



APPENDIX E
AGENCY AND PUBLIC COMMENTS



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

October 21, 2020

Regulatory Division (SPK-2019-00694)

Federal Highway Administration
Attn: Stephanie Gibson, Environmental Program Manager
12300 W Dakota Avenue, Suite 180
Lakewood, Colorado 80228
Stephanie.Gibson@dot.gov

Dear Ms. Gibson:

We are responding to your request for comments on the I-70 West Vail Pass Auxiliary Lanes project. The project site is located in the Black Creek drainage on the western slope of Vail Pass, centered at Latitude 39.570636°, Longitude -106.242068°, Eagle County, Colorado.

The Corps of Engineers' jurisdiction within the study area is under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States. Waters of the United States include, but are not limited to, rivers, perennial or intermittent streams, lakes, ponds, wetlands, fens, wet meadows, and seeps. Project features that result in the discharge of dredged or fill material into waters of the United States will require Department of the Army authorization prior to starting work.

It is our understanding that a delineation of waters of the U.S. has yet to be conducted for this project but that fen wetlands are anticipated to be present within the project area. To ascertain the type and extent of waters on the project site, the applicant should prepare a wetland delineation, in accordance with the "Minimum Standards for Acceptance of Preliminary Wetlands Delineations" and "Final Map and Drawing Standards for the South Pacific Division Regulatory Program" under "Jurisdiction" on our website at the address below, and submit it to this office for verification prior to finalizing your assessment of impacts to waters of the U.S. and the associated alternative analysis.

A complete review of the alternatives analysis will be conducted as part of the permitting process. The range of alternatives considered for this project should include alternatives that avoid impacts to wetlands or other waters of the United States. Every effort should be made to avoid project features which require the discharge of dredged or fill material into waters of the United States. In the event it can be clearly demonstrated there are no practicable alternatives to filling waters of the United States,

mitigation plans should be developed to compensate for the unavoidable losses resulting from project implementation.

Please refer to identification number SPK-2019-00694 in any correspondence concerning this project. If you have any questions, please contact me at the Colorado West Regulatory Section, 400 Rood Avenue, Room 224, Grand Junction, Colorado 81501, by email at Benjamin.R.Wilson@usace.army.mil, or telephone at 970-243-1199 ext. 1012. For more information regarding our program, please visit our website at www.spk.usace.army.mil/Missions/Regulatory.aspx.

Sincerely,

Benjamin R. Wilson
Project Manager
Colorado West Section

cc:

Leah Langerman, David Evans and Associates, leah.langerman@deainc.com



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

1595 Wynkoop Street
Denver, CO 80202-1129
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October 20, 2020

Ref: 8ORA-N

John M. Cater, P.E., Division Administrator
c/o Stephanie Gibson, Environmental Program Manager
Federal Highway Administration, Colorado Division
12300 W. Dakota Ave., Suite 180
Lakewood, Colorado 80228

Dear Administrator Cater:

The U.S. Environmental Protection Agency Region 8 has reviewed the Federal Highway Administration's September 22, 2020, Environmental Assessment (EA) for the I-70 West Vail Pass Auxiliary Lanes Project. The FHWA has prepared the EA tiered from the 2011 I-70 Mountain Corridor Programmatic EIS which recommended the addition of auxiliary eastbound (EB) and westbound (WB) lanes in the west side of Vail Pass between mile posts 180 and 190. The EA identifies two alternatives for consideration; the Preferred Alternative and the No Action alternative. In accordance with our responsibilities under the National Environmental Policy Act (NEPA), we are providing the following comments on impacts to wetlands for your consideration as you develop the Final EA.

Project Impacts to Wetlands:

The EA identifies that the proposed alternative will result in permanent impacts to wetlands, including approximately 9.44 acres of wetlands (including 0.42 acre of fen) and 0.19 acre of other water features. Secondary impacts to wetlands may also occur but they were not evaluated as they were identified to be "not quantifiable." While direct impacts are much easier to quantify than secondary impacts, evaluation of indirect impacts is an expectation of the 404 Clean Water Act regulations [40 CFR 230.11(h)]. FHWA/CDOT has completed several projects analyzing direct, secondary, and cumulative impacts to aquatic resources. It is unclear why secondary impacts were designated as not quantifiable in this EA. We recommend that the Final EA apply CDOT's past practice for evaluating secondary wetland impacts or clarify why secondary impacts for CWA 404 purposes are not quantifiable.

Fens are peat-forming wetlands that rely on a perennial groundwater supply. As such, fens are particularly susceptible to secondary impacts to groundwater flow paths. Please identify all fen-type wetlands in the project area. If there are fens downgradient of any planned road cut or fill, it will be important to assess and disclose the potential for permanent secondary impacts to those irreplaceable resources.

Mitigation:

Mitigation for direct impacts to wetlands is only discussed generally and not to the detail that would be required for a Section 404 permit [40 CFR 230.91]. During the 404 permitting process, a mitigation plan will need to be submitted that addresses the proposed project's impacts [40 CFR 230.93]. In particular, the fen impacts state that they will be mitigated as required by the U.S. Army Corps of Engineers (USACE). Fens are difficult-, if not impossible-to-replace resources. Restoration science has not demonstrated the ability to restore fens on timelines that are viable for the regulated community. Demonstrating accumulation of peat soils is typically the performance standard for fen restoration and can take centuries to demonstrate.

A meta-analysis of peatland restoration published by Rodney Chimner et al. in 2017 ("An overview of peatland restoration in North America: where are we after 25 years?") noted the following knowledge gaps:

- "Restoration of fens is greatly challenged by poor understanding of the groundwater hydrology supporting fens."
- "A better understanding of peat formation and interactions with long-term hydrological changes after restoration is also required. Compaction and carbon loss from long-term drying alter the hydrologic function of peat (Price et al. 2003; Kennedy & Price 2005). The success of peatland restoration may be influenced by the development of a sufficiently thick new peat layer that has ecohydrological and hydrophysical properties similar to natural peatlands (McCarter & Price 2015). However, this process may take decades (Schimelpfenig et al. 2014; Taylor & Price 2015). More information is needed on how disturbance and restoration alter hydrologic feedbacks that influence success of long-term restoration (Waddington et al. 2015)."

Similarly, David Schimelpfenig, David Cooper and Rodney Chimner published a paper in 2013 (*Effectiveness of Ditch Blockage for Restoring Hydrologic and Soil Processes in Mountain Peatlands*), with the following findings related to an attempted restoration of a drained fen:

"Drainage also caused significant changes to the peat soil including: 25% reduction in soil organic matter (lost between 1.4 to 3.6 kg/m²), increased bulk density, decreased porosity, and reduced saturated hydraulic conductivity. Restoration did not affect these parameters, even 20 years after restoration. This study suggests that although natural water table levels have been reestablished and the process of carbon sequestration improved, the physical properties of the most disturbed, near surface peat soils do not mimic reference conditions 20 years post-restoration."

It is for this reason that avoidance, minimization, and robust alternatives analyses are essential for achieving no net loss of this globally rare aquatic resource. Based on review of the EA and Wetlands Technical Memorandum, and considering the expected impacts to fens, the EA does not clearly demonstrate the preferred alternative would be the least environmentally damaging practicable alternative (LEDPA). We understand that the EA proposes that the project will likely

be conducted in phases, and that 404 permitting will be sought once the final design is implemented. If possible, we do recommend that if there are other practicable alternatives (as discussed below) that can be evaluated prior to designation of a FONSI, they be evaluated in the Final EA. If the current preferred alternative moves forward, and there is further detailed delineation of impacted wetland complexes, especially fens and indirect impacts to wetlands, we recommend that the Final EA establish additional NEPA, CWA 404 consultation or public participation actions as part of the project timeline. This will allow agencies and stakeholders to provide feedback on those areas of the EA that are not fully evaluated.

Alternatives Screening:

The purpose of the project is to improve safety and traffic operations on EB and WB I-70 on West Vail Pass. Five alternatives, including the no action alternative, were run through a Tier 1 analysis to determine if they met the project purpose. Three alternatives were removed from further analysis for not meeting 1 of the 4 components of operations. Ultimately, the range of alternatives analyzed for environmental effects included only the no action and the preferred alternative.

We note that all alternatives met the safety criteria and reduced number of full closures with reduced crashes. 40 CFR 230.10 states that “an alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall basic project purposes.” The Auxiliary Lanes with WB I-70 realignment, curve modifications and ITS Improvements alternative was eliminated based on the following screening criteria: “Does the alternative maintain or improve access for emergency response?” The EA states, “While lane closure system improves access for emergency response, the loss of emergency turnarounds does not maintain or improve current emergency response access.” It is unclear why the cumulative actions of this alternative do not meet the criteria.

Similarly, the Existing Two Lanes and Operational Lanes with Curve Modifications and ITS Improvements alternative was eliminated based on the following screening criteria: “Does the alternative improve traffic flow?” The EA Appendix A1 states, “Majority of time only two travel lanes, which does not reduce disruptions in traffic flow.” It is unclear why the operational lanes do not result in reduced traffic disruptions. The widening that allows the operational lane is proposed to, “be opened for an additional travel lane (an “operational lane”) when needed due to an incident, emergency response, **or unusually high traffic volumes.** [emphasis added].” It is unclear how this alternative does not meet the traffic flow improvement criteria.

To ensure that the analysis does not eliminate a potential LEDPA, we recommend that the EA provide additional information on the screening of alternatives per our recommendations above to increase clarity or determine if any of the other alternatives may be viable for consideration in the Final EA.

Closing

We appreciate your consideration of our comments. These comments are intended to help ensure a thorough assessment of the project’s environmental impacts and an informed decision-making

process. If further explanation of our comments is desired, please contact me at (303) 312-6704, or your staff may contact Matt Hubner at (303) 312-6500 or hubner.matt@epa.gov.

Sincerely,



Philip S. Strobel
Chief, NEPA Branch
Office of the Regional Administrator

cc: Sue Nall, US Army Corps of Engineers



COLORADO

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Department of Natural Resources

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Colorado Department of Transportation
714 Grand Ave.
P.O. Box 298
Eagle, CO 81631
Attn: John Kronholm, Program Engineering East

10/21/2020

Re: I-70 West Vail Auxiliary Lanes EA

Dear Mr. Kronholm,

Thank you for giving Colorado Parks and Wildlife (CPW) an opportunity to comment on the I-70 West Vail Pass Auxiliary Lanes Environmental Assessment (EA). CPW has a statutory authority to manage all wildlife species in Colorado. This responsibility is embraced and fulfilled through CPW's mission to protect, preserve, enhance, and manage the wildlife of Colorado for the use, benefit, and enjoyment of the people of the State and its visitors.

The Proposed Actions in this EA include: adding 12-ft wide auxiliary lanes both east- and west-bound on I-70 for 10 miles from the East Vail Interchange to the Interchange at the top of Vail Pass; widening inside shoulders to a minimum of 6ft.; widening outside shoulders to 10ft.; improving curves & truck ramps; installing electronic signage; additional truck parking, improved median emergency turnarounds; improved chain stations; avalanche protection, noise reduction barriers; relocating portions of the Vail Pass Recreation Trail; and installing wildlife underpasses, wildlife jump-outs, and wildlife fencing.

CPW staff has been heavily engaged in this process from conception to the release of this EA. Staff requests mention of the 2019 Memorandum of Understanding between the Colorado Department of Transportation and the Colorado Department of Natural Resources Division of Parks and Wildlife (MOU). This MOU is tied to Governor Jared Polis' Executive Order D 2019



011, *Conserving Colorado's Big Game Winter Range and Migration Corridors*. Among additional language, the MOU directs our agencies to:

1. Cooperate on mitigation of Wildlife-Vehicle Collisions during all phases of transportation planning and transportation project implementation
2. Identify priority areas for the implementation of big game crossings over and under roadways in Colorado using the best available science.

This project affects many wildlife populations and habitats and CPW deeply values our role in consultations thus far. The EA acknowledges that the document is high-level and that design & mitigation details need to be finalized prior to implementation. The fish & wildlife mitigation efforts described in the EA generally provide adequate wildlife protection and the improvements in safe wildlife permeability of the I-70 corridor are to be commended. CPW staff offer the following comments on the EA.

- Staff requests that CDOT recognize CPW staff engagement on the location and design of the wildlife structures, wildlife jump-outs, and wildlife fencing. This consultation is critical to the success of the new features (which will remain on the landscape for decades to come).
- Staff requests continued engagement on water quality, riparian habitat, and the design of fish passage structures & barriers.
- Staff requests continued consultation & approval of the design of wildlife crossing structures, fencing, jump-outs, lighting, and noise mitigation.
- Staff requests a change to the Biological Evaluation (Appendix 13, page 26) that incorrectly notes that the project area does not include bighorn sheep habitat, or the presence of bighorn sheep within the project area. Rocky mountain bighorn sheep do in fact exist within the western portions of the project area. In particular, bighorn sheep winter range immediately adjacent to I-70 at MP180 and the surrounding area (Pitkin Creek & Fall Line Drive) see significant bighorn sheep use typically starting in November running through the early summer months. Additionally, three bighorn sheep WVCs have been documented at MP180 during the 2019/2020 winter. Subsequently, CPW requests continued engagement on mitigation efforts specific to the bighorn sheep population in this area.

- Staff requests that wildlife structures, fencing, and jump-outs be installed prior to construction if possible.
- Staff requests continued engagement on the realignment of the Vail Pass Recreation Trail.
- If construction overlaps with archery and rifle hunting seasons, CPW requests consultations on providing hunter access to public lands. Hunting and fishing contributes near \$1.8 billion to Colorado's economy annually and supports approximately 306 jobs in Eagle and Summit Counties combined; protecting wildlife populations and providing positive hunter and angler experiences are critical aspects of our work.
- Regarding migratory songbirds: on Pg. 55, in Table 5. Summary of Impacts & Mitigation for the Proposed Action..., under "Mitigation Commitment from Source Document," surveys of migratory songbirds are listed as the mitigation effort. Surveying does not constitute mitigation unless it informs project decisions designed to protect migratory bird communities.

CPW appreciates the opportunity to provide comments on the I-70 West Vail Pass Auxiliary Lanes EA. For additional information or to request clarification on CPW's comments for this project, please contact Land Use Specialist Danielle Neumann at (970) 366-1223 or District Wildlife Manager Devin Duval at (970) 930-5264.

Sincerely,



Matt Yamashita,
Area Wildlife Manager

Cc. Garrett Watson, Deputy Region Manager
Michelle Cowardin, Wildlife Biologist
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Kendall Bakich, Aquatic Biologist
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Advocates for our rivers

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cdot_wvailpassauxlanes@state.co.us

October 21, 2020

Re: Comments on West Vail Pass Auxiliary Lanes Project Environmental Assessment & Technical Appendices

Dear Mr. Kronholm,

Thank you for the opportunity to provide comments regarding the I-70 West Vail Pass Auxiliary Lane project. Eagle River Watershed Council (ERWC) advocates for the health and conservation of the Eagle River and tributaries like Gore Creek and Black Gore Creek. Our mission is to protect and enhance the high-quality natural and human values these streams provide to the citizens, visitors, and wildlife of our region. While this project touches numerous environmental, social, and economic aspects of our community, our comments focus primarily on project impacts to aquatic resources. To this end, our analysis primarily focuses on the main Environmental Assessment document, Appendix A12 Biological Assessment, Appendix A14 Water Quality, Appendix A15 Floodplains, Appendix A16 Wetlands, and Appendix A20 Cumulative Impacts.

ERWC understands CDOT's articulated purpose and need to improve safety and operations on Vail Pass. We recognize the economic and social importance of the route to Eagle County residents and visitors, and to state and national commerce. In cooperation with other watershed partners including Town of Vail and Eagle River Water and Sanitation District, ERWC staff has followed this project over time and previously provided feedback at requested milestones in the Context Sensitive Solutions (CSS) and Streams and Wetlands Ecological Enhancement Program (SWEEP). We look forward to continuing to do so as detailed planning and design progresses.

ERWC is thankful for the efforts CDOT staff has made in gathering and understanding local stakeholder concerns for stream and environmental health via CSS/SWEEP. We are glad to observe that much of that feedback has been incorporated into the current Environmental Assessment (EA) materials. From an overall standpoint, CDOT's planning and design teams have taken many affirmative steps to mitigate wetland and stream

impacts locally in the watershed, improve stormwater systems, increase sediment capture, and protect water quality in receiving water. While we welcome these measures, we believe in some respects, aspects of the project still retain deficiencies which, if addressed, can more-strongly fulfil CDOT's commitment to meaningful public involvement and its goals for ecological enhancement developed within the SWEEP committee.

We believe that deficiencies or errors in environmental analysis currently include:

1. A lack of plan and resources identified in the mitigation measures specified for aquatic life monitoring for waters that have existing or potential ongoing aquatic life impairments;
2. An inappropriate decision to exclude analysis of directly connected downstream waters when considering water quality impacts;
3. An explicit analysis and discussion of ongoing salinity issues, their potential contribution to aquatic life impacts in receiving waters including Black Gore Creek and lower Gore Creek, monitoring, and feasibility of options for improving long-term runoff treatments;
4. Stronger language for the decision document to require concurrent completion of SCAP control measures with each phased segment design and construction;
5. Adequate tracking and monitoring requirements for SCAP implementation efficacy,
6. Clear identification of long-term financial resources for SCAP control measures lifecycle O&M;
7. A lack of quantitative sediment recovery goals for the new SCAP and future TMDL;
8. Specification of a process and timeline to complete a sediment TMDL with local partners;
9. Specific measures to address legacy sediment in Zones 2 and 3, especially bridge sidecast, and;
10. A defined prioritization schema to guide choices for wetlands mitigation locations.

SPECIFIC COMMENTS AND DISCUSSION

Comment 1: *Technical Memorandum A13 appears to cite either incorrect or out of date information for the current regulatory status of stream segment COUCEA06_H Black Gore above Miller Creek. Upper Black Gore Creek above Miller Creek is currently impaired for aquatic life use.*

Request: *EA and technical memorandum materials should be updated to include the correct stream regulatory status. This error is especially relevant because we believe CDOT should contribute recurring financial resources as an additional water quality mitigation measure to continue the long-term monitoring and tracking of aquatic life conditions.*

Discussion: The Appendix A14 water quality technical memorandum's Table 2 only reports Arsenic (Category 5/303(d) list) and Water Supply (Category 3/M&E list) as parameters not attaining standards. Colorado's 2020 Regulation 93 also identifies this

segment as impaired for aquatic life use due to failing macroinvertebrate scores. While this segment was recently found by CDHPE to be attaining for sediment (unfortunately using only a single site and one sampling visit), the Division’s environmental data team did identify a failing aquatic life site upstream of Polk Creek at MM 185, which scored 39 using the MMI methodology.¹

Listed portion: COUCEA06_G Black Gore Creek, below Miller Creek			
Affected Use	Analyte	Category / List	Priority
Water Supply Use	Arsenic (Total)	5. - 303(d)	L
Aquatic Life Use	Sediment	5. - 303(d)	H

Listed portion: COUCEA06_H Black Gore Creek adjacent to I-70 above Miller Creek.			
Affected Use	Analyte	Category / List	Priority
Water Supply Use	Arsenic (Total)	5. - 303(d)	H
Aquatic Life Use	Macroinvertebrates	5. - 303(d)	H

Table 1. Regulation 93 303(d) list status for Black Gore Creek. From 5CCR 1002-93 pg 112, Rule version effective date 6/14/2020. The upper Black Gore Creek segment above Miller Creek is currently impaired for aquatic life use due to failing macroinvertebrates metrics.

The EA and associated technical documents should be corrected to reflect this regulatory status. USFS has monitored aquatic macroinvertebrates from 2004 to 2017 at four sites on Black Gore Creek in order to track trends under a monitoring schema that was documented in the Draft TMDL framework for Black Gore Creek. The draft TMDL was developed in conjunction with CDOT, USFS, and local partners. Although it was never officially adopted, USFS, ERWC, and ERWSD have continued monitoring activities over time, including macroinvertebrate monitoring and sediment source load category monitoring. In 2017, loss of the USFS district aquatic biologist staff position resulted in discontinuation of some monitoring activities. ERWSD opted to temporarily fund continued monitoring until a long-term partner solution can be found. In 2020, member of the Black Gore Steering Committee including ERWSD, ERWC, USFS, and TOV opted to continue this monitoring. ERWC conducted a review of a variety of partner monitoring datasets in 2019 that included USFS macroinvertebrate monitoring information.² These datasets showed a variety of macroinvertebrate community health metrics at the two monitoring sites on the upper stream segment (above Miller Creek) to be consistently depressed compared to sites lower in the watershed, which aligns with CDPHE’s MMI impairment finding. Although USFS reported MMI scores for these sites, differing sample collection methods make direct comparison to the state’s MMI scores difficult.

Macroinvertebrate communities serve many roles in the stream ecosystem, but two in particular are vital to actively managing for healthy streams. Aquatic bugs are the basis of the food chain for both native and sport fisheries, and they serve as ‘canaries in the coal mine’ for observing holistic degradation and changes to water quality. Due to the

¹ WQCD Exhibit 1-33 Upper Colorado River Basin. 2019. Rationales for Segments and Parameters Proposed for Inclusion in Regulation 93. Page 120.

² Lotic Hydrological. 2019. Monitoring and Managing for Water Quality on Black Gore Creek. Prepared for Eagle River Watershed Council and the Black Gore Steering Committee.

stream's impaired regulatory status, pre-existing datasets showing degradation in sensitive taxa metrics, and the obvious nexus between increased pollutant loading from the project and instream aquatic life conditions, a CDOT contribution to long term monitoring and trends tracking of aquatic life conditions should be included as a component of the O&M budget for the WVP project.

CDOT is already a participant in the Black Gore Steering Committee, which seeks to jointly monitor conditions and implement water quality improvement actions. CDOT's contribution would be matched with additional funding by local parties to plan and conduct these activities each year, and data should be archived and in open and publicly accessible repositories such as CDSN AWQMS or the Water Quality Portal for long term archiving and retrieval. The Black Gore Steering Committee, with CDOT's participation, is an appropriate body to manage these monitoring decisions and actions by group consensus. Mitigation measures and materials for the final decision document should specify a CDOT funding contribution for ongoing aquatic life monitoring at locations in both the upper and lower watershed.

Comment 2: *The study area discards or ignores basic science about water quality and stream systems to inappropriately exclude lower Gore Creek from environmental impact analysis for water quality.*

Request: *Effects of increased pollutant load from the project on the lower mainstem of Gore Creek are highly relevant and should have been included in water quality impact analyses.*

Discussion: The study area has confined itself to a lateral corridor of the specific road improvement segment. This is a reasonable approach for impacts that extend radially and dissipate with distance, such as noise, wildlife, and visual aesthetics. It is inappropriate for assessing surface water quality impacts in stream systems. Assuming that water quality impacts end at an arbitrary downstream line delimited on a map ignores basic science regarding the physical mechanisms and nature of stream processes, which transport water quality constituents downstream with flow. As water quality pollutants move downstream, they will continue to interact with the biological, physical, and chemical components of the stream ecosystem. Effects can eventually attenuate by distance, the addition of a significant tributary inflow that overpowers or dilutes water quality signatures of the main stream, or a significant change in the biophysical surroundings such as an abrupt transition in geologic, geomorphic, or surrounding land uses/landcovers.

In particular, salinity and nutrients are likely to travel beyond the delimited study area. During high flows, sediment clasts of smaller size (suspended or wash load size classes) are likely to remain entrained and can travel beyond the Basin of Last Resort at MM 183 on Black Gore Creek. Any increased nutrient load to oligotrophic headwater streams has potentially significant implications for permitted dischargers with effluent outfalls downstream of the project, such as ERWSD.

Mainstem Gore Creek (WBID COUCEA08) below Black Gore Creek is currently listed for impaired aquatic life. Polluted runoff from impervious surfaces including Town of Vail

and I-70 has been identified as a partial cause of impairment. Although highway runoff from the upper watershed is not considered to be a primary driver, any increases to salinity or other pollutants like nutrients may be expected to increase the highway's source contribution and potentially further exacerbate conditions. In 2016 Town of Vail committed to spending nearly \$10 million on stream improvement and has already begun implementing many actions to do so. Partner organizations including ERWSD and ERWC have also committed significant resources in conjunction with the town for monitoring and restoration planning. Increases in pollutant loading to Black Gore Creek, whether via sediment, salinity, or dissolved metals and nutrients, will impact Gore Creek beyond the project analysis area. These impacts could counter the significant resources and work invested by the town and partners to-date and are thus a strongly connected issue. For these reasons, effects of increased pollutant load from the project on the lower mainstem of Gore Creek are highly relevant and appropriate to include in water quality impact analyses.

Comment 3: *The technical memorandum provides inadequate treatment of increasing chloride load and ongoing salinity issues. Salinity is a highly probable contributor to aquatic life impairments; stormwater and annual loads will increase with this project.*

Request: *Establish additional salinity monitoring at the watershed mouth for trends tracking with required stakeholder reporting and feedback and require exploration of salinity-responsive BMPs in the new SCAP designs.*

Discussion: Salinity from solid and liquid deicers is a dissolved water quality constituent and thus will not be confined to the study area on Black Gore Creek or removed in detention basins or the Basin of Last Resort. Instead it will continue in solution via stream transport into receiving reaches that already have existing regulatory aquatic life issues. A retrospective water quality analysis by USGS in 2011 identified a long-term trend of increasing sodium, magnesium, and chloride concentrations at the Gore Creek watershed mouth³. Review by ERWC of CDOT-reported annual maintenance data for applications of solid and liquid deicers identifies a slightly decreasing trend in solids application and strongly increasing trend in liquid deicer application.⁴ Recent work by CSU researchers⁵ have identified aquatic life impacts from deicers in very clean mountain streams including increased drift, decreased species richness and abundance, decreased biomass, and depression of sensitive species ratios in aggregated community metrics. These effects were observed at dissolved chloride concentrations much lower than chronic criteria currently identified by EPA and CDPHE (230 to 250 mg/l [Cl]) to have potential detrimental effects to stream organisms.

³ Williams, C.A., Moore, J.L., and Richards, R.J., 2011, Assessment of surface-water quantity and quality, Eagle River watershed, Colorado, 1947–2007: U.S. Geological Survey, Scientific Investigation Report 2011–5075, 139 p.

⁴ Lotic Hydrological. 2019. Monitoring and Managing for Water Quality on Black Gore Creek. Prepared for Eagle River Watershed Council and the Black Gore Creek steering committee.

⁵ Kotalik CJ, Clements WH, Cadmus P. 2017. Effects of magnesium chloride road deicer on montane stream benthic communities. *Hydrobiologia* 799, 193-202.

Water quality monitoring by Clear Creek Consultants for CDOT shows maximum chloride levels that greatly exceed the chronic aquatic life standard of 250 mg/l frequently year during runoff episodes in late winter and early spring. Due to the nature of high-resolution time series data collection, the 85th percentile of these values (which the state uses to assess chronic standards) are unlikely result in a stream listing, but this does not mean there is not a problem. It should be self-evident that sensitive life stages of freshwater fish and sensitive halophobic macroinvertebrate taxa will bear significant detrimental effects to repeated exposures to high salinity concentrations. Whether or not Black Gore Creek and Gore Creek hit regulatory benchmarks for chloride impairment, it is likely that they already experience community-level aquatic life effects from highway runoff that will only increase with this project. Appendix A14 mentions chloride as a pollutant only once in Table 1 and makes no mention in the remainder of the report. Additional consideration of salinity effects on aquatic life in Black Gore and the mainstem of Gore Creek, and the likely contribution to degraded aquatic life conditions, is warranted and should be specified as a mitigation measure. Because the existing monitoring station does not capture impacts from significant mileages of the lower portion of West Vail Pass where liquid deicers are in relatively higher use than the top of the pass, we also believe that mitigation commitments should include the establishment of an additional real time monitoring station at the mouth of the watershed. This location will capture the full range of stream impacts attributable to the project before the stream enters Town of Vail and experiences other influences. Although salinity is difficult to address in current stormwater technology due to the high solubility of constituents, additional consideration of salinity-responsive BMPs in the SCAP is at least worthwhile to explore.

Comment 4: *SCAP design and implementation should be required concurrently with road segment design and construction for the project to move forward.*

Request: *The decision document or change/addendums to the EA should explicitly require that approval of any new project phase is dependent on complete design, funding, and securement of life-cycle O&M funding for the associated SCAP control measures for that road segment.*

Discussion: CDOT has taken large strides since the mid-2000s to apply an efficient mix of sand and liquid deicers for road safety while reducing sand loading to the creek and recovering or mitigating in place as much legacy sand as possible. The SCAP program was first instituted retroactively after road completion and has been implemented piecemeal as funding and capital construction resources become available. The need to retrofit the roadway after the fact rather than originally designing with water quality in mind has likely increased costs and reduced overall capture and treatment efficacy.

An ERWC analysis in 2019 estimated that approximately 30% of the originally identified projects from 2002 have been completed to date.⁶ Information provided by CDOT in Appendix A of the A14 Water Quality Technical memo provides a similar picture of SCAP control measure status. Approximately 20% of projects are reported as constructed and 20% as *partially* constructed, with 60% remaining unconstructed (See below, Table 2). In

⁶ Lotic Hydrological. 2019. Monitoring and Managing for Water Quality on Black Gore Creek. Prepared for Eagle River Watershed Council and the Black Gore Creek steering committee.

addition, a lesser percentage of identified measures were completed on the lower portion of the pass from the Narrows to the East Vail exist than compared to the top of the pass. ERWC understands that these completion numbers, while low, exist within an appropriate context of general improvement over time. In some instances, a BMP recommended in the original plan was replaced with an alternative design and some BMPs may also have been combined over time. Other changes that have resulted in positive water quality benefits were programmatic within CDOT's operations side, rather than structural BMPs. However, a 20-40% completion record in almost two decades aptly demonstrates the difficulty of retrofitting water quality controls piecemeal with uncertain budgets and underscores the need to ensure these measures are fully planned, funded (including lifecycle O&M funding), and implemented on the front end of the lane expansion project at hand.

Table 2. 2002-2020 SCAP Completion status from Appendix A of A14 Water Quality Technical Memorandum

SCAP BMP number	Constructed	Partially constructed	Not constructed	Total
1-14	5	3	6	14
14-23	2	6	1	9
24-37	5	3	6	14
38 - 51	9	4	1	14
52-62	3	3	5	11
63-75	3	2	8	13
76-87	0	4	8	12
88-103	2	1	13	16
104-117	2	1	10	13
118-129	1	2	9	12
130-143	2	1	11	14
144-152	1	1	7	9
153-167	1	4	10	15
168-179	1	2	9	12
Totals	37	37	104	178
Percent	21%	21%	58%	100%

ERWC acknowledges that CDOT has already expressed its intention in the EA documents (specifically, mitigation commitment #36) and through staff communications with local stakeholders to complete and implement the SCAP concurrently with design and construction as each project phase moves into final design. These comments should not be taken to mean we believe CDOT will do otherwise. ERWC desires to strongly amplify the importance of completing all control measure designs and securement of both

construction and long-term lifecycle O&M funding for all sediment control measures prior to the approval and initiation of any road construction phase. ERWC strongly wishes to help CDOT avoid revisiting the prior completion rate and timeline issues experienced with the original 2002 SCAP.

Comment 5: *Monitoring for SCAP efficacy should occur on a finer scale to document progress and provide data at a sufficient spatial resolution to identify localized concern areas*

Request: *Mitigation measures should specify tracking of capture and removal at individual control measures or localized groups of measures to help guide adaptive management of SCAP design and implementation. Additionally, a programmatic mitigation measure that specifies annual sediment recovery maintenance schedules in the SCAP should address summer season sediment transport risks to streams by prioritizing recovery work immediately after snowmelt rather than any time prior to the next winter season.*

ERWC is thankful for the data sharing that CDOT operations staff has been in able to provide to date and hopes that improvements to monitoring discussed here will yield benefits in the form of better actionable management information in the future. The lack of spatial or temporal resolution to this reporting metric makes it difficult to understand where problem areas occur and how often certain control measures need attention. It also hinders the ability to adaptively manage implementation of new or different SCAP control measures. Reporting sediment recovery on a finer geographic and timing scale will provide highly actionable information for annual operations and should be required as a mitigation measure and incorporated in the new SCAP. Monitoring and reporting schedules for sediment and application recovery should follow the operations season and not the fiscal or calendar year. Improving this data collection program can ensure it will best fulfill its intended purpose as an active management feedback mechanism. Mitigation commitments should specify improvements to geographic and time resolution of sediment recovery monitoring and reporting.

In addition, the timing of intra-annual sediment recovery work has significant effect on the level of stream impact. Cleaning detention basins in the fall prior to snowfall achieves only highway operational goals—to have the basins ready for the coming season. If basins can be cleaned as soon as possible post-snowmelt rather than the fall, then the potential for sediment deposits to mobilize during monsoon runoff in June-September is greatly reduced and the total summertime transport of sediment to the creek will be greatly reduced, thus achieving highway operational goals *plus* stream improvement goals. We believe that mitigation measures should specify a commitment to sediment recovery activities as soon as seasonal conditions allow, thus reducing sediment transport loads to streams during monsoon season runoff events, rather than just attempting to recovery sediment basin deposits prior to the next winter season.

Comment 6: *Water quality mitigation measures lack quantitative goals for sediment capture and recovery in the new SCAP.*

Request: *Mitigation commitments should set quantitative sediment recovery goals for use in a new SCAP and TMDL development. Reporting and feedback from increased SCAP monitoring should be used to regularly assess these goals within an adaptive-management type process with the Black Gore Steering Committee.*

Discussion: Although a goal of 100% sediment capture and recovery each year is admirable, ERWC recognizes it is not technically feasible. Setting a goal for maximum possible annual recovery *plus* some level of additional recovery each year from legacy reservoirs (bridge side cast, outlying Zone 2 and 3 areas, the BOLR, etc.), is more likely to achieve a rolling time-averaged recovery over many years that equals annual application rates *and* chips away at residual sediment source reservoirs in the watershed. Adopting this approach should continue to tip the sediment budget balance in favor of stream recovery over time. In time, as more legacy watershed sediment is recovered, adaptive management decision making within the context of CDOT's participation in the Black Gore Steering Committee may opt to reduce these recovery goals. Mitigation commitments should specify a quantitative goal for rolling average annual sediment recovery rates equal to or in excess of mean annual application rates. This mitigation commitment has a direct or potential nexus with adoption of an official sediment TMDL.

Comment 7: *Specification of a process and timeline to complete and adopt a sediment TMDL should be required as a water quality mitigation measure.*

Request: *CDOT should work with local partners to complete a sediment TMDL with watershed partners within 2 years of the final EA approval or decision record for the first phased portion of the West Vail Pass Auxiliary Lane project.*

Discussion: CDOT staff, White River National Forest, and members of the Black Gore Committee developed a draft sediment TMDL in 2009 that was never adopted. During the interim, ERWC and USFS staff have generally attempted to continue monitoring activities for aquatic life and sediment source load categories as if the TMDL were in effect. Since that time, CDPHE has also adopted its own methods and guidelines for monitoring and assessing sediment impairment. With close to two decades having passed since identification of the problem, and over a decade on the 303(d) list, a completed and approved TMDL for Black Gore Creek is long overdue. West Vail Pass project approval and the decision documents should specify a timeline and process for final TMDL completion with CDOT, CDPHE, and the Black Gore Steering Committee as parties. CDOT should work with watershed partners to finalize and adopt a sediment TMDL within 2 years of the project decision.

Comment 8: *Legacy sediment sources below bridges and in some portions of SCAP Zones 1 and 2 comprise an important and unaddressed source load category. New construction and SCAP implementation will provide opportunities to address some of these sources during project construction.*

Request: *Project design should include access grades in major bridge areas to allow periodic removal (3 to 10-year timeline) of legacy side accumulations and address ongoing additions to sediment reservoirs in these areas of Zone 2 and Zone 3.*

Discussion: Bridge sidecast remains an important and difficult to address sediment source load category in the watershed. Some portions of these deposits are likely to remain stabilized in place and perhaps represent a long-term watershed sink. However, significant portions also remain ripe for attack and transport by storm runoff and direct entrainment by perennial tributaries like Polk, Miller, and Timber Creeks, which then transport the load to Black Gore Creek. At a minimum, where these deposits are occurring in tributary floodplains or directly on either side of tributary channels, occasional mechanical recovery should occur rather than stabilization in place, perhaps on a 5, or 10-year timeframe. This will likely require a long-term graded access from road shoulders in the vicinity of bridges, similar to current access to the Basin of Last Resort. This lane expansion project is the natural opportunity to establish this maintenance infrastructure, as it will also aid implementation new SCAP measures. A naturally vegetated road grade may better serve aesthetic and cost goals as long as it is suitable for heavy equipment travel. The EA is partially responsive to this issue in mitigation commitment #40, but we believe these additional more specific measures should also be included to respond to bridge side cast issues or other prominent source areas that may technically lie outside of Zone 1.



Figure 1. Side cast in bridge areas across perennial tributaries is easily transported to Black Gore Creek each year. Building access grades to these zones would allow for periodic removal.

Comment 9: *A prioritization framework for wetlands mitigation should be specified to guide locational choices for onsite mitigation*

Request: *Mitigation commitments should specify downstream water quality as a focus in determining final locations for onsite mitigation.*

Discussion: ERWC strongly welcomes CDOT's decision to implement onsite compensatory mitigation rather than pursue out-of-basin banking or other strategies to meet its wetlands compensation obligations. ERWC also understands that current delineation acreages for impacted wetlands and potential restoration wetlands in Technical Memorandum A16 represent first-pass delineations and not final design. CDOT's analysis identifies approximately 130 ac in the study area, often of middling or lower functional ratings (FACWet score of C or D). Many wetlands are stormwater fed, thus readily susceptible to water quality impacts from the road corridor. Of the 130 ac in the study area, approximately 9.4 are estimated to be permanently impacted by the

project and thus addressed by compensatory mitigation. Of these, approximately 0.4 are fens. In other mitigation settings nationally, USACE has required a 2:1 ratio or even 3:1 ratio for preservation or mitigation of rare or difficult to replicate types such as fens. Many of the wetlands in the study area received low functional ratings (D, C, B) due to existing road impacts, or due hydrologic limitations such as being runoff-dependent. Fens however, regardless of FACWet functional rating, are groundwater fed wetlands with deep horizons of highly organic soils (peats) that take centuries to develop and cannot be easily replicated in restoration or constructed wetlands. ERWC recommends the mitigation commitments and decision document specify the highest possible mitigation ratio for rare and sensitive wetland types, regardless of current functionality rating and regardless of final USACE determination.

A16 Table 8 lists wetland mitigation measures, and ERWC acknowledges and applauds CDOT's efforts to identify numerous measures and strategies to minimize impacts during both the construction and permanent operational phases of the project. Appendix A16 Table 8 notes that CDOT staff will determine specific compensatory strategies and location during preliminary/final design.

ERWC recommends that when choosing location and designs, the focal lens for wetlands restoration work should be on protecting and improving water quality of downstream receiving streams. Access to highly functioning wetlands habitat types and acreages in the Vail Pass area does not currently appear to be a limiting factor for wildlife species in the project area. Large acreages of project-adjacent good condition wetlands habitat already exist in the southeastern Gore Range near Uneva Peak, Corral Creek, and Deming Peaks, in the Miller and Polk Creek watersheds, and in the Vail Pass Special Recreation Management Area between Shrine Ridge and Vail Ski Area. The wetlands adjacent to Black Gore Creek and the road corridor that will be permanently impacted from construction are already frequently in disturbed conditions as evidenced by their middle and low functional ratings scores and of more limited long-term habitat value due to their location. Rather than spending resources on restoration higher on Vail Pass where access to other high-quality wetland habitats is not currently a limiting factor for wildlife, focusing restoration on directly benefitting water quality in the lower Gore Watershed through attenuation of sediment, nutrient, and salinity impacts should guide location priority. Mitigation commitments should specify downstream water quality as a focus in determining final locations for onsite mitigation.

CLOSING

Although the West Vail Pass Auxiliary Lanes project will be a welcome addition to safety and travel efficiency for the local community and statewide travelers, ERWC hopes that the anticipation and excitement for the anticipated benefits will not inadvertently overshadow the need for continued careful consideration of its effects on our watershed's valuable aquatic resources. Partners must remain committed to the potentially expensive and time-consuming process of stream protection, monitoring, and

restoration that will need to occur to ensure success and achievement of environmental goals.

Thank you for consideration of these comments, we look forward to the continued evolution of West Vail Pass project plans and implementation in a manner that will meet CDOT's need and purpose while protecting our valued streams to the highest possible degree.

Sincerely,

Holly Loff
Executive Director
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Bill Hoblitzell
Water Resources Program technical advisory staff
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October 20, 2020

John Kronholm, P.E.
Colorado Department of Transportation
P.O. Box 298
Eagle, CO 81631
Submitted via email: cdot_wvailpassauxlanes@state.co.us

RE: Comments on I-70 West Vail Pass Auxiliary Lanes Environmental Assessment

Dear Mr. Kronholm:

The Eagle River Water & Sanitation District (District) supports the Colorado Department of Transportation (CDOT) and the Federal Highway Administration (FHWA) efforts to improve safety and operations on the west side of Vail Pass. This letter serves as our comment submission for the 1-70 West Vail Pass Auxiliary Lanes Environmental Assessment (EA) released to the public on September 22, 2020.

The District relies heavily on in-basin water sources to meet drinking water demands for its roughly 60,000 residents and visitors, which includes those in the service area of the Upper Eagle Regional Water Authority (Authority), for which the District provides management and operations services. There are critical drinking water sources that lie within the project area. This includes Black Lakes 1 and 2, atop Vail Pass, as well as Black Gore Creek, which runs along the 1-70 corridor. As just one example of the District's concerns, Black Lakes has historically been plagued by sedimentation problems associated with highway traction sand. Further, studies have indicated that sediment and chemical runoff from the interstate have negatively impacted water quality and aquatic life in Black Gore Creek and Gore Creek through the town of Vail. Accordingly, the District strongly encourages any measures that would enhance these important resources.

In addition, while a variety of sources have contributed to the observed decline in aquatic life, regulated dischargers such as the District inequitably bear the burden of such degradation at the expense of ratepayers. The District has a long history of environmental stewardship; facility operations continually meet or surpass discharge standards and regulatory requirements. If water quality in local streams continues to decline, it will further burden the District's customers as regulations will likely become more stringent and operational adjustments and improvements will need to be made to continue compliance.

The District is particularly supportive of the project elements that focus on protection and enhancement of water quality, aquatic life, wetlands, riparian area, and water resources. Protecting and enhancing water resources and water quality within the Eagle River watershed is paramount to the District's mission *to provide efficient, effective, and reliable water and wastewater utility services in a manner that respects the natural environment.*

Thank you for considering and including the District's comments and ideas that we provided through our participation in the Stream and Wetland Ecological Enhancement Program (SWEET) and Technical Team processes, and through our other letters and informal conversations. We were pleased to see so many ideas that were shared by the District and other partners appear as part of the EA; clearly, you heard our concerns and incorporated many of our suggestions. We also felt that impact analysis throughout the EA was clear, thorough, and accurate, including cumulative impacts. We look forward to continued involvement in the project as it moves through final design and into implementation.

We have organized our comments below first by general topics, followed by specific or more technical comments.

SCAP and SWMP schedules: We would like to understand the schedules for the Sediment Control Action Plan (SCAP) update and Stormwater Management Plan (SWMP) document. It is critical that the SCAP and SWMP efforts take place during planning for on-the-ground activities, so that adjustments can be made contemporaneously. Additionally, with the announcement of funding available for several early phase projects, we want to ensure that the SCAP and SWMP happens prior to implementation and not lost in the push towards construction. The I-70 corridor has long had an impact on water quality and sediments and this project will compound the problem. Thus, the measures identified and implemented through SCAP and SWMP are crucial to protecting water quality in the Gore Creek watershed. We request that the District remain involved in these specific components of project planning and implementation.

Ongoing monitoring: We also request to further discuss a partnership for ongoing monitoring of the project corridor, so that impacts on the watershed can be quickly identified and adjusted for. We have included suggested sites for ongoing monitoring (see list below) that would be most beneficial as they align with efforts already funded and managed by the District, the town of Vail, and Eagle River Watershed Council. The continued collection of data from these sites would also allow us and CDOT to respond to likely public and municipal inquiries as to whether the project has or has not degraded the watershed over time.

We have all seen the success of both the Black Gore Creek Steering committee's work and the tracking of sediment and magnesium chloride application and cleanup by CDOT, and we would like to build on these on-the-ground, public successes. We are committed to ongoing water quality, sediment loading and macroinvertebrate monitoring on Black Gore Creek, Black Lakes, and Gore Creek, and would like to continue conversations with CDOT about partnership opportunities.

Aquatic life: While aquatic macroinvertebrates were not included in detail in the EA or technical memoranda, we maintain that macroinvertebrate monitoring is a critical component of detecting changes in stream health. The EA notes that Gore Creek is listed on the 303(d) list for aquatic life (provisional) but it does not clarify that the listing is based on macroinvertebrate multimetric index (a metric of the aquatic assemblage of benthic macroinvertebrates). This is important for the project because the stream is likely to be further negatively impacted by the project. Also, Table 2 in the water quality technical memorandum (A-14, page 14) incorrectly omits aquatic life from the upper segment of Black Gore Creek above Miller Creek. Please correct this entry. We recommend, and are open to discussion about partnership opportunities for, macroinvertebrate monitoring and a sediment study at four sites every two years:

1. Polk Creek - Black Gore Creek monitoring (reference)
2. Black Gore Creek Milepost 185 - Black Gore Creek monitoring

3. Black Gore Creek Milepost 184 - Black Gore Creek monitoring
4. Black Gore Creek above the confluence with Gore Creek - ERWSD and town of Vail Gore Creek reference site

Wetlands: We applaud the inclusion of language asserting that “CDOT is committed to utilizing onsite compensatory mitigation as its first priority and will work with the Corps to confirm the specific wetland mitigation strategy” (page 62 of the EA). We recommend that channel-adjacent wetlands be considered first, prior to consideration of wetlands higher up in elevation or more separate from the creek. If and when suitable locations in the Black Gore watershed that serve to functionally protect or enhance receiving stream water quality cannot be found, local stakeholders would like to pursue options for wetland mitigation, riparian enhancement, and stream health improvements within the greater Gore Creek watershed. This should include site-specific project options within town of Vail, which have previously been identified in the Gore Creek Action Plan for potential benefits to Gore Creek stream health that may help locally offset water quality impacts transported downstream from the Black Gore system.

We suggest, that for clarity for the public and stakeholders, you explain what the word “impacted” means in sentences such as “[a]pproximately 9.44 acres of wetlands (including 0.42 acre of fen) and 0.19 acre of other water features would be permanently impacted” (pages 30 and 62 of the EA, and elsewhere). The word “impacted” is not clear NEPA analysis language and does not provide information to the reader as to what might happen to the wetlands (destruction, infilling, scouring, etc.).

We understand why, in the wetland technical memorandum (A-16) maps, wetland spatial information was “clipped” along the project boundary line. However, to improve final design and implementation decisions, we would like you to share the geospatial data with the Issue Task Force (or other appropriate team members) so that we can understand the extent of the wetlands and provide the best guidance to CDOT on wetland protection. In fact, this may better show that in terms of total watershed function, the slope wetlands are significantly larger than what is shown in the project corridor. And this may provide opportunities to better link wetlands with the proposed mitigation sites. We can assist in identifying areas of opportunity that would link wetland areas for environmental enhancement.

Fens: There are 0.42 acres of fen wetlands likely to be impacted. In the wetland technical memorandum (A-16), it is stated that mitigation guidance from the Army Corps of Engineers will be followed at a replacement ratio greater than 1:1. “Fens may need to be replaced at a higher ratio, if determined by the Corps” (page 27). However, the EA should recognize that fens are exceedingly difficult to replace. Further, under 33 CFR 332.3(e)(3), compensatory mitigation of fens must be provided through in-kind rehabilitation, enhancement, or preservation to the extent practicable. In addition, mitigation ratios greater than 1 to 1 are needed to account for the likelihood of success (33 CFR 332.3(f)(2)). Although the research community is working on fen restoration in Colorado, it is our understanding that the likelihood of success for fen creation is still minimal. We would like to learn more about the proposed mitigation of the fens and believe the EA should be clear if the impacted fens are not being replaced with fen wetlands. As noted in Appendix A-16, fens have special watershed function for water quality and habitat.

Source water: The EA frequently mentions that “Black Gore Creek supplies surface water to the Gore Valley Drinking Water Facility in East Vail.” Although the Gore Valley Drinking Water Facility is located on the banks for Black Gore Creek, its supply is from Gore Creek just above the confluence of Black Gore Creek and Gore Creek. Please correct the EA.

Life cycle performance of BMPs: As we and others voiced on the last technical team call, we are concerned about how best management practices (BMPs) and related mitigation measures will be tracked as individual components of the project move forward. While we have shared this concern in the past, it is more important now that it is certain that portions of the project may move forward quickly while others may be years delayed. We would like to better understand life cycle performance and maintenance of the BMPs and look forward to additional discussions with you about this topic.

Table 5, "Resource Mitigation Measures" in the water quality technical memorandum (A-14), includes impacts and mitigation measures focused on gross solids and sediments. We feel there will be opportunities in the final design phase to address suspended and dissolved solids and nutrients with a broader array of stormwater treatment BMPs. There are proven BMP technologies that should be included in the final design selection process that filter suspended solids and reduce nutrient loading. These controls may be used in focused areas to address sensitive locations along the project corridor. If selected in final design, they should be included in annual maintenance plans to ensure sustainable performance.

Snowmelt runoff: In the water quality technical memorandum (A-14), there is a mention of the annual cycle of snowmelt runoff occurring between May and June of each year (page 9). The District sees runoff occurring from April to July depending on the year, and we suggest making this clarification. While snowmelt is the greatest contributor to the annual volume of runoff, impacts can be more critical later in the summer when streamflows are low. During this time, summer rain events can quickly generate many times the streamflow and move solids (gross settleable solids as well as suspended and dissolved) and nutrients. The water quality controls you propose are primarily focused on snowmelt and sediment, not impervious surfaces, and smaller, more frequent rain events. The latter generate large loads to streams when flow is low, making them much more impactful. The increased impervious surface of the proposed project will exacerbate these negative impacts. We encourage the project team to address a more complete view of nonpoint source pollutants and a more holistic analysis of the site hydrology.

Sediment runoff, erosion, and accumulation: In the water quality technical memorandum (A-14), it states, "Without mitigation, sediment and/or pollutants from construction activity may reach Gore Creek and Black Gore Creek" (page 17). We recommend additional language to the effect that CDOT will ensure mitigation measures and BMPs will be used and assessed often during construction to minimize contamination of Gore Creek and Black Gore Creek. Similarly, we recommend additional language to the effect that CDOT will remove traction sand under the bridges where accessible.

Thank you for your consideration of our comments and for honoring the Context Sensitive Solutions methodology during this complex effort. We look forward to continued involvement on the technical aspects of project planning such as the SCAP and SWMP, and to opportunities for partnership on monitoring and other elements critical to successful implementation and mitigation. Please contact Siri Roman, P.E., Director of Operations, at 970-477-5100 or sroman@erwsd.org with any questions regarding the District's comments.

Sincerely,



Linn Brooks,
General Manager



The following comments are representative of the 98 comment submissions received regarding traffic noise impacts and mitigation.

- Please plan to build a sound barrier if you are going ahead increasing the lanes over Vail Pass. The noise from I-70 traffic in East Vail continues to grow with the traffic.
- Our family would adamantly support having a noise barrier. The impact is quite significant to those staying in East Vail, the highway is loud as is. I can't imagine another lane without having the right barrier in place. While I am against the idea of another lane, I understand it is likely going to happen and therefore would put my efforts towards putting the wall up near our community.
- I believe there needs to be additional sound mitigation. I-70 is already so loud at Vail Racquet Club. We own a home that backs up to the creek, and subsequently I-70. And the road noise, especially semi-trucks, is so loud, you cannot have your back door open. The road noise greatly impacts the value of our home. I do not agree with the noise assessment study CDOT has done, saying that the noise levels in East Vail, especially along Vail Racquet Club are acceptable. They are highly unacceptable already, and adding another lane, will increase the traffic and noise, and bring down the value of our home. I believe they need to reassess the noise levels along the Racquet Club and do some noise mitigation.
- The road noise is noticeable now. Adding a lane will only worsen that noise; there needs to be a noise mitigation plan for the residents of East Vail.
- I have a Townhouse that I have owned since 2003 at the vail racquet club. Normally everything is peaceful. The one problem we have had from day 1 to now is trucks putting on their air brakes coming down I-70. We get frequent complaints from our renters and in addition it sounds like at sonic boom or jet flying overhead. I am sure that if someone lived near an airport they would compare that sound to this. Thank you for your time.
- I have been an owner at the VRC since 1977. The highway noise has always been an issue for us in our condo. Now if a third lane for traffic is added, I'm sure there will be an increase in the noise especially from trucks. A sound barrier along the East Vail section will help mitigate this problem.