

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 Cerna (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 Cerna 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 Smeltonville 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 Smeltonville, 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 Smeltonville. 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.

