



Overview of the Site Evaluation and Categorization Process

- **Adaptive Management Framework**
- **Water Quality Data**
- **Human and Ecological Receptor Exposure**
- **Additional Information**
- **Develop the criteria and categories that will be used to evaluate sites at today's meeting**



Adaptive Management Framework

- Adaptive Management identified as the strategy for Remedy implementation and project sequencing (top-down approach).
- Review of Proposed Plan sites is being conducted using a bottom-up approach.



Bottom-Up Review of Proposed Plan Sites

- MAU model value/cost ratios.
- Site Location
- Water quality data
- Potential for Human Health and Ecological Receptor risk
- Additional input received during the comment period and this meeting



Preliminary MAU Model Value/Cost Ratios

- **MAU input:**
 - Dissolved zinc load reduction
 - Particulate lead score
 - Riparian/floodplain area acreage

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Preliminary MAU Model Value/Cost Ratios

- **All sites assigned a Value based on their ability to address the objectives identified in the MAU Model.**
- **Values divided by the estimated cost of the action to develop a value/cost ratio, “bang-for-buck”**
- **The value in the value/cost ratio only represents those objectives identified in the MAU model, other factors evaluated outside of the MAU model.**

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Site Location

- **Sites segregated based on their location within watersheds/tributaries to allow for grouped evaluations.**
 - SFCDR tributaries (Lake Creek, Grouse Gulch, Canyon Creek, Moon Gulch, etc)
 - Main stem SFCDR between monitoring segments

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Water Quality Data

- **Available water quality data compiled.**
- **Review of available water quality data:**
 - Dissolved Zinc AWQC ratio
 - Particulate Lead loading
- **Majority of locations have limited water quality data**
 - Recent focus on evaluation of water quality using the BEMP
 - Majority of data collection activities have been focused on higher priority and surface water/groundwater interaction

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Human Health and Ecological Receptors

- Proximity of site to residences
- Evidence of recreational activity
- Location of site in relation to remediated areas
- Presence of habitat areas and potential for exposure
- Majority of sites have limited data regarding contaminant concentrations in soils and sediments.

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Additional Information and Input

- A limited amount of data and information are available.
- Proposed Plan comments indicate that information may be available to aid EPA in conducting an evaluation of current Proposed Plan sites.
- While qualitative information is helpful, quantitative information is needed to make decisions regarding sites in the Proposed Plan.

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Current Status of the Proposed Plan Site Review

- Sites have been ordered based on their MAU model value/cost scores.
- Available water quality data have been compiled and evaluated to identify the water quality status at various locations within the Upper Basin.
- Sites that are located near residences, that are used for recreational activities, and that are located upgradient of remediated areas have been identified.

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Things to Accomplish Today

- **Refine Categorization Process**
- **Categorizing Sites**
 - Input on categories for sites
 - Examples
- **Areas of Greatest Interest**
- **Additional Lines of Evidence**

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Path Forward for Review of the Proposed Plan Sites

- **Complete review and assembly of Proposed Plan comments**
- **Gather additional information regarding sites and methodology for categorization at this meeting**
- **Complete review of the Proposed Plan sites and categorize sites based on criteria developed at this meeting.**

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Daisy Gulch Example

- **Monitoring Location SF-206**
 - 2 water quality samples (11/97 and 5/98)
 - Diss. Zn AWQC Ratio – 0.10 to 0.13
 - Lead Loading – Non-detect, 0.15 lb/day
- **6 Proposed Plan sites**
 - LOK007 Butte & CDA UWR(ep)
 - LOK008 Idaho Silver #2 FPWR
 - LOK009 Snowstorm #4 FPWR
 - LOK010 Hash House Mine FPWR
 - LOK011 Snowstorm #3 FPWR and Adit (5 cfs)
 - LOK048 Snowstorm Apex FPWR

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Grouse Gulch Example

- **Monitoring Location SF-223**
 - 14 samples (11/97 – 3/99)
 - Diss. Zn AWQC ratio: 6.18 – 17.4
 - Lead loading: 0.08 – 0.52 lb/day (only 2 samples)
- **6 Proposed Plan Sites**
 - MUL009 Silver Shaft UWR(ep)
 - MUL012 Star 1200 Level FPWR & adit
 - MUL013 We Like Mine UWR(ep)
 - MUL014 Grouse Mine UWR(ep) & adit
 - MUL015 West Star Mine UWR(ep)
 - MUL142 Grouse Gulch Imp Riparian FPSeds