BEIPC
Basin Environmental Improvement
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Sharon Bosley
Executive Director

November 12th ,2024

To: BEIPC Commissioners, Alternates, Staff, TLG and CCC Chairs

From: BEIPC Executive Director

Subject: BEIPC November 20th, 2024, Quarterly Meeting

Enclosed is the meeting packet for the upcoming November 20th, 2024, BEIPC Meeting. The meeting will start at the Center Place Regional Event Center in Room 109 at 2426 N. Discovery Place, Spokane Valley. The meeting is scheduled to begin at 9:00 am and is expected to last until 3:00 pm. A potato bar lunch will be provided.

The November meeting will feature a series of engaging presentations. We'll start with Jacobs Engineering discussing the various factors involved in designing and implementing bank stabilization. Next, Kootenai County representatives will share their request for additional work in the Lower Basin. Followed by a brief discussion by David Leptich about his request to EPA to site the Lower Basin WCA. Following these updates, the EPA will present on their ongoing waterfowl and sediment research. After lunch, Mary Rehnborg will provide an update on the recent blood lead screening event, followed by Jamie Brunner's insights on the Leading Idaho initiative. We'll conclude by reviewing the one- and five-year work plans. There will be time allotted for public comments after each presentation and before adjournment.

This upcoming meeting should be quite informative. If you have any questions, call me at 208-659-1715 or e-mail sharon.bosley@deq.idaho.gov.

Warmest Regards,
Sharon Bosley

Executive Director
Enclosure

November 20, 2024 BEIPC Meeting Packet Items

- Meeting Guidelines
- Draft November 20, 2024 Meeting Agenda
- Abbreviations and Acronyms
- Draft August 7, 2024 meeting minutes
- Kootenai County Board of Commissioners Letter
- E-mail Letter to Director Terada
- TLG Summary on Lower Basin WCA
- Lower Basin WCA Siting Request
- Draft 2025 Annual Work Plan
- Draft 2025-2029 Five Year Work Plan

Amended 11/19/08

BEIPC MEETING GUIDELINES

- The Executive Director is directed to manage these guidelines.
- The agendas for BEIPC meetings are draft agendas and may be modified by the Commissioners by motion and majority vote at the beginning of the meeting to accommodate unanticipated program and scheduling changes.
- Parties requesting a scheduled time slot on BEIPC meeting agendas to present technical or other information shall discuss the request with the Executive Director a minimum of four (4) weeks prior to the meeting date. If the draft agenda can accommodate the subject matter and time needed for its presentation and at the request of the Executive Director, the requesting party shall forward an electronic copy of the proposal for the item to the Executive Director a minimum of three (3) weeks prior to the meeting date. If the item is of a technical nature, the Executive Director will present the technical proposal and or presentation to the TLG for information and review prior to the BEIPC meeting. TLG consideration of the proposal shall not prevent its presentation to the BEIPC.
- Parties making presentations needing overhead equipment, utilizing Power Point or other projection presentations shall furnish their own equipment or make arrangements with the Executive Director. Projection screens shall be provided by the BEIPC at meeting locations.
- At each BEIPC meeting, an open public comment and presentation period shall be set aside for any member of the public to make comments and presentations concerning the Basin or issues being discussed by the BEIPC and presenters on the meeting agenda. The Executive Director is responsible for adjusting the public comment periods on the agenda to ensure that the public is afforded the opportunity to comment concerning an issue of discussion at BEIPC meetings. Each presenter shall have a maximum of three (3) minutes to comment or make a presentation. These presentation times will be monitored by the Executive Director. Presenters shall be recognized by the Chair of the BEIPC meeting prior to speaking. If a presenter needs more time, they shall make arrangements with the Executive Director for a scheduled time slot on the agenda.
- Issues requiring BEIPC discussion and voting such as programs of work, five year work plans, annual work plans, and budget and funding issues shall be presented prior to the final vote on each such issue. The public comment time slot will be managed as outlined above.

Basin Environmental Improvement Project Commission Meeting Agenda

November 20, 2024, 9:00 AM – 3:00 PM
Center Place Regional Event Center
Room 109
2426 N Discovery PL
Spokane Valley, WA 99216
https://events.gcc.teams.microsoft.com/event/06da8ca1-7582-4d83-b970-d79bbaebb1aa@c53b7a63-2d6e-4d96-87c9-9f583f6d1c81

9:00 AM	Call to Order *Roll call*
9:10 AM	Review and Approve Draft August 7, 2024, Meeting Minutes – Sharon Bosley **(Action Item)**
9:20 AM	Bank Stabilization Presentation – Ryan Mitchell (Jacobs engineering)
10:00 AM	Kootenai County Workplan Request – David Brown (Kootenai County)
10:20 AM	Lower Basin Waste Consolidation Area siting request- David Leptich
10:40 AM	Waterfowl Research Overview – Jennifer Crawford/Mark Jankowski (EPA)
11:10 AM	Sediment Research Overview – Jennifer Crawford/Chris Eckley (EPA)
11:40 AM	Lunch and Executive Session under Idaho Code 74-206 (1) b to Discuss Performance of Executive Director, and Idaho Code 74-206 (1) d to Consider Records that are Exempt from Disclosure. Separate lunch for BEIPC Staff, TLG and CCC chairs.
12:40 PM	Blood lead screening event update – Mary Rehnborg (PHD)
1:00 PM	Leading Idaho Update – Jamie Brunner (DEQ)
1:20 PM	Review and Approve Draft 2025 BEIPC Work Plan – Sharon Bosley **(Action Item)**
2:05 PM	Review and Approve Draft 2025-2029 Five Year BEIPC Work Plan – Sharon Bosley **(Action Item)**
2:25 PM	Discussion and Comments with CCC – Jerry Boyd, Chair
2:40 PM	Public Comments & Discussion
3:00 PM	Adjourn

Note: Times indicated for presentations and discussions are tentative and may be adjusted to accommodate over and under runs of time used to accommodate presenters and Board and public discussions.

ABBREVIATIONS AND ACRONYMS

AMD: Acid Mine Drainage
ARAR: Applicable or relevant and appropriate requirement
ARRA: American Recovery and Reinvestment Act
ATV: All Terrain Vehicle
AWQA: Ambient water quality criterion/criteria
BCR: Big Creek Repository
BEIPC: Basin Environmental Improvement Project Commission
BEMP: Basin Environmental Monitoring Plan
BLM: Bureau of Land Management (US Department of the Interior)
BPRP: Basin Property Remediation Program
CCC: Citizens Coordinating Council
CDA: Coeur d'Alene
CDC: Center for Disease Control
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
CIA: Central Impoundment Area
CICs: Community Involvement Coordinators
COC: Chemical of concern
CSM: Conceptual Site Model
CTP: Central Treatment Plant
CWA: Clean Water Act
DCIP: Drainage Control Infrastructure Revitalization Plan
ECSM: Enhanced Conceptual Site Model
EFN: East Fork Ninemile
EMFR: East Mission Flats Repository
EMP: Environmental Monitoring Program
EPA: Environmental Protection Agency
ERA: Ecological Risk Assessment
ESD: Explanation of Significant Differences
FFS: Focused Feasibility Study
FS: Feasibility Study
GPM: Gallons per Minute
HH PFT: Human Health Project Focus Team
I-90: Interstate 90
I-C: Interstate-Callahan
I & I: Inflow and Infiltration
ICP: Institutional Controls Program
IDAPA: Idaho Administrative Procedures Act
IDEQ: Idaho Department of Environmental Quality
IDFG: Idaho Department of Fish and Game
IDPR: Idaho Department of Parks and Recreation
ITD: Idaho Transportation Department
LLC: Limited Liability Company
IP: Implementation Plan
LBC: Lower Basin (Citizen's) Collaborative
LBCR: Lower Burke Canyon Repository
LMP: Lake Management Plan
MAU: Multi-attribute utility

MOA: Memorandum of Agreement
NCP: National Contingency Plan
NPL: National Priorities List
NRDA: Natural Resource Damage Assessment
NRRT: Natural Restoration Resources Trustees
OSWER: Office of Solid Waste and Emergency Response (EPA)
OTI: Osburn Tailings Impoundment
OU: Operable Unit
PFT: Project Focus Team
PHD: Panhandle Health District
PM: Project Managers
PRP: Potentially Responsible Parties
PRRACA: Paved Road Remedial Action Cooperative Agreement
QA/QC: Quality Assurance / Quality Control
RA: Remedial Action
RACA: Remedial Action Cooperative Agreement
RAO: Remedial Action Objectives
RD: Remedial Design
RI: Remedial Investigation
RI/FS: Remedial Investigation/Feasibility Study
RPM: Remedial Project Manager
RP: Remedy Protection
ROD: Record of Decision
RODA: Record of Decision Amendment
ROW: Right-of-Way
SARA: Superfund Amendments and Reauthorization Act
SCIP: Superfund Cleanup Implementation Plan
SFCDR: South Fork Coeur d'Alene River
SJTI: Superfund Job Training Initiative
SOP: Standard Operating Procedure
SSC: State Superfund Contract
SST: Superfund Straight Talk
STI: Star Tailings Impoundment
SVNRT: Silver Valley Natural Resource Trust
TCD: Typical Conceptual Design
TLG: Technical Leadership Group
Trust: Successor Coeur d'Alene Custodial and Work Trust
UMG: Upstream Mining Group
UPRR: United Pacific Railroad
USDA: United States Department of Agriculture
USFWS: United States Fish and Wildlife Service
USGS: United States Geological Survey
WAC: Waste Acceptance Criteria
WCA: Waste Consolidation Area
WMS: Waste Management Strategy
WENI: West End Natural Infiltration Area
WCX: Waste Quality Exchange
WY: Water Year

DRAFT

BASIN COMMISSION (BEIPC)

August 7, 2024

MEETING MINUTES

Basin Environmental Improvement Project Commission
Draft Summary Meeting Minutes

August 7, 2024, 9:30 AM – 3:30 PM
Panhandle Health District Office
35 Wildcat Way, Kellogg, ID 83837

These minutes are summary notes of the reports and presentations and are intended to capture key topics and issues, conclusions, and next steps and not every detail of discussion or individual quotes.

Attendees included the following:
Sharon Bosley (BEIPC Executive Director)
Commissioners and Alternates present:
Jess Byrne (IDEQ), Leslie Duncan (Kootenai County), Calvin Terada (EPA), Scott Fields (CDA Tribe), Dave Dose (Shoshone County), Brook Beeler (Washington State)
Staff present:
Gail Yost (BEIPC, Assistant to E.D., Note taker), Tamara Langton (EPA), Sandra Treccani (Washington State), Rebecca Stevens (CDA Tribe), Jerry Boyd (CCC), Andy Helkey (IDEQ)

Call to Order
Leslie Duncan welcomed everyone to the BEIPC meeting & tour and called it to order at 9:33 am. The Commissioners and Staff then introduced themselves.

Review and Approve Draft May 15, 2024, Meeting Minutes – Sharon Bosley (**Action Item**)
There were no corrections to the draft May 15th meeting minutes that were provided to each Commissioner prior to today's meeting. A motion was made by Brook Beeler to approve the minutes as provided. Jess Byrne seconded the motion; all Commissioners approved the meeting notes. **M/S/C**

Bunker Hill Presentation – Tom Francis, General Manager of Bunker Hill Mine
Tom thanked everyone who suggested and made today's update possible. This morning, he will give an update on what is happening at the Bunker Hill Mine and this afternoon everyone will get a chance to visit their construction site and see the progress being made in the main Kellogg yard. He will talk about their environmental obligations and what they're doing about permitting and their commitment to the Record of Decision (ROD), which are central to their ability to restart the mine.

The morning brief will consist of Safety Share; Restart Plan; Commitments & Actions; Payments; and Clean-up & Community. The afternoon site visit will include a tour of the infrastructure in the Kellogg Main Yard; Kellogg Tunnel & EPA Channel; Process Plant; and Filter Plant.

Safety Share – safety is critical to any industrial construction and right now they are very active in the Kellogg Yard, simultaneously constructing a large pre-engineered metal structure while also pouring concrete foundations at ground level. Their workers must continually work in conflicting physical spaces, working at heights above other operators, barricades and workspaces around the site. All activity will be stopped during our visit today so we can safely walk around. It is an active work site with uneven ground conditions, trip hazards, barricades and signage, so let's make sure we get through safely. Tom shared a couple of photos of their two operational footprints – at the Kellogg Yard and in Wardner.

Restart Plan – Tom shared a slide of a 3D model rendering what is currently in construction and buildings yet to be built. The Bunker Hill plans to restart the underground zinc, silver and lead mine that has been closed since the early 1980's. There is no intent to rebuild a smelter or zinc plant – just a processing plant and filter plant. The concentrate produced will be trucked to the Tech Trail Smelter in British Columbia which is consistent with the other operating mines in the Silver Valley – the Galena and Lucky Friday. Mining will be based at their Wardner site. The Russell Portal has been upgraded and made larger and has been connected to the main power grid by Avista which allows them to use lower cost hydroelectric power and not diesel generators. This is much more reliable and enables them to control emissions underground and provide power in a more sustainable way. A surface haul road has been established so trucks will not have to travel through town and will transport the ore from Wardner to the main Kellogg yard for processing. Two concentrates will be produced – zinc and silver/lead - for transport as discussed. The filter plant will recycle and clean the water back to the processing plant and dewater the waste stream to produce a kind of dry filtered product. This product will be trucked back up to Wardner to be disposed of as much as possible by backfilling underground into pre-existing voids to minimize any surface tailings depositions and surface footprint. A dry stack facility will also come online to store some of the filter tailings so there will be no tailings dams or surface ponds. They are currently working through the permitting process and hope to be in production toward the end of the first quarter of 2025.

Commitments & Actions – Tom will cover what their commitments are as a result of the ROD and specifically with regards to Acid Mine Drainage (AMD). There are four areas they are required to deliver on daily for AMD management – source control, collection, storage, and conveyance to the Central Treatment Plant (CTP). The critical commitment that must be maintained at Bunker Hill is the only exit point that mine water leaves the mine is through the mouth of the Kellogg Tunnel (KT). If there are other exit points, they have failed. There have been some good partnerships with the University of Idaho including isotope tracking of water passing through the mine to help them understand how water gets into the mine, where AMD happens, and to give them the best chance to successfully deliver and reduce those AMD creation spots in the future, and over time mitigate and reduce the problem.

- AMD source control – will be a work in progress when they get into production. They want to decrease flow rates, improve water quality and execute on other relevant projects.
    - The first project is the West Fork Milo Creek diversion project which aligns in priority with the EPA. This creek disappears into underground mine workings, so a large part of the mine water problem is because the creek is flowing right into the mine. As they begin production, they will be ready to reduce the quantity of water at risk of AMD.
    - Phil Sheridan raise rehabilitation and/or equivalent impact projects – one of the advantages of restarting a historic mine is you have enormous amounts of open voids and caves and disadvantages in where to put your tailings and waste. Bunker Hill plans to paste pump tailings back underground into those existing cavities and voids and get into a rhythm as they are mining and creating voids to fill them back up. One advantage of this project is it reduces your service need for tailings impoundments; secondly if you can reduce large caves and voids where AMD is happening by backfilling them it should significantly reduce the problem; and thirdly it supports the underground development and be less likely to have ground issues for a safer operating mining area.

- AMD collection – in terms of collection responsibility, to ensure that wherever AMD occurs and mine water is flowing in the mine, that it is collected and channeled to all come out at the nine level at the mouth of the KT. Tom shared a slide taken from the University of Idaho paper for isotope tracking which summarizes the fact that they have a working and improving understanding of how water is traveling though the mine, where the priority zones are and where the generation of acid is happening. This ensures that they are collecting all the right water and informs them how to execute future mitigation in these areas for substantial reduction in AMD.

- AMD storage – in terms of storage, this is really where the CTP and IDEQ do all the hard work, but what they do is maintain the infrastructure of the pre-existing channel where the water flows to ensure that channel does not get disrupted during our construction in the Kellogg yard. They work closely with IDEQ when work is being conducted at the CTP so that the water is diverted to a lined pond or held in a controlled way until the CTP is back online.

- AMD conveyance – they spend a lot of time making sure the water can safely get out of the KT and know where it's coming from. Mine pumps are maintained, raised and lowered to make sure they are pumping water out in sometimes congested and constrained areas underground to maintain the infrastructure and ensure the water has a natural kind of flow and not getting trapped behind sediments or ground collapses. Tom showed a before/after slide of an AMD pool of water and how the after picture shows these areas being cleaned up and reduction of stagnate pools.

Tom showed a time lapse video that further explained some of the improvements that have been made.

Payments – to date, Bunker Hill has paid about $8.9 million to EPA and IDEQ for water treatment costs and for cost recovery. They are committed to pay another $17 million over the next 5-6 years and have a schedule agreement in place. Brook Beeler asked if there were performance bonding requirements or just cost recovery. Tom answered that there were bonds in place until such time when they start production.

Clean-up & Community – in 2022, they set up their own pilot water treatment plant on a much smaller scale than the CTP. This plant is not capable of dealing with the whole mine water flow, but they did want to improve their understanding how to treat the water, how to separate the sludge from the water, and to incorporate some recent developments in water treatment using a lamella clarifier. Bunker Hill plans to employ 200 to 300 people as direct employees, right now they are at 25. They also were able to help the Lead Man Triathlon bike portion of the race by allowing them to use the haul road, so before there were trucks on this road, there were mountain bikes.

Tom shared slides of how the Kellogg main yard has changed, buildings that have been taken down or repurposed and updated, and what to expect on the afternoon tour. There was quite a lot of remediation that took place for asbestos tiling, lead paint and 50 years of hidden reagents stored in some of the buildings. They partnered with companies to dispose of these items responsibly and safely.

Scott Fields asked about Bunker Hill's NPDES permit as they have been working on their own wastewater treatment plant – there was conflicting information he found on their website stating they needed the permit by March 2023 and other information indicates they are in negotiations and will use

the CTP permanently. Tom answered they were in negotiations before March 2023 to find the right solutions and are still in discussions with IDEQ and EPA in this regard. There are several options still on the table to make sure they are regulated and have the correct permits to become operational. Currently they are working under a CERCLA shield for historic remediation. Active discussions are still happening to identify what all parties are comfortable with and appropriate solution going forward.

Dauiele Touina with the University of Idaho (UofI) was very intrigued by the pilot study that was done and asked if there were any reports and data published. Tom replied that it published in a scientific journal called 'Water' by Jeff Langman of the UofI and he will get him the details and send him a copy of the report.

Leslie Duncan asked about their processing of waste up at Trail, what kind of measures are they taking to make sure that the ore is properly processed and not ending up in the Columbia River and back into the United States. Tom stated they are responsible for making sure the permitted and appropriate trucking gets the ore to that location without any problems or issues. Tech is a fully permitted smelter - he cannot speak on behalf of them or their practices. Bunker Hill is looking into the option for hydrogen fueled trucks for hauling to reduce the carbon footprint. He can get her in touch with their partners at Tech Trail if she is interested. He added there are not many smelters located in North America any longer and he believes they continue to operate very seriously.

Lead Health Screening update – Mary Rehnborg, PHD (Institutional Controls Program Manager)
Mary wanted to make sure everyone is aware that next week they are kicking off the annual blood lead screening event. It will be held August 12th through the 17th at the Shoshone Medical Center building in Pinehurst. This program is free for anyone who lives or recreates in the Superfund site, children ages 6 months to 6 years will be paid a $50 incentive. They have worked hard this year to make it a fun family friendly environment based on a carnival theme. There will be games, toys, and all kinds of stuff to do to hopefully make it a less sterile and medical feeling and a little bit more warm and friendly. Please help spread the word – there are flyers on the table to take with you -

Overview of today's agenda and dismiss meeting to board bus for Tour – Sharon Bosley
Sharon updated stops and times on the afternoon tour agenda that changed slightly. She also wanted to point out that even though we are touring the Box area today, there is still a lot of work going on in the Upper and the Lower Basin. A construction season preview flyer is available on the back table for those interested in what is going on throughout the site. We could not get a bus to the Upper Basin this year but hopefully we can next year so you can see all of what is going on. Grays Meadow in the Lower Basin is also in full construction mode and should be finishing up this year. We have our Basin Bulletin that is put out with our friends at EPA, so please grab a copy along with the Tour Guide for today.

Rebecca wanted to know if the fire up the Eastfork Nine Mile had any impact on the construction, and it was answered that there was no impact. The crews were able to extinguish the fire quickly.

Meeting was adjourned at 10:15 am

August 7, 2024 BEIPC Afternoon Tour Agenda:

Arrive at School District stormwater site

- Leading Idaho funded stormwater upgrade presentation - Felicia Cassidy (Engineering Division Manager Alta Science & Engineering)

Arrive at East Smelterville Flats

- East Smelterville Flats project area is a 16 Acre remediation site –Andy Helkey (Kellogg Remediation Program Manager IDEQ) & Ed Hagan (EPA)

Arrive at Kellogg Park for lunch

Lunch provided for Commissioners, alternates and staff

General attendees bring own sack lunch

Arrive at Bunker Hill Yard

- Discuss building upgrades, startup plans, Milo creek capture, partnerships with U of I, and paste backfill – Tom Francis (General Manager of Bunker Hill Mine)

Arrive at Galena Ridge

- Remediation plans via the ICP Galena ridge – (IDEQ)
- Silver Mountain development within the Superfund Site - Jeff Colburn (General Manager Silver Mountain Resort)
- Government Gulch Pre-Design Investigations – (EPA)
- CIA sludge pond closure – Jocelyn Carver (EPA)

Arrive at Moon Gulch

- Discuss the success of the remedy and restoration of the site and how ongoing O&M is necessary–Wade Jerome (Forest Service) & Rebecca Stevens (CDA Tribe)

Arrive at Panhandle Health District in Kellogg. Adjourn.

KOOTENAI COUNTY

BOARD OF COMMISSIONERS

LESLIE DUNCAN • BRUCE E. MATTARE • BILL BROOKS

September 3, 2024

Sharon Bosley, Executive Director
Basin Environmental Improvement Project Commission
1005 W. McKinley
Kellogg, ID 83837

RE: Lower Coeur d'Alene River Basin Cleanup Recommendations

Ms. Bosley,

The Board of County Commissioners we would like to encourage the EPA to move ahead with meaningful remediation work in the Lower Basin.

Kootenai County fully supports the work that has been completed in the Upper Basin. The water treatment plant at Kellogg, paving of contaminated roads and parking lots in Kellogg area, source control in the Upper Basin at mine sites and remediation of hundreds of private yards and public recreation areas have all greatly contributed to the cleanup effort. Grays Meadow and other wetlands work are an excellent example.

However, other than those limited efforts, there has been very little progress in the Lower Basin of the Coeur d'Alene River. During the last five years, the Lower Basin's banks and river bottom continue to erode thousands of tons of contaminated sediments. This material washes downstream and continues to contaminate downstream lakes, wetlands, and Lake Coeur d'Alene itself. These two sources of ongoing contamination are the largest remaining sources of trace and base metals of concern (including lead, arsenic and zinc) and likely contribute phosphorus particulates as well.

In 2019, Executive Director Harwood noted the need for a Lower Basin Waste Containment Area. Four years after the Harwood white paper, Mr. Dave Leptich, of Idaho Fish and Game urged the EPA to move to a final decision on a Lower Basin Waste Containment Area.

The WCA decision requested by Leptich has remained "under review" and "in consultation", and as such, no action has taken place. The lack of approval of a Lower Basin WCA for the last five years prevents moving forward with implementation of pilot studies, demonstration projects or selection of other meaningful remediation, stabilization, or human health protection efforts along the lower Coeur d'Alene River Basin. Wetlands remediation and restoration work is also stymied pending WCA identification.

As such, we encourage the following actions be included in the 2025 Annual and Five-Year Work Plans:

1. Approve the Lower Basin WCA as recommended. It has undergone significant peer and public review and there is no justification for further delay. If additional or alternate sites are needed, expedite their implementation.

2. Implement NRCS stream bank stabilization methodology on all eroding banks in the "Dudley Reach" of the Coeur d'Alene River, which we define generally, as the river downstream of the I-90 bridge near Cataldo to the Highway 3 bridge near Black Rock Lake. Include private, state and federal lands.

3. Implement NRCS bank stabilization methodology on high priority eroding banks in areas of high public exposure to contamination throughout the Lower Basin.

4. Initiate a pilot project in the Dudley Reach to quantify the efficacy of armoring the riverbed with coarse rock to control erosion and the subsequent contamination of downstream areas.

5. Identify and develop plans for at least a million dollars a year of implementation effort for items 2-4, for the next five years.

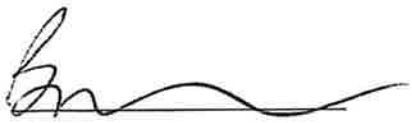
NCRS Bank Stabilization refers to the "NRCS Rock Method" used to stabilize miles of the St. Joe and some miles on the CDA River. This rock armor method is favored for its effectiveness and durability by both Mr Harwood and Kootenai County's Natural Resource Advisory Board, based on regionally conducted site studies and experience at many other locations.

Thank you for your consideration.

Sincerely,

KOOTENAI COUNTY BOARD OF COMMISSIONERS

Leslie Duncan, Chairman



Bruce E. Mattare, Commissioner

Bill Brooks, Commissioner

12/10/19

Basin Work Discussion by the Executive Director

We have had another good year of accomplishments on the Site and I want to discuss some of my observations concerning the work we are planning for 2020 and in the new 5 year work plan. As I indicated in a note to the EPA in March of 2018 I have been very supportive of and pleased with the activities in the Upper Basin to date and continue to support the proposed work in the Upper Basin included in our plans. I also supported the extensive studies that have been carried out on how best to implement actions in the Lower Basin and pilot project work there as well.

We are now at a point where the targeted BPRP is complete and in a maintenance mode, the Remedy Protection Program is complete, the Paved Roads Program is in the final stages of completion in the next few years and we are addressing the human health issues involving dispersed recreation in a very thoughtful manner utilizing our Recreation Team. The CIA and CTP work is reaching conclusion in 2021 and we are addressing the large mine and mill site cleanups in Ninemile and Canyon Creek with considerable accomplishment.

As I mentioned at the November 2019 BEIPC meeting, I have a concern in the Upper Basin about completing the list of qualifying projects in the Paved Roads Program especially when we can complete the work within the original budget of $54 million. I am available to discuss that issue at any time.

I am also concerned about how best to address the question of water quality that may be developing in CDA Lake. I appreciate the efforts being made to deal with that question on how best to address those concerns. I am available in any way that I might be of assistance in that issue.

After extensive studies I believe that we should be at a point where we can make decisions on some next steps in the Lower Basin as is indicated in the 2020 Work Plan. In cases where the existing data is still inconclusive or does not support taking remedial action until upstream sources are addressed, I think we can be more definite about the decision points, what data we are collecting, and how we will use new data to make decisions. The NAS report had some critiques on how adaptive management was being implemented in the Basin and the following recommendation:

Efforts to remove contaminated sediments in the lower basin are likely to be of limited value until the problems of sediment transport from the upper and middle basins have been adequately addressed.

The NAS did support work on agriculture land to wetland conversions or other areas with some protection from frequent flooding:

The committee supports measures such as restoring wetlands on agricultural lands in the lower basin and upgrading the quality of the habitat in existing wetland areas that have the least likelihood of being recontaminated.

Over the years we have discussed many ideas of how to remediate the extensive area. Should we dredge it? Cover it or turn it over with equipment to bring clean material to the surface? My experience in the Lower Basin is that the deposition of contaminated sediments can be over five feet deep or greater in places. We do not have an area large enough to dispose of many millions of cubic yards of contaminated material in a repository from dredging the wetlands or probably the Chain Lakes or from the River as proposed in the 2002 ROD for OU-3. If we dredged 5 feet off 18,000 acres, we would generate about 145,000,000 cubic yards of waste to dispose of. We are currently implementing a pilot project to consider layer placement of clean material on the wetlands to cover contamination and not kill the vegetation. I believe that this approach will work, but what about recontamination during the next high water episode? Also, let's take a look at the potential cost of remediating 18,000 acres in this manner. 18,000 acres times 43,560 square feet in an acre times a 1 foot deep remedy divided by 27 to convert the needed material to cubic yards equals 29,040,000 cubic yards of needed material placed on the wetlands. From past experience working on projects in the Basin I think that the material procured, hauled and placed would cost about $30 per cubic yard. That makes the cost of this approach over $871,000,000. We probably would not remediate all of the acreage for various reasons, but can we afford to implement this remedy on enough acreage to address the problems with public health and wildlife? Do we want to make any investment in this approach as long as we have contamination in the River banks and bed that can make their way to the wetlands in high water or waste money having consultants propose and design projects of this nature?

can find enough area in the Lower Basin acceptable to the public to properly dispose of this material. Another major question is how would we dewater it and transport it to disposal areas? I will not attempt to run a cost estimate of this approach because there are too many barriers to ever being able to implement it. Location and construction of any repository in the Lower Basin will be a very controversial process with a great deal of local property owner concerns and any attempt to locate a repository in the Lower Basin must go through an extensive public involvement process. Past experience with East Mission Flats should have adequately warned us about that.

Another approach to the bed load of contaminated material is to cover it in place with crushed rock. We would need to perform some extensive hydraulic analysis to determine if this will work and to determine the depth of the cover needed to stabilize the material in the River bottom so that it would not be mobilized during high water flows.

Following are some rough figures of the cost of this approach. Say, we remediate 30 miles of river bottom and the river averages 300 feet wide. 30 miles times 5280 feet per mile times 300 feet wide times 2 feet deep divided by 27 to obtain cubic yards equals approximately 3,520,000 cubic yards. The material for this purpose could cost as high as $35 per cubic yard times 3,520,000 cubic yards equals approximately $123,000,000. The biggest problem with this approach is where do we have a rock source in the Lower Basin to produce this volume of material?

The last issue I will discuss is the stabilization of river banks. The NAS was not particularly supportive of riverbank remediation, stating:

Riverbanks possess a relatively small proportion of the lead that is available for transport in the system; they have a high likelihood for recontamination; and there is insufficient information available to assess the risks that existing riverbank materials present to environmental receptors.

EPA's studies indicate that the river banks source of metals contamination may only be about up to 10%. We have implemented a pilot project in the Cataldo area using a vegetative approach to stabilization rather that the more typical approach of rock or riprap and vegetative plantings implemented by the private landowners and NRCS along a large stretch of the river banks adjacent to private lands. The NRCS approach seems to be very successful but there are concerns about the use of rock

the banks in place. Seasonal deposition of more contaminated sediment will continue to occur, but can be managed. For example, a bank covered with riprap and thick willows can accumulate quite a bit of sediment without adversely affecting the surface. Instead of trying to keep miles and miles of bank "clean" we would instead focus on addressing bare, actively eroding areas.

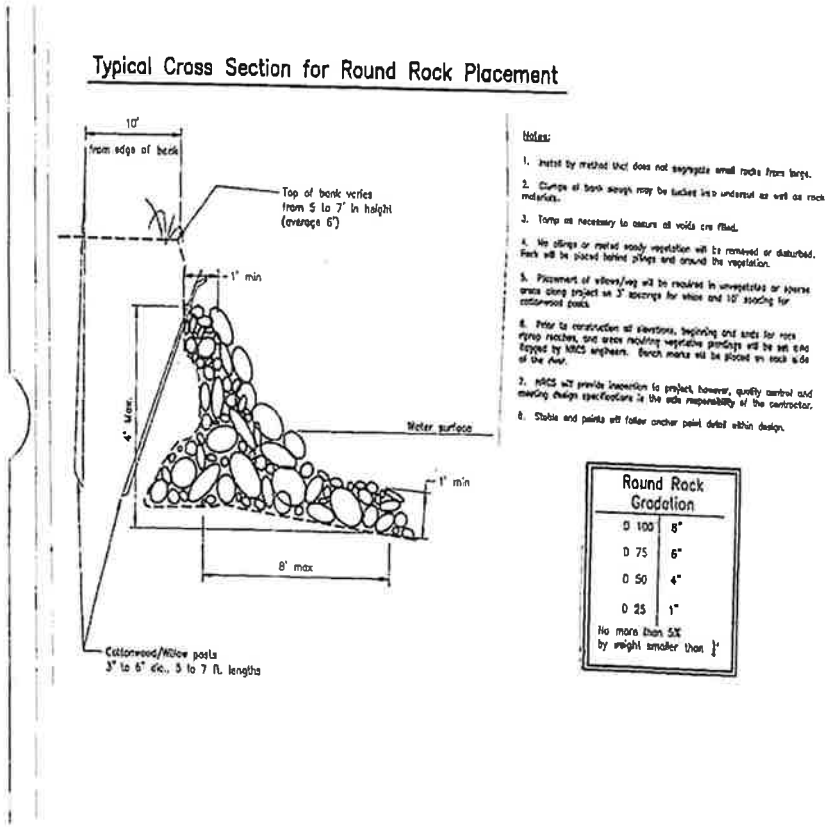
I want us to approach the public with fully thought out ideas that can be engineered and constructed, are durable remedies, and make sense from a financial standpoint. If we have consultants develop and study ideas that do not make sense from the above standpoints we are just kicking the can down the road and wasting the people's money.

We need to explain some of these things to the public so that they can help us make the right decisions for the Lower Basin.

Terry A. Harwood, PE

Executive Director, BEIPC

NRCS Design
(NEED SHOW NEWER DESIGN HERE)



Director Terada:

I am a Regional Wildlife Biologist with the Idaho Department of Fish and Game and the manager of the Coeur d'Alene River Wildlife Management Area located within the Lower Basin of the Bunker Hill Superfund site. The Wildlife Management Area comprises almost half of the wetlands in the Lower Basin. I also serve on the Technical Team of the Restoration Partnership which, as I'm sure you know, is a consortium of governments and agencies with lead responsibility for ecological restoration within the Bunker Hill Superfund site. I am an active partner with EPA's efforts in the Coeur d'Alene Basin. I have served on EPA's Lower Basin Technical Work Group, the Lower Basin Waste Consolidation Area Project Focus Team, am the lead restoration partner on the Gray's Meadow Project, and actively collaborating with EPA on research into remedial effectiveness biomonitoring methodologies for the Lower Basin.

I am writing to express my frustration and deep concern that the EPA continues to fail to move forward with a decision to site a waste consolidation area (WCA) at the proposed Dredge Road site and urge you to action. The WCA site is critical to support Lower Coeur d'Alene Basin remedial and restoration efforts by EPA and other collaborators.

EPA has been very intentional and inclusive in their outreach to hear from both lay citizen and professional agency/government stakeholders. I applaud those efforts. Beginning as early as 2020 EPA initiated a robust public engagement process. Community stakeholders have had an opportunity to express their perspectives, identify suitable WCA sites for EPA consideration, and had a voice in the development of the WCA siting criteria that have been used to identify a suitable WCA site.

EPA convened a WCA Project Focus Team (PFT) of a broad spectrum of multiple agency/government stakeholders in late 2022 and early 2023. EPA brought in Julie Shapiro (Keystone Policy Center) as a third-party facilitator for that effort. The PFT met on several occasions. We reviewed and amplified WCA siting criteria developed by community stakeholders. The EPA presented two proposed WCA sites (including the Dredge Road site) that meet all siting criteria to the PFT. They also solicited additional viable WCA site alternatives to consider from the PFT members (none were identified except Springston, and only for future consideration for work in the lower reaches of the Lower Basin). The PFT rigorously reviewed and discussed all the identified alternatives.

Six months ago today, January 17, 2023, the PFT assessed our level of consensus on the Dredge Road Site on a 5 point scale (1- enthusiastically support, 2- support, 3- can live with/do not object, 4- object, 5- strongly object). **No stakeholder objected or strongly objected to the Dredge Road site.** A substantial majority of stakeholders enthusiastically supported or supported the Dredge Road Site. A minority of stakeholders indicated they can live with/do not object to the Dredge Road site. These more moderate supporters: "noted that there are few options, that a location is needed, **that others are not viable now, and the existing contamination on the site is a plus** (my emphasis)." They did request some additional questions be answered and due diligence completed. I understand that has now been

completed to their general satisfaction. These results indicate not only a strong consensus among PFT participants to site the WCA at the Dredge Road location but in fact represents a balanced unanimity to do so.

I understand that the PFT does not make the decision. I also understand that no minority opinion stakeholder blocks the decision and that none of the included PFT stakeholder representatives objected to the Dredge Road site anyway. My understanding is that at this point EPA is free and responsible to make the siting decision. Director Terada, we invested in and have completed an inclusive and rigorous search and evaluation process. There is no perfect WCA site location for remediation and restoration work in the Lower Coeur d'Alene Basin. The Dredge Road site is unequivocally the best available location and most cost-effective site to place the WCA needed to start the planned Lower Basin work. All parties recognized and concurred with that fact even if it was not their "perfect" location. No reasonable alternative site has been identified or is under current consideration.

It is my personal view that, through the EPA public outreach and WCA PFT process, the best available WCA siting location has been identified, has the consensus/unanimous support of a broad range of technical expert stakeholders, and the decision has made itself. It is past time to make that decision official. Continued delay of what I believe is the inevitable decision to place the WCA at the Dredge Road site undermines not only EPA's own remedial objectives but also the work of other remediation/restoration partners that must coordinate their work with EPA's timeline and progress. EPA's continued failure to act is wasting time, money, and opportunity by jeopardizing approved work schedules and their supporting budgets. Director Terada, I strongly urge you to delay no longer. Please make the official decision by August 1, 2023 and in time for EPA and the Coeur d'Alene Work Trust to execute planned work on schedule and not jeopardize that progress and the progress of others dependent on that work schedule. I do not believe that making that decision and addressing whatever issues remain are exclusive. A good faith effort to address any remaining issues of the few can continue forward even with a final decision to approve the Dredge Road WCA site and set in motion the planned and scheduled work of EPA and the dependent work of others in the Lower Basin.

Thank you for taking time to thoughtfully consider my concerns and call to action.

Respectfully at your service,

David J Leptich

David J. Leptich
Regional Wildlife Habitat Biologist
Idaho Department of Fish and Game
2885 W. Kathleen Avenue
Coeur d'Alene ID 83815

Meeting Summary

Lower Basin WCA Siting and Remediation Information Workshop
WCA Project Focus Team
January 17, 2023, 9:00 AM – 2:00 PM PDT
Idaho Department of Fish and Game, Roosevelt Room
2885 W. Kathleen Avenue, Coeur d'Alene ID. 83815

Participants:

EPA - Kim Prestbo, Ed Moreen, Jocelyn Carver, Eric Nicolai, Tyler Chatriand
CDA Trust – Kyle Richards, Jim Finlay
MFA – Alan Hughes
CDA Tribe - Rebecca Stevens, Valerie Wade
USFWS –Elise Brown, *Christy Johnson-Hughes was unable to attend*
BEIPC – Terry Harwood
CCC – *Jerry Boyd was unable to attend*
Kootenai County – *Jamie Sturgess was unable to attend*
Forest Service – Wade Jerome

Idaho DEQ – Andy Helkey
Idaho Fish and Game – Dave Leptich
Washington DOE – Sandra Treccani
Panhandle Health – *Mary Rehnborg was unable to attend*
Eastside Highway District – Ben Weymouth
Jacobs – Dan Pitzler
Keystone Policy Center – Julie Shapiro

Workshop Objectives

1. Discuss and understand technical issues related Lower Basin remediation of the CDA River.
2. Discuss and understand technical issues, tradeoffs, and concerns about the three available WCA sites, with reference to the key assumptions and criteria.
3. Assess the level of consensus regarding the use of the Dredge Road site; hear and document rationales for support and/or objection.
4. Identify next steps and timing for conversations on additional issues beyond the WCA siting, i.e., CIA, redevelopment, innovative technologies.

EPA Welcome, Agenda, and Discussion Guidelines

Jocelyn Carver welcomed the group to the meeting. Julie Shapiro led introductions and reviewed the project purpose, meeting objectives, agenda and discussions guidelines. Kim Prestbo further discussed the objectives, outlining the history of how criteria were developed and led to the 3 sites being discussed today.

Project Purpose: The purpose of the Lower Basin WCA Siting Evaluation is to evaluate WCA locations identified by EPA against other potential locations that represent alternative concepts, proposed during the public engagement period, for disposal of waste materials from the Dudley Reach pilot project and future source control remedial actions. The evaluation will use siting criteria, developed with public input in 2020, and other relevant considerations developed by the PFT. Input from the PFT will help to inform the decisions of the EPA on these topics.

Presentation and discussion of technical issues related Lower Basin remediation of the CDA River

Kim Prestbo introduced the context and implementation approach for the Lower Basin remediation, noting the Lower Basin is much larger and more complex than other sites. Kim noted there are 37 river miles and a need to consider all stages of the river (high flow, low flow).

- Remediation in the Lower Basin includes controlling sources while reducing risk through an iterative process of pilot studies, interim measures, iterative remediation and monitoring, and flexibility and adaptive management. The approach addresses secondary sources (banks) and prioritizes the most erosive banks; it also involves stakeholder engagement. There are three focus areas: riverbed and banks – source control; wetlands and lateral lakes – ecological health and recreational areas – human health. Kim noted that ~85% of metals loadings come from the river below the confluence and Cataldo Reach. She discussed Schlepps and Gray's Meadow as examples of managing risk while tackling source control in the Upper Basin and beginning to address source control in the riverbed and banks.
- Kim provided a little background on the Dudley Reach Pilot, which has been identified as a significant source area based on bed sampling, monitoring suspended sediments through USGS sampling year-round and opportunistic sampling during high flow events. EPA is working with the Trust to plan the Pilot and subsequent tests.
- Group discussion and questions on erosion control issues followed. There are 66 locations with pins being monitored including calculation of rates and determination of the type of erosion. Qualitative measures will determine protection (armoring, vegetation). The lake effect extends to and through Dudley Reach. There was a suggestion for the need to establish a scale to define 'highly erosive' and to be used to determine high vs. low erosion and problem areas. Areas of concern are those with high erosion with highly impacted soils that may release metals into river.

Kyle Richards provided additional context about the overall Lower Basin as it relates to potential WCA sites and the location of Dudley pilot project, referring to plans from the 30% design.

- The first phase of the pilot is anticipated to be ½ mile long, generally centered around the Dudley Reach scour hole.
- The focus on Dudley Reach is because lead losses upstream of Dudley reach are much less than what Dudley Reach adds to the system.
- The pilot will provide an opportunity to learn about costs, techniques, and overall effects on the river system.
- The pilot will be a dredge-cap hybrid.
    - This involves removal of a defined depth of sediment and installation of an armored cap layer to protect sediment from future transport. It is not feasible to remove all sediment but is also not feasible to only cap, as a new cap without dredge would change river dynamics and floodplains. Some areas will have complete removal if they are shallow enough, and caps will be installed in areas that cannot be dredged fully. The dredged material will be very fine sediments, wet, and not easy to transport immediately to the WCA by truck (i.e., dewatering will be required).
    - The source of material for the cap is expected to be equal volume to the material dredged. The cap design will be based on evaluation of the 100+ year flood event, velocity, depth, and shear stresses.
- Handling requirements vary based on dredging method employed. Dredging options are:
    - Mechanical dredging: involves less water, placement on a barge using a clam-shell excavator, then transportation to an offload facility where materials are dewatered in stages to get ready for transport via trucks to the WCA.

- Hydraulic dredging: involves suction removal and could involve piping conveyance of the slurry to the WCA which would require building a handling facility to process/dewater materials before final placement.
- Questions and discussion on dredging:
  - *Can settling ponds be used*? Turbidity and water quality will be monitored and must meet all requirements that would apply to these settling pond operations.
  - Precision dredging uses GPS monitoring to help operators know exact depths and locations for removing material. Both mechanical and hydraulic dredging can be low impact in terms of disturbance to the riverbed.
  - BMPs and compliance with applicable or relevant and appropriate requirements will be in place to manage the dewatering process.
  - Seasons of operation will be outside of the primary recreation season (post Labor Day through winter) and relevant fish windows. Operations will stop prior to peak flow conditions.
  - It is difficult to make substantive changes to the approach on the fly during construction.

Presentation and discussion of three available WCA sites

- **Dredge Road Site** *(presented by Kyle Richards)*: The site is 170 acres located north of I-90, 1 mile upstream from pilot project. There is a natural gas line running through the main properties and FEMA shows the property within the 100-yr floodplain; a No-Rise Analysis will be needed but is not started yet. Soils are generally already contaminated at 0-10 feet below ground surface (bgs). Groundwater is also impacted; generally impacts are greatest on the southern portion of the site near the river. Staging areas are smaller at this site, so might require partnership to get better access. The potential truck route would be in front of Old Mission (utilizing Mission Road)on the way towards WCA. The footprint for the WCA for 30,000 cubic yards of waste would be about 4 acres (400-ft x 400-ft x 10-ft tall with slope for drainage). The WCA would be expected to have a phased closure to retain the potential for adding other material.
  - *Participant Suggestions*:
    - A member suggested that clean material dumped at Whiteman from a past road project could potentially be available.
    - Highway Conditions: A participant suggested that upgrades would be needed for Dredge Road and Mission Road, which would be expensive. They also noted that Highway 3 is suitable for trucks and thus they were not concerned about impacts or public perception of traffic on the highway.
    - Dredge Rd already has a repository (East Mission Flats [EMFR]) that includes a full-scale truck decontamination wash station; a participant asked whether use of that station has been considered.

- **South River Road Site** *(presented by Kyle Richards):* This site is 160 acres located 4 miles downstream of the project; the distance from the pilot would result in higher transportation costs than Dredge Road; there are also more limitations on options for dredging and dewatering. It is a clean site; soil and groundwater are not impacted by metals. A small portion is within the 100-year floodplain. The topography includes a draw running through the property with steep slopes on northwest. Clean materials from this site could be used for future remedial actions regardless of whether the site is used as a WCA. There is not a footprint concept nor a

specific WCA location for this site yet, but the footprint is expected to be similar to Dredge Road, and the WCA must consider how clean material would be removed first and confirm that the elevation is high enough to avoid groundwater. Test pits showed 8-9 ft of soil, however water was encountered in these pits. Dewatering would likely be done closer to the site. Neighboring private property owners do not support a WCA on this site and do not want groundwater impacted since it is used for a well system; but they support use of the site for clean borrow material. Activities on site would be less visibly impactful to the public due to topography. Another participant also suggested that South River Road is not an all-weather road and would need improvements for trucking.

- **Springston Site** (*Presented by Dave Leptich*): This site is 35 acres and located 27 miles from the Dudley Reach pilot location, thus transportation costs would be less for potential future projects closer to this site. It is an abandoned townsite. Road and bridge considerations and distance to the pilot mean that barging may be a preferred mode of transport of waste materials. Use of the site would have impacts to wetlands and also offer the potential for converting from the current wetland (invasive phragmites) to a seasonally flooded cottonwood forest (raised elevation) to maintain wetland status. The site has the potential to provide long-term benefits after the initial short-term negative construction impacts. One private residence views the property and the site is also highly visible to all water recreation on the river and users of Trail of CDAs; this could offer educational opportunities. There is no clean material available. This site is *not* available as an option now; it would require conversation with USFWS and state agencies to address land use and ownership complexities.
    - A participant also suggested that this site is frequently flooded and may provide sediment trapping.
    - Participants appreciated the 'out of box' thinking for this site.

Lunch break

Assess level of consensus for Dredge Road site

Participants provided feedback on their level of support or opposition for the use of the Dredge Road site for the WCA. This was a 'temperature check,' not a vote. Participants were asked to describe where they were on a numerical scale of 1 to 5 (1=enthusiastically support, 2=support, 3=can live with/do not object, 4=object, 5=strongly object) and to provide their rationale.

The range of responses for the temperature check was from 1 to 3 (enthusiastically support, support, or can live with/do not object). No one suggested a numeric score of 4 or 5 indicating they object to the site. Rationales for responses are summarized below. Regardless of the number selected, rationales were similar in their emphasis on the practicalities and benefits of location and existing contamination of the Dredge Road site, while those that 'could live with' the site had more questions about the use of existing repositories and other due diligence questions.

- Enthusiastic supporters indicated that while not perfect, the Dredge Road site is as good as we are going to get: It is near the Dudley Reach site, is Trust-owned and will be properly engineered. It will offer the best 'bang for the buck' especially given the finite nature of Trust funds. It recognizes the immense work that the Trust went through to find even sites. It performs well against the siting criteria and is highly contaminated and covered with phragmites; there is potential for restoration/protection and reuse as compared to the current condition.

- Supporters indicated the qualities of this site relative to other sites, suggesting it has the least impact to roads, is closest to the pilot, easiest to implement, and is already contaminated.
- Those with a score suggesting 'support' or 'can live with' noted the importance and need for the WCA, the immediate availability and practicality of Dredge Road for pilot use, the proximity to Dudley Reach, the site's existing contamination, and appreciation for avoiding high flow and the bull trout runs. They also noted uncertainty about how this site fits into the longer-term remediation activities in the Lower Basin. Several participants indicated they were relatively new to the project, and are still getting up to speed. They requested more information about the project and about the potential use of existing repositories.
- Those that indicated that they 'can live with' the Dredge Road site similarly noted that there are few options, that a location is needed, that others are not viable right now, and the existing contamination on the site is a plus. They also asked for a more robust evaluation of existing repositories, potential to use up the capacity in existing sites with existing structure, consideration for adjacent land ownership, and ability to show due diligence on these topics as well as cost comparisons such as for total costs for Dredge Road vs. the CIA.

In continued discussion, participants raised the following ideas and questions:

- What are the potential options for reuse of the Dredge Road site (golf courses, dog parks, wind/solar farm, etc.)? Using Dredge Road as a WCA serves as a method for cleaning up the site whereas it would not otherwise be considered for cleanup.
- What are the legal constraints for using repositories within the Box and also what limits are there on the Trust for working in the Box? What constitutes 'work' within the Box?
- Participants provided the following comments on other existing repositories:
    - The Osburn WCA will be needed for Upper Basin cleanup activities including the South Fork site, so is not available for materials from the Lower Basin. Osburn is not designed or in operation, but potential development of the Osburn site (or another site) would be dedicated to UB wastes.
    - The Page repository is not an option because it is at capacity.
    - The East Mission Flats Repository is the only Lower Basin repository for Institutional Control Program (ICP) waste and is needed to protect that resource.
    - Many existing repositories are old tailings ponds; waste cannot necessarily be piled higher on them.
    - There is no active wash station at the Central Impoundment Area (CIA). It's now owned by Silver Mountain and not active.
    - The remaining capacity of existing repositories is fully obligated to planned work near their locations.
    - It does not seem cost effective to move lower basin waste to the upper basin and exhaust existing capacity only to have to move upper basin waste to the lower basin in the future because upper basin capacity has been lost.
    - Upper basin communities have expressed the need to preserve limited level land for current and future residential/commercial development.
- A participant commented that there is a lot of infrastructure planned for City of Kellogg; there are hopes to have the CIA closed and transferred to the State to manage future use.
- Consider the Springston-type approach for a future WCA.

Initial discussion of other issues, and next steps for future collaboration and learning

Continuing from the prior conversation, Kim Prestbo briefly outlined topics for further discussion:

- CIA (and other repositories): As discussed above, there is not much capacity available; there are current plans in the waste management plan to close these repositories. It may be beneficial to have a separate discussion on the details surrounding the CIA and the challenges associated with sending waste to the CIA in the future.
- Beneficial uses: Next steps to consider wetland creation and other ideas similar to the Springston Site.
- Innovative technologies
- Other

Meeting Summary and Next Steps

- The PFT's discussion of the 3 sites is concluded; future discussions will cover topics like the CIA and reuse options.
- Additional actions items and parking lot items:
    - St. Marie's Creosote Superfund Site will involve dredging activities this year; a meeting could be arranged to see this in person.
    - Consider posting notes from the PFT meetings with the Basin Commission.
    - A participant suggested also looking at an early 2000s Clean Water Act study that identified landowners with contaminated lands that would be interested in wetland restoration, to consider whether they might be interested in waste siting and restoration.
    - Get a legal opinion on constraints for using repositories within the Box and also what limits are there on the Trust for working in the Box. Define what constitutes 'work' within the Box?
    - Request to provide additional information on existing repositories, cost comparisons (hauling, road improvements, opening existing repositories), etc.

Kim and EPA thanked the PFT members for their time and participation.

Adjourn

1.2.4 Siting of Lower Basin Waste Consolidation Area

In 2020, EPA began seeking public opinion for siting a WCA in the Lower Basin to accommodate nearby planned remedial actions such as the Dudley Reach Scour Hole Pilot Project. EPA initiated a robust public engagement process. Community stakeholders have had an opportunity to express their perspectives, identify suitable WCA sites for EPA consideration, and had a voice in the development of the WCA siting criteria that have been used to identify a suitable WCA site.

Between 2021and 2022, geotechnical evaluations, surveying, and ground water monitoring were performed at two potential WCA sites located in the Lower Basin and owned by the CDA Trust. In late 2022 and early 2023 the EPA also convened a WCA Project Focus Team (PFT) of a broad spectrum of multiple agency/government stakeholders. They brought in a neutral third-party facilitator for that effort. First the PFT reviewed and amplified WCA siting criteria developed by community stakeholders. Then the EPA presented two proposed WCA sites (including the Dredge Road site) that met all siting criteria to the PFT. EPA also solicited additional viable WCA site alternatives to consider from the PFT members. The PFT rigorously reviewed and discussed all the identified alternatives.

The Lower Basin WCA PFT met for the last time in January 2023. At that meeting the PFT assessed the level of member support consensus for the Dredge Road site as the best available alternative meeting all siting criteria. Support levels varied from "enthusiastically support" to "can live with/do not object". Consequently, support consensus was unanimous with no member "opposed" or "strongly opposed". Those who indicated they "can live with" the Dredge Road site noted there are few other options, a location is needed, others are not viable at this time, and the existing contamination on the site is a plus. They did ask for a more robust evaluation of existing repositories, potential to use up the capacity of existing sites with existing structure, consideration of adjacent landownership, and ability to show due diligence on these topics as well as cost comparisons such as total costs for Dredge Road vs. the CIA before a final decision was made. That request was fully met later in 2023 and no viable new site/option was identified or is under current consideration.

The BEIPC Coeur d'Alene Basin Calendar year 2024 Work Plan identified that, pending a (WCA site) decision, design activities would commence in 2024. One year later no decision has been made, no alternative Lower Basin WCA sites are under consideration, and the Dredge Road site still meets all siting criteria. Failure to move forward with development of the Dredge Road WCA undermines efforts to advance remediation, environmental restoration, and related measures to address water quality and heavy metals contamination in the Coeur d'Alene Basin which are the statutory mission responsibilities of the BEIPC established in state law. Continued inaction and delay are extending potential harm to the public we are entrusted to represent and protect. Furthermore, inaction and delay are frustrating on the ground efforts of our government, agency, and private partners

to advance the BEIPC mission. Consequently, within the scope of our statutory responsibility to implement, direct, and coordinate environmental remediation, natural resources restoration and related measures in the Coeur d'Alene Basin, we direct the siting of a Lower Basin WCA at the Dredge Road site. Design activities will commence in 2025.

DRAFT

BASIN COMMISSION (BEIPC)

2025

ANNUAL WORK PLAN

Basin Environmental Improvement Project Commission

COEUR D'ALENE BASIN CALENDAR YEAR 2025 WORK PLAN

East Fork Ninemile Waste Consolidation Area. Images provided by the CDA Trust.

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SITE BACKGROUND

The Bunker Hill Superfund Site, sometimes referred to as the Coeur d'Alene Basin Site, is located in northern Idaho, sections of the Coeur d'Alene Tribe's Reservation, and in northeastern Washington along portions of the Spokane River. The Site includes mining-contaminated areas in the Coeur d'Alene River corridor, adjacent floodplains, downstream water bodies, tributaries, and fill areas, as well as the 21-square-mile Bunker Hill "Box" where historical ore-processing and smelting operations occurred. The Bunker Hill Superfund Site, which was listed on the Superfund National Priorities List (NPL) in 1983, is divided into the following three study and cleanup areas called Operable Units or OUs:

- OU-1 includes the populated areas of the Bunker Hill Box.
- OU-2 comprises the non-populated areas of the Bunker Hill Box.
- OU-3 includes all areas of the Coeur d'Alene Basin outside the Bunker Hill Box where mining-related contamination is located. OU-3 is often called "the Basin."

The Site is also divided into two geographic areas with common sources of contamination: The Upper Basin and the Lower Basin. The Upper Basin is primarily in the eastern portion of OU-3 and extends from the headwaters of the South Fork Coeur d'Alene River (SFCDR) close to the Idaho/Montana border to the confluence of the South and North Forks of the Coeur d'Alene River near Kingston, Idaho. The Box is included as part of the Upper Basin when referring to remedies that improve water quality and lessen migration of contaminated sediment to the Lower Basin. It does not include, however, remedies in the Box that focus on reducing risks to people. The Lower Basin is primarily in the western portion of OU-3, west of the Upper Basin and Box. It includes the mainstem of the Coeur d'Alene River, and all lateral lakes, floodplains, and associated wetlands adjacent to this stretch of the Coeur d'Alene River to the mouth of the Coeur d'Alene River. It does not, however, include CDA Lake or the portions of the Spokane River in Washington State which are within OU-3.

INTRODUCTION

This work plan covers proposed environmental cleanup and improvement activities in the Coeur d'Alene (CDA) Basin scheduled for 2025 by the Basin Environmental Improvement Project Commission (BEIPC) and coordinating agencies and governments in accordance with their responsibilities as stated in the Memorandum of Agreement (MOA) dated August 2002. Actions noted in the work plan are intended to implement the goals and objectives of the BEIPC's 2025 - 2029 Five Year Work Plan. This work plan has been prepared by the BEIPC's Executive Director working with the coordinating agencies and governments with review, input, and approval by the Technical Leadership Group (TLG) and review and input from the Citizen Coordinating Council (CCC). The work plan is organized as follows:

- Part 1 – Environmental cleanup work performed through the federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) by the Environmental Protection Agency (EPA) and State of Idaho through the Idaho Department of Environmental Quality (DEQ) or work performed by the Coeur d' Alene Custodial Work Trust (CDA Trust) and Potentially Responsible Parties (PRP).
- Part 2 - Other Activities and Responsibilities.

Part 1 includes work to implement the 2002 OU-3 Interim Record of Decision (ROD) and the 2012 Upper Basin (Box and OU-3) Interim ROD Amendment (RODA).

Part 2 includes work and responsibilities concerning management of Coeur d'Alene Lake (CDA Lake) by the Coeur d'Alene Tribe (CDA Tribe) and the State of Idaho, restoration of natural resources by the Natural Resource Trustees (Restoration Partnership) and work the BEIPC has assumed based on recommendations from the 2005 & 2022 National Academy of Sciences (NAS) Studies and requests from citizens and communities of the Basin.

The five-year plan outlines activities and work proposed to be implemented over the next five years; however, it does not sequence these activities. This one-year plan establishes and maintains the sequencing of activities that will be needed to complete the activities and work approved in the five-year plan. It may not address all work items noted in the five-year plan because some will not be initiated until later years.

PART 1 – ENVIRONMENTAL CLEANUP WORK

For Part 1, the scope of the proposed work corresponds to the source and level of funding anticipated for 2025 and work anticipated to be performed by the responsible parties. The proposal includes the following work:

- Human Health Issues including Residential and Community Property and Private Water Supply Remediation, Basin Property Remediation Program; Lead Health Intervention Program; and Recreation Use Activities.
- Waste Disposal Area Development and Management.
- Remedial actions in the Upper Basin including source control actions, water treatment, and related human health activities provided for in the 2012 Upper Basin RODA.
- Remedial actions and/or Pilot Projects in the Lower Basin.
- Basin Environmental Monitoring Program.
- Operation and Maintenance Responsibilities for Remedial Actions.

1.1 HUMAN HEALTH REMEDIES

Remediation in areas where human health exposures exist is a remedial action priority as defined in the 2002 OU-3 ROD. It includes maintaining the Institutional Controls Program (ICP) implemented by DEQ and managed by the Panhandle Health District (PHD) and conducting cleanups in residential, community and recreational areas in the Upper and Lower Basin. The 2012 Upper Basin RODA addresses source control remedies, water treatment remedies, and ecological cleanup projects with related human health activities.

1.1.1 Residential and Commercial Property Remediation

During 2024, the CDA Trust's Basin Property Remediation Program (BPRP) sampled three residential properties in the Coeur d'Alene Basin. One property's soil and drinking water were sampled. Additionally, two properties with private drinking water sources were sampled where soil sampling had previously been completed but drinking water from inside the residence had not been completed. At the conclusion of 2024, a total of 3,236 properties in the Box and 3,935 properties in the Basin have been remediated. Properties remaining to be sampled and/or remediated are those whose owners have refused access or have been unresponsive to repeated contact attempts by the CDA Trust and IDEQ.

The goal for 2025 is to complete sampling and remediation if sampling results are above action levels on parcels whose owners have granted access. Nine properties in the Box remain to be remediated once owners grant access, and 201 properties in the Basin require sampling and 38 properties require remediation based on previous sampling results.

EPA will continue to direct and oversee the CDA Trust BPRP work in 2025. IDEQ will continue an oversight and coordination role initiated in 2015 and will continue to encourage property owners to have their properties sampled and remediated, if necessary.

1.1.2 Updated Residential Soil Lead Guidance

On January 17, 2024, EPA updated its national residential soil lead guidance. The guidance, last updated in 1994, reflects an evolved understanding of the potential harms of even low levels of lead exposure across a lifespan. The updated guidance reduced the recommended residential soil lead screening levels from 400 parts per million (ppm) to 200 ppm or 100 ppm when multiple sources of lead exposure are present. The reduced screening levels are based on target blood lead levels of 5 µg/dL or 3.5 µg/dL when multiple sources of lead are present.

Screening levels are not cleanup levels. Screening levels are used during early site investigations and applied consistently to all contaminated areas being assessed to determine if the level of contamination is high enough to warrant further investigation. Cleanup levels are developed after consideration of investigations, assessments, site-specific risks, and other relevant site information. Cleanup levels are used to trigger cleanup actions which are specified in EPA decision documents (such as Records of Decisions). While a screening level of 400 ppm was used for evaluations at the Bunker Hill Superfund Site, the soil lead level used to trigger cleanup actions ranges from 700 to 1000 ppm depending on the location.

EPA Region 10 and the State of Idaho (including Idaho Department of Environmental Quality and Panhandle Health District) are evaluating implementation options at Bunker Hill under the updated guidance to ensure the cleanup levels and actions remain protective. In 2025, work will include an assessment to determine the potential need for changes to current residential soil cleanup levels considering the updated guidance. The work will include an assessment of the assumptions used to develop the cleanup levels currently in use at the site and ensure they are consistent with the recommendations in the updated guidance.

1.1.3 Lead Health Intervention Program

As part of the Site's Lead Health Intervention Program (LHIP), screening of children for elevated blood lead levels has been occurring annually in the CDA Basin since 1996 as a public health service to identify children with elevated blood lead levels and to provide follow-ups from a public health professional to identify ways to reduce lead exposures. The screening program also provides information to the Basin cleanup efforts; however, cleanup decisions are not based on annual blood lead testing results since the cleanup goal is to prevent lead exposures that could result in elevated blood lead levels.

In early 2012, the Centers for Disease Control & Prevention (CDC) changed its "level of concern" associated with childhood lead poisoning from a blood lead reference value (BLRV) of 10 micrograms per deciliter (µg/dl) to a new BLRV of 5 (µg/dl). On 10/28/2021, the CDC again lowered the BLRV to 3.5 (µg/dl) in children. This new lower value means that more children will be identified when lead exposure is occurring allowing parents, doctors, public health officials, and communities to act earlier to reduce the child's future exposure to lead.

In 2025, the LHIP will continue to offer free year-round blood lead screening for residents living within the Bunker Hill Superfund Site boundaries, individuals recreating within the site boundary, and individuals working within the side boundary in occupational settings where there is a potential for exposure to lead. In addition, the LHIP will be conducting its annual summer screening with a $50 incentive for children between ages 6 months to 6 years of age residing within Site boundaries.

When an individual is identified as having an elevated blood lead level, it is recommended their physician be notified and PHD will schedule a free in-home consultation to identify potential sources of exposure in and around the home. These in-home consultations help PHD, and individual families identify ways to reduce exposure risks. In addition, PHD can help identify potential exposure pathways the cleanup project can address to prevent lead exposures.

Additional Services offered by the LHIP:

- Year-round blood lead screening and free follow-ups.
- High efficiency particulate air (HEPA) EPA vacuum loan program for cleaning residences.
- Education, outreach, and awareness for parents, children, community members, recreationalists, and visitors.
- Education classes in local schools for grades K-12.
- Education and outreach at community events.
- Sampling of soil, dust, paint, water, and other media as appropriate.
- Provide healthy homes items including dust cloths, surface cleaner, door mats, and replacement furnace filters.

1.1.4 Recreation Use Activities

In 2016, a Recreation Sites Program was created to address and manage human health risks from exposure to lead and other metals that can occur during recreation activities throughout the CDA Basin. A Basin Recreational Sites Strategy document was developed to lay out goals, ways to inventory recreation areas, ways to manage risks to people, and current outreach activities. This strategy was issued for public and stakeholder comments and suggestions. The same approach is being undertaken in the Box with plans to complete the Strategy and Implementation Plan documents in 2025.

Addressing contamination at recreation sites is different than other cleanup activities. Many places are re-contaminated with each high water or flood event making it difficult to just remove contaminated soil and replace it with clean soil. Other recreation areas are remote, hard to access, and spread out (example: hiking trails or all-terrain vehicle (ATV) areas), making cleanup of the entire area difficult. Overall, different approaches are needed for the diverse types and locations of recreation sites. In addition, community outreach and education are important ways to help people manage health risks while recreating. An outreach and education program has been in place for years and will continue to be implemented and expanded.

The Recreation Sites Program team, which includes the EPA, DEQ, PHD, CDA Tribe, BEIPC and the CDA Trust, will meet at least biannually in 2025 to evaluate and discuss priorities. In the Basin, the CDA Trust expects to monitor completed remediation projects and continue to update and install new signage at identified recreation sites. Additionally, the CDA Trust will evaluate sample results and potential cleanup options at an informal recreational site located on the east side of Thompson Lake, and they also anticipate completing additional characterization activities at other Lower Basin recreational areas. In the Box, DEQ and PHD will continue to update signage and evaluate access controls at mine and recreation sites where public use has been identified. Planning for further remediation recreation sites will continue as prioritized by the team and strategy document criteria. The overall goal is to

address and manage human health risks from exposure to lead and other metals while maintaining the benefits of recreation for people's health and the local economy.

1.2 WASTE DISPOSAL AREA DEVELOPMENT AND MANAGEMENT

Waste disposal area development and management is an ongoing process that must meet the demand for disposal of historic mining-related contaminated wastes from cleanup activities performed by DEQ, EPA, the CDA Trust, and waste generated by private parties and local government agencies under the Bunker Hill Superfund Site's Institutional Controls Program.

There are currently two primary types of waste disposal areas across the site:

- Repositories
- Waste Consolidation Areas

Repositories and Waste Consolidation Areas (WCAs) differ in the waste streams they accept, the proximity to a cleanup action or waste generation source, and how they are constructed based on, in part, how long they are to remain open. All, however, are engineered waste storage options and an effective way to remove and consolidate contaminated materials away from people and wildlife. Each waste disposal area is monitored during construction and placement of wastes, and after the waste disposal area is capped and closed to ensure wastes remain in place and to prevent contaminants from being released to surface water, groundwater, or air in concentrations above state and/or federal standards.

1.2.1 Repositories

Repositories are large, centrally located waste disposal areas where a variety of wastes from a variety of projects are transported to and secured. Repositories typically remain open for a longer period than WCAs.

There are currently five open or operating repositories at the Site. In general, the following tasks are performed each year of operation including in 2025:

- Receipt and placement of remedial action and ICP wastes.
- Segregation and appropriate re-use of non-soil waste such as wood and root wads, concrete, asphalt, large (greater than 6 inches) rock fragments and miscellaneous demolition debris to minimize disposal.
- Equipment decontamination, site stabilization, erosion, and sediment control installation.
- Surface and ground water monitoring and associated reporting.

1.2.1.1 Page Repository

The Page Repository, operated by DEQ, is in the city of Smelterville and receives waste from Box remedial actions and from the ICP. Having reached its previous design capacity in 2010, Page is being expanded westward to provide capacity for an additional 700,000 cy of waste. Work in 2025 will include placement of concrete debris to continue construction of starter berms and foundation mattress in the Page expansion cells. Geotechnical monitoring equipment will be installed in the new expansion cells. At the end of 2024 384,174 cy of disposal space was available at Page.

1.2.1.2 Big Creek Repository

The Big Creek Repository (BCR), operated by the CDA Trust, is located at the mouth of Big Creek Canyon, and primarily receives wastes from the Upper Basin. The BCR has received waste since 2002. The BCR has undergone expansions in 2009 (200,000 cy), 2011 (126,000 cy), and 2017 (127,000 cy) increasing its waste holding capacity. BCR currently has a remaining capacity of approximately 81,500 cy.

1.2.1.3 Big Creek Repository Annex

The Big Creek Repository Annex (BCRA), operated by the CDA Trust, was constructed in 2015 and is located adjacent to the original BCR, just southwest of the original site on the west side of Big Creek. BCRA uses the existing BCR access, decontamination, and ICP staging facilities. The initial design waste capacity of BCRA was approximately 190,000 cy and has approximately 168,871 cy remaining.

1.2.1.4 Lower Burke Canyon Repository

The Lower Burke Canyon Repository (LBCR), operated by the CDA Trust, is in Canyon Creek/Burke Canyon on the Star Tailings Impoundment near the community of Woodland Park and primarily receives waste from the Upper Basin. The CDA Trust completed the LBCR design and construction in 2015. The remaining capacity at LBCR is about 1,028,025 cy.

1.2.1.5 East Mission Flats Repository

The East Mission Flats Repository (EMFR), operated by the CDA Trust, is located north of Interstate 90 off Exit 39, near Cataldo, and primarily receives waste from the Lower Basin. EMFR has been receiving waste since 2009 and was designed with a waste capacity of approximately 410,000 cy. EMFR has approximately 146,000 cy of volume remaining.

1.2.2 Waste Consolidation Areas

Waste consolidation areas are located near, and accept waste from, specifically identified sources such as mine and mill site remedial actions implemented by EPA, the CDA Trust, and DEQ. Unlike repositories, footprints of WCAs are developed using current and near future waste estimates from nearby remedial action project areas and are constructed to be open for a shorter period. WCAs are only expanded if additional wastes are encountered during the selected remedial actions. Currently, there is one operating WCAs within the Upper Basin as described below.

1.2.2.1 East Fork Ninemile WCA

Development of the East Fork Ninemile (EFNM) WCA began in 2013. This WCA was designed to consolidate mine waste materials, including waste rock and tailings from select remedial actions identified in the Ninemile Creek Basin. Wastes from the completed Interstate-Callahan Mine/Rock Dumps, the Success Complex, the Interstate Millsite, the Dayrock Complex/Lower East Fork Ninemile Creek Riparian Area, and the Tamarack Complex cleanups were placed and consolidated in the EFNM WCA.

All priority cleanups in the Ninemile Creek Basin were completed in 2024. Design of the final cover system will be completed in early 2025 and construction of the final EFNM WCA cover system will begin in 2025 and completed in 2026.

1.2.2.2 *Canyon Complex Repository/Waste Consolidation Area*

Development of the Canyon Complex Repository (CCR/WCA) began in 2019. Wastes from the completed Silver Valley Natural Resource Trustee (SVNRT) Repository cleanup have already been placed and consolidated in the CCR/WCA. While the facility is a repository, it will generally function as a WCA for the near future accepting waste materials from nearby identified Canyon Creek remedial actions. The CCR/WCA is designed to accommodate approximately 1,200,000 cy in addition to the transferred volume of the SVNRT Repository. Wastes from the Hecla Star Complex and Tamarack No. 7 cleanups will be placed in the CCR/WCA in 2025.

1.2.2.3 *Siting of Lower Basin Waste Consolidation Area*

In 2020, EPA began seeking public opinion for siting a WCA in the Lower Basin to accommodate nearby planned remedial actions such as the Dudley Reach Scour Hole Pilot Project. A Lower Basin WCA Project Focus Team (PFT) was formed in 2022 to verify the analysis of potential WCA Locations. A decision has not yet been made on the final location. In 2025, EPA will continue to evaluate stakeholder and technical considerations of siting a Lower Basin WCA. When a final decision is made, design activities will be scheduled to commence.

1.3 REMEDIAL ACTIONS

1.3.1 *Upper Basin/Box Remedies*

As stated earlier, the Box is included as part of the Upper Basin when referring to remedies that improve water quality and lessen migration of contaminated sediment to the Lower Basin. The 2012 Upper Basin RODA identified $635 million dollars of work in the Upper Basin including potential work at 125 mine and mill sites. The goals of the 2012 Upper Basin RODA include:

- Prioritizing Upper Basin/Box source areas for cleanup to improve water quality and address risks to human health and the environment.
- Moving forward on the Box's OU-2 Phase 2 cleanup to improve water quality in the South Fork Coeur d'Alene River (SFCDR).
- Addressing changes in water treatment to accommodate additional contaminated water.
- Focusing on source control actions that address particulate lead which poses a risk to human health and ecological receptors.
- Protecting remedies in community areas from tributary flooding and heavy precipitation events (the construction portion of this work was finalized at the close of 2019 with completion of the Remedy Protection Program).

The prioritized cleanups under the 2012 Upper Basin RODA will continue to reduce human and wildlife risks to lead and other heavy metal exposures in the Upper Basin and are expected to significantly improve water quality. Upper Basin cleanups complement those in the Lower Basin by reducing the overall loading of contaminated materials to the Coeur d'Alene Basin watershed and the potential for recontamination in the Lower Basin.

1.3.1.1 The Box Remedial Actions

1.3.1.1.1 Central Impoundment Area Sludge Pond Closure

For the past 30 years, the old sludge pond has been used to store the sludge from the Central Treatment Plant (CTP) on top of the Central Impoundment Area (CIA). It reached capacity in June 2023 and has been replaced by the new lined sludge impoundments that were constructed as part of the CTIP upgrades. In Spring 2025, crews will begin mobilizing construction equipment to begin construction to cap and cover the old
sludge pond on top of the CIA. The sludge pond cover system will tie into the existing CIA cover system, consist of compatible materials, and meet the same performance standards as the existing cover on the CIA.

1.3.1.1.2 Pinehurst Elementary School

Pinehurst Elementary School serves many of the children living within the Box and others residing in the Lower Basin, ranging in ages from 4 to 12 years. Large sections of the playground are deteriorated leaving children exposed to underlying soil contamination. This deterioration is primarily due to inadequate grading of the site which does not provide proper drainage of snowmelt and rain. Remedial action will include removal of deteriorated sections, regrading to promote drainage, and repaving the playground area with asphalt or concrete, rubberized surfacing material around the play structures, and synthetic turf between play areas providing long-lasting, durable barriers to underlying soil contamination. The bulk of the construction and installation work will take place during the summer 2025.

1.3.1.1.3 Airport Riverwalk Trails

Remediation includes placement of concrete and gravel barriers at one or two Oasis pads along the previously completed trail, signage, vegetation along the pond, and access controls. Construction is anticipated to begin in spring 2025.

1.3.1.1.4 East Smelterville Flats

The 16-acre site is contaminated with historical mine tailings and wastes, with soil sampling indicating contaminated material is present at the surface to depths ranging from five to nine feet. Work crews will excavate and remove several piles of contaminated soil at the east end of the site that contain high lead concentrations. Cleanup will then focus on removal of contaminated soil from the floodway along the north bank of the South Fork of the Coeur d'Alene River. Contaminated material will be taken to Page Repository. After removal of contaminated soil, fabric will be placed across the site to function as a marker for underlying contaminated soil too deep to remove, followed by placement of one foot of clean materials (e.g., clean soil, gravel) on top. After this, crews will revegetate the site and install a fence and jersey barriers along the west and south property boundaries.

1.3.1.1.5 Rights-of-Way, Sidewalks, and Parking Areas

Several locations in the Box where rights-of-way (ROW), sidewalks, and parking area barriers have deteriorated with signs of underlying contaminated material evident will be remediated. Locations identified for remediation in 2025 include poor condition sidewalks in uptown Kellogg and the Galena Ridge Overview ROW. Failing sidewalks will be replaced with similar width sidewalks that include modern safe pedestrian ramps. The Galena Ridge Overview will be improved to reduce exposure to contaminated soil. DEQ will coordinate with the community regarding construction activities and will notify businesses and residents of upcoming construction work. Construction is planned between March and October of 2025. It is estimated that the following percent of each project will be completed in 2025: 33% of Uptown Kellogg Sidewalks and 100% of Galena Ridge Overview ROW.

1.3.1.2 The Upper Basin Remedial Actions

1.3.1.2.1 Ninemile Creek Basin

The Ninemile Creek Basin is located west of Wallace, Idaho and north of Interstate 90 (I-90). The CDA Trust completed cleanup at priority sites in the Ninemile Creek Basin in 2024. In 2025, the CDA Trust will continue Operation and Maintenance activities at these cleanup sites and will continue remedial action effectiveness monitoring in the Ninemile Creek Basin as discussed in Section 1.4.

1.3.1.2.2 Canyon Creek

The Canyon Creek Basin is also located north of Wallace and I-90 and is east of the Ninemile Creek Basin. In 2025, the CDA Trust will investigate contamination sources at several areas, continue design activities, and continue to implement cleanup projects as summarized below:

1.3.1.2.2.1 Canyon Creek Basin Investigations/Designs

Several investigations and designs are planned in 2025. Investigations will continue within the Lower Canyon Creek Riparian Area. The design of the Standard Mammoth Reach cleanup was initiated in 2024 and is expected to be completed in 2025. The design of the Frisco Reach will be initiated in 2025 and is expected to be completed in 2026.

1.3.1.2.2.2 Canyon Creek Basin Remedial Action - Hecla Star Mine Complex

The Hecla Star Mine Complex, near the town of Burke, is approximately 22 acres in size and consists of numerous mine and mills, mine adits, waste rock dumps, as well as mining-impacted floodplains along Canyon Creek. The design for cleanup of the Complex was completed in 2022 and cleanup was initiated in 2023 and continued in 2024. Cleanup will continue in 2025 and will include removal of mine wastes, placement of clean backfill materials, reconstruction of Burke Road and Canyon Creek following removal of mine wastes, and revegetation. Cleanup is anticipated to be completed in the fall of 2026.

1.3.1.2.2.3 Canyon Creek Basin Remedial Action – Tamarack No. 7

The Tamarack No. 7, near the community of Black Bear, is approximately 23 acres in size and consists of the Tamarack No. 7 mine and mill site as well as mining-impacted floodplain along Canyon Creek. The design for cleanup of the Complex was completed in 2022 and cleanup will be initiated in 2025. Cleanup will include removal of mine wastes, re-grading and capping of mine wastes, placement of clean backfill materials, reconstruction of Canyon Creek following removal of mine wastes, and revegetation. Cleanup is anticipated to be completed in the fall of 2026.

1.3.1.2.3 Pine Creek Basin Remedial Action – Douglas Complex

The Douglas Complex, located approximately 6 miles south of Pinehurst along East Fork Pine Creek Road, is approximately 4 acres in size and consists of multiple mine and mill sites. The design for cleanup of the Complex was completed in 2021 and cleanup will be initiated in 2025. Cleanup will include re-grading and capping of mine wastes, and placement of clean backfill materials. Cleanup is anticipated to be completed in the fall of 2025.

1.3.1.2.4 South Fork Coeur d'Alene River Investigations/Designs

In 2025, the CDA Trust anticipates that they will investigate contamination sources within the floodplain at several areas along the South Fork Coeur d'Alene River from Mullan downstream to the "Box". This investigation work will be used to identify sources of contamination and will help to prioritize potential future design and cleanup work.

1.3.2 Lower Basin Remedies

The major components of work described in the 2002 OU-3 ROD for the Lower Basin can be separated into Lower Basin Riverbeds and Banks, and Lower Basin Floodplains. Work in the Lower Basin also includes cleanup at identified recreational areas along the CDA River. Objectives of remediation in the Lower Basin focus on reducing human exposure to lead-contaminated soils and sediments, improving water quality, and reducing particulate lead and other heavy metals in the CDA Basin ecosystem.

The Draft Final Riverbed Management Plan (RMP) was completed in June 2021. The purpose of the RMP is to guide the interim remedy for the Lower Basin riverbeds and banks by providing information and analyses for selected integrated remediation scenarios for the riverbed and identifying high-priority riverbank segments for removal or stabilization. The RMP targets areas within the river for active remediation and divides the riverbed into sediment management areas (SMAs), evaluates the effects of remedial technologies, and identifies areas for natural recovery. The RMP will feed into a broader Lower Basin Prioritization Plan (LBPP) which was completed in November of 2024. The purpose of the LBPP is to provide an initial approach toward remedial action and related data gap prioritization, to aid in pilot project selection, and to apply an adaptive framework to guide pilot projects and remedial actions in the Lower Basin. Additional investigation of the riverbeds, banks, and the floodplains will be used to inform the conceptual design and feasibility of specific pilot projects that are being considered for implementation over the next two to five years under the LBPP. The results of these efforts continue to be shared with the subgroups of the BEIPC (e.g., TLG, Lower Basin PFT, and the CCC), interested stakeholders, and other citizen groups.

1.3.2.1 Riverbeds and Banks Projects

In 2025, EPA will continue with planning the following pilot projects focused on the riverbeds and banks of the CDA River.

1.3.2.2 Dudley Reach Scour Hole Pilot Project

To address contaminated sediment transport in the CDA River, the CDA Trust began remedial design characterization and planning for a pilot project to be implemented in the upper part of the Dudley Reach. Dudley Reach is considered the most significant lead loading segment in the river system, as identified in the 2002 ROD. The current area considered for a pilot project within the Dudley Reach is an approximate one-half mile scour hole located about one mile downstream of the Mission Boat Launch (near River Mile 158.8). The technologies to be constructed are a cap/dredge hybrid. The exact location for the pilot within this reach may be adjusted or the technology being considered may be modified, through adaptive management, as new information is obtained. Unarmored riverbanks adjacent to the pilot segment will be addressed as part of the pilot project. The pilot project will help inform future approaches to cleaning up mine waste in the river and allow evaluation of methods to prevent mine waste from moving downstream while getting some cleanup done. A 30% design has been completed for the project; however, further design phases remain on hold until a wase consolidation area is selected for the pilot. EPA will continue to evaluate Lower Basin WCA considerations in 2025 in pursuit of making a final decision.

1.3.2.2.1 Cataldo Reach Riverbank Design – River Mile 166-167

From 2022 through 2024, the CDA Trust completed remedial design characterization of a riverbank pilot project in the Cataldo Reach of the CDA River. The riverbank pilot project is anticipated to address

eroding banks at select locations between river mile 166 -167. In 2025, the CDA Trust will begin design on a riverbank pilot project and the design is expected to be completed in 2026.

1.3.2.2.2 Cataldo Reach Riverbank Investigation

In 2025, the CDA Trust will begin additional remedial design characterization of additional riverbanks in the Cataldo Reach of the CDA River. Characterization activities in the Cataldo Reach and the information obtained will be used to inform prioritization and design of additional pilot projects to address contaminated sediment transport in this reach of the river.

1.3.2.3 Lower Basin Floodplains Projects

In 2025, EPA will continue to coordinate with the Restoration Partnership and various landowners to characterize and identify project areas in the floodplains of the Lower Basin, including the lateral lakes and wetlands.

1.3.2.3.1 Gray's Meadow Remediation and Restoration

Gray's Meadow is 695 acres of former agriculture land to be converted to productive wetlands and waterfowl habitat. The property is owned by the Idaho Department of Fish and Game (IDFG) and is located within the Coeur d'Alene River Wildlife Management Area near the Coeur d'Alene River and Black Lake in Kootenai County, Idaho. The design for the cleanup was completed in June 2022. Construction is expected to be completed by the end of 2025, and Operations and Maintenance activities will begin in 2026 once construction is complete.

1.3.2.3.2 Gleason Wetland Remediation and Restoration Project

In 2022, the CDA Trust began remedial design characterization of a privately-owned, 250-acre conservation easement property located near East Killarney Lake Road. Characterization activities included installing monitoring wells, monitoring water levels, and collecting samples of groundwater, surface water, and soil. This property is a potential agriculture-to-wetland conversion project to be remediated and restored to provide clean habitat for water birds and other wildlife. In 2025, characterization activities will be completed to address data gaps to support the design of the project starting in 2026.

1.4 BASIN ENVIRONMENTAL MONITORING

The objectives of the Basin Environmental Monitoring Program (BEMP) are the following:

- Assess long-term status and trends of surface water, sediment, groundwater, and biological resource conditions in the Basin.
- Evaluate progress toward meeting Remedial Action Objectives (RAOs), Applicable or Relevant and Appropriate Requirements (ARARs), and Preliminary Remediation Goals (PRGs).
- Improve the understanding of Basin environmental processes and variability to improve the effectiveness and efficiency of remedial actions.
- Provide data for CERCLA required Five-Year Reviews of remedy performance.

EPA collaborates with the CDA Trust, DEQ, the CDA Tribe, the United States Fish and Wildlife Service (USFWS), and the Unites States Geological Survey (USGS) to periodically update and optimize the BEMP, which is the umbrella document that provides the framework for implementing basin-wide monitoring, area-wide monitoring, and project-specific remedial action effectiveness monitoring. The BEMP guides the collection, analysis, and interpretation of environmental data while providing

flexibility for adaptive management as remediation work is completed and information regarding site conditions evolves. In Spring 2025, the BEMP workgroup will continue annual meetings during the spring field planning season to effectively coordinate and communicate BEMP activities across all agencies and organizations.

1.4.1 Environmental Monitoring

1.4.1.1 The Box

In the south fork of the CDA River, surface water upstream and downstream of the Groundwater Collection System (GCS) will continue to be monitored as part of the BEMP. Four stations, which are associated with the Box's OU-2, are monitored twice per year, during peak spring runoff and late summer base flow conditions.

As part of the Remedial Action Effectiveness Monitoring Plan (September 2018) for the GCS, biological monitoring will be performed at two stations upstream and downstream of the Central Treatment Plan (CTP) because it has been five years since the completion of the upgrades to the GCS. These two stations upstream and downstream from the CTP were established in 2015 and 2016 to create a baseline data set and evaluate the longer-term effect of the GCS. Samples will be collected to analyze metals concentrations in benthic macroinvertebrates and benthic macroinvertebrate diversity and abundance. The results from this biological monitoring will be summarized in a monitoring report by USFWS.

1.4.1.2 The Upper Basin

1.4.1.2.1 Ninemile Creek Basin

Remedial action effectiveness monitoring has been ongoing in the Ninemile Creek Basin since 2012 to establish baseline conditions, help prioritize work and assess the effect of source area cleanups. The Area-wide Remedial Action Effectiveness Monitoring Plan for the Ninemile Creek Basin was finalized in 2021. As identified earlier in this workplan, cleanup of the Tamarack Complex and the combined Dayrock Complex/Lower EFNM Riparian Area will be completed in the fall of 2024. In 2025, surface water quality samples will be collected and analyzed two times per year during peak spring runoff and late summer base flow conditions. Results of site-specific and area-wide remedial action effectiveness monitoring will be summarized annually in a Ninemile Creek Basin monitoring report. Additional surface water quality samples will continue to be collected and analyzed by USGS four times per year during winter storm, peak spring runoff, late summer base flow, and late fall storm conditions. Results from this surface water monitoring will be summarized annually in a separate monitoring report by USGS.

1.4.1.2.2 Canyon Creek Basin

Remedial action effectiveness monitoring has been ongoing in the Canyon Creek Basin since 2015 to establish baseline conditions, help prioritize work and assess the effect of source area cleanups. The Area-wide Remedial Action Effectiveness Monitoring Plan for the Canyon Creek Basin was finalized in 2023. As identified earlier in this workplan, cleanup will continue at the Hecla Star Mine Complex in 2025 and is anticipated to be completed in the fall of 2026. The remainder of cleanups in the Canyon Creek Basin are being prioritized for future years. In 2025, surface water quality samples will be collected and analyzed two times per year during peak spring runoff and late summer base flow conditions. Results of Canyon Creek water monitoring will be summarized annually in a Canyon Creek Basin monitoring report. Additional surface water quality samples will continue to be collected and

analyzed by USGS four times per year during winter storm, peak spring runoff, late summer base flow, and late fall storm conditions. Results from this surface water monitoring will be summarized annually in a separate monitoring report by USGS.

1.4.1.2.3 South Fork Coeur d'Alene River Basin

Surface water monitoring was initiated in the South Fork Coeur d'Alene River Basin, upstream of the Box, in 2024 to establish baseline conditions and to help prioritize work. In 2025, surface water quality samples will be collected and analyzed two times per year during peak spring runoff and late summer base flow conditions. Results of this monitoring will be summarized annually in a South Fork Coeur d'Alene River Basin monitoring report.

Additional surface water quality samples will continue to be collected and analyzed by USGS at seven locations in the South Fork Coeur d'Alene River ranging from Mullan to Pinehurst. Depending on location, samples will be collected from two to twelve times per year during various conditions. Results from this surface water monitoring will be summarized annually in a separate monitoring report by USGS.

1.4.1.3 The Lower Basin

The goal of area-wide monitoring in the Lower Basin is to evaluate progress towards RAOs through assessment of biological conditions in fish and wildlife, and chemical conditions in surface water and suspended sediment after the implementation of remedial actions. The Lower Basin Area-wide Remedial Action Effectiveness Monitoring Plan is in progress and will continue to be drafted in 2025. Surface water quality samples will be collected and analyzed twelve times per year at seven locations in the Lower Basin targeted for high flow events and a fixed frequency approximately every 6 weeks. In 2023, EPA increased BEMP surface water monitoring up to 12 times per year at 7 of the 20 total USGS monitoring sites, in response to recommendations from the 2022 NAS report to better characterize conditions in the Lower Basin and inputs to CDA Lake. The increased sampling frequency represents 60% more samples and will continue in 2025.

1.4.1.4 Coeur d'Alene Lake

In response to other NAS recommendations regarding CDA River inputs to CDA Lake, EPA has funded the USGS for continuous monitoring of surrogate technologies to estimate concentrations of suspended sediment, lead, and phosphorus. This includes installation, monitoring, and model development at three established USGS monitoring locations in the Lower Basin: Cataldo, Rose Lake, and Harrison. This multi-year project was initiated in 2024, with installation at the three locations completed in 2024 and into 2025. The resulting models can be used to make real-time estimates of suspended sediment, lead, and phosphorus concentration at each site. Improved and higher-frequency estimates of sediment, lead, and phosphorus concentrations will provide more accurate estimates of contaminant loads within the Lower Basin and entering CDA Lake.

1.4.2 Biological Monitoring

Biological waterfowl research for wood ducks and tundra swans is anticipated to be completed in 2025 based on current funding, with potential future use under the BEMP. A multi-year applied research project has been occurring in the Lower Basin of the CDA River to develop biological monitoring tools to observe changes in lead exposure over time in tundra swan fecal samples and wood duck eggshells. Using analytical chemistry, molecular tools, stable isotopes, and movement data collected with this study, it is clear that lead exposure for tundra swans is site derived and that fecal samples can be used to

understand lead exposure as it relates to diet. The EPA project team and partners from IDFG, CDA Tribe, USGS, and USFWS work together toward development of non-invasive biomonitoring tools like these with the goal of helping EPA monitor remedy progress in the future.

1.5 OPERATION AND MAINTENANCE (O&M) RESPONSIBILITIES FOR REMEDIAL ACTIONS

Operation and maintenance (O&M) responsibilities for remedial actions and cleanup work across the Bunker Hill Superfund Site are as follows:

- Individual owners of properties remediated under the BPRP are responsible for O&M of the remedy and barriers on their properties in accordance with the ICP administered by the PHD.
- Operation and maintenance for public gravel and paved roads remediated in the gravel roads and paved roads remediation programs are the responsibility of the local governments with jurisdiction over those roads. Those jurisdictions include the East Side Highway District and Shoshone County, and the cities of Kellogg, Mullan, Pinehurst, Osburn, Smelterville, Wallace and Wardner.
- Operation and maintenance of projects constructed under the Remedy Protection Program are the responsibility of the governmental jurisdictions noted as the "Holder" of the Environmental Covenants executed for these projects and filed as riders to the deeds for the properties on which the work was performed. If no governmental jurisdiction is noted as the "Holder" the property owner holding title to the property involved is responsible.
- Generally, O&M for remedial work performed by the CDA Trust is the responsibility of the CDA Trust. However, there are exceptions such as with the roads and remedy protection projects. Other project examples where the CDA Trust will not be taking on long-term O&M include Gray's Meadow where IDFG will take over O&M after the first five years.
- Operation and maintenance of the CTP and GCS in the Box are the responsibility of the State of Idaho for the life of the registry funds.
- Operation and maintenance of remedies performed by various parties under CERCLA authorities utilizing funding from appropriated funds and other sources placed in EPA's Superfund Account are the responsibility of the State of Idaho.
- Operation and maintenance of remedies on Bureau of Land Management (BLM) and National Forest System Administered Lands within the Site and in the North Fork CDA River Drainage are the responsibility of the BLM and U.S. Department of Agriculture (USDA) Forest Service.

1.5.1 Central Treatment Plant/Central Impoundment Area

The IDEQ has been conducting operations and maintenance of the recently upgraded Central Treatment Plant/ Ground Water Collection (CTP/GCS) since Oct 21, 2021, using Hecla settlement monies that had been placed in a Registry Account Fund for the purposes of performing mine impacted water collection and treatment.

The CTP was upgraded to treat mine water, primarily from the Bunker Hill Mine, and groundwater from below the Central Impoundment Area (CIA). The upgrades allow for treatment to current effluent standards and reduction of the amount of solids called "high-density sludge" or "HDS" that are produced by the plant. Sludge storage has been transferred to the new sludge impoundment cells on the CIA as of June 2023. System optimization is ongoing at the plant to run as efficiently as possible and reduce operating costs while still meeting effluent discharge limits.

The GCS project includes an approximate 8,000-linear feet cutoff wall between the CIA and I-90, a series of extraction wells, and a conveyance pipeline to the CTP that extends along the north side and over the top of the CIA. Operation of the GCS has been continuous since startup. Groundwater monitoring is completed during high and low flow each year to build a database to determine remedial action effectiveness of the system.

Following treatment, the effluent (combined mine water and extracted groundwater) discharged from the CTP to the SFCDR must be in compliance with current water quality standards. The removal efficacy from the newly upgraded CTP is excellent, showing over 99% removal efficiency for zinc and lead. Phosphorus monitoring continues and is showing an average removal efficacy of 98%.

PART 2 – OTHER ACTIVITIES AND RESPONSIBILITIES

For Part 2, the scope of this work plan recognizes a number of work items that the BEIPC will be involved in and items of work needed to accommodate some of the recommendations of the 2005 and 2022 NAS studies; BEIPC and agency communications and public involvement activities; State of Washington activities; implementation of the CDA Lake Management Plan (LMP) by the State of Idaho and CDA Tribe and coordination with activities of the Natural Resource Trustees (Restoration Partnership).

The work plan includes the following work:

- DEQ Lake Management Activities
- CDA Tribe Lake Activities
- Flood Control, and Infrastructure Revitalization
- Communications and Public Involvement
- State of Washington Activities
- Coordination with the Restoration Partnership

2.1 IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY LAKE MANAGEMENT ACTIVITIES

The 2002 OU-3 ROD did not include CDA Lake in the Selected Remedy. Instead, it anticipated that the State, Tribe, federal agencies, and local governments would implement a Lake Management Plan (LMP) outside the CERCLA process using separate regulatory authorities. The updated LMP was approved in 2009 and implementation has been underway. The 2012 Upper Basin RODA indicated that a remedy for lakebed contamination is deferred contingent upon successful management through the LMP. The LMP's goal is to manage metals in contaminated lakebed sediments through reduction of nutrient inputs basin-wide from point and nonpoint sources.

The LMP includes actions related to lake water quality monitoring, coordination among basin stakeholders, education and outreach, and identification of funding sources for lake management efforts. Below are the objectives outlined in Section 3 of the LMP. These objectives are listed in the order they appear in the LMP, which does not necessarily reflect any prioritization.

- Improve Scientific Understanding of Lake Conditions through Monitoring, Modeling, and Special Studies.
- Establish and Strengthen Partnerships to Maximize Benefits of Actions under Existing Regulatory Frameworks.

- Finalize and Implement a Nutrient Reduction Action Plan.
- Increase Public Awareness of Lake Conditions and Influences on Water Quality.
- Establish funding mechanisms to support LMP goal, objectives, and strategies.

As of 2018, trends reports showed water quality triggers for lead, phosphorus, and dissolved oxygen were being exceeded. These triggers were developed by the CDA Tribe and DEQ as part of the 2009 LMP. As stated in the LMP, if trends show trigger levels being approached, a comprehensive review to guide future management actions should be conducted.

In response, the State of Idaho enlisted the National Academy of Sciences (NAS) to perform a third-party review of CDA Lake data to provide insight into nutrient, metal, and dissolved oxygen trends and offer recommendations for lake management data collection efforts moving forward. The review was sponsored by DEQ, Kootenai County, and EPA, with support from the CDA Tribe. The report was completed in late 2022. Observations and recommendations from the NAS report will help inform an appropriate response to undesirable water quality trends.

One recommendation from the NAS was the need to better coordinate data collection, utilization, and reporting throughout the basin. DEQ convened a Science Coordination Team (SCT) in 2023, including representatives from DEQ, the CDA Tribe, EPA, USGS, and the University of Idaho. The SCT will be instrumental in guiding scientific efforts related to management of CDA Lake and in working through the other recommendations included in the NAS report. In the meantime, DEQ staff continues to operate under the 2009 LMP. The following activities are planned for implementation in 2025.

Increase Scientific Understanding (LMP Objective 1):

- Conduct water quality monitoring in Coeur d'Alene Lake for metals, nutrients, and physical parameters.
- Coordinate with the SCT to review and implement NAS recommendations related to data collection and monitoring.

Nutrient Reduction and Implementation (LMP Objective 3):

- Work with funding recipients under the Leading Idaho (LI) Initiative to implement phosphorus reduction projects in Coeur d'Alene Basin:
    - South Fork Sewer District (SFSD) tertiary wastewater treatment project – Pilot testing completed and groundbreaking in 2024. Construction will continue through 2025. City of Smelterville's wastewater system will also be annexed into the SFSD plant.
    - Santa-Fernwood wastewater treatment upgrade – Land purchased in 2024, and plans are under development for improvements and land application of treated wastewater. Planning and implementation will continue through 2025.
    - East Side Highway District roadway stormwater improvements – Marmot Trail and Sunnyside Road work completed in 2024. Final reports expected 2025.
    - City of Coeur d'Alene Stormwater Outfall Volume reduction projects – 3 of 4 outfalls completed. Fourth outfall (Third Street) will be completed in 2025.
    - City of Kellogg Stormwater Improvements – 3 outfalls completed and vac truck purchased. Two outfalls and assessment of remaining stormwater system planned for 2025.
    - Kellogg School District Stormwater Goes to School – construction completed 2024. Final report expected 2025.

- Kootenai-Shoshone Soil and Water Conservation District nonpoint source projects:
  - Schlagel Draw – Beaver Dam Analogs completed 2023. Further erosion control/runoff improvements completed 2024. Final report expected 2025.
  - Riverside Tracks (North Fork CDA River) bank stabilization project completed 2024.
  - Mica Creek Floodplain Restoration project – Final stabilization completed fall 2024. Final report expected 2025.
  - Wolf Lodge Creek erosion control/bank stabilization - on-the-ground work completion expected by end of 2024. Final report due 2025.

- Continue to analyze lake tributary monitoring data collected 2019-2022 to fill data gaps identified in the basin-wide nutrient inventory report.
- Share relevant data gap monitoring results with stakeholders to aid in decision making.
- Coordinate with CDA Tribe staff to facilitate the Tribe's monitoring of nutrient loads in southern lake tributaries, the St. Maries River, and the St. Joe River through the LI Initiative.
- Continue to collaborate on water quality improvement efforts in the CDA Basin with the CDA Lake Advisory Committee, Restoration Partnership, AVISTA Corporation, the Natural Resource Conservation Service (NRCS), the Soil & Water Conservation Districts, Counties, Cities, and others.
- Identify opportunities to align nutrient reduction and remedial efforts in the Lower Basin.
- Continue implementing aquatic plant surveys within the northern lake.

Increase Public Awareness (LMP Objective 4):

- Continue to partner with the CDA Tribe, University of Idaho (UI) and the Idaho Water Resources Research Institute (IWRRI), CDA Regional Chamber of Commerce, Kootenai County, Kootenai Environmental Alliance, BEIPC and other stakeholders to share information with the basin-wide community through the Our Gem Coeur d'Alene Lake Collaborative.
- Continue to participate in The Confluence Project to support Basin high schools by providing workshops, field trips, and guidance for teachers and students involved in local watershed science.
- Partner with UI/IWRRI, CDA Tribe, BEIPC, and area high schools and environmental organizations to host the annual Youth Water Summit, the culminating event of The Confluence Project
- Partner with UI/IWRRI to support the Bay Watchers program to provide volunteer monitoring opportunities and land management information and resources to residents around CDA Lake.
- Support the Local Gems program to recognize businesses and organizations that are taking action to protect basin water quality.
- Continue to coordinate with Alta Science and Engineering on the Leading Idaho-funded project to evaluate potential risk of metals exposure in recreational areas around CDA Lake and the Spokane River and communicate progress and findings to the community.

Continued coordination with BEIPC forums will maximize opportunities for information exchange and advice for all the parties that participate in the BEIPC activities. Future coordination with the BEIPC recognizes that DEQ retains their respective decision-making authorities under CERCLA and the Clean Water Act (CWA) with regards to implementation.

2.2 COEUR D'ALENE TRIBE LAKE ACTIVITIES

As noted, the LMP was approved in 2009. However, after collecting and analyzing water quality data under an EPA approved Quality Assurance Program Plan (QAAP), the CDA Tribe retracted their support of the LMP in 2019 as an adopting government. The CDA Tribe continues to be concerned about increased pressure on the landscape that may lead to declining water quality, as well as a myriad of other concerns prompted by the Tribe's retraction of support of the LMP. The CDA Tribe detailed their concerns about LMP effectiveness in a written critique asking EPA to formally evaluate how they will use their CERCLA authorities to address the legacy of mining pollution in CDA Lake. In 2025, the CDA Tribe will conduct the following activities outside of the LMP process:

- Continue to improve scientific understanding of lake conditions through monitoring and modeling of metals, nutrients, and physical parameters.
- Tribal staff will continue to use the AEM3D and WRTDS (USGS) models with data collected from the Lake, meteorological stations, and USGS gage stations.
- Tribal staff will continue to implement a Eurasian Watermilfoil Treatment Program as well as monitor aquatic plant communities in the southern lake.
- Tribal staff will continue to work with EPA to identify potential opportunities to align nutrient reduction and remedial efforts in the Lower Basin through modeling and coordination. Tribal staff will also continue to participate in the Lower Basin Project Focus Team to assist EPA and the CDA Work Trust on identifying locations for Lower Basin Waste Consolidation Areas.
- Tribal staff will continue to partner with the University of Idaho Water Resource Research Institute (IWRRI), PHD, CDA Regional Chamber of Commerce, BEIPC, interested citizens, and DEQ to support the Basin high school students through The Confluence Project (a hands on 'place based' learning program addressing watershed science-based solutions), and the Our Gem Coeur d'Alene Lake Collaborative.
- Tribal staff will continue to support The Local Gems program for local businesses through 2025. This program recognizes businesses and organizations that are taking action to protect basin water quality.
- The Tribe will work with DEQ to implement the St. Joe River Nutrient and Watershed Assessment Project that was approved for American Rescue Plan Act (ARPA) funding through the Coeur d'Alene Lake Advisory Council.
- The Tribe will continue to request that EPA develops criteria and conducts a review/ evaluation of their decision to "defer" a remedy for the CDA Lake.

2.3 FLOOD CONTROL AND INFRASTRUCTURE REVITALIZATION

Under a 2018 MOA, participating governments of the BEIPC and the Upper Basin jurisdictions (Local Flood Group) will continue to work on potential flooding issues on the SFCDR. The Local Flood Group and the BEIPC will continue to work with the U.S. Army Corps of Engineers (COE) and Federal Emergency Management Agency (FEMA) to implement an update to the 2009 Flood Inundation Maps based on the current flood zone analysis by the COE on a portion of the river from Elizabeth Park to the Theater Bridge in Smelterville. Based on the new flood maps it is anticipated that updated analysis of the need for certified levees in the SFCDR will also be initiated in the planning period. The working group will also continue to support the City of Pinehurst's request for COE assistance in performing a similar flood zone analysis in Pine Creek.

2.4 COMMUNICATIONS AND PUBLIC INVOLVEMENT

During 2025, the BEIPC Assistant to the Executive Director and agency Community Involvement Coordinators (CICs) will work together to carry out public involvement, communication, and education related to BEIPC and agency activities. Agency CICs may include staff from EPA, DEQ, and PHD.

The Office of the BEIPC Executive Director, the CCC and agency CICs continue to facilitate the public involvement process in the Basin. The BEIPC Executive Director and/or Assistant, PF Team Chairpersons, and CCC Chairperson may request CIC support for public outreach regarding BEIPC activities. The CICs may in turn request BEIPC support for their agencies' public involvement activities.

Following is a partial list of community engagement activities and coordination opportunities for 2025:

- As required, the BEIPC will hold quarterly meetings open to the public. The CCC will hold meetings open to members and the public as issues or opportunities arise or discussions are warranted.
- The BEIPC will coordinate its annual tour in August of the Basin cleanup with publicity support from the CICs and technical support from agency project managers. The tour is open to everyone.
- The BEIPC/CCC and agency CICs will continue to sponsor activities such as open houses, workshops, training, or public meetings. The BEIPC Assistant and CICs may assist each other to coordinate public education and outreach associated with these events.
- The BEIPC/CCC will lead the development, production and distribution of BEIPC related items and the agency CICs will lead the development, production and distribution of agency items. The BEIPC/CCC and agency CICs will create and process flyers, public notices, and postings to their respective websites of their meetings and other information. The BEIPC/CCC will also create, process, and distribute their meeting announcements, agendas, and their meeting summary notes and other information by e-mail to CCC members and interested parties. The BEIPC Assistant will update and maintain the BEIPC website.
- CICs will continue to support the CCC meetings, support BEIPC communications, and explore ways to maximize the CCC's value to interested local people. Upon request, CICs may support BEIPC with suggestions for publicizing BEIPC events and meetings, participate in distributing meeting announcements, posting to social media, or by proposing and/or helping to implement communications strategies.
- Upon request, the BEIPC Executive Director will make presentations to public groups and participate in educational forums such as school district Science, Technology, Engineering and Math (STEM) fairs, etc. Assistance from agency CICs may be requested for these efforts.
- The BEIPC and agency CICs will help organize and participate in a joint booth for public outreach/education at the North Idaho Fair.
- The EPA will publish BEIPC/CCC information upon request in its triannual Basin Bulletin and on the CDA Basin Facebook page.
- CICs work directly with EPA, DEQ, PHD, and BEIPC project managers as needed to tailor communications outreach and/or education for specific projects under the programs listed in this work plan.
- CICs will report their outreach activities at the quarterly Basin Commission meetings, and activities are often reported and discussed at CCC meetings.
- The BEIPC Executive Director will participate in Regional Outreach and Educational Committees such as the Our Gem Collaborative and the Confluence Project.

2.5 STATE OF WASHINGTON ACTIVITIES

The Washington State Department of Ecology will continue to monitor the status of previous cleanups along the Spokane River. Site visits will be performed, along with visual documentation of cap performance and sediment accumulation. As part of the performance measures, exposed beach sediment sampling will be conducted to measure contaminant concentrations pre- and post-freshet. Samples that are collected will be analyzed by XRF as well as with laboratory analysis to confirm field screening results.

2.6 RESTORATION PARTNERSHIP

The Restoration Partnership is a consortium of the CDA Natural Resource Trustees, comprising representatives of agencies/governments who have management and stewardship responsibilities for fish, wildlife, and other natural resources in the Basin. They are the U.S. Department of Agriculture (USDA), represented by the U.S. Forest Service (USFS); the U.S. Department of the Interior, represented by the U.S. Fish and Wildlife Service (USFWS) and Bureau of Land Management (BLM); the Coeur d'Alene Tribe (Tribe); and the State of Idaho, represented by the Idaho Department of Environmental Quality (DEQ) and Idaho Department of Fish and Game (IDFG).

The following natural resource restoration projects will continue to be implemented in 2025:

- Management of a native willow plant nursery adjacent to Hepton Lake on the St. Joe River sponsored by the Tribe.
- Wetlands enhancement at Hepton Lake on the St. Joe River sponsored by the Tribe.
- Projects for the replacement of injured/lost tribal cultural services (culturally significant plants) in the Hangman Creek Watershed sponsored by the Tribe.
- Coeur d'Alene Lake monitoring and modeling sponsored by the Tribe.
- Wetlands restoration implementation/construction at Gray's Meadow along the Lower CDA by IDFG. This is a joint project with EPA conducting the remediation and the Restoration Partnership conducting the natural resource restoration sponsored by IDFG.
- Ongoing operations and maintenance for the Schlepp Agricultural to Wetlands Conversion Project with the landowner sponsored by the USFWS.
- North Fork Coeur d'Alene River Conservation Easement sponsored by IDFG.
- Cougar Bay Preserve Wetlands Enhancement and Stream restoration with BLM as the primary sponsor with assistance from the USFWS.
- Lake Creek Watershed Restoration sponsored by the CDA Tribe.
- Prichard Creek Phase 2: Restoration Planning with the Idaho Forest Group and Trout Unlimited and sponsored by DEQ.
- Assessing Fish Passage at Stream Crossings in the Coeur d'Alene Basin sponsored by IDFG.
- Beaver Creek habitat restoration to improve the hydrology and habitat function of tributary streams to serve as cold water refugia for westslope cutthroat trout, sponsored by the USFS.
- Little North Fork Coeur d'Alene River Watershed Enhancements, sponsored by the USFS.
- Enhancing design to restore fish passage and ecosystem function in Miesen Creek along the St. Joe River, sponsored by IDFG.
- Gleason Wetland Remediation and Restoration Planning, sponsored by USFWS.
- Benewah Creek stream and wetland restoration to mitigate for drought, sponsored by the Tribe.
- Big Creek fish passage and barrier removal, sponsored by the Tribe, USFS, and BLM.
- Lake Creek corridor protection and enhancement through a Conservation Easement, sponsored by the Tribe.
- Upper St. Joe River bull trout habitat enhancement, sponsored by the USFS.

- In the federal fiscal year 2025, the Trustees will be implementing the projects above and prepare for Project Idea solicitation in 2026.

In 2025, there will be ongoing coordination with EPA and the CDA Trust on remedy and restoration activities and participation in BEIPC and associated groups and committees. The Trustees will continue to work with the Public Affairs Officers and Communications staff among the Trustees on an Outreach Plan for future restoration project solicitation from the public.

For more information, refer to **www.restorationpartnership.org**.

DRAFT

BASIN COMMISSION (BEIPC)

2025 – 2029

FIVE YEAR WORK PLAN

Draft BEIPC Coeur d'Alene Basin Five-year (2025-2029) Work Plan

SITE BACKGROUND

The Bunker Hill Superfund Site, sometimes referred to as the Coeur d'Alene Basin Site, is in northern Idaho, sections of the Coeur d'Alene Tribe's Reservation, and in northeastern Washington along portions of the Spokane River. The Site includes mining-contaminated areas in the Coeur d'Alene River corridor, adjacent floodplains, downstream water bodies, tributaries, and fill areas, as well as the 21-square-mile Bunker Hill "Box" where historical ore-processing and smelting operations occurred. The Bunker Hill Superfund Site, which was listed on the Superfund National Priorities List (NPL) in 1983, is divided into the following three study and cleanup areas called Operable Units or OUs:

- OU-1 includes the populated areas of the Bunker Hill Box.
- OU-2 comprises the non-populated areas of the Bunker Hill Box.
- OU-3 includes all areas of the Coeur d'Alene Basin outside the Bunker Hill Box where mining-related contamination is located. OU-3 is often called "the Basin."

The Site is also divided into two geographic areas with common sources of contamination: The Upper Basin and the Lower Basin. The Upper Basin is primarily in the eastern portion of OU-3 and extends from the headwaters of the South Fork Coeur d'Alene River (SFCDR) close to the Idaho/Montana border to the confluence of the South and North Forks of the Coeur d'Alene River near Kingston, Idaho. The Box is included as part of the Upper Basin when referring to remedies that improve water quality and lessen migration of contaminated sediment to the Lower Basin. It does not include, however, remedies in the Box that focus on reducing risks to people. The Lower Basin is primarily in the western portion of OU-3, west of the Upper Basin and Box. It includes the mainstem of the Coeur d'Alene River, adjacent lateral lakes, floodplains, and associated wetlands. Although Coeur d'Alene Lake and portions of the Spokane River are within the Site and OU-3, they are not considered part of the Lower Basin.

INTRODUCTION

This plan for calendar years 2025-2029 covers environmental cleanup and improvement activities in the Coeur d'Alene (CDA) Basin (the Basin) planned by the Basin Environmental Improvement Project Commission (BEIPC) and cooperating agencies and governments in accordance with responsibilities as stated in the August 2002 Memorandum of Agreement (MOA) establishing the BEIPC. This plan has been prepared by the Executive Director with review and approval by the Technical Leadership Group (TLG) and review by the Citizen Coordinating Council (CCC) and is based on their recommendations for activities and work to be performed in the 5-year period, 2025-2029. Annual work plans will address specific actions from this five-year plan. This proposed five-year work plan is organized as follows:

> Part 1 - Environmental cleanup work performed through the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) by the U.S. Environmental Protection Agency (EPA) and State of Idaho or work performed by responsible parties.
>
> Part 2 - Other Activities and Responsibilities.

Part 1 includes work to implement the 2002 OU-3 Interim Record of Decision (ROD) and the 2012 Upper Basin (Box and OU-3) Interim ROD Amendment (RODA).

Part 2 includes work and responsibilities concerning management of Coeur d'Alene Lake by the Coeur d'Alene Tribe (CDA Tribe) and State of Idaho, restoration of natural resources by the Natural Resource Trustees (Restoration Partnership or RP) and work the BEIPC has assumed based on recommendations from the 2005 & 2022 National Academy of Sciences (NAS) Studies and requests from the government agencies, citizens, and communities of the Basin.

PART 1 - ENVIRONMENTAL CLEANUP WORK

For Part 1, the scope of the proposed five-year work plan corresponds generally to the level of federal and state funding and the funding sources anticipated and work expected to be performed by the Coeur d'Alene Custodial Work Trust (CDA Trust) over the five-year period, 2025-2029. This work plan proposes a cleanup approach and a listing of priority activities for the 5-year planning period. The proposal includes the following work:

- Human Health directed activities including Residential and Community Property and Private Drinking Water Supply Remediation, and the Recreation Use Activities Program.
- Updated Residential Soil Lead Guidance.
- Lead Health Intervention Program.
- Repository and Waste Consolidation Area Development and Management.
- Remedial actions in the Upper Basin including source control actions, water treatment, and related human health activities provided for in the 2012 Upper Basin Interim RODA.
- Remedial actions and/or Pilot Projects in the Lower Basin and risk reduction activities associated with recreational areas.
- Basin Environmental Monitoring.
- Operation and Maintenance Responsibilities for Remedial Actions.

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	LEAD AGENCY*
Human Health directed activities including the Basin Property Remediation (BPRP), and Recreational Use Activities programs.	Complete remediation of any identified residential and community property sites and private drinking water sources as they are identified during the 5-year planning period. Address human health risks associated with basin wide recreational activities. Provide educational resources and health advisories to manage the potential for metals exposure through the consumption of fish. Incorporate human health related activities in the environmental cleanup projects as needed.	Remediate properties as they are identified and sampled and accepted for work. Most properties remaining to be sampled and/or cleaned-up will be properties whose owners have withheld access or properties whose owners have not responded to numerous contact attempts. For these reasons, it is anticipated that most of the remaining remediation will occur after property transfer or sales occur. Remediation of high-risk properties will continue as agencies and the CDA Trust become aware of them. Implement actions to address human health risks from exposure to lead and other metals that can occur during recreational activities throughout the Upper and Lower Basin.	DEQ/ PHD* EPA/CDA Trust CDA Tribe

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	LEAD AGENCY*
Updated Residential Soil Lead Guidance	On January 17, 2024, EPA updated its national residential soil lead guidance reducing the recommended soil lead screening levels from 400 parts per million (ppm) to 200 ppm or 100 ppm when multiple sources of lead exposure are present. The reduced screening levels are based on target blood lead levels of 5 µg/dL or 3.5 µg/dL when multiple sources of lead are present. Screening levels are not cleanup levels. Screening levels are used during early site investigations and applied consistently to all contaminated areas being assessed to determine if the level of contamination is high enough to warrant further investigation. Cleanup levels are developed after consideration of investigations, assessments, site-specific risks, and other relevant site information. Cleanup levels are used to trigger cleanup actions which are specified in EPA decision documents (such as Records of Decisions). While a screening level of 400 ppm was used for evaluations at the Bunker Hill Superfund Site, the soil lead level used to trigger cleanup actions ranges from 700 to 1000 ppm depending on the location. Starting in late 2024, EPA and the State of Idaho began an assessment to determine if the cleanup levels and actions used at Bunker Hill remain protective considering the recommendations included in the updated guidance. The assessment is planned for completion by 2027, but it is dependent on several factors including the outcome of evaluations and the need to collect additional data.	The objective of this activity is to evaluate if changes to the current residential soil lead cleanup levels and actions for protection of human health from soil lead exposure are necessary.	EPA* DEQ/ PHD

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	LEAD AGENCY*
Lead Health Intervention Program (LHIP)	Panhandle Health District (PHD) administers the LHIP which provides a variety of services to prevent elevated blood lead levels in children and others living, working, or recreating within the Bunker Hill Superfund site. These services include education and awareness about the risks associated with lead contamination and annual voluntary blood lead screenings. The purpose of these blood lead screenings is to identify children with elevated blood lead levels and provide in-home follow-up services from a public health professional to identify sources of and ways to reduce lead exposures. Information from blood lead screenings provides PHD with valuable information on the effectiveness of the LHIP, as well as other site cleanup programs such as interior house dust monitoring, yard remediations, and the Institutional Controls Program (ICP). The goal of each of these programs is to prevent lead exposures that could result in elevated blood lead levels. Community and area-wide results are made available to the public.	The Centers for Disease Control has established a reference value for blood lead levels in young children at 3.5 micrograms per deciliter of lead in blood. The reference is not health based and is not a regulatory standard. States independently determine action thresholds based on state laws, regulations, and resource availability. In response to this, PHD uses the 3.5 micrograms per deciliter as the trigger for follow up. Blood lead screening will continue during this 5-year period.	DEQ/ PHD*

PROPOSED ACTIVITY	SCOPE	OBJECTIVES	LEAD AGENCY*
Waste Disposal Area Development and Management	Plan, develop, and manage engineered waste disposal areas across the Bunker Hill Site to meet the demand for disposal of historic mining-related contaminated wastes generated from state and federal government remedial actions, and state and local government agency civil works projects and private land and building (re)development both of which fall under the auspices of the site's Institutional Controls Program (ICP). There are currently two primary types of engineered waste disposal areas across the site: Five repositories, and two Waste Consolidation Areas (WCAs). Planning for a third WCA was initiated in 2020; however, a final location has not yet been chosen.	**Site-wide**: Continue implementation of the Waste Management Strategy within the Area of Contamination. Also, evaluate repository and WCA cover design criteria and alternatives and develop cover plans which will include the final designs and monitoring plans. Consider the feasibility of future use options in the cap design phase for repositories and WCAs. **Box (Operable Units 1 & 2)**: Continue operations and expansion of the Page Repository to accommodate Box remedial action and ICP-generated wastes. **Upper Basin (Operable Unit 3)**: Continue operations at the Big Creek, Big Creek Annex, Lower Burke Canyon, and Canyon Creek Repositories to accommodate Upper Basin remedial action and ICP-generated wastes. Operation and expansion at the East Fork Ninemile (EFNM) WCA which has accepted wastes generated from remedial actions conducted in the East Fork and EFNM drainage will cease at the end of 2024. Design and construction of a final cap and closure of this WCA will be completed by the end of 2026. **Lower Basin (Operable Unit 3):** Continue operations at the East Mission Flats Repository to accommodate wastes generated from Lower Basin remedial actions and ICP activities. Continue to explore potential sites and development plans for WCA site(s) in the Lower Basin and construct site(s) when location decisions have been made.	DEQ/ PHD* EPA/ CDA Trust

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	LEAD AGENCY*
Upper Basin Remedies	Implement the source control and water treatment remedies, ecological cleanup projects, and related human health activities identified in the 2012 Upper Basin Interim RODA along with any accompanying coordination on natural resource restoration actions. Operate the groundwater collection system and upgraded Central Treatment Plant (CTP) in the Box to accommodate mine-impacted water from OU-2. Source control actions in the Canyon Creek and Upper South Fork CDA watershed will be the focus for this 5-year period.	The 2012 Upper Basin RODA primarily includes source control remedial actions to address contaminated surface water, soil, sediments, and source materials. Upper Basin and Box remedies are prioritized to reduce human health exposures and reduce the contribution of contaminants to downstream areas including the Lower Basin. Those cleanup actions will be coordinated with natural resource restoration actions. The inherent adaptive management process will help ensure human health exposure is prioritized and that the most effective actions are taken in Ninemile and Canyon Creek watersheds which are the sources for the most significantly impacted water quality outside of the Box.	EPA/ CDA Trust* DEQ Restoration Partnership (RP)

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	LEAD AGENCY*
Lower Basin Remedies	Evaluate and prioritize potential ecological and source control remedies noted in the 2002 OU-3 Interim ROD. Data sources to support this include Remedial Investigation/Feasibility Study (RI/FS) data, Clean Water Act (CWA) projects, and current data collection activities. Conduct pilot projects to address contaminated riverbed source areas and implement, as appropriate, remedies that are captured in decision documents and that have a low potential for recontamination and/or that may inform future remedy decisions. Characterize and prioritize additional riverbank segments for stabilization. Capture any such actions in annual work plans. Ensure that remedies are coordinated with natural resource restoration activities and the EPA's management plan. Coordinate as needed with the governmental structure that manages the Trail of the Coeur d'Alene's remedy. Identify recreation areas for remediation or develop substitute clean areas along the South Fork and main stem CDA River. Identify and implement programs to educate recreation site users regarding human health risks along the river corridor and how to minimize those risks.	Addressing risks to human health will remain a top priority through additional property cleanups, recreation site remedial actions, and education. Utilize information and recommendations from the Enhanced Conceptual Site Model (ECSM) for the Lower Basin, recent data collection efforts, and the sediment transport model to inform management plans (Lower Basin Prioritization Plan and Lower Basin Adaptive Management Plan) that target areas for active remediation over the next 3 to 5 years, evaluate the effects of remedial technologies, and identify areas for natural recovery. Utilize the Lower Basin Project Focus Team (PFT) process to evaluate multiple objectives for source control, cleanup of channel habitat, and protecting human health. Examine Lower Basin remedies previously selected in the 2002 OU- 3 ROD as well as pilot projects to test supplemental actions that are not explicitly identified by the ROD with the goal of addressing riverbed mine waste source areas and reducing the downstream transport of lead and other mine waste contaminants. A ROD Amendment or Explanation of Significant Differences (ESD) may be necessary if additional actions are deemed necessary to address riverbed source areas.	EPA/ CDA Trust* CDA Tribe Restoration Partnership State and other Federal agencies

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	LEAD AGENCY*
Lower Basin Remedies (continued)		Plan and implement habitat area design and remediation (including treatability studies for soil capping and amendments) and riverbed pilot projects. Evaluate and further characterize additional wetland properties for increasing feeding habitat for waterfowl. Begin implementation of a riverbed management plan to address contaminants mobilized in the Dudley Reach and begin planning actions for the entire river system. Update the inventory of recreational beaches and banks to identify those beaches or banks that may be considered for remediation during the immediate 5-year period and beyond. Adaptive management will be a key component of any implementation actions and management plans.	EPA/ CDA Trust* CDA Tribe Restoration Partnership State and other Federal agencies

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	LEAD AGENCY*
Basin Environmental Monitoring	Continue to implement remedy effectiveness and long-term monitoring. Analytical results from site surface water, sediment, and groundwater sampling through 2015 are available through WQX, EPA's Water Quality Exchange. Data management for the Bunker Hill Site has largely transitioned to Scribe.net, an EPA data management system that will be administered by Bunker Hill stakeholders that include EPA, DEQ, USFWS, USGS, CDA Tribe and the CDA Trust with support from the EPA Environmental Response Team.	Continue implementing the CDA Basin Environmental Monitoring Plan (BEMP) under updated, optimized management plan produced in 2020. The updated BEMP provides a framework and metrics for remedy-specific effectiveness monitoring, area-wide monitoring, and long-term/site wide monitoring to evaluate the progress of cleanup actions, and for adjusting the monitoring program to inform ongoing and upcoming near-term cleanup actions. Area-wide remedial action effectiveness monitoring plans for the Ninemile Basin and the Canyon Creek Basin were finalized in 2021and 2023, respectively. A separate area-wide remedial action effectiveness monitoring plan for the Lower Basin will be drafted in 2025.	EPA* DEQ CDA Tribe USFWS USGS

*Note with planning and implementation of remedial activities, lead agencies will coordinate with federal, state, tribal and local agencies as appropriate.

OPERATION AND MAINTENANCE RESPONSIBILITIES FOR REMEDIAL ACTIONS

Operation and maintenance (O&M) responsibilities for remedial actions and cleanup work on the Site are as follows:

- Individual owners of properties remediated under the BPRP are responsible for operation and maintenance of the remedy and barriers on their properties in accordance with the Institutional Controls Program (ICP) administered by the Panhandle Health District (PHD).
- Operation and maintenance for public gravel and paved roads remediated in the gravel roads and paved roads remediation programs are the responsibility of the local governments with jurisdiction over those roads. Those jurisdictions include the East Side Highway District and Shoshone County, and the cities of Kellogg, Mullan, Pinehurst, Osburn, Smelterville, Wallace and Wardner.
- Operation and maintenance of projects constructed under the Remedy Protection Program are the responsibility of the governmental jurisdictions noted as the "Holder" of the Environmental Covenants executed for these projects and filed as riders to the deeds for the properties on which the work was performed. If no governmental jurisdiction is noted as the "Holder" the property owner holding title to the property involved is responsible.
- Generally, operation and maintenance for remedial work performed by the Coeur d'Alene Custodial Work Trust (CDA Trust) is the responsibility of the CDA Trust. However, there are exceptions such as with the roads and remedy protection projects. Other project examples where the CDA Trust will not be taking on long-term O&M include Gray's Meadow where Idaho Department of Fish & Game (IDFG) will take over O&M after the first five years.
- Operation and maintenance of the Central Treatment Plant (CTP) and Ground Water Collection System (GWCS) in Kellogg are the responsibility of the State of Idaho for the life of the registry funds.
- Operation and maintenance of remedies performed by various parties under CERCLA authorities utilizing funding from appropriated funds and other sources placed in EPA's Superfund Account are the responsibility of the State of Idaho.
- Operation and maintenance of remedies on Bureau of Land Management (BLM) and National Forest System Administered Lands within the Site and in the North Fork CDA River Drainage are the responsibility of the BLM and U.S. Department of Agriculture (USDA) Forest Service.

PART 2 – OTHER ACTIVITIES AND RESPONSIBILITIES

For Part 2, the scope of the five-year work plan recognizes a number of work items where the BEIPC will be involved and items of work needed to accommodate some of the recommendations of the 2005 NAS study; it also includes implementation of the Lake Management Plan by the State of Idaho and CDA Tribe and their efforts to accommodate recommendations included in the 2022 NAS study, and coordination with the activities of the Natural Resource Trustees. The plan includes the following work:

- Lake Management Activities
- Flood Control, and Infrastructure Revitalization
- Communications and Public Involvement
- Coordinate with the Restoration Partnership

2.1 COEUR D'ALENE LAKE ACTIVITIES

The 2002 OU-3 ROD did not include CDA Lake in the Selected Remedy. It anticipated that the State, Tribe, federal agencies, and local governments would implement a Lake Management Plan (LMP) outside the CERCLA (Superfund) process using separate regulatory authorities. The updated LMP was approved in 2009 and implementation has been underway.

The 2012 Upper Basin RODA indicated that a remedy for lakebed contamination has been deferred contingent on successful management through the LMP. The LMP's goal is to manage metals in contaminated lakebed sediments through reduction of nutrient inputs basin-wide from point and nonpoint sources. The LMP includes actions related to lake water quality monitoring, coordination among basin stakeholders, education and outreach, and identification of funding sources for lake management efforts.

As of the Summer of 2018, the CDA Tribe asserted that the LMP is inadequate, in itself, as an effective tool to protecting water quality in the Lake due to water quality triggers for lead, phosphorus and dissolved oxygen, in particular, being exceeded. These triggers were developed by the CDA Tribe and the Idaho Department of Environmental Quality (DEQ) in the 2009 LMP. As stated in the LMP, if trends show these trigger levels are approached, this will prompt a comprehensive review to guide future management actions.

In response to trends showing some trigger levels being approached (and some exceeded), the State of Idaho enlisted the NAS to perform a third-party review of data to provide insight into nutrient, metal, and dissolved oxygen trends and offer recommendations in data collection to better inform lake management efforts moving forward. The review was sponsored by DEQ, Kootenai County, and EPA, with support from the CDA Tribe. Observations and recommendations from the 2022 NAS study will be used to help inform an appropriate response to undesirable water quality trends. DEQ staff continues to operate under the LMP as discussions with the CDA Tribe and EPA continue. This work plan includes activities planned for implementation by DEQ and CDA Tribal staff.

Below are activities envisioned for implementation throughout the 5-year planning period.

Table 2-1 Summary of Coeur d'Alene Lake Management Activities Proposed for Implementation for 2024-2028

Objective 1. Increase scientific understanding			
Proposed Activity	**Scope**	**Additional Objective(s)**	**Lead Participants**
Continue core lake water quality monitoring	Continue monitoring throughout CDA Lake for metals, nutrients, physical parameters, and biological communities.	Facilitates Objective 5	DEQ CDA Tribe Support from EPA

Evaluate Third-Party Review	Utilize the NAS third-party review of lake data, coordinate on future data collection priorities, and strategize on the path forward via the Science Coordination Team (SCT); see below.	Objectives 2, 3, 4	DEQ CDA Tribe EPA
Science Coordination Team	Based on NAS recommendations, a team was formed to guide lake management science priorities moving forward. The SCT will continue to meet throughout this 5-year plan period as appropriate.	Objective 2	DEQ CDA Tribe EPA USGS U of I
Objective 3. Develop and implement a nutrient reduction action plan			
Proposed Activity	**Scope**	**Additional Objective(s)**	**Lead Participants**
Basin-wide nutrient inventory	Nutrient monitoring data from lake tributaries collected through 2013 were summarized in a report in 2020. Additional lake tributary data collected through the end of 2022 (DEQ in State waters) will be analyzed and reported. Data collection in southern tributaries and the St. Joe/St. Maries River watershed (CDA Tribe) will continue through 2025-26. Results will be shared with stakeholders to inform decision-making.	Objectives 1, 2, and 5	DEQ CDA Tribe
Bank erosion inventory	Bank erosion inventories will be updated as appropriate.		DEQ AVISTA SWCDs

Implementation coordination	Continue to collaborate with the Restoration Partnership (RP), AVISTA Corporation, the Natural Resource Conservation Service (NRCS), the Soil & Water Conservation Districts (SWCDs), Counties, Cities, and others to identify water quality improvement projects.	Objectives 2 and 5	DEQ RP CDA Tribe AVISTA NRCS SWCDs
Aquatic Invasive Species	Continue implementing aquatic plant surveys. Identification of invasive species will be reported to AVISTA Corporation and Idaho State Department of Agriculture.	Objective 1	DEQ CDA Tribe AVISTA ISDA Kootenai County
Remedy implementation support	Continue to participate in the Lower Basin PFT and TLG and support implementing projects identified in the 2002 OU-3 Interim ROD.	Objective 2	DEQ CDA Tribe EPA BEIPC

Objective 4. Increase public awareness of lake conditions and influences on water quality

Proposed Activity	Scope	Additional Objective(s)	Lead Participants
LakeASyst	LakeASyst (Lakeshore Assessment System) materials will continue to be utilized.	Objectives 2, 3 and 4	DEQ CDA Tribe U of I
Demonstration sites	Improvement projects will be utilized to demonstrate effective strategies and encourage further implementation. Utilize Leading Idaho projects for public outreach opportunities.	Objectives 2 and 3	DEQ CDA Tribe SWCDs Stakeholders

Our Gem Coeur d'Alene Lake Collaborative	Participate in the Our Gem CDA Lake Collaborative to share information and get feedback from the basin-wide community. Organize an Our Gem Coeur d'Alene Lake Symposium for early 2026. Our Gem Collab members include DEQ, CDA Tribe, U of I/Idaho Water Resources Research Institute (IWRRI), Coeur d'Alene Regional Chamber of Commerce, Kootenai Environmental Alliance, Kootenai County, and BEIPC.	Objectives 2 and 4	DEQ CDA Tribe Stakeholders
K-12 Education	Continue to work with the CDA Tribe, University of Idaho, and area educators to incorporate water quality education into classroom programming such as The Confluence.	Objective 2	DEQ CDA Tribe U of I K-12 schools
General Outreach	Continue to participate in relevant education and outreach opportunities as time and resources allow.	Objective 2	DEQ CDA Tribe U of I
Local Gems	Continue to support the Local Gems Recognition and Awards program in Collaboration with the CDA Regional Chamber of Commerce.	Objectives 2 and 3	DEQ CDA Tribe CDA Chamber

Coordination with BEIPC forums will maximize opportunities for information exchange and advice working under the 2002 BEIPC MOA and work plans. Future coordination with the BEIPC recognizes that DEQ and the CDA Tribe retain their respective decision-making authorities under CERCLA and the Clean Water Act (CWA).

2.2 FLOOD CONTROL AND INFRASTRUCTURE REVITALIZATION

Under a 2018 MOA, participating governments of the BEIPC and the Upper Basin jurisdictions (Local Flood Group) will continue to work on potential flooding issues on the SFCDR. The Local Flood Group and the BEIPC will continue to work with the U.S. Army Corps of Engineers (COE) and Federal Emergency Management Agency (FEMA) to implement an update to the 2009 Flood Inundation Maps based on the current flood zone analysis by the COE on a portion of the river from Elizabeth Park to the Theater Bridge in Smelterville. Based on the new flood maps it is anticipated that updated analysis of the need for certified levees in the SFCDR will also be initiated in the planning period. The working group will also continue to support the City of Pinehurst's request for COE assistance in performing a similar flood zone analysis in Pine Creek.

2.3 COMMUNICATIONS AND PUBLIC INVOLVEMENT

During the 5-year planning period, the agencies will continue to address issues and facilitate public involvement and education in BEIPC activities. The agencies will also facilitate communication between the Basin community, the BEIPC, the Superfund cleanup, and natural resource restoration implementing agencies. The CCC will continue to be the focus organization to assist in implementing this process.

2.4 RESTORATION PARTNERSHIP

The Restoration Partnership is a consortium of the CDA Natural Resource Trustees, comprising representatives of agencies/governments who have management and stewardship responsibilities for fish, wildlife, and other natural resources in the Basin. They are the U.S. Department of Agriculture (USDA), represented by the U.S. Forest Service (USFS); the U.S. Department of the Interior, represented by the U.S. Fish and Wildlife Service (USFWS) and Bureau of Land Management (BLM); the Coeur d'Alene Tribe (Tribe); and the State of Idaho, represented by the Idaho Department of Environmental Quality (DEQ) and Idaho Department of Fish and Game (IDFG).

Under CERCLA, Natural Resource Damage Assessment settlements were reached with all parties. Following the final 2011 settlement agreement, the Trustees entered into a MOA to address the planning and implementation of restoration for natural resources and associated services injured, destroyed or lost as a result of the release of mining-related hazardous substances into the CDA Basin.

As specified in CERCLA the funds are dedicated to projects that restore, rehabilitate, replace, and/or acquire the equivalent of the injured natural resources. The Trustees' goal is to restore the health, productivity, and diversity of injured natural resources and the services they provide in the Restoration Planning Area.

The Trustees will continue to implement their Restoration Plan which is a programmatic guide for restoration of injured natural resources in the Restoration Planning Area and those activities will be coordinated with remediation actions. During the 5-year planning period, the Partnership will continue to coordinate with the BEIPC and provide updates on restoration planning efforts and implementation of restoration projects that will be solicited by the Trustees and from interested parties and the public. The Partnership will continue to coordinate closely with EPA and the CDA Trust to integrate restoration planning and implementation with remediation projects. See annual BEIPC Work Plans for more details or refer to www.restorationpartnership.org.