

Example Stormwater Source Control Measures

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Example Storm Water Source Control Projects

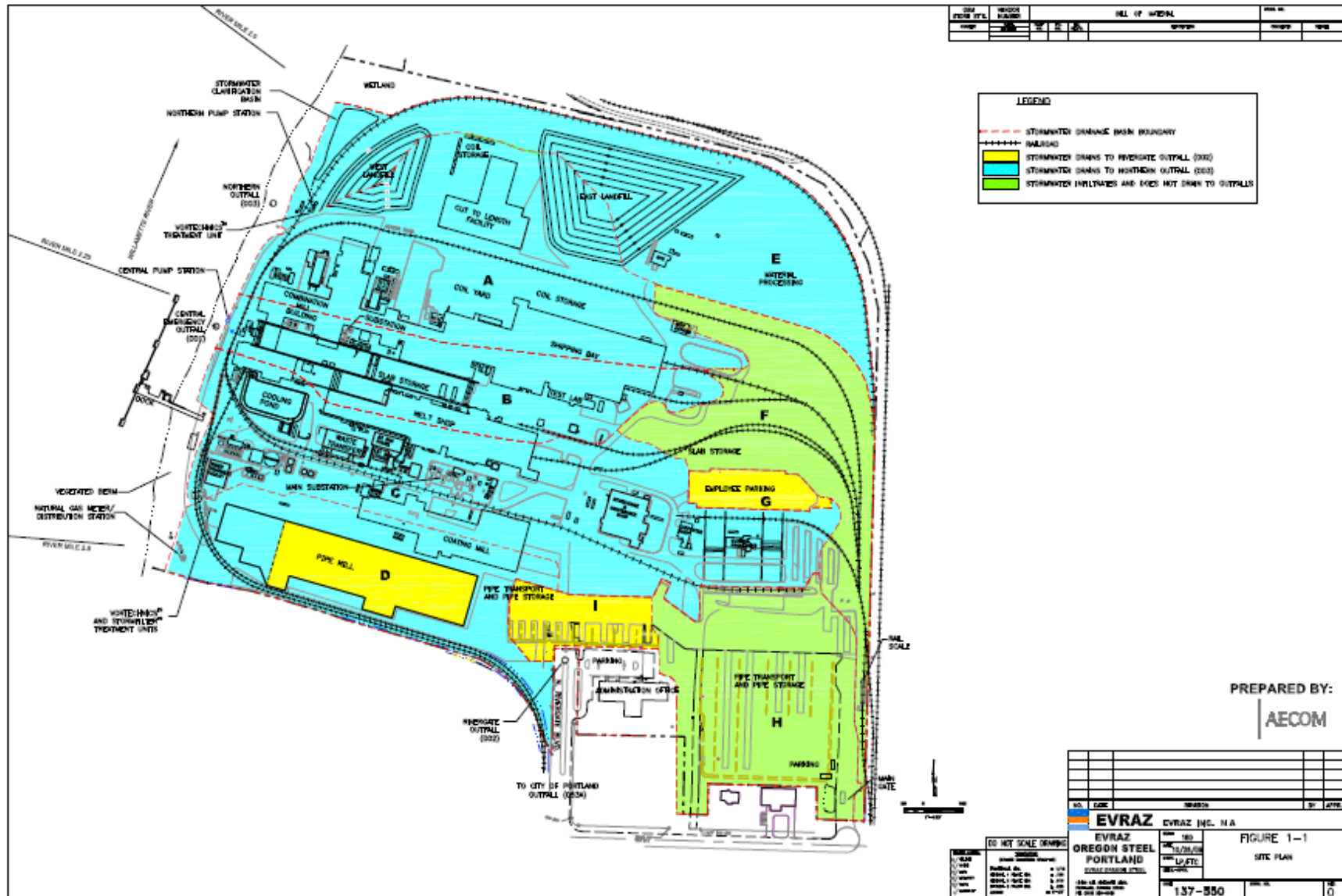
- Evraz Oregon Steel Mills
- Schnitzer Steel Industries
- Arkema
- City of Portland Storm Water Basin 22B

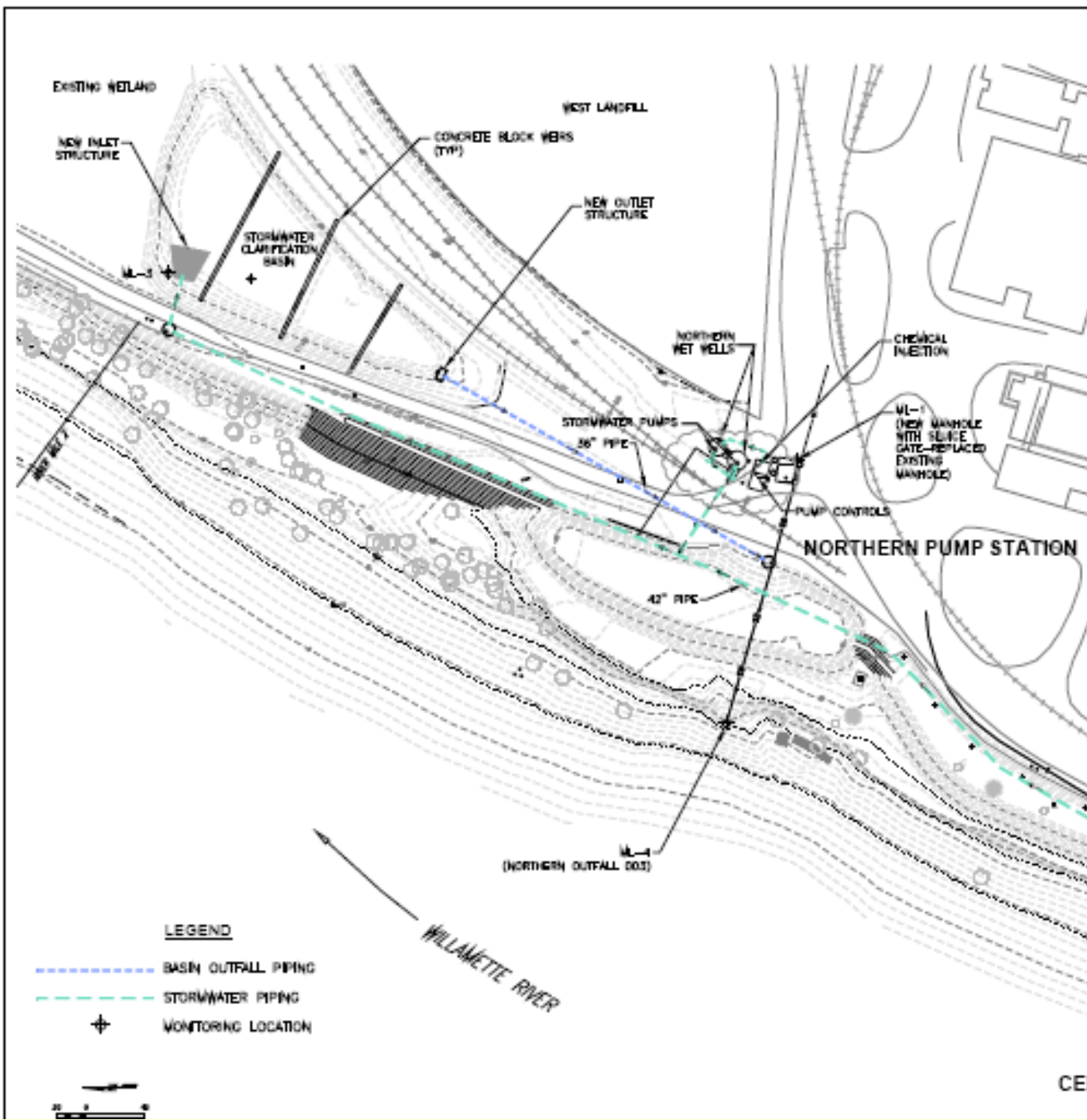


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Evraz Oregon Steel Mill





Evraz Oregon Steel Mill

Table 5-3 Northern Outfall 003 Stormwater Results vs 1200Z Permit Benchmarks

Parameter	1200Z Benchmarks	Pre-Vortechs 1996-2000	Post-Vortechs 2001-2007	Phase 2 2009	Phase 2 Pilot Study			
		Average	Average	Average	3/15/2009	3/28/2009	4/13/2009	5/14/2009
<i>Conventional</i>								
pH	5.5 - 9.0	8.1	8.3	8.0	3.44	7.39	7.75	8.84
TSS (mg/L)	130	216	186	31.9	29	<5	67	29
O&G (mg/L)	10.0	7.1	2.3	2.5	<5	<5	<5	<5
<i>Metals (mg/l)</i>								
Copper	0.1	0.04	0.04	0.0056	0.0088	0.0011	0.0063	0.0063
Lead	0.4	0.02	0.02	0.0038	0.0100	0.0002	0.0026	0.0024
Zinc	0.6	0.37	0.19	0.039	0.0732	0.0122	0.0364	0.0342

Notes:

TSS = Total Suspended Solids

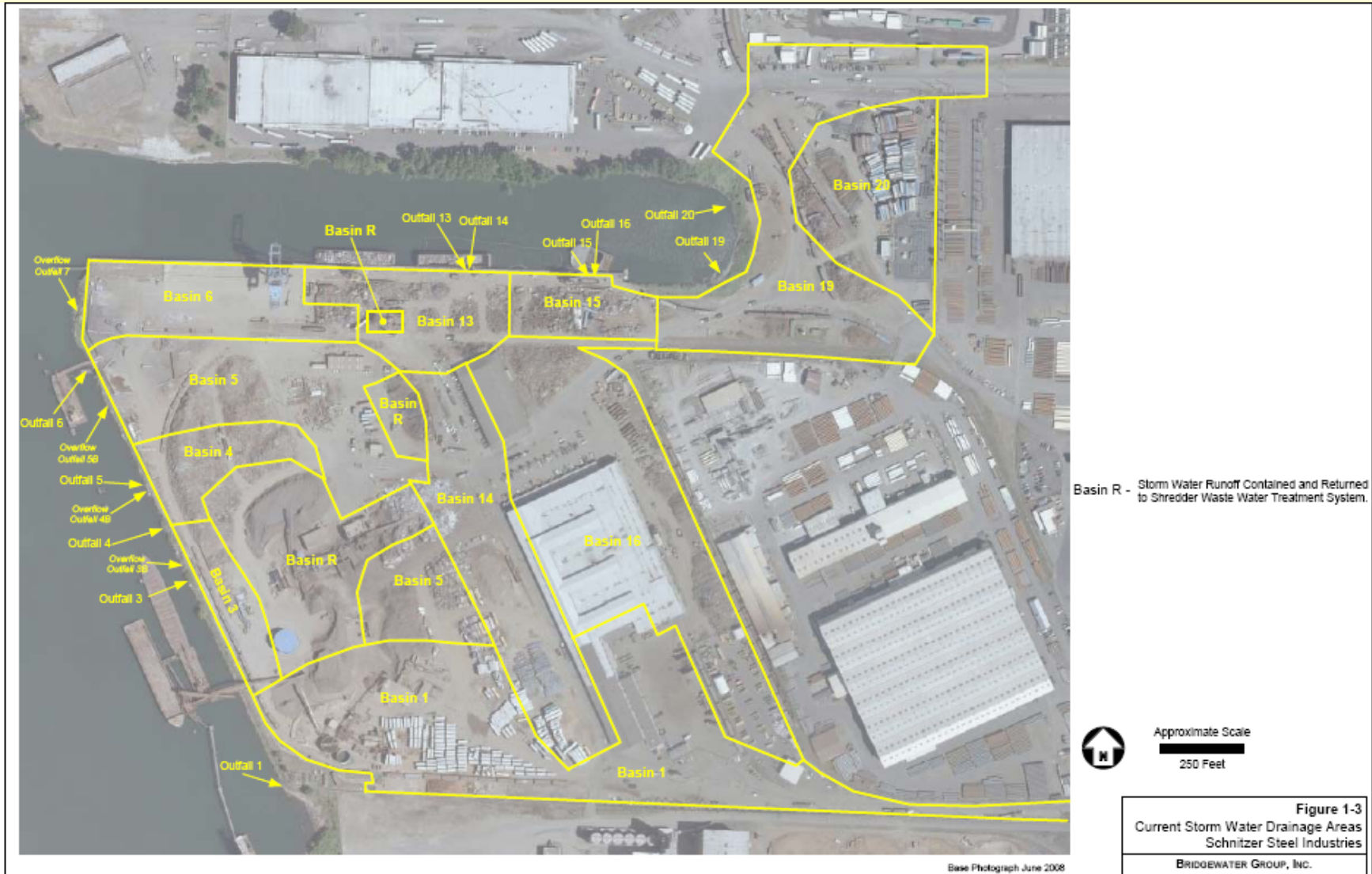
O&G = Total Oil and Grease

In November 2000 the Vortechs treatment system was installed

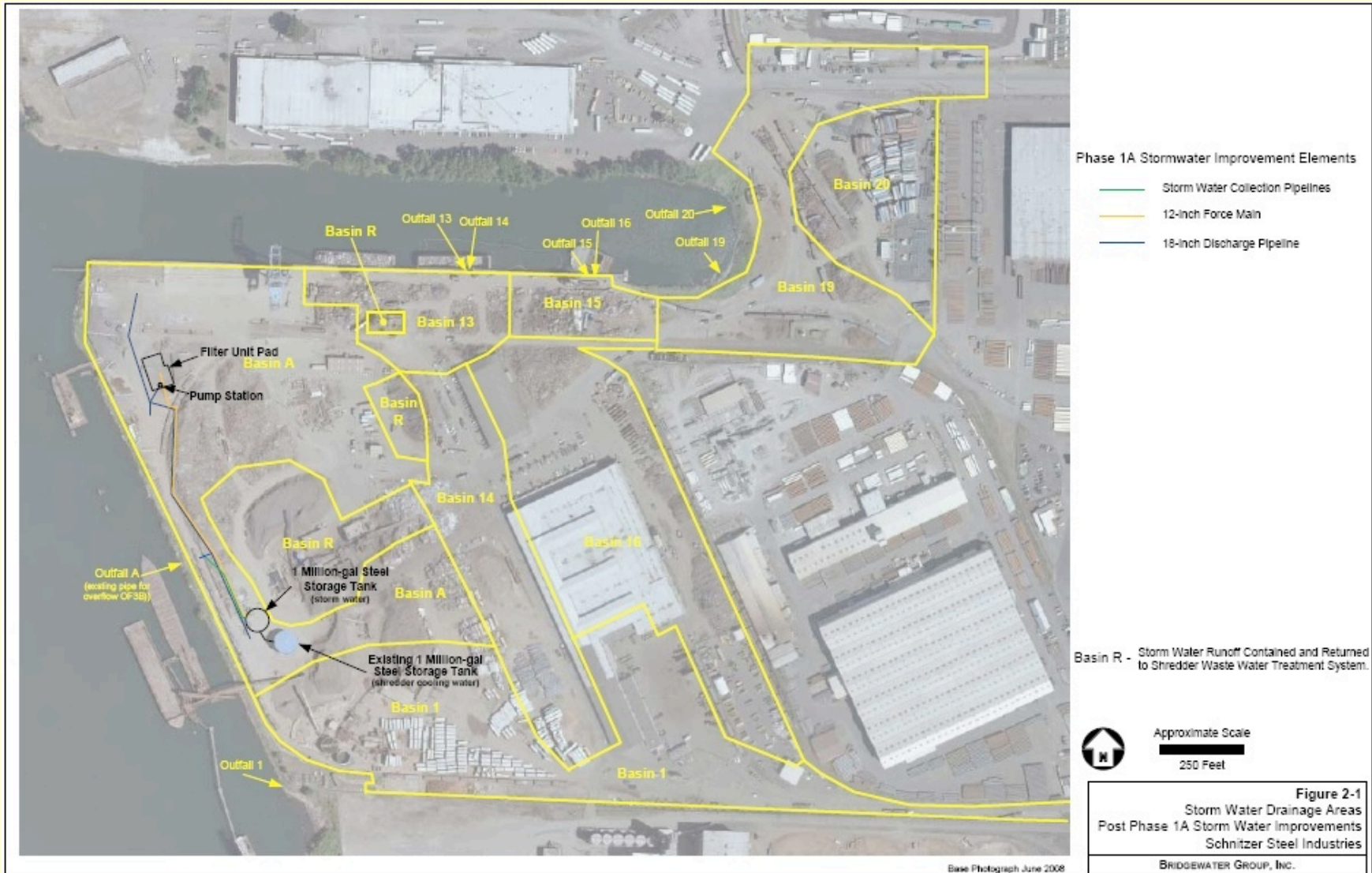
Post Vortechs Average goes through 3/2/2007 sampling

Non-detect samples were treated as detects at the reporting limit shown

Schnitzer Steel Industries



Schnitzer Steel Industries



Arkema

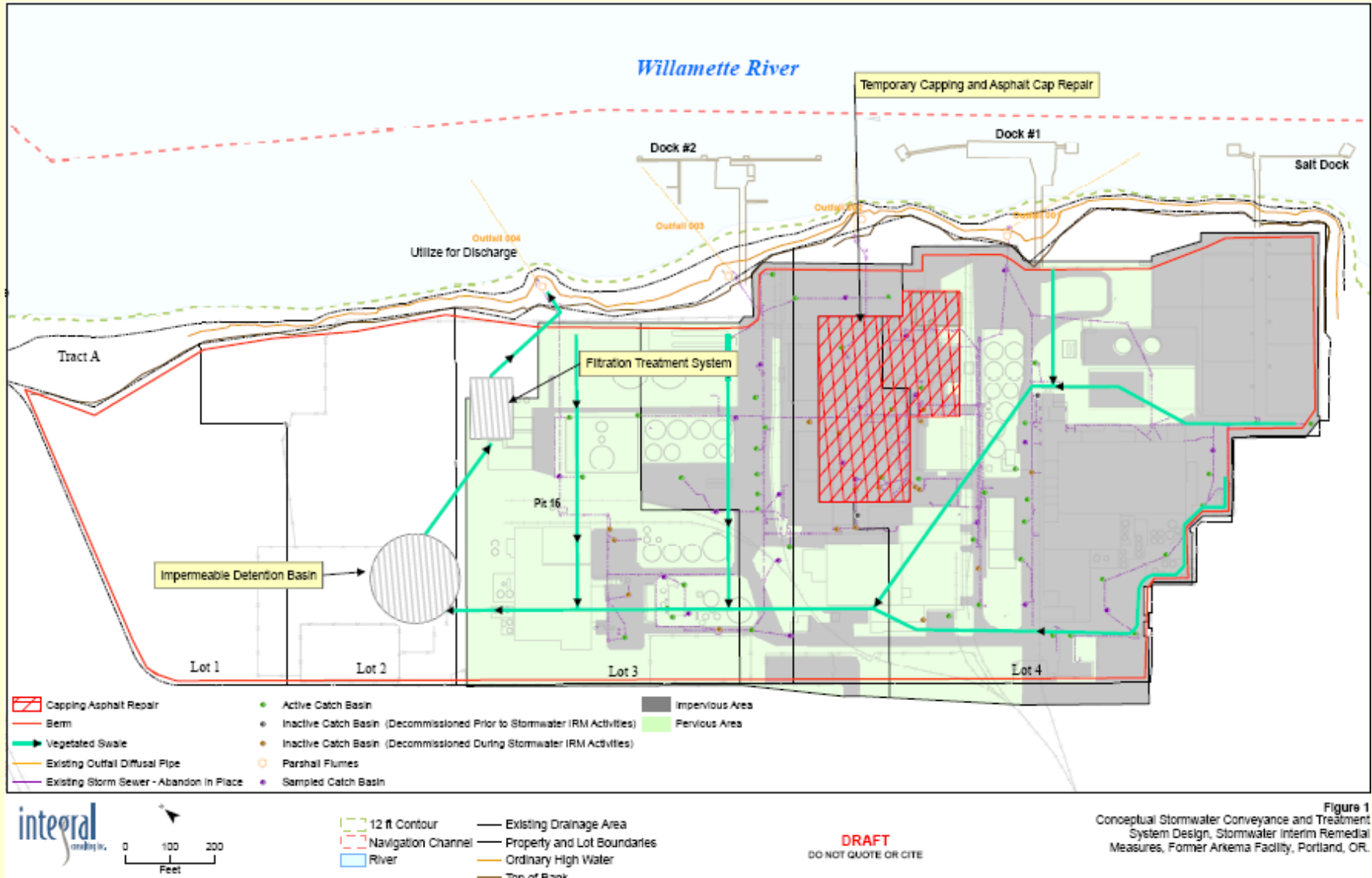
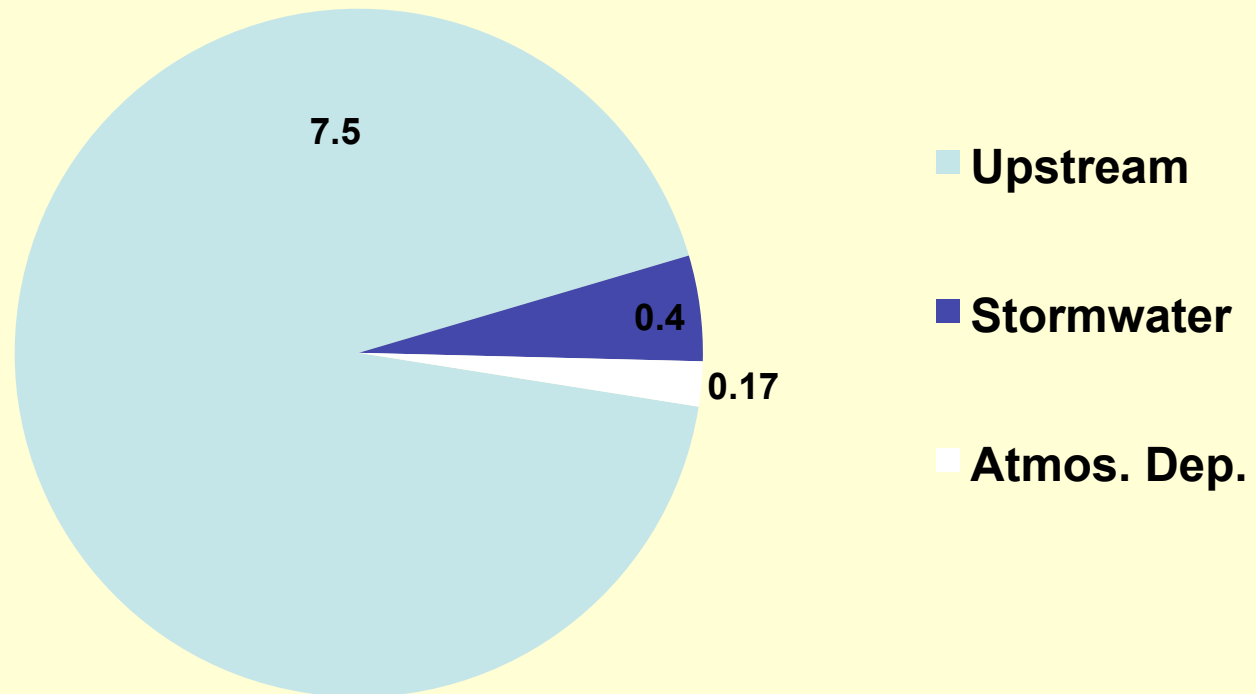


Figure 1
Conceptual Stormwater Conveyance and Treatment System Design, Stormwater Interim Remedial Measures, Former Arkema Facility, Portland, OR.



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Major Sources of DDX in Study Area Surface Water (Kg/yr)



City of Portland Storm Water Basin 22B

