

BEIPC Coeur d'Alene Basin Five-year (2019-2023) Work Plan

INTRODUCTION

This plan for calendar years 2019-2023 covers environmental cleanup and improvement activities in the Coeur d'Alene Basin planned by the Basin Environmental Improvement Project Commission (BEIPC) and cooperating agencies and governments in accordance with responsibilities as stated in the Memorandum of Agreement 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 CY 2019-2023. 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 EPA and State of Idaho or work performed by responsible parties.

Part 2 - Other Activities and Responsibilities

Part 1 includes work to implement the Record of Decision (ROD) for Operable Unit 3 (OU-3) and the Upper Basin ROD Amendment (RODA) for OU-2 and 3.

Part 2 includes work and responsibilities concerning management of Coeur d'Alene Lake by the CDA Tribe and State of Idaho, restoration of natural resources by the Natural Resource Trustees and work the BEIPC has assumed based on recommendations from the National Academy of Sciences (NAS) Study and requests from 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 Trust over the five-year period, 2019-2023. The 2019-2023 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 (Basin Property Remediation Program, BPRP), the Paved Road Remediation Program, the Remedy Protection Program, and the Recreational Sites Program.
- Lead Health Intervention Program (LHIP)
- Repository Development and Management
- Remedial actions in the Upper Basin including source control actions, water treatment, and related human health activities provided for in the Upper Basin RODA.
- Remedial actions and/or Pilot Projects in the Lower Basin and risk reduction activities associated with recreational areas.
- Basin Environmental Monitoring

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	* LEAD AGENCY
<p>Human Health directed activities including the Basin Property Remediation Program (BPRP); Paved Road Remediation Program; Remedy Protection Program; and Recreational Sites Program.</p>	<p>Complete the residential and community property and private drinking water source remediation program. Complete the Paved Road Remediation and Remedy Protection programs. 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.</p>	<p>Remediate properties as they are identified and sampled and accepted for work. At the end of 2019, 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. Remediation of high risk properties will continue as agencies and the CDA Trust become aware of them. EPA and IDEQ developed the Roadway Surface Remediation Strategy which established the Paved Road Remediation Program to work with local road jurisdictions to remediate damaged paved road surfaces that serve as barriers to contaminated road subgrades. The goal is to complete the program in the next two years as funds are available. The Remedy Protection Program was established in the RODA to reduce the potential for erosion and recontamination of existing clean barriers installed within community areas and some side drainages in the Upper Basin. The remedy protection work will be completed in 2019. 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.</p>	<p>IDEQ EPA CDA TRIBE PHD</p>

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	* LEAD AGENCY
Lead Health Intervention Program (LHIP)	<p>Panhandle Health District (PHD) administrates screening of children for elevated blood lead levels through Shoshone Medical Center providers. This has been occurring annually in the CDA Basin since 1996 as a public health service and as part of the Lead Health Intervention Program. The purpose of the screening is to identify children with elevated blood lead levels and provide follow-up from a public health professional to identify ways to reduce lead exposures. The screening program also provides data to assess the effectiveness of the Basin cleanup efforts. The cleanup action decisions are not based on annual blood lead testing results. Rather, the goal is to prevent lead exposures that could result in elevated blood lead levels. Community wide and area-wide results are made available to the public.</p>	<p>The Centers for Disease Control established the threshold value for blood lead levels in young children at 5 micrograms per deciliter of lead in blood. In response to this, PHD uses the 5 micrograms per deciliter as the trigger for follow up. Blood lead screening will continue during this 5 year period.</p>	<p>IDEQ PHD</p>

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	* LEAD AGENCY
Repository Development and Management	<p>Repository activities center on these objectives:</p> <p>(1) completion of operations at Big Creek Repository (BCR);</p> <p>(2) operations at the Big Creek Repository Annex (BCRA), East Mission Flats Repository (EMFR), Lower Burke Canyon Repository (LBCR), and Page Repository, and rebuilding the old Silver Valley Natural Resource Trustee (SVNRT) Repository in Canyon Creek now called the Canyon Complex Repository; (3) the development and use of Waste Consolidation Areas (WCA) in East Fork Ninemile Canyon for disposal of mine waste materials in that area; (4) the development of additional repository or waste consolidation sites; and (5) implementation of the Waste Management Strategy (WMS).</p>	<p>Close BCR and implement use of BCRA and LBCR for Upper Basin remediation and Institutional Controls Program (ICP). Continue operations at EMFR for remediation and ICP. Operate and expand Page to accommodate ICP wastes in the Box. Implement the design and reconstruction of the SVNRT Repository into the Canyon Complex Repository. Continue to utilize the WCA in East Fork Ninemile Canyon. Implement the WMS within the Area of Contamination. Evaluate repository cover design criteria and alternatives and develop repository 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. Explore potential for additional Lower Basin repository sites(s) if EPA Strategic Plan indicates a need and potential viability.</p>	<p>IDEQ</p> <p>EPA</p> <p>PHD</p>

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	* LEAD AGENCY
Upper Basin Remedies	<p>Implement the source control remedies, water treatment remedies, ecological cleanup projects, and related human health activities identified in the Superfund Cleanup Implementation Plan (SCIP) for the RODA along with any accompanying coordination on natural resource restoration actions. Specific remedial actions in the Box include design and construction of a groundwater collection system for OU-2 waters and Phase 1 upgrade of the Central Treatment Plant (CTP) to accommodate contaminated water from OU-2. Source control actions in the Ninemile Creek Watershed continue to be a focus for the 5 year period of time with some actions noted above concerning repository reconstruction actions at the Canyon Complex Repository (old SVNRT Repository) in Canyon Creek.</p>	<p>The 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 in order to address sources 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 Plan and inherent adaptive management process will help ensure that the most effective actions are taken first. Ninemile Creek has the most significantly impacted water quality outside of the Box and was therefore identified as the initial priority for source control cleanup actions. Related human health issues will also be addressed. The Box actions will be implemented in the next 3 years. Repository reconstruction at the Canyon Creek Repository will be implemented as well in this 5 year period.</p>	<p>EPA IDEQ CDA Trust with Restoration Partnership</p>

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	* LEAD AGENCY
Lower Basin Remedies	<p>Evaluate and prioritize potential ecological and source control remedies noted in the OU-3 ROD. Data sources to support this include RI/FS data, Clean Water Act (CWA) projects, and current data collection activities. Conduct pilot projects 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. 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.</p>	<p>Utilize information and recommendations from the Enhanced Conceptual Site Model (ECSM) for the Lower Basin and the recently completed sediment transport model to inform a management plan that targets areas for active remediation, evaluates the effects of remedial technologies, and identifies areas for natural recovery. The ECSM serves to refine the current working understanding of the Lower Basin with respect to river flows and contaminated sediment transport and deposition.</p> <p>Work with members of the Lower Basin PFT to evaluate multiple objectives for source control, clean off-channel habitat, and protecting human health. This will inform EPA's implementation planning over the next 3 to 5 years. Use investigation data, computational models, and other information to 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, and which may require a ROD Amendment or Explanation of Significant Differences (ESD).</p> <p>Plan and implement habitat area design and remediation (including treatability studies for soil capping and amendments) and river bed pilot projects.</p>	EPA with state and federal agencies, CDA Tribe, and Restoration Partnership.

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	* LEAD AGENCY
Lower Basin Remedies (continued)		Produce and implement a management plan to address contaminants mobilized in the Dudley Reach; this will be adaptive for application throughout the entire Lower Basin river channel. Conduct a thorough 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. Document all actions as part of the SCIP.	EPA with state and federal agencies, CDA Tribe, and Restoration Partnership

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	* LEAD AGENCY
Basin Environmental Monitoring	<p>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 is transitioning to Scribe.net, an EPA data management system that will be administered by Bunker Hill stakeholders including EPA, IDEQ, and the CDA Trust with support from the EPA Environmental Response Team.</p>	<p>Continue implementing the CDA Basin environmental monitoring plan (BEMP). The goal of the BEMP is to monitor and evaluate the progress of the remedy in terms of improving ecosystem conditions and make adjustments in the monitoring program that inform ongoing and upcoming near term cleanup actions. Information from this program will also help guide the SCIP process.</p>	<p>EPA with IDEQ, USFWS, USGS and the CDA Tribe.</p>

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

PART 2 - OTHER ACTIVITIES AND RESPONSIBILITIES

For Part 2, the scope of the five-year 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 NAS study; it also includes implementation of the Lake Management Plan by the State of Idaho and CDA Tribe, 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 LAKE MANAGEMENT ACTIVITIES

The OU-3 Interim ROD did not include CDA Lake in the Selected Remedy nor is there a remedy identified in the Upper Basin RODA. The OU-3 Interim ROD 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.

As of the summer of 2018, the Coeur d'Alene Tribe has determined that the LMP is inadequate, in itself, as an effective tool to protecting water quality in the Lake and has been in discussions with the IDEQ and the EPA to determine what additional mechanisms/actions are needed to manage the hazardous substances in the lake bed sediments. Therefore, although various aspects outlined in the LMP and listed below are essential to continue to implement, additional approaches to augment work conducted under the auspices of the LMP are being contemplated.

Objectives of the LMP (as outlined in Section 3) include the following:

1. Improve Scientific Understanding of Lake Conditions through Monitoring, Modeling, and Special Studies.
2. Establish and Strengthen Partnerships to Maximize Benefits of Actions under Existing Regulatory Frameworks.
3. Develop and Implement a Nutrient Reduction Action Plan.
4. Increase Public Awareness of Lake Conditions and Influences on Water Quality.
5. Establish Funding Mechanisms to Support the LMP Goal, Objectives, and Strategies.

Below are activities envisioned for implementation throughout the 5-year planning period. These activities are categorized broadly under objectives 1, 3, and 4 from the LMP. Objectives 2 and 5 are intertwined throughout all objectives, and there are other crossovers between objectives. Activities outlined below that address or facilitate additional objectives have those additional objectives noted.

Table 2-1 Summary of Coeur d'Alene Lake Management Activities Proposed for Implementation for 2019-2023

Objective 1. Increase scientific understanding			
Proposed Activity	Scope	Additional Objective(s)	Lead Participants
Continue core lake water quality monitoring	Continue monitoring throughout Coeur d'Alene Lake for metals, nutrients, physical parameters, and biological communities. Opportunities to optimize field sampling will be evaluated.	Facilitates Objective 5	IDEQ CDA Tribe Support from EPA
Partner with universities to pursue funding	IDEQ and the Tribe will continue to partner with area research universities to pursue funding to support research that strengthens the predictive ability of Aquatic Ecosystem Modeling 3D (AEM3D).	Objectives 2, 3, 4, and 5	IDEQ CDA Tribe Universities
Science reporting	Revisions to the long term lake water quality trends will be reported to the TLG and BEIPC as new data is compiled.	Objective 2	IDEQ CDA Tribe
Objective 3. Develop and implement a nutrient reduction action plan			
Proposed Activity	Scope	Additional Objective(s)	Lead Participants
Basin-wide nutrient inventory	Nutrient loading information will be updated as appropriate, using published USGS, BEMP data, and further tributary monitoring data collected.	Objectives 1, 2, and 5	IDEQ CDA Tribe
Bank erosion inventory	Bank erosion inventories will be updated as appropriate.		IDEQ CDA Tribe

Bank stabilization	IDEQ and Tribal staff will continue to collaborate with Avista Corporation, the Natural Resource Conservation Service (NRCS), the Soil & Water Conservation Districts (SWCDs), the Counties, and local landowners to identify, prioritize, and implement erosion reduction projects.	Objective 2	IDEQ CDA Tribe Avista NRCS SWCDs
Nutrient reduction action plan	IDEQ and Tribal staff will continue to communicate nutrient load monitoring and estimate results to Watershed Advisory Groups, county representatives, and other potential partners.	Objectives 2 and 5	IDEQ CDA Tribe Universities
Implementation coordination	IDEQ and Tribal staff will continue to coordinate with Coeur d'Alene Basin Watershed Advisory Groups, county representatives, and other stakeholders to coordinate implementation opportunities.	Objectives 2 and 5	IDEQ CDA Tribe
Management action tables	LMP staff will update the MATs in 2019, based on stakeholder	Objective 2	IDEQ CDA Tribe
Aquatic Invasive Species	The Tribe will continue to implement the invasive Aquatic Plant Survey and Treatment Program within their current jurisdiction, and IDEQ will continue implementing their aquatic plant surveys within northern pool bays. Identification of invasive species will be reported to Avista Corporation and Idaho State Department of Agriculture	Objective 1	IDEQ CDA Tribe Avista ISDA
Remedy implementation support	IDEQ and Tribal staff will continue to be involved in the Lower Basin PFT and TLG and support implementing projects identified in the 2002 OU-3	Objective 2	IDEQ 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
Lake*A*Syst	Lake*A*Syst (Lakeshore Assessment System) materials will continue to be utilized.	Objectives 1 and 2	IDEQ CDA Tribe
Demonstration sites	Improvement projects will be utilized to demonstrate effective strategies and encourage further implementation.	Objectives 2 and 3	IDEQ CDA Tribe Stakeholders
Symposia	IDEQ and Tribal staff will continue to partner with the Spokane River Forum, CDA Vision 2030, and others to plan the Our Gem Symposia approximately every 18 months, or as warranted.	Objectives 2 and 3	IDEQ CDA Tribe Stakeholders
K-12 Education	IDEQ and Tribal staff will continue to work with area educators to incorporate water quality education into classroom programming.	Objective 2	IDEQ CDA Tribe Universities K-12 schools
General Outreach	IDEQ and Tribal staff will continue to participate in relevant education and outreach opportunities as time and resources allow.	Objective 2	IDEQ CDA Tribe U of I
Collaborative educational efforts	IDEQ and Tribal staff will continue to collaborate with U of I Community Water Resource Center staff, Spokane River Forum, and others to expand educational opportunities.	Objective 2	IDEQ CDA Tribe U of I
Local Gems	IDEQ and Tribal staff will continue the Local Gems outreach program through 2023.	Objectives 2 and 3	IDEQ CDA Tribe
Waterfront demonstration coordination	IDEQ and Tribal staff will continue to coordinate with city, county, and regional partners to explore potential for demonstration projects and educational signage.	Objectives 2 and 3	IDEQ CDA Tribe Stakeholders

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

2.2 FLOOD CONTROL AND INFRASTRUCTURE REVITALIZATION

During 2018 participating governments of the BEIPC and the Upper Basin jurisdictions (Local Flood Group) implemented a Memorandum of Agreement (MOA) to work together on potential flooding issues on the South Fork of the CDA River. The local flood group worked with the U.S. Army Corps of Engineers in 2018 under funding from a grant to perform flood zone analysis on a portion of the river. Under the MOA, the BEIPC Executive Director will coordinate the efforts of the Flood Group to seek additional funding to complete the analysis of the remaining portions of the river in the next 5 years. Additional work to determine the best approach to development of flood control structures including an updated and certified levee system in the SFC DAR and Lower Pine Creek will be initiated in the 5 year planning period. The Executive Director will continue to work with the EPA for implementation of selected in-stream CERCLA remedies included in the RODA. The BEIPC will continue to assist Upper Basin communities and utilities in pursuing funding to implement the Drainage Control Infrastructure Revitalization Plan (DCIRP) and the Executive Director will coordinate with the local infrastructure jurisdictions on an Operation and Maintenance plan for existing drainage structures in the Upper Basin.

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 CERCLA natural resource trustees in the Coeur d'Alene Basin are the United States (represented by the U.S. Forest Service, U.S. Fish and Wildlife Service, and U.S. Bureau of Land Management), the Coeur d'Alene Tribe, and the State of Idaho (represented by the Idaho Department of Fish and Game and Idaho Department of Environmental Quality). A series of lawsuits followed the Superfund designation in the Coeur d'Alene Basin for response costs and natural resource damages. Natural resources injured by contamination included but are not limited to; surface and groundwater, fish, birds, riparian resources, macroinvertebrates and phytoplankton.

Under CERCLA, settlements were reached with all parties. Following the final 2011 settlement agreement, the Trustees entered into a Memorandum of Agreement 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 Coeur d'Alene Basin.

As specified in CERCLA the funds will be 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 have completed their Restoration Plan and Environmental Impact Statement (EIS) following the National Environmental Policy Act (NEPA). This plan is a programmatic guide for restoration of injured natural resources in the Restoration Planning Area and will be coordinated with remediation activities.

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. 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.