References

On or site sec 4.3

EIDGR = Summary of Existing Information & Identification of Data Gaps, Lower Duwamish Waterway RM 2.3-2.8 East, Seattle Boiler Works to Slip 4. SAIC for Ecology. May 2008

SCAP = Source Control Action Plan, Lower Duwamish Waterway RM 2.3-2.8 East, Seattle Boiler Works to Slip 4. SAIC for Ecology. June 2009

SPU/Myrtle = Spreadsheet "Myrtle_samples.xls". Sampling data from stormwater collected in right-of-way catchbasins at Myrtle Street in vicinity of Seatte Iron & Metals connection to municipal system.

Physical Setting & Location

Sediment samples associated with the discharges from Seattle Iron Metals are between LDW River Mile (RM) 2.3 and 2.6. (Fig 3, EIDGR)

Surface samples: SS83, 682, 172, 736, 716, 683, 173, 174, 684, 175, 685, SS87, 717, 176, 168, SS333, 167, SS88, 738

Sub-surface samples: SC41, SC42

SIM sits between RMs 2.3 and 2.6 – which includes (among others)

- South Myrtle Street Embayment - where SIM discharges to the South Myrtle St SD
- Garden St Stormdrain – which SIM discharges to before the municipal outfall enters the waterway
- SIM's privately owned stormwater discharge – to the main waterway of LDW

EIDGR generally recognizes that spills or leaks in areas lacking collection systems on properties adjacent to the LDW, sheet flow directly over surfaces to the waterway. Current operational practices at adjacent properties may contribute to the movement of contaminants to the LDW via runoff. (EIDGER, Sect 2.3)

Site-Specific Notes from EIDGR Section 4.3

Size - two parcels totaling ~9.6 acres, with stormwater drainage

3 Drainages for stormwater, 7 outfalls from SIM id'd (EIDGR Sect 3.2):

- SIM's collection system co-mingled with drainage from S Orchard St. (#2034 with NPDES permit)
- SIM's contribution from NW side (parking, truck traffic & roofs) – to S Myrtle St SD
- SIM's contribution from central site – to S Garden St SD

GW/Soil contamination: historic petroleum contamination in soil & GW has been confirmed. I/I of contaminated groundwater (which required restrictive convenant for no use of groundwater without prior approval from Ecology) is very likely. *CHECK I/I possibilities given very high TPH*

Data & Chemicals of Concern for this reach of LDW – Recontamination (Sections 2.2.2 & 2.2.3, EIDGR)

Mercury, PCBs, PAHs, dioxin/furans, and organo-tin compounds.

COCs of particular interest to source control are those that exceed the SMS in surface or sub-surface data. Other COCs may be identified on case-by-case basis if SMS are not available for them. See lists below from A-1 and A-2 data tables. ← when Cu + Zn show up.

Dioxin/furans considered as COC because of high concentrations – particularly within the South Myrtle St Embayment. Furans detected in 682, 683, 684, 685, 717 (EIDGR Section 4.3.3)

Organo-tins are found particularly offshore of Seattle Boiler Works, SIM and Puget Sound Truck Lines. Tributyltin detected in 683 & 717 (EIDGR Section 4.3.3)

Garden Street Outfall: SQS exceedances SS88 for mercury 0.62 mg/kg dry wt (1.5X SQS)

ADDITIONAL DATA – Also See

Attached spreadsheet from Appendix A-1 Surface sediment data from sample locations likely impacted by SIM as source of sediment contamination. Two tables modified from EIDGR to show (1) samples of source control concern (all contaminants) and (2) samples where COCs present at >= 20% of SQS.

At 50% or greater of SQS (2-digit Exceedance factors rounded to nearest value) COCs: total PCBs, mercury, chrysene, BEHP, fluroanthene

Between 25% and 50% of SQS add the following COCs: BBP, dibenzo(a,h)anthracene, total benzofluoranthenes, benzo(a)anthracene, arsenic, copper and phenanthrene.

Between 20% and 25% of SQS add the following COCs: acenaphthene, benzo(a)pyrene

Attached spreadsheet from Appendix A-2 Sub-surface sediment data from sample locations likely impacted by SIM as source of sediment contamination. Two tables modified from EIDGR to show (1) samples of source control concern (all contaminants) and (2) samples where COCs present at >= 20% of SQS.

At 50% or greater of SQS (2-digit Exceedance factors rounded to nearest value) COCs: acenaphthene, mercury, BEHP, BBP

Between 25% and 50% of SQS add the following COCs: phenol, dibenzo(a,h)anthracene, zinc, cadmium

Between 20% and 25% of SQS add the following COCs: benzo(g,h,i)perylene, chrysene

SPU/Myrtle: Source-tracing sample locations are all within the immediate vicinity of SIM, those closest to SIM are:

MH100b – manhole at west end of S Myrtle opposite SIM (9/2008)
RCB146 – right of way CB in front of SIM (9/2008)
RCB147 – right of way CB NE corner of intersection 7th Ave S & S Orchard St (9/2008)
RCB148 – right of way CB SE corner of intersection 7th Ave S & S Myrtle St (9/2008)
MH240 – on SIM at MH inlet to vault connecting to S Garden St SD (6/2009)
CB207 – on SIM – connecting to S Garden St SD (6/2009)

Across these samples, COCs exceeding the CSL (2LAET) are: copper, lead, mercury, zinc, acenaphthene, anthracene, fluorene, naphthalene, phenanthrene,

benzo(a)anthracene, benzo(a)pyrene, benzo(a)fluoranthene, benzo(k)fluoranthene, chrysene, fluoranthene, pyrene, BEHP, BBP, dimethylphthalate, di-n-butylphthalate, total PCBs, 4-methylphenol, benzyl alcohol.

Across these samples, COCs only exceeding SQS (LAET) are: TPHdiesel, TPHoil, di-n-octylphthalate.

General Data Gaps in EIDGR for this reach of LDW (Section 3.3)

- Data on contaminant concentrations in storm drain solids and stormwater near the S. Myrtle Street and S. Garden Street outfalls are needed to evaluate whether contaminants are being transported to RM 2.3-2.8 East sediments.
- If contaminants are present at concentrations of potential concern near these outfalls, then source tracing samples are needed to identify potential source(s) of contaminants.
- SPU/Myrtle data collected in 2008 and 2009 address these data gaps – illustrating the need for additional source control at SIM.

SIM-specific data gaps in EIDGR (Section 4.3.5)

Stormwater Discharge

- Ecology directed Seattle Iron & Metals to sample sludge material from the stormwater treatment system for metals in August 2006. No further information regarding this required sampling was found in the files. Additional data are needed to determine if the sludge should be handled as a hazardous waste and to determine if this sludge has the potential to reach the LDW.
- No information is available regarding any follow-up to the December 2007 stormwater compliance inspection.

Groundwater Discharge – possible effects on I/I to SW – see SPU/Myrtle data.

- Hart Crowser's 1998 Voluntary Cleanup Action Report, 606 South Myrtle Street, Seattle, Washington should be located and reviewed to evaluate the extent of soil and groundwater sampling that has been conducted at this property and to identify whether sediment COCs were detected in soil or groundwater samples.

Bank Erosion/Leaching – no probable effect on SW

- Additional information on the construction of the banks in this area is needed. Residual soil contamination is present at this property, therefore if bank erosion is likely, then data on contaminant concentrations in bank soils is necessary to evaluate the potential for sediment recontamination via this pathway.

Atmospheric Deposition – possible effects on South Garden & S Myrtle Streets' SD

- Investigation is needed to determine if the shredder residue is reaching the LDW directly or via the Seattle Boiler Works storm drain system. Additional data are needed to determine if the residue contains COCs.
- The status of the furnace used to burn insulation off electrical wire should be investigated to determine if it was relocated from the Harbor Island facility to Seattle Iron & Metals Corporation's current facility. Additionally, current furnace operations, if any, should be determined.

Data Gaps Partially Filled: SPU source tracing samples and inspections with Ecology UWI in 2008 (after the EIDGR) and 2009 clearly indicate that SIM is a source of contamination to the LDW via its contribution to municipal stormwater. Regardless of existing permit and regulatory structure, every effort should be made to reduce the impact of SIM's operation on stormwater discharges to the waterway (no matter to whom they are permitted)

SPU recommendations, which are generally concurred with by the LDW SCWG include the following

Additional Concerns
SEPA Determination of Non-Significance with Conditions – Seattle DPD

Cover
Shoreline Decision - Ecology & State Shorelines Hearing Board –
Comments & Info – SDPD Paul Janos (206)233-7195, SIM Bill Armour (253)396-0150
Original Public Comment 4/9/09 – no further public comment
Decision/notice of conditions placed on DNS – 3/25/10.
Appeal deadline for DNS: 4/8/10 (received via email from Cargill 4/5/10)
Original application: (1) 14' H x 24' W security fence w/gate; (2) add access to existing building off of 701 Orchard St); (3) 150 ' linear connection to existing SW collection system. No parking changes. (p 1 of cover, 3/26/10 rec'd by Ecy)

SDPD Notice of Decision 3/25/10 – DM Sugimura, Director
Repeats Cover facts plus notes on process for Master Use Permit determinations, Shoreline Decisions, etc.

SDPD Analysis & Decision of Director DPD
Addresses: 601 S Myrtle St and 701 S Orchard St
Application(s): 3009537 (Orchard), 3010071 (Myrtle)
Overall Proposed Action (both properties?): Landuse change from warehouse/mfg to salvage yard

* Total square footage involved with change is not clear – 86,247 apparently claimed, but notes show plans are 99,437 sq ft with 60 additional parking spaces proposed.
* Install new sorting equipment inside & outside buildings
* 14' H walls (not a fence as per original application notes)
* 200 sq ft gatehouse (not security gate as per original application notes)
* 87.5' truck scale (sq footage not provided, nor is drainage info)
* 300' linear connection to sw drainage (twice footage in original application)
* 44 surface parking spaces (not in original application – DPD noted 60 additional in plans)

Background Section SDPD Analysis & Decision
601 South Myrtle – add security gate & install access opening in existing building at 701. Includes 150' linear connection to existing stormwater drainage – no change in parking (this address?). DNS with conditions under Ch 25.05 SMC. Later note that this property is partially within the shoreline district.

701 South Orchard – no additional details or separate decision for this property/SEPA application number are provided. All subsequent analyses presumed to apply for decision at 601 South Myrtle.

601 South Myrtle - SIM claims steep slopes are due to stockpiles, not to shoreline itself. (p2, 1st paragraph)

Both properties in ECA liquefaction critical area (p2, 1st paragraph – WHAT DOES THIS MEAN?)

South Garden Street is unused compared to Orchard, Fox & 7th (i.e., streets in the vicinity)

Proposal Description within Background section,

* processing of regular raw materials will be "intensified" to extract greater number & proportion of metals from scrap & refuse.

* new sorting system at 701 Orchard St
* minor changes to existing property at 601 S Myrtle
* cut through east wall of 601 S Myrtle bldg "to accommodate access through the wst wall of an adjacent building" (sized for people or for trucks?)
* add a 14' high wall (presume this is still about 601 S Myrtle)
* ASTs built on "east end of waterfront site" (both are waterfront according to Figs 4 & 5 of EIDGR)

Public Comments within Background section
* concern about contaminated runoff [stormwater] to LDW
* concern about demo of historic structures
* concern about increased traffic – hazards, noise, vibration & air emissions.