



Floyd Hill - SWEEP ITF Meeting #4

Meeting Summary

July 25, 2022, 10:30 AM to 12:30 PM

Google Virtual Meeting

1. Welcome and Agenda Review

Vanessa Halladay, CDOT, welcomed the group, and did a roll call of participants:

- Anthony Pisano, Atkins
- Ashley Guiles, Colorado Trout Unlimited
- Badr Husini, CDOT
- Carla DeMasters, CORVUS
- Chase Taylor, Pinyon Environmental
- Erik Schmude, CDOT
- Francesca Tordonato, CDOT
- Fred Rollenhagen, Clear Creek County
- Gary Frey, Colorado Trout Unlimited
- James Patanio, Atkins
- Jeffrey Hampton, CDOT
- Jo Ann Sorensen, UCCWA
- Jordan Falzetti, Atkins
- Joseph Walter, DNR
- Josh Giovannetti, CDOT
- Julie Smith, EPA
- Kevin Shanks, THK
- Kurt Kionka, CDOT
- Loretta LaRiviere, Peak Consulting
- Maddie Shields, CORVUS
- Madeline Head, Peak Consulting
- Mandy Whorton, Peak Consulting
- Margo McInnis, CDOT
- Matt Aguirre, Atkins
- Matt Hogan, Kraemer
- Matt Hubner, EPA
- Matt Kizlinski, Peak Consulting
- Matt Montgomery, USACE
- Nolan Hahn, EPA
- Stephanie Gibson, FHWA
- Tyler Brady, CDOT
- Vanessa Halladay, CDOT

Vanessa Halladay reviewed the agenda, thanked everyone for attending, explained that the Floyd Hill Project (Project) is now moving forward with a Construction Manager/General Contractor (CM/GC) team (Atkins for final design and Kraemer for Construction Management) and what CM/GC means, and did introductions. The presentation from the meeting is attached to these notes for reference.



2. Project Updates and Status

Vanessa gave a recap of the work that has been done so far in 2022 and outlined the anticipated schedule for the Project through 2027. She also reviewed the major project elements and the refinements to the Environmental Assessment (EA) Preferred Alternative that was identified in August 2021.

3. SWEEP Update and Next Steps

Since it has been a few years since the Stream and Wetland Ecological Enhancement Program (SWEEP) Issue Task Force (ITF) has met, Mandy Whorton gave a quick summary of the past meetings. Mandy explained that the SWEEP role will continue through the design and construction life cycles, as generally described in the Memorandum of Understanding (MOU) implementation matrix. For the Floyd Hill Project, it is anticipated SWEEP ITF will leverage partnerships opportunities and cooperation with the signatory parties in the SWEEP MOU, review revised design concepts, and provide input on the creek relocation and mitigation planning, riparian area restorations, and water quality designs.

4. CM/GC Design Innovations

The Kraemer team has been working closely with the Atkins design team to optimize the Preferred Alternative and improve the constructability of the project. There are changes proposed in each Project section. The major change of interest to this ITF, however, is the relocation and enhancement of Clear Creek and riparian restoration opportunities. The creek relocation area described in the EA has been avoided but a new relocation is proposed, which is close to the same amount of linear feet and impacts as the area proposed for realignment in the EA.

5. Water Quality

Jordan Falzetti gave a brief review of the SELDM model and how it is being used for the Project in the design and water quality approach.

In 2020, CDOT transitioned to using de-icing agents in lieu of traction sand, which required a shift in the control measures approach at key locations along the creek. Additionally, based on recommendations from CDOT Maintenance, the treatment ponds are larger and consolidated compared to what was proposed in the Sediment Control Action Plan, or SCAP, because the smaller ponds are difficult to access and maintain.

The SELDM model determines the amount of pollutant loading that would impact the creek. De-icing chlorides are a major pollutant of concern and the best way to control them is by applying less, however there are portions of the roadway, such as steep grades and elevated structures that may require higher applications.

Because de-icing creates chlorides which are dissolved, they don't settle out in traditional ponds. In portions of the Project where there are more vegetated areas and swales, the runoff of chlorides will be slowed before reaching Clear Creek. However, through much of the central portion of the Project, the roadways are directly adjacent to the creek, and opportunities to filter pollutants through vegetated swales are limited.



During construction, all the typical control measures in the CDOT guide will be followed to ensure the runoff/sediment doesn't end up in the Creek.

Question: Gary Frey asked if and how the baseline condition is being established.

Answer: The Project team had the baseline from the 2020 SELDM study which compared existing conditions versus proposed and that was used to form our water quality approach. The model included monitoring data of pollutant loads.

Question: Gary asked how will you know if mitigation is effective without collecting post-construction data.

Answer: Josh Giovannetti said CDOT has had four monitoring stations on Clear Creek since 2001. One is above the Project and the most downstream station will be below the Project. We will continue to monitor this for as long as we have funding and continued interest in doing this.

Question: Jo Ann Sorensen said UCCWA had heard that CDOT was no longer monitoring at CC40 which is right near Two Bears, is that accurate? There is long term data available for this site and it is important to continue to monitor it for trends.

Answer: Josh said CC40 is still active, but CDOT had to order new equipment that will be installed as soon as it arrives. This is a very critical site with a long history of data, so CDOT plans to continue monitoring there.

Question: Jo Ann asked if any of the design innovations influence maintenance practices or the ability to add mitigation for the chloride situation and is the data for the chloride in the creek being utilized? There is an increasing trend every year in salinity of the creek. If you could incorporate that data, I think that would be helpful.

Answer: We did use monitoring data for the baseline modeling in 2020 and will continue to review data moving forward.

6. Floodplains

Jordan said there is a Clear Creek 100-year floodplain mapped by the Federal Emergency Management Agency (FEMA). In order to move through the permitting and regulations, the Project team will prepare and submit a flood plain development permit to Idaho Springs and Clear Creek County. The goal is to have the floodplain permit approved by both communities so we can move forward with construction.

There is a state code that both communities and the Colorado Water Conservation Board adopted that if there is a half-foot rise or fall in elevation from existing to proposed, a conditional letter of map revision (CLOMR) process would have to be done and it could be a lengthy process. We are trying to keep the floodplain elevation to less than a half-foot.

Both communities agree with this approach and agree they will not ask for a CLOMR unless state code demands it be done.



After the project is completed, a letter of map revision (LOMR) will be completed to update the mapped floodplain.

7. Wetlands and Waters of the US

Mandy said the wetlands were fully delineated in 2018, and the EA identified impacts to the creek from the proposed realignment in the West section and some minor potential wetland impacts in the Central section. The impacts are pretty much the same now, just the locations have changed.

In the East section there is a large wetland complex at Beaver Brook that was avoided in the Preferred Alternative and continues to be avoided. There are also wetlands associated with Johnson Gulch, but they will not be affected.

The creek runs adjacent to I-70 throughout the Central section, which is more constrained and has a lot of different needs, such as rafting and fishing accesses. This is the area for the new creek proposed realignment and has high potential for creek enhancements and restoration.

In the West section we have avoided most of the impacts because relocation of the creek east of the Veterans Memorial Tunnels has been avoided. Avoiding this section of realignment maintains an area important to the rafting use of the creek. The new area of relocation is less important to the rafting communities, but the Project has committed to maintaining the rafting experience with any creek restoration. A whitewater designer will be working with the team on the design from a rafting perspective.

8. Riparian Areas

Maddie Shields explained the Colorado Stream Quantification Tool (CSQT) is required by the US Army Corps of Engineers (USACE) for any project that requires an Individual 404 permit, which is anticipated for this Project due to permanent creek impacts with the realigned section (and other areas that may be affected at any level).

There are five Functional Categories of which we will be focusing on two with this Project and the parameters include:

Reach Hydrology: Reach runoff, baseflow dynamics, floodplain connectivity

Geomorphology: Lateral mitigation and riparian vegetation

CSQT looks at the existing conditions of the stream and proposed conditions and based on this, we will either show a lift in function which is great, or if we show a debit, we need to offset that compensatory mitigation for stream losses.

Immediate next steps will be to finalize the impact areas based on the design innovations. Then we can finalize our approach memo to the USACE for discussion and a field visit and once we agree, we will begin CSQT data collection and develop our mitigation strategy.

Comment: Nolan Hahn suggested inviting Rachael Harrison to the site visit.



Comment: Matt Montgomery said that starting the CSQT early would be helpful to the permitting schedule. Mandy noted the intent of SWEEP and the floodplain project is to improve the condition of the creek independent of what our commitments are. We will take the areas of opportunities with the creek realignment, riparian restoration, and water quality treatments to improve the condition of Clear Creek throughout the project area.

9. 404 Permit Scope and Schedule

Mandy said an Individual Permit will be required for the stream impacts. The delineation will be refreshed in the impacted areas and finalized in September. We expect the permit process to take approximately six months and be submitted in February 2023 with an anticipated permit issuance in July 2023 so we can start work on the critical areas in August 2023.

Matt Hogan reviewed the major construction activities that would affect Clear Creek. He said work in the creek would not likely start until November 2023 but preparation and access work adjacent to the creek would ideally start in late summer/early fall 2023.

10. Riparian Areas

Kevin Shanks reviewed two large areas for riparian restoration are near the Veterans Memorial Tunnels and under the viaducts near Sawmill Gulch.

In a lot of areas, Clear Creek is really constrained. One of the exciting things about the design of I-70 using viaducts and the roadway realignment is that there are opportunities to remove some of the very steep rocky stream banks and create riparian benches. We anticipate reconnecting and widening the creek to its floodplain to a more natural condition.

Some of the in-channel aquatic habitat improvements that were used for the Twin Tunnels restoration project can be used on this project.

In the West section the roadway is shifted to the north and makes more room, providing an opportunity for revegetating to create a more natural look with plants that are right for that area.

For mitigation, we will salvage weed free topsoil where we can and harvest willows in the Project area. Clear Creek County donated composting materials for the Twin Tunnels project, and we may have an opportunity to do that again.

Mandy noted since the EA was completed, there is heightened awareness and concern about fire mitigation and tree health. We will keep this as a topic for future discussion as we think about leaving this place better than we found it.

Question: Gary asked if there was any decision at the recent Technical Team meeting about moving the westbound entrance of US 6.

Answer: Matt Hogan said we did not resolve it. We talked about the benefits and alternatives of moving the section of US 6 headed to the west. The TT recommended keeping all of westbound north of the Creek through that area. That would accommodate either moving the ramp towards Hidden Valley or bringing it up at a point very similar to what was shown in the EA and we will continue to refine this as we move forward.



Question: Gary asked how the future work for the stream restoration and improved riparian areas relates to the westbound entrance to I-70 from US 6?

Answer: Kevin said by eliminating that access ramp we may have a little more room for the creek, but we need to study it more.

Mandy said removing the on-ramp would reduce the amount of infrastructure in the area and would have fewer potential direct impacts to the creek. The frontage road, which extends underneath the proposed viaducts, could move farther from the creek if the US 6 access to I-70 was moved to Hidden Valley, pending determination that peak period traffic could be accommodated on the frontage road. Matt clarified that the option that was discussed at the Technical Team to align I-70 to the south side of the creek was not advanced.

Comment: Fred Rollenhagen said the Walstrom Quarry is going to request rezoning for a new project which may include impacts to the south side of Clear Creek. It would probably be good for the project team to meet with them to discuss the proposed creek improvements that may coincide with their improvements.

11. Next Steps and Action Items

Invitations have been sent out for the Field Visit for Friday, August 26th from 9:00-12:00. Please feel free to forward the invite to your colleagues who would benefit from attending or you can let us know who they are and we can forward the invitation to them.

Today's presentation will be sent to the ITF with the meeting notes.