Basin Environmental Improvement Project Commission

Meeting Summary Minutes
November 9, 2022, 9:30 AM – 3:30 PM
CDA Inn Best Western
506 W. Appleway, Coeur d'Alene, ID

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 discussion or individual quotes

Attendees included the following:
Terry Harwood (BEIPC Executive Director)
Commissioners and Alternates present:
Brook Beeler (Washington State), Jess Byrne (IDEQ), Bill Brooks (Kootenai County), Calvin Terada (EPA), Caj Matheson (CDA Tribe), Phil Lampert (Benewah County), Jay Huber (Shoshone County)
Staff present:
Gail Yost (BEIPC, Assistant to E.D., Note taker), Kim Prestbo (EPA), Andy Helkey (IDEQ), Dan McCracken (IDEQ), Sandra Treccani (Washington State), Rebecca Stevens (CDA Tribe), Jamie Sturgess (Kootenai County), Jeri DeLange (Kootenai County), Jamie Brunner (IDEQ)
Attendees via Zoom
Michael McCurdy (IDEQ), Dana Swift (IDEQ)

Call to Order

Brook Beeler called the meeting to order – introductions were made by the Commissioners and Alternates. Changes to today's agenda – there will be no results of the 2022 Blood Lead Screening from Mary Rehnborg, these will be updated at the March 2023 meeting; and no update from Jerry Boyd as he is absent from today's meeting due to his wife's illness. A motion was made from Calvin Terada to adjust the changes in the agenda, second from Phil Lampert– all approved **M/S/C**

Approve the minutes from the August 17, 2022, meeting (Action Item)

Rebecca Stevens has one edit from page 3, under the Migratory Waterfowl Update – it should show USFWS collected data and not USGS. She also pointed out on page 4 that the work piloted by Tim Kiser was in Harrison Slough and not Grays Meadow.

A motion to approve the minutes with Rebecca's changes was made by Calvin, second from Phil – all approved **M/S/C**

Discussion concerning election of a new BEIPC Chair – Terry Harwood

Due to the resignation of Mike Fitzgerald, a decision was made to push the election of a new BEIPC Chair to the March 2023 meeting to be held in Spokane Valley. Terry wanted to wait until county elections were over to see who would be filling seats in Kootenai and Shoshone. Brook Beeler will run today's meeting as Vice-Chair. Terry also advised the group on BEIPC meeting dates for 2023.

Review Draft 2023 Annual Work Plan – Terry Harwood

Terry Harwood shared the process of creating the annual and 5-year work plans. The work plans are divided into two sections – Part 1 covers environmental cleanup work performed through CERCLA (Comprehensive Environmental Response, Compensation and Liability Act) by the EPA, IDEQ and CDA Trust. It 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 Other Activities and Responsibilities – Lake Management Plan, Natural Resource Trustees, work on recommendations from the National Academy of Sciences (NAS) and requests from the communities and citizens of the Basin

Terry started with an update on the residential and commercial property remediation. In 2022, three properties were remediated and five were sampled. Properties remaining can still be sampled and/or remediated if above action levels for owners granting access. Currently about 204 in the Upper and Lower Basin require sampling and 39 properties require remediation; 9 remain to be remediated in the Box. A total of 3,931 properties in the Basin and 3,236 properties in the Box have been remediated at the conclusion of 2022. Oversight and coordination between the Trust and IDEQ will continue to encourage property owners to have their properties sampled and remediated, if necessary.

In 2023, PHD will continue to offer free blood lead screening for residents living within the Bunker Hill Superfund Site boundaries. This program 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 health professional to identify ways to reduce lead exposure. At their annual summer screening, a $50 incentive will be given for children ages 6 months to 6 years of age residing within the Basin.

The Recreation Sites Program was created to address and manage human health risks from exposure to lead and other metals in the Upper and Lower Basin. The Recreation Team includes EPA, IDEQ, PHD, CDA Tribe, BEIPC and CDA Trust. Meetings are held at least biannually to evaluate and discuss priorities and addresses human health risks while maintaining the benefits of recreation. In the Basin, the CDA Trust expects to start design and cleanup at Lower Basin beach areas, sample other Upper and Lower Basin areas that are known to have high usage by young children and continue to update and install new signage at identified recreation sites. In the Box, IDEQ and PHD will continue to update signage and evaluate access controls at mine and recreation sites where public use has been identified. 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.

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). There are two Waste Consolidation Areas (WCAs) in the Upper Basin: The East Fork Ninemile (EFNM) WCA and the Canyon Complex Repository (CCR) /WCA. The WCA's are constructed close to remedial action cleanups to receive their waste, and not waste from the community. A Lower Basin WCA Project Focus Team has been formed to consider WCA needs in the Lower Basin.

Upper Basin remedies work includes remediation identified for the Upper Basin – including the South Fork Coeur d'Alene River (SFCDR) and its tributaries above its confluence with the North Fork. The 2012 Upper Basin Interim RODA identified $635 million dollars of work including potential work at 125 mine and mill sites. Additional information about the RODA and documentation are located at the following web site: https://www.epa.gov/superfund/bunker-hill

The BEIPC 2023 works 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 CDA Trust in the Upper Basin:

East Fork Ninemile Basin

Tamarack Complex 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 is complete, and construction is currently underway with completion expected in 2024.

Dayrock Complex and Lower East Fork Ninemile Creek Riparian Area – cleanup of the EFNM riparian area is divided into Upper and Lower EFNM. Remediation of the upper section was completed in 2021 – the design for the lower section was combined with the Dayrock Complex design and was completed in late 2021. Construction of the Dayrock Complex/Lower EFNM Creek section is currently underway and is expected to be completed in 2024.

Canyon Creek Basin

Canyon Complex Repository/WCA – is being constructed to receive waste from the numerous source areas that will be cleaned up in the Canyon Creek Basin. The old SVNRT repository was moved into the new repository in 2021, with a final cover system installed over the wastes placed in the facility in 2022. The facility will take waste from other cleanup sites in Canyon Creek beginning in 2023.

Canyon Creek Quarry – as part of the construction activities at the CCR/WCA, the CDA Trust purchased a 23-acre parcel to be used as a source of uncontaminated rock and gravel to use as clean fill materials. Work will continue at the Quarry to haul uncontaminated rock and gravel fill for future use at cleanup site in the Canyon Creek area.

Hecla Star Mine Complex – design was finished in 2022 with cleanup beginning in 2023. This will include removal of mine wastes, placement of clean backfill materials, reconstruction of Burke Road and Canyon Creek following removal of mine wastes, and installation of a concrete box culvert to convey Canyon Creek flows through a portion of the site. Cleanup will last 4 construction seasons and is anticipated to be completed in the fall of 2026.

Canyon Creek Designs/Investigations – design activities for the Flynn and Black Bear Fraction Mine sites were initiated in 2022 with design completion planned for 2023. Design investigations will also continue at the Standard Mammoth Reach, the Frisco Reach, the Gem Complex, and the Lower Canyon Creek Riparian Area.

Central Treatment Plant (CTP) / Central Impoundment Area (CIA) – IDEQ has been operating the upgraded CTP and Groundwater Collection System (GCS) since October 2021. The CTP upgrades were necessary to treat additional influent flow from the GCS, improve system reliability, meet current discharge requirements, and to operate in High-Density Sludge (HDS) mode. These upgrades also provide dependable and more efficient water treatment of the Bunker Hill Mine discharge water. The removal efficacy from the upgraded CTP is excellent, showing over 99% removal for zinc. EPA is also monitoring phosphorus which showed removal range between 92% and 99%, thus resulting in significant removal of dissolved metals being discharged into the SFCDAR.

Lower Basin Remedies include actions for wetlands and lateral lakes, riverbanks, splay areas, riverbed dredging, and cleanup at identified recreational areas along the CDA River. Objectives focus on reducing human exposure to lead-contaminated soils and sediments, improving water quality, and reducing particulate lead and other heavy metals in the Basin ecosystem. The Draft Final Riverbed Management Plan (RMP) was completed in June 2021 with its purpose to guide the interim remedy for the Lower Basin riverbed and banks by providing information and analyses for selected remediation scenarios and identifying high-priority riverbank segments for removal or stabilization. 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. EPA will continue to coordinate with the Restoration Partnership and various landowners in 2023 to characterize and identify off-channel areas for remedial actions. Construction is underway at the Idaho Department of Fish and Game (IDFG) owned Gray's Meadow to create clean waterfowl feeding habitat. This will continue in 2023 with completion planned for 2024. Two important infrastructure projects associated with Gray's Meadow were complete in spring of 2022; relocating the Cave Lake discharge point from Black Lake to the CDA River; and relocating the Lamb Peak pump discharge from Black Lake to the CDA River, widening the access road and replacing the vehicular bridge, relocating the water transfer locations, remediating the soil, and improving processes for managing water levels is expected to improve water quality in Black Lake and throughout the watershed.

To address contaminated sediment transport in the CDA River channel, the CDA Trust has begun planning for remedial design characterization for an in-channel pilot project to be implemented in the upper part of the River's Dudley Reach. This reach is considered the most significant upstream lead loading segment in the river system. The Trust also began remedial design characterization in the Cataldo Reach of the CDA River which will continue into 2023.

Several recreation areas will be considered to address lead exposure associated with recreating along the river channel. 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 Upper to Lower Basin.

EPA has continued to optimize and restructure the Basin Environmental Monitoring Program (BEMP), and has implemented this program for over 15 years. Highlights of the data collected are in the 2020 Five Year Review (9/2021). Annual USGS surface water sampling results are made available on the EPA webpage. Results for 2021 are summarized in the following report:

Coeur d'Alene Basin Environmental Monitoring Program – Surface Water, Annual Data Summary – Water Year 2022 – https://semspub.epa.gov/sre/document/10/100421937. EPA continues to work with CDA Trust, IDEQ, USFWS and the CDA Tribe to update the BEMP 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. Operation and Maintenance responsibilities for Remedial Actions – CERCLA prohibits EPA from the use of funds from the Superfund Account on O&M of remedies. Responsibilities on completed and accepted remedial work may vary. O&M on EPA selected cleanup actions will be performed by the CDA Trust, the State of Idaho, and local governmental jurisdictions or parties who are required to perform O&M activities by judicial or administrative settlement, environmental agreements, covenants, and conservation easements

Other activities and responsibilities include the following work:

- IDEQ Lake Management Activities
- Coeur d'Alene Tribe Lake Activities
- Flood Control and Infrastructure Revitalization
- Communications and Public Involvement
- State of Washington Activities
- Coordination with the Restoration Partnership

Lake Management Activities – As of the summer of 2018, the CDA Tribe asserted that the LMP is inadequate as an effective tool to protect water quality in the lake and has been in discussions with IDEQ and the EPA to determine what additional actions are needed to manage the hazardous substances in the lakebed sediments. The State of Idaho initiated and received a third-party review of lake management data by the National Academy of Sciences (NAS). Observations and recommendations from the 2022 NAS report will be used to help inform an appropriate response to undesirable water quality trends. IDEQ staff continues to operate under the LMP as discussions with the CDA Tribe and EPA continue. The 2023 work plan outlines Lake Management activities for both IDEQ and the CDA Tribe.

Flood Control and Infrastructure Revitalization – Under a 2018 MOA, participating governments of the BEIPC and the Upper Basin jurisdictions will continue to work on potential flooding issues on the SFCDAR and Pine Creek. The local flood group and the BEIPC will continue to work with the COE and FEMA to complete a Flood Map Revision to update the 2009 Flood Inundation Maps. Based on new flood maps, it is anticipated that updated analysis of the need for certified levees in the SFCDAR will be completed in 2023. The working group will also support the City of Pinehurst's request for COE assistance in performing similar flood zone analysis in Pine Creek. Although much of the needed work outlined in the 2009 Drainage Control Infrastructure Revitalization Plan (DCIRP) is now complete, the BEIPC will continue to assist Upper Basin communities and utilities in pursuing funding to implement the remainder of the DCIRP.

Phil asked why the updated flood lines are so much less than the old maps – Terry answered that the old maps were based on old data. Seventeen years of actual flood data from the gauging system in the valley were added to the overall data for consideration. Dave Leptich also mentioned land use has changed – 25 years ago there was heavy logging, now those clear-cuts have grown in, and the water comes off slower with less surge. Phil suggests that St. Maries and Benewah County area

levees would maybe benefit from an update also. Terry told Phil they would get him the information on how to contact the COE.

Communications and Public Involvement – Multi agency coordination worked together to carry out public involvement, communication, and education related to BEIPC and agency activities. They will continue to facilitate the public involvement process in the Basin.
Sandra Treccani reported the Washington State Department of Ecology will continue to monitor the status of previous cleanups along the Spokane River. A sampling initiative that started in the fall of 2022 will be continued. Three beach sites will be sampled for soil, sediment, and surface water, along with measurements of suspended and settled sediment, at low, medium, and high river flow rates. Once completed, Ecology will prepare a report documenting the results. Fall site visits will be performed, along with visual documentation of cap performance and sediment accumulation. A portable XRF will be used to measure contaminant concentrations.

Rebecca asked if the initial cleanup in 2013 used Department of Ecology contaminants program funding and not Superfund dollars – which Sandy answered correct. Rebecca asked if future cleanup would follow suit as well – Sandy stated they do not anticipate the outcome of this sampling and report to lead to another round of cleanup, but we know that will happen in the future based on their XRF data, they do not believe they are there now. If future removal of contaminated sediments were to happen, they would be paid by the State of Washington. Brook asked if EPA was supporting them through funding for this work – Sandy replied yes.

Restoration Partnership – The Restoration Partnership will continue to implement natural resource restoration projects in 2023. There will be ongoing coordination on remedy and restoration activities and participation in BEIPC and associated groups and committees.

Public Comment on Draft Plan

Sandy Emerson, a local appraiser, asked a question to Terry about his telling the Forest Service to put materials off the ramps back in the river, was it possible to take that material to one of the repositories – like Cataldo? Terry answered they were paved surfaces and the residue would be hard to get to and hard to scrape off. Andy also commented that they removed as much sediment as they could then washed the asphalt off. Sandy made the comment that Cast Away Fly shop are now offering paid float trips on the SFCDAR and catching fish!

Brook thanked Terry and the staff for pulling all this together. She thinks this really represents the work that will be happening in the next year and a good overview for everyone.

Terry referenced an email that was sent in from Jamie Sturgess. It covers concerns in the Lower Basin for prioritizing work and budgets for both the Upper and Lower Basin. There is also frustration with the first pilot project being put on hold due to the delay in the selection process of a Lower Basin WCA. Other items include - action on the pilot testing for stream bottom armoring; prioritize and initiate riverbank armoring below Cataldo Boat Ramp down to Dudley Reach on both sides; release a schedule for CDA stream bottom stabilization or remediation studies and pilot project feasibility study results for review by the TLG; and set a five-year schedule to complete the stream bank stabilization. Ed Moreen stated they are currently working on design for the pilot project and the WCA siting. The in-channel work, which would be a hybrid cap/dredge project, needs the repository for waste. They are also looking at prioritizing riverbanks in the Cataldo Reach

area and are currently working to gain access to properties so analysis can be completed. Terry realizes the frustrations – and asked that we keep working together.

Jamie thanked Terry for going through his concerns – his hope is that the streambanks can be separated administratively and schedule-wise from the stream bottom. From EPA estimates, there is 18% particulate loading from phosphorus going into CDA Lake every year and so every year that this gets pushed back just adds to more going downstream. The other projects are great, and he doesn't want to cut anything else out, but the streambank stabilization needs to be addressed. He referenced the NRCS streambank stabilization project and how well that has held up – we should get a parallel project started while figuring out what to do with the stream bottom.

There were no further questions or comments on the 2023 Annual Work Plan from commissioners or panelists

Approval of Draft 2023 Work Plan (Action Item)
Brook asked for a motion to approve the 2023 Annual Work Plan - Phil made the motion to approve followed by a second from Jess Byrne, all approved **M/S/C**

Review Draft 2023-2027 Five Year Work Plan – Terry Harwood
Terry reviewed and reported on the five-year work plan. This work plan also has two sections – the work under CERCLA by the implementing agencies and other activities. The first part includes human health directed activities; lead health intervention program; repository and WCA development and management; remedial actions in the Upper Basin; remedial actions and/or pilot projects in the Lower Basin; Basin Environmental Monitoring; and O&M responsibilities for Remedial Actions.

Human health activities – the Basin Property Remediation Program (BPRP) will continue at the request of the property owners when access is granted. Remediation of high-risk properties will continue as agencies and the CDA Trust become aware of them. Human health risks associated with basin wide recreational activities will be addressed and educational resources and health advisories will be provided to manage the potential for metals exposure through the consumption of fish.

Dan McCracken had a question on the recreational site work – in the past there had been some actively eroding banks on the Lower CDA River that had created areas that were beach-like and publicly used. If any of these areas overlap with areas that Jamie has identified for possible bank stabilization, work could occur. Then perhaps the opportunity to address the human health exposure area through bank stabilization and revegetation where the objective is primarily to prevent kids from getting exposed to the bare sediment on the bank, and not so much as a long-term remedy but to stabilize and make it not worth playing in and meet two objectives. Andy said EPA will be starting the beach augmentation of Hwy 3 probably next week which is basically riprapping the beach and stabilizing the bank through that section by Black Rock Trailhead/Bridge.

Rebecca asked for clarification when they refer to Upper Basin, does that include recreation sites along the South Fork – Terry said yes. The Upper Basin is from the confluence of two rivers at Enaville all the way to the headwaters of the SF, and the Lower Basin is from there to the mouth of the river at the lake.

The Lead Health Intervention Program – PHD will continue to administer screening of children and others living or recreating within the BHSS for elevated blood lead levels. The threshold value for levels in young children is now 3.5 micrograms per deciliter. These screenings help to identify children with elevated blood lead levels and provide in-home follow-up services to identify sources and ways to reduce lead exposures.

Repository and WCA Development & Management – operation and management will continue at the current repositories and WCA's with potential site development of future WCA's in the Lower Basin.

Upper Basin Remedies – operate the groundwater collection system and upgraded CTP; source control actions in the Ninemile and Canyon Creek watersheds; and implement source control and water treatment remedies, ecological cleanup projects, and related human health activities identified in the Upper Basin Interim RODA along with any accompanying coordination on natural resource restoration actions.

Lower Basin remedies – evaluate and prioritize potential source control remedies; conduct pilot projects to address contaminated riverbed source areas and implement remedies as appropriate; characterize and prioritize additional riverbank segments for stabilization; ensure that remedies are coordinated with natural resource restoration activities; identify recreation areas for remediation and implement programs to educate recreation site users regarding human health risks along the river corridor. Also, continue to implement the Gray's Meadow Remediation and Restoration Project and evaluate and further characterize additional wetland properties for increasing feeding habitat for waterfowl.

Terry asked Dan about the concerns the public has had over contaminated water from CDA Lake getting into the Spokane Valley/Rathdrum Prairie Aquifer. Dan answered there is data that would indicate some influence from the water in the lake that goes out to the river, but not high metal concentrations. There are some areas with gaining and losing reaches, and a question that has come up from the NAS that perhaps this would be an area that could use additional studying to better understand, but they do not have wells in the aquifer that show high metal concentrations. Brook asked if there are some monitoring points, are they just looking at ground water protection areas from Kootenai water systems or are there other monitoring wells that you pull data from? Dan will have to look and see where that data was pulled from as there are lots of municipal wells that are sampled with the Safe Drinking Water Act and source water protection plan. He's not sure if there is a specific spot, he'll check to see what other samples have been compiled and summarized. Rebecca made an announcement that IDEQ will be coming out with a revised aquifer atlas, working jointly with Idaho/Washington Aquifer Collaborative – revising this atlas for the last five years and will be coming out soon. She highly recommends folks look at this as it shows all the recharge areas, not just CDA Lake but others like Hayden, Hauser, Ponderay and Bayview.

Basin Environmental Monitoring – continue implementing the Basin Environmental Monitoring Program (BEMP) under the updated plan produced in 2020.

O&M Responsibilities for Remedial Actions – Terry briefly covered responsibilities for remedial actions and cleanup work on the site. Each program defines its responsible parties and required maintenance to protect the work completed as already described earlier in the 2023 Annual Work Plan.

Part 2 – Other Activities and Responsibilities – the five-year work plan recognizes work items the BEIPC will be involved in, and items of work needed to accommodate some of the observations and recommendations of the 2022 NAS study; it also includes Lake Management activities by both the CDA Tribe and the State of Idaho; flood control and infrastructure revitalization; communication and public involvement; and coordination with Restoration Partnership.

Flood Control and Infrastructure Revitalization – under a 2018 MOA, participating governments of the BEIPC and the Upper Basin jurisdictions will continue to work on potential flooding issues on the SFCDAR to implement a LOMAR to update the 2009 Flood Inundation Maps based on current flood zone analysis by the COE. Based on new flood maps, it is anticipated that updated analysis of the need for certified levees in the SFCDAR will also be initiated. This group will also support the City of Pinehurst's request for assistance in performing similar flood zone analysis in Pine Creek.

Communications and Public Involvement – will continue to address issues and facilitate public involvement and education in BEIPC activities.

Restoration 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. Terry asked Rebecca if she wanted to talk about the RP plans for the next five years – Rebecca acknowledge her other technical staff present - Wade Jerome from the Forest Service and Dave Leptich from Fish & Game – in the RP accomplishment report you will see what was done last year and goals for the following year, a more robust update will be provided after the Trustee Council this winter.

Valerie Wade from the CDA Tribe asked about a comment made earlier on the goal to clean up all the contaminated sites in the Upper Basin, and she wondered if the SFCDA is included in that. Terry said in the RODA there was a million cubic yards of contaminated river sediments identified, Ed Moreen said it is in the planning stage.

Public Comment on Draft Plan – there were no further comments on the five-year work plan.

Approval of Draft 2023-2027 Five Year Work Plan (Action Item)
Brook asked for a motion to approve the Five-Year Work Plan - Jess made the motion and Caj seconded - all approved **M/S/C**

Lunch and Executive Session, Commissioners, Alternates and Executive Director under Idaho Code 74 – 206(1)(b) - a motion was made by Phil to move into Executive Session, Calvin seconded - all approved **M/S/C**

Phil made the motion to move out of Executive Session – Calvin seconded - all approved **M/S/C**

Update on Lower Basin WCA selection process – Patrick Hickey, EPA
The update on the Lower Basin WCA will be included in Kim's presentation.

Update on Construction Season accomplishments in Upper and Lower Basin and Trust Fund Balances – EPA RPMs
Kim gave a quick orientation on the Bunker Hill Superfund Complex – its spans 1,500 square miles and 166 river miles. Historic mining and milling operations in the Upper Basin has passed contaminants down through the flood plain and into the Lower Basin. Today Kim will give a basin-wide update on the Basin Property Remediation Program (BPRP); Recreation Sites; construction in Ninemile and Canyon Creek Basin; Disposal Facilities; Lower Basin Updates on Gray's Meadow, Cataldo Investigations and Dudley Reach Pilot Project, and Lower Basin WCA; and an update on the CDA Trust budget.

BPRP program – a lot of work has been done and we are closing in on finishing this important part of the site. Cleanup has been completed on 7,167 properties and those remaining await property turnover for previous refusals or non-responsive owners. 9 properties in the Box and 204 in the Basin either require sampling or remediation. In 2022, 3 properties were remediated and 5 were sampled along with maintaining drinking water treatment systems at 6 properties. Part of the BPRP also includes the Basin House Dust program. Mats are placed by geographic areas and targets are set and compared to what was actually sampled and the number of vacuum samples collected which are measured for metals.

Recreational Sites – In September 2022, the Cataldo Boat Launch was completed. The cleanup included soil removal in some areas, capping with sod or gravel and application of new asphalt. A second recreation project will start next week on Hwy 3 with removal of contaminated sediments and bank stabilization, riprapping and plantings along the bank. Education is also key to this program – signage is an important way to communicate the risks of lead in sediments and soil at these rec sites across the basin.

Ninemile Basin – consists of various mine and mill sites, tailing piles, rock dumps, creek channels and riparian areas - all identified in the RODA. Three project areas have been worked on this past construction season – Dayrock Complex, Lower East Fork Ninemile Creek Riparian area, Tamarack Complex, and the WCA.
Dayrock Complex – 2022 was the first year in a 3-year construction period, 96,000 cu/yd of waste material was excavated and disposed of at the WCA.
Tamarack Complex – Also the first year in a 3-year construction period, 148,000 cu/yd were excavated and taken to the WCA. Areas of excavation included rock dumps, riparian area, unnamed adit area, and Adit Areas No. 3 and No. 4. Other work included installation of water control channels, seeding, mulching and placement of woody debris on excavated hillsides; mulching and planting in riparian areas. Monitoring of surface and groundwater throughout Ninemile will continue to measure the effectiveness of their work.
East Fork Ninemile WCA – various work continues at the WCA – quarrying fill material for Dayrock and Tamarack; placing waste materials from Dayrock and Tamarack; layering 1"minus cushion material and placing lime-amended soil atop liner system; applying bonded fabric material on North Slope; and clearing slash & brush from final expansion area. The development of the WCA began in 2013 to consolidate the mine waste materials from projects in the EF Ninemile. The expansion of the original footprint began in 2019 to provide capacity for all the estimated areas waste materials.

Going forward, we estimate the cleanups will be completed by 2024, the construction of the final cover system will begin in 2025 with completion in 2026.

Canyon Creek Basin – there are many mine and mill sites in Canyon Creek that were identified in the RODA. Some of these include Frisco/Black Bear Complex, Gem Complex, Standard Mammoth Reach, Flynn Mine and Black Bear Fraction.
Canyon Complex Repository – Construction was completed in 2022 - all the waste from the SVNRT Repository has been excavated and moved to the Canyon Complex Repository. This repository is designed to handle all the waste materials from Canyon Creek work as it is a WCA/Repository, so it will potentially be able to accept ICP waste in the future. There is already a wash facility available at Lower Burke Canyon Repository so one will not have to be built to handle the ICP waste.
Frisco/Black Bear Complex – investigations will continue in 2023.
Gem Complex – pre-design investigations are occurring with hopes to complete in 2023.
Standard Mammoth Reach – conducted site monitoring in 2022 and will continue site investigations in 2023.
Flynn Mine & Black Bear Fraction – completed pre-design investigation in 2020-2021, with the remedial action design started in 2022. Both the work plan and the 30% design are complete with the 60%-100% design planned for completion in 2023. Both are a high priority due to the potential for residential and recreational exposure.

Disposal Facilities – the CDA Trust monitors and maintains the Upper and Lower Basin Repositories (BCR, BCRA, LBCR, and EMFR) and IDEQ for the Box Repository located at Page. Projections are made from year to year to estimate and accommodate for all waste received at the repositories. A waste management strategy looks at volumes coming in and estimates what volume remains at each site.

Lower Basin Updates – the Lower Basin starts at the confluence of the North Fork and South Fork of the CDA River and extends to the mouth of the river at Lake CDA. While the bulk of legacy mining occurred in the SF, the Lower CDA River was at the receiving end of direct discharge of these mine tailings and today the primary source of contaminated sediments to the floodplain, lateral lakes, and Lake CDA. EPA is making strides in reducing the source of metals in the Upper Basin, but to really address the source of lead depends on our ability to address contaminated sediments in the Lower CDA River.

The Lower Basin consists of the Cataldo Reach, Dudley Reach, Killarney Reach and Springston Reach. Kim will talk about four projects they are working on in the wetlands and the channel. EPA is constantly monitoring through the BEMP program. One of the most important pieces of data they collect for the Lower Basin is the concentration and volume of suspended sediment that is moving through the CDA River and the concentration of metals in that sediment. They conduct opportunistic sampling as the river does not wonder a lot unless it gets to a certain level of flow. When opportunities come up like in March 2022, sampling is conducted in high flow events to collect and analyze the concentrations of sediment in the river and the metal concentrations. This year we sampled 49 locations, some at dual depths, to help understand that volume of sediment in metals, the function of flow and the locations where we are mobilizing the most and highest concentrations. This data is plotted over many years and helps to target those areas that are their biggest sources. The Dudley Reach pilot project was selected as strong evidence in this reach shows it contributes significant lead load to the system. The highest concentrations occur near a scour hole

at river mile 158 where the lead concentrations have exceeded the benchmark by over 50 times. We estimate in the river itself to contain 5 to 11 million metric tons of impacted sediment in the bed and banks. Frequent flooding continues to remobilize this contamination. From their data, they estimate 86% of sediment lead is coming from the riverbed and banks. They also estimate the flux to the lake at Harrison is about 73%. Work must be done on the channel and tackle the primary source, but we also have to be in tandem working on all the important exposure points – the places where wildlife and people are impacted. Our recreation work planned to mitigate the exposure to people that live and recreate along the banks of the river. Our work in the wetlands anticipates improving oasis of clean areas for waterfowl and other wildlife to exist.

Gray's Meadow - is a partnership between CDA Trust and Restoration Partnership (including IDF&G). It is 700 acres agricultural to wetland conversion – Lambs Peak and Cave Lake Wetlands. Project goals were to reduce soil lead concentrations to below cleanup level; restore clean and functional wetlands; minimize recontamination; redirect discharges from Black Lake to CDA River; and provide clean recreational, educational, and cultural opportunities. Completed to date – infrastructure improvements; new bridge over the Black Lake tie-channel; redirected the Lambs Peak and Cave Lake water discharges to the CDA River; new pumps and pumphouse at Lambs Peak; and completed this integrated design between remediation and restoration. The next phase of construction has been awarded to Northwind Construction Services. Part of the remediation strategy is to till the soils with low level top contamination mixed with clean underlying soils in areas where concentrations are sufficiently low enough. That was started this year with mobilization of materials and equipment. This season allowed them to do the bulk of the tilling in all the accessible areas in both Cave Lake and Lambs Peak. This sets the stage for the excavation and consolidation of the more contaminated soils to begin next summer. These soils will be consolidated in the core of some of the infrastructure – dikes, access roads, some habitat features – with the goal to manage all the waste material on-site. Construction completion is expected in the summer of 2024.

Gleason Property – this property is projected to start in 3-4 years. A conservation easement has been granted, working closely again with the Restoration Partnership and easement through Inland Northwest Land Conservancy. They have just started characterization of the hydraulics, conducted field investigations, drilled monitoring wells, surveying, and collecting ground and surface water samples. The first report is being completed and should be out this year.

Cataldo Reach – this reach consists of steeper and gravely portions of the river before it levels out and starts dropping. The riverbed is not considered a high priority area but some of the banks are highly contaminated. The timing for starting work will depend on obtaining access. This year a lot of investigation work was completed, outreach and communication with property owners, and starting to get access agreements. Also, characterizations of beds, banks, and side channels, along with sampling of the riverbed and banks. New erosion pins were installed which seems to work best to monitor and address how quickly the banks are eroding. A pre-design investigation was conducted in river mile 167 & 166, and that included 26 locations along the islands and bars, and up to 20 locations in the riverbed where we could see the fine grain material. All this data is under review and should be available soon.

Dudley Reach Scour Hole Pilot Project – this is a combination of dredge and cap from river mile 158.6 through 158.2. Project goals are to reduce particulate lead loading to the river through combination of dredging and capping; stabilize unarmored and unstable riverbanks; minimize

changes to river hydraulics; and evaluate construction means and methods. The earliest potential schedule depending on the pause for the WCA siting would have the characterization completed by 2022/2023, design completed in 2025 and construction completed in 2027-2028. This fall, the CDA Trust will be conducting a data gap investigation along this area – including geophysics, collecting core samples from the riverbed and slopes for geotechnical and environmental analysis, and the riverbed and side slopes will be surveyed. The Dudley Reach will be the first pilot project needing management of dredge material. Contamination is extensive throughout this Lower Basin and we all acknowledge it is not feasible to remove all the contaminated sediments in 37 river miles, but we will be dredging portions of the river. Technologies and natural restoration are going to be required go forward, controlling the source will reduce the concentrations and the total load of the metals entering CDA Lake.

Lower Basin WCA Siting - a time critical step in initiating this work is to identify, design and construct a WCA for managing waste material. EPA and the CDA Trust have been working to identify a site, talking to property owners, and using various criteria to identify potential areas. In 2020, we started a public engagement process and asked the citizens to re-examine the 2009 criteria that had been used for siting repositories and WCA's and from that develop some draft criteria for the Lower Basin. Through fact sheets that were mailed to residents, informational sessions held during COVID, and communicating through the Basin Bulletin – these community comments were considered when the CDA Trust ultimately developed their final set of technical criteria. After several years, two properties were identified – a South River Road property and the Dredge Road property, with this being identified as the best potential for a WCA site. As additional important considerations were raised, we found it necessary to pause and circle back with our stakeholders to review and validate the options for siting this new WCA. A Project Focus Team (PFT) was developed and is managed under the Technical Leadership Group (TLG) of the BEIPC – this allowed us to get more feedback and input from the CDA Tribe, State and Federal partners, land managers, and representatives from the BEIPC. The purpose of the PFT is to provide input to EPA in identifying and evaluating a feasible location for the WCA. The input from the PFT will help inform EPA on where the WCA will be located as they will have the final decision-making authority. With the development and implementation of the PFT, the Dudley Reach project has been pushed out a year or maybe two. The delay will allow time for us to complete the design and plan for construction. Kim also compared schedules if the WCA siting is pushed back further and how the timeline would need to be adjusted.

Jess said he was not as familiar with the Dudley pilot project as he would like to be, but he is curious why they would have to wait for a WCA before starting the pilot project, is it too large of a scale that they couldn't haul that one project's waste to a different WCA? Kim said they estimate 30,000 yards from this project and there is not a lot of room at any of the repositories. If you put the waste at East Mission Flats, you wouldn't allow other ICP projects to use it. They would like the WCA to be close to where they are working and have the flexibility to go forward. Terry agreed on using EMF, we would use up ten years of volume at an ICP repository to get rid of the waste from this pilot project. EMF is the only ICP repository in the Lower Basin. Kim said you want to be efficient in selecting a place that you will expand into to accommodate other work. Ed Moreen added that you're dealing with dredge materials that will have to be dewatered so you will have to have a location to do that. The less this material is hauled, the more efficient you are. Having a site close by will be a huge way to optimize your operation.

Dave Leptich asked about Gleason, if we are using in-situ methods for remediation and do not need a WCA, do you anticipate these delays to cause a delay in that schedule? Kim replied not at this time. Rebecca wanted to know about Dudley Reach, we know through the Enhanced Conceptual Site Model that there has been a lot of site characterization done already in the river – is this additional characterization being conducted because it's higher resolution and it's associated with the anticipated design being a dredge and cap? Kim answered its more pre-design investigation, we are now at the stage where we are getting geotech and seismic data to help us design the cap and dredging, just much more specific. Terry mentioned that the in-situ remediation does work, you just need to do a good job of on-site disposal. Kim agreed saying the point is to protect and isolate too. CDA Work Trust Update – the 2023 budget going forward is going to be $30 million annually for Upper and Lower Basin for the next 10 years. The CDA Trust was established as part of the Asarco Bankruptcy Settlement in 2012 with an initial deposit of $437 million. As of 9/30/22 this balance stands at $520 million. The CDA Trust funds can only be used to fund ROD selected Basin (OU-3) cleanup actions. It cannot be used to fund Box cleanup actions, or to fund oversight of the CDA Trust. They also cannot be used to fund State, Tribe, local governments, or other Federal agencies work in the Box of Basin.

Val Wade questioned the kind of sampling that was performed in the Lower Basin by Dudley Reach, was the same type of sampling done in the SFCDA? Kim said they have collected high event sampling in the SFCDA and have a strong record of total and dissolved metals throughout the Basin that is collected by USGS. It is not the same focus as in the Lower Basin, but we have a very good sense of the amount of particulate lead that is coming out of the SFCDA and into the lower CDA River. We know enough to know that the amount of lead at least that is in the SFCDA is significantly less than in the Lower Basin. It doesn't mean that we are not focusing on it as there are plans to do work in the SFCDA River. Val also wanted to know if there was community input on the pilot project site at Dudley Reach – and Kim answered yes. They have been reporting out on their investigations, went through a significant public review process as a site already identified as an area for concern. Since it is post ROD, it is not required for EPA to go though a public process for every specific design but compared to a lot of Superfund sites, we have a lot more community engagement. Terry commented on Jamie Sturgess' input into the pilot project – so yes, the community was involved. Kim also mentioned that all this information went through the technical work group and CCC meetings. Val was curious when they were deciding on a pilot project, if putting the project near an already established repository or WCA. Kim also mentioned that part of the waste management strategy that they work on with the CDA Trust, always dialing in how much waste will be generated. The Trust does this on a regular basis – all the repositories out there are already dialed in to the existing work that is going to be done. As well as this important ICP program, the repositories are a necessary element of waste management.

Dan McCracken had a follow-up comment since we were talking about the tailings removal projects in the SFCDA, he wanted to remind everyone that they removed about 1 million cu.yds. of tailings from the SFCDA at Smelterville Flats in the late 1990s to early 2000s, which was a major accomplishment. Val's asked if there had been recontamination there, and has it been monitored or tested? Dan said there has been some follow-up monitoring, there is different components – the portion that is on the riverbed itself does still have high levels, but that was factored into the removal criteria, we planned for that to be around 3,000 ppm – the higher benches that were remediated and capped are still clean.

Brook asked if the erosion pins used were a box that collected sediment? Kim answered they are stakes that you can measure the erosion that is occurring. Brook also said that even though backing off the WCA siting feels like a setback, she wanted to thank EPA for slowing down, pulling together the PFT and thinking about this forever decision.

Results of 2022 Blood Lead Screening Event – Mary Rehnborg, PHD – the results of the 2022 Blood Lead Screening will be available at the March 2023 BEIPC meeting.

2022 Outreach Report – Terry Harwood, Mary Rehnborg, PHD
Mary showed a presentation on all the outreach that was accomplished in 2022. General Lead Health Intervention Program (LHIP) duties include participation in weekly EPA/IDEQ calls, weekly IDEQ state team calls, bi-weekly Silver Valley Economic Development Council meetings, monthly Lead Advisory Committee meetings, quarterly HUD/EPA/PHD meetings, perform over the phone and in-person follow ups for elevated blood lead referrals, contribute articles to the Basin Bulletin and help distribute bulletins around the community, and attend quarterly IDHW's Childhood Lead Poisoning Prevention Program meetings.

One of our biggest outreach programs is the K-3 classroom awareness presentations. This year we visited 8 local schools and provided outreach & educational materials to 843 students. We held our annual pizza party at the Canyon Side Apartments located up Burke and are working with the Amy Lynn Apartments in Kellogg and possibly apartments in Pinehurst to start doing them there as well. We participated in a Soil Shop that was held at Kellogg's Music in the Park where people could bring in their soil for examination with the XRF, planning again for next year's event. The summer lead screening event ran from August 8th – 13th, we had 351 total participants – 216 of those were children ages 6 months to 6 years and the results are currently being calculated. The North Idaho Fair is a 10-day event and a big effort with all the groups coming together, volunteering, and helping us pull that off. It included an interactive booth, answering questions to win a prize in which thousands of those were distributed – a lot of engagement and a great turnout. The Shoshone Medical Center Kid's Health Fair where we provided over 300 children with educational materials, healthy snacks and fun giveaways. Andy helped lead a tour for the Silver Legacy Bike Group where they took teachers from around the state on a site tour from Kellogg to Cataldo with historic information presented along the trail. At Silver Mountains Truck or Treat, we were able to hand out 300 bags of treats with educational tips attached. Other events: booth at CDA Earth Day, University of Idaho President's Tour, CDA Realtors Association presentation, tours and education to Kootenai Health residents, guest lecturer at Gonzaga University fall and spring semesters, and Central Treatment Plan tour with Idaho Public Television.

Jess said great job! He asked if all this was funded through the Institutional Controls Program and Mary said yes. Terry is able to assist in other areas through presentations, tours, inquiries and helping to address concerns from constituents and the public.

Update on CCC Activities and Public Input – Jerry Boyd, CCC Chair
Terry filled in for Jerry Boyd on the update on CCC activities. All work plans and information are shared with the public through the CCC email list. If there are meetings for specific purposes, then these are also broadcast via email. We may possibly have a meeting on the WCA even though we have a PFT, to discuss the decision process and address any questions.

Final Update on NAS Study of CDA Lake – Jamie Brunner, IDEQ

Jamie updated us on the current status of the National Academies of Science (NAS) Study and third party review of CDA Lake. The Governor asked the NAS to conduct a review of CDA Lake data at the end of 2019. Since then, we have been working through this process. The study was sponsored by IDEQ, Kootenai County, and EPA – and once again the scope was to evaluate current water quality as far as nutrients and metals, the impacts of anoxia on fate of nutrients and metals, impacts of reduced zinc levels on algal growth, will metals be released if current trends continue? Or what data do we need, and the relevance of metals release to human/ecological health risks. The NAS released their draft report on September 30th followed by a webinar that was available to the public. It is a living document still in draft form. We are having an event Tuesday, November 15th hosted by Our Gem. Some of the NAS members will be there to present, along with an opportunity for the State, EPA, the Tribe, and Kootenai County to give their perspective on the findings followed by a questions and answer period.

Leading Idaho - $2 million was allocated for phosphorus-reducing projects in the State FY 2022. These projects are ongoing and include stormwater, wastewater, and nonpoint source projects such as riverbank stabilization. After that, Governor Little allocated another $20 million for more of these kinds of projects. We are evaluating the applications that have been received, but from the advice of the Coeur d'Alene Lake Advisory Committee (CLAC) they asked that we follow-up with previous applicants that are ARPA eligible to see if they would like to be considered for this round of funding. CLAC also asked if we would review the NAS recommendations that comply with the ARPA requirements to evaluate those and present at their next meeting December 16th.

Terry announced that he will be retiring after the BEIPC is able to elect a new Chair and time allows for mentoring his replacement.

The meeting was adjourned at 2:35 pm