



BEIPC

Basin Environmental Improvement Project Commission

1005 W. McKinley, Kellogg, Idaho 83837

(208) 783-2528 • FAX: (208) 783-4561 • <http://www.basincommission.com> • info@basincommission.com

Terry Harwood
Executive
Director

November 6, 2019

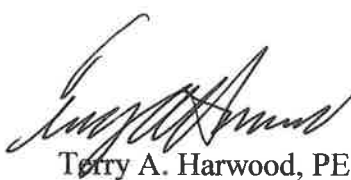
To: BEIPC Commissioners, Alternates, Staff, TLG and CCC Chairs

From: BEIPC Executive Director

Subject: BEIPC November 20, 2019 Quarterly Meeting

Enclosed is the meeting packet for the upcoming November 20, 2019 BEIPC Meeting. The meeting will begin at 9:30 AM at the Coeur d'Alene Inn, 506 Appleway Ave, Coeur d'Alene, Idaho. Lunch will be provided for Commissioners, Alternates, Staff and CCC and TLG Chairs. Separate arrangements will be made for an Executive Session during lunch between the Commissioners, Alternates and the Executive Director.

If you have any questions call me at 208-783-2528 or e-mail at terry.harwood@deq.idaho.gov.



Terry A. Harwood, PE
Executive Director

Enclosure

November 20 BEIPC Meeting Packet Items

- Draft November 20, 2019 Meeting Agenda
- Meeting Guidelines
- Abbreviations and Acronyms
- Draft August 21, 2019 BEIPC Meeting Minutes
- Revised BEIPC Organizational Practices and Procedures
- Listing of Input, Questions, Concerns, and Discussions for inquiries to the Executive Director and from the last CCC and BEIPC Meetings
- Draft 2020 Annual Workplan
- Draft 2020-2024 Five year Workplan
- CDA Basin Fish Tissue Consumption Guide

Basin Environmental Improvement Project Commission

Draft Meeting Agenda

November 20, 2019, 9:30 AM – 3:45 PM

Coeur d'Alene Inn, 560 Appleway Ave, Coeur d'Alene, Idaho

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|----------|---|
| 9:30 AM | Call to Order and Pledge of Allegiance |
| 9:35 AM | Approve Minutes from the August 21, 2019 Meeting. (Action Item) |
| 9:45 AM | Review and Discuss Draft 2020 Annual Work Plan |
| 10:30 AM | Public Comment and Input on Work Plan |
| 10:40 AM | Approve 2020 Annual Work Plan. (Action Item) |
| 10:45 AM | Break |
| 11:00 AM | Review and Discuss 2020-2024 Five Year Work Plan |
| 11:45 AM | Public Comment and Input on Five Year Plan |
| 11:55 AM | Approve 2020-2024 5 Year Work Plan (Action Item) |
| Noon | Lunch and Executive Session; Commissioners, Alternates and Executive Director Under Idaho Code 74-206(1)(b) |
| 1:15 PM | Outreach Activities during the last quarter – Terry Harwood |
| 1:30 PM | LMP Update – Jamie Brunner, IDEQ |
| 1:45 PM | Recreation PFT Update – Dan McCracken, IDEQ |
| 2:15 PM | CCC and Public Input Session and Discussion |
| 2:45 PM | Break |
| 3:00 PM | Blood Lead Report – Andy Helkey, PHD |
| 3:45 PM | Adjourn |

BEIPC MEETING GUIDELINES

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

ABBREVIATIONS AND ACRONYMS

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

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

(Updated January 2018)

DRAFT

BASIN COMMISSION (BEIPC)

August 21, 2019

MEETING MINUTES

Basin Environmental Improvement Project Commission
Draft Meeting Summary Minutes
August 21, 2019, 9:30am– 4:30pm
Wallace Inn, 100 Front Street, Wallace, Idaho

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

Attendees included the following:

Terry Harwood (BEIPC Executive Director)

Commissioners and Alternates present:

Jack Buell (Benewah County), Brook Beeler (Washington State), David Allnutt (EPA), Phil Cernera (CDA Tribe), John Tippetts (IDEQ), Michael McCurdy (IDEQ)

Staff present:

Gail Yost (BEIPC, Assistant to E.D., Note taker), Dan McCracken (IDEQ), Ed Moreen (EPA), Jerry Boyd (CCC Chair), Dana Swift (IDEQ), Sandra Treccani (Washington State)

Call to Order and Pledge of Allegiance

The meeting was called to order by Commissioner Chair Jack Buell at 9:30 a.m. followed by the Pledge of Allegiance.

Approve Minutes from the May 22, 2019 Meeting: (Action Item)

Brook made a motion to approve the May 22nd meeting minutes, John second – he also complimented the staff, the notes were comprehensive and very well done. All approved **M/S/C**

****Note:** Ed Moreen had sent in a couple of edits correcting a phrase on page 5, another on page 12 and 13. Phillip Cernera and Rebecca Stevens sent in edits after the meeting, noting word changes on page 3, and the same edits as Ed on page 5. All changes were made and the minutes have been posted on the Basin Commission website. If anyone has any particular questions, please get a hold of Gail.

Outreach Activities during the last quarter – Terry Harwood

There have been several outreach publications produced and distributed by the EPA since the May BEIPC meeting to keep the public informed. Those include:

- July Basin Bulletin
- The Basin Commission Tour handout for today's tour
- The Nine Mile Basin Summer Fieldwork flyer – all flyers produced and distributed for the community so they are aware of projects happening in their area.
- The Canyon Creek Basin Summer Fieldwork flyer

- The Blackcloud Creek Remedy Protection Project flyer – we will be driving by today on our tour as we go up Nine Mile. We are unable to stop due to the Paved Roads program work on Nine Mile Road.

EPA has also continued to contribute to health signs at recreation sites and regularly posting on the CD'A Basin Facebook Page.

Places you might have seen Panhandle Health District:

- Partnering with EPA and presenting at Environment Day for Leadership Coeur d'Alene
- Giving Lead Health Education at Mullan School and Pinehurst Elementary
- Hosting a booth and presenting at The Great Idaho STEM Together Conference for Idaho Science and Math Teachers
- Hosting a pizza party/informational event along with a handwashing activity for residents of Canyonside Apartments. The Canyon Creek Repository will be going in right across from these apartments and old tailings ponds are also adjacent.

Today until Sunday Panhandle Health District, IDEQ, The Basin Commission, EPA and the University of Idaho are all hosting a booth at the North Idaho Fair, we hope to see you there!

Last week, the annual Blood Lead Screening event took place in Kellogg. Andy Helkey will present on this at either the upcoming November or February Basin Commission meeting.

Future events:

PHD will be at Coeur Fest in Coeur d'Alene on Sept. 7th and Shoshone Medical Center's Kid's Wellness Fair on Sept. 21st.

Listing of Input, Questions, Concerns and Discussions from the public, CCC and government officials since the last BEIPC meeting

- Continued to support the work of the COE and the local Flood Group concerning the COE Grant to develop hydraulic loading data for flood control on the South Fork CDA River including providing survey data to the COE. Report on work should be ready in the fall. The study from Wallace all the way to Pinehurst should reduce the size of the flood inundation maps and be more reasonable for homeowners paying for flood insurance.
- Assisted Congressman Fulcher's Staff on conference call with FEMA and Local Flood Group concerning COE analysis of hydraulic loadings in the South Forth and the effects of the Remedy Protection Flood and Storm Water Runoff Control Program.
- Addressed a number of concerns from the public about the condition of CDA Lake and what if anything can be done under CERCLA.
- Met with Congressman Fulcher's staff on Bunker Site and CERCLA issues.
- Set up and held a tour of Upper Basin remedial sites for Kootenai County Commissioner and Congressman Fulcher's North Idaho Director with EPA and CDA Trust representatives.

- ED attended a Silver Valley development meeting to discuss opportunities for redevelopment on remedial lands. This includes filling 'holes' in the valley with structural waste from the Roads program that is not highly contaminated and capping it.
- Continued to work with Silver Valley Transportation Team on transportation needs in the valley. These include public roads in the valley that do not belong to the State of Idaho, Forest Service or the BLM. In the process of resurfacing over 600 paved road segments.

Report on National Advisory Council for Environmental Policy and Technology – Terry Harwood

Executive Director a member of the National Advisory Council for Environmental Policy and Technology and attended a Council meeting in Washington DC working on federal policy for national environmental issues. Terry was selected to head one of three committees – working with stakeholders. The issue they are currently addressing is solid waste disposal in arctic climates like Alaska. Some of their garbage currently gets shipped by barge down to Seattle and hauled out to central Washington State. Global warming is melting the ice pack and the water is rising, forcing communities along the shoreline up on the hills leaving the mess to go back into the ocean. Another way they dispose of garbage is to take the top soil off down to the perma frost layer, put their waste in and cover it back up, making an effort to try and reduce the volume – but now the perma frost is melting. It is a big problem up there – talking about durability of equipment and electronics – cutting down on the waste.

Tour Highlights – Ed Moreen, Bonnie Arthur, Tamara Langton, Kim Prestbo, EPA

Kim Prestbo started the tour highlights slide show talking about the Groundwater Collection System and the Central Impoundment Area. The CIA was constructed in 1928 by the Bunker Hill Mining Company. It has long been known as a potential source of groundwater, discharging metals into the South Fork. EPA has been conducting consistent groundwater monitoring since 2004 and have known for some time about a notable increase between Kellogg and Smelterville in terms of a bump in dissolved base metals that were loading into the river. The concentrations and amounts over a five-year review period average about 509 pounds per day of zinc going into the SFCDR from one particular source alone. This amount varies, but during low flow like now you have concentrations in that portion of the SFCDR that are about seven times the aquatic criteria. Their goal with this remedy was to capture that groundwater and treat it, up to 3,000 gallons/minute, in the Central Treatment Plant which is already treating mine water. The three elements to this program are the line of extraction wells along the north; soil bentonite slurry wall along the CIA that does two things: it contains the groundwater they are trying to capture and prevents them from capturing surface water from the SFCDR. The goal is to capture up to 90% of the loading that goes into the SFCDR. With the extraction wells and slurry wall in place the third element is a conveyance line that is currently under construction. The water that is collected will go up the line to the Central Treatment Plant, will be treated and then back down the effluent line, discharge into an outfall diffuser and into the SFCDR.

John Tippetts asked about the bentonite wall – are the two openings going to be closed and she answered yes. With the completion of the conveyance line, and the timing of when the CTP will

be able to accept water, they will test the extraction wells and run the system through winter with the wall open, then close the gaps sometime in the spring and continue with necessary testing. Terry pointed out that this area was used as a settlement area and has always been a problem. It wasn't caused by the cleanup but how the industry developed the area. Kim agreed, who knew that groundwater was going to be a major issue and continuing problem.

Kim also touched on the seepage and settlement areas along I-90 which they have been monitoring closely as well. The seeps slowed down in March and stopped in early April, then reappeared around July and continue to be active. I-90 has settled slightly since it was last paved the end of March – Idaho Transportation Department (ITD) is monitoring this closely through surveying and watching the road. They expect to probably re-pave these areas, as they don't expect a catastrophic change but may continue to settle. The current river seeps migrate weekly up and down the channel about a 150 foot zone. The main things responsible for these seeps as we get into base flow, the river becomes more gaining, more groundwater starts to discharge into river and you see more seeps. As they get into the higher adit and river flows, they go away. Phil Cernera asked what sort of water quality sampling you are doing beside turbidity. Kim answered they are monitoring water quality with a piezometer at the main seep and conductivity regularly, which is a good real time indicator that groundwater is coming in versus just the surface water. IDEQ has collected surface water samples as well as USGS. The metals concentration in the water quality samples we are collecting is not significantly different than what we've always measured.

Ed Moreen will speak about the CTP upgrades and the sludge impoundment area. The CTP was constructed in 1974 and stayed that way until 2005, when EPA put in a new control building with automated controls, new lime silos along with upgrades and painting the clarifier/thickener. The old system was worn out and was in need of an upgrade. The plant was constructed by Bunker Hill to deal with their industrial waste water and acid mine drainage coming out of the Bunker Hill mine. Today it pretty much just treats the acid mine drainage at about 2 million gallons/day. The upgrade is needed to be able to take on the additional groundwater collection system and have the capacity to treat both. EPA has been operating this plant for over 20 years. They continue to do so through the upgrades, making sure the water is treated through temporary and existing means. Upgraded features include new reactor tanks, new sludge thickener, and filter building with 7 filter tanks inside. This contract is a design/build/operate, so the contractor had the responsibility to do all the design, complete the construction while operating the plant. They will continue to operate for one year after completion and performance testing. Things are moving quickly as they need to be up in running in the next few months.

The new Sludge Impoundment Area on top of the CIA is a lined facility that has an estimated 30 year capacity. The old sludge pond is about a foot from its full capacity. We have not found a

way to reprocess the sludge so it needs a place to go. We won't be quite high enough from our perch today to be able to see it.

Ed also touched on the Paved Roads program. Mac Pooler spoke about the work in Kellogg with the completion of their roads work, along with the water and sewer upgrades. After 4 ½ years of hard work, he really appreciated the collaboration between all parties involved. Ed stated the roads are complete in Smelterville, Wardner, East Side Highway District, Pinehurst, Osburn, Wallace and Mullan. 2019 focused on Kellogg and Shoshone County including Pine Creek Road. Kellogg's construction was in addition to the city wide utility work. There is a question whether the County will get their 11 road segments done this year due to high demand of paving contractors. We will get to see some of these roads on the tour today.

Bonnie Arthur talked about projects up Nine Mile – the Nine Mile Fishing pond, the roads program and a culvert project also up Nine Mile at Black Cloud. She showed a slide on the mine and mill sites, some still under investigation. You'll be able to see Success and Interstate sites under construction today. They were hoping for a safe place to stop the buses to look at the culvert project, but Terry will be able to talk about that at the Fishing Pond stop. Bonnie mostly works on the big mine and mill sites; a lot of those are not cleaned up yet and won't be anytime soon. The recreational team is continuing their educational outreach as they want everyone to get out and enjoy the outdoors. This team consists of representatives from IDEQ, PHD, CDA Tribe, EPA and CDA Trust. Their continual outreach includes new signage throughout several locations where people recreate. The team is looking at some of the recreational sites – starting small like the Nine Mile Fishing pond which is complete. Sampling efforts here showed that the concentrations were 15 times higher than our lead cleanup levels. This was an amazing effort by all as the turnaround time only took 22 days. Terry added that some of the work in the lower basin is continually re-contaminated by high waters every year, figuring out how to best approach recreational facilities along the river. Bonnie stated the team has done such a great job remediating the yards, but the blood lead testing done every year shows that most of those children that come in with elevated levels have been out recreating.

Phil asked what the water quality is like in the pond and the fishery. Bonnie answered that it's a stocked fishery and regularly used. The water coming in is from above the west fork and Dayrock mine. She also stated they are trying to keep the kids out of it as they believe the sediments within the pond are contaminated with lead. With these recreational sites, they do not do a full clean up but limit exposure and move on to the next. Terry mentioned Gene Day Pond in Osburn, same kind of cleanup – not draining and dredging the pond. Kim Alexander from the Dept. of Ecology wondered if you're putting fish into a pond that you don't want children in do the fish pick up the toxins too. Bonnie said the fish are not in the pond long enough for the uptake. Ed Moreen stated there was an Idaho Fish Consumption Advisory program that looked at fish in the Basin – Dan McCracken added fish tissue samples was taken throughout the Basin,

several fish directly from the South Fork where we see higher contaminated sediment deposits than what is in the bottom of this particular pond. The findings were that lead and arsenic, which is the primary human health contaminants of concern, weren't driving the consumption advisory. The fish advisory came from mercury in bass and pike, fish higher up on the food chain. There were no significant health concerns showing up from lead and arsenic in the fish tissue samples they took from native and non-native trout species in the South Fork – presumably they were spending longer down in the sediment than the stocked rainbow trout in the pond. Terry asked when the final findings from this study were going to be available – Dan said they were expecting it soon but still not officially released yet.

Matt Nykiel wanted to go back and ask a question on the CTP – has there been any further study done whether the plant with the upgrades can remove nutrients, just because of the impact that taking the zinc out of the lake and not also removing more nutrients could have some unintended consequences? Ed answered they don't know what kind of impacts the treatment plant will or won't have. There is zinc in some of the wells water we collected. They do have a monitoring program underway that will be implemented in the near future, but we don't have a plant that's up and operating and we don't have a treatment system that's pumping water yet. Those are two primary components to monitoring – we want to have data from water coming into the plant and the effluent from the plant after being treated. There are a number of things we can do to enhance removal of nutrients, but until we know what or if there is a problem there's nothing we can do. First step is to determine if there is a problem and if there is something we should do to enhance that removal or look at other technologies. What we do know is typically iron co-precipitation, which is what's happening when you add lime to these metals and the metals settle out so efficiently, is also very effective in removing phosphorus which is the nutrient the Tribe has identified as something to be concerned about. We do have a program that's about to begin to be implemented for monitoring. Matt – when it's discharging? Ed answered yes – and probably before that as they collect samples to determine if there's any other phosphorus in the system.

Tamara Langton introduced herself – she manages the budget and will be coordinating the next 5 year review of the Bunker Hill site. This final report is due in November 2020. The Superfund law mandates that we need to do these 5-year reviews to see how effective we are or have been. She also oversees the CDA Trust on their projects and has been involved in the activities up Nine Mile. So you will be able to see the changes since last year's tour on the site today. At the Success complex – last year you saw a steep hillside with not much vegetation and the creek running through a pipe. Now you will be able to see the creek in a channel and the road now on the other side. This is the fourth and final year for the cleanup at Success site. At the end of this construction season all the waste will have been removed and placed up at the Waste Consolidation Area, and all the revegetation will be in place and monitored. We will also go up the canyon by the Interstate Mill site cleanup which just started this June. They are installing

access roads and excavating mine waste, which should be about 40,000 cu.yd. estimated for this construction season. Like Success, the creek is involved, access road moved and vegetation on the hillsides. The differences to the Waste Consolidation Area – more leveling off of the lower part of the consolidation area and a liner placed on the steep slope which we will hopefully still see some of today. They have taken some trees out for the expansion area – which will see future waste from the Tamarack Complex and Dayrock Mine.

Matt asked a general question for the EPA – at the last meeting Sheryl stated that EPA would investigate whether or not Superfund funding would be used to protect the remedy in the lake, even though the lake is not part of the ROD, has any further investigation gone on as to whether that's possible? Jeff Philip from EPA answered they have discussed it internally and found that we can use EPA funds on some of the work. We are working with the Tribe to increase funding for lake monitoring but haven't figured out exactly, but yes we can apply some of our resources to working on the lake.

Terry missed introducing David Allnut as acting director for EPA Region 10 as Sheryl's replacement for the BEIPC. He also introduced the Governor's North Idaho representative Jake Garringer. A motion was made to adjourn this part of the meeting **M/S/C**.

Tour of Projects

Begin loading buses to leave at 11:00 with the first stop in Smelterville. Observe the CIA Groundwater Collection System Work Area with a summary and update from Kim Prestbo, EPA.

Travel to Kellogg for Lunch and Rest Stop at the City Park. Next stop is the IDEQ Office for an update on the CTP Construction status from Ed Moreen. Dan McCracken also gave an update on the Paved Road Program on McKinley Avenue.

Drive to Nine Mile Fishing Pond with a rest stop at Wallace on the way. While at the Nine Mile Fishing Pond, there was an update on the Black Cloud Remedy Protection project, Nine Mile Road Paving and Nine Mile Fishing Pond projects from Terry Harwood, Dan McCracken and Bonnie Arthur.

Next travel to the Interstate Site, East Fork Nine Mile Creek, for an update on the Interstate and Success Remedial Actions from Tamara Langton.

We were unable to drive up to the Waste Consolidation Area due to the buses being unable to navigate the road and turnaround. Traveled back to the Wallace Inn and adjourn.

Revised BEIPC
Organizational Practices
and
Procedures

Basin Environmental Improvement Project Commission Board Organizational Practices and Procedures

INTRODUCTION/OVERVIEW

The Basin Environmental Improvement Project Commission (Basin Commission) is established by Idaho State law to implement, direct, and/or coordinate environmental remediation, natural resource restoration, and related measures to address water quality and heavy metal contamination in the Coeur d'Alene Basin¹ of Idaho in a manner that is protective of human health and the environment, and consistent with local, state, federal, and tribal participation, resources, and authorities. The Basin Commission works through the direct exercise of certain authorities of the state of Idaho (as described in Section 39-8106 of the enabling legislation) and through its coordination with other entities and government and their exercise of independent authorities.

FUNCTIONS

The primary purpose and foundation of the Basin Commission's work is to implement the 2002 Record of Decision approved pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), implement/coordinate the Lake Coeur d'Alene Management Plan, and implement/coordinate other plans to address heavy metal contamination in the Coeur d'Alene Basin. Future related Records of Decision issued by the USEPA, with concurrence from the Idaho Department of Environmental Quality and the Coeur d'Alene Tribe, as appropriate, may be incorporated into the Basin Commission's work.

Key functions of the Basin Commission Board are to:

1. Annually approve its one- and five-year workplan, including annual priorities and budget;
2. Develop one- and five-year progress/activity reports;
3. Direct the implementation of its workplan;
4. Appoint an Executive Director to assist the Board in administering its workplan;
5. Receive advice from the Technical Leadership Group (TLG) and Citizen Coordinating Council (CCC) on technical and regulatory issues before the Board;
6. Consult with, and represent the interests and concerns of, organizations, entities, and constituencies it represents;
7. Regularly review the membership and functionality of the two groups (TLG and CCC) established to provide advice to the Board on technical, regulatory, and other issues; and
8. Exercise other duties as described in the Idaho legislation in Section 39-8106.

¹ The Basin Commission conducts its work in the Coeur d'Alene Basin of Idaho, which includes the watershed of Coeur d'Alene Lake within the counties of Shoshone, Kootenai, and Benewah, as well as the Coeur d'Alene Reservation located within the state of Idaho. Remedial actions, authorities, and duties to be exercised in Washington shall be undertaken independent of the Basin Commission's operational framework.

MEMBERSHIP

Per Idaho Public Law 39-8106(3), the Board shall include one (1) representative of the State of Idaho and one (1) representative for each of the county Commissions of Shoshone, Kootenai, and Benewah counties of the State of Idaho as appointed by the Governor of the State of Idaho. Through agreement or compact, the Board shall also include one (1) representative of the State of Washington appointed by the Governor of Washington, one (1) Tribal Council member of the Coeur d'Alene Tribe appointed by the council of the Coeur d'Alene Tribe, and one (1) representative of the United States of America appointed by the President of the United States of America.

Alternates: The appointing authority of each Commissioner may designate a primary alternate who may attend Board meetings in the event the Commissioner cannot attend.

Proxies: Proxies shall not be used for any purpose.

Filling Vacancies: Board vacancies shall be filled using the same process and criteria used to establish the Board (described above and summarized in Idaho Public Law 39-8106(3)).

ORGANIZATIONAL STRUCTURE

Chairperson: The Board shall elect from its own members a chairperson whose term of office shall be two years and who can be re-elected. The chairperson shall be responsible for convening and managing Board meetings and shall work with the Basin Commission Executive Director (or staff) and the chairs of the TLG and CCC to set meeting agendas. If a vacancy occurs, the Board shall fill such a vacancy for the unexpired term at its next meeting.

Vice-Chairperson: The Board shall elect a vice-chairperson in the same manner as the chairperson. The vice-chairperson shall serve as chairperson in that person's absence.

Secretary-Treasurer: The Board shall elect a secretary-treasurer in the same manner as the chairperson. The secretary-treasurer shall be the primary point of contact between the executive director and the Basin Commission for ensuring preparation by the executive director or other appropriate staff of meeting summaries, records of financial transactions and an annual public accounting for presentation to the Basin Commission.

Staff Support: To the extent resources allow, the Board shall hire and assign staff, including an Executive Director, to provide administrative support to the Basin Commission Board to support its overall deliberations. The staff shall be responsible for making logistical arrangements, distributing agendas and meeting materials up to seven (7) days in advance of a Board meeting, providing for adequate public notice of the meeting, and preparing Board meeting summaries. As well, the Basin Commission staff, through the Executive Director, will help arrange opportunities for the Board to interact with the representatives of the Citizen Coordinating Council and the Technical Leadership Group, and the Public.

MEETING SCHEDULE/STRUCTURE

Meeting Schedule: The Basin Commission Board shall meet at least four times per year. The Board shall fix a predictable sequence of meeting dates. Board meetings shall occur throughout the area of the Basin Commission's jurisdiction. All meetings shall be announced in area newspapers (e.g., the Coeur d'Alene Press, Shoshone News Press, Spokesman Review [Idaho and Washington], Idaho News Observer, St. Maries Gazette) and shall be posted on the Basin Commission's website. Meeting times and dates shall be arranged to best meet individual Commissioner's schedules. Commissioners can attend meetings by telephone or videoconference, if suitable arrangements can be made.

Agendas: Basin Commission Board meeting agendas shall be developed by the Board chairperson, in consultation with the TLG and CCC chairs and the Basin Commission Executive Director (or staff, if not available). Every effort shall be made to circulate to the Board, the TLG, and the CCC membership and post to the Basin Commission website any agendas and meeting information at least seven (7) days in advance of the meeting. All Commissioners shall make a strong effort to identify and include in the proposed meeting agendas any issue upon which the Board may be asked to vote. The chairperson shall every effort to notify board members of any meetings that include One-Year or Five-Year workplan final decisions at least twenty (20) days in advance of the meeting.

Meeting Summaries: A designated member of the Basin Commission staff shall develop and circulate to the Board and staff for review the Board meeting draft summaries. In accordance with Idaho Open Meeting Law (at Idaho Code 67-2344), meeting summaries shall include a record of all Commissioners who are present, as well as note of all motions and resolutions proposed and their disposition and the results of all votes. Every effort shall be made to circulate these summaries within ten (10) days of every Board meeting. Final meeting summaries shall be posted on the Basin commission website and circulated to Commissioners and any other person requesting them. Every effort shall be made to rely on electronic media. All meeting summaries and Commission records shall be archived and made available to the public upon request in a timely manner.

Public Comment: All Basin Commission Board meetings shall be open to all interested parties, in accordance with the Idaho Open Meeting Law (Idaho code 67-2340 through 67-2347). Opportunity for public comment shall be provided at every official Board meeting. During this time, members of the public shall be allowed to address the board when recognized by the chairperson. The chairperson may ask individuals to limit testimony to five minutes per individual speaker and ten minutes per group. As well, members of the public shall be permitted to file written statements with the Board at any time.

Executive Session: By a two-thirds vote of the Commissioners, the Basin Commission may hold an executive session to continue deliberations, as set forth in Idaho code 67-2345. No executive session may be held for the purpose of taking any final action or making any final decision.

Expenses: All Commissioners serve without compensation by the Basin Commission. Commissioners may be reimbursed for expenses according to their participating governmental entity's rules and regulations.

DECISIONMAKING

Voting: According to Idaho Code 39-8106(4), “the board shall act by majority vote except that the vote of any Commissioner representative of the State of Idaho, the Coeur d’Alene Tribe or the United States of America, or the unanimous vote of all three (3) Commissioners representing Shoshone, Kootenai, and Benewah counties may veto any majority vote.”

Quorum: A quorum shall be required for any meeting of the Commission Board. A minimum of four (4) Commissioners or designated alternates shall be in attendance to constitute a quorum. An action of the Board requires a majority vote of the Commissioners, not a majority vote of the quorum.

Good Faith: All Commissioners agree to act in good faith with respect for the interests and concerns of other commissioners. The Commissioners agree to establish a free, open, and mutually respectful exchange of views, ideas, and information. Personal attacks and prejudiced statements will not be tolerated.

Parliamentary Procedure: *Robert’s Rules of Order Newly Revised* shall be the authority for all questions of procedure at any Basin Commission Board meeting. The chairperson (or vice-chair) shall be responsible for assuring proper procedures are followed.

Press Inquiries/Contact: In responding to inquiries from or initiating contact with the press or other media representatives, Commissioners agree to refrain from characterizing the views of opinions expressed by other Commissioners and to exercise comity and appropriate restraint in commenting on the Board’s deliberations and processes. Publicly available meeting summaries will identify specific recommendations or decisions made by the Board.

Adoption of Protocols: These Organizational Practices and Procedures become effective when a majority of the Board votes to adopt them.

Amendments: These Organizational Practices and Procedures may be altered, amended, or repealed and new Organization Practices and Procedures may be adopted by a majority of the Board. These Organizational Practices and Procedures shall not be altered, amended, or repealed, nor shall any new protocols be adopted at any regular meeting of the Board unless notice of such is given with twenty (20) days notice.

**Listing of Input, Questions,
Concerns and Discussions
for inquiries to the Executive Director
and
from the last CCC and
BEIPC Meetings**

Listing of Input, Questions, Concerns and Discussions from the public, CCC and government officials and public outreach activities since the last BEIPC meeting:

- Continued to support the work of the COE and the local Flood Group concerning the COE Grant to develop hydraulic loading data for flood control on the South Fork CDA River including providing survey data to the COE. Will be meeting with COE, locals and FEMA for further discussions on flood map revisions.
- Addressed a number of concerns from the public about the condition of CDA Lake and what if anything can be done under to reduce nutrient loadings to the lake.
- Continued to work with Silver Valley Transportation Team on transportation needs in the valley.
- Executive Director was a member of the National Advisory Council for Environmental Policy and Technology and was working on issues with NACEPT and EPA Region 10 and headquarters. In October the President disbanded the NACEPT and many other government advisory groups by Executive Order. No other work anticipated on this topic.
- Continued to assist the EPA and Trust on a number of private landowner issues
- PHD, IDEQ, EPA and BEIPC cohosted a booth at the North Idaho Fair
- PHD hosted a booth at Coeur Fest at McEwen Field in Coeur d'Alene
- PHD, IDEQ and EPA hosted a booth at the annual Shoshone Medical Center Kid's Wellness Fair
- IDEQ hosted a field trip for students from Spokane Community College
- EPA issued the November Basin Bulletin newsletter (this will go out the week of Nov 18)
- PHD practiced good handwashing techniques with students at the Coeur D'Alene Tribe's Running Start
- EPA continues to post project activities, accomplishments, and opportunities on our CDA Basin Cleanup Project FB page
- IDEQ and PHD assisted the Confluence Project field trip for Coeur d'Alene High School
- IDEQ and PHD traveled to Moscow to be guest speakers for an Environmental Science Class at the University of Idaho
- PHD hosted a booth at Trunk or Treat held at Silver Mountain's parking lot
- PHD hosted a booth at the annual Our Gem Symposium

DRAFT
BASIN COMMISSION (BEIPC)
2020
ANNUAL WORK PLAN

BEIPC Coeur d'Alene Basin Calendar Year 2020 Work Plan

INTRODUCTION

This plan covers proposed environmental cleanup and improvement activities in the Coeur d'Alene Basin scheduled for CY 2020 by the Basin Environmental Improvement Project Commission (BEIPC) and coordinating agencies and governments in accordance with their responsibilities as stated in the Memorandum of Agreement (dated August 2002). Actions noted in the plan are intended to implement the goals and objectives of the BEIPC's 2020 - 2024 Five Year Work Plan. This plan has been prepared by the Executive Director working with the coordinating agencies and governments with review, input and approval by the Technical Leadership Group (TLG) and review and input from the Citizen Coordinating Council (CCC). The work plan is organized as follows:

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

Part 2 - Other Activities and Responsibilities

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

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

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

PART 1 – ENVIRONMENTAL CLEANUP WORK

For Part 1, the scope of the proposed work corresponds to the source and level of funding anticipated for CY 2020 and work anticipated to be performed by the responsible parties. The proposal includes the following work:

- Human Health Issues including Residential and Community Property and Private Water Supply Remediation, Basin Property Remediation Program (BPRP); Paved Road Remediation Program; Lead Health Intervention Program (LHIP); and Recreation Use Activities.
- Repository Development and Management
- Remedial actions in the Upper Basin including source control actions, water treatment, and related human health activities provided for in the Upper Basin RODA.
- Remedial actions and/or Pilot Projects in the Lower Basin.
- Basin Environmental Monitoring Program

1.1 HUMAN HEALTH ISSUES

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

1.1.1 Residential and Commercial Property Remediation

During 2019, the Trust's Basin Property Remediation Program (BPRP) remediated about 31 properties and sampled eight including residential and commercial properties, rights-of way, and private drinking water sources. Properties remaining to be sampled and/or remediated in the Upper and Lower Basin are those whose owners have refused access or have been unresponsive to repeated contact attempts by the Trust and IDEQ.

The goal for 2020 is to complete sampling and remediation if sampling results are above actions levels on parcels whose owners have granted access. Currently, 216 properties in the Upper and Lower Basin require sampling and 43 properties require remediation based on previous sampling. A total of 3918 properties in the Basin and 3235 properties in the Box have been remediated at the conclusion of 2019. Eight properties in the Box remain to be remediated once owners grant access.

In 2020, EPA will continue to direct and oversee the Trust's BPRP work. IDEQ will continue an oversight and coordination role initiated in 2015 and will continue to encourage property owner hold outs to have their properties sampled and remediated, if necessary.

1.1.2 Paved Roadway Surface Remediation Program

The BEIPC, EPA and IDEQ developed a Roadway Surface Remediation Strategy in 2012 in recognition of some road damage caused by heavy truck traffic during remediation work and potential ongoing risk posed by deterioration of paved roads in remediated areas. The purpose of the program is to address the deterioration of paved road surfaces that are underlain by contamination. Work is intended to ensure road surfaces continue to serve as barriers that reduce or eliminate exposures. There were 593 segments to be remediated in the original strategy. The EPA/IDEQ Roads Board has added 13 segments that were found to meet the criteria for remediation under the program resulting in 606 segments on the current eligible list. The local road jurisdictions are responsible for implementing the program and continuing operations and maintenance of the paved road segments as barriers. Work under this program is being carried out by the local road jurisdictions with funding through IDEQ and the Coeur d'Alene Trust.

As of the end of the 2019 construction season, Wardner, Smelterville, Eastside Highway District, Pinehurst, Osburn, Wallace, Mullan and Shoshone County Box have completed all of their eligible segments in the Paved Roads Program. In Kellogg, all roads that have been excavated during their sanitary sewer project have been completed. Kellogg has two remaining roadway segments to be completed in 2020. They are Bunker Avenue and Wildcat Way. These two projects were put on hold pending the construction of the Bunker Hill Central Treatment Plant. Shoshone County has approximately 50 remaining road segments in the program. Remaining funding in the Basin will be used to address as many of these roadway segments as possible during the upcoming 2020 construction season.

1.1.3 Lead Health Intervention Program (LHIP)

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

In early 2012, the Centers for Disease Control & Prevention (CDC) changed its “level of concern” associated with childhood lead poisoning from a blood lead level of 10 micrograms per deciliter ($\mu\text{g}/\text{dl}$) to a new “reference value” of $5\mu\text{g}/\text{dl}$. The new lower value means that more children will be identified as having lead exposure allowing parents, doctors, public health officials, and communities to act earlier to reduce the child’s future exposure to lead.

Panhandle Health District (PHD) will continue to offer free blood lead screening for residents living within the Bunker Hill Superfund Site boundaries. In addition, PHD will again be conducting its annual summer screening with a \$30 incentive for children between ages 6 months to 6 years of age residing within the Basin for 2020.

When an individual is identified with an elevated blood lead, it is recommended their physician be notified and Panhandle Health District will make an appointment for a home visit to identify potential sources of exposure in and around the home. These in-home consultations help PHD and individual families identify ways to reduce exposure risks. In addition, PHD can help identify potential exposure pathways the cleanup project can address to prevent lead exposures.

Additional Services offered by PHD’s LHIP:

- Year-round blood lead screening and free follow-ups
- HEPA vacuum loan program for cleaning residences
- Education, outreach, and awareness for parents, children, community members, recreationalists, and visitors
- Education classes in local school’s grades K-12
- Annual Environmental Science and Health Fair
- Education and outreach at community events
- Sampling of soil, dust, paint, water, and other media as appropriate

1.1.4 Recreation Use Activities

In 2016, a Recreation Sites Program was created to address and manage human health risks from exposure to lead and other metals that can occur during recreation activities throughout the Upper and Lower Coeur d’Alene Basin. A strategy document was developed to lay out goals, ways to inventory recreation areas, possible ways to manage risks to people, and current outreach activities. This strategy was issued for public and stakeholder comments and suggestions. The strategy and response to community input are available at: www.deq.idaho.gov/playclean.

Addressing contamination at recreation sites is different than other cleanup activities. Many places are recontaminated with each high water event or flood making it difficult to just remove contaminated soil and replace it with clean soil. Other recreation areas are remote, hard to access, and spread out, like hiking trails or ATV areas, making cleanup of the entire area difficult. Overall, different approaches are

needed for the various types and locations of recreation sites. In addition, community outreach and education are important ways to help people manage health risks while recreating. An outreach and education program has been in place for years and will continue to be implemented and expanded.

During 2020, the Recreation Sites Program, which includes EPA, IDEQ, PHD, CDA Tribe, and the CDA Trust, will meet at least biannually to evaluate and discuss priorities. In the Basin, the CDA Trust expects to start cleanup at the Cataldo Boat Ramp, sample other upper and lower basin areas that are known to have high usage by young children, continue to update and install new signage at identified recreation sites, and continue the temporary hand wash station installation at select boat ramps. In the Box, IDEQ and PHD will continue to update signage and evaluate access controls at mine and recreation sites where ATV and other use has been identified. Recreation sites that were sampled last year will receive signage, as necessary, and removal of material waste piles found in unrestricted areas will be coordinated. Planning for further remediation at the sampled recreation sites will continue. The overall goal is to address and manage human health risks from exposure to lead and other metals while maintaining the benefits of recreation for people's health and the local economy.

1.2 REPOSITORY DEVELOPMENT AND MANAGEMENT

Background

There are currently three operational repositories within the OU-3 area; Big Creek Repository (BCR), which includes the Big Creek Repository Annex (BCRA), East Mission Flats Repository (EMFR) and Lower Burke Canyon Repository (LBCR). The Page Repository provides for disposal of remedial and ICP wastes in the Box (OU1 and OU2). Limited Use Repositories (LUR) were initiated in 2015 for the disposal of relatively inert asphalt, concrete, and road base material. Of the four LURs developed, the Government Gulch LUR was closed, capped, and hydroseeded in 2019 after receiving its final 8,000 compacted cubic yards (cy) of material. The others were closed prior to 2019; East Osburn (2015), East Zanetti Yard and Shoshone County Transfer Station (2018). In addition, the community fill project (CFP) developed to accommodate ICP wastes generated by the City of Kellogg's infrastructure projects was closed in 2019 along with the Government Gulch LUR.

Repository development and management is an ongoing process that must meet the demand for disposal of historic mining related contamination for the Basin environmental and human health related cleanup program. This includes the BPRP, Remedy Protection, Paved Roads Program, and other cleanup actions performed by IDEQ, EPA, and the Trust. It also includes waste generated by private parties and local government agencies under the ICP.

BCR is located at the mouth of Big Creek Canyon and primarily serves the Upper Basin. The BCR has received waste since 2002. The BCR has undergone expansions in 2009 (+200K cy), 2011 (+126K cy), and 2017 (+126K cy) increasing its waste holding capabilities. BCR currently has a remaining capacity for approximately 107,000 cy. BCRA was constructed in 2015 and is located adjacent to the original BCR, just southwest of the original site on the west side of Big Creek. BCRA uses the existing BCR access, decontamination, and ICP staging facilities. The initial design waste capacity of BCRA was approximately 190,000 cy and has approximately 171,000 cy remaining.

EMFR is located north of Interstate 90 off Exit 39, near Cataldo, and primarily serves the Lower Basin. EMFR has been receiving waste since 2009. The EMFR was designed with a waste capacity of approximately 410,000 cy. At the current and estimated future waste disposal rates the EMFR is estimated to reach the design capacity in approximately 30 years. Approximately 9,400 cy of waste were delivered to EMFR in 2019. The EMFR has approximately 171,372 cy of volume remaining.

LBCR is located in Burke Canyon on the Star Tailings Impoundment near the community of Woodland Park. The CDA Trust completed the LBCR design and construction in 2015. Approximately 22,300 cy of wastes were received at LBCR in 2019. The remaining capacity at LBCR is about 1,050,000 cy of volume.

The Page Repository is located just west of Smelterville. Having reached its previous design capacity in 2010, Page is being expanded westward to provide capacity for an additional 700,000 cy of waste. Because of the policy change to use LURs to dispose of paved road wastes from the Box Paved Roads Program, the service life of the Page West Expansion was likely extended by 10 years, for a total life expectancy of about 45 years. Page received 27,000 cubic yards of material in 2019 and has an expected remaining volume of 560,000 cubic yards. Page anticipates receiving 25,000 cubic yards of waste in 2020.

Objectives

The Repository Work Plan focuses on the following objectives:

- (1) Box repository operations
- (2) Continued development of Box repository capacity to support remedial action projects in the near term and sustain ICP support in-perpetuity
- (3) Operating BCR, BCRA, EMFR, and LBCR
- (4) Increasing repository volume in the Upper Basin
- (5) Managing the Waste Management Strategy (WMS) including considerations for waste reduction or consolidation.

Specific tasks to achieve these objectives are summarized below:

Box Repository Operations

The estimated waste disposal capacity needed at the Page Repository in 2020 is approximately 25,000 cy which includes Paved Roads, ICP, and Box Groundwater Collection System (GCS) wastes. Page Repository will include but are not limited to the following tasks:

- Receipt and placement of Paved Roads, ICP, and Box GCS wastes
- Segregation and appropriate re-use or disposal of non-soil waste such as wood and root wads, concrete, asphalt, large (greater than 6 inch) rock fragments and miscellaneous demolition debris
- Equipment decontamination, site stabilization, erosion and sediment control installation
- Surface and ground water monitoring and associated reporting.
- Waste stream management to minimize disposal and maximize re-use of high-volume waste materials.

Increasing Box Repository Capacity

2020 work will include placement of concrete debris removed from road surfaces through the Paved Roads Program to continue construction of starter berms and foundation mattress in the Page expansion cells. Other concrete debris received from ICP waste streams will also be utilized as starter berm and foundation mattress material. Expansion cell foundation materials that were placed in 2018 will be allowed to sit for one year to accommodate settling of the soils beneath the foundation mattress. The test was completed, and the observed settlement was consistent with the conditions predicted by the design. That cell is available the deposition of wastes.

Basin Repository Operations

In 2020, Basin repositories and LURs will be operated to accept waste from the BPRP and Paved Roads Programs as well as ICP waste. There is significant uncertainty in waste volume projections for infrastructure (ICP) waste. However, Basin repositories are estimated to potentially receive as much as 25,500 cy from all projects in the Basin. Anticipating those needs, the Basin repository and LUR operations include but are not limited to the following tasks:

- Receipt and placement of BPRP, Paved Roads and ICP wastes
- Segregation and appropriate re-use or disposal of non-soil waste such as wood and root wads, concrete, asphalt, large (greater than 6 inch) rock fragments and miscellaneous demolition debris
- Equipment decontamination, site stabilization, erosion and sediment control installation
- Surface and ground water monitoring and associated reporting
- Waste placement to fill all remaining capacity at BCR
- Transition of operations from BCR to LBCR and BCRA

Increasing Upper Basin Repository Capacity

Increasing Basin long-term repository capacity will be needed to dispose of the waste material generated by the cleanups identified in the OU-3 ROD and the Upper Basin RODA. The Upper Basin RODA adopted a two-part approach to waste management that utilizes both the Waste Consolidation Areas (WCAs) and repositories. Waste generated by remedial actions in the East Fork of Ninemile Creek is disposed of in the WCA, located in the Upper Ninemile drainage. The CDA Trust finalized construction at the WCA in 2016.

A repository siting process, with community input, was developed to identify new repository sites to support cleanup activities in the Upper Basin. First, the LBCR was constructed and began receiving waste materials in 2015. Second, baseline site characterization data was collected, and a 30% design was completed in 2011 at Osburn Tailings Impoundment (OTI). Based on remedial project planning, as described in the RODA, and with close coordination with Hecla Mining Company, activities at the Star Mine Complex in Burke and the OTI design were put on hold to focus on the more immediate needs for repository capacity in Canyon Creek. Third, in 2015 the CDA Trust began evaluating and collecting data to evaluate rebuilding the old Silver Valley Natural Resource Trustee (SVNRT) Repository in Canyon Creek. In 2019 construction began on the Canyon Creek Repository (CCR), which will function primarily as a WCA for source material project wastes in Canyon Creek Drainage and receive the waste material originally held in the SVNRT repository. Originally, the intent was to rebuild the SVNRT repository, but with the construction of the CCR the SVNRT material can be transferred eliminating the need for repository rework and provide correctly engineered containment. The CCR is designed for 1,500,000 cy in addition to the transferred volume of the SVNRT Repository.

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.

Waste Management Strategy (WMS) 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 is updated, as needed, to incorporate additional information regarding the projected waste volumes generated by OU-2 and OU-3 remedial activity and remaining repository capacities. The WMS is developed by EPA and the CDA Trust in coordination with IDEQ and PHD. The Technical Leadership Group and/or the Repository Project Focus Team (PFT) also are involved during key planning intervals.

1.3 ENVIRONMENTAL REMEDIATION ACTIONS

Environmental remediation actions 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 (SFCDAR) and its tributaries above its confluence with the North Fork.

The Upper Basin RODA identified \$635 million dollars of work in the Upper Basin including potential work at 125 mine and mill sites. The 2016 EPA Superfund Cleanup Implementation Plan (SCIP) identifies the priority setting process and outlook for sequencing the work over the next ten years. This document is updated at a minimum of every 5 years, 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:

<https://www.epa.gov/superfund/bunker-hill>

The goals of the RODA include:

- Prioritizing Upper Basin/Box source areas for cleanup to improve water quality and address risks to human health and the environment
- Moving forward on the OU-2 Phase 2 cleanup to improve water quality in the SFCDAR
- Addressing changes in water treatment to accommodate additional contaminated water
- Focusing on source control actions that address particulate lead which poses a risk to human health and ecological receptors, and
- Protecting remedies in community areas 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 CDA River and downstream areas as a result of this work. These actions in turn are expected to reduce the recontamination potential in the Lower Basin and other downstream areas and reduce risks to humans and wildlife from exposure to contaminated mine waste.

This BEIPC 2020 work plan focuses on those cleanup actions that have either already started or been planned for the coming year. The following is expected to be the focus of the Trust in the Upper Basin during 2020:

East Fork Ninemile Basin

Interstate Mill Site Cleanup: The cleanup of this site was prioritized due to its large contributions of dissolved zinc and cadmium to the East Fork Ninemile (EFNM) Creek, as well as its upstream location relative to other source sites in Ninemile Basin. The design of the Interstate Mill Site cleanup was completed in 2018 and cleanup activities were initiated in 2019. Activities included installation of an arched culvert crossing over EFNM Creek to better access the site and removal of a portion of the mine waste. The remaining cleanup activities at the site, including waste removal and EFNM Creek reconfiguration, will be completed in 2020.

Tamarack Complex Design and Cleanup: The prioritization of the Tamarack Complex cleanup is based on metals loading, accessibility to the public, impacts to adjacent roadways, and the upstream location of the sites relative to other source sites in Ninemile Basin. The design of the Tamarack Complex will be completed in 2020 and cleanup will begin in 2021. The cleanup is expected to be completed in 2023.

East Fork Ninemile Waste Consolidation Area: Constructed in 2013, the EFNM Waste Consolidation Area (WCA) provides a location to consolidate mine waste materials, including waste rock and tailings, from cleanup activities throughout the Ninemile Basin. Wastes from the completed Interstate-Callahan Mine/Rock Dumps and the Success Complex cleanups have already been placed and consolidated at this site, as well as the first wastes from the Interstate Complex cleanup.

The EFNM WCA will require expansion following the placement of the remaining Interstate Mill Site cleanup wastes to provide capacity for the waste from the other Ninemile Basin source sites (i.e., Tamarack Complex, Dayrock Complex, and a portion of the lower EFNM Creek riparian area). This expansion will be constructed in 2020.

Data Characterization and Evaluation: In 2020, the Trust will evaluate data collected during characterization work at the Dayrock Mine and in the Lower East Fork Ninemile Creek riparian area.

Canyon Creek Basin

Canyon Creek Complex Repository/Waste Consolidation Area: Similar to the EFNM WCA, the Canyon Creek Complex Repository (CCR)/WCA is being constructed to receive and consolidate wastes from the numerous source areas that will be cleaned up in the Canyon Creek Basin. Construction of the CCR/WCA began in 2019 and will continue in 2020. In the interim to prevent exposure, the area has been fenced to eliminate unauthorized use by pedestrians and ATV's.

Data Characterization and Evaluation: In 2020, the Trust will evaluate data collected during characterization work at the Hecla Star Mine Complex and Tamarack #7.

Pinecreek Basin

Douglas Mine and Mill: The Trust began characterization of the Douglas Mine and Mill site in 2019. Characterization and remedial design will proceed in 2020 with anticipated construction beginning in 2022.

Central Treatment Plant/Central Impoundment Area

Work under the Corps of Engineers Design/Build/Operate Contract to AMEC/Foster Wheeler (now Wood) is well under way. Wood is responsible for the continued operation of the existing Central Treatment Plant (CTP) in Kellogg and the design and construction of upgrades to the CTP along with

the new Groundwater Collection System (GCS). The Corps of Engineers is responsible for administration and management of this contract.

The CTP upgrades are necessary to treat additional influent flow from the GCS, improve system reliability, meet current, more stringent discharge requirements, and to operate in High-Density Sludge (HDS) mode. These upgrades have been necessary for some time to provide dependable and more efficient water treatment of the Bunker Hill Mine discharge water and the groundwater to be collected from the GCS near the Central Impoundment Area (CIA). The Bunker Hill Mine water has been and continues to be treated at the CTP. The upgraded CTP will be designed to treat influent flows at rates that nearly triple the current rate of base flows from the Bunker Hill Mine. Excess flow from the Bunker Hill Mine will be diverted to in-mine storage. The plant is currently not capable of meeting discharge standards when operated in HDS mode; the upgraded plant when operating in HDS mode will result in much less sludge production, more efficient operating conditions, and the need for fewer sludge ponds being constructed over time. Following treatment, the effluent (combined mine water and extracted groundwater) discharged from the CTP to the SFCDAR will be required to be in compliance with current water quality standards. On an average basis, the GCS is expected to result in significant removal of dissolved metals, the most notable of which is zinc that is currently being discharged to the SFCDAR from groundwater interaction, as discussed in the following paragraph.

The GCS design includes an approximate 8,000-linear feet cutoff wall between the CIA and Interstate 90 (I-90), a series of extraction wells, and a conveyance pipeline to the CTP that extends along the north side and over the top of the CIA. Groundwater flow and strength (concentration of metals) varies from base flow/strength (late summer/winter) through maximum flow/strength (spring runoff). By considering seasonal and annual variability and groundwater monitoring well data from south of I-90, the estimated dissolved zinc loading to the gaining reach of the SFCDAR ranges from 150 to 450 pounds per day (lbs/day). A significant unknown is the potential source of metals in tailings under and north of I-90 that will not be captured by the groundwater collection system. However, the optimistic target is to capture up to 90% of the predicted load to this gaining reach from south of I-90.

In 2019, the last of the design packages were finalized and submitted to the Corps of Engineers. Installation of the liner system at the new Sludge Impoundment Area (SIA) was completed. Construction of the slurry wall for the GCS was completed in late 2018 except for 3 gaps, which will be installed in early 2020 after the pumping and conveyance system are completed, tested and accepted. All treatment components of the CTP will also undergo testing and acceptance in late 2019 so that system operators can receive training and fully operate on the new system prior to the 1-year O&M period beginning May 2020. Additionally, the SIA was completed, tested and accepted in late 2019 and will be operational in 2020.

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 dredging. Objectives of remediation in the Lower Basin focus on improving water quality and reducing particulate lead and other heavy metals in the Basin ecosystem.

In 2019, the working sediment transport model was modified as a result of review and input from the Peer Advisory Team and the output from those revisions was documented in the model development report. EPA used the model to characterize baseline conditions in the Lower Basin and simulate the impacts of typical and extreme floods as well as changes to the system over a five-year and 30-year period. This will inform a management plan that targets areas for active remediation, evaluates the effects of remedial technologies, and identifies areas for natural recovery. The results of these efforts

continue to be shared with the subgroups of the BEIPC (e.g. Lower Basin PFT, TLG and CCC), interested stakeholders, and citizen groups.

Informed by the Lower Basin Project Selection Process, EPA will continue to coordinate with the Restoration Partnership in 2020 to advance design on IDFG-owned Gray's Meadow to create clean waterfowl feeding habitat at one of the habitat areas that scored well using the multiple objective decision analysis process. To address contaminated sediment transport in the CDA River channel, EPA will continue working with the LBPFT to finalize the approach for selection of a pilot project for implementation in the Dudley Reach, which is considered the most significant upstream lead loading segment into the river. Several technologies including capping, dredging, splays, and riverbed weirs will be evaluated for feasibility, cost and remedy effectiveness. Several recreation areas will be considered by the recreation subgroup to address lead exposure associated with recreating along the river channel as it is an ongoing concern, as discussed in the Recreation Areas Section.

Additional investigation in the channel and the floodplains will be used to inform the conceptual design and feasibility of specific pilot projects that are being considered for implementation over the next two to five years. In 2020, maintenance and monitoring will continue at the Incremental Thin-Layer Capping site and soil amendments will be field tested at Lane Marsh. Additional disposal capacity will be evaluated in 2020 to serve potential, future lower basin remediation and pilot project implementation.

This work in the Lower Basin will be accomplished while continued cleanup focuses on human health and addressing source stabilization in the Upper Basin. The Upper Basin cleanup is expected to compliment cleanup activities in the Lower Basin by reducing the loading of contaminated materials to the watershed and reducing the potential for recontamination from the Upper Basin to the Lower Basin.

1.4 BASIN ENVIRONMENTAL MONITORING

EPA has continued to optimize and restructure the Basin Environmental Monitoring Program (BEMP) updating data quality objectives and Quality Assurance Project Plans (QAPPs) to better meet both remedial action effectiveness and long term monitoring needs of the cleanup. For over ten years, EPA has implemented the Basin Environmental Monitoring Program (BEMP) to meet the following 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.

The most comprehensive summary of data collected through the BEMP is included in the 2015 Five Year Review. In 2019, EPA will begin to compile the BEMP data that will be summarized in the 2020 Five Year Review.

The USGS surface water sampling results for 2018 is summarized in the following report, available on the EPA Webpage: Coeur d'Alene Basin Environmental Monitoring Program – Surface Water, Annual Data Summary – Water Year 2018 <https://semspub.epa.gov/src/collection/10/SC39274>

The updated BEMP Plan will be finalized in the first quarter of 2020. The updated BEMP Plan is intended to guide the collection, analysis, and interpretation of environmental data while providing flexibility for adaptive management as remediation work is completed and information regarding site conditions evolves.

The updated and revised BEMP is structured into three geographically based tiers:

- Site-specific remedial action (RA) effectiveness and performance monitoring
- Area-wide monitoring focused on geographically related areas and typically encompassing multiple RA sites (e.g., watersheds)
- Bunker Hill site-wide and long-term monitoring with a focus on surface water throughout the entire site.

The BEMP Plan will incorporate the site wide Program Quality Management Plan that was finalized in 2015 and a Site-wide Data Management Plan (also scheduled for completion in 2020).

A RA Effectiveness Monitoring Plan for the Groundwater Collection System (GCS), currently under construction adjacent to the Central Impoundment Area (CIA) in Kellogg, was completed in 2018 and groundwater and surface water monitoring has continued during construction of the GCS along with performance monitoring that is required under the construction contract. Groundwater and surface water monitoring will continue after construction to measure the effectiveness of the GCS. As part of the BEMP surface water monitoring network, the USGS collects discharge and water-quality samples from two stations located at Kellogg and Smelterville on the SFCDAR above and below the GCS. For a limited period following construction and optimization, additional groundwater and surface water samples will be collected more frequently to ascertain the overall efficacy of the GCS. Additionally, the USGS conducted a baseline seepage investigation in August 2017 (prior to construction) to more accurately define the distribution of groundwater seepage to the SFCDAR in the reach between Kellogg and Smelterville, and to quantify the metal loading from both groundwater and surface water along the reach adjacent to the CIA. The information gained from this investigation will be compared to a similar study to be conducted following the construction and implementation of the GCS to more accurately estimate the efficiency of the interception system.

RA Effectiveness monitoring has been ongoing in Ninemile Creek since 2014 to establish baseline conditions, help prioritize work, and assess the effect of source area removals. The source areas in East Fork Ninemile (EFNM) Creek continue to contribute, in aggregate, the largest lead and zinc loads to Ninemile Creek. In 2017, significant source areas in Ninemile Creek that were assessed included the Dayrock Mine, Option Mine, and Dayrock Repository Reach. In general, 2017 was a greater peak flow year than previous years (2014 – 2016). This variation in the hydrologic regime appears to have contributed to the increase in loads observed during 2017.

EPA continues to make available the analytical results from historic data through 2015 via WQX, EPA's Water Quality Exchange. Human health-related residential data is not included in this database. Data management for the Bunker Hill Site is transitioning to Scribe.net, an EPA data management system that will be administered by Bunker Hill stakeholders including EPA, IDEQ, and the CDA Trust with support from the EPA Environmental Response Team. Both WQX and Scribe.net databases include site surface water, soil, sediment, groundwater and biological resource sampling data. During this transition period, site-specific data requests should be directed to the EPA RPM at prestbo.kim@epa.gov.

PART 2 – OTHER ACTIVITIES AND RESPONSIBILITIES

For Part 2, the scope of this work plan recognizes a number of work items that the BEIPC will be involved in and items of work needed to accommodate some of the recommendations of the NAS study; it also includes implementation of the Lake Management Plan by the State of Idaho and CDA Tribe and coordination with activities of the Natural Resource Trustees (Restoration Partnership).

The plan includes the following work:

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

2.1 LAKE MANAGEMENT ACTIVITIES

The OU-3 Interim ROD did not include CDA Lake in the Selected Remedy nor is there a remedy identified in the Upper Basin RODA. The OU-3 Interim ROD anticipated that the State, Tribe, federal agencies, and local governments would implement a Lake Management Plan (LMP) outside the CERCLA (Superfund) process using separate regulatory authorities. The updated LMP was approved in 2009 and implementation has been underway.

As of the summer of 2018, the Coeur d’Alene Tribe has determined that the LMP is inadequate, in itself, as an effective tool to protecting water quality in the Lake and has been in discussions with the IDEQ and the EPA to determine what additional mechanisms/actions are needed to manage the hazardous substances in the lake bed sediments. Therefore, although various aspects outlined in the LMP and listed below are essential to continue to implement the LMP, additional approaches to augment work conducted under the auspices of the LMP are being contemplated. These discussions will continue during 2020.

Below are the objectives outlined in Section 3 of the LMP: These objectives are listed in the order they appear in the LMP, which does not necessarily reflect any prioritization.

1. Improve Scientific Understanding of Lake Conditions through Monitoring, Modeling, and Special Studies. This objective is needed to ensure management actions are effective and efficient, providing a data-driven adaptive management approach.
2. Establish and Strengthen Partnerships to Maximize Benefits of Actions under Existing Regulatory Frameworks.
3. Finalize and Implement a Nutrient Reduction Action Plan. This plan will utilize existing data and ongoing monitoring to identify and prioritize nutrient reduction actions.
4. Increase Public Awareness of Lake Conditions and Influences on Water Quality. Only through awareness and understanding can nutrient management and reductions be achieved. Buy-in is critical to action.
5. Work with EPA to identify funding mechanisms to support water quality monitoring and modeling to inform EPA of their future decisions to call for actions in the Lake.

In 2020, IDEQ and Tribal staff will focus on working with stakeholders throughout the basin to share nutrient inventory information, with the ultimate goal of accomplishing on-the-ground improvements through partnerships.

Increase Scientific Understanding (LMP Objective 1):

1. IDEQ and Tribal staff will independently conduct water quality monitoring throughout Coeur d'Alene Lake for metals, nutrients, and physical parameters.
2. Tribal staff will continue utilizing the AEM3D and LOADEST models. These models are utilizing real-time data that is collected from the Lake and four meteorological stations. In 2020, Tribal staff will reconvene with IDEQ staff after 2 years of model calibration to run water quality scenarios.
3. Draft updates to the Lake Status Report will be provided to the TLG for feedback prior to distribution to the BEIPC.
4. Tribal and IDEQ staff will continue to evaluate water year variability and relationships among measured parameters to help inform stakeholders on possible causative factors for trends.
5. Both the Tribal and IDEQ staff will continue to partner with University of Idaho (UI) faculty at the Community Water Resource Center to explore special studies and research funding.
6. The Tribe will continue to partner with area research universities and organizations to support research that will strengthen the predictive ability of AEM3D.

Nutrient Reduction and Implementation (LMP Objective 3)

1. The nutrient inventory report will be used to begin development of a nutrient reduction action plan in collaboration with stakeholders.
2. IDEQ staff will continue to work with county representatives, and Tribal and IDEQ staff will continue to work with Watershed Advisory Groups and other potential partners to identify and implement nutrient reduction projects.
3. IDEQ staff began the Lake tributary monitoring in 2019 to fill gaps in nutrient loading data identified in the nutrient inventory report. Monitoring will continue through 2020.
4. IDEQ staff established a monitoring site in Wolf Lodge Creek (as of fall 2017). Nutrient monitoring will continue throughout 2020 at this site.
5. IDEQ staff will continue to monitor pilot implementation projects in Windy Bay and on Wolf Lodge Creek to ensure success in plant establishment, and to assist in maintenance needs. These projects will be used as demonstration sites to encourage future implementation projects. Stabilization projects along eroding banks will continue to be evaluated, prioritized, and implemented in collaboration with Avista Corporation, the Natural Resource Conservation Service (NRCS), the Soil & Water Conservation Districts, the Counties, and landowners.
6. Tribal staff will continue to implement a Eurasian watermilfoil Treatment Program as well as aquatic plant surveys in the southern lake, and IDEQ staff will continue implementing aquatic plant surveys within northern lake.
7. Tribal and IDEQ staff will identify potential opportunities to align nutrient reduction and remedial efforts in the Lower Basin.
8. Tribal and IDEQ staff will coordinate with the Restoration Partnership on water quality improvement implementation.

9. Tribal and IDEQ staff will collaborate with area Conservation Districts, NRCS, and Washington Department of Ecology on outreach and monitoring as part of the Resource Conservation Partnership Program (RCPP), an NRCS-funded initiative in the Coeur d'Alene/Spokane River drainage that will increase the availability of funding for Farm Bill conservation programs.

Increase Public Awareness (LMP Objective 4)

1. Tribal and IDEQ staff will partner with Spokane River Forum, CDA Vision 2030, and other agencies and stakeholders to share information and get feedback from the basin-wide community.
2. Tribal and IDEQ staff will continue to partner with UI and Kootenai Environmental Alliance to support Basin high schools by providing workshops and guidance to teachers and students involved in field-based watershed science through The Confluence Project, and will continue to pursue funds to sustain this program.
3. Tribal and IDEQ staff will continue to partner with UI/Community Water Resource Center to develop and support the Baywatchers program, to provide land management information and resources to lakeshore residents.
4. Tribal and IDEQ staff will continue to partner with UI, area high schools, and area environmental organizations to host the annual Youth Water Summit, featuring secondary education watershed research projects as the culminating event of The Confluence Project each school year.
5. Tribal and IDEQ staff will participate in other joint educational and outreach opportunities as time allows.
6. The Local Gems program for local businesses will continue through 2020. This program recognizes businesses and organization that are taking action to protect basin water quality.

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

2.2 FLOOD CONTROL AND INFRASTRUCTURE REVITALIZATION

During 2018 participating governments of the BEIPC and the Upper Basin jurisdictions (Local Flood Group) implemented a Memorandum of Agreement (MOA) to work together on potential flooding issues on the SFCDAR. The local flood group and the BEIPC worked under the MOA with the U.S. Army Corps of Engineers in 2018 and 2019 with funding from a grant to perform flood zone analysis on a portion of the river from Elizabeth Park to Theater Bridge in Smelterville. Under the MOA the city of Kellogg and the BEIPC funded surveys of Federal Emergency Management Agency (FEMA) river cross sections used in 2009 to determine flood flows. The Corps has obtained additional funding to perform some analysis work of the portion of the river from Wallace to Elizabeth Park. Work to determine the best approach to coordinating with FEMA to development new flood inundation maps will be implemented in 2020. Based on the new flood maps it is anticipated that updated analysis of the need for certified levees in the SFCDAR may be also be initiated in 2020. The Executive Director will continue to work with the EPA for implementation of selected in-stream CERCLA remedies included in the RODA. The BEIPC will continue to assist Upper Basin communities and utilities in pursuing funding to implement the remaining needs noted in the Drainage Control Infrastructure Revitalization Plan (DCIRP).

2.3 COMMUNICATIONS AND PUBLIC INVOLVEMENT

During 2020, the BEIPC Assistant to the Executive Director and agency Community Involvement Coordinators (CICs) will work together to carry out public involvement, communication, and education related to BEIPC and agency activities. Agency CICs may include staff from EPA, IDEQ, and the Panhandle Health District.

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

Following is a partial list of community engagement activities and coordination opportunities for 2020:

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

- CICs work directly with EPA, IDEQ, PHD, and BEIPC project managers as needed to tailor communications outreach and/or education for specific projects under the programs listed in this work plan.
- CICs will report their outreach activities at the quarterly Basin Commission meetings, and activities are often reported and discussed at CCC meetings.

2.4 STATE OF WASHINGTON ACTIVITIES

The Washington State Department of Ecology will continue to monitor the status of previous cleanups along the Spokane River. Site visits will be performed, along with visual documentation of performance and sediment accumulation. If changes in sediment accumulation are observed, a portable XRF will be used to measure contaminant concentrations.

2.5 RESTORATION PARTNERSHIP (Partnership)

The Restoration Partnership (Partnership) is composed of the Coeur d'Alene Basin Natural Resource Trustees, comprised of representatives of agencies/governments who have management and stewardship responsibilities for fish, wildlife, and other natural resources in the Basin. They are the U.S. Department of Agriculture, represented by the U.S. Forest Service; the U.S. Department of the Interior, represented by the U.S. Fish and Wildlife Service and Bureau of Land Management; the Coeur d'Alene Tribe; and the State of Idaho, represented by the Idaho Department of Fish and Game (IDFG) and Idaho Department of Environmental Quality. For more information, refer to www.restorationpartnership.org. The Trustees will be reviewing full applications and making funding decisions for restoration projects in 2020 and will continue to update the website above. In 2020, there will be ongoing coordination with EPA with remedy and restoration activities and participation in BEIPC and associated groups and committees.

DRAFT
BASIN COMMISSION (BEIPC)
2020 - 2024
FIVE YEAR WORK PLAN

BEIPC Coeur d'Alene Basin Five-year (2020-2024) Work Plan

INTRODUCTION

This plan for calendar years 2020-2024 covers environmental cleanup and improvement activities in the Coeur d'Alene Basin planned by the Basin Environmental Improvement Project Commission (BEIPC) and cooperating agencies and governments in accordance with responsibilities as stated in the Memorandum of Agreement establishing the BEIPC. This plan has been prepared by the Executive Director with review and approval by the Technical Leadership Group (TLG) and review by the Citizen Coordinating Council (CCC), and is based on their recommendations for activities and work to be performed in CY 2020-2024. Annual work plans will address specific actions from this five-year plan. This proposed five-year work plan is organized as follows:

Part 1 - Environmental cleanup work performed through the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) by the EPA and State of Idaho or work performed by responsible parties.

Part 2 - Other Activities and Responsibilities

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

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

PART 1 - ENVIRONMENTAL CLEANUP WORK

For Part 1, the scope of the proposed five-year work plan corresponds generally to the level of federal and state funding and the funding sources anticipated and work expected to be performed by the Coeur d'Alene Trust over the five-year period, 2020-2024. The 2020-2024 Work Plan proposes a cleanup approach and a listing of priority activities for the 5-year planning period.

The proposal includes the following work:

- Human Health directed activities including Residential and Community Property and Private Drinking Water Supply Remediation (Basin Property Remediation Program, BPRP), the Paved Road Remediation Program, and the Recreational Sites Program.
- Lead Health Intervention Program (LHIP)
- Repository Development and Management
- Remedial actions in the Upper Basin including source control actions, water treatment, and related human health activities provided for in the Upper Basin RODA.
- Remedial actions and/or Pilot Projects in the Lower Basin and risk reduction activities associated with recreational areas.
- Basin Environmental Monitoring

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	* LEAD AGENCY
<p>Human Health directed activities including the Basin Property Remediation (BPRP), Paved Road Remediation and Recreational Sites Programs.</p>	<p>Complete remediation of any identified residential and community property sites and private drinking water sources as they are identified during the 5 year planning period. Complete the Paved Road Remediation program. Address human health risks associated with basin wide recreational activities. Provide educational resources and health advisories to manage the potential for metals exposure through the consumption of fish. Incorporate human health related activities in the environmental cleanup projects as needed.</p>	<p>Remediate properties as they are identified and sampled and accepted for work. Most properties remaining to be sampled and/or cleaned-up will be properties whose owners have withheld access or properties whose owners have not responded to numerous contact attempts. Remediation of high risk properties will continue as agencies and the CDA Trust become aware of them. EPA and IDEQ developed the Roadway Surface Remediation Strategy which established the Paved Road Remediation Program to work with local road jurisdictions to remediate damaged paved road surfaces that serve as barriers to contaminated road subgrades. The goal is to complete the program in the next two years as funds are available. Implement actions to address human health risks from exposure to lead and other metals that can occur during recreational activities throughout the Upper and Lower Basin.</p>	<p>IDEQ EPA CDA TRIBE PHD</p>

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

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

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

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	* LEAD AGENCY
Lower Basin Remedies	<p>Evaluate and prioritize potential ecological and source control remedies noted in the OU-3 ROD. Data sources to support this include RI/FS data, Clean Water Act (CWA) projects, and current data collection activities. Conduct pilot projects and implement, as appropriate, remedies that are captured in decision documents and that have a low potential for recontamination and/or that may inform future remedy decisions. Capture any such actions in annual work plans. Ensure that remedies are coordinated with natural resource restoration activities and the EPA's management plan. Coordinate as needed with the governmental structure that manages the Trail of the Coeur d'Alene's remedy. Identify recreation areas for remediation or develop substitute clean areas along the South Fork and main stem CDA River. Identify and implement programs to educate recreation site users regarding human health risks along the river corridor and how to minimize those risks.</p>	<p>Utilize information and recommendations from the Enhanced Conceptual Site Model (ECSM) for the Lower Basin and the sediment transport model to inform a management plan that targets areas for active remediation, evaluates the effects of remedial technologies, and identifies areas for natural recovery. The ECSM serves to refine the current working understanding of the Lower Basin with respect to river flows and contaminated sediment transport and deposition.</p> <p>Work with members of the Lower Basin PFT to evaluate multiple objectives for source control, clean off-channel habitat, and protecting human health. This will inform EPA's implementation planning over the next 3 to 5 years. Use investigation data, computational models, and other information to examine Lower Basin remedies previously selected in the 2002 OU- 3 ROD as well as pilot projects to test supplemental actions that are not explicitly identified by the ROD, and which may require a ROD Amendment or Explanation of Significant Differences (ESD).</p> <p>Plan and implement habitat area design and remediation (including treatability studies for soil capping and amendments) and river bed pilot projects.</p>	EPA with state and federal agencies, CDA Tribe, and Restoration Partnership.

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	* LEAD AGENCY
Lower Basin Remedies (continued)		Produce and implement a management plan to address contaminants mobilized in the Dudley Reach; this will be adaptive for application throughout the entire Lower Basin river channel. Conduct a thorough inventory of recreational beaches and banks to identify those beaches or banks that may be considered for remediation during the immediate 5 year period and beyond. Document all actions as part of the SCIP.	EPA with state and federal agencies, CDA Tribe, and Restoration Partnership.

PROPOSED ACTIVITY	SCOPE	OBJECTIVE	* LEAD AGENCY
Basin Environmental Monitoring	Continue to implement remedy effectiveness and long-term monitoring. Analytical results from site surface water, sediment, and groundwater sampling through 2015 are available through WQX, EPA's Water Quality Exchange; data management for the Bunker Hill Site is transitioning to Scribe.net, an EPA data management system that will be administered by Bunker Hill stakeholders including EPA, IDEQ, and the CDA Trust with support from the EPA Environmental Response Team.	Continue implementing the CDA Basin environmental monitoring plan (BEMP). The goal of the BEMP is to monitor and evaluate the progress of the remedy in terms of improving ecosystem conditions and make adjustments in the monitoring program that inform ongoing and upcoming near term cleanup actions. Information from this program will also help guide the SCIP process.	EPA with IDEQ, USFWS, USGS and CDA Tribe.
	*Note with planning and implementation of remedial activities, lead agencies will coordinate with federal, state, tribal and local agencies as appropriate.		

PART 2 - OTHER ACTIVITIES AND RESPONSIBILITIES

PART 2 – OTHER ACTIVITIES AND RESPONSIBILITIES

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

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

2.1 LAKE MANAGEMENT ACTIVITIES

The OU-3 Interim ROD did not include CDA Lake in the Selected Remedy nor is there a remedy identified in the Upper Basin RODA. The OU-3 Interim ROD anticipated that the State, Tribe, federal agencies, and local governments would implement a Lake Management Plan (LMP) outside the CERCLA (Superfund) process using separate regulatory authorities. The updated LMP was approved in 2009 and implementation has been underway.

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

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

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

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

**Table 2-1 Summary of Coeur d'Alene Lake Management Activities Proposed
for Implementation for 2020-2024**

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

Bank stabilization	IDEQ and Tribal staff will continue to collaborate with Avista Corporation, the Natural Resource Conservation Service (NRCS), the Soil & Water Conservation Districts (SWCDs), the Counties, and local landowners to identify, prioritize, and implement erosion reduction projects.	Objective 2	IDEQ CDA Tribe Avista NRCS SWCDs
Nutrient reduction action plan	IDEQ and Tribal staff will continue to communicate nutrient load monitoring and estimate results to Watershed Advisory Groups, county representatives, and other potential partners.	Objectives 2 and 5	IDEQ CDA Tribe Universities
Implementation coordination	IDEQ and Tribal staff will continue to coordinate with Coeur d'Alene Basin Watershed Advisory Groups, county representatives, and other stakeholders to coordinate implementation opportunities.	Objectives 2 and 5	IDEQ CDA Tribe
Aquatic Invasive Species	The Tribe will continue to implement the invasive Aquatic Plant Survey and Treatment Program within their current jurisdiction, and IDEQ will continue implementing their aquatic plant surveys within northern pool bays. Identification of invasive species will be reported to Avista Corporation and Idaho State Department of Agriculture without delay for response.	Objective 1	IDEQ CDA Tribe Avista ISDA
Remedy implementation support	IDEQ and Tribal staff will continue to be involved in the Lower Basin PFT and TLG and support implementing projects identified in the 2002 OU-3 Interim ROD.	Objective 2	IDEQ CDA Tribe EPA BEIPC

Objective 4. Increase public awareness of lake conditions and influences on water quality			
Proposed Activity	Scope	Additional Objective(s)	Lead Participants
Lake*A*Syst	Lake*A*Syst (Lakeshore Assessment System) materials will continue to be utilized.	Objectives 1 and 2	IDEQ CDA Tribe
Demonstration sites	Improvement projects will be utilized to demonstrate effective strategies and encourage further implementation.	Objectives 2 and 3	IDEQ CDA Tribe Stakeholders
Symposia	IDEQ and Tribal staff will continue to partner with the Spokane River Forum, CDA Vision 2030, and others to plan the Our Gem Symposia approximately every 18 months, or as warranted.	Objectives 2 and 3	IDEQ CDA Tribe Stakeholders
K-12 Education	IDEQ and Tribal staff will continue to work with area educators to incorporate water quality education into classroom programming.	Objective 2	IDEQ CDA Tribe Universities K-12
General Outreach	IDEQ and Tribal staff will continue to participate in relevant education and outreach opportunities as time and resources allow.	Objective 2	IDEQ CDA Tribe U of I
Collaborative educational efforts	IDEQ and Tribal staff will continue to collaborate with U of I Community Water Resource Center staff, Spokane River Forum, and others to expand educational opportunities.	Objective 2	IDEQ CDA Tribe U of I
Local Gems	IDEQ and Tribal staff will continue the Local Gems outreach program through 2024.	Objectives 2 and 3	IDEQ CDA Tribe
Waterfront demonstration coordination	IDEQ and Tribal staff will continue to coordinate with city, county, and regional partners to explore potential for demonstration projects and educational signage.	Objectives 2 and 3	IDEQ CDA Tribe Stakeholders

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

2.2 FLOOD CONTROL AND INFRASTRUCTURE REVITALIZATION

During 2018 participating governments of the BEIPC and the Upper Basin jurisdictions (Local Flood Group) implemented a Memorandum of Agreement (MOA) to work together on potential flooding issues on the SFC DAR. The local flood group and the BEIPC worked under the MOA with the U.S. Army Corps of Engineers in 2018 and 2019 with funding from a grant to perform flood zone analysis on a portion of the river from Elizabeth Park to the Theater Bridge in Smelterville. Under the MOA the city of Kellogg and the BEIPC funded surveys of Federal Emergency Management Agency (FEMA) river cross sections used in 2009 to determine flood flows on that section of the River. The Corps has obtained additional funding to perform some analysis work on the portion of the river from Wallace to Elizabeth Park. Work to determine the best approach to coordinating with FEMA to develop new flood inundation maps will be implemented in the five year planning period. Based on the new flood maps it is anticipated that updated analysis of the need for certified levees in the SFC DAR will also be initiated in the planning period. Although much of the needed work outlined in the 2009 Drainage Control Infrastructure Revitalization Plan (DCIRP) is now complete, the BEIPC Executive Director will continue to assist Upper Basin communities and utilities in pursuing funding to implement the remainder of the DCIRP. The Executive Director will also coordinate with the local infrastructure jurisdictions on an Operation and Maintenance plan for existing drainage structures in the Upper Basin.

2.3 COMMUNICATIONS AND PUBLIC INVOLVEMENT

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

2.4 RESTORATION PARTNERSHIP

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

Under CERCLA, settlements were reached with all parties. Following the final 2011 settlement agreement, the Trustees entered into a Memorandum of Agreement to address the planning and implementation of restoration for natural resources and associated services injured, destroyed or lost as a result of the release of mining-related hazardous substances into the Coeur d'Alene Basin.

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

The Trustees have completed their Restoration Plan and Environmental Impact Statement (EIS) following the National Environmental Policy Act (NEPA). This plan is a programmatic guide for

restoration of injured natural resources in the Restoration Planning Area and will be coordinated with remediation activities. During the 5-year planning period, the Partnership will continue to coordinate with the BEIPC and provide updates on restoration planning efforts and implementation of restoration projects that will be solicited by the Trustees and from interested parties. The Partnership will continue to coordinate closely with EPA and the CDA Trust to integrate restoration planning and implementation with remediation projects. See annual BEIPC Work Plans for more details.

**COEUR D'ALENE
BASIN FISH TISSUE
CONSUMPTION GUIDE**

Coeur d'Alene Basin Fish Consumption Advisory

Fish can contain metals like mercury which may be harmful to human health when consumed in large amounts. As a result, the Idaho Department of Health and Welfare and the Coeur d'Alene Tribe advise pregnant women, breastfeeding mothers, children, and the general public to eat limited amounts of fish caught in the Coeur d'Alene Basin. This advisory updates information in the [Idaho Fish Consumption Guide and Advisory Map](#) based on fish sampling completed in 2016. Recommended meal size and meals per month for these fish are below:

Coeur d'Alene Lake and Spokane River (above Post Falls Dam)

Species Group	Sample Type	Location	Consumption Advisory (meals per month)		
			General Adult Population (8 oz. meal)	Pregnant Women ^a (8 oz. meal)	Children (4 oz. meal)
Bass^c	Fillet	Northern ^b	4	2	2
		Central	2	2	1
		Southern	3	2	1
Bullhead	Gutted Whole Fish	Northern ^b	20	4	3
		Central	8	2	0
		Southern	33	13	8
	Fillet	Northern ^b	69	24	14
		Central	14	13	7
		Southern	61	15	9
Kokanee	Gutted Whole Fish	Whole Lake ^b	13	11	6
	Fillet		20	10	6
Northern Pike	Fillet	Northern ^b	8	7	4
		Central	7	6	3
		Southern	5	4	2
Panfish^d	Fillet	Whole Lake ^b	11	9	5

- a) Pregnant women, those planning to be pregnant, and nursing mothers
- b) Northern Coeur d'Alene Lake includes the Spokane River above the Post Falls Dam.
- c) Bass include largemouth and smallmouth
- d) Panfish include bluegill, crappie, perch

Coeur d'Alene River and Chain Lakes

The Coeur d'Alene River advisory includes the length of river from Enaville downstream to Coeur d'Alene Lake. The Chain Lakes advisory includes Thompson Lake, Anderson Lake, Blue Lake, Black Lake, Swan Lake, Cave Lake, Medicine Lake, Killarney Lake, and Bull Run Lake.

Species	Sample Type	Location	Consumption Advisory (meals per month)		
			General Adult Population (8 oz. meal)	Pregnant Women ^a (8 oz. meal)	Children (4 oz. meal)
Bass^b	Fillet	Coeur d'Alene River and Chain Lakes	4	2	2
Bullhead	Fillet	Coeur d'Alene River and Chain Lakes	12	11	6
Northern Pike	Fillet	Coeur d'Alene River and Chain Lakes	5	5	2
Panfish^c	Fillet	Coeur d'Alene River and Chain Lakes	7	6	3

- a) Pregnant women, those planning to be pregnant, and nursing mothers
- b) Bass include largemouth and smallmouth
- c) Panfish include bluegill, crappie, perch

For more information and the full Idaho Fish Consumption Advisory:

Bureau of Community and Environmental Health

Idaho Department of Health and Welfare

1-866-240-3553

fishadvisory.dhw.idaho.gov



IDAHO DEPARTMENT OF HEALTH & WELFARE
DIVISION OF PUBLIC HEALTH