

**CITY OF SPOKANE,  
WASHINGTON**

**CSO FLOW MONITORING PROJECT**

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**FLOW, FREQUENCY AND DURATION**

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**SEWER MAINTENANCE**

**Monthly Report  
February 2008**

May 2, 2008  
*CSOMonthly2008-02.doc*

## OVERFLOW EVENTS

Table 1 – Flow-Frequency-Duration, provides a summary of the flow volume calculated for the overflow pipes at each site for each event recorded. The flow calculations are based on flow monitor recorded level and velocity measurements. See Attachment A for a summary of the precipitation volumes.

**Table 1 – Flow-Frequency-Duration**

	Location	CSO#	Freq.	Date of Event <sup>1</sup>	Estimated <sup>2</sup> Total Flow (Gallons)	Event Duration (Minutes)	Comments
1.	AL Parkway Storage (West)	2	None				
2.	NW Blvd @ Kiernan	6	1	Total 2/10	40,521 40,521	785 785	Missing data 2/4 09:05 to 2/4 09:10 Snowmelt
3.	Columbia @ Downriver	7	None				
4.	Nettleton @ York/Buckeye	10	None				Missing data 2/4 09:25 to 2/4 09:35
5.	Nora @ Pettet	12	1	Total 2/10	23,025 23,025	785 785	Snowmelt
6.	Sherwood @ Summit	14	2	Total 2/10 2/15	6,588 3,588 3,000	1,040 910 130	Missing data 2/4 09:50 to 2/4 09:55 Snowmelt
7.	Nettleton @ Ohio	15	None				Missing data 2/4 09:55 to 2/4 10:00
8.	A @ Linton	16B	None				Missing data 2/11 09:45 to 2/15 14:55 Missing data 2/19 14:00 to 2/21 10:40 Missing data 2/25 14:00 to 2/26 11:20
9.	7 <sup>th</sup> @ Inland Empire	19	None				Missing data 2/5 08:35 to 2/5 08:40
10.	3500 High Drive	20	None				

<sup>1</sup> Designation as an event means that both a level and velocity reading were recorded concurrently. Not all level and velocity readings that were coincident are included in this report, however. The level and velocity readings that appear to be “background noise” from the electronic equipment are not included in the table.

<sup>2</sup> The flows presented in this column are calculated from measurements of velocity and depth of flow by electronic devices inserted in the water stream. These measurements are subject to singular and possibly cumulative errors. These errors result from limitations inherent in the measuring devices and from the introduction of a measuring device in to the physical flow stream. Also, error in velocity and depth measurements may be and typically are introduced by the physical conditions of each site. The flow numbers presented in this table are estimates only.

	Location	CSO#	Freq.	Date of Event <sup>1</sup>	Estimated <sup>2</sup> Total Flow (Gallons)	Event Duration (Minutes)	Comments
11.	Main @ Oak	22B	1	Total	35,000	330	Missing data 2/4 11:45 to 2/4 11:50
				2/19	35,000	330	Dry Weather Overflow resulting from Pump Station malfunction. DOE letter sent 2/25/08. Gallons are an approximation.
12.	Cedar @ Ide	23	None				
13.	Riverside @ Cedar	24A	1	Total	141	80	Missing data 2/4 12:15 to 2/4 12:20
				2/10	141	80	Snowmelt
14.	Riverside @ Cedar	24B	None				Missing data 2/4 12:10 to 2/4 12:15
15.	Cedar @ Main	25	None				Missing data 2/4 11:40 to 2/4 11:45
16.	Riverside @ Lincoln	26	1	Total	2,050	45	Missing data 2/4 10:50 to 2/4 10:55
				2/10	2,050	45	Snowmelt
17.	Arthur @ 5 <sup>th</sup>	33A	None				Missing data 2/5 12:30 to 2/5 12:35 Missing data 2/26 14:10 to 2/29 10:00
18.	Perry @ 3 <sup>rd</sup>	33B	None				
19.	Arthur @ 3 <sup>rd</sup>	33C	None				Missing data 2/5 12:25 to 2/5 12:30
20.	Arthur @ 1 <sup>st</sup>	33D	1	Total	109	35	Missing data 2/29 10:20 to 2/29 12:00
				2/27	109	35	
21.	Riverside @ Napa/Crestline	34	1	Total	89,640	205	Missing data 2/5 12:10 to 2/5 12:15
				2/10	89,640	205	Snowmelt
22.	S. Riverton @ Magnolia	38	1	Total	277	215	Missing data 2/5 10:55 to 2/5 11:00
				2/10	277	215	Snowmelt
23.	S. Riverton @ Altamont	39	None				Missing data 2/5 10:35 to 2/5 10:40
24.	S. Riverton @ Regal	40	1	Total	189	20	Missing data 2/5 10:30 to 2/5 10:35
				2/16	189	20	
25.	Rebecca @ Upriver	41	None				
26.	Riverton @ Surro	42	None				Missing data 2/20 09:45 to 2/20 10:15
	<b>Monthly Total</b>		<b>11</b>		<b>197,540</b>	<b>3,540</b>	<b>1 Dry Weather Overflow</b>

