

Coeur d'Alene Basin Five-year (2009-2013) Final Work Plan

INTRODUCTION

This plan for calendar years 2009-2013 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 Technical Leadership Group (TLG) and the Executive Director with review by the Citizen Coordinating Council (CCC), and is based on their recommendations for activities and work to be performed in CY 2009-2013. Annual work plans will address specific actions from this five-year plan. This proposed five-year work plan is organized as follows:

Part 1 – Remedial Work Funded with Superfund or Other Cleanup Monies

Part 2 – Activities and Work Funded Through the Clean Water Act (CWA) Grant Program

Part 3 – Other BEIPC Activities and Responsibilities

Part 1 includes work to implement the Operable Unit (OU) 3 Record of Decision (ROD) with funding provided by the U.S. Environmental Protection Agency (EPA's) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Superfund program or other environmental cleanup funding. The OU-3 ROD identifies remedial actions in the State of Idaho as well as cleanup actions in the State of Washington. For planning purposes a 30-year period of remediation was anticipated. Except for establishing the human health remedy as a top priority, the ROD does not address the sequence of actions.

Part 2 addresses the work to be accomplished with CWA Grant funding. In Federal Fiscal Years 2002, 2003, and 2004, funding under the CWA was provided for the BEIPC to be used for *"...research, investigation, experiments, training, demonstrations, surveys, and studies related to the causes, effects, extent, prevention, reduction, and elimination of pollution."*

Part 3 includes work and responsibilities the BEIPC has assumed based on recommendations from the National Academy of Sciences (NAS) Study and requests from the citizens and communities of the Basin.

PART 1 – REMEDIAL WORK FUNDED WITH SUPERFUND OR OTHER CLEANUP FUNDING

Funds made available through EPA's CERCLA appropriations are available for environmental remediation on privately owned lands and state, county and local government owned properties. EPA's CERCLA funds cannot be used for cleanup of sites on public (Federal) land. Work proposed on public lands is the responsibility of the federal land management agencies. The

State of Idaho also supplies funding through the Idaho Department of Environmental Quality (IDEQ) for environmental cleanup activities.

For Part 1, the scope of the proposed five-year work plan corresponds generally to the level of funding and the funding sources anticipated over the five-year period, 2009-2013. The 2009-2013 Work Plan proposes a cleanup approach and a listing of priority projects for the 5-year planning period. The proposal includes the following work to be funded with Superfund or other cleanup monies:

- Evaluation of OU-3 pre-ROD Removal Actions
- Residential and Community Property Remediation Including Private Drinking Water Supply
- Basin Contaminant Management
- Blood Lead Screening in Children
- Repositories
- Recreational Use Areas
- Mine and Mill Sites Remediation
- Ecological remedial actions in the Upper Basin
- Ecological remedial actions in the Lower Basin
- Basin Environmental Monitoring

Table 1-1 Summary of Remedial Activities Proposed for Implementation for 2009-2013

Proposed Activity	Scope	Objective	Lead Agency #
Evaluation of OU-3 pre-ROD Removal Actions (see EPA 5-year Review Report)	Various parties have performed pre-ROD environmental cleanup actions. Evaluate results of these activities and if warranted, incorporate into the OU-3 CERCLA remedy.	Complete evaluation of these activities in context with a comprehensive site remedy. Include in the prioritization of other work to implement the ROD with any amendments. This work will progress as funding allows.	EPA, IDEQ, BLM, Forest Service, CDA, Tribe
Residential and Community Property Remediation including private Drinking Water Sources	Continue the residential and community property and private drinking water source remediation program for protection of human health as required by the ROD.	Targeted property sampling substantially complete by December 2009. Remediate 350-400 properties per year and any needed private drinking water sources as funding allows.	IDEQ

Proposed Activity	Scope	Objective	Lead Agency #
Basin Contaminant Management	Ensure that the property remediation program, flood and drainage control activities and the Basin Institutional Controls Program (ICP) protect human health and the environment and remediated areas from damage and recontamination.	Manage the Basin ICP effectively and coordinate the remediation program, and flood and drainage control activities with ICP requirements.	IDEQ EPA PHD
Blood Lead Screening in Children	Screening of children for elevated blood lead levels has been occurring annually in the CDA Basin since 1996. Screening has provided a \$20 per child incentive to participants. Investigate funding opportunities to augment the \$20 incentive with the objective of increasing blood lead screening participation.	The universally available blood lead screening program will continue in the same manner as it has in previous years. Idaho Department of Health and Welfare, Division of Medicaid will work with participating physicians in the Basin to comply with requirements to perform blood lead screening during "well child checkups".	IDEQ PHD
Repositories	Develop, as needed, repositories to support remediation and ICP. Analyze repository needs, secure properties and be ready for disposal of remediation and ICP waste in Upper and Lower Basin anticipated in the next 5-10 years.	Utilize Big Creek for Upper Basin remediation and ICP waste. Begin operation of East Mission Flats in 2009 for remediation and ICP waste. Perform technical evaluations of other appropriate sites as they are identified.	IDEQ EPA PHD
Recreational Use Areas	Develop a Basin Recreational Management Strategy and Guidelines Document. Remediate identified recreation areas or develop substitute clean areas along the CDA River. Implement a strategy to deal with contaminated sediments due to high water occurrences at developed sites.	Complete a Basin Recreational Management Strategy and Guidelines Document. Discuss the sediment contamination issue and develop and implement a cleanup strategy to be used on an annual basis.	EPA with state and federal agencies and CDA Tribe

Proposed Activity	Scope	Objective	Lead Agency #
Mine & Mill Sites Remediation	Cleanup priority sites identified in OU-3 ROD. Evaluate other sites that contribute to human health risks and contribute to water quality and other environmental impacts.	Continue to evaluate and prioritize additional mine and mill sites as they are identified and prepare designs so remedial actions can be initiated as funds become available.	EPA, IDEQ, BLM
Upper Basin Ecological Remedies	<p>Develop a comprehensive cleanup approach to evaluate, plan and prioritize remedial actions for ecological contamination source areas in the Upper Basin which includes the South Fork Coeur d'Alene River basin and its tributaries downstream to the confluence with the North Fork.</p> <p>Address National Academy of Sciences recommendations, incorporate improved knowledge of the Upper Basin and Box and move forward on OU-2 Phase II cleanup activities.</p> <p>Continue to implement existing benchmarks established in the OU-3 ROD directed toward improvements in water quality and in the fishery in the Upper Basin.</p>	<p>Identifying and select additional remedial actions for the Upper Basin and Box in a ROD amendment. Evaluate selected cleanup actions and make modifications to existing decision documents. Under CERCLA, EPA is responsible for modifying the ROD. Goal is to issue the amendment for OU-2 and OU-3 Upper Basin in late 2009.</p> <p>Complete further screening and selection of specific areas/sites to implement OU-3 ROD. Initiation of specific designs and implementation of remedial alternatives will depend on a number of factors including, availability of funds, execution of a State Superfund contract for options requiring long-term operation and maintenance, and implementation of actions by potentially responsible parties.</p>	EPA and IDEQ. With BLM in Pine & Ninemile Creeks.

Proposed Activity	Scope	Objective	Lead Agency #
Lower Basin Ecological Remedies	Evaluate and prioritize potential ecological remedies noted in the ROD comparing RI/FS data with new data from CWA projects and other sources. Ensure that remedies are coordinated with natural resource restoration activities.	Perform numerical modeling of River processes and sediment. Collect data on river bank conditions and metal concentrations. Develop wetland remediation approach. Continue EPA and USFWS collaboration on perpetual protection, conversion and remediation of agricultural land, followed by restoration to wetland habitat ecologically safe for use by waterfowl. Incorporate findings from AVISTA and CWA studies into remediation strategies.	EPA, IDEQ, USFWS and Coeur d'Alene Tribe
Basin Environmental Monitoring	Continue to implement long-term monitoring and make results available via www.storet.org . Implement remedial action effectiveness monitoring as appropriate.	Assess effectiveness of remedial actions and trends in overall ecological improvement due to remediation and natural attenuation.	EPA working with other agencies including IDEQ, USFWS, and USGS

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

PART 2 – ACTIVITIES AND WORK FUNDED THROUGH THE CLEAN WATER ACT GRANT PROGRAM

CWA funds are being used “to conduct and promote the coordination and acceleration of research, investigations, experiments, training, demonstrations, surveys, and studies relating to the causes, effects, extent, prevention, reduction and elimination of pollution” Clean Water Act 104(b)(3). Within these constraints, the BEIPC implemented a number of projects to be funded under the CWA. A number of these projects support CDA Lake management activities.

The first round of CWA funds were available in Federal Fiscal Year (FY) 2002 and obtained by the BEIPC in the summer of 2003. These projects are complete. The next round of funding for FY2003 was available to the BEIPC during the summer of 2004. These projects will be completed by June 30, 2009. Finally, the most recent round of funding for FY2004 was

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available in July 2005 and these projects are at various stages of implementation. It is anticipated that most if not all the CWA projects will be completed by June 2009.

This section of the work plan outlines activities of all remaining CWA projects. Final reports detailing the results of CWA project work are available at the BEIPC office in Kellogg, Idaho. A listing of final reports with an executive summary of conclusions and results is located on the BEIPC web at basincommission.com. Over the next five years, information taken from these reports will be used to develop future work plans.

Table 2-1 is a summary of current activities funded with CWA funds.

Table 2-1 Summary of Activities Funded by CWA

Activity	Original Scope of Sub-Grant	Lead Agency
East Fork Pine Creek Revegetation Pilot Project	Identify practical and cost-effective methods to accelerate natural revegetation processes. Vegetation is needed to ultimately stabilize many stream reaches within the Basin. Identify and contrast the relative “bang for the buck” of several locally applicable revegetation methods.	BLM
Mica Bay Nutrient Reduction Project. Phase 1 complete, Phase 2 ongoing.	Demonstrate for training and education purposes a means of reducing nutrient and sediment contamination to Coeur d'Alene Lake in accordance with the implementation of the Lake Management Plan. Project will also accomplish some TMDL implementation goals for the recovery of beneficial uses in Mica Creek.	IDEQ
Plummer Creek Watershed Nutrient Load Assessment, Modeling, and Management Plan Development	Characterize nutrient concentrations and transport through the Plummer Creek watershed and into Chatcolet Lake. Develop a Watershed Nutrient Management Plan which will include appropriate and specific point nutrient source control efforts for the Plummer Creek watershed.	CDA Tribe
Pinehurst Flood Impact Study	Develop stream channel and drainage infrastructure techniques to control and mitigate water pollution and protect property from recontamination and flood impacts.	IDEQ
Silver Crescent Mine and Mill Complex Habitat Restoration	Study the feasibility and economics of watershed restoration through demonstration projects in areas where the original stream type has been severely altered by mining and environmental cleanup activities.	USDA-Forest Service

Activity	Original Scope of Sub-Grant	Lead Agency
South Fork Sewer District Toxicity Reduction	Identify sources of toxicity in Basin community wastewater treatment plant effluent to develop options for removal of toxicants; perform bench testing to verify removals; and develop capital and O&M cost projections.	South Fork Sewer District
Coeur d'Alene Lake Management Plan Implementation	Conduct an extensive evaluation of all activities within one mile of the Lake shore to evaluate what BMPs are in place, how effective they are, what BMPs are required but not in place, and to establish specific BMP audit procedures.	IDEQ, CDA Tribe

Note: See 2008 Annual Accomplishment Report for update on current project activities as of January 1, 2009.

PART 3 – OTHER BEIPC ACTIVITIES AND RESPONSIBILITIES

For Part 3, the scope of the five-year work plan includes a number of work items that the BEIPC has elected to become involved in and items of work needed to accommodate some of the recommendations of the NAS study. The plan includes the following work:

- Phase II Component of Overall OU-2 Remedy
- Lake Management Activities (*to be amended*)
- Upper Basin Drainage Control and Infrastructure Revitalization Activities
- Funding for the Environmental Cleanup and Infrastructure Revitalization
- Communications and Public Involvement

3.1 PHASE II COMPONENT OF OVERALL OU-2 REMEDY

As part of the State Superfund Contract (SCC) for OU-2, a Comprehensive Cleanup Plan (CCP) was developed to define a path forward for remedy implementation in OU-2. The CCP calls for a phased approach to implementing the remedies. The completed Phase I was focused on remedial actions aimed at removing and consolidating extensive soil contamination from several sites, demolition of mineral processing structures, and development and implementation of an Institutional Controls Program (ICP) for OU-1 and OU-2 with a primary goal of protecting public health.

Phase II was initiated following completion of source control and removal activities, and, evaluations of the impacts of these remedies regarding meeting water quality objectives. Phase II specifically addresses long-term water quality, ecological, and environmental management issues.

EPA and IDEQ have completed the OU-2 source areas of concern report which focused on key loading areas. EPA and IDEQ anticipate consideration of potential OU-2 Phase II remedial alternatives and possible development of a decision document. Alternatives will be evaluated

and ranked based upon the results of previous work, the field sampling, and other information. Once source areas are identified and ranked, conceptual remedial actions will be developed to address the sources and evaluated based on overall protectiveness of human health and the environment, compliance with applicable or relevant and appropriate requirements, implementability, effectiveness, cost and other considerations. Both ROD and SSC amendments will be required prior to implementation of any Phase II remedial actions.

3.2 LAKE MANAGEMENT ACTIVITIES

The OU-3 ROD did not include CDA Lake in the Selected Remedy. The ROD anticipated that the State, Tribe, federal agencies, and local governments would implement a Lake Management Plan (LMP) outside the Superfund process using separate regulatory authorities.

The updated LMP has been prepared and approved for implementation. Implementation of the 2009 LMP will be an adaptive management process and adjustments may be necessary as monitoring and other data are obtained and analyzed.

As referenced in Subsection 4.5.1 of the 2009 LMP, many of the agencies, governments, and other stakeholders that address water quality in CDA Lake are represented on the BEIPC, TLG or CCC. As such these various BEIPC forums represent unique opportunities for LMP coordination and implementation which IDEQ and the Tribe intend to fully utilize.

Examples of coordination activities envisioned for implementation of the 2009 LMP include, but are not limited to the following:

1. Provide routine updates on implementation activities at each BEIPC meeting with the intention to coordinate with agencies/governments represented on the Commission;
2. Engage nutrient management partners on the TLG to review Management Action Table (MAT) activities and work to better understand how to develop partnerships and joint plans for nutrient reduction projects;
3. Present draft yearly monitoring plans for TLG review and comment and present yearly monitoring results;
4. Present draft annual work plans to the TLG for review and comment; and
5. Provide an annual overview of LMP implementation activities to the CCC and solicit their input.

This level of coordination within the BEIPC will maximize opportunities for information exchange and advice working under the BEIPC MOA and work plans.

Also during the 2009 – 2010 work period, the BEIPC and Tribe, acting under a Clean Water Act sub-grant, will continue to be involved in implementation of a project to perform a nutrient load assessment and modeling to develop a management plan for Plummer Creek tributary to the Lake.

3.3 UPPER BASIN DRAINAGE CONTROL AND INFRASTRUCTURE REVITALIZATION ACTIVITIES

In 2006, the BEIPC implemented a process to identify drainage problems affecting the property remedial program; identify existing infrastructure; determine drainage control and infrastructure needs; prioritize actions; and develop a Drainage Control Infrastructure Revitalization Plan (DCIRP) for the Upper Basin communities. This process will continue into 2009 with completion of the process and final preparation and presentation of the DCIRP in spring 2009. The funding acquisition work in this effort will include prioritization of systems segments, the study and determination of the best processes for rehabilitation, and preparation of preliminary designs and estimates to support efforts in meetings with local governments, taxing districts boards, local stakeholders and the general public. In future years, the BEIPC will continue to assist Upper Basin communities and utilities in pursuing funding to implement the DCIRP and will update the DCIRP as needed.

3.4 FUNDING FOR THE ENVIRONMENTAL CLEANUP AND INFRASTRUCTURE REVITALIZATION

Funding for the human health element of the remedy is currently provided by the EPA and the States on private and state lands. The Federal Land Management agencies are currently providing funding for human health and ecological system cleanup actions on federally managed lands. Funding for EPA to implement remedies in OU-2 and 3 is currently prioritized on implementation of the Human Health protection. Funding for the drainage control and infrastructure revitalization activities is currently being addressed in the DCIRP process.

The Funding PFT will work on the DCIRP funding process and will explore potential sources of funding for ecological remedies and natural resource damage restoration activities. Federal funding of CERCLA activities on state and private lands outside of the EPA's appropriation for CERCLA is not allowed, but the PFT will investigate opportunities to fund these activities from other sources.

3.5 COMMUNICATIONS AND PUBLIC INVOLVEMENT

The Communications PFT will continue to address issues concerning the strengthening of public involvement in BEIPC activities and communication between the Basin community and the BEIPC and CERCLA cleanup and natural resource restoration implementing institutions. This can include developing informational materials, assisting in maintenance of the BEIPC web site, providing opportunities for training and generally assisting the Executive Director and staff in preparing for public information meetings, etc. The CCC will continue to be the focus organization to assist in implementing this process.

3.6 NATURAL RESOURCE DAMAGE RESTORATION

CERCLA natural resource trustees in the Coeur d'Alene Basin are the United States, represented by the U.S. Forest Service, U.S. Fish & Wildlife Service and U.S. Bureau of Land Management, the Coeur d'Alene Tribe, and the State of Idaho. In 2006, the federal and tribal trustees, who

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comprise the Coeur d'Alene Basin Natural Resource Trustees ("Trustees"), proposed for public review and comment a draft interim plan for natural resource restoration in the Coeur d'Alene Basin. After receiving public comment, in 2007 the Trustees selected the preferred alternative in the final interim restoration plan and environmental assessment. The state of Idaho adopted the Trustee's preferred alternative. The projects under the selected alternative of the Trustees' interim restoration plan will be implemented using funds that the Trustees have recovered through CERCLA natural resource damage settlements with potentially responsible parties, or other funding as available for the purpose of natural resource restoration. The Trustees continue to coordinate with the BEIPC as the Trustees move toward implementing the projects under the Trustees' interim restoration plan. In the upcoming work years, the BEIPC and the Trustees plan to discuss ways to improve coordination regarding Basin remediation and restoration projects.