



MEETING NOTES

PROJECT:	23982-23929 I-70 West Vail Pass Safety and Operations Improvements
PURPOSE:	SWEEP ITF #3 Meeting
DATE HELD:	January 25, 2021
LOCATION:	Online Google Meet Meeting
ATTENDING:	John Kronholm, Project Manager, CDOT Region 3 Karen Berdoulay, Resident Engineer, CDOT Region 3 Rob Beck, Program Engineer, CDOT Region 3 Matt Figgs, CDOT Region 3 Paula Durkin, CDOT Becky Pierce, CDOT Jen Klaetsch, CDOT Cinnamon Levi-Flynn, CDOT Tripp Minges, CDOT Carole Huey, US Forest Service Justin Anderson, US Forest Service Melvin Woody, US Forest Service Kristin Salamek, CDOT USFWS Liaison Ben Wilson, USACE Laura Margason, EPA Region 8 Matt Hubner, EPA Region 8 Julie Smith, EPA Region 8 Jeff Bellen, FHWA Scott Garncarz, CDPHE Pete Wadden, Town of Vail Len Wright, Ph.D., ERWSD Siri Roman, ERWSD Jen Bradtmueller, Kiewit Mark Gutknecht, Kiewit Holly Huyck, Pinyon Environmental Robyn Kullas, Pinyon Environmental Randal Lapsley, R S & H Jeb Sloan, R S & H Mary Jo Vobejda, Jacobs Jim Clarke, Jacobs Pat Hickey, Jacobs Loretta LaRiviere, Jacobs
COPIES:	Attendees

SUMMARY OF DISCUSSION:

1. Introductions & Meeting Purpose

- a. Karen introduced the attendees at today's meeting.
- b. Mary Jo reviewed the purpose and goals for today's meeting:
 - Gather feedback on the SWEEP (**S**tream and **W**etland **E**cological **P**rogram) process to ensure the project is successful. Topics for today's meeting are:
 - i. Status updates on EA, FONSI, and INFRA Project
 - ii. Review EA and SWEEP Implementation commitments



- iii. Understand team roles and responsibilities
- iv. Gather feedback on approach to SWEEP approach the technical experts are using for the different elements.
- v. Karen said that if anyone didn't receive the meeting information packet that was sent out on January 18th to put your email address in the chat box and she will forward it to you.

2. Status Updates

- a. Karen said the FONSI (**Finding of no Significant Impact**) has been approved by the FHWA and are going through the final signature process.
- b. Mary Jo said a survey was sent to all PLT, TT & Issue Task Force (ITF) members and the purpose was seek feedback on how the CSS process went during the last few years while developing the EA. The survey focused on the CSS process, not the outcome of the project. The survey questions covered multidisciplinary nature of the teams, regularity of meetings, team effectiveness, reflection of the community's qualities, collaborative discussions, project stakeholder contributions, input through the process, availability of resources, and 2-way communications.
 - i. The survey was sent to 54 participants in the previous process and sixteen responses were received. Overall, the results were 80% positive responses. Some comments suggested more 2-way conversations and more opportunities for feedback as improvements.
 - ii. Mary Jo said if anyone has suggestions on how to improve 2-way conversations and opportunities for more feedback they can email us their suggestions.

Mary Jo said that based on the feedback received from the TT (Technical Team) their meetings will now be monthly and have been scheduled through June. The PLT (Project Leadership Team) will meet quarterly. The TT has met twice and the PLT once.

- c. Revisions suggested for the PLT, TT & ITF membership have been incorporated.
- d. The design team is starting to work on the first projects for the INFRA Grant.
- e. Mary Jo said SWEEP is the first ITF meeting to be held.

3. INFRA (Infrastructure for Rebuilding America) Grant Project Scope

- a. Karen said the overall project is estimated to be \$700M. The first phase is \$140.4 M for design and construction. The reason we chose the scope shown is we want to optimize safety and operations in the eastbound direction.
 - i. A third lane will be added from MP 185-190 and increasing the inside shoulder from four-feet to six-feet and the outside shoulder to ten-feet. In this area we are installing six wildlife underpasses and fencing. The fencing will connect with the bridge MM 185 at the bridge and extend it up to the top of the pass.
 - ii. Glare screen barriers will be installed on both the east and westbound medians where they are at the same level.



- iii. The recreation trail will be relocated further away from I-70 from MP 185 – MP 187 to make room for the eastbound third lane.
- iv. Because of the high crash rates at the curves at westbound MP 188 and MP 186, the curves will be smoothed to meet current geometry standards and increasing the inside shoulder from four-feet to six-feet.
- v. The bridge at Eastbound MP 185 is in poor condition and is Bridge Enterprise eligible so will be reconstructed. This is where the auxiliary lane and shoulder widening begins.
- vi. Straightening out the lower truck ramp at MP 182 to meet current truck ramp standards.
- vii. Installing signage improvements throughout the corridor including a variable speed limit system.
- viii. Installing an automated highway closure system at the bottom and top of the pass with overhead signage and a push-button gate.
- ix. Installing an anti-icing system on the eastbound bridge at MM 184.

4. Overall Project Design and Construction Schedule

- a. Karen said the project will be using the CMGC (Construction Manager/General Contractor) method. The grant commitment is to start construction this summer of the first construction package. Since the SCAP (Sediment Control Action Plan) won't be completed by then, we are evaluating scope that does not include impervious surfaces. The first construction package being designed are the highway closure system, and the lower truck ramp reconstruction. The remaining three construction projects are to be determined later.
 - i. The ITFs will more engaged and will continue to be involved during the design. The 106/Aesthetics Meeting is February 1st and the ALIVE meeting (A Landscape Level Inventory of Valued Ecosystem Components) meeting is February 10th.
 - ii. Karen said the I-70 CSS process will continue throughout construction.
 - iii. Design will be completed by the end of 2022 and construction will be done by the end of 2024.
 - iv. The CAP #1 project design will be finished in May. The remainder of the project will be at FIR in the fall. Then we will start to break out the packages and prioritize them for delivery in February 2022, May 2022, and December 2022.

5. CSS Processes

- a. Mary Jo explained we are now in Life Cycle Phase 3 of the CSS Process: Project Design. During this phase, we will be looking to ensure the options best serve the decisions that were made in the EA. This phase will ensure the mitigation commitments are incorporated.



- b. The CSS 6 Steps during this Phase remain the same as the other phases:
 - 1. Define the Actions (Defined in the EA/Mitigation)
 - 2. Endorse Process (by TT & PLT)
 - 3. Establish Criteria (ITF methodology)
 - 4. Develop Options (ITF may or may not develop)
 - 5. Evaluate Options (ITF and TT recommendations)
 - 6. Document (Environmental Mitigation Tracking)
- c. Mary Jo noted there may be options for some of the ITFs on some of the design but there may only be one way to reach the mitigation using the ITF methodology.
- d. The ITFs will present their recommendations to the TT and the TT will present those recommendations to the PLT.

6. SWEEP Implementation Matrix

- a. Karen said Implementation Matrix has a lot of information and it may help if you open the document sent in the meeting packet to be able to follow along more closely.
- b. Mary Jo noted that each of the Life Cycle phases are show across the top of the Matrix. Project Development has been the work of getting the preferred alternative and mitigation. In each phase there are inputs, considerations and outputs or products.
 - i. We are now moving to Project Design which still has the same categories. The experts have gone through the matrix to ensure the inputs are still correct and are there other inputs that need to be considered and what are the outcomes that we will be able to design in this phase.
 - ii. The SWEEP elements are divided into Sediment Management, the Clean Water Act, Wetlands Protections, Aquatics with Special Status and Aquatics as a Recreation Resource. The presentation has been divided into these categories.

7. EA Commitments Related to SWEEP

- a. Holly explained she is the technical lead for the SCAP (Sediment Control Action Plan) and the Maintenance Manual. Both will be written at the same time because each informs the other. We are focusing on the INFRA Grant projects right now and those sections will be completed by the end of 2021. There will not be any new impervious surface construction until the SCAP is completed.
- b. Holly noted the commitments come directly from the EA Mitigation and include both procedural and construction specific requirements. The Sediment-Permanent Control Measures include:
 - i. In conjunction with final design and prior to the construction of any new impervious surface, the Black Gore Creek SCAP will be updated, in coordination with the SWEEP ITF.

- ii. Many improvements identified in the SCAP update will be designed and constructed as mitigation in areas of new construction where there are impacts of additional traction sand and additional runoff.
 - iii. Riprap aprons or other appropriate control measures will be used below outlets of stormwater infrastructure.
 - iv. Sheet flow will be consolidated into channels and swales, where feasible, and conveyed to dedicated discharge points through a sediment control measure to reduce riling/rutting of the slope.
 - v. Use grading and revegetation with native species for permanent stabilization.
 - vi. Permanent control measures will be implemented in areas of historic erosion or suspected future erosion.
 - vii. CDOT will identify opportunities to improve maintenance access to these areas in Zone 1 (as defined by the SCAP) by incorporating improvements into the roadway and structure design.
 - viii. During construction of the Proposed Action, collected sediment in these areas will be removed where feasible and the areas will be revegetated
 - ix. Permanent control measures will be designed and installed to minimize the amount of sediment entering the Black Lakes.
- c. The Sediment Construction Related commitments include:
- i. Temporary control measures will be required within the disturbance area during construction to minimize disturbed sediment from entering the adjacent creeks.
 - ii. A SWMP will be prepared and updated, per CDPHE Stormwater Construction Permit (SCP) requirements for construction.
 - iii. CDOT will implement appropriate control measures for erosion and sediment control according the CDOT Erosion Control and Storm Water Quality Guide, and CDOT Specifications requirements.
 - iv. SWMP will identify methods to mitigate disturbance to deposits during construction including, but not limited to, remediation practices under bridges (in areas impacted by construction activities), sediment removal, and stabilization practices. Practices will be employed where possible and only in areas where the situation can be improved by intervening.
 - v. Temporary control measures during construction installed to minimize the amount of sediment entering the Black Lakes, Black Gore Creek, and Gore Creek.
- d. The Fish Related Mitigation Commitments include:
- i. Per SWEEP MOU to address issues related aquatic habitat in the study area, responsibilities include:

- Follow the CSS Process, identify and prioritize species and habitats, establish mitigation recommendations and determine how they will be implemented, to work effectively and collaboratively.
- ii. Fish barriers between Black Gore Creek and conservation streams should be inspected and repaired/improved where necessary.
- iii. In no instance allow construction activities or equipment to work in flowing water or disturb sediment during recognized trout spawning seasons unless in coordination with Colorado Parks and Wildlife (CPW), as follows:
 - Cutthroat Trout: June 15 - September 30
 - Brook Trout: August 15 - September 30
- iv. Prevent the spread of invasive aquatic nuisance species, including Eurasian watermilfoil, zebra mussel, and New Zealand mudsnail by following CDOT's Guidelines for SB 40 Wildlife Certification.
 1. Melvin Woods inquired about the recreation trail providing a barrier on Miller Creek (just below the bridge at Pole Creek). Where will the trail be rerouted to?
 - a. Randal said the trail will be realigned as shown in the EA in the location just north of where it currently crosses under I-70. We plan on tying into the trail approximately where the westbound lanes cross the trail and then it would continue up the pass and cross toward the west side approximately ½ mile and then cross back over to tie into the existing trail.

8. SCAP and Maintenance Manual Schedule

- a. Holly reviewed the schedule for the SWEEP ITF involvement:
 - i. Meeting #4 will provide the opportunity for input on the Maintenance interviews and preliminary designs.
 - ii. Meeting #5 will review the SCAP and Maintenance Manual draft documents
 - iii. Meeting #6 will present the design recommendations and confirm the SWEEP Implementation Matrix is completed.
- b. Karen noted that the SCAP is very important to this group as well as how we are choosing the control measures or replacing them. Our goal is to seek feedback on the process and schedule. SWEEP meetings are scheduled for March, June, and October but they are flexible and will schedule additional meetings if issues arise that need further discussion. She encouraged the group to let us know if they have concerns on any of these.

9. SCAP Document

- a. Mary Jo noted the Sediment Control, Clean Water Act and Aquatic Species slides shown in this section has been updated in red to include the technical experts' additions to Considerations, Outcomes and Projects.



- b. Holly said both the SCAP and Maintenance Manual will be living documents and will be updated when new control measures are implemented and will apply to future projects.
- c. Holly said the SCAP covers West Vail Pass from MP 180-190. It is a master planning document for the Black Gore Creek Watershed and extends beyond the current design and construction project. The SCAP will address maintenance of conveyance and treatment, SCAP Control Measures, and maintenance practices to minimize sand usage.
- d. Holly reviewed the SCAP summary outline:
 - i. Executive Summary
 - ii. Introduction
 - iii. Watershed Description
 - iv. History and Status of Black Gore Creek and Gore Creek Water Quality and SCAP efforts
 - v. Corridor Drainage Description
 - vi. Environmental Considerations and Requirements for Drainage and Control Measures
 - vii. CDOT Maintenance Program: Summary from Maintenance Manual
 - viii. Control Measure Design analysis for Sediment Control in Zone 1
 - ix. Proposed Structural Control Measures
 - x. Proposed Non-Structural Control Measures
 - xi. SCAP Implementation Plan
 - xii. Opportunities for Partnerships Both Inside and Outside the SCAP
- e. Holly noted the previous SCAP focused on Zone One which is thirty feet from edge of pavement in either direction. Because of the challenges of having to fit a lot into a very small acreage, Zone One is being redefined to include roadway plus the width on either side and includes items such as sediment basins, snow storage and wildlife fencing. In some areas Zone One could increase to one-hundred feet.
- f. Holly said that Black Gore Creek's stream health will be monitored during and after construction by CDOT Region 3 and their partners.
- g. There was discussion that there are opportunities for partnerships inside and outside the SCAP Zone One area. Karen said there is a history of partnerships within Zone One and this could be an option to advance priority improvements in unfunded phases of the project or items beyond required mitigation

10. Maintenance Manual for Sediment Control on West Vail Pass

- a. Holly clarified this maintenance manual does not replace but complements the standard Patrol 40 Plan which specifies how to keep the highway open. This manual is specific to maintenance of sediment control measures.



- b. Holly noted the Maintenance Manual will include a GIS Mapbook.
- c. Holly reviewed the summary of the Maintenance Manual outline:
 - i. Introduction and Background
 - ii. Map book of Completed Control Measures
 - iii. Standard Maintenance Operating Procedures for Control Measures
 - iv. Standard Maintenance Operating Procedures for Roadway Safety
 - v. Recommended Documentation and Reporting
- d. Holly said maintenance staff interviews are being conducted to confirm which methods work best for them.
 - 1. Siri inquired if recommended timing and frequency for maintenance and removal will be included in the maintenance manual.
 - i. Holly confirmed that it would be included.
- e. Karen encouraged the group to let us know if we have missed anything in either the SCAP or Maintenance Manual outlines. Please email your comments to cdot_wvailpassauxlanes@state.co.us and we will include them with the meeting notes.

11. . Control Measures

- a. Holly said that BMPs (**B**est **M**anagement **P**ractices) are now being called Control Measures to align with CDPHE terminology.
- b. Holly said that in the fall of 2020 survey teams were able to locate and assess 67 of the sediment control measures on the east and westbound sides of the pass. This isn't a complete assessment, but it will help the designers with the alignment design. They will need to be updated in the spring for both new and existing control measures.
- c. Holly explained the existing sediment basins on West Vail Pass are tucked into the topography, are small to medium size, have riprap outlets with soft sides and bases. Some can only be accessed by maintenance from the recreation path.
- d. Holly proceeded to review two new proposed control measures. She noted these have not yet been reviewed for Aesthetics.
 - i. Modified Hard Sides Loading Dock Sediment Trap – The new features which will allow for improved maintenance include a scored ramp to get in and out and an infiltration section in the center. The advantages are the scoring and the slope of the ramp allow for loaded equipment to get out without sliding. The infiltration allows water to seep in and there won't be a pond. The wall perpendicular to the ramp gives the maintenance loaders a flat place to push against to pick up sand.



- ii. Gabion Basket with Cutoff Wall – the wall gives a flat place for loaders to push against to pick up sand. The cutoff wall clearly indicated to maintenance when to stop digging. Large boulders could also be placed at each end.
- iii. Holly asked the group if they agree these should be included as possible control measures.
 1. Melvin said he feels the Modified Hard Sides Loading Dock Sediment Trap is a better option. The Gabion Basket will get scour from critical flow over the top of the basket. Overtopping could cause scour too.
 - i. Holly said the Gabion Basket could be turned 90 degrees so the end could be clearly seen. Riprap will help prevent scour.
 2. Justin said this is the first time he has seen these control measures. It's great to see these considered as a larger menu of measures that would be effective. Hopefully they can be field fit for each site, so they are appropriately sized and work with the hydraulics.

12. Clean Water Act

- a. Holly noted that CDOT Headquarters recently convened a stakeholder group to discuss obtaining and sharing monitoring information in a more transparent manner. The goal is to create a five-year MOU (**M**emorandum **o**f **U**nderstanding). They have applied to the FHWA for funding to add macro invertebrate monitoring on Black Gore Creek.

13. Aquatic Species

- a. Holly noted there are no anticipated direct impacts within the INFRA Grant Project. We will incorporate spring and fall spawning dates into the specifications to minimize construction-related impacts. Sediment will be removed from active construction areas. This process will be reviewed and completed on all subsequent projects based on impacts.

14. EA Wetlands Commitments

- a. Jim noted that during the EA, there was wetlands field delineation work done but it was not complete.
- b. Jim reviewed the major EA Wetland commitments:
 - i. All wetlands will be formally delineated during the design stage.
 - ii. All efforts will be made to avoid any additional wetland impacts, minimize potential impacts to the maximum extent practicable, and then provide compensatory mitigation for unavoidable impacts.
 - iii. All permanently impacted non-fen wetlands will be replaced at a 1:1 ratio; fens may need to be replaced at a higher ratio
 - iv. Commit to prioritize on-site mitigation during construction.

- c. Jim reviewed the workflow related to Wetlands and touch points with the SWEEP ITF:
- i. Because they were unable to get out to do the formal delineation before the snow fell, they are doing a thorough review of the previous work to come up with some preliminary wetland impacts for the designers for the INFRA Project. They will also start to develop a conceptual level of avoidance and minimization.
 - ii. They have started to work with the Grand Junction USACE Field Office to start the Section 404 Permitting process.
 - iii. Meeting #4 will be scheduled for some time in March and will gather feedback from the ITF on the wetlands design to date.
 - iv. Meeting #5 will probably be in June after the Wetlands delineation field assessment has been done and will look at the design refinements that were needed after the delineation was done.
 - v. Meeting #6 will be in the fourth quarter and will present the design recommendations and confirm the SWEEP Implementation Matrix has been completed for the project.
 - vi. Wetland protection and avoidance will impact the SCAP, wildlife mitigation, the recreation trail and other design elements.
1. Ben inquired if the preliminary impacts estimates indicate if an individual or nationwide permit would be needed.
 - i. Jim said he doesn't have any numbers he can share today. The designers are starting to lay out the roadway alignment and have the wetland boundaries and they are focusing on avoidance and minimization. But we don't yet have a good handle on the INFRA Grant project impacts. They are pretty sure there will not be any direct impacts to fen locations but that will be confirmed when the delineation work is done this spring.
 2. Len asked at what point in the process will the mitigation strategies be defined and how does fen mitigation at higher than 1-1 work?
 - i. Jim said defining mitigation concepts cannot be determined until we have the formal delineation boundaries and impacts.
 - ii. Pat said the EA preliminary wetland assessment did identify areas for potential mitigation. The formal delineation will confirm if they can be done. He said that wherever possible they would like to take a holistic approach to use wetland mitigation to complement water quality issues and wildlife habitat crossings. This will require working closely with the other ITFs.
 - iii. Jim said fens are difficult to replace but he doesn't think there are any that will need to be replaced. There are some fens identified as being in poor condition and there is an opportunity to restore those.



- vii. Jim said the overarching value of the Wetlands Implementation Matrix is no net loss of wetland function.
- viii. Jim noted the Inputs, Considerations and Outcomes and Products have been added to by the project experts to define more clearly what will be used.
- 3. Ben asked if the delineation work that will be done this summer will encompass additional projects for when funding is available or are you limiting to what is needed for this project?
 - i. Jim said that because of time and funding we will be focusing on what may be affected by the INFRA project.

15. Next Steps

- a. Mary Jo reviewed the next steps:
 - i. Start-up ITF meetings completed in February
 - ii. TT meets again in February after 1st ITF meetings completed and will review the ITF progress and assess overlap among the ITF work
 - iii. INFRA Grant Project Design proceeds
 - iv. ITF meetings to present design recommendations
- b. Mary Jo asked the group we have reviewed the process and methodology and if we follow the steps laid out by Holly and Jim, will we be meeting the matrix commitments? No one had any comments.
- c. Karen said we presented a lot of information today and encouraged everyone to take some time to review the documents and let us know if we are missing anything. Please send your comments to: cdot_wvailpassauxlanes@state.co.us.
 - 1. Justin said the materials were well presented and he appreciates having the documents to review after the meeting and will send any comments to the email address noted.

16. Comments Received after the Meeting

I tried to speak up during the meeting but was running into trouble with my microphone, again. My apologies for that.

I was really pleased to see both of the new sediment control measures pictured in slide 25 of today's presentation. I was hopeful that some new and innovative control measures might be on the menu for this project. If I remember correctly, the "Loading Dock Trap with Filter Center" was very well rated in a training I took through the Colorado Stormwater Center (which also offers [useful online resources](#)). I think the only drawbacks the instructor mentioned were cost, availability of space for a BMP with a fairly large footprint, and the modest addition of impervious surface. I think all of those are outweighed in this application by reduction in maintenance costs and relatively small increase in impervious surfaces compared to the scale of this project. I would support the use and testing of these in appropriate locations.

I'm mostly just glad to see that we are considering a wider menu of structural control measures that move beyond soft-bottomed catchment basins and ponds. Certainly, this



project and associated impacts from increased impervious surfaces, traction sand and de-icers concerned me as a steward of Gore Creek downstream. However, since the project was first discussed I have hoped that it would serve as an opportunity to improve water quality through thoughtful design and placement of appropriate sediment control measures, rather than becoming a threat to roll back all the efforts the community in Eagle County has made over the last few decades.

Peter Wadden
Watershed Education Coordinator
Town of Vail Environmental Department