



Portland
Water
District

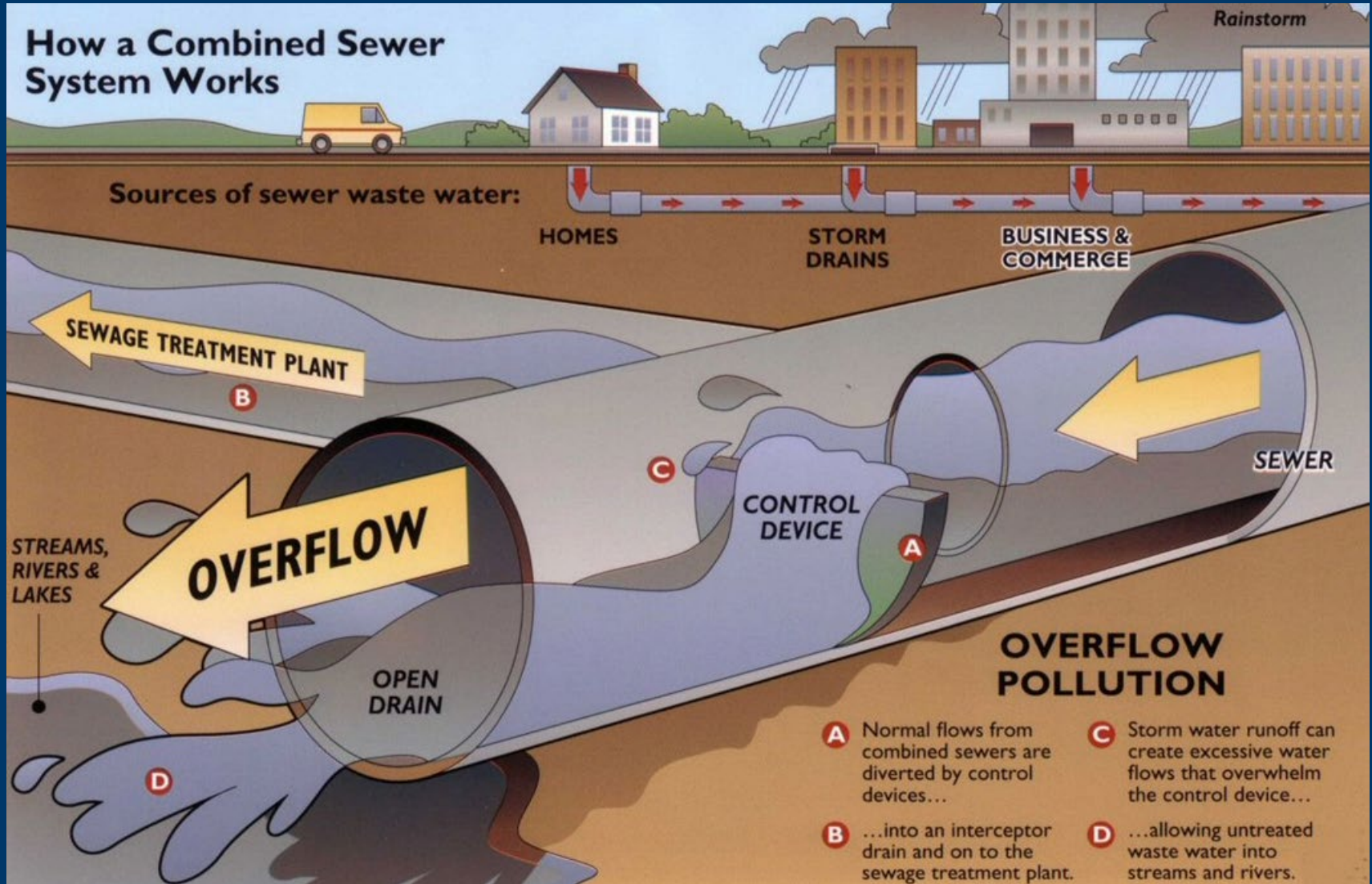
From Sebago Lake to Casco Bay

Portland Water District CSO Monitoring and Reporting

Presented by:
Charlene Poulin



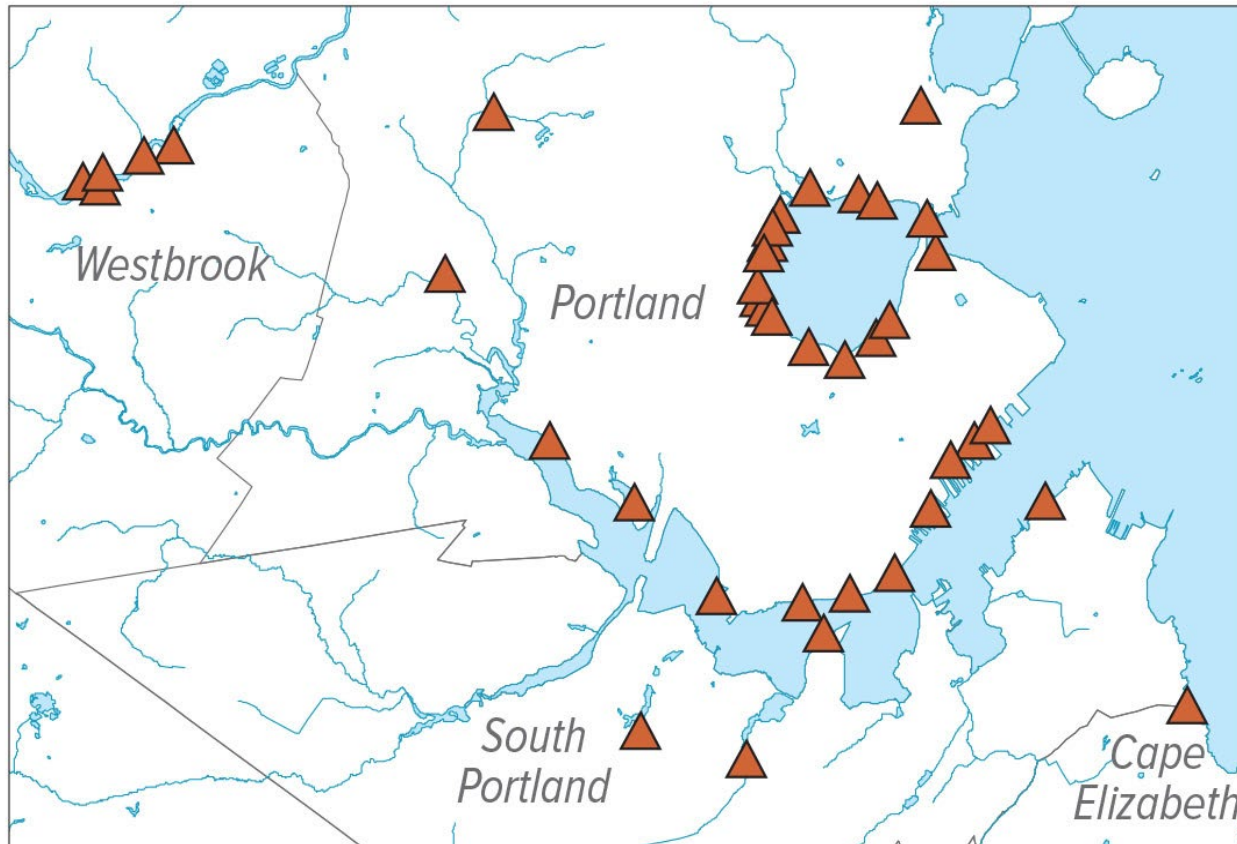
Combined Sewer Overflow







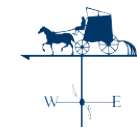
CSO Outfall Locations



In 2019, 40 CSO outfalls were classified with an "active" permit status. Some of these active outfalls, however, have been remediated or eliminated and have not discharged CSO effluent in several years.

- Methods
 - Real time monitoring
 - Portland – All sites are real time monitored
 - Westbrook – All five sites are real time monitored
 - Cape Elizabeth – Only site is real time monitored
 - 42 Flow Meters across the system
 - 7 Rain Gauges

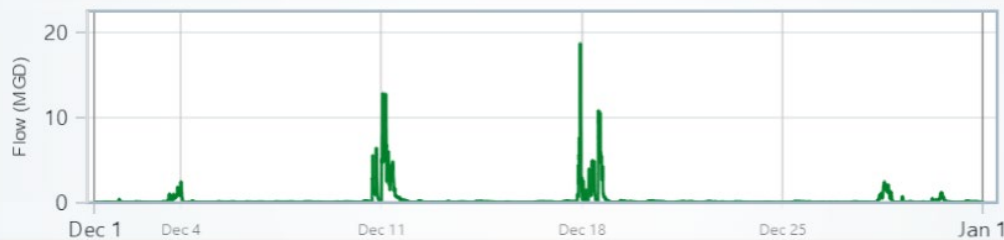




HYDROGRAPH



Zoom: **1d** 1w 1m **Off** Tracer: **Static**



■ Depth ■ Velocity ■ Quantity ■ ANGLE



INCLINOMETER Flood Gate Tilt Sensor

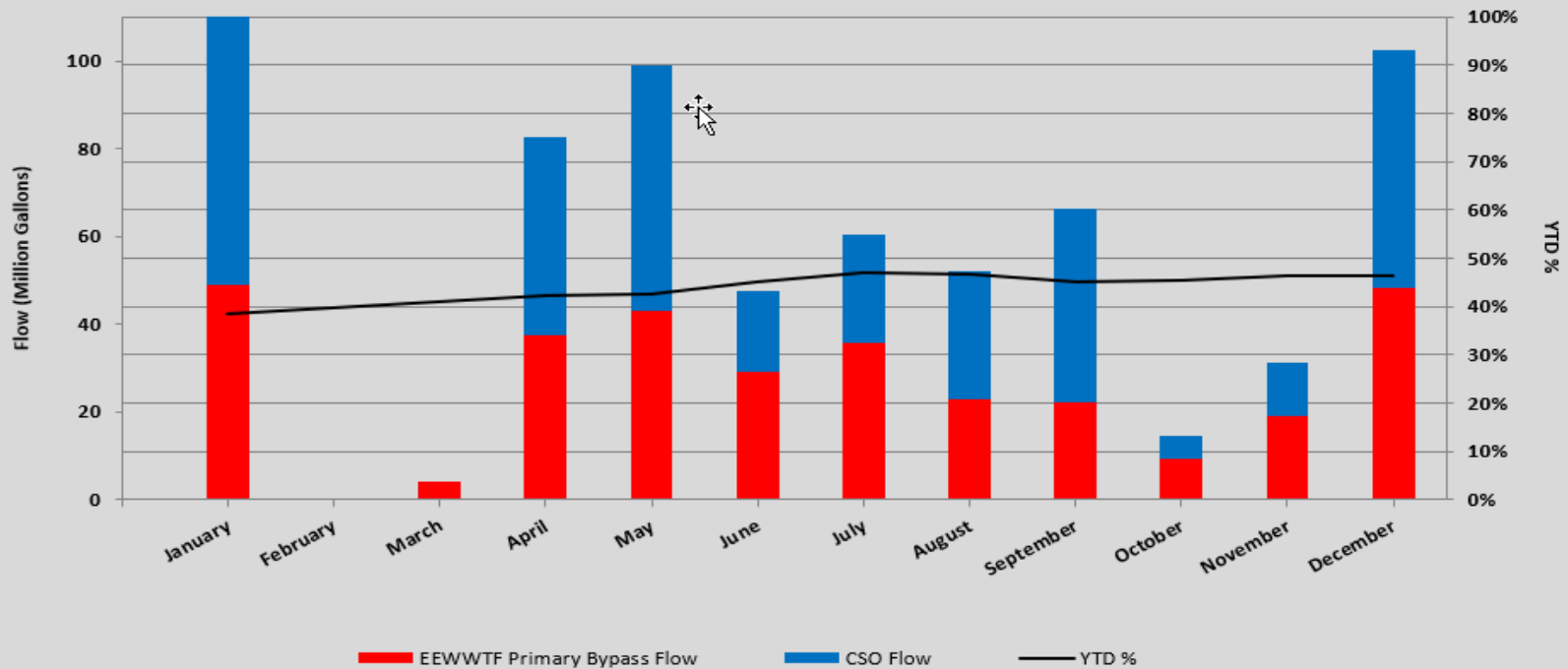
2023 Summary

- City of Portland
- 37 wet weather events
- 59.61 inches in 2023 46 inches in 2022
- 368,662,200 (178,744,981) CSO overflow gallons
- 45.5% of total wet weather flow received primary treatment, disinfection and de-chlorination at the EEWTF prior to discharge





2023 Portland Wet Weather Flow % Wet Weather Flow Treated at EEWTF



Rain Data



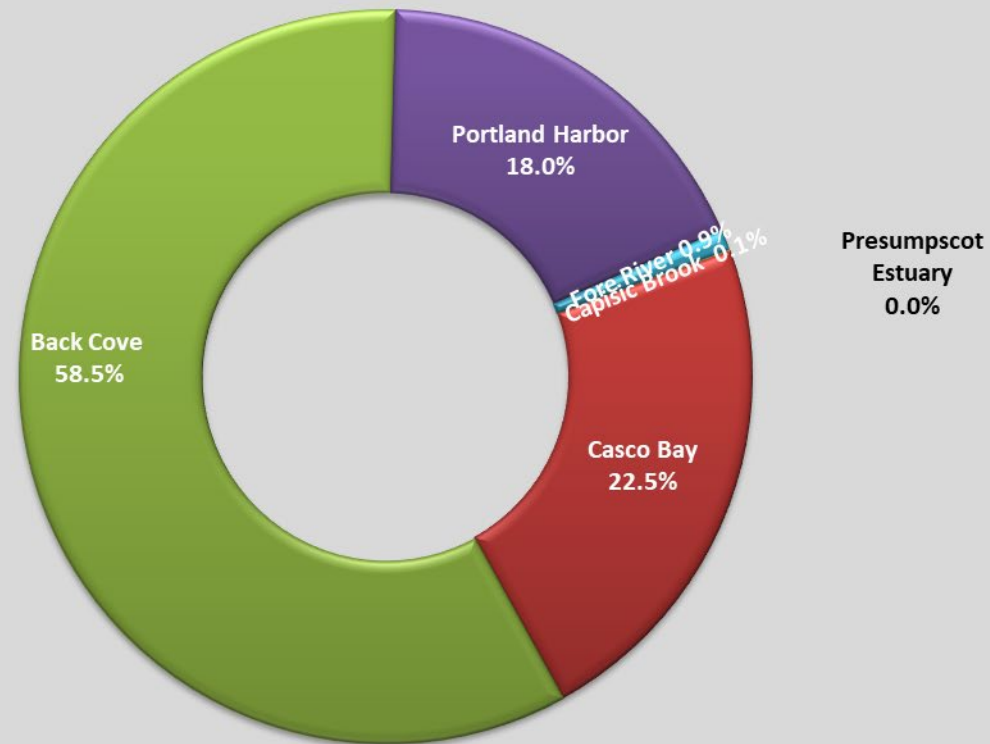
	Allen Avenue FS		Baxter Boulevard PS		Riverside Street PS		Franklin Street PS		NOAA RG Jetport		Douglass Street		YTD
	Daily	Max Hour	Daily	Max Hour	Daily	Max Hour	Daily	Max Hour	Daily	Max Hour	Daily	Max Hour	
12/1	0.09	0.03	0.09	0.03	0.08	0.03	0.1	0.04	0.08	0.02	0.08	0.03	58.61
12/2	0.01	0.01	0	0	0	0	0	0	0	0	0.01	0.01	
12/3	0.4	0.07	0.44	0.06	0.36	0.06	0.45	0.06	0.5	0.09	0.47	0.07	
12/4	0.32	0.08	0.32	0.06	0.15	0.06	0.21	0.07	0.25	0.12	0.24	0.05	
12/5	0.02	0.01	0.01	0.01	0.04	0.02	0		0		0.01	0.01	
12/6	0		0.01	0.01	0		0		0		0		
12/7	0		0		0		0		0		0		
12/8	0		0		0.06	0.02	0		0		0		
12/9	0		0		0.05	0.03	0		0		0		
12/10	0.42	0.12	0.42	0.11	0.36	0.1	0.53	0.12	0.48	0.13	0.44	0.12	
12/11	2.01	0.61	2.12	0.6	1.86	0.47	1.96	0.47	1.99	0.51	1.94	0.49	
12/12	0		0		0		0		0		0		
12/13	0		0		0		0		0		0		
12/14	0		0		0		0		0		0		
12/15	0		0		0		0		0		0		
12/16	0		0		0		0		0		0		
12/17	0.99	0.38	0.84	0.37	1.01	0.41	0.81	0.39	1	0.41	0.95	0.46	
12/18	1.71	0.28	1.42	0.26	1.67	0.22	1.72	0.32	1.32	0.23	1.73	0.29	
12/19	0		0		0		0		0		0		
12/20	0		0		0		0		0		0		
12/21	0		0		0		0		0		0		
12/22	0		0		0		0		0		0		
12/23	0		0		0		0		0		0		
12/24	0		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
12/25	0.01	0.01	0		0		0		0		0		
12/26	0.01	0.01	0.01	0.01	0		0.01	0.01	0		0.01	0.01	
12/27	0.05	0.01	0.04	0.01	0.07	0.02	0.03	0.01	0.02	0.01	0.02	0.01	
12/28	0.71	0.1	0.72	0.1	0.69	0.09	0.73	0.11	0.7	0.1	0.7	0.09	
12/29	0.13	0.03	0.17	0.03	0.1	0.03	0.11	0.03	0.09	0.02	0.16	0.04	
12/30	0.24	0.05	0.29	0.05	0.24	0.05	0.25	0.05	0.23	0.04	0.26	0.05	
12/31	0		0		0.01	0.01	0		0		0		
Total:	7.12"		6.91"		6.76"		6.92"		6.67"		7.03"		
Indicates rain dates when an overflow event occurred													
Water equivalent for snowfall amounts													
-- Indicates rain gauge data unavailable													

	Dana Court PS		Westbrook Sewer Department		YTD
	Daily	Max Hour	Daily	Max Hour	
12/1	0.08	0.03	0.09	0.03	56.36
12/2	0.01	0.01	0		
12/3	0.36	0.06	0.35	0.06	
12/4	0.28	0.07	0.29	0.07	
12/5	0.01	0.01	0.02	0.02	
12/6	0		0		
12/7	0		0		
12/8	0		0		
12/9	0		0		
12/10	0.38	0.11	0.39	0.11	
12/11	1.78	0.37	1.8	0.41	
12/12	0		0		
12/13	0		0		
12/14	0		0		
12/15	0		0		
12/16	0		0		
12/17	1.23	0.48	1.25	0.47	
12/18	1.54	0.26	1.89	0.32	
12/19	0		0		
12/20	0		0		
12/21	0		0		
12/22	0		0		
12/23	0		0		
12/24	0.01	0.01	0.01	0.01	
12/25	0.01	0.01	0.01	0.01	
12/26	0		0		
12/27	0.04	0.01	0.06	0.02	
12/28	0.7	0.09	0.71	0.09	
12/29	0.13	0.02	0.14	0.02	
12/30	0.27	0.06	0.26	0.06	
12/31	0		0		
Total:	6.83"		7.27"		
Indicates rain dates when an overflow event occurred					
-- Indicates no data available					



2023 Portland Overflow Percentage By Receiving Water

368,662,200 Total Gallons



- 4 wet weather events
- 11.81 Inches of contributing rain 6.28 in 2022
- 4,906,800 overflow gallons
 - 2022 - 3,227,000 CSO overflow gallons
- Long Term Control Plan Update Approved by DEP





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