Low Resolution Coring Program

Overview of Sampling Program

- Determine Nature and Extent of Impacts in Sediment
- Develop Understanding of Physical Characteristics for evaluation of sediment transport and stability
- 115 locations for cores proposed – in mudflats, channel and side channel
  - RM 0-1 ¼ mile transect (3) + authoritative -14 locations - 5 -10 samples/core
  - RM 1-7 – 1 mile transect (3)+ authoritative -32 locations – 5-10 samples/core
  - RM 7-17 – ½ mile transect(2)+ authoritative -52 locations – 2-7 samples/core
  - Dundee Dam and Tributaries – 17 locations – 2-6 samples/core
- Extensive Analytical suite of chemicals (radiodating, physical, organics and inorganics)
Field Activities

- Field start date July 21
- Level of effort – 12-16 weeks
- Sample delivery goal (70 samples per week) – averaging 40-50 /week
- # of Labs = 13
- MPI on-site most days
Summary of Progress (through 8/28/08)

- 30 locations of 115 proposed have been completed
- 192 samples processed (includes QC and splits samples with EPA) of an estimated 700 samples
- Sampling within RM 7-12 will be complete week of Sept.2 with the exception of 2 locations (76 and 77)
- One tributary (3rd river below HOT) samples collected
- Laboratory data expected to start coming in by mid Sept. on a steady basis
Data Collected at Each Location

Each Location
- Primary Core
- Secondary Core
- Grab Sample – Be-7 and Group C
- Grab Sample
- Subset – 12 locations – 0-2’ finer segmentation analysis

Segments analyzed
- 0-6”
- 3 – 1’ segments
- 2’ segments to the red-brown clay, sand or refusal
- Red-brown sand found in the majority of locations sampled thus far
Data being Collected

- Chemical data
  - 4 different analyte lists (Group A through D)

- Physical data
  - Grain Size, Specific Gravity, Bulk Density, Atterberg Limits

- Sediment coring data
  - By location, sediment type, depth to refusal or native material, photos of all segments

- Radiochemistry data
  - Be-7, Cs-137, Pb-210, K40,

- Field monitoring data
  - PID, Hg vapor, refractometer, tide gauges, GPS, H₂S monitoring, probing data,
Back in the Warehouse
Ø8A-Ø047-C4BS 07/31/08

0.5 - 1.5 feet
Ø8A - Ø048 - C2BS 07/31/08

0.5 - 1.5 feet
Analytical Laboratories

TestAmerica
- Knoxville, TN – SVOCs, PAHs, PCBs (aroclor and congeners), bioavailability PCBs
- West Sacramento, CA – Pesticides HRMS
- Edison, NJ/Burlington – TPH-purgeables and extractables
- Pittsburgh, PA – Herbicides

CAS
- Houston, TX – dioxins/furans
- Kelso, WA – VOCs, Pesticides, Butyltins, metals, AVS/SEM, ammonia, CN, TKN, phosphorus, TOC, sulfide, grain size, Atterburg limits, specific gravity
- Rochester, NY – Hex Cr

GEL- Charleston, SC - radiochemistry

Brooks Rand – Seattle, WA – Hg and methyl Hg

ASI – Williston, VT – fecal coliform and Giardia

University of Maryland – bioavailability

Carbon Petro – Monroeville, PA
Proposed in QAPP/FSP – (Worksheet #35)

- For Dioxins/Furans and PCB (Homologs and Congeners), 100% full validation (includes review of raw data and spot check for verification of calculations) will be conducted for each sample delivery group (SDG).

- For all other parameters, 100% full validation will be performed on the first two SDGs. If this validation indicates that the laboratory is producing acceptable results, the remaining SDGs will be subject to full validation on every tenth SDG, and limited validation for the remaining SDGs.

- Per QAPP – August 2005 Section 4.1.3
THANK YOU