

# Meeting Notes



## I-70 Floyd Hill to Veterans Memorial Tunnels

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**Project:** I-70 Floyd Hill to Veterans Memorial Tunnels (VMT) NEPA and 30% Design  
**Meeting:** ALIVE Site Visit #1 / Meeting #2  
**Date:** June 6, 2018  
**Location:** Site Visit

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### Attendees:

Lauren Boyle, CDOT  
Vanessa Henderson, CDOT  
Keith Hidalgo, Atkins  
Julia Kintsch, ECO-resolutions  
Alison Michael, USFWS  
Alex Nelson, CDOT  
Neil Ogden, CDOT  
Anthony Pisano, Atkins  
JoAnn Sorenson, Clear Creek County  
Adam Springer, Clear Creek County  
Doreen Sumerlin, USDA Forest Service  
Martha Tableman, Clear Creek County  
Francesca Tordonato, CDOT  
Carrie Wallis, Atkins

Summary of Action Items	Responsibility	Status
1. Contact Clear Creek County Road and Bridge re: WVC on Saddleback Road	Julia	
2. Provide guidance and specifications for wildlife crossing designs (e.g., dimensions, slopes, substrate, bench width)	Julia	
3. Develop cross section of potential wildlife crossings	Anthony	
4. Provide traffic analysis demonstrating how I-70 realignment is projected to affect truck traffic from the quarry on US 40	Neil	
5. Preble's habitat assessment and coordination with USFWS and CDOT regarding potential mitigation.	Keith	

### Summary of Discussion

[Note Action Items are in [blue](#).]

#### General comments:

- Herds around the I-70 corridor in the Floyd Hill project area are more accustomed to traffic noise and people.
- Different herds and species concerns at the top of Floyd Hill vs at the bottom, in Clear Creek Canyon.
- Wildlife overpass considerations
  - The longer the span, the wider it needs to be.

- Ungulates, in general, and elk, in particular, require good visibility across or through a crossing structure. Elk are extremely predator wary.
- Prohibit human use of wildlife crossing structures; where human use inevitable, design trails to limit impacts to wildlife movement. Note, Clear Creek County can incorporate seasonal or nightly closures on open space properties.
- Maintain or improve existing small culverts for carnivores (e.g., black bear, mountain lion) and other medium and small sized fauna throughout the project area; May also consider new small culverts for these species to reduce WVC involving these species.
- When replacing bridges, increase bridge spans to create space for a wildlife bench of pathway.
- [Julia will provide more detailed specifications and guidelines to assist in design.](#)

The group visited eight locations to discuss potential mitigation solutions and the challenges and opportunities at each location. Below, the challenges and opportunities of each potential mitigation location are summarized.

### **Top of Floyd Hill Segment/Beaver Brook LIZ (~MP 245.5-248)**

- Lots of elk movement and elk WVC
- Daily movements across I-70 for deer and elk (not a migration corridor).

#### **1. MP 247, Potential overpass location**

- Elk commonly use the meadow on the south side of I-70.
- WVC hotspot for elk as well as deer.
- Challenges:
  - Private lands and potential development including potential to build out office park on the north side, and a proposal to develop undeveloped lands between the wetlands and the high school south of I-70. Constructing a large overpass at this location would require assurances that lands on either side are protected from development.
  - An overpass at this location would need to span 6 lanes of I-70 with a grassy median, 2 lanes of US 40, and the wetlands on the south side of I-70. Given this long span, the overpass would need to be 200' wide.
  - Wetlands on the south side of I-70.
- Opportunities:
  - The proposal to build a residential development is in the very early stages and the developer has indicated a willingness to include a wildlife corridor in the development plan. Continued coordination with Clear Creek County planning (Adam Springer) can get this included in the development.
- [Consider both this location and the location to the east \(from cut slope to west of the log home builder\). Anthony to create cross sections for both of these locations.](#)

#### **2. MP 246.5, Potential overpass location**

- WVC hotspot for elk as well as deer.
- Issues:
  - An overpass at this location would need to span 6 lanes of I-70 (no grassy median) and 2 lanes of US 40; while it is a shorter span than at MP 247, the overpass would still need to be 150-200' long.
  - Requires coordination with landowner of 35-acre parcel on the north side where the overpass would connect to adjacent to the open space.
  - Mountain bike/hiking trail development on open space will increase human activity on north side.
  - Saddleback Road immediately to south (residential access road) where wildlife would exit overpass.

- Opportunities:
  - Overpass could be constructed from bench on the south side to cut slope on the north side – site offers good visibility across the overpass.
  - 108-acre open space on north side, which connects to additional open space in Clear Creek Canyon (Oxbow Open Space).
  - Could implement traffic calming measures or animal detection system on Saddleback Road, and conduct neighborhood outreach to mitigate potential increase in WVC on Saddleback Road. Martha noted that residents of this area are used to living with wildlife and looking for wildlife as they're driving.

### **3. MP 245.6, Potential overpass location**

- Issues:
  - Steep slopes from I-70 to US 40.
  - Private lands on east side of US 40 and west side of I-70.
  - Outside of the highest WVC area.
- Opportunities:
  - Cut slopes on either side of US 40 and I-70

### **Clear Creek Canyon Segment/Clear Creek Junction LIZ (MP 243-244.9)**

- Target species include bighorn sheep as well as elk and mule deer
- I-70 is largely a barrier to ungulate movement through this segment, although crossings are still attempted. Bighorn sheep movement is primarily east-west on the north side of I-70.

### **4. MP 244.9, Potential over- or underpass locations**

- Potential underpass through fill at Johnson Gulch, or overpass from cut slope north of the gulch to bench/pullout along westbound I-70.
- Issues:
  - East side drops immediately on to US 40, which has high traffic speeds coming downhill
  - An underpass at Johnson Gulch would require removing the pullout along eastbound I-70 over the structure to reduce the length of the underpass.
- Opportunities:
  - Large, natural drainage with limited development.
  - Would it be possible to continue the wildlife crossing under or over US 40?

### **5. MP 244.4, Planned WB bridge**

- Issues:
  - East side drops immediately on to US 40. Traffic speeds slower than at location 4, but wildlife would still have to navigate across US 40. Alternatively, could fence US 40 (both sides, but this would create a fencing maze on the east side of the wildlife crossing that would direct animals down to Clear Creek/US 6 or up US 40, where there are no safe crossings.
- Opportunities:
  - Westbound I-70 will be on a bridge from here to the westbound tunnel; Eastbound lanes will move on to current westbound alignment; Current eastbound lanes will be removed. Could also put eastbound I-70 on a bridge to create a wildlife crossing at this location.

### **6. MP 244.2, Clear Creek bridges**

- Issues:
  - High human activity (bike path, rafters)

- Opportunities:
  - Both eastbound and westbound bridges will be replaced – replace with a wider span to create a natural bench for wildlife passage separate from the bike path on the south side of the creek.
  - Dirt parking lot on the south side of the creek (accessed from the I-70 eastbound off-ramp) will be removed.

#### **7. MP 243, Central City Parkway, bridges over Clear Creek**

- Issues:
  - These bridges are not currently part of the project.
  - There are multiple bridges at this location, including the I-70 mainline, the westbound off-ramp, eastbound on-ramp and an adjacent access road on the north side of I-70. All of the bridges have riprap slopes and limited clearance, prohibiting passage by ungulates and other wildlife.
- Opportunities:
  - If adjustments to the Hidden Valley interchange are required then there will be an opportunity to improve wildlife passage under the bridges.

#### **8. MP 242.7, Clear Creek bridges**

- The group did not visit location but discussed it.
- Issues:
  - Central City Parkway bridge over Clear Creek immediately to north has steep riprap banks with no pathways for wildlife passage. Would it be possible to create pathways through the riprap on either side of the bridge to improve the functionality of this structure for wildlife passage?
- Opportunities:
  - In order to flatten the curves east of the Veterans Memorial Tunnels, these bridges will be realigned. Replace with a wider span to create natural benches for wildlife passage on either side of the creek.
  - The greenway trail will likely follow along the frontage road rather than following the creek under the bridges at this location.

### **Preble's Meadow Jumping Mouse Habitat & Connectivity**

#### **9. Beaver Brook**

- Issues:
  - Existing pipe culvert is very long and crosses under the Beaver Brook interchange at an angle.
  - Riparian connectivity under I-70 would be very difficult and expensive to restore.
  - Private landowner at culvert outlet has removed riparian vegetation and built a barn and domestic livestock yard just adjacent to the riparian corridor.
- Opportunities:
  - Investigate opportunities to restore riparian habitat.
- [Atkins to conduct habitat assessment upstream and downstream.](#)
- [Francesca, Alison and Keith to coordinate on Preble's assessment, including the magnitude of the project's impacts to upstream habitat and the need for connectivity under I-70.](#)