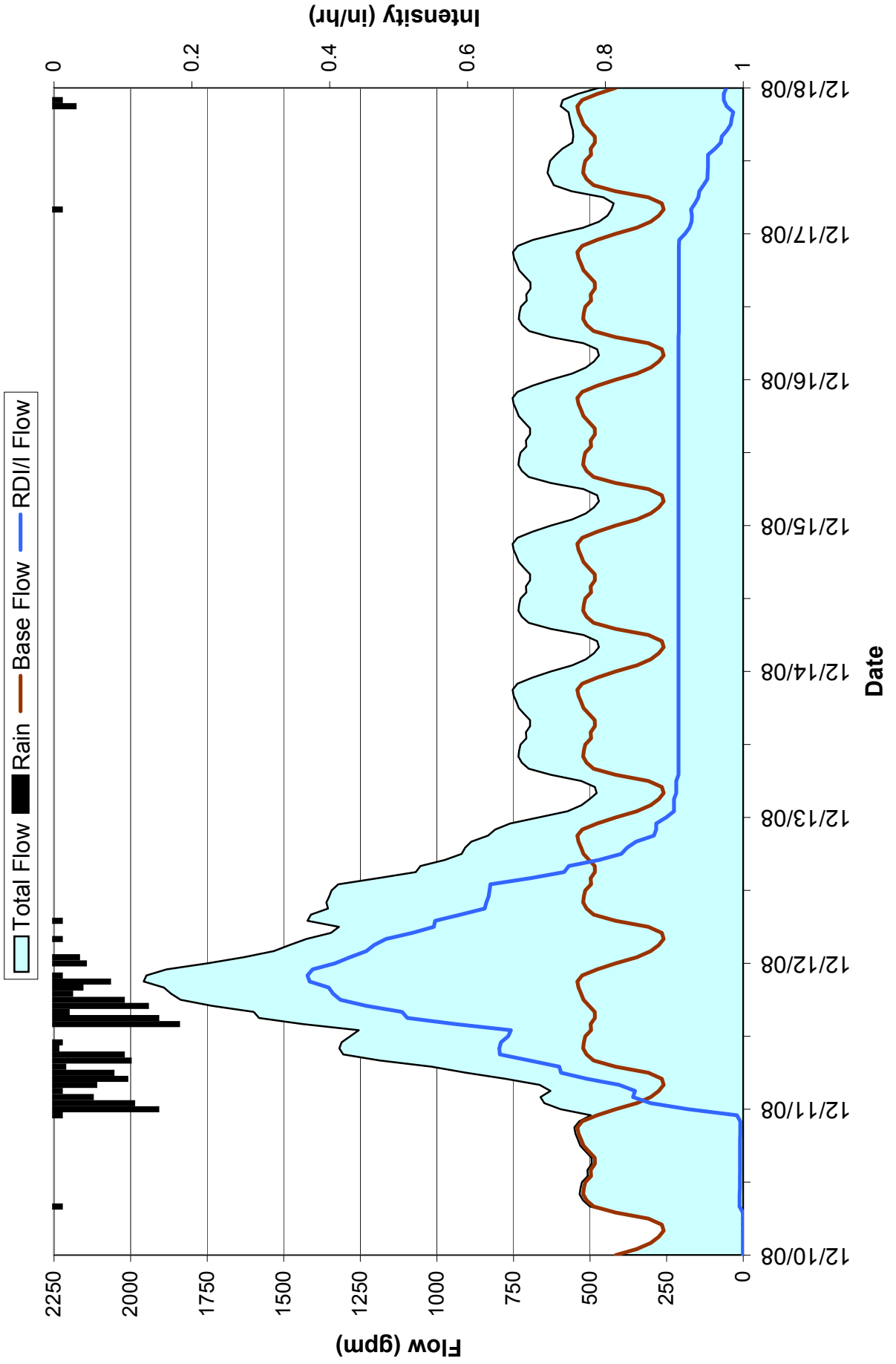
HRSD Gravity Flow Monitoring Program
Site 19 (3915 Cedar Lane - Cedar Point Pump Station #104)
Hydrograph Decomposition
9/22/08 - 9/30/08



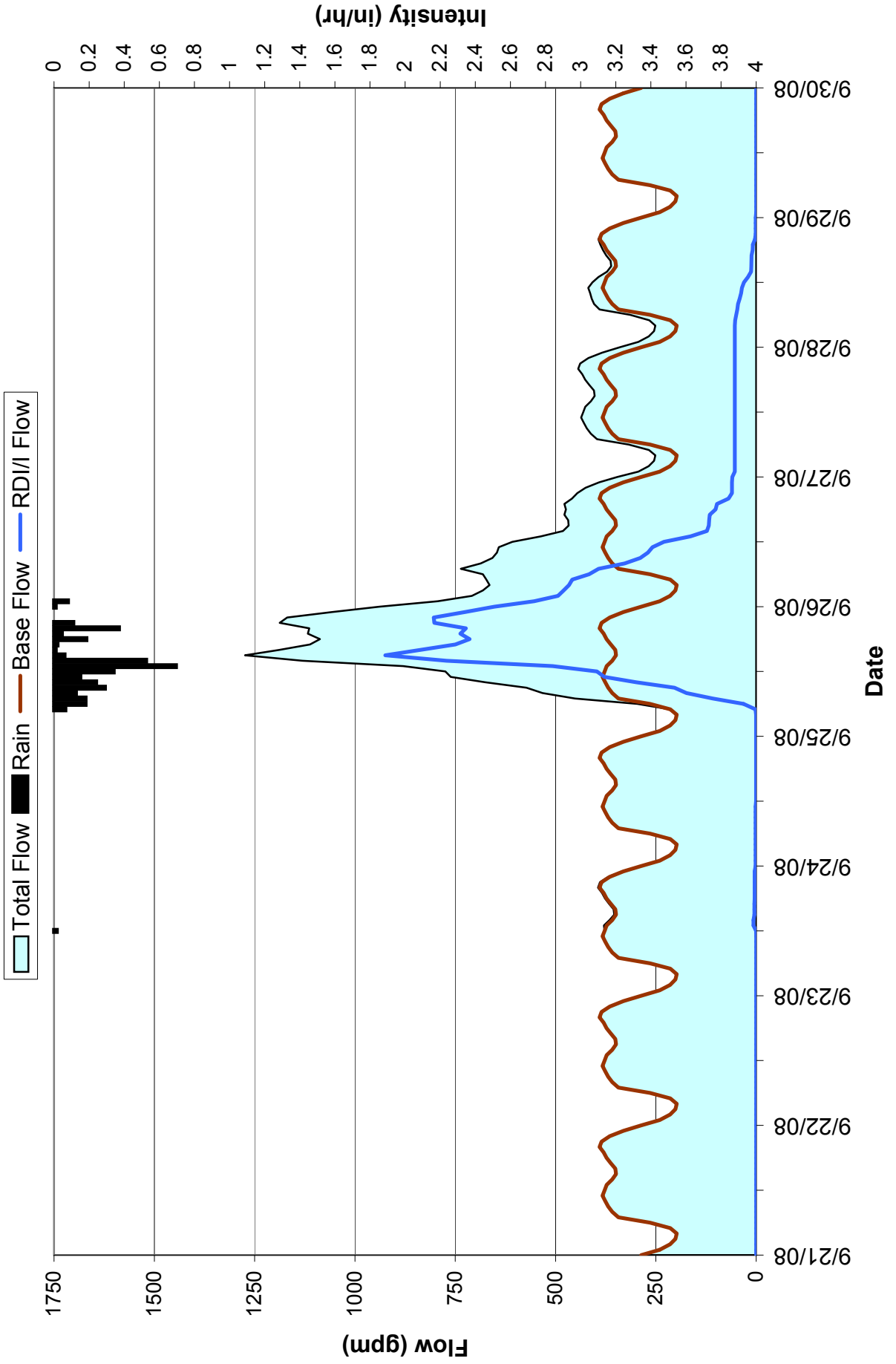
HRSD Gravity Flow Monitoring Program
Site 20 (5209 Peake Lane - Intersection of Peake Lane and Pine Lane)
Hydrograph Decomposition
9/23/08 - 9/30/08



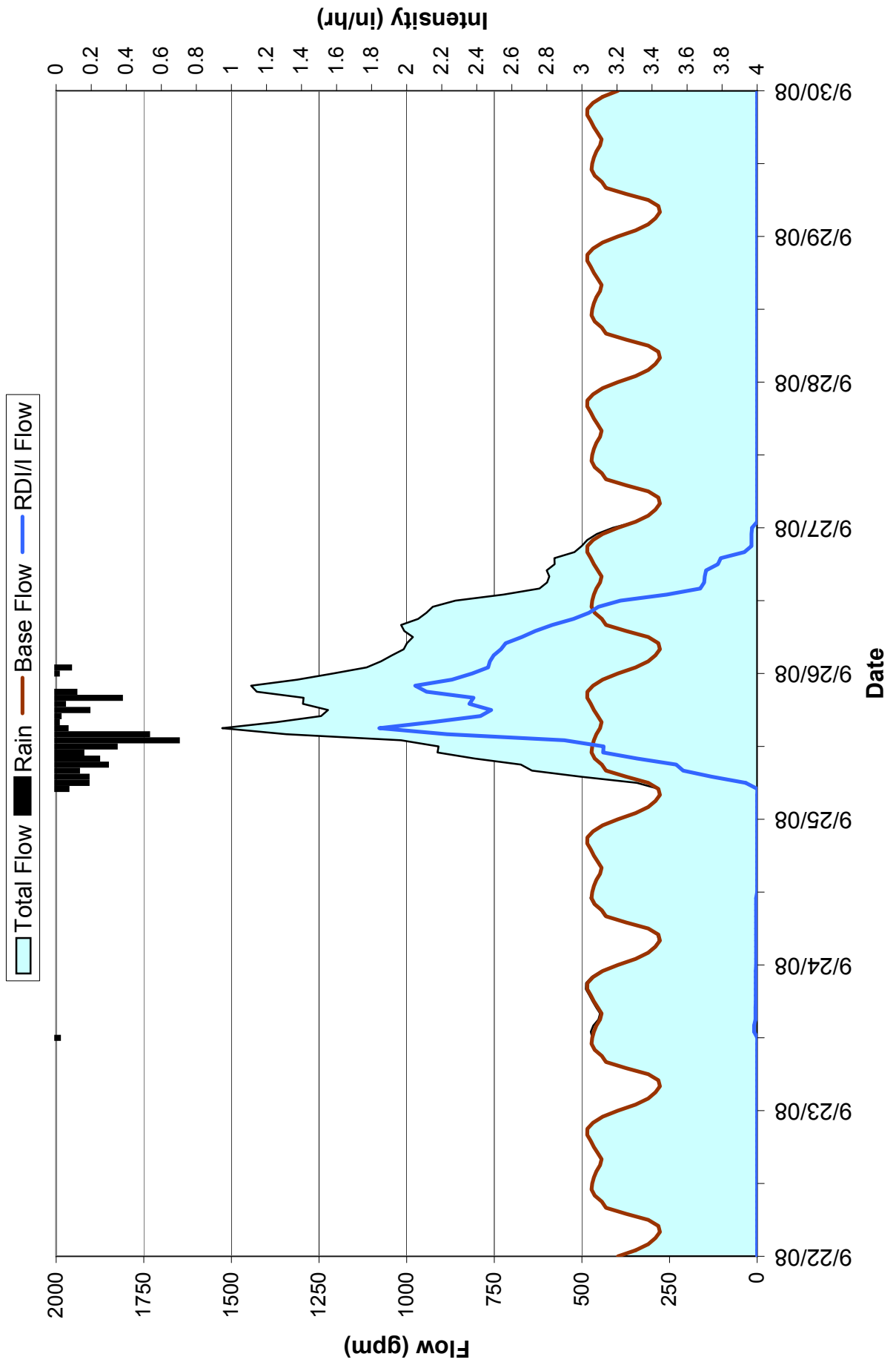
HRSD Gravity Flow Monitoring Program
Site 21 (4606 Great Bridge Boulevard)
Hydrograph Decomposition
12/10/08 - 12/18/08



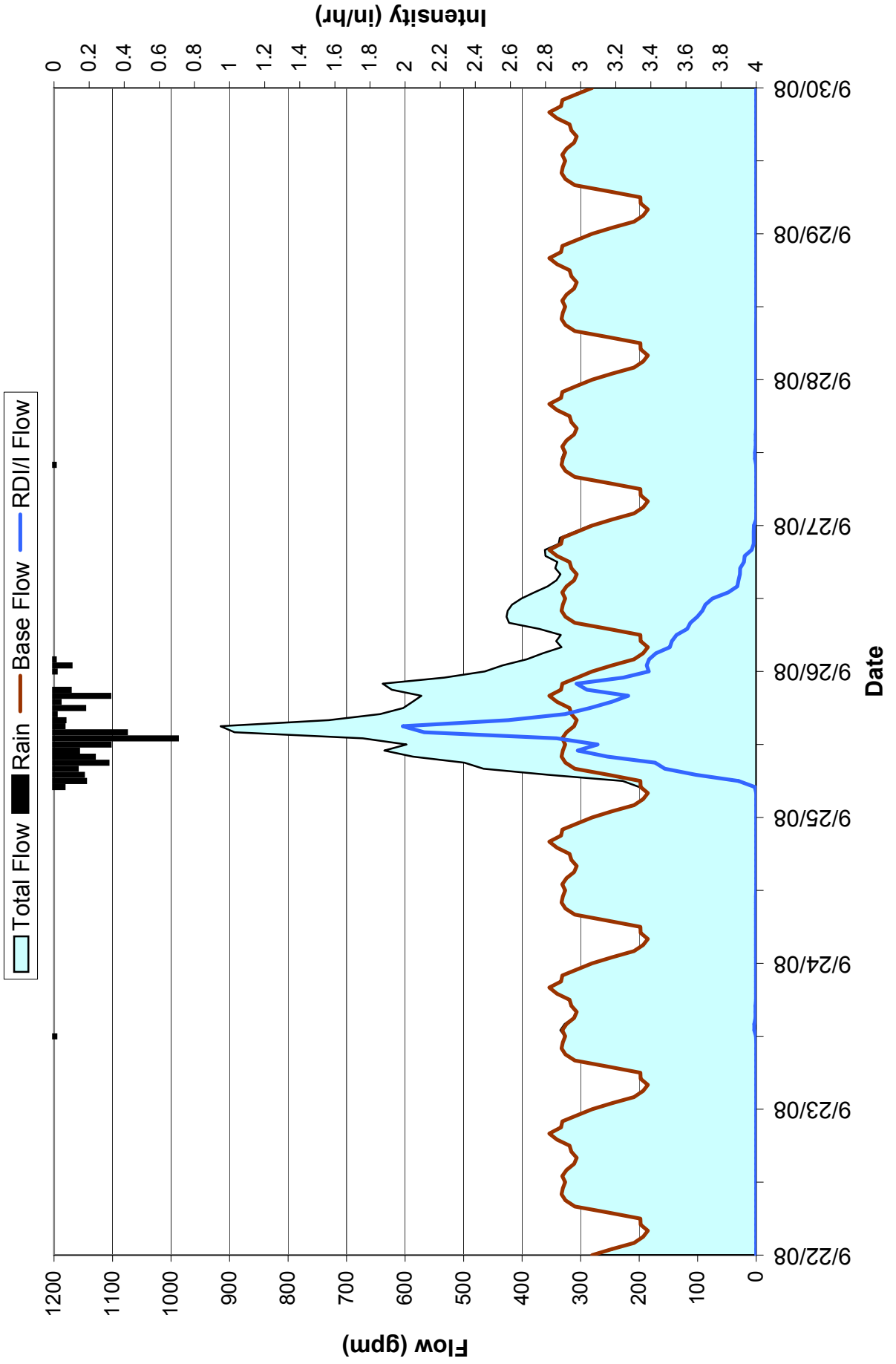
HRSD Gravity Flow Monitoring Program
Site 22B (Ferebee Avenue Pump Station #110)
Hydrograph Decomposition
9/21/08 - 9/30/08



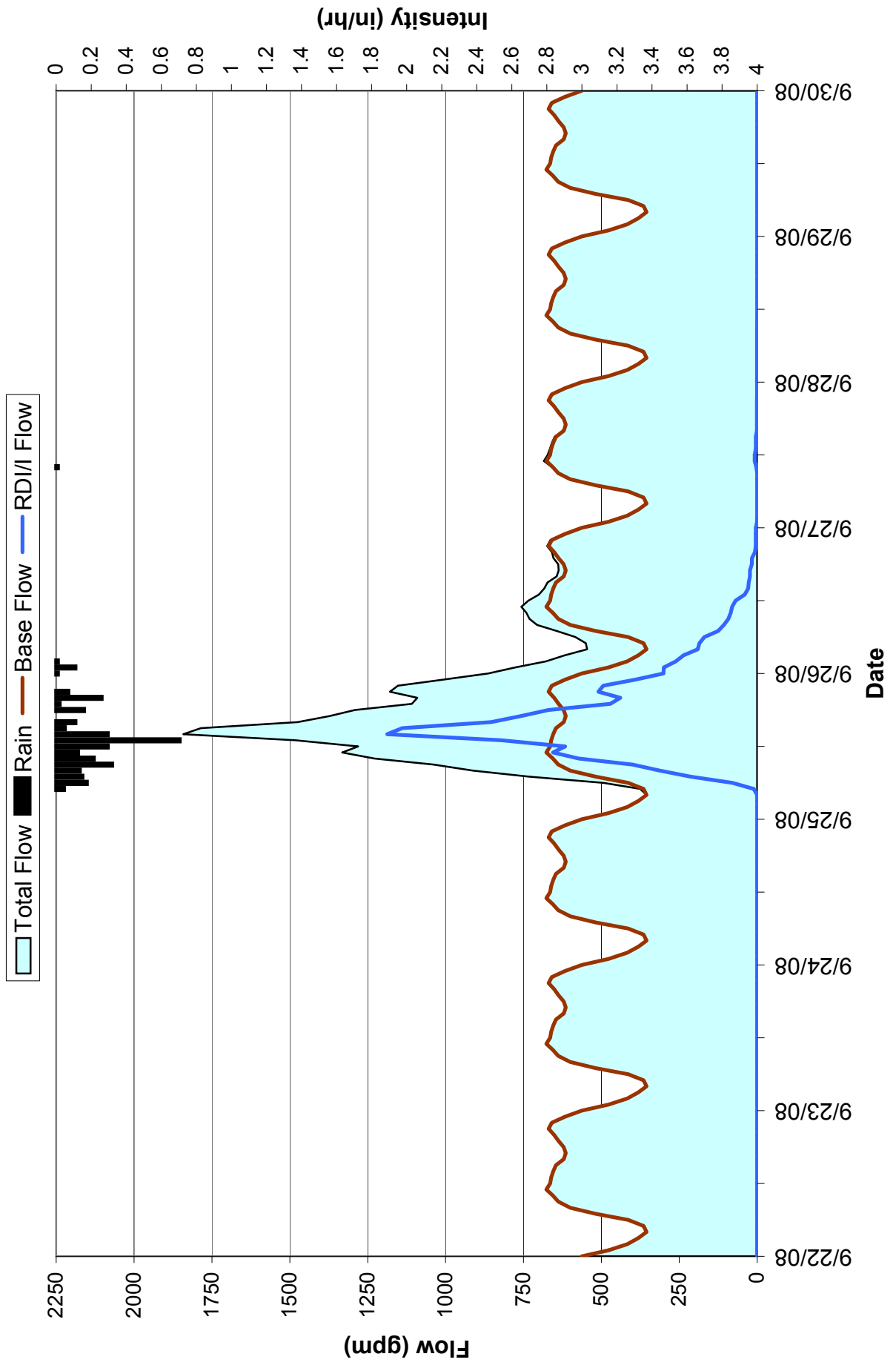
HRSD Gravity Flow Monitoring Program
Site 23 (503 Park Avenue - Park Avenue Pump Station #119)
Hydrograph Decomposition
9/22/08 - 9/30/08



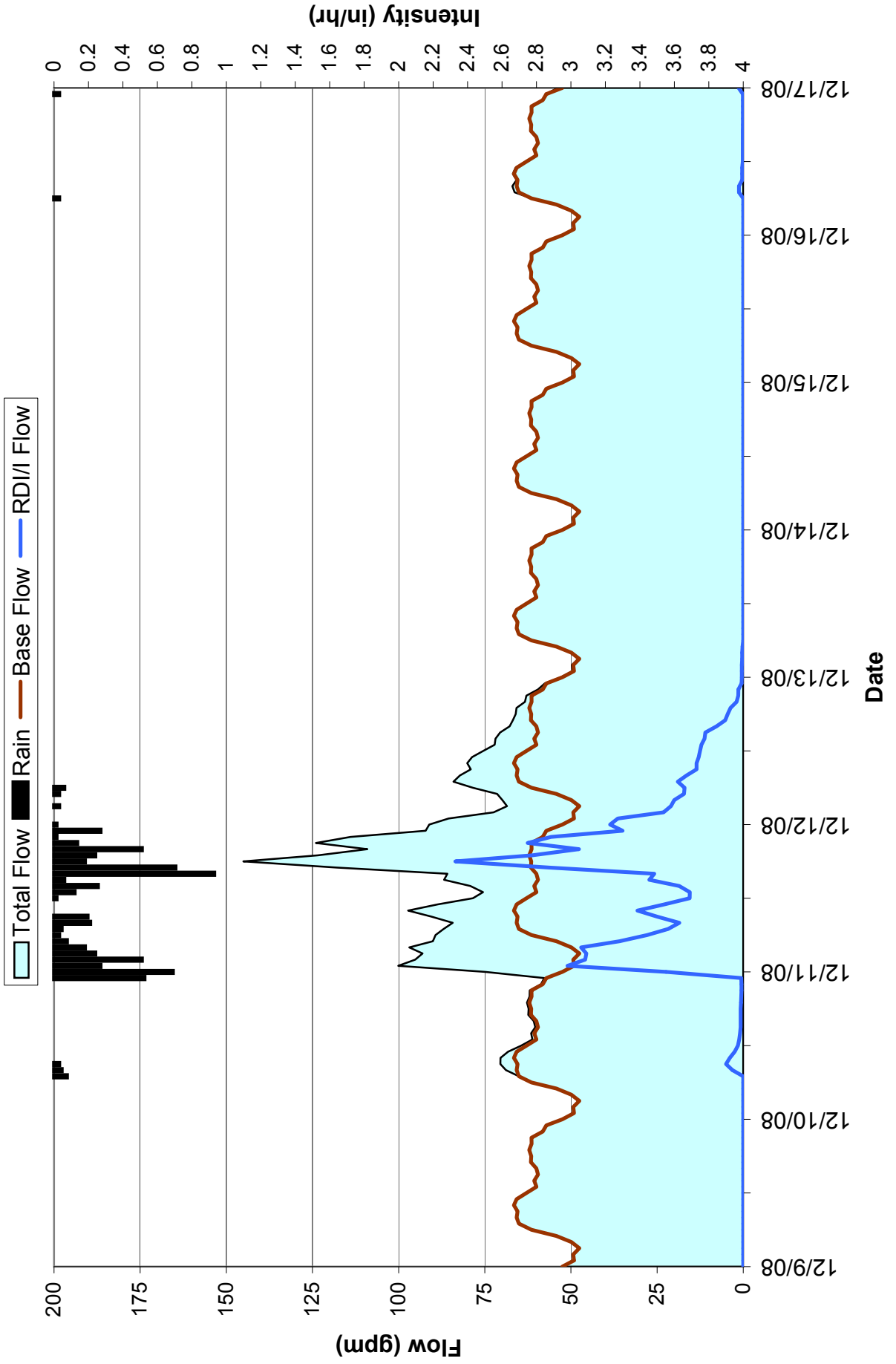
HRSD Gravity Flow Monitoring Program
Site 24 (811 Quail Avenue - Quail Avenue Pump Station #123)
Hydrograph Decomposition
9/22/08 - 9/30/08



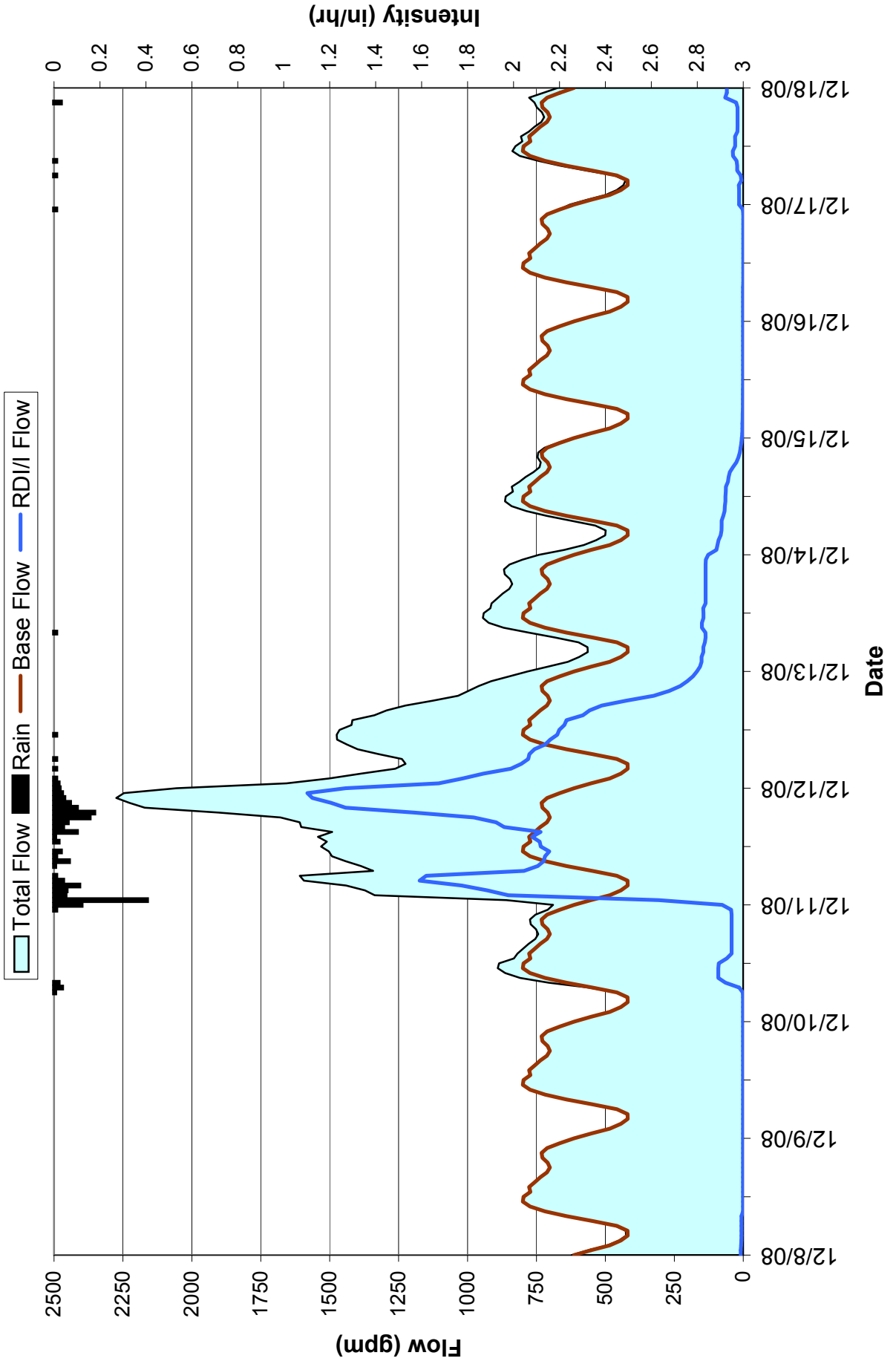
HRSD Gravity Flow Monitoring Program
Site 25 (300 State Street - State Street Pump Station #127)
Hydrograph Decomposition
9/22/08 - 9/30/08



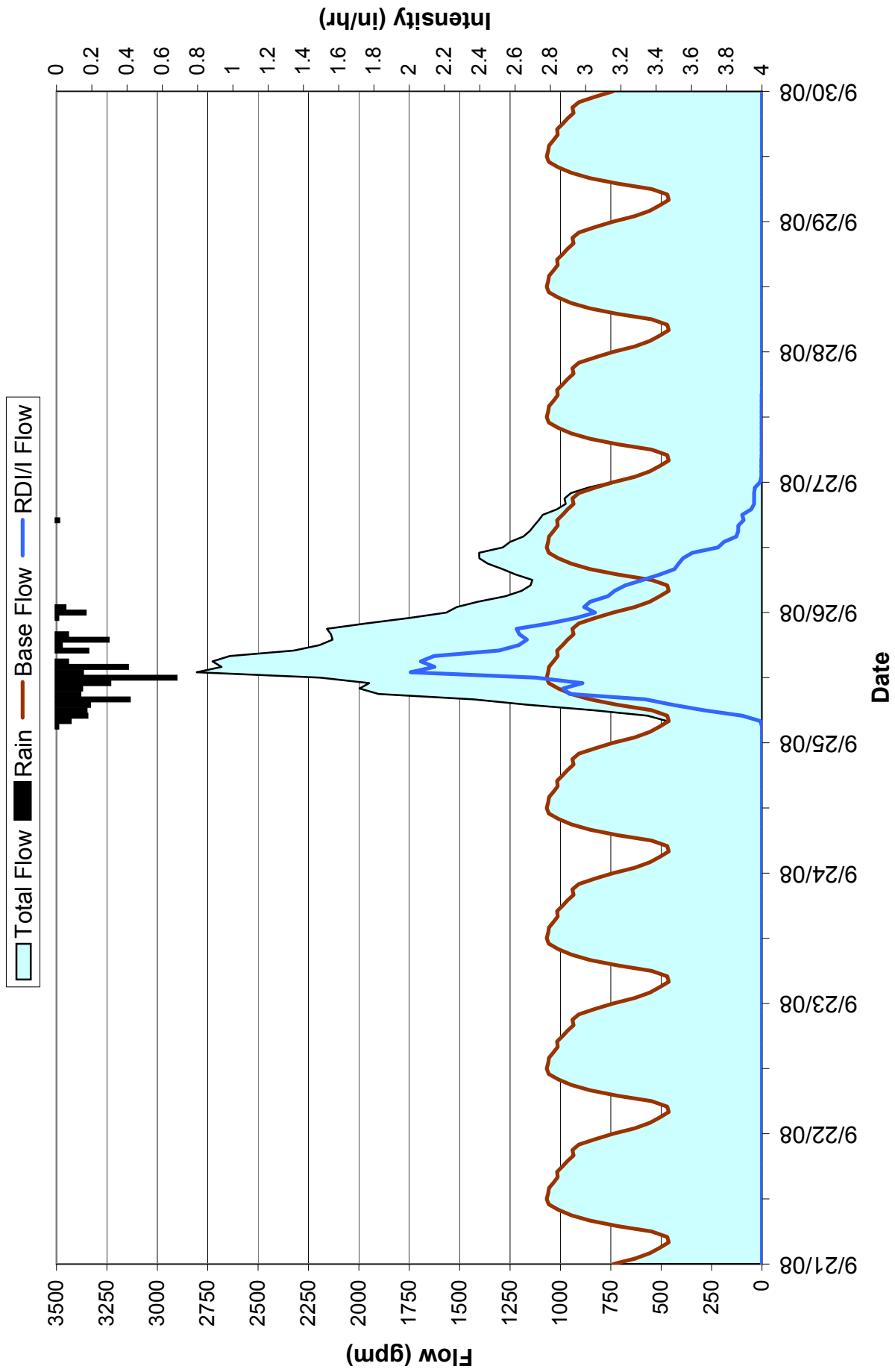
HRSD Gravity Flow Monitoring Program
Site 26 (1900 East Indian River Road - Steamboat Creek Pump Station #128)
Hydrograph Decomposition
12/9/08 - 12/17/08



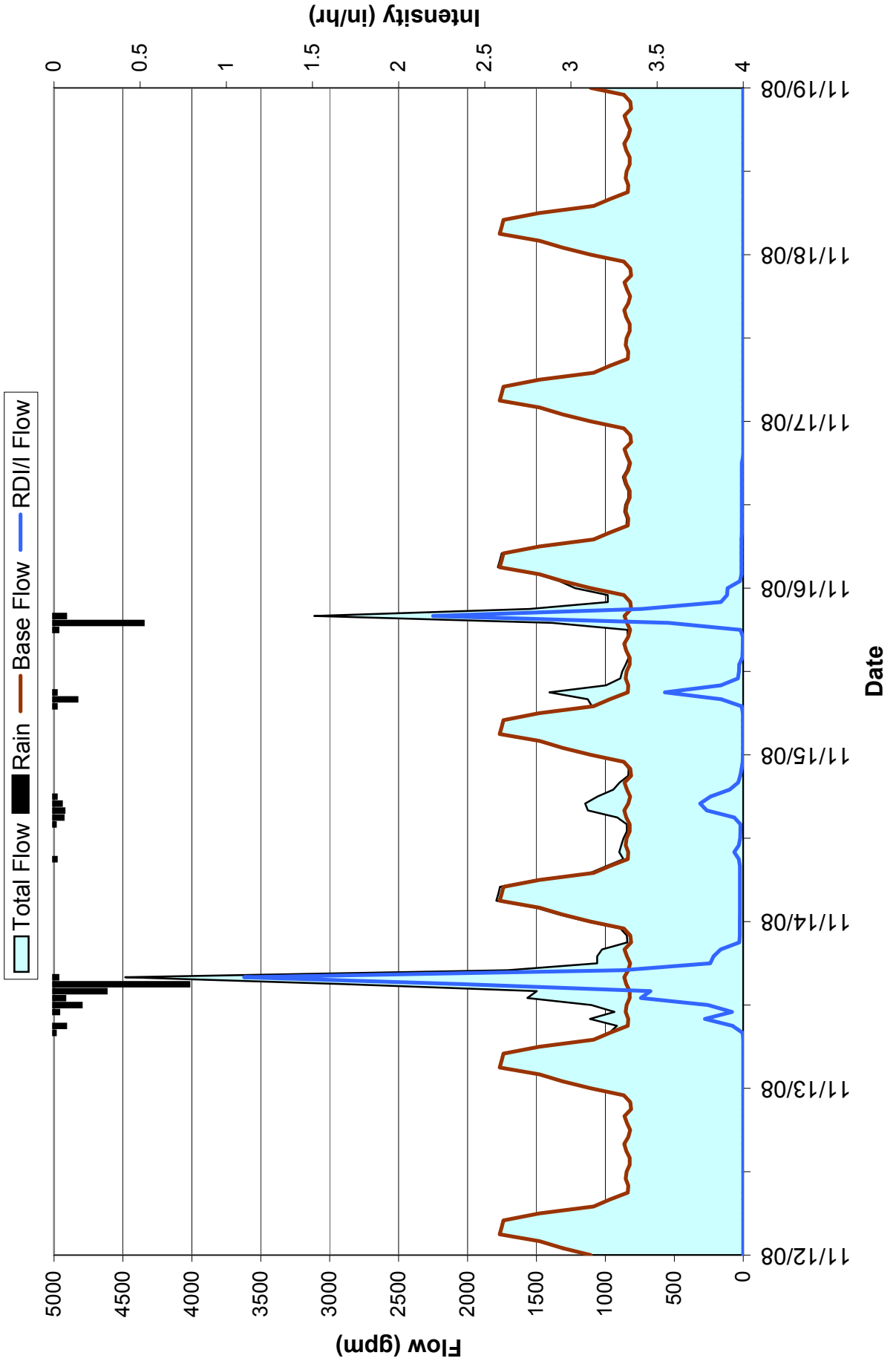
HRSD Gravity Flow Monitoring Program
Site 27 (905 Portsmouth Boulevard)
Hydrograph Decomposition
12/8/08 - 12/18/08



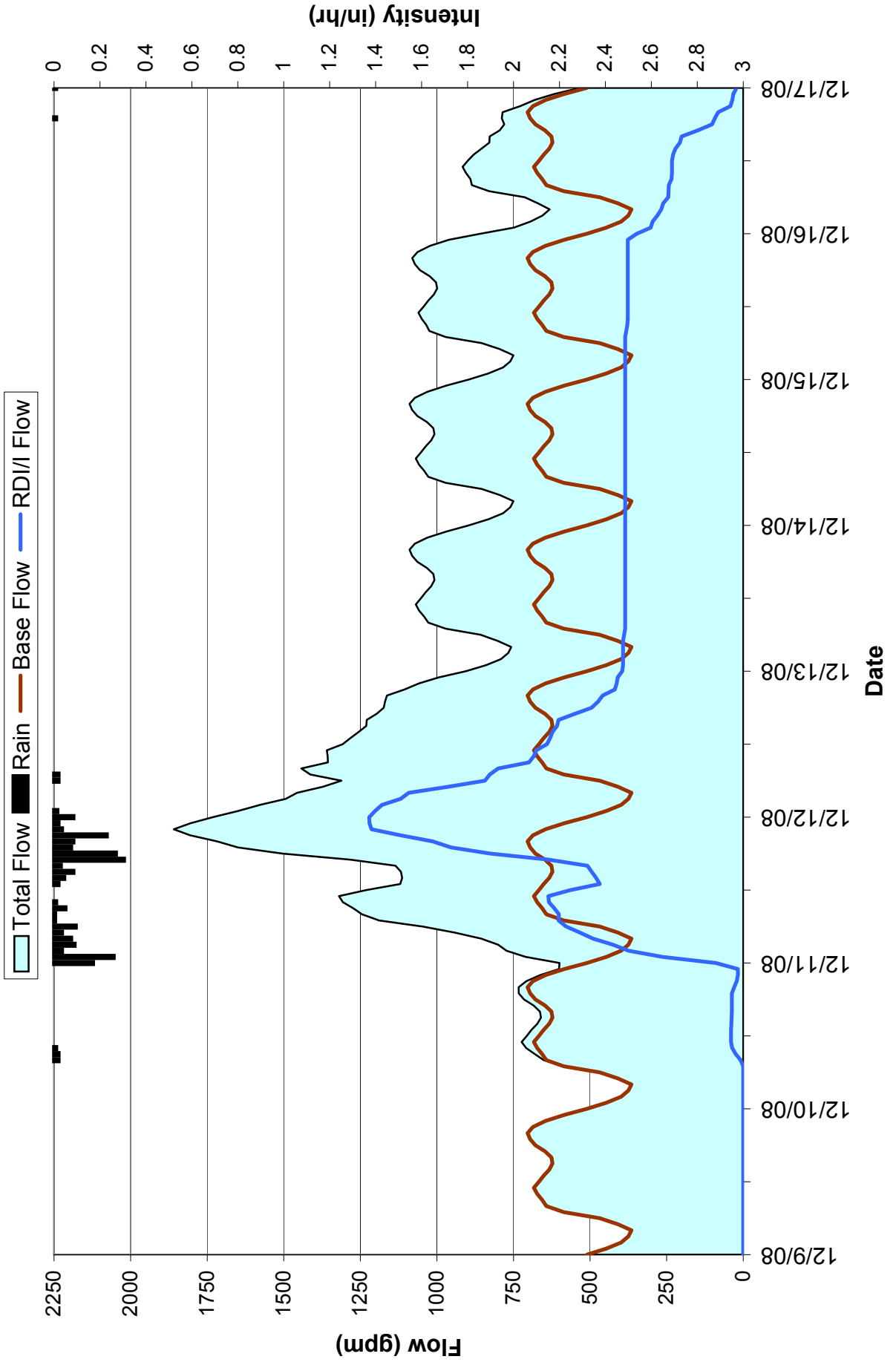
HRSD Gravity Flow Monitoring Program
Site 28 (935 Norchester Avenue - Norchester Pump Station #116)
Hydrograph Decomposition
9/21/08 - 9/30/08



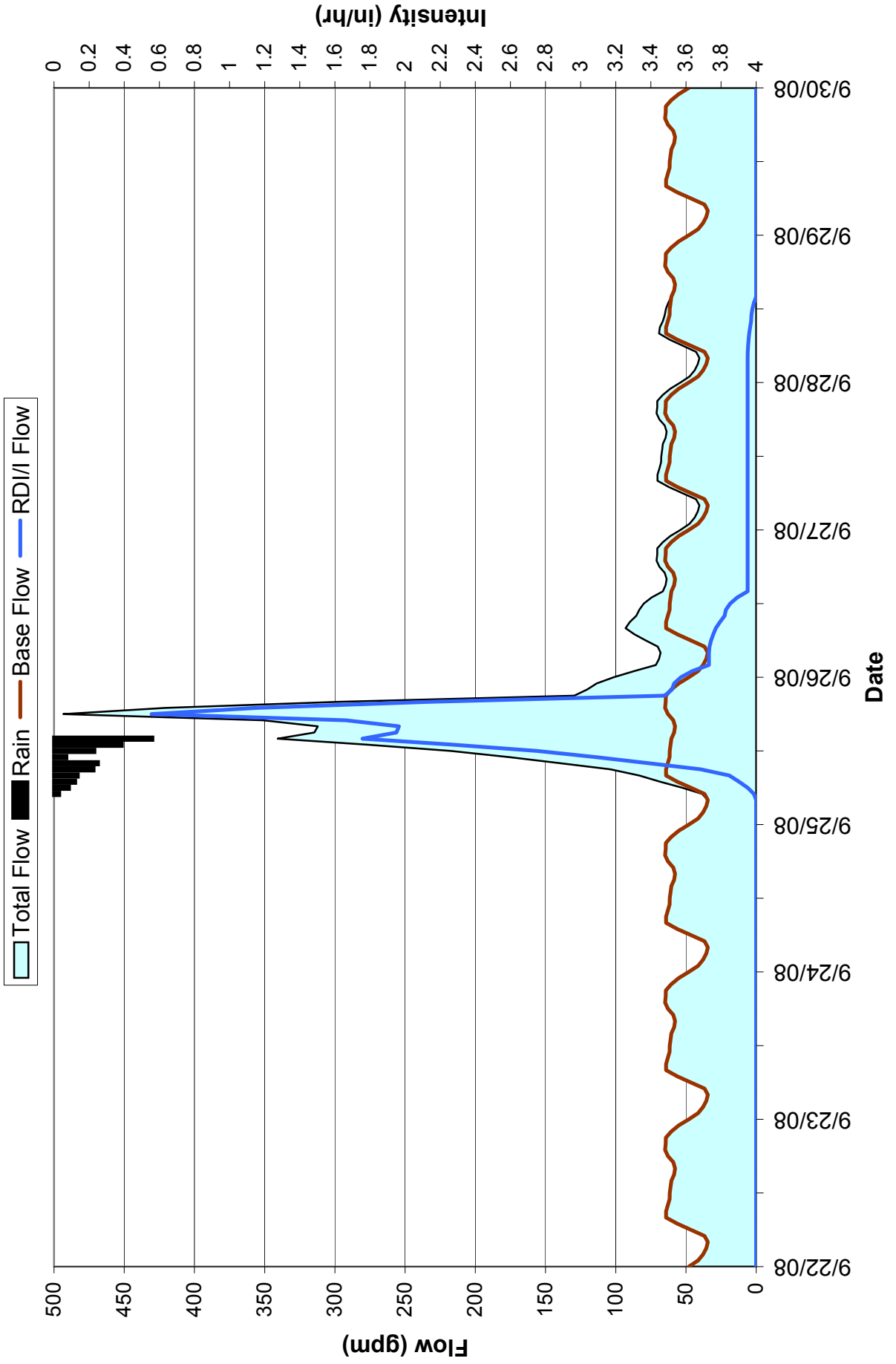
HRSD Gravity Flow Monitoring Program
Site 30 (115 Newtown Road - Newtown Road Pump Station #115)
Hydrograph Decomposition
11/12/08 - 11/19/08



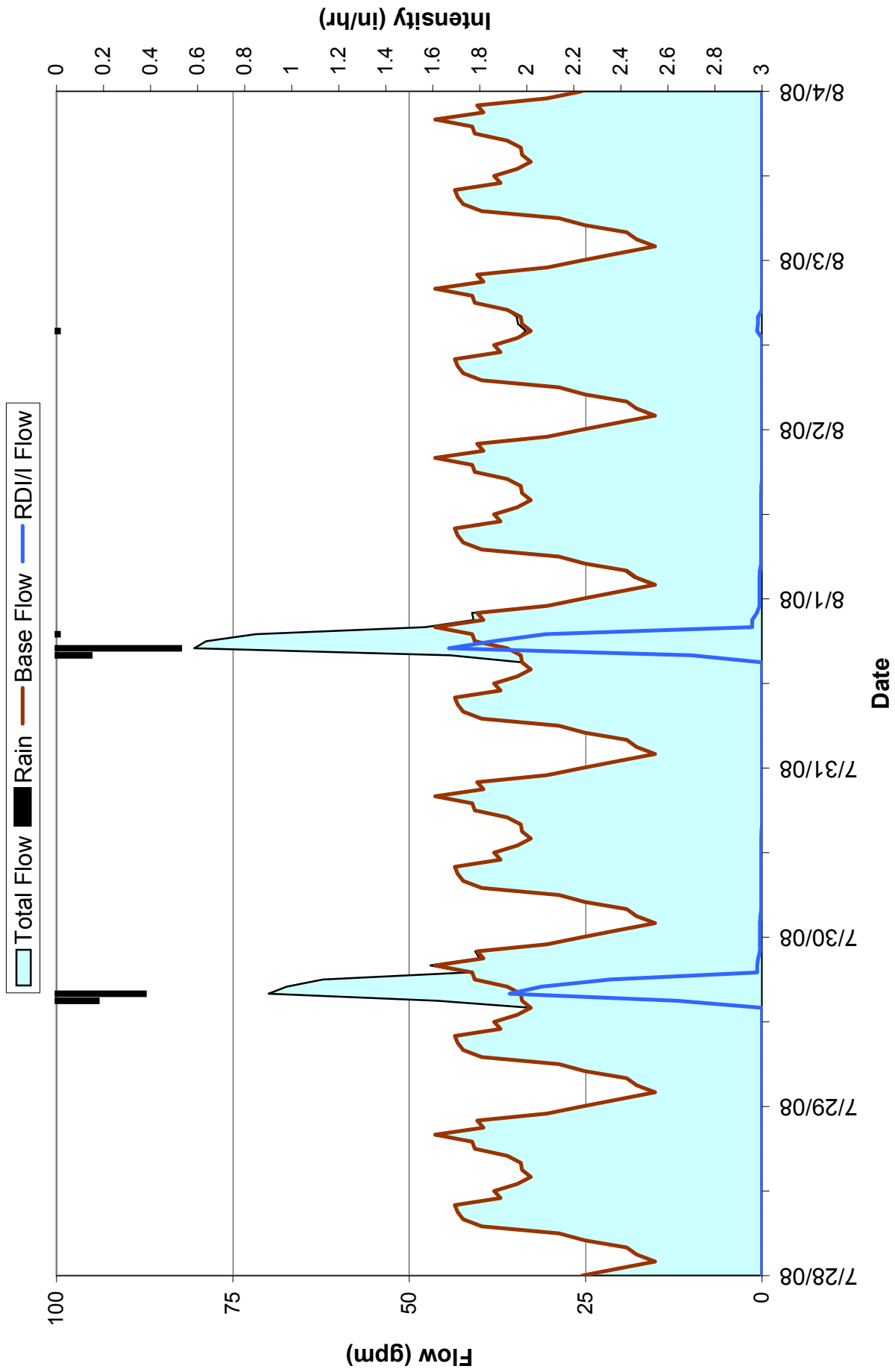
HRSD Gravity Flow Monitoring Program
Site 33 (5739 Chesapeake Boulevard - Chesapeake Boulevard Pump Station #105)
Hydrograph Decomposition
12/9/08 - 12/17/08



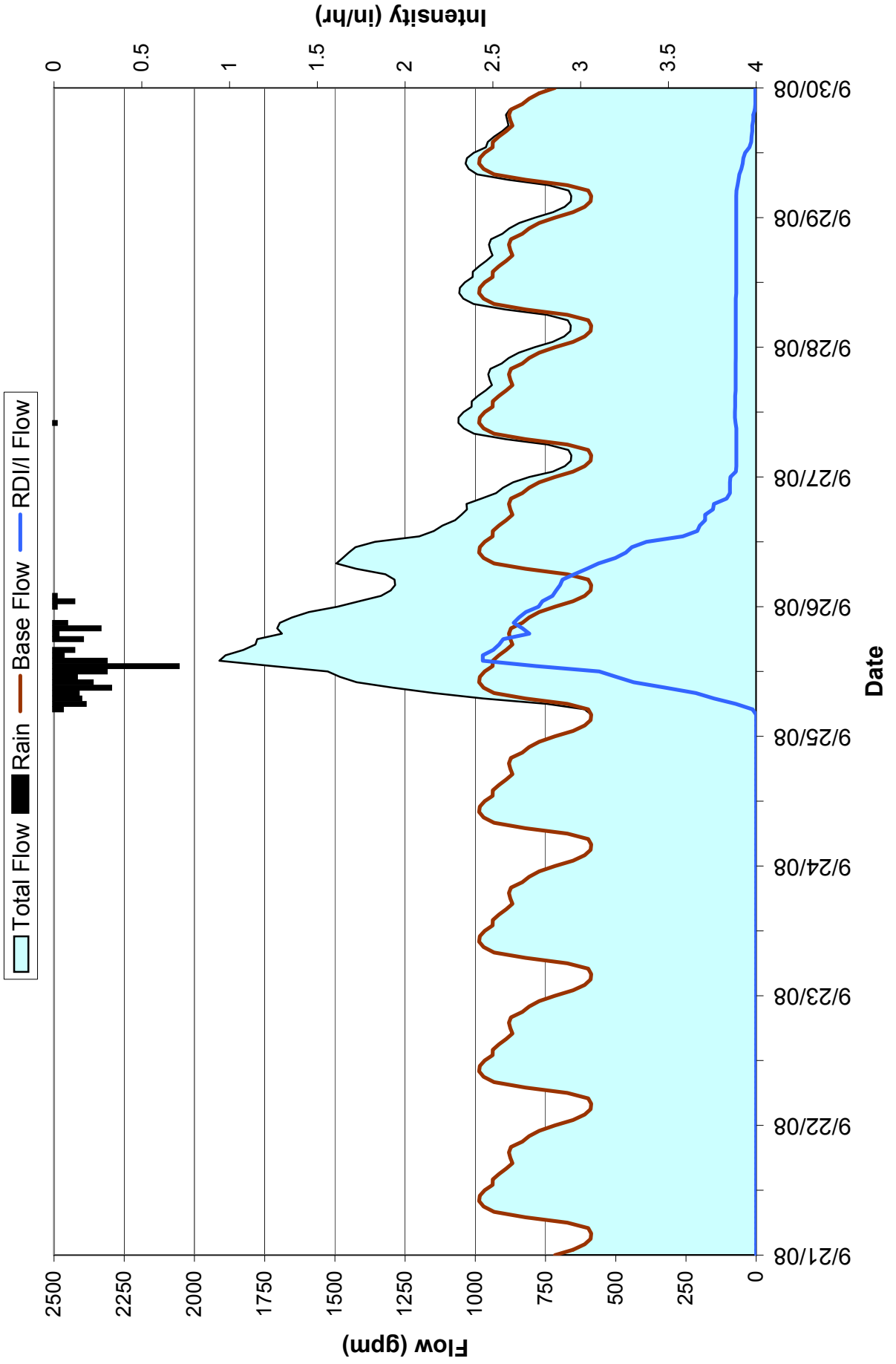
HRSD Gravity Flow Monitoring Program
Site 34 Flodar(3030 Luxembourg Avenue - Luxembourg Pump Station #113)
Hydrograph Decomposition
9/22/08 - 9/30/08



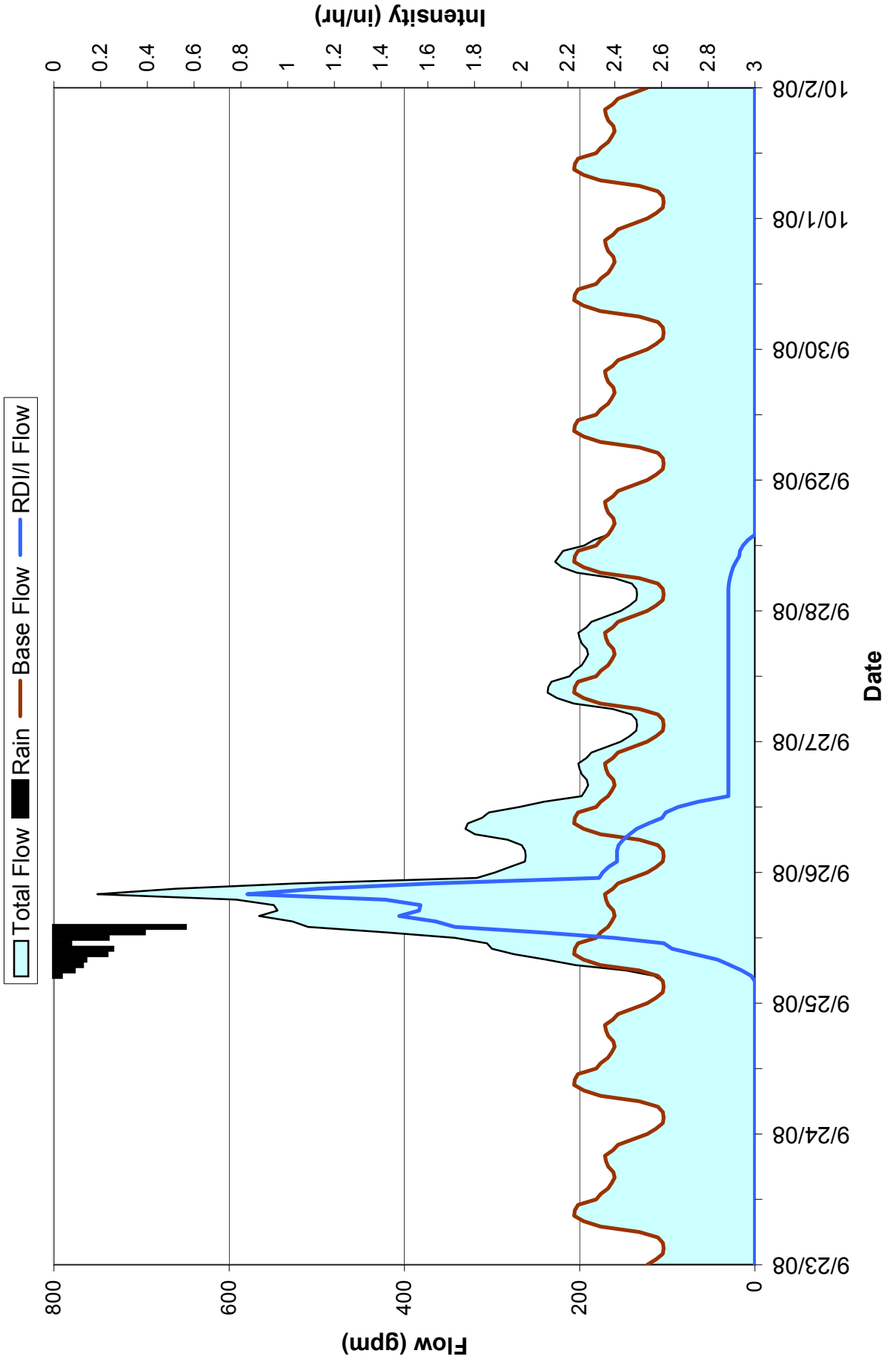
HRSD Gravity Flow Monitoring Program
Site 35 (1402 Ashland Circle - Ashland Circle Pump Station #102)
Hydrograph Decomposition
7/28/08 - 8/4/08



HRSD Gravity Flow Monitoring Program
Site 36 (715 Fairfax Avenue - Colley Avenue Pump Station #107)
Hydrograph Decomposition
9/21/08 - 9/30/08



HRSD Gravity Flow Monitoring Program
Site 37 (City Park Pump Station #106)
Hydrograph Decomposition
9/23/08 - 10/2/08



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Table C-4. SOC Gravity Metering I/I Hydrograph Rain Events

Site Number	Flow Monitor Location	Jurisdiction	Associated Rain Gauge	Rain Event	24-hour Total Accumulation (inches)	Recurrence Interval
1	6065 Jefferson Ave	Newport News	22	9/25/08	2.82	1 year
2	Intersection of Jefferson Ave. and Temple Lane	Newport News	20	9/25/08	3.05	1 year
3	Intersection of Jefferson Ave. and 44th St.	Newport News	20	12/11/08	1.91	< 1 year
4	Close to Cul-de-sac at end of Terminal Ave.	Newport News	20	9/25/08	3.05	1 year
5	Terminal Ave. at Boat Harbor TP entrance	Newport News	20	9/25/08	3.05	1 year
5A	Terminal Ave. at Boat Harbor TP entrance	Newport News	20	9/25/08	3.05	1 year
6	Claremont Ave. PS #208 - 1210 Chesapeake Blvd.	Hampton	20	9/25/08	3.05	1 year
7	347 Ivy Home Road	Hampton	24	9/25/08	3.87	2 year
8	Bridge St. PS #206 - 4701 Victoria Blvd.	Hampton	24	9/25/08	3.87	2 year
8A	Bridge St. PS #206 - 4701 Victoria Blvd.	Hampton	24	12/11/08	2.16	< 1 year
9	Washington St. PS #223 - 217 Washington St.	Hampton	24	12/11/08	2.16	< 1 year
10	Langley Circle PS #217 - 4 Thornrose Ave.	Hampton	24	12/11/08	2.16	< 1 year
12	Willard PS #225 - 219 National Ave	Hampton	23	12/11/08	2.15	< 1 year
13	Bayshore PS #203 - 720 Bay Shore Ave.	Hampton	23	9/25/08	3.63	2 year
14	Bloxoms Corner PS #204 - 5 Beach Rd.	Hampton	23	12/11/08	2.15	< 1 year
15	Woodland Road PS #224 - 11 McElheney Lane	Hampton	23	9/25/08	3.63	2 year
16	Copeland Park PS #209- 4401 City Line Rd.	Newport News	20	8/15/08	1.21	< 1 year
17	Center Avenue PS#207 - 315 Center Ave	Newport News	22	9/25/08	2.82	1 year
18	River Rd. south of Millford Rd. (upstream of Hilton School)	Newport News	19	9/25/08	4.08	2 year
19	Cedar Lane PS #104 - 5915 Cedar Lane	Portsmouth	38	9/25/08	3.42	1 year
20	Peake Lane at intersection of Pine Lane	Portsmouth	38	9/25/08	3.42	1 year
21	Washington PS #131 - 1728 Great Bridge Blvd.	Chesapeake	50	12/11/08	1.57	< 1 year
22B	Ferebee Ave. PS #110- 2812 Bainbridge Blvd.	Chesapeake	46	9/25/08	3.68	2 year
23	Park Ave. PS #119 - 503 Park Ave.	Chesapeake	46	9/25/08	3.68	2 year
24	Quail Ave. PS #123- 800 Quail Ave.	Chesapeake	46	9/25/08	3.68	2 year
25	300 State St. PS#127- 351 Emmett Place	Norfolk	44	9/25/08	3.26	1 year

Table C-4. SOC Gravity Metering I/I Hydrograph Rain Events

Site Number	Flow Monitor Location	Jurisdiction	Associated Rain Gauge	Rain Event	24-hour Total Accumulation (inches)	Recurrence Interval
26	Steamboat Creek PS #128- 1900 E. Indian River Rd.	Norfolk	44	12/11/08	2.13	< 1 year
27	Portsmouth Blvd.	Suffolk	36	12/11/08	1.72	< 1 year
28	Norchester St. PS #116 - 935 Norchester St.	Norfolk	43	9/25/08	3.62	2 year
30	Newtown Rd PS #115- 115 Newtown Rd.	Norfolk	57	11/13/08	2.33	< 1 year
33	Chesapeake Blvd PS #105- 5734 Chesapeake Blvd.	Norfolk	42	12/11/08	2.11	< 1 year
34	Luxembourg PS #113 - 3030 Luxembourg Ave.	Norfolk	42	9/25/08	2.09	< 1 year
35	Ashland Circle PS #102- 1402 Ashland Circle	Norfolk	42	7/31/08	0.68	< 1 year
36	Colley Ave. PS #107 - Fairfax Ave. west of Colley Ave.	Norfolk	44	9/25/08	3.26	1 year
37	City Park PS #106- La Vallette Ave	Norfolk	42	9/25/08	2.09	< 1 year

Table C-5. Gravity Main Prioritization

Line No.	D/S HRSD PS# (or other facility)	HRSD D/S PS (or other facility)	Linear Feet	Assoc. HRSD Flow Mon ID	Peak RDII (gal)	RDII Score	Max Peak Factor	Peak Factor Score	# SSOs	SSO Score	Weighted Score	Cumulative Feet
						10 – RDII > 5MG 6 – RDII 5MG to 1.5MG 4 – RDII 1.5MG to 200,000 2 – RDII 200,000 to 0 gal 0 – No Data		10 – PF > 5 6 – 5 > PF > 4 4 – 4 > PF > 3 2 – 3 > PF > 2 0 – PF < 2 or No Data		10 – At least one SSO 0 – No SSOs	Weight	
SG-153	119	Park Avenue	2,863	23	5,683,620	10	4.30	6	1	10	900	2,863
NG-104	207	Center Avenue	888	17	2,019,238	6	8.35	10	7	10	900	3,751
NG-063	217	Langley Circle	3,298	10	1,857,868	6	7.08	10	7	10	900	7,049
NG-138	206	Bridge Street	829	8	8,902,705	10	3.25	4	7	10	850	7,878
SG-089	116	Norchester	3,706	28	1,766,060	6	2.96	2	3	10	700	11,584
SG-098	127	State Street	3,133	25	881,457	4	3.39	4	1	10	700	14,717
NG-143	208	Claremont	5,127	6	1,080,384	4	3.56	4	5	10	700	19,844
NG-142	208	Claremont	4,110	7	1,193,334	4	1.65	0	3	10	600	23,954
NG-070	Hampton PS	None	2,995			0		0	1	10	500	26,949
SG-047	TP	Virginia Initiative TP	3,404			0		0	3	10	500	30,353
SG-149	119	Park Avenue	3,427	23	5,683,620	10	4.30	6		0	400	33,780
SG-155	119	Park Avenue	8	23	5,683,620	10	4.30	6		0	400	33,788
SG-161	131	Washington District	2,992	21	3,843,475	6	9.05	10		0	400	36,780
SG-162	131	Washington District	1,126	21	3,843,475	6	9.05	10		0	400	37,906
NG-094	203	Bay Shore	1,277	13	2,425,869	6	8.92	10		0	400	39,183
NG-095	203	Bay Shore	2,752	13	2,425,869	6	8.92	10		0	400	41,935
NG-056	207	Center Avenue	281	17	2,019,238	6	8.35	10		0	400	42,216

Table C-5. Gravity Main Prioritization

Line No.	D/S HRSD PS# (or other facility)	HRSD D/S PS (or other facility)	Linear Feet	Assoc. HRSD Flow Mon ID	Peak RDII (gal)	RDII Score	Max Peak Factor	Peak Factor Score	# SSOs	SSO Score	Weighted Score	Cumulative Feet
						10 – RDII > 5MG 6 – RDII 5MG to 1.5MG 4 – RDII 1.5MG to 200,000 2 – RDII 200,000 to 0 gal 0 – No Data		10 – PF > 5 6 – 5 > PF > 4 4 – 4 > PF > 3 2 – 3 > PF > 2 0 – PF < 2 or No Data		10 – At least one SSO 0 – No SSOs	Weight	
						25		25		50		
NG-098	207	Center Avenue	4,651	17	2,019,238	6	8.35	10		0	400	46,867
NG-102	207	Center Avenue	332	17	2,019,238	6	8.35	10		0	400	47,199
NG-062	217	Langley Circle	119	10	1,857,868	6	7.08	10		0	400	47,318
NG-064	217	Langley Circle	739	10	1,857,868	6	7.08	10		0	400	48,057
SG-063	106	City Park	2,342	37	664,867	4	5.55	10		0	350	50,399
NG-134	206	Bridge Street	475	8	8,902,705	10	3.25	4		0	350	50,874
NG-135	206	Bridge Street	175	8	8,902,705	10	3.25	4		0	350	51,049
NG-136	206	Bridge Street	1,120	8	8,902,705	10	3.25	4		0	350	52,169
NG-137	206	Bridge Street	832	8	8,902,705	10	3.25	4		0	350	53,001
NG-108	TP	Boat Harbor	4,630	3	8,143,504	10	3.08	4		0	350	57,631
NG-106	TP	Boat Harbor	3,610	2	5,236,346	10	3.10	4		0	350	61,241
SG-157	110	Ferebee	2,171	22B	2,411,544	6	4.47	6		0	300	63,412
SG-112	115	Newtown Road	793	30	1,766,335	6	4.06	6		0	300	64,205
SG-113	115	Newtown Road	5,236	30	1,766,335	6	4.06	6		0	300	69,441
NG-067	223	Washington	2,860	9	4,317,835	6	4.38	6		0	300	72,301
NG-078	223	Washington	2,362	9	4,317,835	6	4.38	6		0	300	74,663
NG-082	223	Washington	3,459	9	4,317,835	6	4.38	6		0	300	78,122

Table C-5. Gravity Main Prioritization

Line No.	D/S HRSD PS# (or other facility)	HRSD D/S PS (or other facility)	Linear Feet	Assoc. HRSD Flow Mon ID	Peak RDII (gal)	RDII Score	Max Peak Factor	Peak Factor Score	# SSOs	SSO Score	Weighted Score	Cumulative Feet
						10 – RDII > 5MG 6 – RDII 5MG to 1.5MG 4 – RDII 1.5MG to 200,000 2 – RDII 200,000 to 0 gal 0 – No Data		10 – PF > 5 6 – 5 > PF > 4 4 – 4 > PF > 3 2 – 3 > PF > 2 0 – PF < 2 or No Data		10 – At least one SSO 0 – No SSOs	Weight	
						25		25		50		
NG-083	223	Washington	930	9	4,317,835	6	4.38	6		0	300	79,052
NG-084	223	Washington	829	9	4,317,835	6	4.38	6		0	300	79,881
NG-125	TP	Boat Harbor	2,884	5A	12,498,969	10	2.42	2		0	300	82,765
NG-130X	TP	Boat Harbor	1,063	5A	12,498,969	10	2.42	2		0	300	83,828
NG-124	TP	Boat Harbor	4,348	5	7,226,126	10	2.26	2		0	300	88,176
NG-126	TP	Boat Harbor	428	5	7,226,126	10	2.26	2		0	300	88,604
NG-110	TP	Boat Harbor	2,601	4	5,042,565	10	2.77	2		0	300	91,205
NG-111	TP	Boat Harbor	1,697	3	5,042,565	10	2.77	2		0	300	92,902
NG-112	TP	Boat Harbor	911	4	5,042,565	10	2.77	2		0	300	93,813
NG-114	TP	Boat Harbor	986	4	5,042,565	10	2.77	2		0	300	94,799
NG-115	TP	Boat Harbor	719	4	5,042,565	10	2.77	2		0	300	95,518
NG-116	TP	Boat Harbor	680	4	5,042,565	10	2.77	2		0	300	96,198
NG-117	TP	Boat Harbor	398	4	5,042,565	10	2.77	2		0	300	96,596
NG-118	TP	Boat Harbor	400	4	5,042,565	10	2.77	2		0	300	96,996
NG-169	TP	Boat Harbor	4,760	4	5,042,565	10	2.77	2		0	300	101,756
NG-174	TP	Boat Harbor	1,538	4	5,042,565	10	2.77	2		0	300	103,294
SG-034	104	Cedar Lane	2,034	19	2,478,334	6	3.30	4		0	250	105,328

Table C-5. Gravity Main Prioritization

Line No.	D/S HRSD PS# (or other facility)	HRSD D/S PS (or other facility)	Linear Feet	Assoc. HRSD Flow Mon ID	Peak RDII (gal)	RDII Score	Max Peak Factor	Peak Factor Score	# SSOs	SSO Score	Weighted Score	Cumulative Feet
						10 - RDII > 5MG 6 - RDII 5MG to 1.5MG 4 - RDII 1.5MG to 200,000 2 - RDII 200,000 to 0 gal 0 - No Data		10 - PF > 5 6 - 5 > PF > 4 4 - 4 > PF > 3 2 - 3 > PF > 2 0 - PF < 2 or No Data		10 - At least one SSO 0 - No SSOs	Weight	
						25		25		50		
SG-035	104	Cedar Lane	1,518	19	2,478,334	6	3.30	4		0	250	106,846
SG-191	135	Suffolk	5,467	27	1,774,161	6	3.14	4		0	250	112,313
SG-192	135	Suffolk	140	27	1,774,161	6	3.14	4		0	250	112,453
SG-193	135	Suffolk	16,109	27	1,774,161	6	3.14	4		0	250	128,562
NG-109	209	Copeland Park	6,280	16	1,064,002	4	4.15	6		0	250	134,842
SG-033	104	Cedar Lane	1,408	20	455,734	4	3.56	4		0	200	136,250
SG-071	105	Chesapeake Blvd	769	33	2,949,926	6	2.61	2		0	200	137,019
SG-072	105	Chesapeake Blvd	599	33	2,949,926	6	2.61	2		0	200	137,618
SG-073	105	Chesapeake Blvd	1,463	33	2,949,926	6	2.61	2		0	200	139,081
SG-074	105	Chesapeake Blvd	2,813	33	2,949,926	6	2.61	2		0	200	141,894
SG-075	105	Chesapeake Blvd	1,798	33	2,949,926	6	2.61	2		0	200	143,692
SG-077	105	Chesapeake Blvd	161	33	2,949,926	6	2.61	2		0	200	143,853
SG-201	107	Colley Avenue	285	36	2,487,870	6	2.69	2		0	200	144,138
SG-088	116	Norchester	3,382	28	1,766,060	6	2.96	2		0	200	147,520
SG-148	123	Quail Avenue	3,520	24	345,087	4	3.10	4		0	200	151,040
SG-151	123	Quail Avenue	5,408	24	345,087	4	3.10	4		0	200	156,448
SG-152	123	Quail Avenue	1,289	24	345,087	4	3.10	4		0	200	157,737

Table C-5. Gravity Main Prioritization

Line No.	D/S HRSD PS# (or other facility)	HRSD D/S PS (or other facility)	Linear Feet	Assoc. HRSD Flow Mon ID	Peak RDII (gal)	RDII Score	Max Peak Factor	Peak Factor Score	# SSOs	SSO Score	Weighted Score	Cumulative Feet
						10 - RDII > 5MG 6 - RDII 5MG to 1.5MG 4 - RDII 1.5MG to 200,000 2 - RDII 200,000 to 0 gal 0 - No Data		10 - PF > 5 6 - 5 > PF > 4 4 - 4 > PF > 3 2 - 3 > PF > 2 0 - PF < 2 or No Data		10 - At least one SSO 0 - No SSOs	Weight	
						25		25		50		
SG-096	127	State Street	4,203	25	881,457	4	3.39	4		0	200	161,940
SG-202	127	State Street	1,874	25	881,457	4	3.39	4		0	200	163,814
NG-088	204	Bloxom's Corner	4,023	14	517,992	4	3.33	4		0	200	167,837
NG-044	207	Center Avenue	3,168	18	442,591	4	3.93	4		0	200	171,005
NG-045	207	Center Avenue	3,498	18	442,591	4	3.93	4		0	200	174,503
NG-054	207	Center Avenue	2,143	18	442,591	4	3.93	4		0	200	176,646
NG-175	207	Center Avenue	1,242	18	442,591	4	3.93	4		0	200	177,888
NG-176	207	Center Avenue	477	18	442,591	4	3.93	4		0	200	178,365
NG-146	208	Claremont	126	6	1,080,384	4	3.56	4		0	200	178,491
NG-147	208	Claremont	2,305	6	1,080,384	4	3.56	4		0	200	180,796
NG-148	208	Claremont	3,303	6	1,080,384	4	3.56	4		0	200	184,099
NG-149	208	Claremont	110	6	1,080,384	4	3.56	4		0	200	184,209
NG-150	208	Claremont	1,479	6	1,080,384	4	3.56	4		0	200	185,688
NG-151	208	Claremont	48	6	1,080,384	4	3.56	4		0	200	185,736
NG-152	208	Claremont	1,832	6	1,080,384	4	3.56	4		0	200	187,568
NG-157	225	Willard Avenue	613	12	4,736,586	6	2.83	2		0	200	188,181
NG-159	225	Willard Avenue	3,772	12	4,736,586	6	2.83	2		0	200	191,953

Table C-5. Gravity Main Prioritization

Line No.	D/S HRSD PS# (or other facility)	HRSD D/S PS (or other facility)	Linear Feet	Assoc. HRSD Flow Mon ID	Peak RDII (gal)	RDII Score	Max Peak Factor	Peak Factor Score	# SSOs	SSO Score	Weighted Score	Cumulative Feet
						10 – RDII > 5MG 6 – RDII 5MG to 1.5MG 4 – RDII 1.5MG to 200,000 2 – RDII 200,000 to 0 gal 0 – No Data		10 – PF > 5 6 – 5 > PF > 4 4 – 4 > PF > 3 2 – 3 > PF > 2 0 – PF < 2 or No Data		10 – At least one SSO 0 – No SSOs	Weight	
NG-160	225	Willard Avenue	1,457	12	4,736,586	6	2.83	2		0	200	193,410
SG-061	107	Colley Avenue	3,360	36	81,950	2	3.70	4		0	150	196,770
NG-086	224	Woodland Road	3,754	15	735,000	4	2.30	2		0	150	200,524
NG-087	224	Woodland Road	1,311	15	735,000	4	2.30	2		0	150	201,835
NG-092	224	Woodland Road	1,152	15	735,000	4	2.30	2		0	150	202,987
NG-101	TP	Boat Harbor	612	1	192,639	2	3.38	4		0	150	203,599
NG-103	TP	Boat Harbor	3,831	1	192,639	2	3.38	4		0	150	207,430
SG-067	113	Luxembourg Avenue	1,595	34	25,506	2	2.20	2		0	100	209,025
SG-068	113	Luxembourg Avenue	995	34	25,506	2	2.20	2		0	100	210,020
SG-068X	113	Luxembourg Avenue	230	34	25,506	2	2.20	2		0	100	210,250
SG-102	128	Steamboat Creek	1,918	26	37,856	2	2.24	2		0	100	212,168
SG-104	128	Steamboat Creek	1,642	26	37,856	2	2.24	2		0	100	213,810
SG-105	128	Steamboat Creek	1,101	26	37,856	2	2.24	2		0	100	214,911
NG-141	208	Claremont	1,249	7	1,193,334	4	1.65	0		0	100	216,160
SG-145	103	Bainbridge	1,293			0		0		0	0	217,453
SG-041	114	Monroe Place	958			0		0		0	0	218,411
SG-044	122	Powhatan Avenue	1,074			0		0		0	0	219,485

Table C-5. Gravity Main Prioritization

Line No.	D/S HRSD PS# (or other facility)	HRSD D/S PS (or other facility)	Linear Feet	Assoc. HRSD Flow Mon ID	Peak RDII (gal)	RDII Score	Max Peak Factor	Peak Factor Score	# SSOs	SSO Score	Weighted Score	Cumulative Feet
						10 – RDII > 5MG 6 – RDII 5MG to 1.5MG 4 – RDII 1.5MG to 200,000 2 – RDII 200,000 to 0 gal 0 – No Data		10 – PF > 5 6 – 5 > PF > 4 4 – 4 > PF > 3 2 – 3 > PF > 2 0 – PF < 2 or No Data		10 – At least one SSO 0 – No SSOs	Weight	
SG-205	124	Richmond Crescent	857			0		0		0	0	220,342
SG-207	147	Chesterfield	325			0		0		0	0	220,667
NG-123	201	25th Street	1,019			0		0		0	0	221,686
NG-164	202	33rd Street	468			0		0		0	0	222,154
NG-166	202	33rd Street	254			0		0		0	0	222,408
NG-167	202	33rd Street	100			0		0		0	0	222,508
NG-168	202	33rd Street	752			0		0		0	0	223,260
NG-129	213	Jefferson Avenue	203			0		0		0	0	223,463
NG-052	219	Newmarket	662			0		0		0	0	224,125
NG-053	219	Newmarket	6,277			0		0		0	0	230,402
NG-057	219	Newmarket	5,666			0		0		0	0	236,068
NG-099	219	Newmarket	3,089			0		0		0	0	239,157
NG-127	219	Newmarket	4,012			0		0		0	0	243,169
NG-034	220	Normandy Lane	2,228			0		0		0	0	245,397
NG-035	220	Normandy Lane	970			0		0		0	0	246,367
SG-078	Norfolk PS 44	None	859			0		0		0	0	247,226
SG-079	Norfolk PS 44	None	1,785			0		0		0	0	249,011

Table C-5. Gravity Main Prioritization

Line No.	D/S HRSD PS# (or other facility)	HRSD D/S PS (or other facility)	Linear Feet	Assoc. HRSD Flow Mon ID	Peak RDII (gal)	RDII Score	Max Peak Factor	Peak Factor Score	# SSOs	SSO Score	Weighted Score	Cumulative Feet
						10 - RDII > 5MG 6 - RDII 5MG to 1.5MG 4 - RDII 1.5MG to 200,000 2 - RDII 200,000 to 0 gal 0 - No Data		10 - PF > 5 6 - 5 > PF > 4 4 - 4 > PF > 3 2 - 3 > PF > 2 0 - PF < 2 or No Data		10 - At least one SSO 0 - No SSOs	Weight	
SG-107	Norfolk PS 44	None	390			0		0		0	0	249,401
SG-108	Norfolk PS 44	None	663			0		0		0	0	250,064
SG-001	TP	Army Base	6,311			0		0		0	0	256,375
SG-003	TP	Army Base	2,581			0		0		0	0	258,956
SG-045	TP	Virginia Initiative TP	4,305			0		0		0	0	263,261
SG-048	TP	Virginia Initiative TP	962			0		0		0	0	264,223
SG-049	TP	Virginia Initiative TP	805			0		0		0	0	265,028
SG-050	TP	Virginia Initiative TP	4,307			0		0		0	0	269,335
SG-053	TP	Virginia Initiative TP	1,108			0		0		0	0	270,443
SG-054	TP	Virginia Initiative TP	270			0		0		0	0	270,713
SG-055	TP	Virginia Initiative TP	838			0		0		0	0	271,551
SG-056	TP	Virginia Initiative TP	200			0		0		0	0	271,751
SG-196	TP	Army Base	1,651			0		0		0	0	273,402