DRAFT NATURAL RESOURCE DAMAGE ASSESSMENT PLAN

ANACONDA ALUMINUM CO. COLUMBIA FALLS REDUCTION PLANT (COLUMBIA FALLS ALUMINUM) SUPERFUND SITE

JUNE 10, 2025

MONTANA NATURAL RESOURCE DAMAGE PROGRAM

CONFEDERATED SALISH AND KOOTENAI TRIBES

US DEPARTMENT OF THE INTERIOR, US FISH AND WILDLIFE SERVICE, BUREAU OF INDIAN AFFAIRS

US DEPARTMENT OF AGRICULTURE, US FOREST SERVICE

HYBRID MEETING PROCEDURES

THIS MEETING IS BEING RECORDED

PLEASE ANNOUNCE YOUR NAME BEFORE SPEAKING

Q&A at the end. Accepting written comments only.

COLUMBIA FALLS ALUMINUM SITE

- Aluminum reduction plant, operated 1955 – 2009
- Potentially Responsible Parties
  - Columbia Falls Aluminum Company (CFAC)
  - Atlantic Richfield Co.
- Draft Natural Resource Damage Assessment Plan
  - Public comments due July 23, 2025
  - Not accepting verbal public comments today

AGENDA

- Introduction (who we are)
- Natural Resource Damage Background and Process
- CFAC Site
- Natural Resources and Services
- Injury Determination
- Injury Quantification
- Damage Determination
- Proposed Assessment Activities
- Public Participation

NATURAL RESOURCE TRUSTEE COUNCIL

- State of Montana, Natural Resource Damage Program (NRDP)
- Confederated Salish and Kootenai Tribes (CSKT)
- US Department of the Interior (DOI)
  - US Fish and Wildlife Service (USFWS)
  - Bureau of Indian Affairs (BIA)
- US Department of Agriculture (USDA)
  - US Forest Service (USFS)

NATURAL RESOURCE DAMAGE LAW

- Trustees work under natural resource damage provisions in state and federal law:
  - CERCLA (Superfund)
  - CECRA (State equivalent of Superfund)
  - OPA (Oil Pollution Act)
- Natural Resource Damage (NRD) provisions
  - **Trustees can recover damages for injury to natural resources caused by the release of hazardous substances.**
  - Recovered damages must be used to restore, replace, rehabilitate, or acquire the equivalent of the injured resources.
  - Objective is to return the injured resources to "baseline" conditions. If this is not possible, funds can be used to replace the injured resources.

DEFINITIONS

Natural Resources

- Public resources held in trust by a State, Federal, or Tribal entity.
- **Examples**: Land, fish, wildlife, biota, air, water, groundwater, drinking water supplies, and other such resources

Natural Resource Services

- Physical and biological functions performed by the resource, including human use of those functions and services to other resources.
- **Examples**: recreation, habitat, food

Injury

An observable or measurable adverse change in a natural resource or impairment of a natural resource service

Damages

- A sum of money claimed or awarded in compensation for a loss or an injury

DEFINITIONS

Natural Resources

- Public resources
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- **Ex…**
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Natural Resource Services

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- **Examples**:
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Injury

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Damages

- A sum of money
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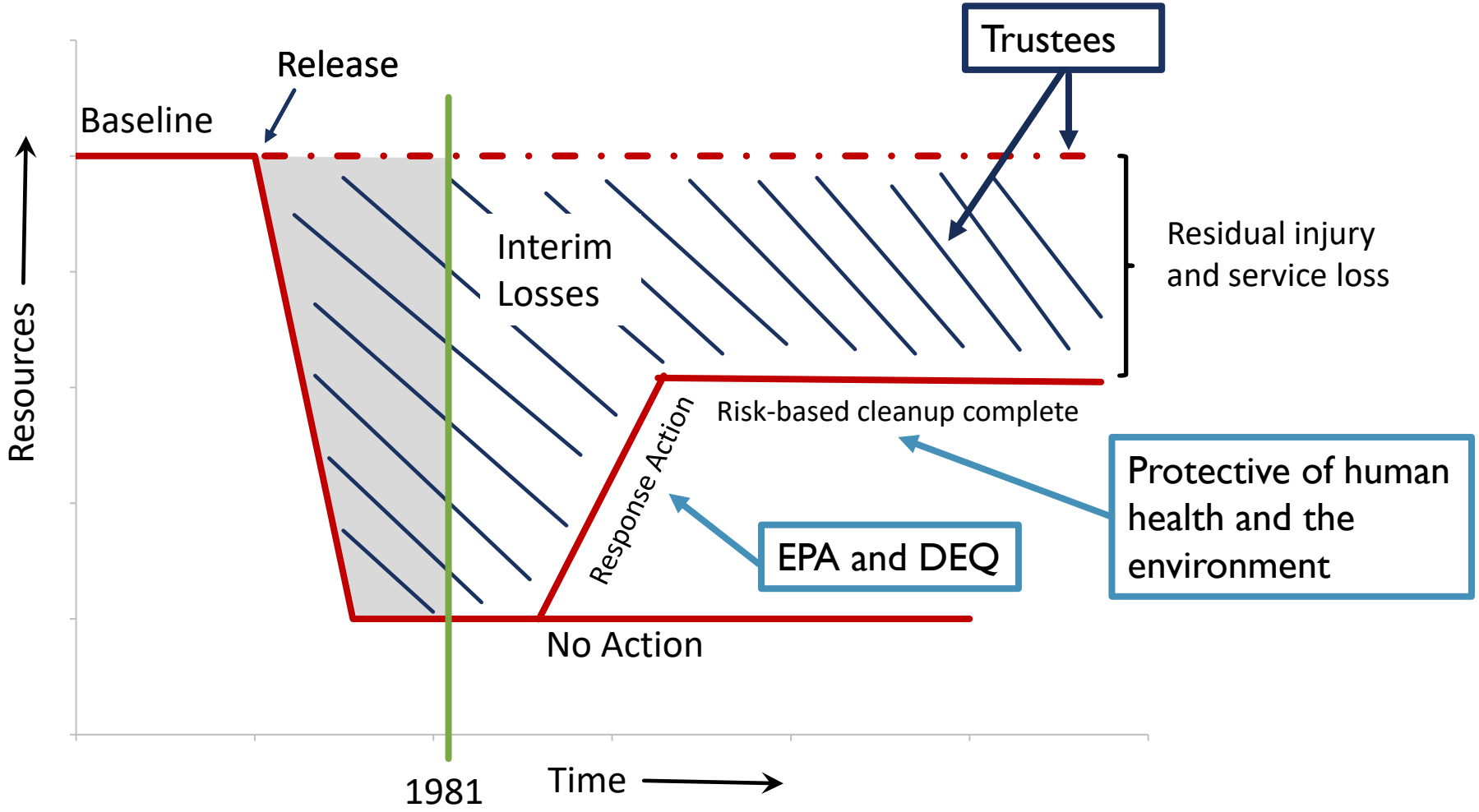
Trustees can recover **damages** for **injuries** to **natural resources** caused by the release of hazardous substances. These damages <u>must</u> be used to restore, replace, rehabilitate, or acquire the equivalent of the injured resources or the **services** they provide.

REMEDIATION VS RESTORATION

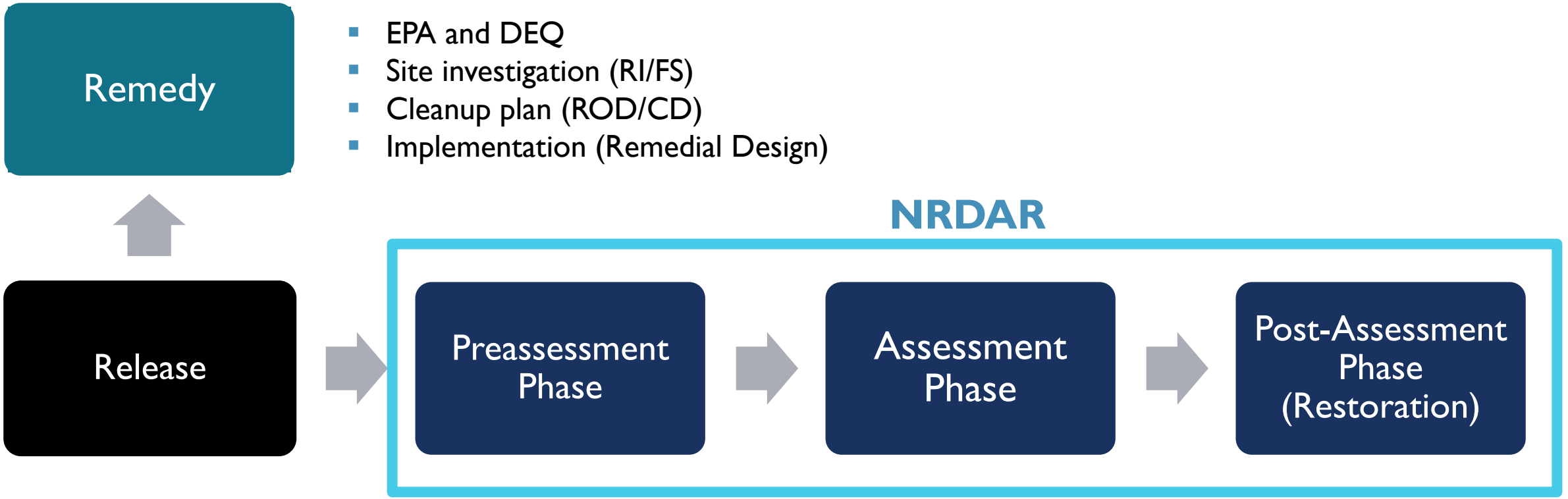
Remediation – Protect human health & the environment through implementation of the cleanup

Restoration – Restore, replace, rehabilitate, or acquire the equivalent of natural resources injured by the release of a hazardous substance

REMEDIATION / RESTORATION



NATURAL RESOURCE DAMAGE ASSESSMENT AND RESTORATION (NRDAR) PHASES



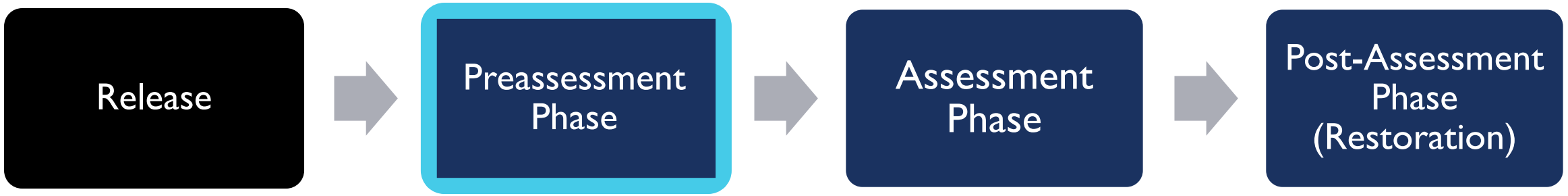
- EPA and DEQ
- Site investigation (RI/FS)
- Cleanup plan (ROD/CD)
- Implementation (Remedial Design)

- Natural resource trustees
- How were natural resources impacted and what will it take to return them to the state they would have been in if the release had never occurred

COLUMBIA FALLS ALUMINUM SITE

- Aluminum reduction plant, operated 1955 – 2009
- Contamination from:
  - Spent potliner
  - Fluoride, hydrogen fluoride, and polycyclic aromatic hydrocarbon (PAH) emissions
  - On-site sludge ponds, landfills, leachate ponds, and percolation ponds
- Potentially Responsible Parties
  - Columbia Falls Aluminum Company (CFAC)
  - Atlantic Richfield Co.

NATURAL RESOURCE DAMAGE ASSESSMENT PHASES



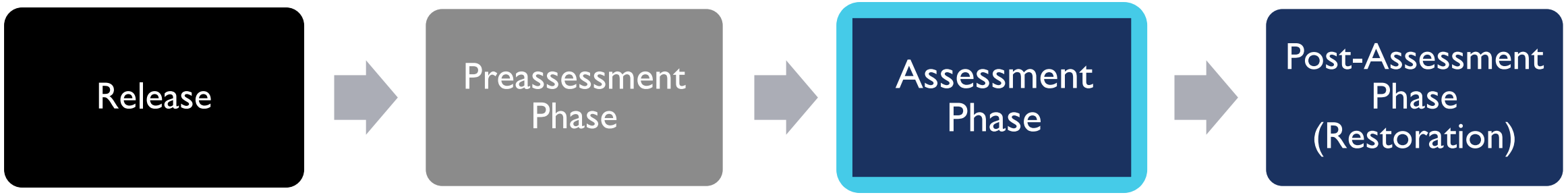
PREASSESSMENT PHASE

Trustees determined that the conditions have been met and proceeded with a formal assessment (January 2024)

Preassessment conditions

- A release of a hazardous substance has occurred
- Trust resources are or are likely to have been adversely affected by the release
- The quantity and concentration of the hazardous substance are sufficient to cause injury to those resources
- Data for an assessment are available or can be obtained at a reasonable cost
- Response actions will not sufficiently remedy the injury without further action

NATURAL RESOURCE DAMAGE ASSESSMENT PHASES



ASSESSMENT PHASE

- Develop the Assessment Plan
  - Identify activities necessary to determine and quantify injuries to natural resources and associated damages
  - Public comment period
- Conduct the assessment

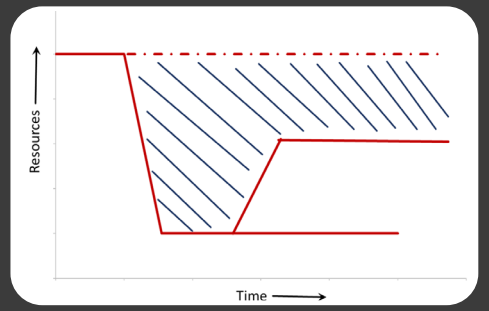
Assessment Plan

- Injury Determination
- Injury Quantification
- Damage Determination

SPATIAL AND TEMPORAL SCOPE OF THE ASSESSMENT

Spatial Scope

- 1,340 acres of the CFAC site
- Any areas surrounding, downstream, or downgradient of the Site that may have been contaminated by Site releases



Temporal Scope

- From 1981 (enactment of Superfund law) until the resources are restored to baseline conditions
- Estimated rates of recovery based on best available information

HAZARDOUS SUBSTANCES

- Contaminants of concern identified in the Preassessment Screen.
- List may be refined or expanded during the assessment.

Inorganic compounds

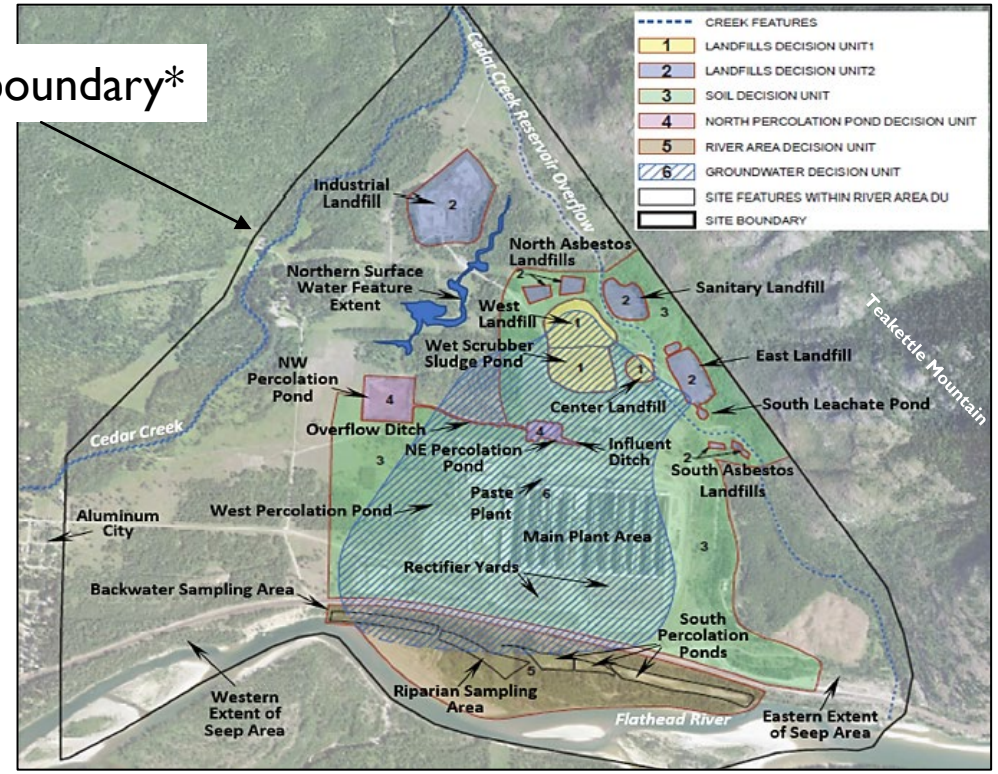
- Cyanide
- Fluoride
- Arsenic
- Aluminum
- Barium
- Cadmium
- Copper
- Iron
- Manganese
- Nickel
- Selenium
- Thallium
- Vanadium
- Zinc

Organic compounds

- Bis(2-ethylhexyl)phthalate (BEHP)
- Polycyclic Aromatic Hydrocarbons (PAHs)
- Polychlorinated biphenyls (PCBs) (Aroclor 1254)

NATURAL RESOURCES EXPOSED TO HAZARDOUS SUBSTANCES

Site boundary*



*Assessment Area includes anywhere contamination has come to be located

- Surface Water and Sediments
  - Flathead River and riparian area
  - Cedar Creek
  - Cedar Creek Reservoir Overflow Ditch
- Groundwater
- Geologic Resources (soils)
- Biological Resources
  - Living organisms (fish, wildlife, plants, etc.)

NATURAL RESOURCE SERVICES IMPACTED BY HAZARDOUS SUBSTANCES

Surface Water and Sediment Services	Groundwater	Geologic Resources (soils)	Biological Resources
• Aquatic habitat • Drinking water for biological resources • Recreation	• Drinking water and municipal/ commercial use • Surface water recharge	• Groundwater storage, filtration • Plant growth substrate • Recreation	• Habitat • Food sources • Nutrient cycling • Recreation

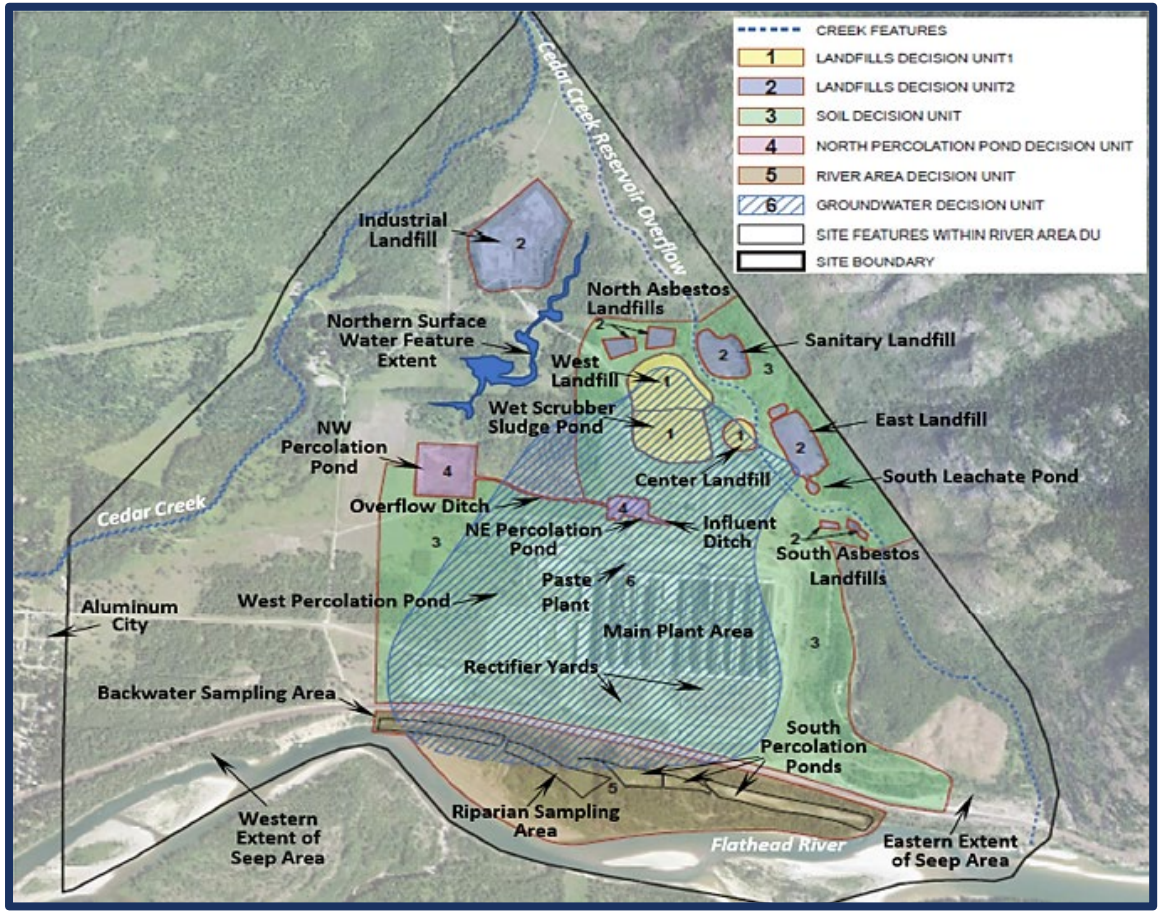
Tribal Cultural Value

Spans all resources; includes Hellgate Treat rights to hunt, gather, and fish in the Assessment Area

ASSESSMENT PLAN STEPS

- Establish pathway
- Confirm exposure

EXPOSURE PATHWAYS



- **Airborne**: Stack emissions, windblown dust
- **Surface deposition**: direct discharge into landfills, ponds, and storage areas
- **Leaching and runoff**: movement of contaminants to soils, surface water, and sediment
- **Groundwater discharge**: subsurface transport to streams and wetlands
- **Biological uptake**: ingestion, dermal contact, trophic transfer

INJURY DETERMINATION

Surface Water and Sediment

- Exceedances of water quality standards
- Documentation of measurable adverse change in resource

Groundwater

- Exceedances of water quality standards
- Documentation of measurable adverse change in resource

Geologic Resources

- Injury to other resources (e.g., biota, surface water, groundwater)
- Toxicity to biota

Biological Resources

- Observable or measurable adverse effects
- Bioaccumulation
- Consumption advisories
- Loss of ecological, recreational, or cultural services

Remedial Injury

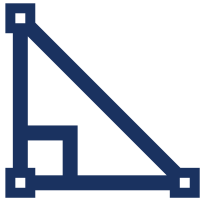
- Direct and indirect collateral injuries to resources from remedial actions

ASSESSMENT PLAN STEPS

- Establish pathway
- Confirm exposure

- Measure extent of injury
- Quantify reduction in services due to hazardous substance release

INJURY QUANTIFICATION



Extent of Injury

Area of habitat

Volume of groundwater

Degree of injury

Baseline Conditions

Historic data

Reference sites

Literature

Resource Recoverability

Trends in monitoring data

Literature

Tribal Cultural Losses may be assessed separately from losses to the general public

ASSESSMENT PLAN STEPS

Injury Determination

- Establish pathway
- Confirm exposure

Injury Quantification

- Measure extent of injury
- Quantify reduction in services due to hazardous substance release

Damage Determination

- Establish dollar amount for compensation

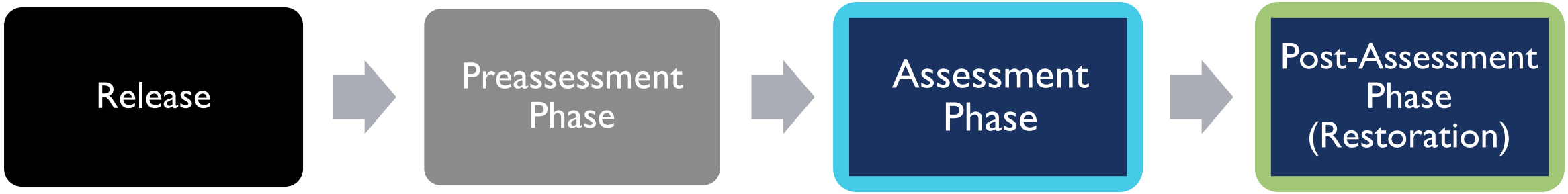
DAMAGES DETERMINATION

- Restoration Focused
- Valuation Methods – Equivalency Analyses
  - Ecological damages
  - Groundwater
  - Specific ecological resources
- Tribal Cultural Damages
  - Based on cost of restoration

ASSESSMENT ACTIVITIES

- Compilation and Evaluation of Existing Data
- Potential Primary Data Collection (depending on evaluation of existing data)
  - Soil/sediment sampling
  - South Percolation Ponds/North Channel of Flathead River sampling
  - Macroinvertebrate toxicity study
  - Groundwater/surface water data collection (seep areas)
  - Biota data collection
  - Laboratory toxicity studies
- Cultural use assessment studies
- Resource injury and service loss quantification
- Identify restoration options and determine damages

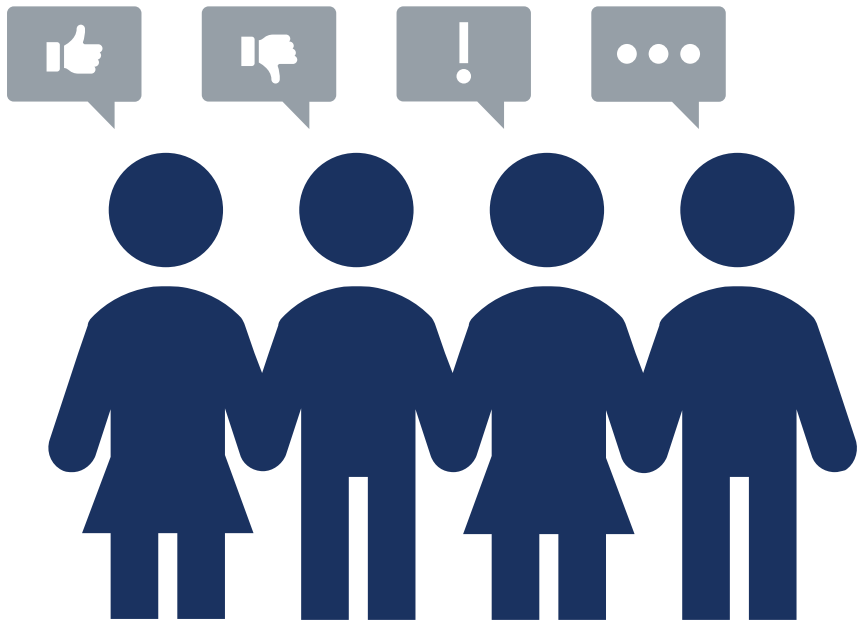
NATURAL RESOURCE DAMAGE ASSESSMENT PHASES



- Implementation of restoration
- Restoration Plan

PUBLIC COMMENT PERIOD

Comments due July 23, 2025



- Scope of assessment
- Injured resources
- Proposed approach
- Restoration exemplar projects

COMMENT ON THE DRAFT PLAN

- Submit comments by 11:59 PM on July 23, 2025
- Email nrdp@mt.gov
- Subject: "CFAC Draft Assessment Plan"
- Natural Resource Damage Program
  1720 9th Ave
  PO Box 201425
  Helena, MT 59601-1425

Draft Assessment Plan and public comment information: https://dojmt.gov/nrdp/notices-of-public-comment/

Must submit written comments

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Questions?