



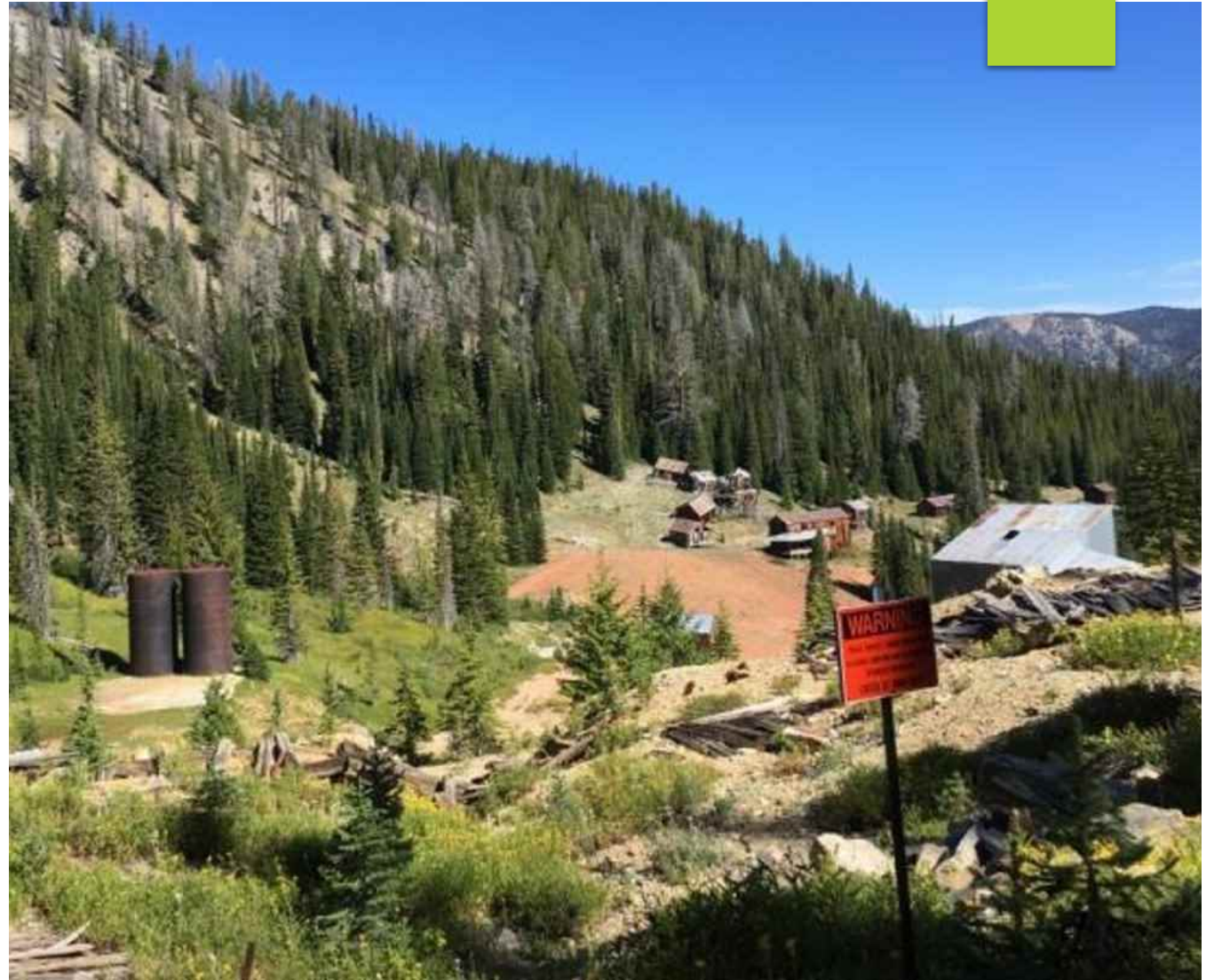
Cinnabar Mine Site

BRIEFING FOR THE PAYETTE FOREST COALITION

MAY 18, 2023

Cinnabar Mine Site Overview

- ▶ Former mercury mine
- ▶ Payette National Forest, 15 miles from Yellow Pine, Idaho
- ▶ Popular destination for tribal and non-tribal recreational fishers
- ▶ Critical habitat for bull trout, steelhead, & Chinook salmon
- ▶ Numerous previous investigations and partial cleanup actions



Previous Partial Cleanup Actions (Removal Actions) at Cinnabar

► EPA conducted 3 Removal Actions at Cinnabar Mine (1996, 1998, 2004)

► Actions include:

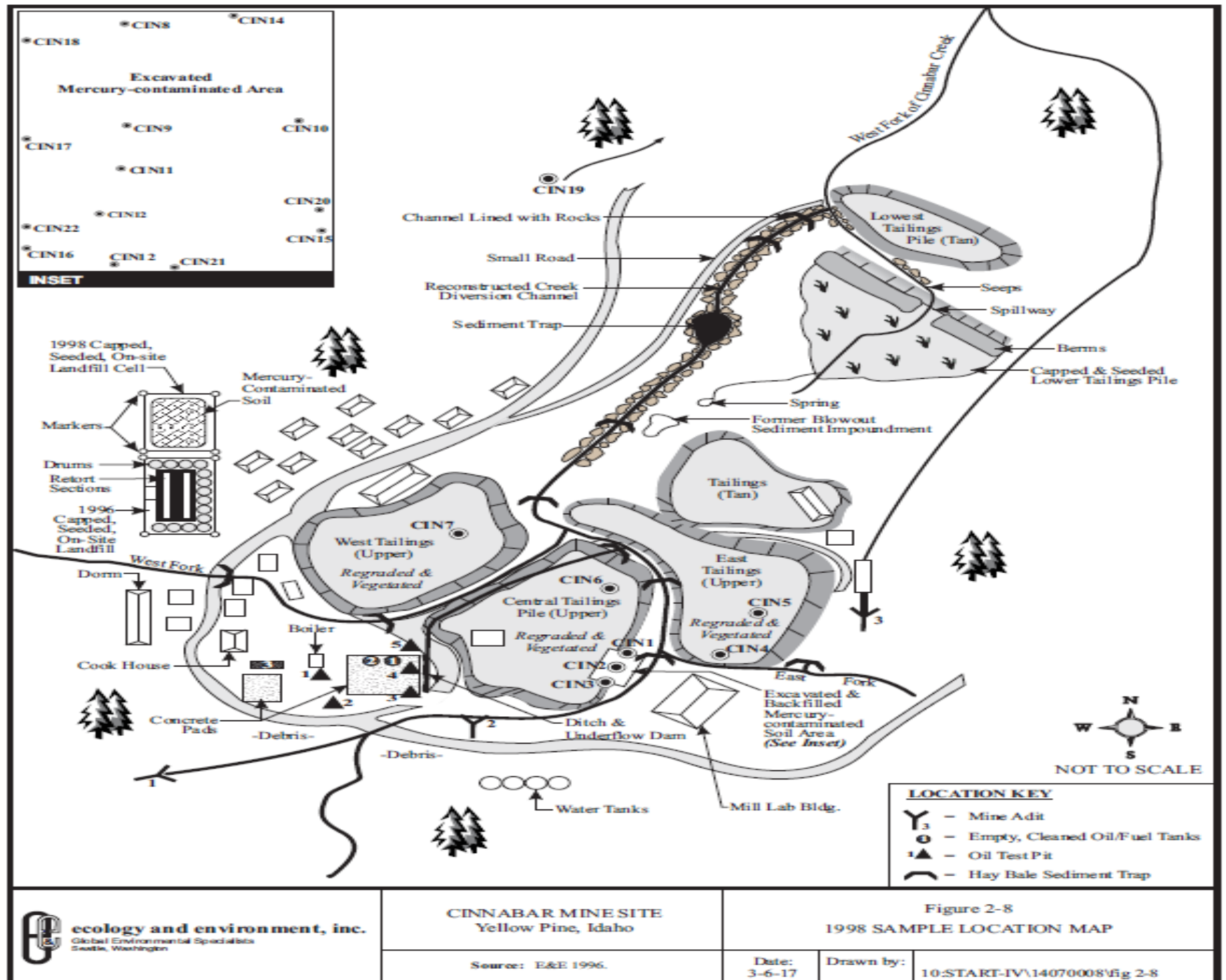
- Retort removal & cap
- Stream diversion & armoring
- Capping of contaminated soil
- Tailings regrading & stabilization
- On-site landfill for highly contaminated materials

Note: The USFS also conducted removal actions (mostly in 2003) on the lower tailings pile.

► **Concern about ongoing contamination led to an Integrated Assessment (2016-2018) to identify any additional Removal Actions and to evaluate eligibility for listing on the NPL.**



Note: EPA sampling in 2016 included West Cinnabar Creek, Cinnabar Creek and Sugar Creek – 4.3 miles downstream of the Site



Superfund Removal vs Remedial (NPL) Authorities

Removal Authorities

- Designed to mitigate immediate threats
- Program funding currently very limited – statutory limits of \$2M and 1 year
- Limited public engagement
- Cleanups meet regulatory standards to the *extent practicable considering the scope and urgency of situation*
- No State cost share
- State must assure long-term maintenance and operation of cleanup actions. e.g. repositories

Remedial (NPL) Authorities

- Comprehensive investigation and cleanup of contaminated sites
- Significant opportunities for public engagement
- EPA-provided funding for state and tribal participation throughout cleanup process
 - Specific points throughout process for State and Tribal input
- Cleanups must meet regulatory standards unless formally waived
- States must share in 10% of remedial cleanup *construction* costs
- State must assure long-term maintenance and operation of cleanup actions

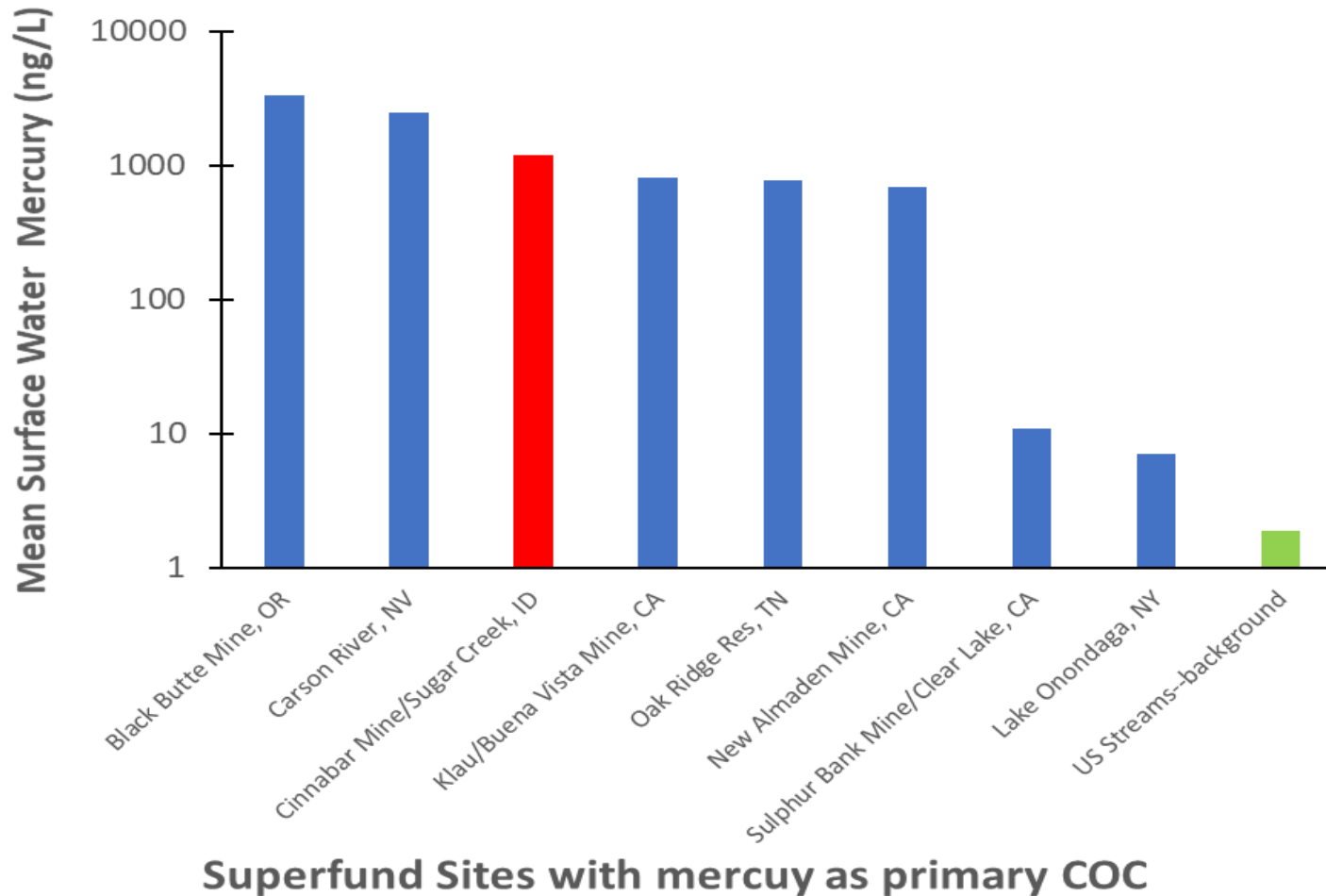
Cinnabar Mine: Risks to human health and environment

- ▶ Elevated levels of mercury in water, sediment, and fish
- ▶ Mine site is responsible for 95% of mercury loading to East Fork South Fork Salmon River
- ▶ Reduced populations of river invertebrates (insects, crayfish, etc.)
 - ▶ Important food source for fish
- ▶ Potential health risk to tribal and non-tribal fishers



Chinook salmon headed upstream

Cinnabar comparison to similar NPL sites



Average mercury concentrations measured in waters impacted by Cinnabar Mine are of similar (or larger) magnitude to average mercury concentrations measured at several other NPL Sites where mercury is the primary contaminant of concern.



What is Superfund?

- ▶ **Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)**
- ▶ **Allows EPA to investigate, study, and review clean up options at contaminated sites that pose a risk to communities and the environment**
- ▶ **Responsible parties pay, or if unavailable, Trust Fund money can be used**
- ▶ **National Priorities List: Contaminated sites prioritized for comprehensive investigation and cleanup**

Benefits of the National Priorities List

- ▶ Provides structure and resources needed to conduct comprehensive assessment and cleanup to effectively protect health
- ▶ Defined steps to identify and implement best approach for cleanup
- ▶ Process for stakeholder engagement
- ▶ Elimination or significant reduction of contaminants at the sites

Why List the Cinnabar Mine on the NPL?

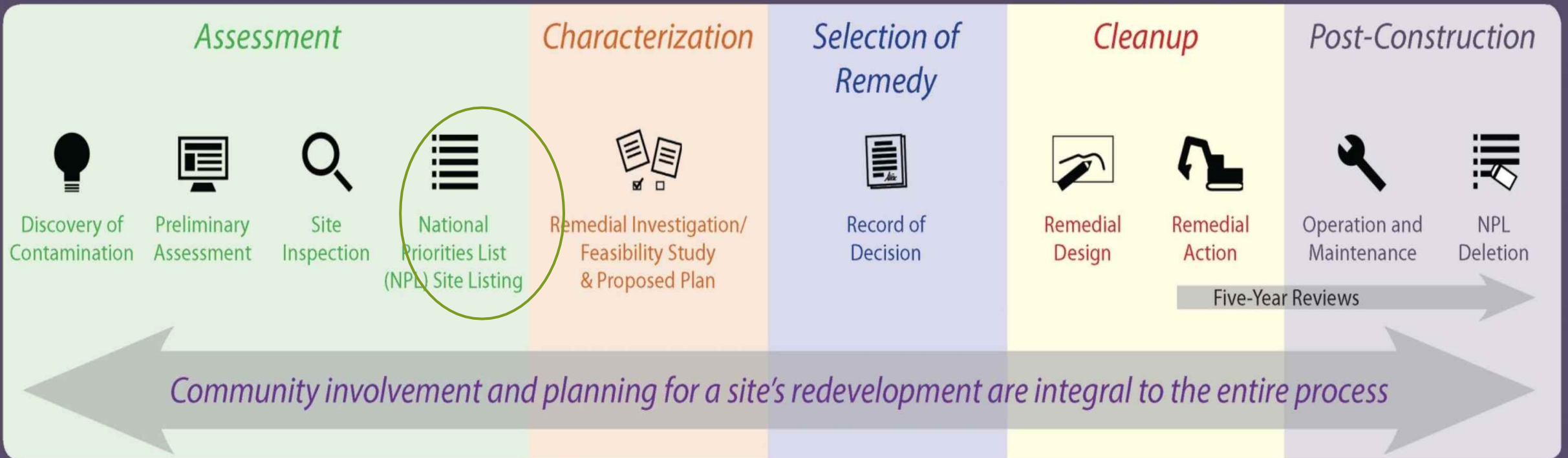
- ▶ Site is deemed eligible for NPL listing consideration.
- ▶ Site remains significant source of contamination to people and the environment.
- ▶ Nez Perce and Shoshone Bannock Tribes support NPL listing and have requested a comprehensive investigation and cleanup.
- ▶ Scale of contamination is beyond the current resources of EPA's Removal Program
- ▶ No other stakeholders/programs have the capacity to take the lead on cleanup

What is the Hazard Ranking System (HRS)?

- ▶ A complex model codified in the Federal Register that considers all available information for the site and generates a "score". A score above 28.5 is considered NPL-eligible and serves as the regulatory basis for listing a site.
- ▶ The model considers site sources, pathways (soil, drinking water, surface water, air), and impacted human and environmental receptors.
- ▶ The HRS is not a risk assessment but considers elements of risk. If listed on the NPL, a more comprehensive investigation is conducted, and formal human health and ecological risk assessments are performed.
- ▶ NPL listing provides the necessary funding to proceed with these investigations and assessments, as well as cleanup.

Superfund steps and engagement opportunities

THE SUPERFUND REMEDIAL PROCESS





Discussion and Feedback