Silver Creek Stakeholder Meeting

KATHRYN HERNANDEZ, EPA

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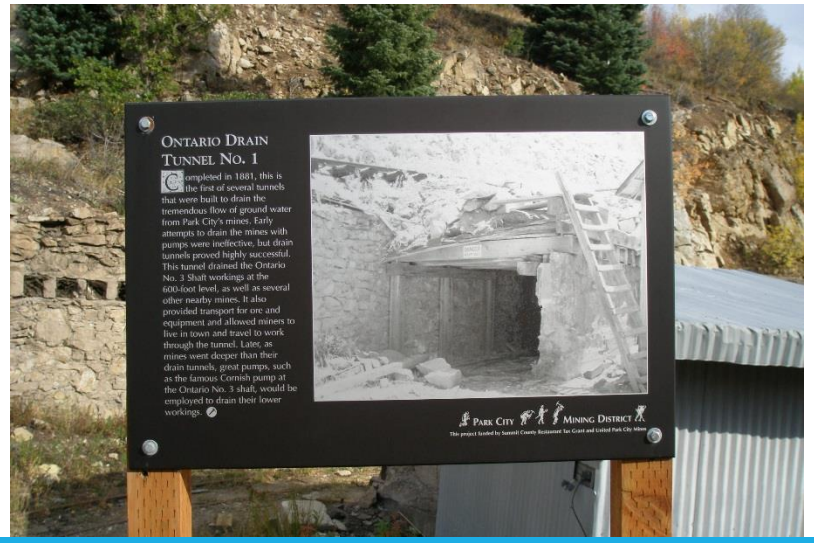
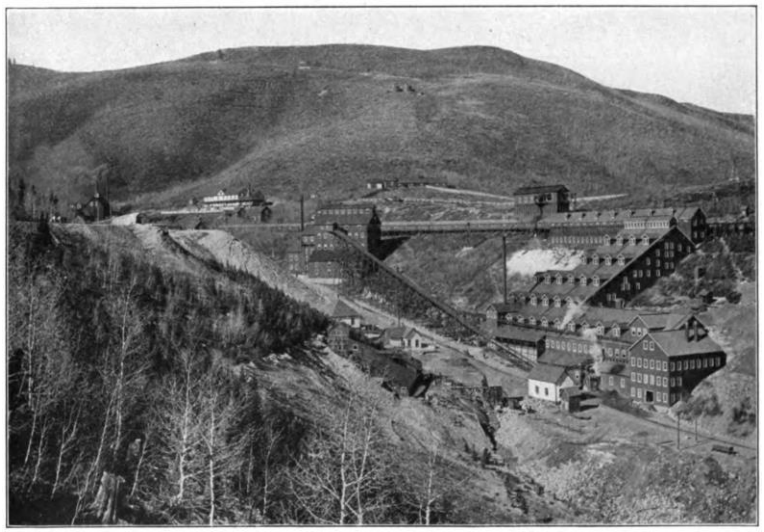
Lower Silver Creek Background

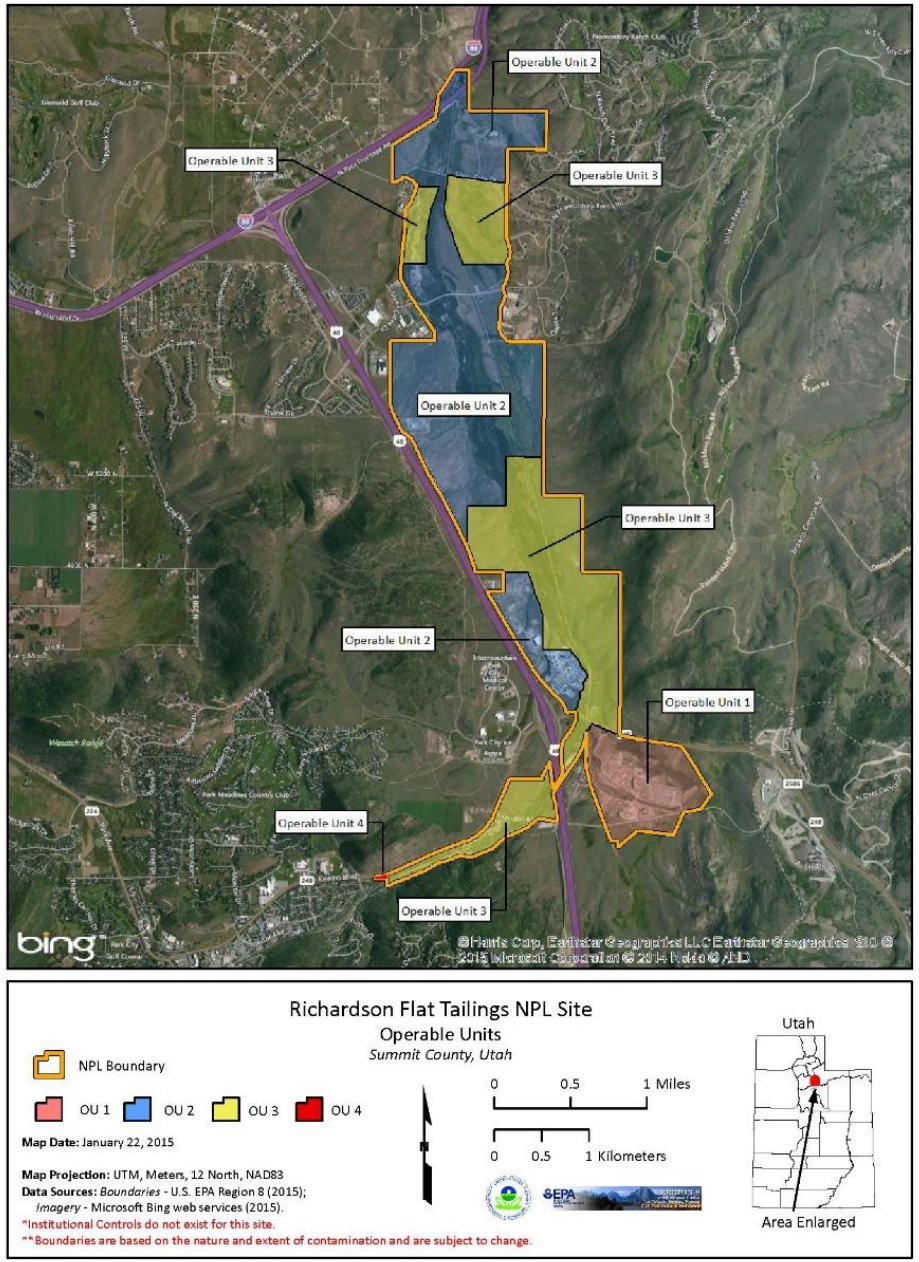
- Park City was historically a mining town, with the mines operating from the mid to late 1800s through about the 1950s
- Mined for silver, lead and zinc
- Mine tailings have been deposited throughout Park City and surrounding area
- Silver Creek itself was part of mining operations, used for sluicing material downstream to impoundments





Richardson Flat Tailings Site

- Soil, Ground and Surface water pollution from *arsenic, cadmium, copper, lead, mercury, silver* and *zinc*
- Mine tailings throughout Silver Creek area
- OU1 – remediation starting in 2008, contains mine tailing repository
- OU2/3 – Floodplain and surrounding uplands along Lower Silver Creek
- OU4 – Park City Prospector Square Drain Outlet

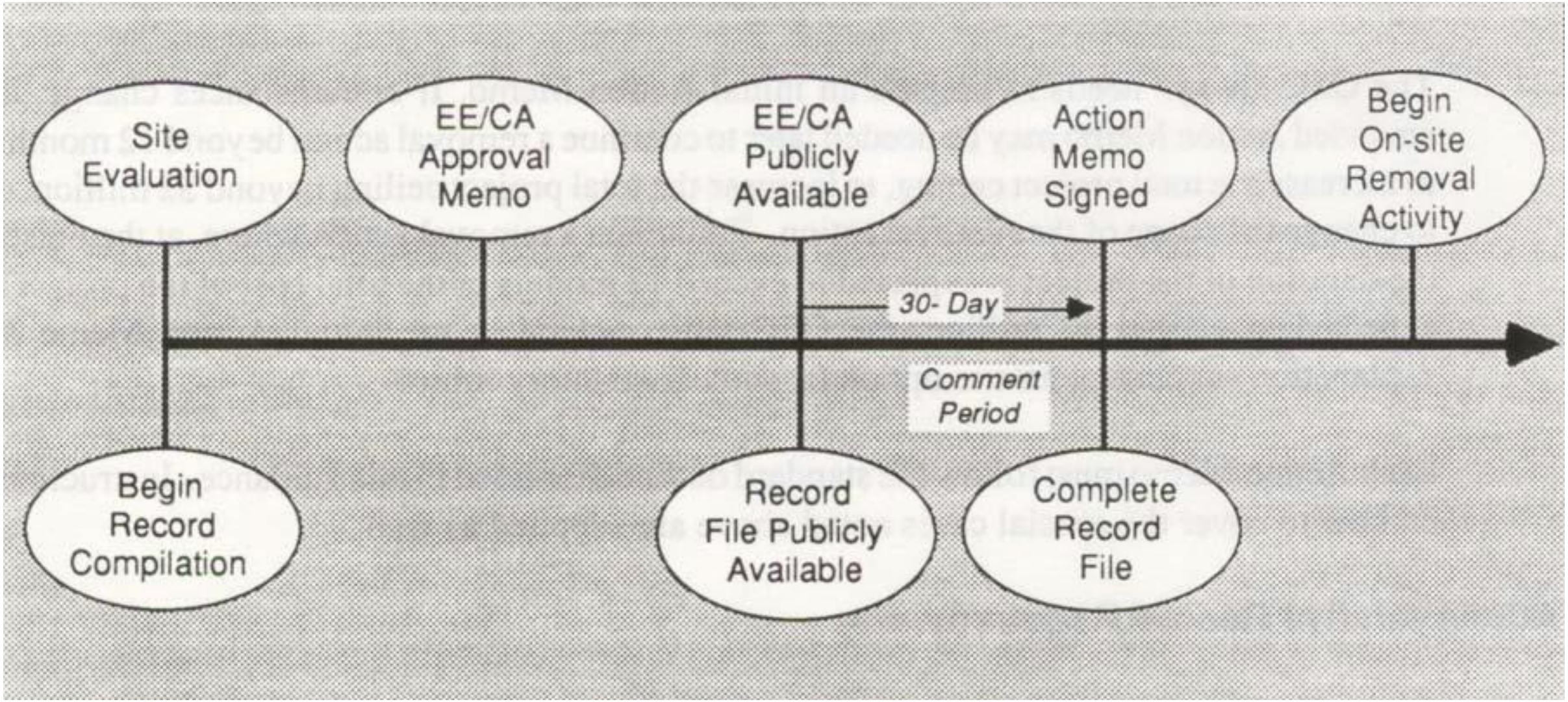


Legal Agreements

- Two Administrative Order on Consents (AOC)
  - Acknowledges the release of hazardous substances that may have resulted in injury to natural resources under federal and state trusteeship
  - Determine nature and extent of contamination and threat to public health, welfare or environment
  - Process for developing an Engineering Evaluation/Cost Analysis
  - Process for identifying and evaluating alternatives to respond to or remedy the hazardous substances
  - Process for conducting actions to implement Removal Action
  - Process for assessing injury to natural resources
- 2013 – AOC finalized for OU4 among EPA, other state and federal agencies and Park City Municipal Corporation (PCMC)
- 2014 – AOC finalized for OU2 and OU3 among EPA, other state and federal agencies and United Park City Mines Company (UPCM)

Engineering Evaluation/Cost Analysis

- Executive summary
- Site Characterization
  - Site description and background
  - Source, nature, and extent of contamination
  - Analytical data
  - Streamlined risk evaluation
- Identification of removal action objectives
  - Scope of the removal
  - Removal schedule
- Identification and analysis of removal action alternatives
  - Effectiveness
  - Implementability
  - Cost
- Recommended Removal Action
- Public Notice of availability of EE/CA


Site Evaluation
EE/CA Approval Memo
EE/CA Publicly Available
Action Memo Signed
Begin On-site Removal Activity
30- Day
Comment Period
Begin Record Compilation
Record File Publicly Available
Complete Record File

OU4 Sampling and Remediation

- Biocell – installed 2008, treats portion of flow from the Prospector Square Drain
- Sampling and Analysis Plan developed in 2013
- Sampling from June 2013 – May 2014
- Groundwater and surface water monitoring of water levels and water quality
- Analyzed soil profiles and soil chemical composition
- Draft Site Characterization Report summarizing sampling results currently under review by EPA

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OU4 Sampling Activities

OU2 and OU3 Sampling

- 2002- State soil and surface water sampling to determine general extent of contamination
- 2004 – USGS sampling in Silver Maple Claims
- 2007 – EPA soil, surface water and shallow groundwater sampling

OU2 and OU3 Sampling

- 2014 – Sampling and Analysis Plan developed
- 2014-2016 – sampling surface water, groundwater, soil, sediment, macroinvertebrates, plant tissue and game fish tissue
- 2016 – Site Characterization Report will be developed

Removal and NRDA Restoration

- Restoration and removal will be an invasive process once work starts
- Lots of visible/audible signs construction (excavation, heavy machinery, fencing etc.)
- Once work is complete things will look better and return ecological functions to Lower Silver Creek

Next Steps

- Simultaneous development of Natural Resource Damage Assessment
  - Information on types of natural resources injured by contamination
  - Level of injury
  - Incorporate restoration goals into remediation