

BEIPC Coeur d'Alene Basin Calendar Year 2013 Work Plan

INTRODUCTION

This plan covers environmental cleanup and improvement activities in the Coeur d'Alene Basin scheduled for CY 2013 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 2013-2017 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 2013. The work plan for 2013 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 Potentially Responsible Parties (PRP).

Part 2 - Other BEIPC Activities and Responsibilities

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

Part 2 includes work and responsibilities the BEIPC has assumed based on recommendations from the National Academy of Sciences (NAS) Study and requests from the State of Idaho and 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 – ENVIRONMENTAL CLEANUP WORK

For Part 1, the scope of the proposed work corresponds to the level of funding and the funding sources anticipated for CY 2013 and work anticipated to be performed by any responsible parties. The proposal includes the following work:

- Residential and Community Property Remediation including Private Drinking Water Supply and unpaved road surface remediation; Basin Property Remediation Program (BPRP).
- Blood Lead Screening in Children
- Recreation Use Areas
- Remedy Protection Projects

- Paved Roadway Surface Remediation Program
- Repository Development and Management
- Upper Basin Remedies
- Lower Basin Remedies
- Basin Environmental Monitoring

1.1 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 in the Upper and Lower Basin. The ROD also identifies mine and mill sites that represent risks to human health. The RODA addresses human health, remedy protection and ecological remedies.

1.1.1 Residential and Commercial Property Remediation

In 2012, the Basin Property Remediation Program (BPRP) remediated approximately 200 properties. This is a lower number than in 2011 and previous years, and as anticipated, the average property size increased. This resulted in approximately 3.0 million square feet being remediated. In 2012, IDEQ and EPA began a systematic evaluation of challenges faced on large properties such as 1) areas subject to frequent recontamination due to flooding, 2) those with constructed (e.g. fences) or natural barriers (are forested, open waters or swamps) that prevent access for exposure, and 3) those properties that will be remediated in the near future under another planned remedial project. The purpose of the evaluation is to make sure Remedial Action funds are spent as efficiently as possible while still protecting human health.

During 2013, IDEQ plans to remediate approximately 100 properties or approximately one to two million square feet through the BPRP. The properties will be located throughout the Upper and Lower Basin and will continue to be larger properties than those remediated in the past. High risk properties will continue to be the top priority for remediation. High risk properties are those properties where children less than 7 years of age or pregnant women reside.

In 2013, IDEQ plans to sample up to 100 property addresses. Presently, there are near 300 properties where owners have either refused to provide access for sampling or have not provided access because they are difficult to contact. These properties still need to be sampled at some point in the future to determine the need for remediation.

IDEQ plans to continue to evaluate BPRP completion within specified geographical areas. This effort will allow IDEQ and EPA to eliminate the present uncertainty associated with what is left to do by evaluating the entire inventory of properties and unpaved roads and will ensure all eligible properties are completed. In addition, these efforts will allow the IDEQ to track the remaining properties left to sample and remediate as property owners change their minds, owners of the properties change, or connections with non-responsive owners have been made.

In 2012, a pilot project for the unpaved (gravel and dirt) roads program was implemented in the Basin by IDEQ. Approximately 2 miles of unpaved roads will be remediated during the pilot program that will continue into 2013. The purpose of the pilot was to gather information to assess costs and logistics related to the design, contracting, and construction of unpaved road surfaces as barriers to contamination. The pilot study findings will be used in 2013 to create a final strategy for remediating all of the remaining contaminated unpaved public roadway surfaces in the Basin. After completion of this evaluation in 2013, a program will be established to remove and replace contaminated surfacing or cap contaminated surfacing to ensure that there is a remedial barrier to exposure and movement of heavy metal contamination resulting from road traffic and storm water runoff on public unpaved roads. This new program is included in the BPRP.

The health and safety of the public, staff, contractors, and consultants is an important component of the remediation program. That component will continue to be emphasized during the 2013 program.

1.1.2 Blood Lead Screening in Children

Screening of children for elevated blood lead levels has been occurring annually in the CDA Basin since 1996 as a public health service. 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 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.

In 2012 the Centers for Disease Control has established a new threshold value for blood lead levels in young children. According to CDC's fact sheet, "This new level is based on the population of children aged 1-5 years in the U.S. who are in the top 2.5% of children when tested for lead in their blood. Currently, that is 5 micrograms per deciliter of lead in blood." Previously, CDC's blood lead level of concern" was 10 micrograms per deciliter. In response to this change the PHD used the 5 micrograms per deciliter as the trigger for follow up in 2012 program.

The 2012 blood-lead screening program included a new incentive on top of the \$20 per child tested by providing swimming pool passes to children who participate in the blood lead testing program. There was no evidence that this increased participation rates.

In an effort to increase participation rates, the \$20 per child incentive will be increased to \$30 starting in 2013. The \$20 incentive has not changed since 1988 other than two years where one-time funding increased the incentive to \$40 to boost participation. The increase to \$30 helps to compensate for the inflation. This is the only change to the Basin Blood Lead Screening program for 2013.

1.1.3 Recreation Use Activities

The OU-3 Interim 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.

In 2010, the TLG decided to move the work from the Recreation Areas PFT to the Lower Basin PFT (LBPFT). This transfer is to better connect the recreation areas work with the ecological remedy, work on sediment transport and recontamination in the Lower Basin, and natural resource restoration work. The remediation and development principles identified by the Recreational Area PFT (below) remain appropriate for the 2013 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).
- 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.

2013 Tasks

Specific tasks for this coming year have not been completely identified or developed by the (LBPFT) but will more fully explored and discussed by the PFT and could include:

1. Work with the Community Involvement Coordinators (CICs) to identify what else can be done to make recreation users aware of human health risks along the river corridor and to further educate people on how to minimize any risks.
2. Work with Panhandle Health District (PHD) and IDEQ on Riley Raccoon Recreation Campaign. A family of raccoon characters have been created which will focus on messaging and educating about exposure pathways and sources which will show children how they can take measures to prevent getting exposed, or how to stop the re-introduction of contaminants by maintaining healthy habits. The target area for the campaign is the Coeur d’Alene River Basin where people recreate. In 2013, LBPFT members will continue to support the use of Riley Raccoon and family as an outreach tool at various outreach events, one being the North Idaho fair which is jointly ‘manned’ by EPA, IDEQ, the Coeur d’Alene Tribe, and the BEIPC.

3. Collaborate with other agencies on creation of additional “clean” areas for people to recreate, if the opportunities arise in 2013.
4. LBPFT members will coordinate efforts prior to spring run-off to ensure that recreational sites are ‘cleaned off’ after deposition of contaminated sediments occurs. Every spring, PHD staff visit the recreational sites and issues informational letters and photographs to the appropriate land management agencies. These agencies will continue to coordinate efforts to install additional signage and close the sites if there appears to be a threat to human health.
5. In 2011, the (LBPFT) recommended the USFS Medimont Boat Launch remediation/rehabilitation project to the TLG and the BEIPC Board. The BEIPC supported members of the (LBPFT) and TLG to investigate funding resources to assist the USFS in rehabilitating the USFS Medimont Boat Launch site and parking area. The USFS Recreation staff worked through designs and identified funding opportunities and is planning to have permits in place to begin work at the site. In 2013, the USFS plans to; pave the access road and parking area, rehabilitate the boat launch along with the installation of bioengineering techniques for bank stabilization, install a dock, decommission the access control at undesignated recreation/camping areas at the site where there is potential for recontamination, and install new signage.
6. EPA and DEQ CICs will assist land management agencies with addressing human health messaging for signs along the trail in the Lower Basin.
7. Gene Day Pond - The objective of the Gene Day Pond Project is to convert the existing body of water into a clean recreational pond capable of supporting an urban trout fishery with an ecologically functional wetland. In 2012, IDEQ funded a characterization project that provided information and analysis in support of Gene Day Pond rehabilitation. The following field activities were conducted: topographic survey, water sampling, soil and lithological sampling, water depth and muck depth measurements, and wetland delineation of the Gene Day Pond site. The CDA Work Trust funded historical research regarding the site which was provided to IDEQ and the Gene Day Pond working group. The history provided necessary details on past uses of the area and after reviewing the findings from the characterization report, IDEQ and EPA staff came to the conclusion that the area was not exceeding human health contamination thresholds and therefore would not require remedial action. There is still one area on the west bank of the pond adjacent to the trail that will be addressed under the BPRP. IDFG will be working on various aspects on the project jointly with IDEQ including the coordination of meetings and updating the work group on progress.

1.1.4 Remedy Protection Projects

Remedy Protection is a high priority in the Superfund Cleanup Implementation Plan (SCIP). The objective of this work is to protect the installed human health related remedy from recontamination and scouring caused by heavy precipitation and tributary flooding. In 2013, work on projects in the Box and Upper Basin portion of OU-3 noted in the RODA will begin. That work will include advertising and award of the Sierra Nevada project, completion of the design and award of the Grouse Creek, Little Pine Creek and Jackass Creek projects in the Box; design work on the Meyer Creek and drainage projects in Mullan; and potentially an award of contracts to implement some of the Basin projects.

EPA and IDEQ will complete additional analysis to define the remedy protection projects for the side drainages to the same levels as the projects noted in the RODA. Completion of the analysis process and preparation of an Explanation of Significant Differences (ESD) or other decision document will be completed in 2013 so that those projects can be incorporated into out-year programs of work.

1.1.5 Paved Roadway Surface Remediation Program

EPA and IDEQ developed a roadway surface remediation strategy in 2012 to address the deterioration of contaminated paved road surfaces due to heavy traffic during site remediation activities to ensure road surfaces continue to serve as barriers that reduce or eliminate exposures to underlying contamination. In 2013, the Roads Board established by the strategy will meet with the nine local road jurisdictions to explain the program and work with the local jurisdictions and their design professionals to develop their paved roadway surface remediation programs. It is anticipated that this process will result in some paved roadway work being completed in 2013, but the scheduling of that work is dependent on the leadership and control of the local jurisdictions. Accomplishments in this program will be reported in the annual accomplishment report for the BEIPC.

1.2 REPOSITORY DEVELOPMENT AND MANAGEMENT

Background

Repository development and management is an ongoing process that must meet the demand for historic mining related contaminated waste disposal for the entire Coeur d'Alene Basin environmental and human health related cleanup program. This includes the BPRP, other cleanup actions performed by EPA, the CDA Work Trust, and PRP's performing cleanup under administrative agreements with EPA and IDEQ. It also includes waste generated by private parties and local government agencies under the Institutional Controls Program (ICP). Without the expansion of existing repositories or the construction of new repositories, continued cleanup and control of contamination could be compromised and potentially stopped. The effort is coordinated through the BEIPC.

There are two operational repositories within the OU-3 area, Big Creek Repository (BCR) and East Mission Flats Repository (EMFR) and a third, Page Repository, in the Box. The BCR has been receiving waste since 2002. In 2011 an expansion plan was completed and implemented that added about 116,000 cubic yards (cy) to the existing capacity, bringing the total build-out capacity of BCR to about 616,000 cy. EMFR has been operating for three years and serves both upper and lower basin BPRP projects and ICP activities. The Page Repository receives approximately 12,000 cy of ICP wastes generated annually by projects in the Box.

BCR is located at the mouth of Big Creek Canyon and currently serves the Upper Basin. During the 2012 season, BCR received approximately 17,760 cy of contaminated waste from the BPRP and ICP. In addition, BCR received approximately 10,000 cy of waste from the Hercules Mill site cleanup. Since opening in 2002 the BCR has received approximately 501,760 cy of waste material. In all, BCR has received over 83% of the 616,000 cy total design capacity including the expansion in 2011 and has an expected remaining operational life of no more than five (5) years.

EMFR is located north of Interstate 90 off of Exit 39, near Cataldo. Construction at EMFR commenced in August 2009 and waste disposal continues at this site. During the 2011 season, EMFR received approximately 28,000 cy of contaminated waste. The total waste disposal quantity for 2012 is estimated to be approximately 50,000cy. In the last three years of operation EMFR will have received approximately 118,000 cy of waste material, about 30% of the total waste soil capacity at this facility.

The Page Repository, which has been operating for almost 20 years, is located just west of Smeltonville. Having reached its previous design capacity in 2010, Page has been redesigned to be expanded to contain an additional 700,000 cubic yards. Expansion of the facilities has begun in 2012 and will continue into 2013. As a result of the expansions footprint into the West Page Swamp, IDEQ has begun its first phase of wetlands mitigation projects by reclaiming the West End Infiltration Area by constructing wetlands there. Page also receives, processes and re-uses concrete, asphalt and wood wastes for foundations, roads and compost respectively.

Objectives

The Basin Repository Work Plan centers on three objectives: (1) operations at BCR and EMFR; (2) increasing repository volume in the Upper Basin; and (3) updating of the Waste Management Strategy (WMS) including considerations for waste reduction or consolidation. Specific tasks to achieve these objectives are summarized below:

The Box Repository Work Plan remains focused on two objectives: (1) develop repository capacity to sustain ICP support in-perpetuity; and (2) significantly alter waste stream management in the Box to minimize disposal and maximize re-use of high volume waste materials.

Basin Repository Operations

With both EMFR and BCR open to receive waste, the BPRP will include both Lower and Upper Basin property remediation in the 2013 construction season. Unless significant changes are made in the BPRP plans, an estimated 50,000 to 70,000 cy of waste material could be generated by the BPRP in 2013. Additionally, ICP waste volume projections for next year is estimated to be as high as 5,000 cy combined for both BCR and EMFR (based on 2010-2012 averages).

Anticipating that need, the Basin repository operations include but are not limited to the following tasks: receiving and placement of 50,000 to 75,000 cy of BPRP and ICP waste soils; and segregation and appropriate re-use or disposal of non-soil waste associated with remediation activities. These non-soil waste materials include such items as wood and root wads, concrete, asphalt, large (greater than 6 inch) rock fragments and miscellaneous demolition debris. Other tasks associated with repository operations include: equipment decontamination, site stabilization, erosion and sediment control installation, and surface and ground water monitoring and associated reporting.

Box Repository Operations

In order to support Box ICP operations, Page Repository will be expanded in two to three acre phases approximately every five years until the final footprint has been founded. Each repository cell will be initialized by constructing a “starter berm” from two to four foot concrete blocks, filled in by a “mattress” layer of 1 inch plus to 12 inch minus materials. The starter berms and mattress materials have been designed to exceed geotechnical criteria for structural stability and to platform placed ICP wastes above the 50 year flood conditions that may be realized in the West Page Swamp.

Increasing Upper Basin Repository Capacity

New Basin repository capacity will be needed to contain waste generated by cleanups identified in the 2002 OU-3 ROD and the RODA, which will focus largely on cleanup activity at large-volume contaminant source areas such as inactive mine and mill sites and alluvial floodplain deposits.

The Upper Basin RODA will adopt a two-part approach to waste management that utilizes both waste consolidation areas (WCAs) and repositories. The emphasis in the mine and mill cleanup work will be to store waste in WCAs located at or within the immediate vicinity of the old mine and mill sites. These are generally located in the upper reaches of the tributaries of the South Fork Coeur d’Alene River. Siting, design and construction of the WCAs will be performed as part of the mine and mill site cleanups, which are anticipated to be performed by the CDA Work Trust.

Stream Channel and Riparian remedial action areas identified in the RODA could generate over one million cy of waste in the South Fork Coeur d’Alene River valley. Although specific methods for waste extraction, materials handling and potential reuse

have not been prescribed in the RODA, these wastes will in part be disposed in repositories. They are expected to be generated after priority mine and mill site and other cleanups are performed.

A repository siting process driven by public input has identified two new repository sites to support cleanup activities in the Upper Basin, the Osburn Tailings Impoundment (OTI) area north of Osburn, and the Star Tailings Impoundment (STI) area near Woodland Park. Baseline site characterization data have been collected at both new sites and design for the OTI proceeded in 2011. A 30% Design Report was nearly completed for the OTI site in late fall 2011. Due to a change in remedial project planning from the ROD amendment process, and to coordinate closely with Hecla's activities at the Star Mine Complex in Burke, the OTI design will be shelved for the short term but will pick up again in the future to accommodate cleanup actions along the South Fork and ICP wastes. Engineering design work on the Lower Burke Canyon Repository (LBCR) located at the STI site was initiated late in the 2011 calendar year. The CDA Work Trust is responsible for design and operations at the LBCR and anticipates completion of the LBCR 30% design during the first part of 2013.

Finally as part of the Upper Basin work in the East Fork of Ninemile Creek a new Waste Consolidation Area (WCA) has been sited and is currently being designed by the CDA Work Trust. This area will be located high in this drainage and will be capable of containing all of the cleanup waste identified in the RODA for Ninemile Creek. The total volume of waste identified in this drainage is approximately 2 million cubic yards. During 2012 the Trust collected pre-design data for this site and began the design for this consolidation area. The design for this consolidation area is expected to be completed in the spring of 2013 with construction planned for summer 2013. The first waste will come to this site in 2014 with the start of the cleanup of the Interstate Mine.

The repository design program is a dynamic process driven by many factors, including waste stream volume estimates, priority cleanup site locations, funding availability and active mine site activities. As cleanup implementation plans are finalized and waste stream volume generation schedules are developed, repository designs, technical evaluations, and property acquisition will proceed at the repository sites currently identified through the public planning process or new sites best located to serve the cleanup program in the 5 year planning period.

Waste Management Strategy Update

The WMS is a key document that guides repository siting and waste disposal or re-use. It contains the most current estimates of future waste volumes and implementation schedule forecasts within geographic areas. The WMS will be updated to incorporate additional information regarding the status of OU-3 remedial activity and repository needs identified in the RODA and the SCIP. The updated WMS will contain potential technological alternatives to waste stream reduction and/or re-use. The revised WMS will be developed jointly by IDEQ and EPA and in coordination with the Repository Project Focus Team (PFT) when necessary. The WMS revisions will depend on

11/07/12

finalization of implementation plans and identification of cleanup priorities necessary for planning future remedial actions.

1.3 ENVIRONMENTAL REMEDIATION ISSUES

Environmental remediation issues under consideration by the BEIPC include work in the Upper Basin described in the RODA and work in the Lower Basin described in the OU-3 ROD.

1.3.1 Upper Basin Remedies

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

The Upper Basin RODA identifies \$635 million of work in the Upper Basin including work at 125 mine and mill sites. The SCIP identifies the priority setting process and outlook for sequencing the work over the next 10 years. This document will be updated on an annual basis as part of the adaptive management process to incorporate lessons learned as the work moves forward. Additional information about the RODA and prioritization of cleanup actions including technical memos, meeting presentations, and community involvement documents are located at the following web site:
<http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/bh+rod+amendment>

The goals of the RODA include:

- Prioritizing Upper Basin/Box source areas for cleanup,
- Moving forward on the OU-2 Phase 2 cleanup,
- Addressing changes in water treatment,
- Focusing on particulate lead, and
- Protecting remedies from tributary flooding and heavy precipitation events.

The prioritized cleanups under the RODA are expected to provide significant improvement to surface water quality and will reduce the contribution of contaminated groundwater to surface water. There will also be reduced particulate lead in the Coeur d'Alene River and downstream areas. This in turn is expected to reduce the recontamination potential in the Lower Basin and other downstream areas. Humans and wildlife will also have a reduced risk from contaminated mine waste.

Initiation of specific designs has already begun with construction work beginning in 2013. This BEIPC 2013 work plan focuses on those cleanup actions that have either already started or planned for the coming year.

The following is expected to be the focus of the work in 2013.

1. In 2012 collection of pre-design data at the Interstate Callahan mine site, waste rock area, Tamarack and Success sites in the East Fork of Ninemile Creek was completed. These sites have all been identified as a high priority in the SCIP. In 2012 the design of the Interstate Callahan site was begun with construction planned for 2014. In addition, to facilitate all the work in the East Fork of Ninemile, two bridges were constructed at the Success site to enable easier access to the Upper East Fork sites.
2. As noted in the Section 1.1, a WCA was sited in the East Fork of Ninemile Creek and is currently being designed by the CDA Work Trust. The design for this consolidation area is expected to be completed in the spring of 2013 with construction planned for summer 2013. The first waste will come to this site in 2014 with the start of the cleanup of the Interstate Mine.
3. In 2012 the Central Treatment Plant (CTP) master plan was updated in order to plan for phased expansion of the plant to accommodate additional water for treatment from OU-2 and OU-3. The planning and design for these upgrades was initiated with water pilot testing in the fall of 2012. The design for the upgrades will continue through 2013.
4. Planning for the water collection actions for OU-2 identified in the RODA were initiated in 2012. In the fall 2012 additional pre-design data was collected near the Central Impoundment Area. This information will be used to start the design efforts which will continue through 2013.
5. In 2012 pre-design data was collected on the Lower Burke Canyon Repository. This information will be used in the design for this repository. Continued design and the start of construction is planned for 2013.
6. In 2012 additional characterization of mine and mill sites was conducted as was done in 2011. The lists of sites evaluated included both those in the RODA and sites that had been removed from the RODA. The purpose of the process is to help in the priority setting process and the later to provide definitive data on sites for future reference.

1.3.2 Lower Basin Remedies

Work described in the OU-3 Interim ROD for the Lower Basin includes actions for wetlands and lateral lakes, river banks, splay areas and river bed. Objectives of remediation in the Lower Basin focus on reducing metals in the Basin ecosystem, lead in particular.

EPA has invested in significant data gathering efforts in 2012 to address key data gaps pertaining to the relationship between Basin ecology and ongoing effects and movement of historic mining related contamination. The results of these data gathering efforts will

11/07/12

be shared with the subgroups of the BEIPC (e.g. Lower Basin PFT, TLG and CCC), interested stakeholders and citizen groups after they are compiled and synthesized. These data are anticipated to inform the Enhanced Conceptual Site Model (ECSM). Data gathering and synthesis will continue in 2013.

EPA continues implementation of the multi-year effort described in the ECSM (EPA release 2010). The effort remains focused on filling critical data gaps and computational model development to better understand and predict contaminated sediment transport in the Lower Basin. Such modeling and data collection will further enhance the working hypothesis for contaminated sediment transport and will support the selection of pilot projects, future cleanup decision making, project prioritization and future decision documents.

In 2013, the Lower Basin PFT will continue to assist the TLG and provide updates on new technologies, pilot projects for consideration, and project ideas in order to implement the ROD for OU-3 where remedial actions are identified and where the potential for recontamination is low; the Lower Basin PFT will pursue the identification of both pilot projects and larger scale projects in the Lower Basin that could benefit from remedial action and restoration work and are of low risk of recontamination; the BEIPC will support EPA in an effort to secure funding from EPA Headquarters. While recent settlement agreements will provide additional funds for cleanups in the Basin, initial cleanup priorities will focus on addressing source stabilization in the Upper Basin and decreasing recontamination potential in the near term. In the near term, pilot projects to address source stabilization and other issues in the Lower Basin will be evaluated for implementation.

Documents that will be generated as a result of the Lower Basin work include modeling work plans, model development reports, data reports, pilot project work plans and other technical memorandums that are generated as more is learned about contaminated sediment transport and source areas in the Lower Basin. These documents will be available to the subgroups of the BEIPC (e.g. Lower Basin PFT, TLG and CCC), interested stakeholders and citizen groups.

Although the Lower Basin is not included in the RODA, actions in the Upper Basin are expected to improve water quality and reduce the movement of contaminated sediments downstream into the Lower Basin. Thus, the Upper Basin cleanup is expected to complement cleanup activities in the Lower Basin by reducing the flow of contaminated materials and reducing the potential for recontamination from the Upper Basin to the Lower Basin.

In an effort to involve the local landowners within the Lower Basin, PFT members will continue to make themselves available for presentations to the Lower Basin Collaborative (LBC) when opportunities arise.

In 2013, there are a couple of bank stabilization projects planned for implementation in the USFS Medimont Boat Launch area however, these projects are being funded outside

of the BEIPC process and will not be addressed in this work plan. PFT members will continue to provide technical support to the implementing parties given the technical background that some of the PFT members have gained over the years while working in the Lower Basin.

Please see the Natural Resource Damage Assessment (NRDA) section for more details on restoration work that is slated for the Lower Basin in 2013.

1.4 BASIN ENVIRONMENTAL MONITORING

The Bunker Hill Superfund Site/Coeur d'Alene (CDA) Basin currently has 2 primary monitoring plans which govern the long-term status & trends and remedial action effectiveness monitoring as required under the respective OU-2/OU-3 Record of Decision (RODs). Currently there are 2 CDA Basin environmental monitoring programs/plans: OU-3 Basin Environmental Monitoring Plan (BEMP, 2004) and OU-2 Environmental Monitoring Plan (EMP, 2006). EPA is working with the Lower Basin PFT and other interested parties to integrate the existing plans into a consolidated CDA Basin environmental monitoring plan to (1) optimize the current monitoring under the various programs, and (2) enhance the overall program operation/effectiveness with respect to changes/adaptive management, laboratory coordination, field sampling, data management, and reporting efforts. This process will utilize existing quantitative and qualitative tools to evaluate and optimize the current program; in addition, the approach includes the opportunity for input and coordination with stakeholders on the approach, data, locations, and evaluation process. This overall effort is also consistent with the efforts underway to develop a Comprehensive Ecological Cleanup Plan as discussed in Section 1.3. As in the current BEMP, the monitoring will include surface water, sediment, groundwater, and biological resources monitoring at key locations in the Basin.

The major goal of the current and revised BEMP is to monitor and evaluate the progress of the remedy in terms of improving ecosystem conditions. Consistent with that goal, the BEMP will provide data relative to the following Basin-wide monitoring objectives:

- Assess long-term status and trends of surface water, sediment, groundwater and biological resource conditions in the Basin.
- Evaluate progress toward meeting remedial action objectives (RAOs), applicable or relevant and appropriate requirements (ARARs), and preliminary remediation goals (PRGs).
- Improve the understanding of Basin environmental processes and variability to improve the effectiveness and efficiency of remedial actions.
- Provide data for CERCLA required Five-Year Reviews of remedy performance.

Efforts are underway to revise the BEMP into a Comprehensive monitoring document that incorporates both the 2004 BEMP and the 2006 EMP. At this time the long-term status and trends are being conducted under the existing OU-3 BEMP and OU-2 EMP.

11/07/12

EPA suspended the OU-3 RA effectiveness monitoring in 2012 to analyze data collected and determine the best approach to RA effectiveness monitoring.

EPA will continue to make analytical results from site surface water, sediment, and groundwater sampling available on a web-accessible data management system; human health-related data will not be included in this database. For the last several years, EPA has made site environmental monitoring data available through a web page. Nationally the STORET system has transitioned to the new WQX data management system and the site environmental monitoring data will be accessible at a new website:

www.bunkerhilldata.org. The biological monitoring data and annual monitoring reports are also accessible at EPA's web page under Technical Documents at <http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/cda>. If needed, EPA will assist interested stake holders in accessing the information.

PART 2 – OTHER BEIPC ACTIVITIES AND RESPONSIBILITIES

For Part 2, the 2011 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:

- Lake Management Activities
- Flood Control, and Infrastructure Revitalization
- Communications and Public Involvement
- Natural Resource Damage Restoration

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. Implementation of the LMP is 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 activities envisioned for implementation of the LMP in 2013 include, but are not limited to the following:

1. In 2010, the Tribe and IDEQ initiated the 3 Year Nutrient Source Inventory (as identified in Section 3.3, Objective 3 of the LMP) in the St. Maries/St. Joe River

11/07/12

watersheds. The Tribe and IDEQ selected 7 sites where water quality has been monitored. Tribe and IDEQ staff evaluated the data collected, and decisions will be made on whether to continue sampling in the winter season of 2013.

2. Continue joint water quality monitoring throughout Coeur d'Alene Lake for metals, nutrients, physical parameters, and biological communities. Throughout 2013, the Tribe and IDEQ will continue utilizing the ELCOM-CAEDYM and LOADEST models. These models are utilizing real-time data that is collected from Coeur d'Alene Lake including the establishment of five meteorological stations. In the summer of 2012, the Tribe installed a data logger buoy on the lake at Round Lake (collecting parameters such as water temperature and dissolved oxygen at multiple depths). In 2011, IDEQ installed a 10 meter weather station at Loff's Bay point adjacent to Camp Cross. In exchange for the weather station location, IDEQ and the Tribe have introduced a water quality curriculum and training to the camp counselors, and this will continue in 2013.

3. Present the draft annual monitoring reports for TLG review and comment when they are available.

4. Participate in Coeur d'Alene Basin Watershed Advisory Groups in order to re-assess Total Maximum Daily Loads (TMDLs) and develop Implementation Plans.

5. Participate in joint educational outreach events such as: the North Idaho Fair, Leadership Coeur d'Alene, Women in Science, training of camp counselors at Camp Cross, Camp Four Echoes (Girl Scouts) and another youth camp in 2013, and water quality programs for local schools.

6. The LMP Education/Outreach Program, Lake*A*Syst (a home owners guide to environmental stewardship within the Coeur d'Alene Basin), will be finalized by fall of 2012. Materials will be printed and electronic versions developed. In 2013, Tribe and IDEQ staff will develop marketing and outreach strategies to involve property owners in the voluntary Lake*A*Syst Program.

7. 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.

8. Prioritize and initiate riverbank stabilization projects along eroding riverbanks in the St. Joe and lower St. Maries Rivers. IDEQ and Tribal staff will collaborate with Avista, the Natural Resource Conservation Service (NRCS), the Soil & Water Conservation Districts, the Counties, and local landowners. Projects under the IDEQ agreement with Avista will begin in the fall of 2012 if all permits can be obtained. Initial projects will be along the Coeur d'Alene River at Medimont (a \$319 grant administered by the Kootenai/Shoshone Soil and Water Conservation District), and along the Shadowy St. Joe recreational area on the St. Joe River. Completion of these projects may continue into 2013. The first two years of projects under the Tribe's agreement with Avista have been identified and will be designed and implemented during 2013/2014.

11/07/12

9. The LMP Coordinators will continue to be involved in the Lower Basin PFT and support implementing projects identified in the 2002 OU-3 Interim ROD.

10. Present LMP activity updates to various groups throughout the year such as the North Idaho/Washington Lakes Conference, Homeowners Associations, Environmental Organizations, and Chambers of Commerce.

11. Provide an annual overview of LMP implementation activities to the CCC and solicit their input.

12. Continue to participate on an Advisory Committee to support the University of Idaho (UI) Extension Master Water Steward Program (IDAH20), and be involved in activities of the newly developed UI Community Water Resource Center.

This level of 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

The BEIPC through the office of the Executive Director continues to pursue support and funding for an analysis of flood control needs and the existing levee system in the South Fork CDA River and Pine Creek. The Executive Director will continue to work with the Idaho Silver Jackets Working Group including Shoshone County, COE, FEMA, Idaho Bureau of Homeland Security, Idaho Department of Water Resources, and the National Weather Service to develop an approach to dealing with potential flooding problems and levee management in the Upper Basin. The BEIPC will continue to assist Upper Basin communities and utilities in pursuing funding to implement the Upper Basin Drainage Control and Infrastructure Revitalization Plan (DCIRP).

2.3 COMMUNICATIONS AND PUBLIC INVOLVEMENT

During 2013, the BEIPC Communications Coordinator will work with other Community Involvement Coordinators from the agencies to address issues concerning the strengthening of public involvement and education 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 facilitate public involvement in the BEIPC process.

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

- Make presentations to public groups as requested.
- Re-evaluate what public involvement means in the BEIPC process, so that it is most meaningful to the community. Is the public being informed, getting

engaged, taking action, or interested? This will guide the activities to increase public attendance.

- Sponsor and participate in a joint fair booth for public outreach/education at the North Idaho Fair.
- Sponsor other activities related to the BEIPC process for public education/outreach such as open houses, workshops, training, or public meetings.
- Identify new opportunities for increasing public attendance at meetings and encouraging public involvement.
- Offer a “courtesy review” opportunity (when requested) to provide input or different perspectives before communications are made public.
- Develop and produce new communication material for the BEIPC/CCC and LBC.
- Utilize local radio and public television for publicity of events.
- Generate new communication and dispersal techniques such as media networking with the other BEIPC related agencies.
- Provide review assistance for the “Riley Raccoon” educational campaign on recreation safety (with IDEQ and PHD) that is focused on children ages six and under. The purpose is to educate children about the importance of washing their hands after being exposed to contaminants like lead, especially after recreating in areas with high lead concentrations.

2.4 NATURAL RESOURCE DAMAGE RESTORATION

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 surface water, groundwater, riparian resources, benthic macro-invertebrates and phytoplankton, fish and wildlife, soils and sediments.

In the summer of 2011, the Federal District Court for the District of Idaho signed an order finalizing settlement between Hecla Mining Company and the United States, Coeur d’Alene Tribe, and the State of Idaho. The settlement resolved one of the largest cases ever filed under Superfund statute. Following the 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. Funds will be dedicated to projects which restore, rehabilitate, replace, or acquire the equivalent of the injured natural resources according to relevant statutes such as the National Environmental Policy Act (NEPA) and NRDAR. The trustees’ goal is to restore the health, productivity and diversity of injured natural resources and the services they provide in the Coeur d’Alene Basin.

The Trustees formed a Trustee Council (TC) to guide this process consisting of designated representatives from each trustee. The TC provides oversight, administration,

11/07/12

and direction for the use of settlement funds. A Natural Resources Restoration Team (NRRT) was also created comprised of representatives from trustee agencies. This team's mission is to develop and implement a restoration plan to restore the health, productivity and diversity of injured natural resources and the services they provide for present and future generations.

The natural resource trustees are beginning to develop a Restoration Plan Environmental Impact Statement following the National Environmental Policy Act (NEPA). This plan will be a comprehensive guide for restoration of injured natural resources in the Coeur d'Alene Basin and will be coordinated with remediation activities. The planning process is underway and will include the development of sub-basin assessments, adoption and implementation of a coordinated public outreach plan, public scoping, production of a draft plan, a public comment period, followed by response to comments, and finalization of the plan for restoration in the Coeur d'Alene Basin.

During 2013, the trustees will continue to coordinate with the BEIPC, participate in Project Focus Teams (PFTs), and provide updates on restoration planning efforts and ongoing implementation of projects that were identified in the 2007 Interim Restoration Plan. The NRRT will continue to coordinate with EPA to integrate restoration planning with remediation. The natural resource trustees' work in 2013 will include, but are not limited to, the following projects:

- Pine Creek Restoration: stream channel and floodplain restoration activities led by BLM such as riparian vegetation plantings and ongoing monitoring for success evaluation.
- Schlepp Easement Restoration: ongoing wetlands habitat management led by FWS will continue as well as success monitoring.
- Robinson Creek Wetlands Restoration: wetlands habitat restoration led by IDFG will begin with design assistance by IDEQ and other trustees.