



## MEETING NOTES

<b>PROJECT:</b>	21685 I-70 West Vail Pass Auxiliary Lanes
<b>PURPOSE:</b>	ALIVE Issue Task Force (ITF) Meeting #1
<b>DATE HELD:</b>	April 18, 2018
<b>LOCATION:</b>	Miller Ranch Community Center, 25 Mill Loft Road, Edwards, CO
<b>ATTENDING:</b>	<p>Joel Barnett, FHWA</p> <p>Martha Miller, Program Engineer, CDOT Region 3</p> <p>John Kronholm, Project Manager, CDOT Region 3</p> <p>Karen Berdoulay, Resident Engineer, CDOT Region 3</p> <p>David Caesark, Environmental Manager, CDOT Region 3</p> <p>Jeff Peterson, CDOT</p> <p>Paige Singer, Rocky Mountain Wild</p> <p>Alison Deans Michael, USFWS, Colorado Field Office</p> <p>David Singer, CDOT</p> <p>Jonathan Lowsky, Colorado Wildlife Science</p> <p>Mark Hablitzell, Town of Vail</p> <p>Julia Kintsch, ECO-Resolutions</p> <p>Cinnamon Levi-Flinn, Biologist, CDOT Regions 3</p> <p>Craig Wescoatt, Colorado Parks &amp; Wildlife</p> <p>Bill Andre, Colorado Parks &amp; Wildlife</p> <p>Jen Prusse, US Forest Service</p> <p>Greg Hall, Town of Vail</p> <p>Don Connors, Consultant Project Manager, Amec Foster Wheeler/Wood</p> <p>Kara Swanson, Consultant Environmental Task Lead, David Evans and Associates</p> <p>Matt Figgs, CDOT Region 3</p>
<b>COPIES:</b>	Attendees

### SUMMARY OF DISCUSSION:

(Please Note: Action items are shown in *bold italics*.)

#### 1. Introductions & Agenda Review

- a. John did introductions, covered the agenda, and talked briefly about the purpose of today’s meeting, which is to discuss wildlife on the West Vail Pass corridor and receive input from the members of the ALIVE (A Landscape Level Inventory of Valued Ecosystem Components) Issue Task Force (ITF).

#### 2. Agenda and Goals

- a. John covered the agenda and discussed the goals of today’s meeting

#### 3. Project Background

- a. John discussed the background of the project including highlighting the I-70 Mountain Corridor Programmatic Environmental Impact Statement (PEIS), the



recommendations from the PEIS (including stipulations in the ALIVE Memorandum of Understanding [MOU]), the Tier 2 NEPA process, and the past 2007 Environmental Assessment (EA) for the West Vail Pass area

- i. He explained that this project is the Tier 2 NEPA process as it address site specific details for West Vail Pass
- ii. Don added that the PEIS identified the auxiliary lanes for safety purposes, not for capacity

#### **4. CSS Process/ITF Responsibilities**

- a. John outlined the Context Sensitive Solutions (CSS) process that the Project Team is following for this project and what stage the project is at in the process
  - i. The Project Team has gathered information from the Technical Team (TT) that is being considered for the development of alternatives that will then be screened through a screening process
  - ii. He also highlighted the Success Factors that the Project Team, in conjunction with the Project Leadership Team (PLT) and TT, have developed. The specific Core Values that have been established for the project were also discussed.
- b. John covered the roles and responsibilities of the various ITF groups which come directly from CDOT's CSS guidance. There are other roles and responsibilities that are a part of the ALIVE MOU that will be covered later in the presentation
  - i. He explained that the intent of an ITF is to focus on a specific issue
  - ii. David Singer added that this ALIVE ITF is comprised of experts for this specific issue, and the results of this discussion will then be reported to the TT which is comprised of a broader diversity of backgrounds and expertise

#### **5. Current Project**

- a. John discussed the limits of the West Vail Pass Auxiliary Lanes project and talked to some of the unique characteristics along the corridor.
  - i. The elevation of West Vail Pass summits at 10,603 feet
  - ii. There are several sections of steep grades which are at 7%
  - iii. There are areas of substandard roadway geometry with some compound curves that were designed for a 55 mph speed limit (the current speed limit is 65 mph)
  - iv. There are 23 different retaining walls totaling 23,515 linear feet
  - v. There are 16 bridges that make up 1.6 miles of the corridor
  - vi. The Vail Pass/Tenmile Canyon National Recreation Trail sits in the corridor. This paved bike trail gets 39,000 annual users with a peak daily count of 3,500 users
  - vii. West Vail Pass is the access point for the Vail Pass Winter Recreation area which saw 56,000 users in the 2016/17 winter season



- viii. There are numerous wetlands and waters of the US in or near the corridor including Black Gore Creek. There is also considerable wildlife activity in the lower five miles of the corridor.
  - ix. There is a Sediment Control Action Plan for Black Gore Creek that another ITF will discuss implementing
  - x. The West Vail Pass corridor is subject to Section 106 of the National Historic Preservation Act as it is a nationally and exceptionally significant feature of the federal interstate system. West Vail Pass was one of the first highways to purposefully sculpt cut-and-fill slopes to fit in its unique setting, as well as being one of the first to use precast and cast-in-place segmental bridges.
  - xi. 80% of the project is within the White River National Forest
  - xii. 20% of the project runs through the residential portion of east Vail
  - xiii. The weather on the west side of the pass is a challenge as this side routinely sees more snow than the east side of the pass
- b. John talked about the topography and layout of the interstate on the corridor with sections that are barrier separated, have a retaining wall in the median, open in the median, and bifurcated.
- c. He then covered the Purpose & Need of the project which is to improve the safety and traffic operations for both eastbound (EB) & westbound (WB) directions of West Vail Pass
- i. He highlighted several specific safety and traffic operations issues that exist on the pass that have necessitated this project
  - ii. He talked about the Level of Service of Safety (LOSS), which compares West Vail Pass to all rural, mountainous 4-lane divided highways. The safety assessment that was completed for this project showed that every section of West Vail Pass has a moderate to high potential for crash reduction. Improvements made to the corridor have the potential to significantly reduce crashes on the interstate as this section of highway is significantly worse than other similar sections.
  - iii. David S asked why the bridges are a specific crash problem
    - 1. John replied that the bridges ice over and some of them are on substandard curves, which lead to a lot of crashes
  - iv. Joel asked what the red circles on the crash chart on Slide 26 represented as there are other peaks in the chart
    - 1. John replied that those areas are where the high crash rate corresponds to substandard geometry
- d. John covered the crash distribution by type from 2014 to 2016. He highlighted that only 5.4% of crashes over that timeframe that are officially recorded (i.e. they cause property damage and/or injuries) are from wildlife collisions
- i. He highlighted the specific wildlife crash data on the West Vail Pass corridor. Most of the collisions occur on the lower half of the corridor where it is most permeable (with the 8 pairs of sister bridges). Very few collisions occur on



the upper half of the pass where there is nearly no permeability. The East side of Vail Pass has a similar amount of crashes as the lower half of West Vail Pass.

- ii. Most animal collisions are in dry and dark conditions, in the WB direction, and with deer
  1. Bill added that it's important to note that these are only crash numbers that are reported to State Patrol (CSP). Vehicles that hit animals and drive away are not shown in this data and would add a significant amount of hits
  2. John showed a graph of data collected from a different source (CDOT's Road Kill Report where maintenance reported dead animals on the side of the interstate)
    - a. The trends generally stays the same as CSP's data except with a spike at MM 190
  3. Greg added that Vail Police has data on animal hits from MM 180-182 that would be available if needed
    - a. Bill replied that Colorado Parks & Wildlife's (CPW's) reports show two to three times the amount of bear hits than CDOT or CSP due to their mandatory reporting of bear kills
      - i. He added there are studies that may show as little as 30% of animals that are hit on the interstate are reported
    - b. Dave Cesark asked if CPW has a dataset they could give to the Project Team
      - i. Bill replied CPW has good data on bears, lions, and moose, but not on other animals.
      - ii. ***The Project Team will reach out to Bill to gather their wildlife crash data***
  4. Julia added that some of the half-mileposts are missing, so some data may be incorporated in a 1 mile data point, showing an artificial spike at that location possibly
    - a. She added that the bridge at MM 182.5 does have an opening underneath, but it is over a large, steep gorge that doesn't allow for animal permeability. Not every bridge can be considered permeable due to the terrain in the area.
  5. Greg asked if the CDOT Road Kill Report noted direction of travel
    - a. John replied that CDOT's Road Kill Report does not note direction, but CSP's crash data does
      - i. The group noted that the WB direction is where the traffic moves the fastest on the steep downhill areas and may be the reason there are more animal-vehicle collisions in that direction



## **6. ALIVE MOU Review**

- a. David S talked about the ALIVE MOU background
  - i. He said that the interstate has always been a barrier for wildlife, and an ALIVE committee was formed to work on making sure this barrier issue did not get worse with future improvements
  - ii. The intent was to go beyond the bare minimum to improve wildlife conditions and permeability with projects
  - iii. It also established roles and responsibilities noted below:
    - 1. CDOT/FHWA: integrate the ALIVE process into Tier 2 projects and create design criteria so projects don't prevent improving permeability
    - 2. BLM/US Forest Service: be aware of the ALIVE requirements as they perform their land management functions
    - 3. US Fish & Wildlife Service (USFWS): Champion the protection of streams and aquatic life on projects
    - 4. CPW: cooperation, consultation, data sharing, monitoring, and promoting mitigation measures on projects

## **7. LIZ Review – 2003 and 2011**

- a. David S spoke to the Linkage Interference Zones (LIZs) that were identified as part of the ALIVE process along the I-70 Mountain Corridor
  - i. In the 2003 study, 13 LIZs were identified along the corridor.
    - 1. Recommendations for improvement were also made at specific Mile Markers (MMs), including for sections of West Vail Pass
  - ii. In 2011, the PEIS Record of Decision adopted the ALIVE MOU and further refined the LIZs
    - 1. CDOT wanted to bolster the original findings and have a more data driven method to update the LIZs which lead to 13 zones becoming 7, and the actual mileage of LIZs was reduced as well
    - 2. The specific MM recommendations were also refined with this update, and an implementation matrix was created to help projects think about how to advance ALIVE efforts
  - iii. Bill added that there is probably 50% less animal populations in Eagle County compared to when the original LIZs were created, so it is hard to compare recent data with this older data
    - 1. John asked if there was data to back this statement up
    - 2. Bill stated CPW does have this and can supply that to CDOT if needed

## **8. ALIVE Implementation Matrix Review**

- a. Kara referred the group to the ALIVE implementation matrix handout for this section of the presentation. The West Vail Pass project is currently in the Project Development phase on that matrix.



- i. She highlighted the different considerations that the Project Team will be looking at as alternatives are developed, as well as the desired outcomes and products that will come out of this effort. She pointed out that the project is working through the NEPA and EA phase and is not jumping to final design

## **9. Current Surveys and Data**

- a. Jonathan talked about the different background data sources that the Project Team will be referring to as alternatives and design options are being developed.
  - i. He added that deer are the best indicator of hits along the corridor and may be focused on
  - ii. There will be a lot of communication from the Project Team to the different agencies as this data is being collected
- b. He also discussed some of the field work that has been done to date and the remaining surveys that are still to be completed
  - i. Bill asked why boreal toads are being surveyed as their common habitat is outside of the project limits
    - 1. Jonathan replied that while their breeding habitat is outside of those limits, not enough is known about adult habitat, so the project team thought it'd be good to survey for them
  - ii. Bill asked if peregrines will be surveyed
    - 1. Jonathan said they have not been surveyed yet, but they can. He added that in his work with CPW, lynx will be looked at but not wolverine
    - 2. Alison added that the USFWS & CPW has good lynx data
  - iii. Jen asked if the accipiter survey results were positive
    - 1. Jonathan replied that it was not positive
  - iv. Bill asked what distance off roadway was for these surveys
    - 1. Jonathan said the team looked 250 feet from the edge of the roadway
  - v. Greg asked why the survey didn't go down to MM 180 and stopped at the Gore Creek campground
    - 1. Jonathan replied that every time they went out, there were too many people and dogs for any wildlife to really be west of the campground, and no activity was noticed in the winter. Once he got further uphill, he started to notice a lot of animal sign

## **10. Discussion**

### **a. LIZ and Aquatic Recommendations**

- i. Kara presented the current LIZ & Aquatic recommendations from the 2011 ALIVE update and asked to hear feedback from the ITF on what the Project Team should be considering while considering alternatives and design options
- ii. She covered LIZ G (MM 180.9-182.1)



1. These recommendations are focused on coordination with the East Vail neighborhoods and includes fencing removal and concentrating human activity
  2. Bill stated that the fence near MM 181 has been down for many years for an elk that was moving through that area. The fence wasn't long enough to begin with
    - a. He added that mule deer, bighorn sheep, & lion should be added to the secondary target species, and that leopard frogs haven't ever been found in Eagle County
  3. Alison added that the Project Team should consider wildlife movement while some of the SCAP features are being designed. As sediment ponds with standing water next to the interstate attract animals, this could draw wildlife closer to the road and increasing the risk that they get hit
    - a. Several in the group concurred with this statement and encouraged the Project Team to consider this
    - b. John replied that the values of many concepts may conflict and coordination will be vital In order to come up with the best improvements with the Core Values in mind
    - c. Bill added that depending on where fence goes and where the ponds are, if a pond is on the proper side of the interstate it could be a benefit to keep animals from crossing the road. Coordination between the Project Team and the ITF to review items like this will be needed as the project progresses
  4. John added that this LIZ does not specifically address wildlife fence and asked the ITF for their thoughts on this potential feature
    - a. Julia said that fencing should be on the table for this segment especially since many of the wildlife crashes take place in this area
    - b. Greg pointed out that the trails in this area don't undergo seasonal closures, so humans are there year round
    - c. Jonathan added that the high recreation usage in this area may cause deer and other wildlife to cross the interstate to avoid human interaction
- iii. John next covered the recommendations specified for LIZ H (MM 182.9-188.1). The recommendations here include maintaining connectivity in the western portion of the LIZ and adding permeability for the eastern portion of LIZ, as well as fencing additions
1. John asked the ITF group about the MM 183 culvert and if this should be removed as recommended



- a. Julia stated that all of these recommendations from the 2011 report should be reconsidered and reanalyzed in light of new data and knowledge.
2. John asked about the next four recommendations which cover fencing between bridges to direct wildlife to cross under those structures and not on the interstate
  - a. Bill stated that the biggest problem with fencing is that it has to be maintained (especially with snow, people trying to get through it, and vehicle crashes). He suggested that a more permanent wall would be better for the pass than traditional wildlife fencing
  - b. Craig added that any break in a wall/fence would be the spot an animal will cross. Continuous fencing between those bridges is very important. He added that when holes are created in a fence and they get through, animals are not good at getting back on the other side of the fence
  - c. Bill said that there is not much movement in the winter, but when snow removal operations take place, the location of the fence will be critical. Depending on how close the fence is to the road, plowing operations could pile snow next to and around the fence, allowing animals to get over it.
    - i. He added that the project may not need a 6-8 foot tall concrete wall, but maybe a concrete barrier with 4 foot fence on top of it would be sufficient
  - d. Craig added there is good research on high tensile strength fence that may work on top of a barrier.
  - e. Julia said that WASHDOT did a study on fence in high snowfall areas that Project Team can refer to
  - f. John replied that the maintenance of the fence will be an issue and the Project Team will need to consider it. There is also snowcat operations that take place, so working with CDOT Maintenance on developing this solution will be critical
3. Greg added that glare screen on the median barrier can be an issue as small animals can't get over it
  - a. Martha replied that there is a safety issue with glare and glare screen could be strategically placed in areas to significantly improve safety on sections of West Vail Pass. This will need to be done in comparison with animal crossings
  - b. Bill added that the glare screen in Dowd that has segments of shorter heights that allow for animals to get over the barrier and he feels those have been successful



- c. John stated that a recent CDOT safety assessment for the Dowd Junction area showed there was a 30% decrease in crashes from installation of new pavement and the taller glare screen
      - d. Bill said that fencing and culverts underneath the roadway to keep animals from getting onto interstate while still allowing passage underneath is important. If installed properly, glare screen wouldn't be as much of an issue
  4. John highlighted the recommendation for MM 186.5 which was to construct a wildlife underpass, and at MM 187.4 which was to construct a wildlife overpass
    - a. Don asked if there was an official rule for implementation of recommendations from the 2011 report (i.e. "must a crossing be put in?") as there are different recommendations from different LIZs and other subsequent wildlife reports
      - i. David S stated that for this project, as it is a Tier 2 of the I-70 Mountain Corridor PEIS, the ALIVE MOU will require the project to take a hard look at these 2011 LIZ recommendations. Projects should run those recommendations through Core Values and Success Factors to see if they are good for the overall benefit of the project
      - ii. Greg asked if the MM 187.4 location was where the ARC design competition was for several years ago. The ITF group replied that it was the location.
      - iii. Bill added that a previous recommendation to install an overpass at MM 188 gave guidance that the location could be +/- ½ mile from that mile marker. MM 188 was selected because 2 lynx were hit there, but the recommendation allowed for flexibility to select the best location that could be built the cheapest. The ARC competition selected the MM 187.4 location for the completion as it was best location for a structure for wildlife that had a projected cheaper cost.
    - b. John said that while there are these recommendations for an overpass and underpass structure, the animal crash data is lowest in this area. He asked how the crash data could support either of the recommended structures.
      - i. Bill replied that for 7-8 months of the year it is winter on the upper half of the pass and that deer & elk won't cross in this area during winter conditions, so that could be a big cause of the low crash data. For Threatened and Endangered species, the question is how many need to be killed on the highway before its



- worth installing one of the recommended structures, especially when the state is trying to restart a lynx population
- ii. Kara asked when lynx hits happened
    1. Paige replied that the first was in July of 1999 and the other one was in May of 2004
  - c. John asked if an overpass would be for smaller animals too or if its needed only for bigger animals
    - i. Bill thought that any money spent on a structure should be for greatest amount of animals and not restricted to size
    - ii. Craig said that he thought animals will use it if it is build. As the interstate is a barrier, they don't cross and don't get hit (as the data shows), but an overpass would provide the ability to cross. Animal populations are rapidly declining and the cost of an overpass is expensive, but all this needs to be considered
    - iii. Bill added that there aren't a lot of crossing locations along the entire I-70 mountain corridor for wildlife, so a major crossing here could be a huge benefit
  - d. John asked if animals would cross over a structure on a day to day basis or if it would be more for migration
    - i. Bill surmised it would be more seasonal for migration
    - ii. Julia said that the upper half of the pass is summer range and agreed that movement would be seasonal
  - e. Jen said that there is a Forest Plan document that states additional highway crossings are recommended when highway improvements are made
    - i. ***Jen will send this document to the Project Team***
  - f. Bill said that there needs to be some sort of structure on upper part of pass for animals to cross over. It doesn't necessarily need to be an overpass or on the West side of Vail Pass, but something is needed
  - g. Greg asked if a shed for snow/rock/avalanches that is designed in combination with an animal overpass could be considered. The group discussed the feasibility of this briefly
  - h. Julia said that while the crash data is low, the upper section of interstate is a huge barrier. This location is different than State Highway 9 as animals don't cross the interstate every day but more in migratory patterns. The West Vail Pass corridor should be looked at uniquely as wildlife numbers



will be much lower than other areas of the state, but there is significant ecological value to adding permeability on the upper half of pass

- i. John responded that the Purpose & Need of this project is for safety and traffic operations, but the ALIVE MOU notes that CDOT needs to go above and beyond to address wildlife permeability.
- i. John asked the ITF if they felt an overpass or underpass would be better
  - i. Julia replied that it depends on how long and wide the overpass would be, and that it might be more expensive to do an underpass. The goal should be to get multiple species across a structure and not just target one kind
    1. Don added that the topography of the upper half of the pass doesn't lend itself to an underpass
    2. John said the Project Team hasn't studied whether a certain option would be better and is only gathering information today
  - ii. Alison said that the goal was to get lynx across the interstate when this effort initially started for an overpass. There is not much data that shows lynx will use an underpass, so an overpass would be better
    1. David S asked what adding a 3<sup>rd</sup> lane would do to lynx and if that would further the need for an overpass
    2. Alison responded that it already is a barrier and a Section 7 process should look at if improvements of lynx movements across the highway can be made
    3. Kara added that whatever alternative is picked, the permeability will need to be considered
    4. Greg added that the PEIS requires this evaluation
    5. Paige said West Vail Pass is one of the higher priorities for lynx (#2 statewide) for the Lynx in Lieu Fee Priority List (an advanced mitigation program)
      - a. David S informed the group that this list exists to take the impacts to lynx from several small projects across the



state and mitigate in one location.  
West Vail Pass is the second highest  
priority as a location for this larger  
mitigation

- j. Bill stated that when a 3<sup>rd</sup> lane is added in both directions, the path that an animal needs to cross is much longer and barrier effect will be even worse.
  - i. He was not sure if the solution has to be an overpass as that may not work on the pass, but maybe an underpass works better. The Project Team should really evaluate the best solution and not have a predetermined answer
- 5. Martha asked about the 2013 recommendation to build an overpass on the East Side of Vail Pass and how that works with this potential West Vail Pass location
  - a. Bill said he's not sure CDOT would need 2 overpasses
  - b. Julia said the next LIZ study wanted an overpass on the east side of Vail Pass, but that was a separate LIZ and a separate recommendation. For West Vail Pass, an overpass is challenging and human activity in the West Vail Pass recreation area has increased (impacting lynx habitat), so more animals may be moving on the east side of the pass. There is still a lot of value on the west side, but it might be that shifts in movement require one on the east side. She added that a past geotechnical survey in 2009 didn't find bedrock at the MM 187.4 location which could be a challenge for building an overpass
  - c. Martha asked if the ARC competition moved their location to the east side of the pass.
    - i. Julia responded that it did not, but Rocky Mountain Wild in conjunction with CDOT Region 1 looked at this topic and recommended the east side as the first location of an overpass
    - ii. Bill said that the east side overpass may be challenging as Copper Mountain wants to expand and encroach towards the area where the overpass is recommended. West Vail Pass has recreation though that impacts wildlife herds
    - iii. John added that while bedrock wasn't found, that doesn't mean the project couldn't build a bridge, but that it would be more challenging. He also stated that the geotechnical drilling found remnants of an ancient glacier at the MM 187.4 location.



- d. John said the report from 2013 ruled out the MM 187.4 crossing as the east side crossing was the most effective location for an overpass.
  - i. David said that this report was to identify wildlife enhancements that could be go through Tier 2 process on its own (i.e. not with another larger project), but it didn't preclude or eliminate other recommendations from past LIZs.
- 6. John asked if an underpass that snowplows could drive through in winter would be acceptable (i.e. animals would cross under during summer)
  - a. Julia said fox and coyote would need it for winter use.
  - b. Bill said the box would need to be big enough to have an asphalt substrate and a dirt substrate. It couldn't only be a paved bottom as animals wouldn't want to use it. Very few animals would use it in the winter (fox, coyote, lynx, pine martin). It would be better than no mitigation, but not the most desirable
  - c. Julia asked if the maintenance underpass at Straight Creek was used year round and if the one on West Vail Pass would then have a maintenance seasonal restriction
    - i. The ITF group discussed this could be a challenge
  - d. Jen said if a box comes close to the bike path, recreation users could be explore it and make user-created trails
    - i. Greg added that there are sections of the bike path that will need to be rebuilt, so this ALIVE ITF could provide good insight on a potential location
- iv. John then presented the aquatic recommendations in the LIZ reports
  - 1. The recommendation for the culvert at MM 180 said to keep this location as a fish barrier. CDOT has recently completed a project (with CPW input) to line this culvert and keep it as barrier
  - 2. The recommendation for the MM 180.6 location was to replace the existing culvert with a 3 sided box
    - a. John said this was rebuilt in an Emergency Repair project but it still could be fish barrier
    - b. Bill said he was not too worried about fish, he would spend money on the upper part of the pass rather than on the lower half
    - c. Julia said work was done with CPW to look at aquatic resources and provide recommendations, but it wasn't a huge priority to improve aquatic passage. Many of the other recommendations are to maintain the creeks at the existing bridges



- d. The ITF group agreed that the MM 180.6 location wouldn't need improvements
3. The recommendation for the MM 183 location was to remove the existing culvert
  - a. The ITF group discussed where this location was and the conditions of the culvert. It was decided that further investigation will be needed on it
    - i. Julia added it will probably be a low priority. She added that these recommendations show where known fish barriers are and whether they should remain or be removed
  - b. The group then discussed that some of this discussion can be deferred to the SWEEP meeting. The ALIVE MOU does talk about aquatic recommendations, but this will be discussed again at the upcoming SWEEP ITF meeting
4. The recommendation for the MM 183.3 location was to improve fish passage
  - a. Bill said the Project Team needs to look at this and see if there are fisheries upstream and if it is really needed
5. The group decided to not discuss more of the recommendations and then focus more on it at the SWEEP ITF

**b. Design Options**

- i. Kara stated that the previous 4 TT meetings talked about design options that will lead into alternative developments and highlighted what was discussed at those TT meetings
- ii. Don covered some details on the content that was discussed at the TT meetings including roadway template, construction phasing options, and trail options
  1. The bridges may need to be replaced on realignments of the interstate, the trail may need to be relocated where impacted (especially on the upper ½ of West Vail Pass), and roadway widening widths have been discussed
  2. The Project Team is developing criteria from the TT & ITF meetings to screen the alternatives that are developed
  3. Bill asked what the definition of “near the creek” is for trail relocation
    - a. The Project Team didn't know at this point in the project. Kara said this was a higher level discussion at a TT meeting and the exact distance to the riparian area was not discussed
  4. David S asked if wildlife had an impact on any of the options
    - a. Don said the use of old US 6 as a detour considered this as many of the crossings would be eliminated as no bridges



would be needed to install this detour. This design option was eliminated for 4f recreation issues too.

- b. Martha said the Project Team's challenge is to take input from all of the stakeholders and come up with the recommended alternative that best fits all of the input received so far

## 11. Schedule and Next Steps

- a. Kara covered the project schedule. The project is currently developing Purpose & Need criteria for the Level 1 screening, then will further develop that criteria for the Level 2 screening. The Project Team will come back to the ALIVE ITF during the Level 2 screening process
  - i. She added that the next ALIVE ITF presentation will show the results of the Level 1 screening and what alternatives moved onto the Level 2 screening. This will be done before the recommended preferred alternative is identified
  - ii. John asked group if the ITFs will be before the Level 2 analysis or as that second level screening is taking place. He wanted clarification as the goal is to have only one more ALIVE ITF meeting before the recommended alternative is identified
    - 1. Bill said this topic is too complicated and that one meeting may not be enough to fully discuss the mitigation
      - a. John said he hoped it could be done in one meeting and may need to be looked at and addressed as the project progresses
- b. Greg added that there is a potential for noise walls in East Vail and asked how that impacts wildlife
  - i. Bill replied that a noise wall would prevent crossings and could be tied to the wildlife fence for a continuous barrier and push animals underneath the bridges
- c. Bill stated that he felt it would be counterproductive to get the bike path too close to the stream as it could add impacts and sediment to Black Gore Creek. The pedestrian bridges could narrow the creek and allow for beavers to dam them up and create big issues. He felt the design should stay well out of riparian areas and try not to cross the creek. Impacting riparian areas could go against some of the Core Values of the project
  - i. Greg said that there are pros and cons to moving the path closer to creek. It could help to clean sediment out of creek and provide a better user experience, but it would impact the riparian area and potentially increase winter activity next to creek as well as affect emergency response for incidents on trail. There is a lot to be considered in looking at trial realignments
  - ii. Jen said that the Forest plan has guidance on permanent trails in lynx habitat
    - 1. ***Jen will send this to Project Team***



- iii. Julia said that in other areas in Colorado, trails are closed in the winter due to the lynx habitat and asked if this could be done for the Vail Pass trail
  - 1. Jen replied that it is feasible and the Forest Service would be able to enact this as they manage recreation use of the trail