

# Upper Coeur d'Alene Basin Project Updates



**Basin Commission Technical Leadership Group Meeting  
July 7, 2011**

# Agenda

- ROD Amendment Update
  - Aquatic Benchmarks
  - South Fork Biostabilization
  - Mine site Characterization Sampling
- CDA Data Viewer
- Asarco Trust Update
- Hecla Settlement & Coordination



# Proposed Plan Status

- Proposed Plan opened for comment on July 12, 2010
- Numerous outreach and educational events hosted by EPA and others during comment period
- Comment period extended 90 days in response to requests and closed Nov. 23, 2010
- More than 6700 comments received from ~1000 individuals

# Working with Basin Commission to address comments

- Upper Basin Project Focus Team meetings to discuss path forward
  - Dec. 7, 2010
  - Feb. 3, 2011
  - March 21, 2011 (conf call)
  - April 14, 2011
  - May 4, 2011 (conf call)
  - May 24, 2011
  - June 13, 2011 – field sampling kick-off meeting
- Updates at Basin Commission, TLG and CCC meetings



# Potential Adjustments to Cleanup Plan

- Eliminate stream liner - high cost difficult to construct – Interim rather than Final ROD
- Define where we will start and how cleanup will proceed in discrete time periods i.e., five year increments
- Identify areas of strong consensus:
  - Key mine/mill sites in areas impacted most
  - Large sources to groundwater/surface water
  - Remedy protection projects
  - Sites that allow for drainage completion



# Potential Adjustments (cont.)

- Identify contingent actions
  - Active facilities
  - Sites with some work performed
  - Sites with risk but in cleaner drainages
- Adjust site cleanup list based upon results of 2011 Upper Basin Focused characterization sampling
- Incorporate aquatic benchmarks



# Aquatic Benchmark Update

- Goal – identify measurable responses that can be used to evaluate and predict potential environmental improvements
  - Identify and compile existing data
  - Identify candidate biological response metrics
  - Analyze relationships between biological metrics and
    - Water quality
    - Sediment
    - Habitat
  - Include metrics in RODA and monitoring program

# South Fork Bank Biostabilization

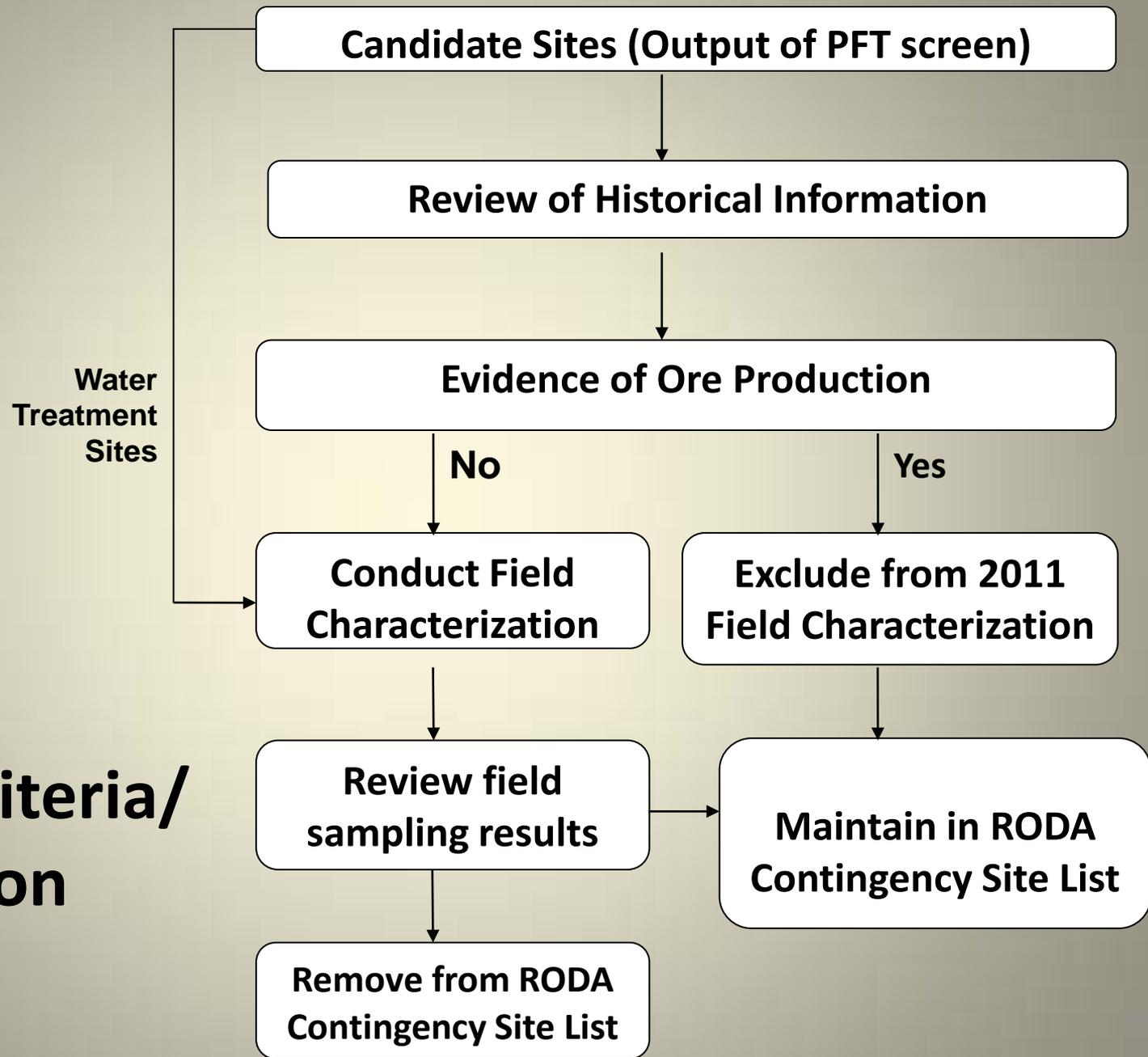
- Field visit to clarify comments raised about proposed SFCDA River bank biostabilization projects





# Mine Site Characterization Sampling Purpose and Objectives

- Inform responses to Proposed Plan comments
- Pilot scale effort to collect data to determine if no apparent risk or threat of release
- Data may support modification of the list of mine sites in cleanup plan
- Findings may necessitate a larger scale characterization effort
- Gather samples at flowing adits



**Water Treatment Sites**

# **Decision Criteria/ Site Selection**



# Criteria for Removal of Sites from Cleanup List

- No historical evidence of mineral discovery or ore production
- Physical inspection supports no evidence of mineral discovery or ore production
- Soil lead values less than 530 ppm and arsenic below 100 ppm



# Candidate Sites

- A total of 95 candidate sites
  - 12 in the upper SFCDR watershed
  - 17 in the Canyon Creek watershed
  - 12 in the Ninemile Creek watershed
  - 24 in the mid-SFCDR watershed
  - 5 in the Big Creek watershed
  - 4 in the Moon Creek watershed
  - 21 in the Pine Creek watershed (8 in East Fork and 13 in West Fork)



# Review of Historical Information

- “Desk-top” review
  - Initial screen by EPA/CH2M HILL
  - Review of refined list by Wallace Mining Museum/Trust
- Confirm site name/location
- Evidence of mineral discovery or ore production
  - Supporting documentation (e.g., mine patents, production records, etc.)



# Field Activities

- Physical site inspection (evidence of mining?)
- Soil Sampling
- Surface water sampling at flowing adits



# Physical Inspection

- Physical inspection checklist
  - Consistent with historical info
  - Evidence of ore and/or mining
  - Waste piles (quantity and type)
  - Adit and adit flow
  - Distance to surface water
  - Presence of vegetation
  - Recreational use
  - Proximity to residences or communities
  - Access
  - Erosion
- Document using GPS and a standardized field form



# Field Sampling

- Soil sampling
  - Soil samples collected from waste piles
  - Multi-increment sampling - one composite sample per pile
- Surface water sampling of flowing adits
  - Collect grab samples
  - Total and dissolved metals
  - Discharge measurement
- EPA Contract Lab (CLP) to conduct analysis (no XRF)



# Field Support

- Up to four field teams provided by:
  - CH2M HILL
  - BLM
  - IDEQ
  - Trust
- Sample management - IDEQ/TerraGraphics



# Sampling Schedule

- Draft QAPP in late April – final late May
- Historical review completed by CH2M Hill and Wallace Mining Museum
- Access information gathering ongoing
- Field work started in late June
- Data evaluation/reporting – late summer



# Upper Basin ROD Amendment Next Steps / Schedule

- Continued discussions with Upper Basin PFT
- Upper Basin focused characterization sampling – summer 2011
- Aquatic benchmarks – summer 2011
- Implementation Plan – summer and fall 2011
- Respond to comments – ongoing
- Issue ROD Amendment – late 2011

EPA Region 10 Coeur d'Alene Basin Superfund Site  
**\*\*BETA\*\*** Data Viewer

<http://gispub9.epa.gov/CDA/>

Overview of Major Features

**\*\*\*PLEASE NOTE\*\*\***

this is under development and we are looking for input!!!

*Please send any input directly to Sue McCarthy at  
[mccarthy.sue@epa.gov](mailto:mccarthy.sue@epa.gov)*

Coeur d'Alene Basin Superfund Site Data Viewer and Downloader - Windows Internet Explorer

http://gispub9.epa.gov/CDA/#

File Edit View Favorites Tools Help

Coeur d'Alene Basin Superfund Site Data Viewer and ...

### EPA Region 10 Coeur d'Alene Basin Superfund Site Data Viewer

Zoom to area of interest, select from ALL drop down boxes, then use **Select Area** button to select stations and results for display on the map and grid

Select STATION TYPE | Select CHARACTERISTIC | Select MATRIX | **Select Area on Map** | Clear Selection

Currently displays WQX/STORET Data for

- BUNKER\_WQX
- R10BUNKER –historical dataset currently being uploaded to WQX

Selection Status:  
# of results selected = 0 (300 is the maximum # of results that will be displayed) | Download ALL Data in Selected Area

OrgID	Station	Matrix	Media	Fraction	SampleID	SampleDate	Characteristic	Result	Units	Qualifier	Detected	SampleTyp	Depth

Map Click Results:  
Number of As, Cd, Cu, Pb and Zn results at map click location: 10

STATIONID | SAMPLEID | SAMPLEDATE | CHARACTERISTIC | MATRIX | MEDIA | FRACTION | RESULT | RESULTUNIT | QUALIFIER | STATIONTYPE | SAMPLETYPE | ORG\_ID

Done | Local intranet | 100%

**EPA Region 10 Coeur d'Alene Basin Superfund Site Data Viewer** ?

Zoom to area of interest, select from ALL drop down boxes, then use **Select Area** button to select stations and results for display on the map and grid

Select STATION TYPE    Select CHARACTERISTIC    Select MATRIX    **Select Area on Map**    Clear Selection

•Select from Multiple Base Maps

•Legend shows the station type – River/Stream, Lake, Well.....

OrgID	Station	Matrix	Media	Fraction	SampleID	SampleDate	Characteristic	Result	Units	Qualifier	Detected	SampleTyp	De

Map Click Results:

Coeur d'Alene Basin Superfund Site Data Viewer and Downloader - Windows Internet Explorer

http://gispub9.epa.gov/CDA/#

EPA Region 10 Coeur d'Alene Basin Superfund Site Data Viewer ?

Zoom to area of interest, select from ALL drop down boxes, then use **Select Area** button to select stations and results for display on the map and grid

River/Stream: Cadmium, Sediment

Select Area on Map | Clear Selection

- Arsenic
- Cadmium
- Chromium
- Lead
- Zinc

- Query and display data on map and in grid
- Sort grid
- Highlight grid records on map

Selection Status:  
# of results selected = 285 (300 is the maximum # of results that will be displayed) Download ALL Data in Selected Area

OrgID	Station	Matrix	Media	Fraction	SampleID	SampleDate	Characteristic	Result	Units	Qualifier	Dete
BUNKER_WQX	LC-BSED-S-013	Sediment		Dissolved	LC-BSED-S-013-04222010	04/21/2010	Cadmium	37	mg/kg	U	NC
BUNKER_WQX	LC-SED-B-12C	Sediment		Total	LC-SED-B-12C-Bulk-11172010	11/16/2010	Cadmium	10.5	mg/kg	J	
BUNKER_WQX	LC-SED-B-12C	Sediment		Total	LC-SED-B-12C-63_250um-11172010	11/16/2010	Cadmium	33	mg/kg		

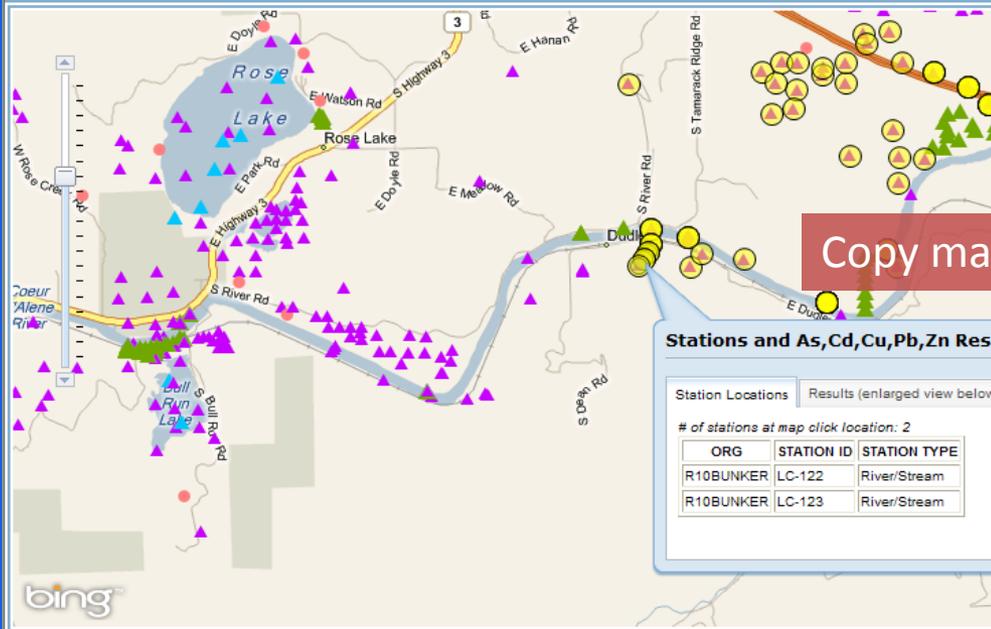
Map Click Results:

Done Local intranet 100%

### EPA Region 10 Coeur d'Alene Basin Superfund Site Data Viewer ?

Zoom to area of interest, select from ALL drop down boxes, then use **Select Area** button to select stations and results for display on the map and

River/Stream    Cadmium    Sediment    **Select Area on Map**



#### Stations and As,Cd,Cu,Pb,Zn Results

Station Locations    Results (enlarged view below grid)

# of stations at map click location: 2

ORG	STATION ID	STATION TYPE
R10BUNKER	LC-122	River/Stream
R10BUNKER	LC-123	River/Stream

Book2 - Microsoft Excel

STATIONID	SAMPLEID	SAMPLEDATE	CHARACTERISTIC	MATRIX	MEDIA	FRACTION	RESULT	RESULTUNIT	QUALIFIER	STATIONTYPE	SAMPLETYPE	ORG_ID
LC-122	168241	11/15/1997	Arsenic	Sediment	Surface SoilSediment	Total	16.1	mg/kg		River/Stream	Sample-Routine	R10BUNKER
LC-122	168242	11/15/1997	Arsenic	Sediment	Surface SoilSediment	Total	10.2	mg/kg		River/Stream	Sample-Routine	R10BUNKER
LC-122	168242	11/15/1997	Cadmium	Sediment	Surface SoilSediment	Total	0.29	mg/kg	U	River/Stream	Sample-Routine	R10BUNKER
LC-122	168241	11/15/1997	Cadmium	Sediment	Surface SoilSediment	Total	3.5	mg/kg		River/Stream	Sample-Routine	R10BUNKER
LC-122	168241	11/15/1997	Cadmium	Sediment	Surface SoilSediment	Total	9.2	mg/kg		River/Stream	Sample-Routine	R10BUNKER
LC-122	168242	11/15/1997	Chromium	Sediment	Surface SoilSediment	Total	16.1	mg/kg		River/Stream	Sample-Routine	R10BUNKER
LC-122	168241	11/15/1997	Chromium	Sediment	Surface SoilSediment	Total	12	mg/kg		River/Stream	Sample-Routine	R10BUNKER
LC-122	168242	11/15/1997	Lead	Sediment	Surface SoilSediment	Total	25.7	mg/kg		River/Stream	Sample-Routine	R10BUNKER
LC-122	168241	11/15/1997	Lead	Sediment	Surface SoilSediment	Total	1530	mg/kg		River/Stream	Sample-Routine	R10BUNKER
LC-122	168241	11/15/1997	Lead	Sediment	Surface SoilSediment	Total	1240	mg/kg		River/Stream	Sample-Routine	R10BUNKER

Copy map click results into Excel

# of results selected = 264 (300 is the maximum # of results that will be displayed)    Download ALL Data in Selected Area

OrgID	Station	Result	Units	Qualifier	Date
R10BUNKER	LC-120	4.7	mg/kg		
R10BUNKER	LC-121	0.26	mg/kg	U	
R10BUNKER	LC-121	4.1	mg/kg		
R10BUNKER	LC-121	6.7	mg/kg		
R10BUNKER	LC-122	0.29	mg/kg	U	

Download Data from WQX/STORET

Map Click Results:

Number of As,Cd,Cu,Pb and Zn results at map click location: 23

STATIONID	SAMPLEID	SAMPLEDATE	CHARACTERISTIC	MATRIX	MEDIA	FRACTION	RESULT	RESULTUNIT	QUALIFIER	STATIONTYPE	SAMPLETYPE	ORG_ID
LC-122	168241	11/15/1997	Arsenic	Sediment	Surface	Total	16.1	mg/kg	Null	River/Stream	Sample-	R10BUNKER



# Coeur d'Alene Work Trust Update

- EPA approved the Work Trust Work Plan for FY 2011 (October 2011 - October 2012) in February 2011 for the following projects:
  - Construction of the Remedy at the USBM site in Osburn.
  - Characterization of sites in the East Fork of Ninemile Creek.



# Coeur d'Alene Work Trust Update - Continued

- Further characterization work near the Gem Site in Canyon Creek.
- Conduct a Compost Feasibility Study.
- Work with the Wallace Mining Museum to gather additional historical information on sites.
- 2012 Planning and Work Plan development.



# Coeur d'Alene Work Trust Update - Continued

- Trust is in the process of preparing work plans, health and safety plans, and other documents to support specific projects.
- Upon completion, the Trust will issue RFP's for hiring contractors to perform the work.
- The Trust will provide an update on progress at the August Commission Meeting.

# Trust Work Challenges in Ninemile



Road washout above Success



Road washout below Success

# Hecla Update

- Consent Decree has been lodged and 30 day comment period underway
- Once entered by court
  - Provides \$263 million over several years
  - Identifies a protocol for working with EPA in mining areas
  - Carves out Lucky Friday complex from Superfund Cleanup
- EPA starting to coordinate with Hecla for work at Hecla Star Complex in Canyon Creek

A photograph of a streambed with a culvert opening in the background and overlaid text. The streambed is composed of numerous light-colored rocks and debris, with a small pool of water visible. The culvert is a dark, rectangular opening in a concrete structure, partially obscured by vegetation. The surrounding area is a mix of dry grass, green shrubs, and trees with some autumn-colored leaves. The text "QUESTIONS?" is overlaid in the upper center, and "Thank you!" is overlaid in the lower center, both in a bold, black font with a white outline.

**QUESTIONS?**

**Thank you!**