

Basin Environmental Improvement Project Commission (BEIPC)

Quarterly Meeting Minutes ~ (Draft revised October 2014)

May 14, 2014, 9:30 a.m. – 2:30 p.m.

Best Western CDA Inn

406 Appleway Ave., Coeur d'Alene, Idaho

Attendees:

Terry Harwood (BEIPC Executive Director)

Commissioners and Alternates present:

Rick Albright (EPA)

Jim Best (Shoshone County alternate)

Jack Buell, Chair (Benewah County)

Phillip Cernera (CDA Tribe)

Curt Fransen (IDEQ)

Caj Matheson (CDA Tribe alternate)

Grant Pfeiffer (State of WA)

Larry Yergler (Shoshone County)

Staff present:

Glory Carlile (BEIPC Assistant to Executive Director, note taker)

Ed Moreen (EPA)

Bruce Schuld (IDEQ)

Rebecca Stevens (CDA Tribe)

Sandra Treccani (State of WA)

(Please note that these minutes are a summary of reports and presentation. They are intended to capture key topics and issues, conclusions, and next steps and not every detail of the discussions.)

Call to order: Commissioner Jack Buell (Benewah County) called the meeting to order at 9:35 a.m. followed by the flag salute.

Review and Approval of February 12, 2014 Meeting Minutes:

Terry Harwood read the edits in the EPA report submitted by Bill Adams prior to this meeting.

Rebecca Stevens noted that a correction be made on Page 2 under Rebranding: It should be CDA Vision 2030 and then asked to insert “and citizens” after Scientists. Commissioner Rick Albright moved and Commissioner Larry Yergler 2nd to accept the minutes with the edits presented. With these changes, the February meeting minutes were approved unanimously. **M/S/C**

Harwood announced that Commissioner Dan Green (Kootenai County) and also his alternate were unable to attend this meeting.

Update on Lake Management Plan (LMP):

Jamie Brunner (IDEQ) and Laura Laumatia (CDA Tribe) reported that they have been doing a lot of outreach and education over the last few months. Activities of the LMP included a Water Quality Conference (where there were representatives of over 20 Tribes), MILES-EPSCoR Annual Conference, a Water Awareness Week for 6th graders, upcoming November Spokane River Forum (including a 1 day Our Gem symposium), Confluence Project (UI confluence project partnership with schools that researched projects around the Basin), and Stakeholder Coordination whereby they are able to have conversations with the CDA Lakeshore Property Owners Associations and Fernan Recreation Conservation Association.

They are also getting feedback on the “Our Gem” map as well as constructive feedback from CDA Property Owners Association and the Kootenai County Natural Resource Advisory Board. They announced that they are going to Fernan area to give a workshop at the request of the Fernan Recreation Association and that they have been working with partners to give feedback on an assessment of the perception of people’s needs for future projects. They are helping the partners trying to narrow their focus down to 3 bays but have not decided on which bays yet. They welcome feedback on which bays on CDA Lake to choose.

Laumatia shared what is coming up over the next quarter:

- Hayden Meadows Water Quality Field Day
- Post Falls Chemistry in the Community
- Back to the Earth Watershed Camp where they are partnering with the Tribe and with about 40 students to raft with them down the river
- Map Revisions: “Our Gem” should be completed in the next few weeks
- North Idaho Fair in August
- Brunner noted that the Summer Sampling was started last month in April
- Waiting for word on EPA Environmental Education grant funding.

EPA Update on CDA Trust Work including Ninemile Canyon, LBCR, BCR expansion, and Basin Remedy Protection

Beth Sheldrake, (EPA) presented an overview and updates on CDA Trust Work by reviewing EPA projects in Nine Mile Creek, Interstate Callahan (IC), IC Remedial Action, and Success Mine. She reported that other activities in Ninemile include doing a lot of monitoring work and they will look again at the Rex Mine as they are still seeing loading sources coming out of that area.

(The graphics for this presentation can be viewed on the BEIPC website titled “EPA 2014 Project Work – BEIPC May 2014” under the NEWS node.)

Repositories:

Big Creek Annex Location: Looking at expansion to the area, taking advantage of the infrastructure already there, and are in the process of acquiring property with plans to build a bridge across Big Creek for access to the additional repository space and for full scale clearing and site prep in 2015.

Lower Burke Canyon Repository: Building a new repository in Lower Canyon Creek with the work to happen this year: 90% Design report due, ongoing groundwater monitoring throughout 2014 and construction during the late summer of 2014. Focus of development of North end to take waste from Canyon Creek cleanup in 2015.

Remedy Protection Work in 2014:

2014 Remedy Protection Construction Projects were identified in a number of areas that were subject to flooding and/or storm water runoff. Basin Projects are led by CDA Work Trust and Box Projects are being led by IDEQ with funds by EPA.

Basin Projects include Shields Gulch and Meyer Creek in Osburn. Box Projects include Little Pine Creek in Pinehurst and Portland Road Drainage in Kellogg. Construction is planned for fall 2014.

Ongoing Remedy Protection Work: Setting up priorities for the coming years.

- Pre-design: Mill Creek, Tiger Creek, and Copper Street in Mullan. Printers Gulch in Wallace.
- Design: Mill Road in Mullan, Revenue Gulch in Silverton and Portland Road in Kellogg.
- Remedy Protection Coordination & Outreach: Specific to each project.
They are working with local government as well as the impacted community.

Questions/Comments:

Commissioner Yergler commented that Shoshone County struggles with their budget. He stressed that all projects be considered for economic development noting that we need long term advantages like tax based ones. He added that we constantly struggle with our FEMA flood control requirements and made the suggestion for adding to the levees with dirt to get out of flood zone.

Commissioner Curt Fransen inquired about future budgets and the projected levels of effort and funds for projects. Sheldrake answered that we must balance our ability to oversee work, growing the investment, noting large dollar amount projects like the Central Treatment Plant as well as balance all of the priorities: working efficiently, not breaking up work in too small of pieces, and paying attention to the investments and how they are going. Fransen then asked if we're maintaining the budget level; looking at 20 to 25 million a year from the Trust. Sheldrake answered that it has been part of the working plan and could be less but there might be projects that push us over in certain years.

Executive Director Update

Terry Harwood, BEIPC Executive Director, announced that because of all the work that is being done, the BEIPC meeting in August will have a field tour in the afternoon to show what has been accomplished. Tour will include Big Creek to show where the annex repository will be and Smelterville where a major remedy protection project was done last year. He shared that Smelterville will be soon paving their main drag.

Harwood talked about the Access Agreements and Covenants that he has been working on and commented that sometimes the process gets more complicated, noting that these are documents that the landowner signs, and the local jurisdiction. State of Idaho and EPA also sign these legal agreements.

Harwood reported that he has also been managing the Unpaved Roads Program which is concerned about the contaminated unpaved gravel roads in the Basin. They have completed the sampling and the design for those roads that need remediating. He was happy to report that all of the unpaved roads that needed to be remediated will be remediated by the end of the year and that the competitive bidding saved a tremendous amount of money and therefore the money is going a lot further. He said that we must keep projects in the pipeline in order to take care of "shelf" projects. He added that it is interesting that most contractors (contracts awarded) are in the Silver Valley and that there are many positive aspects going on here.

Other things he has been working on include coming up with a list for side drainage projects, rural remedy protection projects, and an inventory of other infrastructure that have not been worked on like culverts, drainage structures etc., they must come up with a plan for maintaining them. These are being noted on a map system and inventory spreadsheet.

Harwood brought up the issue about what to do with someone that does not want work done on their property explaining that the process is very difficult to get people to agree and takes a lot of finessing. Little Pine Creek project has 23 adjoining properties so it is quite a process. He announced that there are additional Remedy Protection Projects: Mullan still has 5 projects to do. He noted that to do the work takes a lot of coordination and the team is working very well.

Stevens asked if there are plans in place to provide guidance to the community for O & M and how they can take care of these remedy protection projects after the work is done. Harwood answered that there are plans to provide the information and that they will receive an O & M manual and As Built Drawings for each project.

Lower Basin Sampling and Studies Results:

Ed Moreen presented fall 2013 updates on the Lower Basin (LB) noting that since his last report there has been analysis of the data collected. His presentation provided detailed information from the fall

2013 Lower Basin Riverbed Sampling Project that included findings on the Vibracoring, Sonic Coring, and Geophysics testing.

(The graphics for this presentation can be viewed on the BEIPC website titled “EPA Lower Basin Updates – BEIPC May 2014” under the NEWS node.)

Moreen explained that 315 Vibracore samples were collected throughout LB to obtain data for sediment transport modeling and to help characterize river bed structure. Intent of the Vibracores was not to get to the full depth of contamination but to obtain samples from the upper layers of the riverbed (approximately 2 meters). The crews focused the sampling locations on specific bed forms such as dunes, scour holes, planar beds, as well as side slopes. They also did sonic coring at limited locations to get the full depth of contamination.

Moreen presented additional grafts of the Vibracore results that represented lead concentrations at various depths. In general, he reported that the upper surface layer samples of sediments had lower concentrations of lead and the deeper core sediments samples had higher concentrations.

Vibracore Results:

- Bed structure is complex and variable but sampling results showed we can predict likely contamination from the 3D map of bathymetric images.
- Most contamination is on bottom of river, in areas with dunes or flat bed.
- Scour holes contain relatively minor amounts of contamination where most of the contaminated sediment has been picked up and moved out.

Moreen stated that one of the great tools is that we can create a 3D map which is one of the key objectives of the bed structure mapping. It is also very important as it helps to update our understanding of the system and refine the estimates of how much contaminated sediment actually lies in the lower basin riverbed.

Sonic Coring Results:

- 19 locations in 4 different transects cored in Dudley Reach within ½ mile.
- High resolution, high accuracy sampling to maximum depth of contamination
- Results showed contamination generally deeper than indicated by previous Vibracoring, but shallower than previous estimates of maximum depths
- Dudley Ranch results showed maximum depth of contamination at about 16 ft. and the average depth of contamination at about 14 ft. and with much less on side slopes

Cone Penetrometer Testing (CPT) Results: This device was used to help speed up data collection. Some CPT results showed encouraging correlation with native bed horizon.

Geophysics Results:

- All remote sensing methods tried to date have shown results unreliable for consistently determining maximum depth of contamination
- CPT results also inconsistent in detecting boundaries between contaminated and native sediment.

Next Steps:

They will continue to work with the large Vibracore dataset that will be prepared for use in sediment transport model. It also will be evaluated to determine additional data needs to be used this year.

EPA presentation on Lower Basin Pilot Projects:

Moreen provided an update on the two pilot projects in the Lower Basin:

Kahnderosa Bank Isolation Project design is completed. He noted that the construction schedule requires work within the “sweet spot” which is a narrow window to avoid fish impacts while promoting

vegetation growth needed for bank stability as well as to avoid disruption of the camping season. Work is planned for late September/early October.

He presented a graph of the peak runoff from the Cataldo – USGS Gage noting that “Mother Nature” controls the water level. He also noted the Swans/Geese at Agricultural to Wetland West Field.

The second pilot project is for water level management. The water level control pilot study is under evaluation pending property ownership negotiations, and hydraulic evaluations of embankment.

- Assessment of immediate and long-term benefits and impacts of hydraulic management
 - Immediate need is to deter waterfowl from feeding in contaminated areas but we don't know where they go or the long term effects of that might be
 - Long term need is to assess the probability of flooding and recontamination viability of controls to protect sites from flooding

Questions/Comments:

Harwood commented that making the ponds too deep for feeding by raising the water level as a way to move the birds off contaminated areas brings up the question as Moreen stated of where the birds go if you drive them away from their old home place.

Jerry Boyd (CCC Chair) asked if the trends of higher concentrations exist as you get closer to the lake. Moreen stated that we do not necessarily see a higher concentration trend toward the lake in the river bed sediments but we do see a distinct increase in concentrations between Cataldo and Harrison from the suspended sediment sampling. They have also seen that there is a big jump in lead concentrations between Cataldo and Rose Lake and another big jump between Rose Lake and Harrison.

Commissioner Cernera asked for clarification about the birds feeding areas and costs. He is wondering if just flooding the area to keep birds away is just saving money as one approach as opposed to cleaning the contamination and developing water management protocols to allow birds to feed safely. He added that he realizes it is a balancing act but he cannot see us in the long run chasing all the water fowl out of the lower basin that basically keeps the water high to keep them somewhere else. Moreen agreed that it is just one option and we need to have a number of tools in our belt. Harwood added that the hope is to have other places that are safe, but the idea is then what is the best way.

Commissioner Fransen inquired about the general trend of finding higher levels metals overlaying by lower levels if it is known that the higher levels are keeping them from moving or was that a separate transport model? Moreen answered we do not have the ability to know that right now. However, there is more dilute sediments coming in from the upper basin and a good dilution coming from the north fork.

Cernera commented that in the lower river monitoring that they have looked at bed sediments that are not actually physically mobilizing metals. But, another concern is that to just leave them in place does not necessarily resolve the issues of metals or nutrients mobilization.

Update on Restoration Partnership

Caj Matheson (CDA Tribe) reported on the activities of the Restoration Partnership (RP).

He reported that in their accomplishment report for 2013 that they primarily went through a scoping process in their planning with comments that can be viewed at www.restoration.org. Now they are using that information in developing their Restoration Plan making sure that as a public involvement process that they really involve the public. The approach they took for scoping was to consider how we restore natural resources and the impact of natural restoration. He added that part of their marketing focus is noting that restoration is really important because it involves the way you interact with the environment. It is part of how we identify with the area and involves “a sense of place”. They hope to

have a draft of the updated Restoration Plan ready for public review and comments in the fall of 2014.

One of the projects they are continuing to work on is in Pine Creek. They are still monitoring stream beds and plantings with designs to develop fish habitats. The other project is the Wetlands restoration project. They have seen that this particular wetlands area serves one of the highest diversity of birds. It is especially exciting to see the return of the Tundra Swans which demonstrates that these projects can be successful.

He presented the Tundra Swans video noting that although it did not solve the mortality problem of the swans, they were able to control the contamination because of the boundaries in the area. He said that this project will be difficult to replicate but represents a good example of partnerships. Rebranding the program was also a result of realizing how important partnerships are with organizations, other governmental entities, and the public, individuals and non-profits.

They worked with Fish & Wildlife, and EPA (their pilot project), other non-profit organizations, and the landowners. They are continuing to work with EPA on how to replicate this and coordinate between remediation and restoration. He stated that they have a great foundation for implementing the Restoration Plan and working with each other for continued success in the future.

Cernera asked if they figured out the cost per acre with the remedy plus the restoration. Stevens said that they can find that out. Cernera suggested that with the draft plan coming out this fall that they have a tour so public can see what is being done with the Restoration Partnership. Although BEIPC is going to have a field trip in August, he hopes that an additional field trip sometime could bring people out to view areas that have been restored so that they can actually see the plan of remedy and restoration in farther away areas. Matheson agreed citing the 319 Beaver Dam project as an example of an important natural feature and using a natural process in restoration.

Rebecca Stevens added that they are bringing in some expertise from within their Trustee family. She introduced Morai Helfen, a landscape architect/recreation planner for the US Forest Service out of Nez Perce/Clearwater National Forest. She stated that Helfen is looking at the human services component of our plan.

Lunch break

Update on Central Treatment Plant Upgrades

Ed Moreen presented updates on the Central Treatment Plant (CTP).

(*The graphics for this presentation can be viewed on the BEIPC website titled “Groundwater Collection System CTP– BEIPC May 2014” under the NEWS node.*)

Final Design Definition Recap:

- Key that came out of all the studies was the need for the cut off wall and series of extraction wells and conveyance to CTP.
- Minimize flow of oxygenated river water from entering collection system
- Improve efficiency – lower flows requiring treatment at CTP
- Select appropriate technologies for CTP Upgrades

GWCS Design Elements:

- 2 to 3 ft. wide barrier to groundwater minimum of 2 ft. below the surface
- Keyed into aquitard at depth ranging from 14 – 32 ft. bgs
- Slurry wall extends to about 8,000 ft.
- 10 – 12 extraction wells on CIA-side of wall
- Force main conveyance along north and east side of CIA to CTP

CTP Key Design Elements: There will be a new filter system

- Replace and Upgrade Mixing Tanks
- Add Automated Polymer System – currently manual mixing
- New Instrumentation and Controls for new/upgraded processes
- Retrofit Clarifier with effluent piping
- New filter system will be included in the new treatment plan
- Effluent Piping and Pumps to discharge on SFCDR
- Accommodate future expansion design

2013/2014 Activities

Phase II Groundwater Collection System (GCS) Investigation:

- Geotechnical evaluation – 9 borings and 4 test pits along pipeline corridor and slurry wall
- Install 6 new groundwater monitoring wells north of I-90 along SFCDR
- Baseline groundwater monitoring inside and outside of designed barrier wall

CTP Predesign Activities:

- Performed Pilot Studies
- Evaluate treatment technologies for various components
- Basis of Design – Previous Investigation, Pilot Studies, technology evaluation
- Complete Design Definition Phase
- Complete Schematic Design Phase (~30% Design completed)
- Finalize force main and effluent pipeline alignments

Part of the coordination with Paved Roads Program included discussion with the City of Kellogg. They have plans to remediate the entire length of Bunker Avenue. As a result, this segment has been delayed and the City will perform some interim activities.

- Draft Explanation of Significant Differences (ESD) for concept modification - Have performed analysis.
- Perform Failure Modes and Effects Analysis and VE Study
- With USCOE select optimal procurement process for construction and with CH2MHill on continuing design

Key Value Engineering Study Recommendation:

Control flows to the CTP to a maximum of 5000 gpm. Controlling flow requires 2 different things: Requires controlling g/w flows that are collected (current model predicts the flows to peak flows ~ 2500) and requires controlling flows from Bunker Hill Mine.

EPA has approached the mine operators for controlling the flow by requesting BH Mine owner use the mine storage to control flows from the mine between 2000 and 3000 gpm. This will allow the control of the flows that will save a lot of money for upgrades and operation costs.

Selected Procurement Strategy CTP/GCS:

Operate/Design/Build/Operate (ODBO) – team of contractors completes design and constructs upgrades in accordance with Work Statement. This involves a Hybrid Statement: Performance as well as Prescriptive. Design to meet those criteria and sharing risk for the government and the contractor.

ODBO Contract Milestone Dates – COE lead tasks:

- Industry Day – in Kellogg June 5 and 6
- Market Survey going on now to be complete by end of July
- Phase I solicitation of bidders end of June, early July
- Phase II solicitation about November
- Contract awarded about next May 2015
- Fast Track design about May – July 2015

- Initiate Fast Track Construction about August 2015
- Design Typical Track about May through October with construction to follow
- Fall 2017 to be completed.

Questions/Comments:

Commissioner Yergler inquired about the channel and mine discharge asking if there is surface water from the Milo Creek and that canyon, and the old Crescent Mine if it would make a difference. He also asked what is causing the loading of the river. Moreen replied that the number one loader of zinc is the contaminated ground water to the south fork of the river.

He agreed that the Crescent Mine flow to Bunker Hill Mine ground water is an issue but there is no data to confirm that concern. Milo creek has had a number of actions taken since 1990 including bypass systems and protection by EPA. There has been action in west fork of Milo in the past. Historic workings included caving. It is certainly a component but we do not know all the infiltration of the system. He stated that we would like the mine owner that is operating that mine to take the responsibility.

Commissioner Cernera asked about the sludge pond on the CIA with a certain life expectancy - What happens? After it runs its life is it capped? What is the life expectancy of the upgrade? Moreen confirmed that the typical life expectancy is half a century and that they take that in account in the design.

Commissioner Yergler asked if when treating the mine water are you removing the zinc and are metals stored some place. Moreen replied that they would love to be able to recover the metals but right now, metals are being stored and not being shipped outside and are not viable to recover at this point.

Commissioner Pfeiffer (regarding the phasing) asked if there is a gallon per minute limit potential. Moreen explained that it would have to phase in to size your components to deal with the larger flows. Pfeiffer asked if there are plans to re-pipe and expand and the Moreen said yes, in phase II. Moreen also confirmed that it was million pounds of metals – not sludge - that get removed each year.

Cernera then asked about the concentrated heavy metals. Moreen explained about the mining process: Extract ore, get rid of stuff that is not ore. Mill it. If you have sludge, then you do a separation process.

Update and Discussion of Paved Roads Program

Bruce Schuld (IDEQ) presented updates on the Paved Roadway Surface Remediation Program.

(*The graphics for this presentation can be viewed on the BEIPC website titled “Paved Roadway Surface Remediation Program Update – BEIPC May-2014” under the NEWS node.*)

Schuld reported that the Budget for 2014 Box and Basin Programs increased over 2013 largely due to funds carried over from 2013 and partly because there were unfinished projects. He added that the bid amounts are coming in 20 – 40 % lower and that there are contingency clauses in the bids. The City of Osburn is the first to begin work this month and work will begin in Pinehurst soon.

In the review of the budget for 2014 and also review of the ongoing lessons, he noted that although there were Paved Roads Long Term Projections plans with some project funding to 2014, that we will probably not see this much carryover for next year. Schuld added that they are trying to bring down the costs and they emphasize the need to have the coordination work with the utilities and the roads. He reported that they now have ongoing strategy from the communities for long term planning. Some of the roads projects are being deferred just to accommodate the installation of subsurface infrastructure before new pavement is placed. Also, there are a few cases where utility projects are being expedited to accommodate road plans.

Commissioner Pfeiffer asked about the timeframe for long range strategy and Schuld replied that it is 10 years, but could maybe be 7 or 8 years.

Commissioner Yergler asked about the cost saving and if we will be able to add roads with the savings. Schuld replied that it is too early to presume the costs will always be lower. He added that we are learning that some of the roads that were originally on the list may fall off the list and that the roads may fluctuate. He stated that there are lots of roads to pave but we may not do them all. Harwood commented that there is a good chance that we would complete what is already in the strategy and that would be great. Schuld added that the plan is going to fluctuate due to the remediation and wear and tear of the roads and if there will be significant upgrades.

Commissioner Yergler commented that he understands that there was not enough money to do it all to begin with but have hopes to do more.

Bonnie Douglas (CCC member) asked for an example of a Contingency Clause.

Schuld explained that there were two types:

1. Changes in conditions of the materials and comes in as a work order.
2. Communities came to the Board and asked for expanded roads - adding segments. Problem was that the Administration process was so slow, so this contingency clause made available the option to add some but stay within their budgets.

Harwood noted that the contractor must have a license in Idaho. Schuld shared that the program has about 80 people working now and that the program will employ over 150 so the program will be providing jobs.

Citizens Coordinating Council (CCC) Comment and Presentation

Jerry Boyd, Chair of the CCC, gave an update on CCC activities. He said that there was a good turnout at Medimont Grange at the April 16, 2014 meeting and that 18 out of the 23 were not agency folks. The changes included that the meeting started earlier, was a shorter meeting, and they focused the meeting - with the biggest focus on the Lower Basin. He also stated that Moreen did a good job in his presentation and the minutes captured the comments well.

Boyd shared that there were questions about if more of the stream banks should be stabilized and a suggestion was made that it is a good idea to have boats go slower up and down the river. He reported that Harwood gave a summary of the Roads Program and the question came up about maintenance. Harwood clarified that it is the responsibility of local jurisdiction. He also shared that regarding property remediation that Harwood stated that there are still holdouts from property owners.

Boyd reported that EPA is doing an outreach program interviewing members of the community that includes asking for assessment of what is being done. Rene Gilbert added that it is a part of their Community Involvement Plan with interviews currently going on now and she announced that there is a meeting tomorrow.

Boyd then asked that the presentations made at this meeting be posted on the BEIPC website. Harwood replied that he will ask for permission from the presenters first.

Commissioner Cernera asked if anything came up at the CCC meeting about the Lower Basin Collaborative. Boyd answered that it was acknowledged that the group still exists and although the group is currently inactive, he offered to facilitate any meeting that may come up.

Public Comment open session

No additional comments were made.

There being no further business, Commission Pfeiffer moved and Commissioner Cernera 2nd to adjourn the meeting. **M/S/C**

Meeting Adjourned at 2:15