

MEETING SUMMARY

SMP Work Group Meeting

December 14, 2023

10:00 AM – 12:00 PM

Location: Conference Room A, Bureau of Reclamation's Western Colorado Area Office and remote meeting via Microsoft Teams

Attendees: Jenny Ward (Reclamation), Mark Wernke (Reclamation), Frederick Busch (Reclamation), Christina Wyatt (Reclamation), Cory Williams (USGS), Rachel Gidley (USGS), Natalie Day (USGS), Charles Wahl (USGS), Kurt Broderdorp (FWS), Jedd Sondergard (BLM), Kevin Hyatt (BLM), Nora Flynn (CWCB), Kara Scheel (CWCB), Kenan Diker (CDPHE), Allen Distel (BPWCD), Paul Kehmeier (DCD), Robert Hancock (UVWUA)

Introductions and Discussion of Agenda

The agenda was accepted, and introductions were completed.

SMP Workgroup Contacts Updates

The BLM SMP Workgroup contact is changing from Jedd Sondergard to Kevin Hyatt. The new contacts for the NRCS are Stacey Eskew and Kindra Bradner. Both Bonie Pate and Estella Moore (CDPHE) are no longer with the State. Kenan Diker indicated there is a replacement coming for Estella, starting in January 2024. Kenan will bring her to the next meeting to see if she wants to participate.

2022 Annual Gunnison PBO Report Update

The 2022 Annual Gunnison PBO Report was finalized and submitted to the U.S. Fish and Wildlife Service (FWS) on December 5, 2023. Jenny will send out a copy of the final report to the SMP Workgroup.

Updated Science Plan Update

The Updated Science Plan has gone through peer and specialist reviews. It is about to be sent to an editorial group for final edits and to get it ready for publication. The report is likely to be published in 2024. The report changed from a Scientific Investigation Report (SIR) to a circular, which is about a year-long process. Kevin Hyatt requested a courtesy copy for review. Cory will send out a courtesy copy to the SMP Workgroup.

FY24 Species Conservation Trust Fund (SCTF) Funding Request

Cory Williams provided a background on the funding request. The request would fund a new effort led by Natalie Day and Charlie Wahl, and the effort is designed to pick up where Travis Schmidt's previous fish sampling efforts left off.

Much of the focus of the SMP to date has been on dissolved Selenium (Se) and the State standard of 4.6 parts per billion (ppb). The USGS has a monitoring program to look at the distribution of dissolved Se and how the loads have changed in time and space through the system. The USGS produces annual updates for the SMP Workgroup, and these updates are provided through a data release. The current dissolved Se trend looks at dissolved Se concentrations at Whitewater spanning from 1986 to 2022. The trend has been and continues to decrease. Concentrations have been reduced by about 51%, from over 7 ppb to under ~3.5 ppb. The 85th percentile has been under the State standard since about 2017. In 2021, the State removed the mainstem Gunnison River from their list of impaired waterways, indicating we have achieved the first goal of the SMP.

The second goals of the SMP is to improve conditions to assist in the recovery of endangered fish. The Gunnison River had the most individual exceedances of the fish Se concentration benchmark from 1960-2011. Recent data is not included, as the most recent data stops in 2011. We don't have an idea of what is happening with Se concentrations in fish since the trend has approached and lowered to below the State standard.

Travis Schmidt worked on creating an ecosystem model in the Gunnison River. Data was collected from 2015 to 2016. Travis sought to understand the connection between dissolved Se in water and how it gets into fish. It is unknown how Se transfers from the water and into biota. It is important to understand the path of Se from the water to the threatened and endangered fish, and to understand how seasonality influences these relationships. It was previously discovered that razorback sucker and Colorado pikeminnow were exceeding aquatic life protection activity during irrigation timeframes. All this data was collected before the dissolved Se fell under the State threshold. In addition, some species and locations were underrepresented in previous sampling efforts. The food web study showed that transfer between dissolved Se and biota is confusing, as there are lags and no direct association.

There are four proposed tasks associated with the new effort and the FY24 SCTF funding request. Proposed Task 1 is to organize and publish fish tissue data that was collected in 2016 and 2017. This will fill in gaps for fish species underrepresented in certain basins. The USGS will publish the information in a data release and prepare a summary presentation where the USGS compares the new data with the previous data. This effort will almost double the previous data set and will translate the muscle plug tissue concentrations into egg/ovary/whole body concentrations to explore possibilities for more in-depth analysis. This will help answer questions like are there surrogate species that can be used?

Proposed Task 2 is to develop a long-term biological monitoring plan in the Lower Gunnison. Historically, data has been collected for specific projects and there are large gaps in spatial and temporal understanding. The USGS proposes to establish 3-5 sites in the Lower Gunnison to continue seasonal monitoring of major categories of biota. Proposed Task 3 is to implement the

monitoring program. Monitoring would be conducted for 3-5 years and the results would be published in a SIR or journal article. The USGS would then use what was learned to refine a long-term monitoring plan. Proposed Task 4 is to model and publish the data collected during monitoring.

The project timeline is outlined in the table below:

Workplan Element	FY2024				FY2025				FY2026				FY2027				FY2028				FY2029				FY2030			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Task 1. Publish a USGS data release of existing fish data	X	X	X	X																								
Task 2: Develop a monitoring program			X	X	X	X																						
Task 3: Implement monitoring program									X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Task 4. Model and publish																									X	X	X	X

The project budget is outlined in the table below:

Workplan Element	Total Cost
Task 1. Publish a USGS data release of existing fish data	\$96,000
Task 2: Develop a monitoring program	\$38,000
Task 3: Implement monitoring program	\$132,000 in FY25 with annual increases to this amount anticipated to cover increases in cost due to inflation
Task 4. Model and publish	\$110,000

The USGS responded to some questions from the SMP Workgroup. It was asked if the existing data on Se concentrations in fish accounted for size differences in fish, and if younger fish had different concentrations. The previous sampling efforts didn't specifically look at if size affected Se concentration, but it accounted for different sized fish having different concentrations and they normalized them. Therefore, the results include size normalized concentrations. Mercury bioaccumulates and never leaves the fish, so we would expect higher concentrations of Mercury in larger fish; however, that might not be the case with Se. How often fish spawn might make a difference in Se concentrations. The USGS would need to collection the additional data in order to begin to understand how Se enters and potentially leaves the fish.

It was asked what occurred in the Gunnison Basin that aided in lower in the Se concentrations in the Gunnison River. The irrigation improvements completed through the Bureau of

Reclamation's and the Natural Resources Conservation Service's Salinity Control Program funding opportunities are thought to decrease Se in the system. The SMP has also looked at other potential sources of Se. Because there are a number of new faces in the SMP Workgroup, the USGS offered to revisit the Science Plan and give a presentation to the group so new members are familiar with the history of the SMP and accomplishments to date.

SCTF

Kara Scheel gave an update on the SCTF. CWCB submitted a request for \$650,000 in FY24 for the SMP to fund the new effort through 2030. The difference between the request and the total price of the effort is \$50,000, which SMP already has from previous SCTF funding requests. Several approvals and presentations need to occur to move the FY24 request forward. Kara will present to the Board at the end of January for their approval, and the request will then go the legislature. At that point, it will hopefully become law/approved and funding will be in hand around July. The USGS will be online during the January meeting in case there are any questions that Kara cannot answer.

The USGS questioned if they could contract and get underway by utilizing the \$50,000 in hand or do they need to wait until July. Kara is hesitant, as it would be simpler to do the work under one contract. Kara is also hesitant to say the funding that was previously approved for monitoring could be applied to this new effort. Cory said either way is fine, and the USGS can adjust plan on action depending on when they can get underway – keeping in mind that what looks like a 6 month delay will actually end up being a year long delay. Cory also asked if the USGS can front the cost-sharing portion of the money for the first 6 months and the CWCB could catch up once the funding is available. Kara will talk to contracting folks and see what they think and will touch base with Cory after the holidays.

The CWCB mentioned that they appreciate the presentations and would like to continue to see presentations about the science/findings.

Other Topics

Kenan Diker said CDPHE's Non-Point Source Program is working on publishing a success story about Se reduction in Segment 2 of the Gunnison River (the segment removed from the 303(d) list for Se impairment). The story should be published in 2024. CDPHE usually submits these stories in April/May. The story submitted this year was submitted to the EPA in April and is still sitting there. Kenan will share the story with the SMP Workgroup and get any input. Jenny will see if Kenan has enough of the story put together to do a presentation at the next SMP workgroup meeting.

Schedule for next SMP Meeting

The USGS will distribute the draft Updated Science Plan for courtesy review. Following that, the USGS will conduct a more detailed presentation on the Plan for the SMP Workgroup at the next meeting. Jenny will send out a Doodle Poll next March to schedule the next meeting. At that

time, the USGS will know the Task 1 schedule better and will be able to determine when the SMP can meet to go over what is learned during Task 1.

ACTION ITEMS

- Kenan will bring Estella's replacement to the next meeting to see if she wants to participate.
- Jenny will send out a copy of the final 2022 Annual Gunnison PBO Report to the SMP Workgroup.
- Cory will send out a courtesy copy of the draft Updated Science Plan to the SMP Workgroup.
- For the next meeting, the USGS will revisit the Science Plan and give a presentation to the group so new members are familiar with the history of the SMP and accomplishments to date.
- Jenny will see if Kenan has enough of the Section 2 success story put together to do a presentation at the next SMP workgroup meeting.