

# Carpenter Snow Creek and Barker Hughesville Mining District Superfund Sites

## Update on 2012 Field Activities



# 2012 Field Activities

- Neihart Remedial Design
- Residential Yard Sampling
- Streamside and Floodplain Soil Sampling
- Block P Mine Cleanup
- Abandoned Mine Surveys
- Biota Sampling
- Repository Investigation
- Monitoring Well Installation and Groundwater Sampling
- Surface Water, Sediment and Porewater Sampling
- Roadbed Sampling

# Neihart Remedial Design

- NEW EPA Project Manager  
(Neihart Community residential soils)  
Tillman McAdams  
(406) 457-5015  
[mcadams.tillman@epa.gov](mailto:mcadams.tillman@epa.gov)
- Approximately 40 percent of the properties identified for remediation have Remedial Design complete
- Repository is required prior to yard cleanups
  - funding requested post repository designation

# Neihart Remedial Design

- EPA's Pre-Remedial Assistance for Property Owner Soil Management – EPAPOSM (or POSM for short).
  - Fact sheet with process to be mailed out.
- Sandy Johnson of the Cascade County Health Department (406) 454-6950 is first contact for starting process
- Moving soil/potential waste resulting in health risk and potential trigger of Superfund liability
- HAZWOPER training to be provided by Cascade County prior to next field season.

# Residential Sampling



Six residences on the Neihart Slope

Properties along Belt Creek

13 residences and the historic rail depot were sampled in Monarch

51 residential wells were sampled



# Streamside and Floodplain Soil Investigation



# Streamside Investigation



Belt Creek and site tributaries  
Provides volume estimates  
and more certainty in the  
risk assessment

Almost 1500 field measurements  
were taken

Metals and arsenic measured

Samples taken at the surface



# Test Pits



Over 120 test pits completed and 600 measurements were taken at depth

Tailings and contaminated soils

Metals and arsenic detected within the first three feet



# Block P Mine Cleanup



Almost 240,000 cubic yards of waste rock were excavated and placed in a nearby repository



Some steam reclamation completed below the original waste pile

# Abandoned Mine Surveys



**Completed the evaluation of all known abandoned mines at both sites**

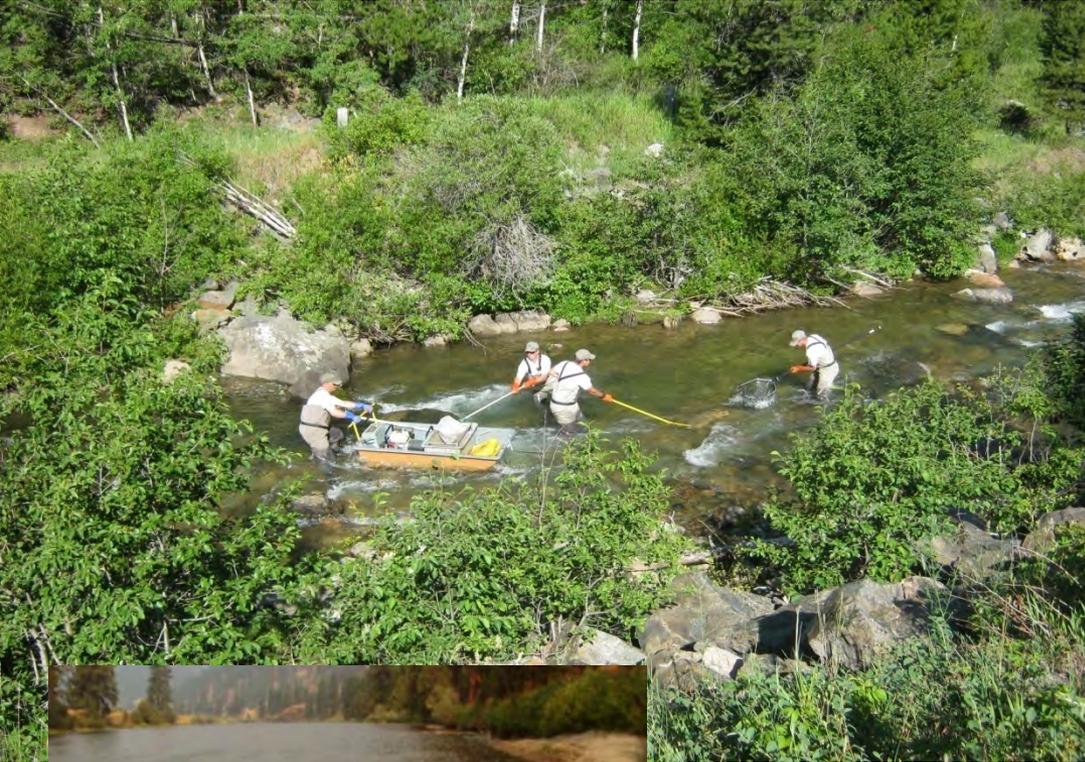
**Soil, sediment and water samples collected and physical and chemical hazards assessed**

**Estimated volumes determined**

**Geochemical analyses conducted**



# Biota Sampling



**In situ laboratory studies completed**

**Small mammals, terrestrial insects, soil samples and vegetation samples were collected**



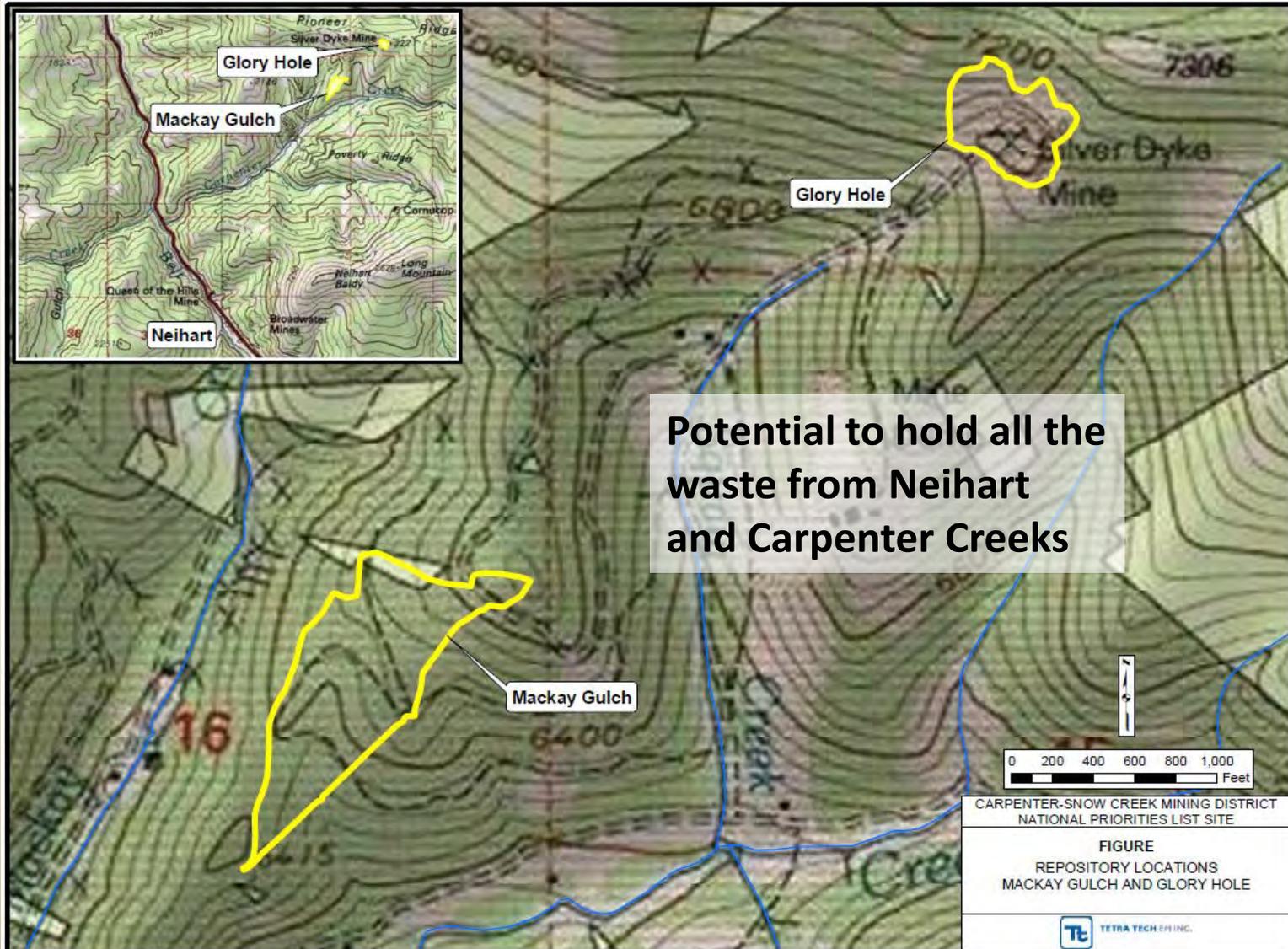
**Population surveys**

**Caged fish studies**



**Data collected supports the Ecological Risk Assessment**

# Carpenter Creek Repository Investigation



# Groundwater Sampling



**39 monitoring wells and temporary well points installed**

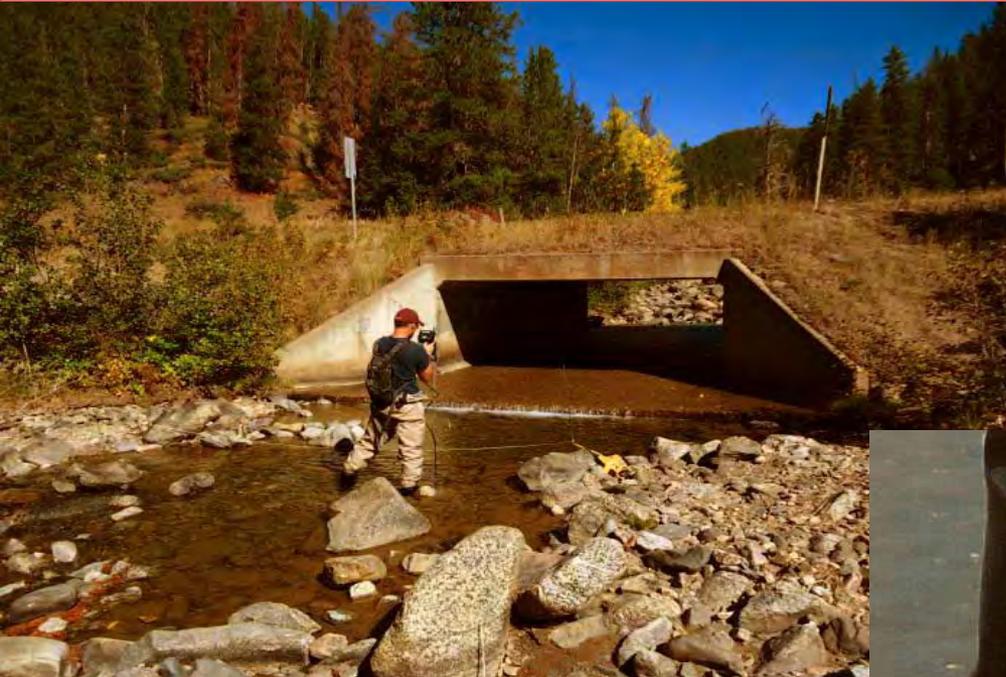
**Over 50 domestic wells sampled**

**Two rounds of sampling (spring and fall)**

**100+ samples collected**



# Performance Monitoring



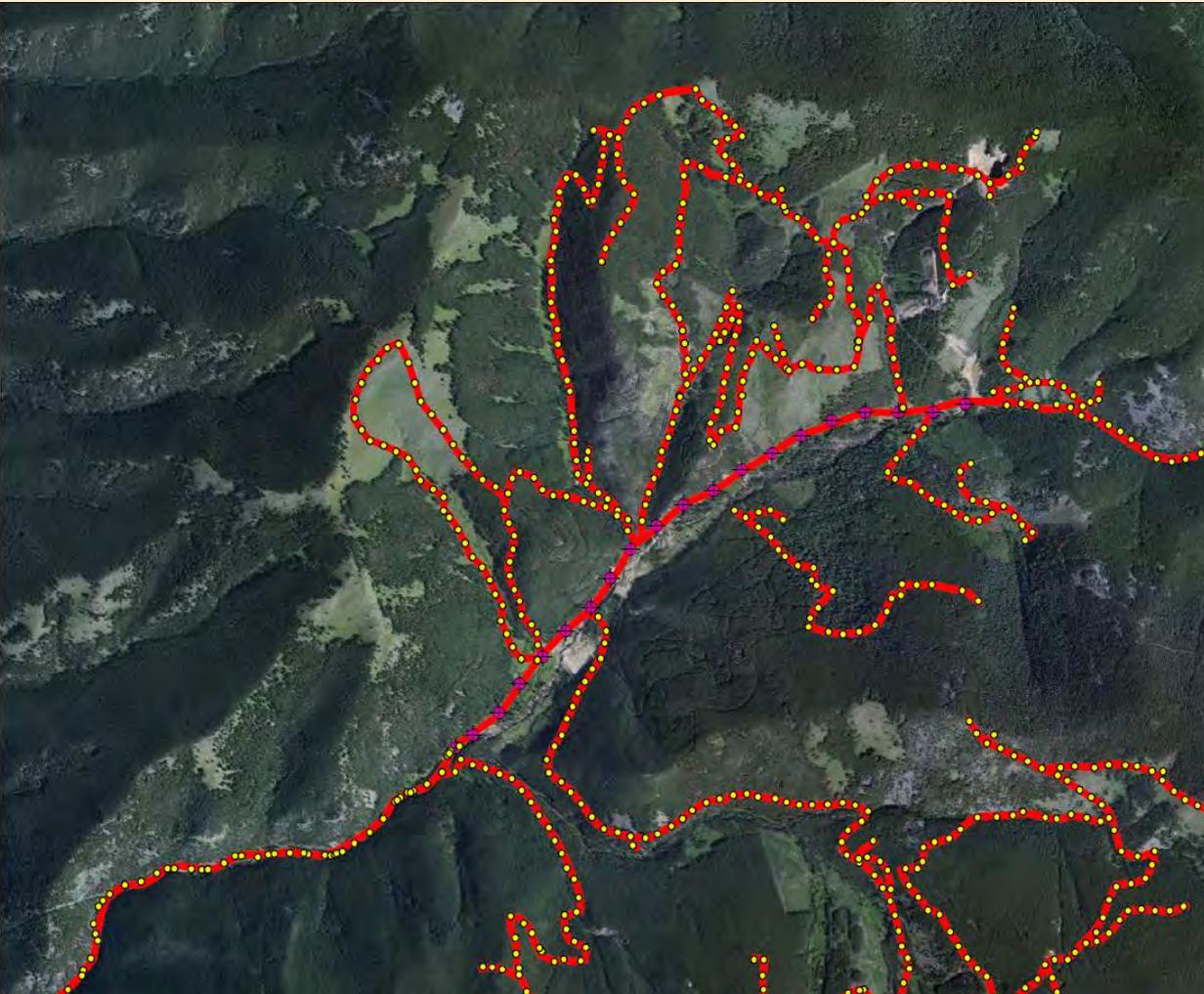
Collected surface water, field measurements, sediment, pore water and seeps/mine discharge

**Over 250 water samples were collected in 2012**

**Continuous measurements placed at three mine discharges**



# Roadway Sampling



37 miles of roads and  
ATV trails sampled

950 measurements taken



# 2013 Activities

- Finalize Neihart Remedial Design and Block P Mine cleanup
- Town of Neihart Public Meeting/Community Dinner to update progress and detail field season options (late spring of 2013).
- Complete Remedial Investigation Reports and begin the Feasibility Study
  - Screening of cleanup alternatives
- Continue performance monitoring
- Determine extent of groundwater contamination
- Continue repository investigations
- Continue adit monitoring at select locations
  - Tracer studies and water balance studies
- Continue data collection
  - 43 properties along Belt Creek and streamside properties in Neihart
  - Properties within Obrien and Johnston Creek drainages

# Interim Measures



**Construct wetlands to passively treat mine water at three locations**

**Construct water diversions to route clean water around contaminated areas at several locations**



# QUESTIONS?

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