Upper Fourmile Community Meeting

Fourmile Canyon Dr. & Fourmile Creek
Salina Junction to Sunset

November 18, 2015

Meeting Format:

- **Welcome & Introductions**
- **County Presentation**
- **Group forum Q&A session**
- **Open House**

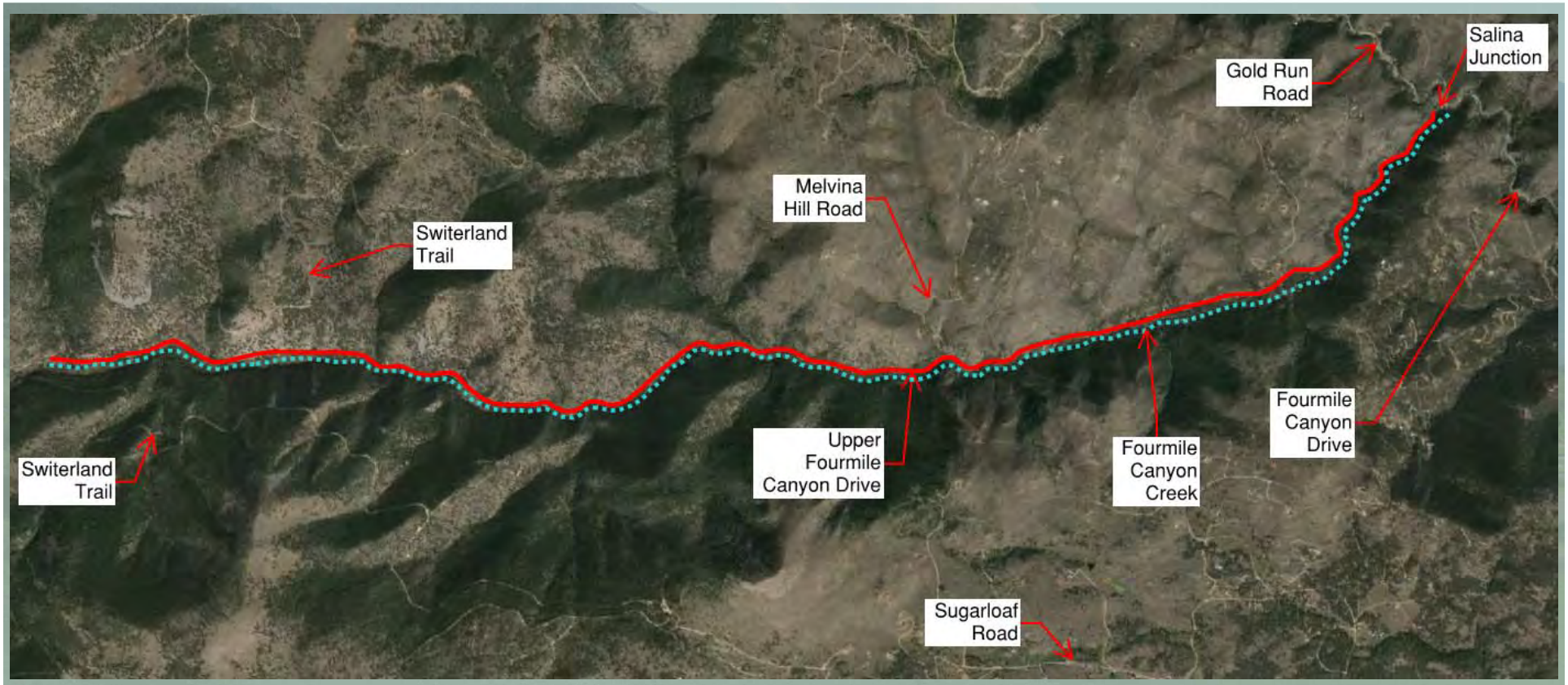
Introduction – Purpose

Why are we here today?

➡ ***To Share the Current Design Progress and obtain community feedback***

- **Two separate but related projects:**
  1. **Permanent roadway reconstruction project**
  2. **Creek restoration project**

Background – Project Limits



- **Roadway repairs along Fourmile Canyon Dr. from Salina Junction to Sunset**
- **Fourmile Creek Restoration (partly with roadway, partly separate)**
- **Drainage improvements at Emerson Gulch, Nancy Mine Gulch, Melvina Hill**

Background – Project Goals

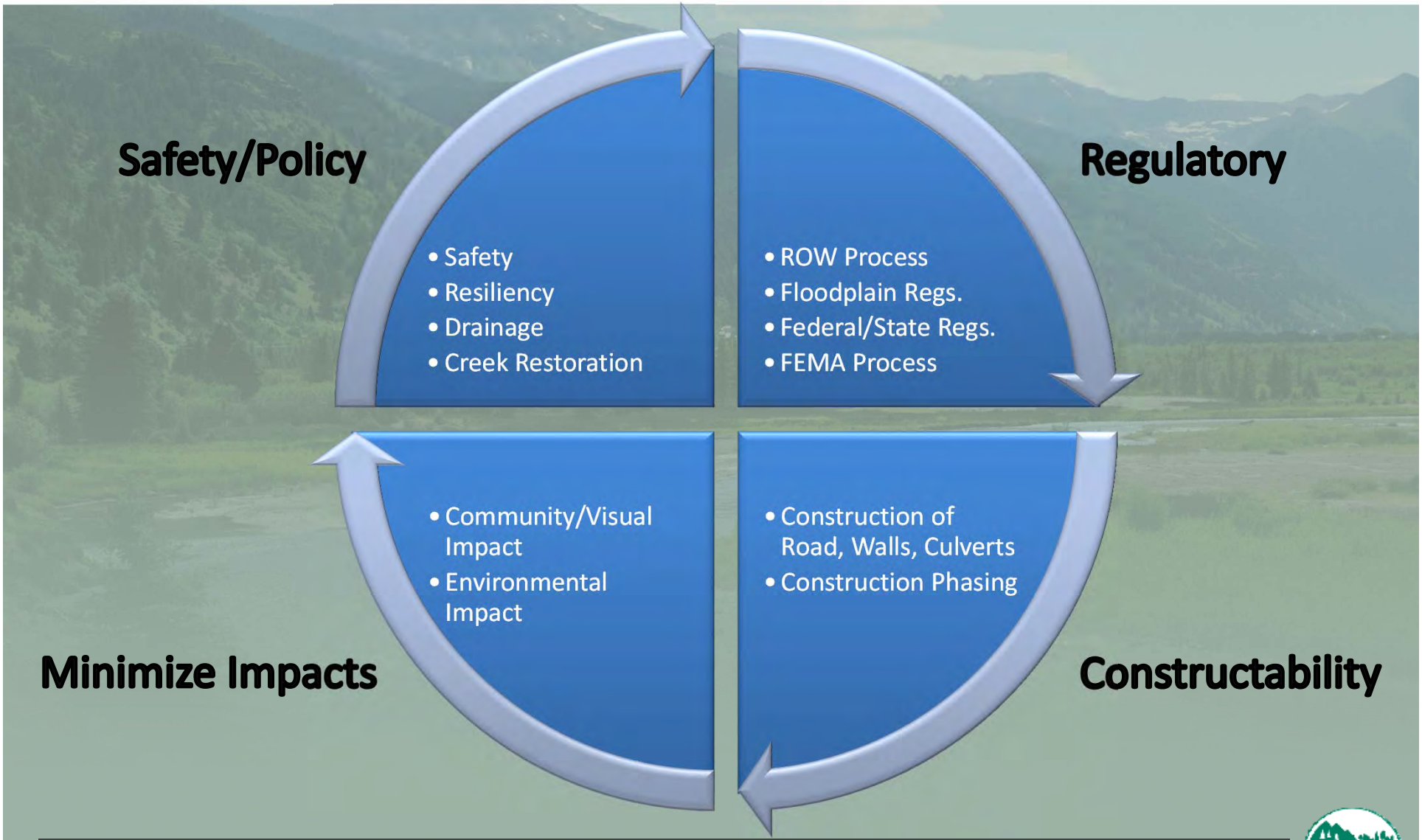
- ✓ **Permanent reconstruction of damaged roadway**
- ✓ **Restore pre-flood conditions of the roadway**
- ✓ **Increase safety and resiliency where available**
- ✓ **Increase health and stability of the creek**
- ✓ **Minimize environmental impacts through balanced design**
- ✓ **Minimize and manage impacts to the community**

Background – Previous Meetings

From earlier community meetings:

- **Restore to pre-flood conditions**
- **Fix roadway surfaces**
- **Improve drainage structures to avoid clogging and roadway washout**
- **Improve creek health and stability**
- **Make necessary walls and barriers visually appealing**
- **Minimize tree/vegetation impacts**

Project Development – Driving Factors



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Project Development – Roadway

Summary of the Road Project:

- **30% Design level**
- **Funded primarily through FEMA**
- **Primary focus**
  - ➢ **Restore conditions to pre-flood with minimal impacts**

Project Development – Creek

Summary of the Creek Project:

- **15% Design level**
- **Portions constructed with roadway funded primarily through FEMA**
- **Portions constructed away from roadway not funded**
- **Primary focus**
  - ➢ **Increase health and stability with minimal impacts**

Anticipated Project Schedule

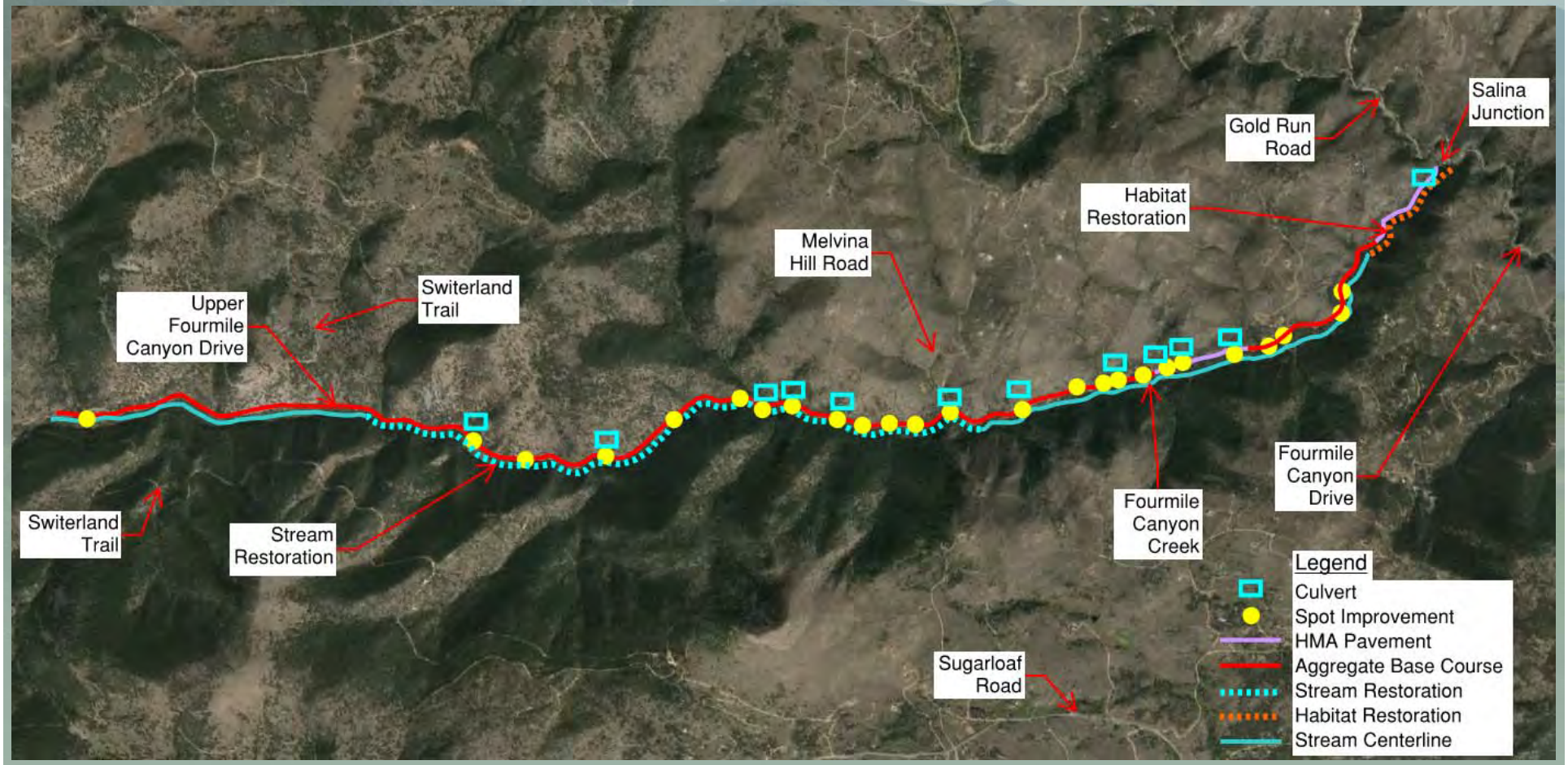
Road project:

- **Final Design Completed – Spring 2016**
  - **60% & 90% designs posted to website**
- **Environmental, ROW, and FEMA Clearances – Spring 2016**
- **Begin Construction – Spring/Summer 2016**

Creek project:

- **Final 30% Design Completed – Spring 2016**
- **Begin Construction – Pending Funding**

Road Project – Limits of Work

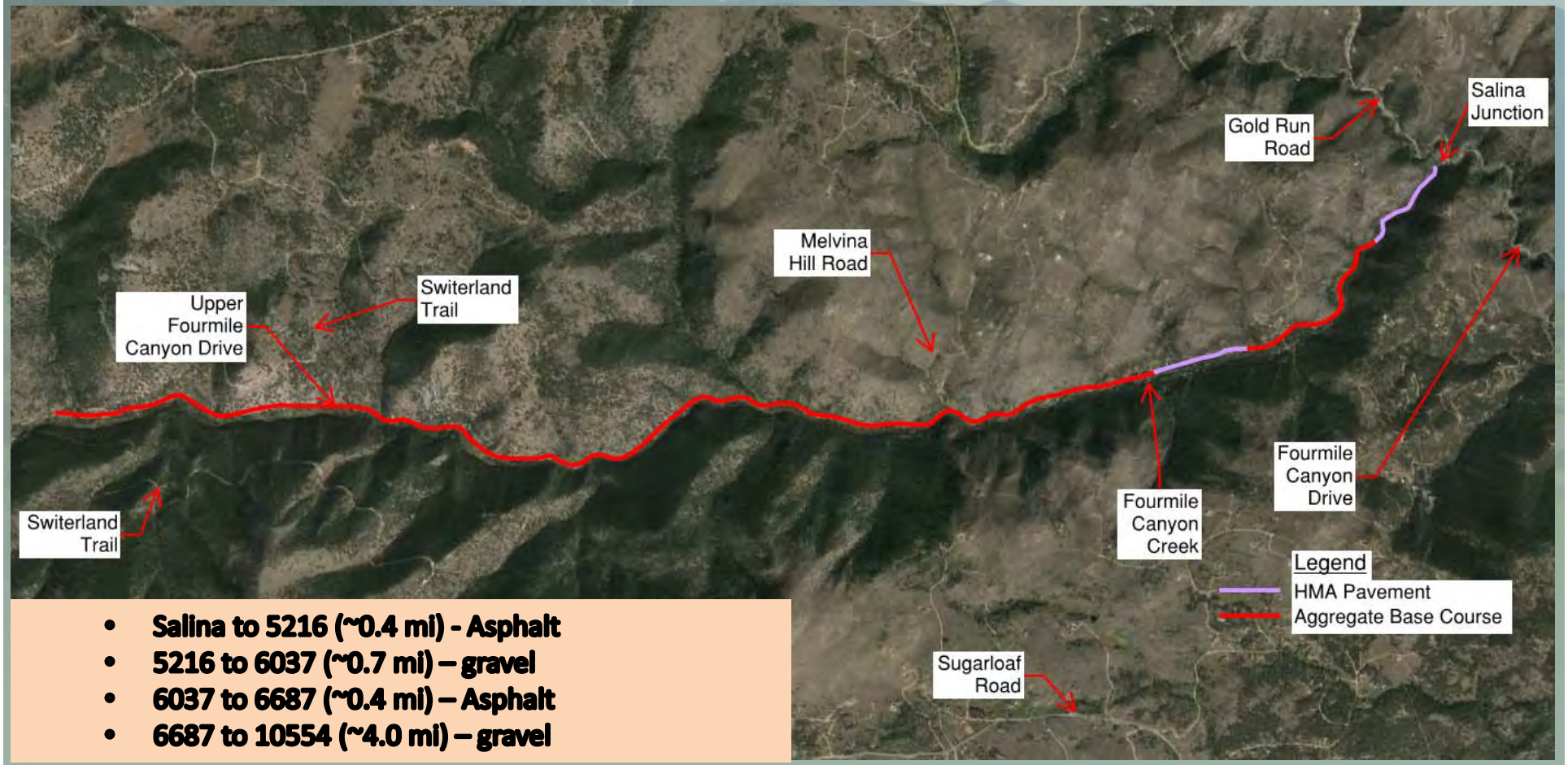


Road Project – Basics

Primary features of the project:

- **Reconstructed roadway surfacing**
  - **Salina to 5216 (~0.4 mi) - Asphalt**
  - **5216 to 6037 (~0.7 mi) – gravel**
  - **6037 to 6687 (~0.4 mi) – Asphalt**
  - **6687 to 10554 (~4.0 mi) – gravel**
- **Spot location slope repairs**
  - **15 specific locations (retaining walls)**
- **Improved drainage & Safety**
  - **16 cross-culverts (including 2 box culverts)**
  - **Emerson Gulch & Nancy Mine**
- **Habitat restoration in creek**
  - **Salina to 5216 (~0.4 mi)**
  - **At slope repair locations**

Road Project – Limits of Work



- **Salina to 5216 (~0.4 mi) - Asphalt**
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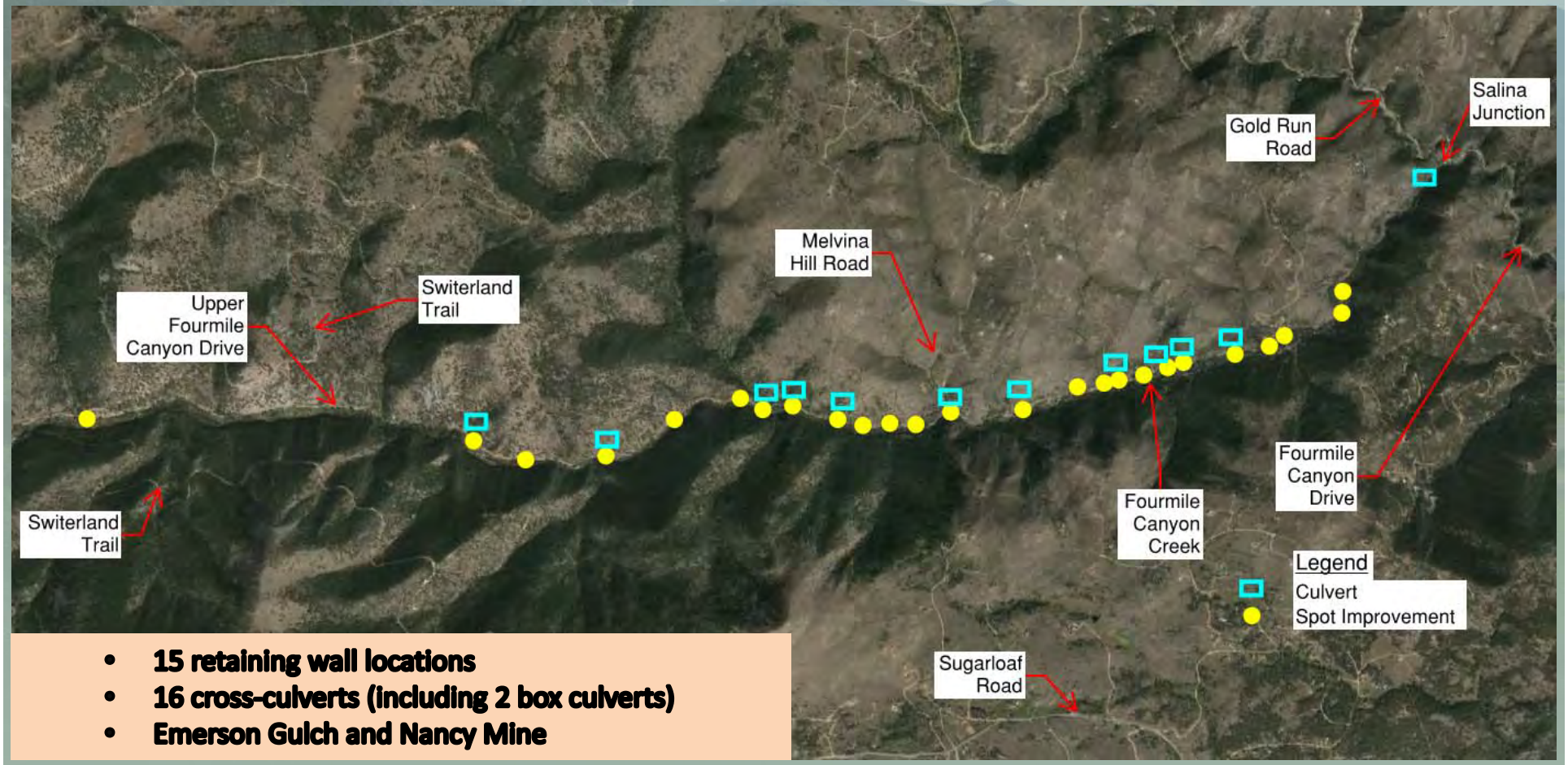
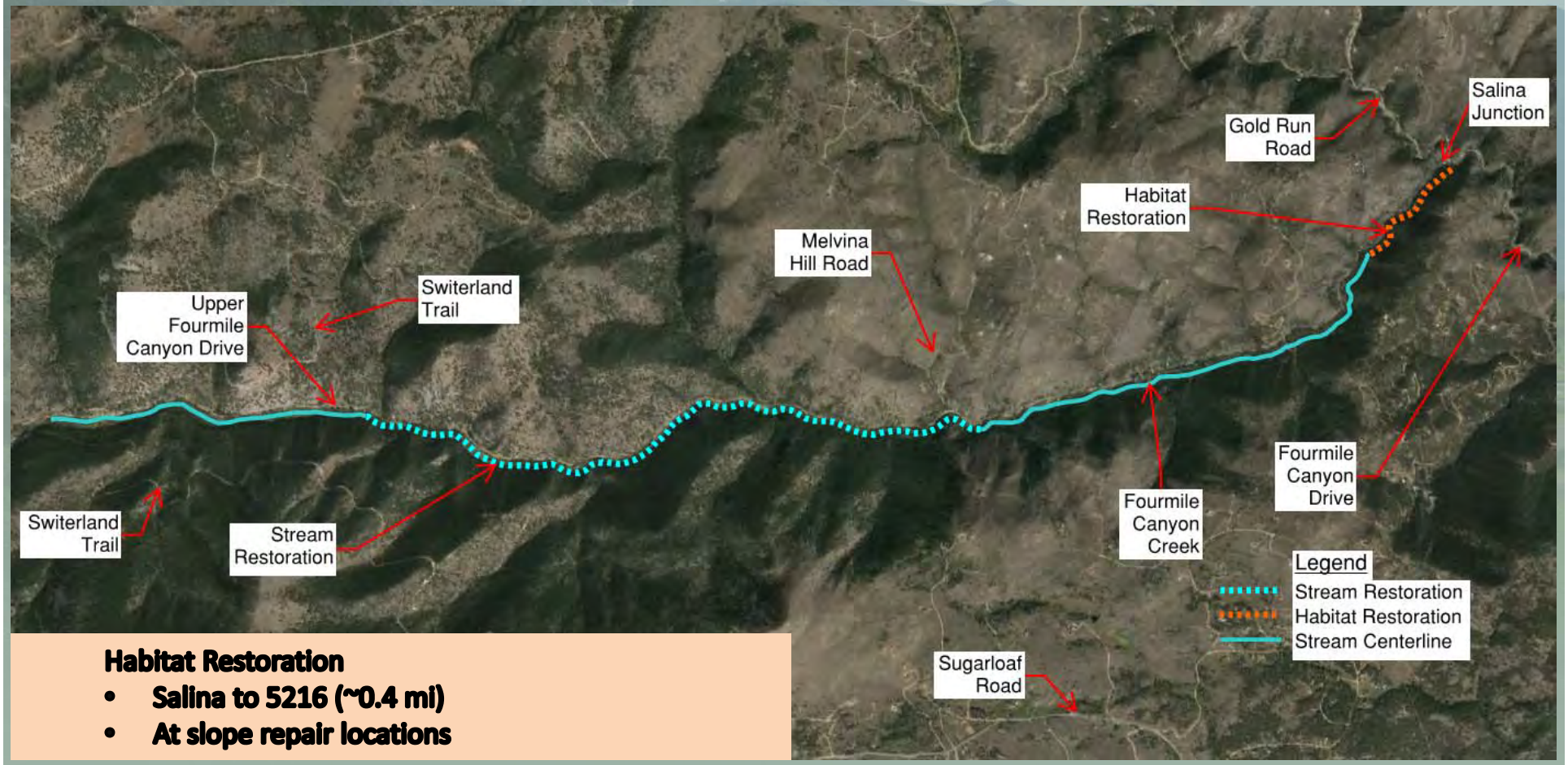
Road Project – Limits of Work



- **15 retaining wall locations**
- **16 cross-culverts (including 2 box culverts)**
- **Emerson Gulch and Nancy Mine**

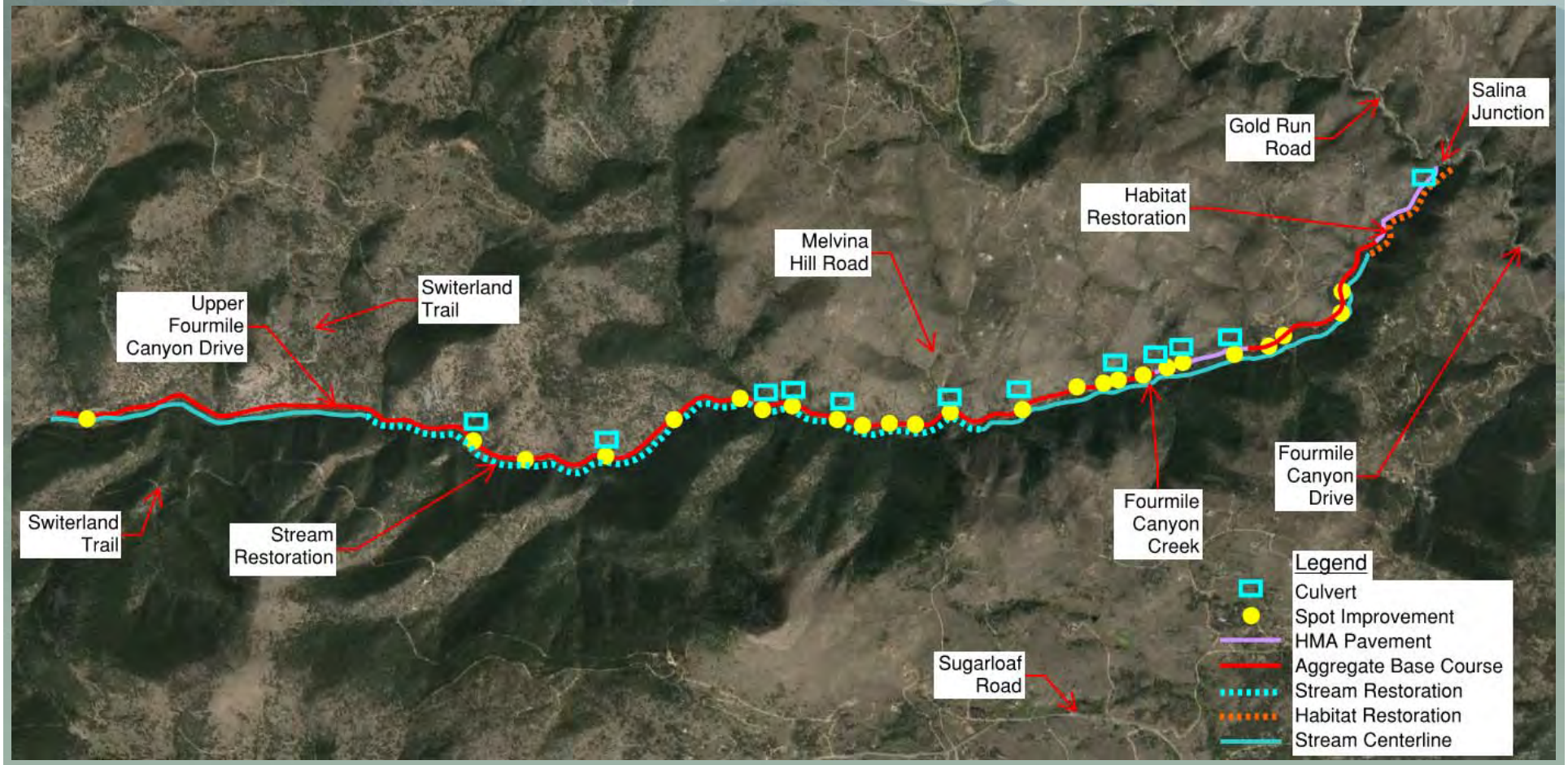
Road Project – Limits of Work



Habitat Restoration

- **Salina to 5216 (~0.4 mi)**
- **At slope repair locations**

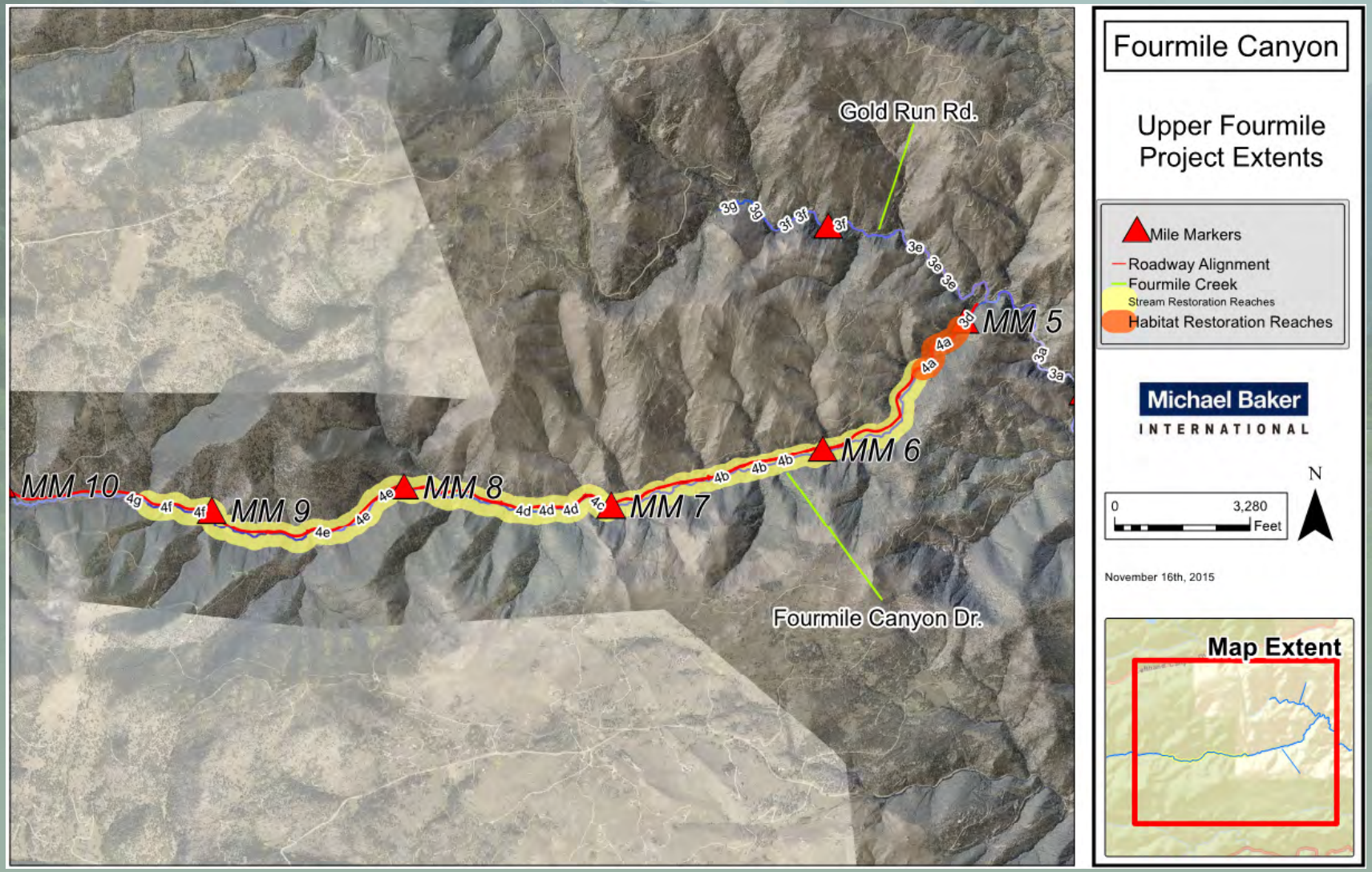
Road Project – Limits of Work



Road Project – Aesthetics

Where applicable, aesthetics can be implemented

Creek Project – Basics



Creek Project – Basics

What is Stream Restoration?

- **Design of a natural stable channel in current watershed setting**
- **Self Regulating**
- **Establishes the physical, chemical, biological functions**

How do we do Creek Restoration?

- **Quantify the degree of impairment**
- **Formulate design based on scientific methods**
- **Restore biology/ecology/geomorphology/hydrology/geometry based on quantifiable metrics**

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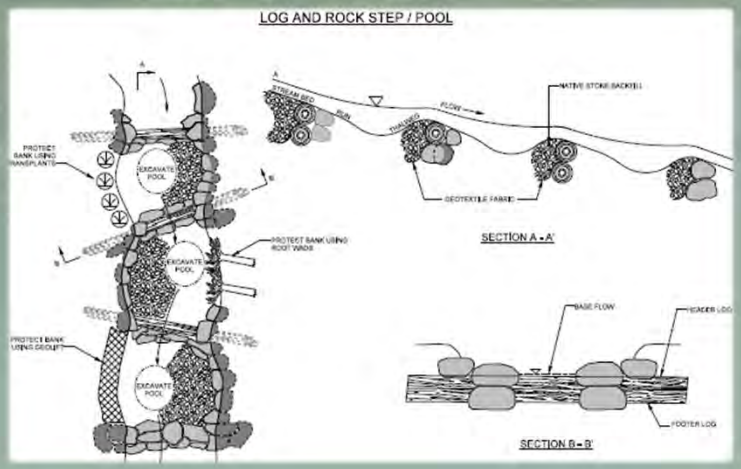
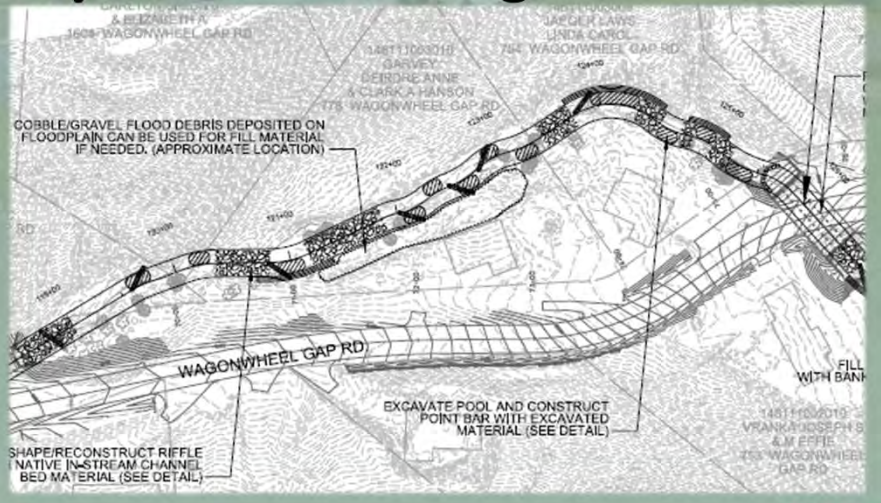
Creek Project – Proposed Design

Design Process and Results

- **Identify Constraints**
- **Layout channel section, alignment, and profile**
  - **We want your input!**
- **Modify using design parameters**
- **Verify with sediment transport & hydraulic modeling**

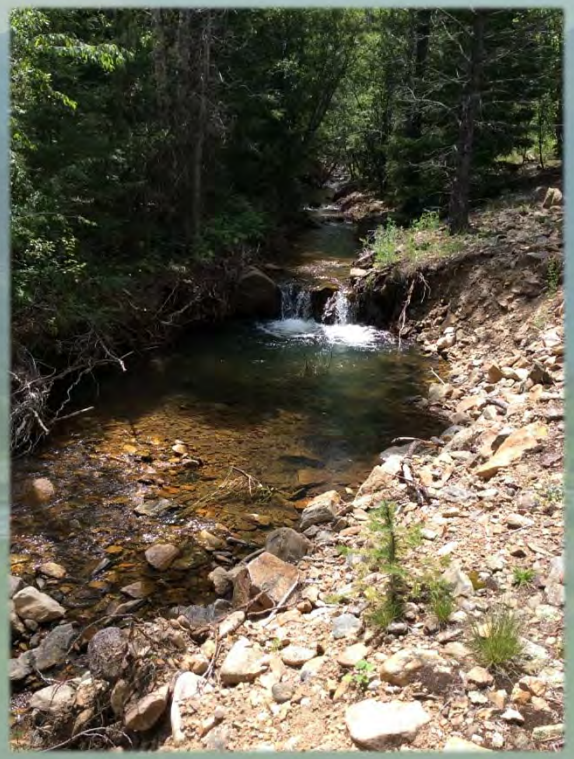




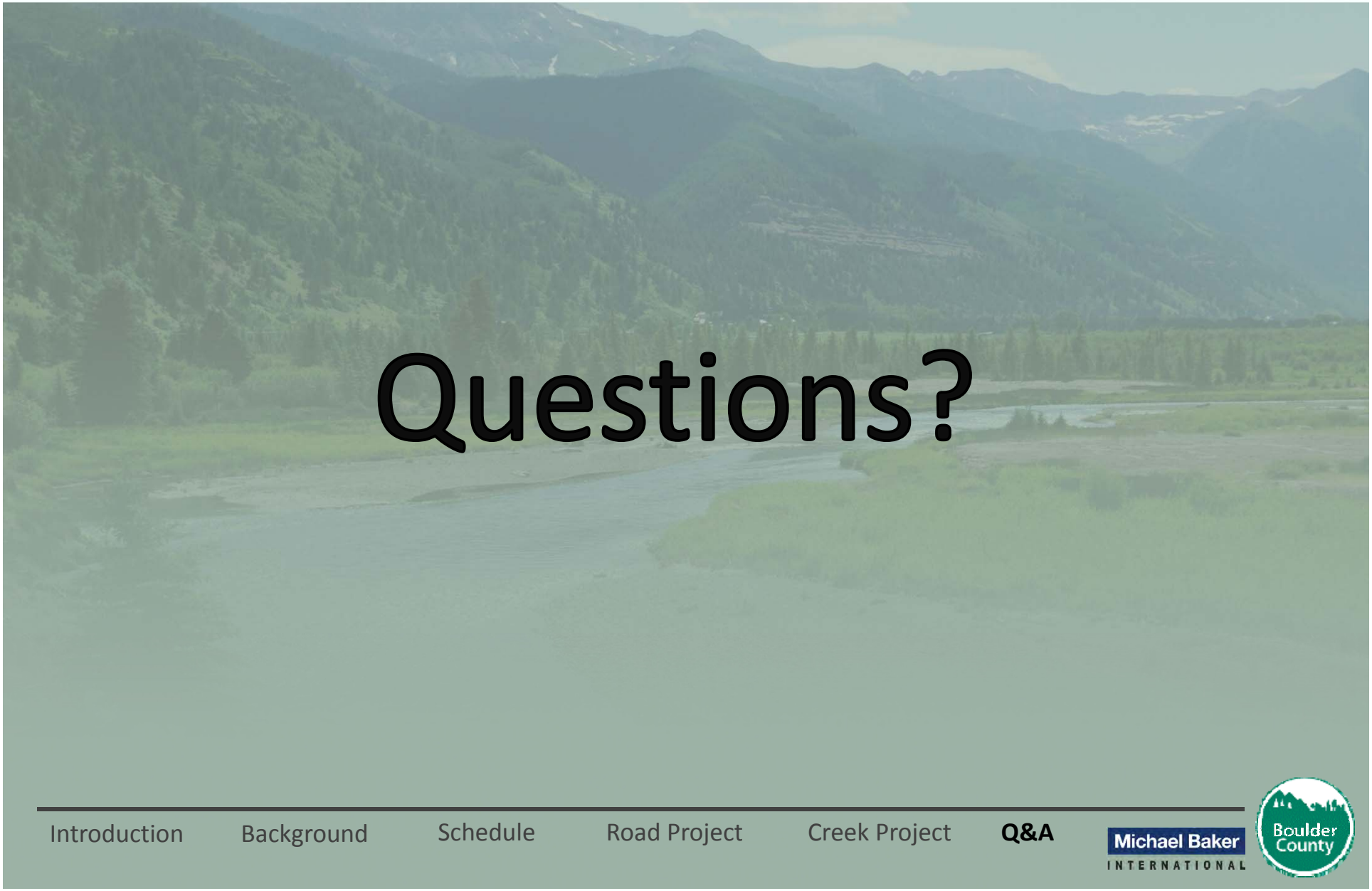
Creek Project – Implementation

Implementation Process

- **Probably Design Build Construction**
  - **Creek segments required to be constructed w/ roadway funded by FEMA**
  - **Other segments can be funded w/ different mechanisms**
- **Ideal construction times - fall through spring (if/when funded)**
- **In context with native stream and watershed setting**



Community Discussion



Community Discussion

Open House

Opportunity to ask questions and provide input on designs, such as:

- Are there additional impacts that need to be considered (e.g., road safety, driveway access, culverts, grading)?
- Do you have any visual or other preferences that we should try to incorporate to reflect the future you envision for the area (e.g., trees, retaining walls)?
- Do you have feedback on the recommended creek alignment?

Community Discussion

Questions and Feedback

Upper Fourmile Canyon & Gold Run Road - Flood Recovery Construction
http://www.bouldercounty.org/roads/pages/upperfourmilecanyon.aspx

Fourmile Creek Recovery and Restoration
http://www.bouldercounty.org/flood/creekrestoration/pages/fourmilecreek.aspx

Contact us with feedback or questions or to be added to the community list serve:
Andrew Barth, Boulder County: 303-441-1032 - abarth@bouldercounty.org

Fourmile Creek Watershed Coalition: Maya MacHamer, 303-449-3333,
fourmilewatershed@gmail.com

We appreciate feedback by December 16, 2015