Amended 5/20/09

BEIPC Coeur d'Alene Basin Calendar Year 2009 Work Plan

INTRODUCTION

This plan covers environmental cleanup and improvement activities in the Coeur d'Alene Basin scheduled for CY 2009 by the Basin Environmental Improvement Project Commission (BEIPC) and responsible coordinating agencies in accordance with their responsibilities as stated in the Memorandum of Agreement (dated August 2002). Actions noted in the plan are intended to implement the goals and objectives of the BEIPC's 2009-2013 5-Year Work Plan. 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 recommendations for activities and work to be performed in CY 2009. This work plan for 2009 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.

Part 2 addresses the work to be accomplished with CWA Grant funding. In Fiscal Years 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.

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, but it may not address all work items noted in the five-year plan because some will not be initiated until later years in the five-year plan.

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

Funds made available through EPA's CERCLA program 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 is supplying funding through the Idaho Department of Environmental Quality (IDEQ) for environmental cleanup activities.

For Part 1, the scope of the proposed work corresponds to the level of funding and the funding sources anticipated from EPA and State funding for CY 2009 for implementation of the ROD. The proposal includes the following OU-3 ROD work to be funded with Superfund or other cleanup monies:

- Evaluation of Pre ROD OU-3 Removal Actions
- Repositories
- Residential and Community Property Remediation
- Blood Lead Screening in Children
- Mine and Mill Sites
- Recreational Use Activities
- Upper Basin Ecological Remedies
- Lower Basin Ecological Remedies
- Basin Environmental Monitoring

1.1 EVALUATION OF PRE ROD OU-3 REMOVAL ACTIONS

Various parties have performed CERCLA removal actions in Basin sub-watersheds including Canyon, Ninemile, Pine, Moon, and Grouse Creeks and along the Upper South Fork and Lower Main Coeur d'Alene River to cleanup contamination, protect human health and restore ecological systems. During 2009, continue to evaluate these prior actions 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.

1.2 REPOSITORIES

Repository development is an ongoing process that must address the demand for mining-related contaminated waste disposal for the entire Basin environmental clean up program and the Institutional Controls Program (ICP). Without new repositories, continued cleanup and control of contamination is compromised and potentially stopped. IDEQ is the lead in developing repositories and the effort is coordinated with the BEIPC and EPA and funded by the EPA.

Within the OU-3 area there is one active repository and one repository in final design stages as of December 2008. The Big Creek repository (BCR) has been receiving Basin Property Remediation Program (BPRP) waste soil since 2004. As of December 2008, the BCR has received approximately 300,000 cubic yards (cy) of soil, about 60% of the 500,000 cy design capacity. The BCR is located at the mouth of Big Creek and serves the Upper Basin.

The East Mission Flats repository (EMF) is currently available for use as a transfer point for ICP waste. The 90% Design Report for EMF is scheduled for completion in December 2008. This is the final design phase for EMF. Once the Design Report has been accepted by EPA, EMF will be ready to receive waste soil for on-site placement. The general opening to receive soil for placement at EMF is scheduled for spring 2009, but the opening date is dependant on availability of threshold volumes of suitable waste soil from the BPRP or ICP.

The Repository Work Plan centers on four objectives: (1) operations at BCR; (2) construction and operations at EMF; (3) the search for a new repository site in the Upper Basin; and (4) development/revision of repository program guidance documents including the Waste Management Strategy (WMS) and Waste Acceptance Criteria (WAC). Specific tasks to achieve these four objectives are summarized below.

The BPRP will be focused on the Upper Basin in the 2009 field season. The yard remediation program has been generating from 40,000 to 60,000 cy (placed) of waste soil per year to BCR, and 2009 is anticipated to be a typical year for this program. The repository operations include but are not limited to the following tasks: (1) Receiving and placement of BPRP and ICP waste soil; (2) Segregation and appropriate disposal of non-soil waste associated with ROD-specific remediation activities, these non-soil waste materials include such items as wood and root wads, concrete and miscellaneous demolition debris; (3) Equipment decontamination; and (4) Groundwater monitoring.

Although the final fill phasing has not been completed for EMF, the minimum fill cell volume is anticipated to be in the neighborhood of 15,000 cy. This volume of soil will be used to create the ramp on the west end of EMF to facilitate construction of the bridge to the site from the Interstate 90 Exit 39/Dredge Road embankment. Anticipated waste volumes from the Basin cleanup were evaluated in fall 2008 to determine if they will be sufficient to provide the minimum cell volume.

Unforeseen development or redevelopment projects may result in a need for disposal of a sizeable volume of ICP waste. Waste management to support this type of ICP project will be considered on a case-by-case basis.

Regardless of the fill schedule for EMF, it is anticipated that groundwater monitoring will continue, and grubbing of the initial fill footprint area on the west side of EMF will occur in 2009.

As previously mentioned, the current focus of the BPRP effort is in the Upper Basin. At the current fill rate, BCR will approach capacity within four to five years. In order to provide un-interrupted service in support of Upper Basin remedial action, it is vital to identify and design the next repository for use in the Upper Basin. The repository siting and design process will be conducted in accordance with the process identified in Section 12.5 of the OU-3 ROD.

The Upper Basin site evaluation process will build on the existing data concerning potential repository sites. In addition to the sites already in the database, IDEQ will solicit public input on potential repository sites during BEIPC, CCC and Repository PFT meetings. Potential sites brought to the table as a result of public input will be profiled using the same criteria as in the internal search process. The outcome of the potential site screening process will be a "short list" of sites that meet the criteria for repository locations. The repository criteria are listed in the OU-3 ROD.

Based on the outcome of the short-listing process, more detailed site characterization tasks will be performed on one or two of the short-listed sites. Prior to field investigations, IDEQ will consult with EPA on concurrence for site selection.

Repository operations are performed in conformance with two principal guidance documents, the Waste Management Strategy (WMS) and Waste Acceptance Criteria (WAC). The WMS establishes the timing and location of OU-3 repositories, and the WAC specifies what materials are acceptable for disposal at the repositories. Once delivered to the repositories the waste materials are handled in accordance with repository-specific Operations Plans.

The WMS will be updated to incorporate additional information regarding the status of OU-3 remedial activity, and include an Implementation Plan outlining a pathway for the repository siting process. The revised WMS will be developed in coordination with the Repository PFT and the EPA.

One issue to address in the overall clean-up process is development of universal WAC for both OU-1 and -2 (the Box) and OU-3 (the Basin). In addition to dealing with soil waste and metals thresholds concentrations, the revised WAC will identify means to manage items such as demolition rubble, oversize asphalt and concrete pieces, scrap wood and timber, and petroleum contaminated soil.

The WAC development will cross jurisdictional boundaries between the Box and the Basin. In the Box, repository management is performed by a four-entity team: the Upstream Mining Group (UMG), Panhandle Health District (PHD), EPA and IDEQ. In the Basin, repository management is provided by EPA and IDEQ.

A key element in successful completion of the universal WAC will be productive communication between the stakeholders. At this time the WAC development process plan is as follows: (1) draft language will be developed by EPA, IDEQ and IDEQ contractors; (2) once a Draft WAC is assembled, the plan will be submitted to the UMG and PHD for their review and comment; and (3) the final WAC will be incorporated into waste management operations for implementation by the Box and Basin repository management groups.

1.3 HUMAN HEALTH ISSUES

Remediation of human health exposures is a remedial action priority as defined in the OU-3 ROD. It includes maintaining the ICP and conducting cleanup in residential, community and recreational areas. The ROD also identifies mine and mill sites that represent risks to human health.

1.3.1 Residential and Commercial Property Remediation

During 2009 IDEQ plans to remediate 350-400 properties. The properties will be located mainly in target areas including the Upper Basin. During the spring and fall areas located at lower elevations will be targeted. High risk properties will be the top priority for remediation and IDEQ expects about 25% of the properties will be classified as high risk. High risk properties are those properties on which children less than 7 years of age or pregnant women reside.

The health and safety of the public, staff, contractors, and consultants is an important component of the remediation program. That component will again be emphasized in 2009.

In 2009 IDEQ plans to sample approximately 750 targeted property equivalents and have the targeted areas sampling program close to completion by the end of the year. This will allow for planning for the current and future year remediation efforts.

1.3.2 Blood Lead Screening in Children

Screening of children for elevated blood lead levels has been occurring annually in the CDA Basin since 1996. 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 inform the Basin cleanup efforts. The lead screening program will continue in 2009 in the same manner as it has in previous years. Screening will provide a $20 per child incentive to participants.

Both IDEQ and EPA will investigate funding opportunities to augment the $20 incentive with the objective of increasing blood lead screening participation. Augmenting the incentive was identified by the Human Health PFT as the most promising way to improve participation rates."

1.3.3 Recreation Use Activities

The OU-3 ROD includes remediation of Lower Basin recreational use areas to reduce human exposure to lead and other metals. Some priority recreational use areas were identified in the ROD with the understanding that other recreational areas will be evaluated for cleanup based on factors such as risk of exposure, location and use.

The remediation and development principles identified by the Recreational Area PFT (below) remain appropriate for the 2009 work plan:

- Primary objective is to protect human health, particularly young children and pregnant women.
- Work with impacted communities and local residents when considering recreational site development.
- Design to minimize long-term operation/maintenance costs and repository requirements.
- Create clean oases for public use (based upon community interests).
- "Reality check" of the scale and scope of what can be done.
- Build upon existing features to enhance use and reduce risks to human health.
- Provide enough amenities to attract folks to clean "safe" areas; do not create attractive nuisances or beautification-only projects.
- Design individual recreational sites to be consistent with an overall strategy for Basin recreational areas.

The PFT is using a two-stage approach to address recreational areas.

Stage 1 – Recreational Areas Identified for Action - The first stage is remediation at existing publicly-owned recreational sites selected from those identified in the ROD. The areas proposed for remediation are existing recreation areas with a potential for a low-maintenance remedy that will be protective of human health. This stage has been implemented with a number of project completions by various agencies.

Stage 2 – Recreation Management Strategy and Guidelines – During the 2009-2013 planning period, the PFT will complete development of a Recreation Management Strategy and Guidelines involving agencies, local communities, impacted land owners and other stakeholders. Many agencies and entities, including BLM, Idaho Fish and Game (IDFG), the CDA Tribe, Idaho Department of Parks and Recreation (IDPR), Kootenai County Parks and Waterways, and USFS, manage recreational sites in the Lower Basin. All entities will benefit from the establishment of a coordinated strategy to protect human health at recreational areas.

2009 Tasks

The PFT will refine a comprehensive contaminated recreation use area inventory, develop and implement consistent guidelines to address contaminated sediment deposition resulting from high-water events at recreation areas, and develop a draft of the Recreation Management Strategy and Guidelines.

In addition the PFT will also stay-connected with EPA's staff that will begin to assess and address remaining human health recreational exposures in the Upper and Lower Basin as part of planning and implementation of the ecological remedy. For example, many Lower Basin recreational sites are located along the river and lakes, which have contaminants in the beds, banks, and the water column that are transported and re-

deposited during run-off and flood events. The ecological remedy focuses on reducing metals sources in the river, lakes, and wetlands and minimizing recontamination potential. The implementation of the ecological remedy will, therefore, also address human health exposures in the Lower Basin.

1.3.4 Mine & Mill Sites

The OU-3 ROD identified a number of mine and mill sites with potential for human health exposures, primarily from recreational use. Prioritization of mine and mill sites in the Upper Basin was primarily based on risks of lead exposure to recreational users. Remedial designs addressed these risks as well as any impacts to water quality. Mine and Mill sites completed to date include: Upper and Lower Constitution, Sisters, Golconda, and Rex. At the USBM site a design has been completed and remedial action is pending negotiations with the property owner. Construction is tentatively scheduled for 2009.

Looking ahead to the later part of the five year work plan, the EPA is developing an inventory and prioritization systems for all source areas in the Upper Basin through the Box. Presentation of this system to the TLG and BEIPC for input was made in the fall 2008. Initiation of designs and remedial actions will be contingent on a variety of factors such as property ownership, human health and ecological risks associated with the site and available funding for design and construction work. The Mine Mill Site PFT will continue to work to identify small sites that would require minimal design and construction effort where action could potentially be taken during 2009. Larger more complex sites will be prioritized for future work as funding becomes available.

1.4 ENVIRONMENTAL REMEDIATION ISSUES

Environmental remediation issues under consideration by the BEIPC include involvement in the OU-2 Phase 2 remedy implementation as well as environmental remediation work in the Upper and Lower Basin described in the ROD for OU-3 and as follows.

1.4.1 Upper Basin Ecological Remedies

This work includes remediation identified for the Upper Basin which includes the South Fork Coeur d'Alene River Basin and its tributaries downstream to the confluence with the North Fork.

During 2009, EPA will be prioritizing OU-2 and Upper Basin OU-3 ecological cleanup activities to develop a comprehensive cleanup approach for the Upper Basin. EPA is undertaking this effort in part to address National Academy of Sciences recommendations, to incorporate improved knowledge of the Upper Basin and Box and to move forward on OU-2 Phase II cleanup activities. This effort will culminate in EPA identifying and selecting additional remedial actions for the Upper Basin and Box in a ROD amendment. Evaluating selected cleanup actions and making modifications to existing decision documents is standard practice at Superfund sites. For example, EPA

has issued two ROD amendments and two Explanations of Significant Difference that modified the cleanup approach initially selected in the 1992 OU-2 ROD for the Non-Populated Areas of the Box. Under CERCLA, EPA is responsible for modifying the ROD. While not required under CERCLA or the Basin Commission Memorandum of Agreement, EPA will schedule opportunities to provide technical information and share straw proposals from the TLG, CCC, and Basin Commission. The proposed plan will also be provided for public comment. EPA's goal is to issue the ROD amendment for OU-2 and OU-3 Upper Basin in late 2009.

In addition, in 2009 agencies will 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.

Water Treatment - Treatment of water in Canyon Creek was proposed as the remedial action priority for reduction of dissolved metals in the South Fork above the Box. To reduce zinc loads to the South Fork, the OU-3 ROD calls for treatment of Canyon Creek surface water near the mouth of the creek. A great deal of the metals loading in the surface water comes from contaminated ground water in the watershed. Water treatment technology assessments, groundwater modeling, and surface and groundwater monitoring have been completed in order to develop the most cost-effective long-term solution to improving water quality from Canyon Creek that will meet the goals of the OU-3 ROD.

During 2007 the modeling, monitoring, and technology evaluations were completed. In September 2007 the following two draft reports were distributed to the Water Treatment PFT for review: 1) Draft Canyon Creek Hydrologic Study, and 2) Draft Remedial Component Screening fro the Woodland Park area of Canyon Creek. Further work on screening the options for Canyon Creek will continue during 2009. Field work and data collection for the focused prioritization efforts was conducted during 2008. This included synoptic sampling at sources areas in the Upper Basin and focused investigations in Osburn Flats. Information from this effort is being incorporated into a prioritization process and model. Further screening and selection of specific areas/sites is ongoing and initial screening and prioritization will be completed in 2009. Initiation of specific designs and construction of alternatives to address water quality 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 such as for water treatment, and implementation of actions by potentially responsible parties.

Fishery Habitat Improvements - Pine Creek is a priority area for improvement of fish habitat. Implementation of the remedy selected in the ROD is expected to significantly improve 3.5 miles of habitat. These improvements are expected to allow natural increases in salmonid populations and enhance spawning and rearing. EPA and BLM are the lead agencies for remedial actions in Pine Creek. BLM has already done a significant amount of stream and mine site stabilization on public and private lands in Pine Creek. BLM is developing a master stream stabilization plan for Pine Creek. Cleanups in Denver Creek and the Upper and Lower Constitution tailings piles were priority actions undertaken in 2006 and 2007. The potential exists for BLM to undertake projects in the

Pine Creek watershed performed as joint-funded efforts along with BEIPC directed projects.

1.4.2 Lower Basin Ecological Remedies

In the 2004 work plan, it was noted that a better understanding of the complex and dynamic system in the Lower Basin and sound answers to these questions were necessary before a sequence of remedial actions could be recommended. The ecological work described in the ROD for the Lower Basin includes actions for wetlands and lateral lakes, river banks, splay areas and river bed. The objectives of remediation in the Lower Basin focus on improving wildlife habitat and reducing particulate lead in the Coeur d'Alene River.

Many other issues and uncertainties pertaining to the implementation of remedial actions in the Lower Basin have been raised. Some lack of data continues to exist pertaining to the complex ecology of the Lower Basin and the combined effects of mining related contamination. Clean Water Act sub-grants were approved by the BEIPC to provide site-specific information required to make sound ecological remedial management decisions. In 2009, the remaining CWA projects and studies will be completed and some CWA projects will continue to be monitored for effectiveness.

In April 2006, EPA used Coeur d'Alene Basin Superfund settlement monies to purchase a 396-acre conservation agreement with a willing private property owner. The agreement was established to help meet OU-3 ROD goals in establishing safe waterfowl feeding habitat in the Lower Basin as they pertain to metals of concern. Other parties participating in agreement negotiations included USFWS and Ducks Unlimited. Remedial action construction in ~300 acres of the easement started in September 2006 and was completed in 2007 using Asarco Trust settlement funds. EPA anticipates completion of the remedial action in the remaining ~90+ acres in 2009. The Coeur d'Alene Basin Natural Resource Trustees, led by the U.S. Fish and Wildlife Service (USFWS) in coordination with Ducks Unlimited, Inc. have begun wetland restoration. USFWS and Ducks Unlimited will do the restoration work, and USFWS will coordinate maintenance of the site over the long term under the Trustees' 2007 Coeur d'Alene Basin Final Interim Restoration Plan. The restoration work will use Asarco Trust monies and Natural Resource Damage Assessment (NRDA) settlement funds. Through the Superfund remedial action and NRDA restoration activities, contamination is being addressed and this area is being made into perpetually protected, high quality feeding habitat for both migratory and resident swans, ducks, and other wetland bird species.

In 2009 EPA will be developing an Enhanced Conceptual Site Model (ECSM) for the Lower Basin. The ECSM will serve to refine the current understanding of the Lower Basin with respect to river flows and sediment transport. EPA's contractor is performing a review of existing literature/predictive tools on this topic. The next step in the process will result in the generation of a series of technical memorandums that will display the refined understanding and ultimately the selection of a predictive tool for decision making. The technical memorandums will be presented to the BEIPC in 2009 as they are completed. The sequencing and evaluation of cleanup actions in the Lower Basin will

receive greater focus as human health cleanup and water quality issues in the Upper Basin are addressed. Also in 2009, the Lower Basin PFT will continue to assist the TLG and provide project ideas in order to implement the ROD for OU-3 where Remedial Action Objectives (RAO's) are identified; the BEIPC will support EPA in an effort to secure funding from EPA Headquarters; and will have the Funding PFT working on outside sources of funding for Lower Basin remedies as appropriate.

1.5 BASIN ENVIRONMENTAL MONITORING

Basin Environmental Monitoring Plan (BEMP) - Implementation of the long-term status and trends basin environmental monitoring program (BEMP) will be continued in 2009 with EPA funding. Establishment of a basin-wide environmental monitoring plan is required under the OU-3 ROD. The monitoring program is critical to the successful implementation and evaluation of the Selected Remedy. EPA worked with the Monitoring PFT to develop the Basin-wide environmental monitoring program. The Monitoring PFT, TLG and key stakeholder agencies concurred that the BEMP is appropriate given available funding to obtain technical data for assessment of long-term status and trends, evaluation of overall effectiveness of the Selected Remedy, evaluation of progress toward cleanup benchmarks, and future Five-Year reviews. As contemplated in the adaptive management section of the BEMP, during 2009 EPA will initiate an assessment of Basin environmental monitoring to identify any warranted revisions or modifications. EPA also anticipates that during 2009, the RD and RA monitoring within the Basin will be merged with the BEMP monitoring to provide clarity on the monitoring requirements and to help avoid redundant monitoring.

EPA will continue to make analytical results from site surface water, soil and sediment sampling available on the web-accessible data management system (www.storet.org); human health-related data will not be included in this database. If needed, EPA will assist interested stake holders in accessing the information. Nationally the STORET system will be transitioning to the new WQX data management system and the Site environmental monitoring data will be accessible at this website. More information will be forthcoming about this transition.

Remedial Action Effectiveness Monitoring - Action-specific effectiveness monitoring will focus on areas that have been addressed by remedial actions (e.g., tributaries, river reaches, etc.). The purpose of the effectiveness monitoring is to assess the success and effect of a given remedial action. By comparison, the BEMP will address basin-wide status and trends by monitoring a limited number of strategic locations. Both the remedial action-effectiveness and long-term monitoring plans will be integrated by coordinating monitoring to generate comparable data (same timeframe or synoptic) and using common sampling locations, where possible. Effectiveness monitoring, while not detailed in the BEMP, will incorporate similar monitoring hypotheses as those included in the BEMP. The adaptive management approach will maximize the utility of effectiveness monitoring data through comparison of results to expectations.

Remedial action effectiveness monitoring in OU-3 will be included in the designs and implementation plans for ecological-related remedial actions. In 2007, remedial action effectiveness monitoring plans were established for several mine and mill sites, including Golconda, Rex and Constitution. In addition, a monitoring plan was established for the Canyon Creek water treatment project and the Success mine which includes the treatment system.

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

2.0 INTRODUCTION

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). Most all of the projects funded in FY 2002, 2003 and 2004 are complete. Final reports for these projects are listed along with a brief summary on the BEIPC web site and the reports can be obtained from the office of the Executive Director.

This section of the work plan outlines CY 2009 activities of all remaining ongoing projects. Over the next five years, information taken from these final reports for CWA projects will be used to develop future work plans and be incorporated into additional remedial and resource restoration actions.

East Fork Pine Creek Revegetation Pilot Project

Sub-grantee: BLM

Description of work to be performed during 2009:

Final spring planting will take place in late March or early April, 2009, (stream flow conditions permitting). Field measurements for site characterization, including stream flow measurements, floodplain particle-size distribution and surveyed channel cross-sections continue until May 2009. A final report will be presented to the BEIPC following completion of the spring 2009 field work. All work must be completed by June 30, 2009.

Mica Bay Nutrient Reduction Project – Phase 1 & Phase 2

Sub-grantee: IDEQ

Description of work to be performed in 2009:

All work is scheduled to be completed by December 31, 2008. In 2009, the Kootenai/Shoshone Soil & Water Conservation Service will coordinate a presentation of this project to be given at a BEIPC meeting. The presentation will include showing the

10 minute DVD to be used to work with local farmers and ranchers on similar watershed restoration projects.

Plummer Creek Watershed Nutrient Load Assessment, Modeling and Management Plan Development

Sub-grantee: CDA Tribe

Description of work to be performed in calendar year 2009:

Modeling results will be presented to the interested public, management scenarios will be developed and the watershed water quality management plan will be completed.

The modeling work which was completed in 2008 will support development of the management plan through characterizing existing nutrient source loads and evaluating management alternatives. Once the watershed loading is characterized with the model, the project results can be presented to the Plummer Creek stakeholder group to identify areas and opportunities for future management options. The "ideas" from the stakeholders will be prioritized to identify several management scenarios that will be evaluated using the calibrated GWLF model. The analysis will evaluate the results/impacts of implementing the different management alternatives. The modeling will support the stakeholder driven process for identify management options and evaluating their potential effectiveness.

Pinehurst Flood Impact Study

Sub-grantee: IDEQ

Description of work to be performed in 2009:

In 2007, in coordination with the City of Pinehurst and using a preliminary model for Little Pine Creek, an undersized, major culvert was replaced and a mine dump was armored against erosion. In 2008, the Little Pine Creek model was completed based on the performance of the two actions. Following model completion, several creek channel improvements to increase channel capacity and reduce flood impacts were designed and constructed in consultation with the property owners, Avista and the Pinehurst Golf Course.

In 2009, the main stem Pine Creek model will be completed and both models will be calibrated/refined based on high water events. Both models, along with other models, will be used to predict the impact of flood conditions in the Coeur d'Alene Basin as recommended by the National Academy of Sciences.

Silver Crescent Mine and Mill Complex Habitat Restoration

Sub-grantee: USDA Forest Service

Description of work to be performed in 2009:

All funds from the BEIPC have been expended and construction is now complete. The Forest Service had successfully gained an additional partnership with the Silver Mountain Corporation on the project. Additional wetland creation and enhancement was accomplished using funding provided by Silver Mountain. This work in turn will satisfy Silver Mountain's mitigation requirements under their current 404 permit for new development at the ski area and village. This added wetland work will further enhance the overall restoration effort at the site. Additions to the design for the project were integrated into the USFS contract(s).

In 2009 the Forest Service will finish preparing the post construction report which will outline the entire project and any changes that were made. This report will include an evaluation of successes and a section dedicated to "lessons learned". Site maintenance and a 5-year monitoring effort are underway.

South Fork Sewer District Toxicity Reduction

Sub-Grantee: South Fork of the Coeur d'Alene Sewer District

Description of work to be performed in 2009:

As a result of Whole Effluent Toxicity (WET) testing in 2006 and 2007, chlorine, ammonia, and heavy metals were suspected toxicants in the Page wastewater treatment plant (WWTP) effluent. A Phase I Toxicity Identification Evaluation (TIE) following the WET testing established heavy metals as the likely group of toxicants, while a subsequent Phase III TIE isolated the toxicant to zinc. Further WET testing may be conducted in 2009 to correlate metals levels to WET test results.

The remaining step in the TRE process is completion of a Toxicity Control Evaluation (TCE), which will identify potential options for reducing zinc toxicity in the District's effluent. Alternatives will be screened for effectiveness and feasibility for removing zinc toxicity from the receiving stream, including previous work completed through funding from the BEIPC for the Mullan Sanitary Sewer Collection System Demonstration Project and Page Metals Removal Pilot Study.

A draft report was issued in late 2008, with a final report expected in 2009 following agency comments.

Coeur d'Alene Lake Management Plan Implementation

Sub-grantee: IDEQ, CDA Tribe

Description of work to be performed in 2009:

A final project product will be finalized and presented to the BEIPC at the February 2009 meeting.

The final report will include the following:

- The evaluation of Best Management Practices (BMPs) that are either in place or not to protect water quality of Coeur d'Alene Lake; which are identified in the Management Action Tables of the 1996 Coeur d'Alene Lake Management Plan.
- The evaluation of areas and activities where BMPs are required under various regulations, but are not being applied or are being applied improperly; for example: road construction and maintenance, building and facility construction, installation of septic and other wastewater treatment systems, operation and maintenance of marinas and docks, construction, operation and maintenance of golf courses; recreational use of the Coeur d'Alene and St. Joe Rivers, and agricultural operations; etc.
- The State and Tribe will determine future programmatic funding projections to continue nutrient management activities as well as determine whether staffing and funding are sufficient to implement activities originally outlined in the 1996 LMP management action tables.
- Recommendations for updated action items will be highlighted with rationale behind those recommendations.
- Results of the survey will be reported to the BEIPC and incorporated into the revised Lake Management Plan management tables currently being developed by IDEQ and the Tribe. This work will also serve as the basis for establishment of a standardized audit process that can be repeated as needed to evaluate the effectiveness of LMP actions.
- Results of an updated inventory/mapping of subsurface sewage systems around the shoreline perimeter of Coeur d'Alene Lake; a contracted project conducted jointly by Panhandle Health District and the Coeur d'Alene Tribe GIS Department.

PART 3 – OTHER BEIPC ACTIVITIES AND RESPONSIBILITIES

For Part 3, the 2009 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 included in an amendment)*
- Upper Basin Drainage Control and Infrastructure Revitalization Activities
- Funding for the Environmental Cleanup and Infrastructure Revitalization

- Communications and Public Involvement
- Natural Resource Damage Restoration

3.1 PHASE II COMPONENT OF OVERALL OU2 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. In Phase I, now completed, the focus was 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.

In 2008, 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.

In 2008, EPA and IDEQ completed the OU-2 source areas of concern report which focused on key loading areas. Many data gaps existed related to the delineation of source areas, relative impact and/or characteristics of source areas to support remedial design and action. Accordingly, focused field activities were launched in 2008 to refine our understanding of key loading areas and eventually inform remedial action alternative evaluations. The two areas of focus are Eastern OU-2/Bunker Creek area and the Page Ponds area. A groundwater flow model for the Upper Basin, including the OU-2 area (similar to the Canyon Creek effort), with increased focus on the key source areas was initiated.

In 2009, 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. EPA and IDEQ are the responsible parties for modifying the ROD and negotiating a revised SSC.

Per the motion passed by the BEIPC in August 2005, the Commission will participate in future Phase II activities in OU-2 by providing technical input into the remedy alternative development and selection, providing input into the public processes associated with ROD modifications, and educating the community and legislative bodies of the need for funding for this work.

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 existing infrastructure, determine infrastructure needs, prioritize actions, and develop a Drainage Control and Infrastructure Revitalization Plan (DCIRP) for the Upper Basin communities. This effort also includes the development of potential financing options, and the acquisition of financing. This

process will be completed in spring 2009 and is addressing local drainage control and infrastructure needs to protect environmental cleanup remedies, preserve public and private property, and revitalize local economies within the Upper Basin. This project is modeled on a similar project implemented in the Box and will be combined with that effort resulting in a DCIRP for the entire Upper Basin.

This work addresses some of the concerns of residents and government officials in the Basin and the National Academy of Science involving potential damage to the cleanup remedies posed by flooding and the need to construct and reconstruct infrastructure to preserve property and protect the environment. The BEIPC is working closely with county and local government agencies to develop and implement the DCIRP.

Work in 2009 will include development of the funding source data and completion of the final DCIRP document.

The infrastructure program will also include continued efforts by the Executive Director to secure federal funding for an analysis of the levee and flood control systems in the Upper Basin from Mullan to Cataldo. This work will be coordinated with the Idaho Bureau of Homeland Security and the Corps of Engineers.

3.4 FUNDING FOR THE ENVIRONMENTAL CLEANUP AND INFRASTRUCTURE REVITALIZATION

Funding for the human health element of the Superfund (CERCLA) 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 the remedies in OU-2 and 3 is currently prioritized on implementation of the Human Health protection. Funding for the infrastructure revitalization activities is currently being addressed in the DCIRP process.

There continues to be a great deal of discussion and concern expressed over the lack of funding sources in the future for implementation of the ecological remedy in OU-2 and 3 and implementation of the DCIRP. The Funding PFT developed a potential funding source spread sheet in fall 2008 for use in securing funding for the DCRIP and flood prevention programs. The funding acquisition work 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. The BEIPC will assist Upper Basin communities and utilities in pursuing funding to implement the DCIRP.

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

During 2009, the Communications PFT will continue its work 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 agencies. The CCC will continue to be the focus organization to assist in implementing this process.

Following is a partial listing of communications and public involvement work items:

- Work with the Executive Director on requests for presentations to public groups.
- Conduct audience analysis for reworking the BEIPC tri-fold brochure produced by the Communications PFT in 2008 and/or produce a new brochure or other communications pieces for possible mass distribution or general handouts.
- Provide assistance to BEIPC groups and staff who are making verbal or written public presentations on issues such as information sessions; Op-Eds, news articles, public releases, display ads, etc.
- Conduct a series of workshops/training sessions on risk communications and other communications related issues (i.e. to be determined).
- Continue to update avenues of outreach in the CDA Basin.
- Examine alternative communication tools such as local radio and television, etc.
- Develop involvement categories to structure communication/outreach activities.
- Continue to work on increasing public attendance at meetings.

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 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 year, the BEIPC and the Trustees plan to discuss ways to improve coordination regarding Basin remediation and restoration projects.