



Boulder County Flood Recovery Projects Road Construction and Creek Restoration

Contractor Information Session

August 11, 2016

Meeting Agenda

- ▶ Introductions
- ▶ Road/Creek Flood Recovery Approach and Goals
- ▶ Importance of Creek Restoration Experience
- ▶ Experience Requirements for Creek Restoration and Vegetation Installation
- ▶ Funding Sources and Requirements
- ▶ Project Maps and Summaries
- ▶ Estimated Schedules
- ▶ Other Upcoming Projects
- ▶ Questions & Answers



Disclaimer

The information presented today is the best information that is available at this time and is subject to change.

Invitation to Bids, contracts, or other formal communication from Boulder County supersedes information in this presentation.



Road/Creek Flood Recovery

Approach and Goals

- ▶ September 2013 flood damaged 150 miles of Boulder County roadway and 30 major structures
- ▶ Creeks were also damaged, including:
 - ▶ Debris
 - ▶ Channel migration
 - ▶ Sediment aggradation and degradation
- ▶ In Boulder County's narrow canyons, the road and the creek are interconnected
- ▶ Integration is essential for flood recovery

Boulder County's Goal: Increase resilience to hazards in the canyons through complementary design & implementation of road & creek systems.









Road/Creek Flood Recovery Approach and Goals

- ▶ Boulder County Transportation is committed to maintaining the natural stream/riparian systems as much as possible
- ▶ Boulder County intends to bid road/creek projects together (5 projects total)
- ▶ Benefit of constructing together include:
 - ▶ Allows maximum benefit to both systems
 - ▶ Reduces construction impact time on residents
 - ▶ Cost efficiencies and less re-work

Boulder County's Goal: Increase resilience to hazards in the canyons through complementary design & implementation of road & creek systems.

Creek Restoration Approach

- ▶ Creek designs are not at 100% level
- ▶ Will be “field-fitted” under the direction of the County and the County’s Construction Management consultant
- ▶ Where possible, bids will be based on operator hours
- ▶ Boulder County will contract-grow native trees & shrubs-
-where possible, Boulder County will provide certain project plant materials



Importance of Creek Restoration Experience

- ▶ Site access is tricky & requires creativity
- ▶ Grading & earthwork can be very detailed
- ▶ Revegetation approach is critical
- ▶ Constructing in wet conditions is not easy
- ▶ Challenging sediment management & dewatering



Importance of Creek Restoration Experience

- ▶ Construction sequence is constrained
- ▶ Very detailed structure construction
- ▶ Important to have an understanding of geomorphology & channel hydraulics



Stream Restoration Contractor Requirements

- ▶ Road & creek projects require in-channel work.
- ▶ Project success is dependent on contractors with knowledge of stream restoration. It is helpful for the contractor to:
 - ▶ Have employees with stream restoration training
 - ▶ Be familiar with stream structures & their implementation
 - ▶ Show stream restoration experience in similar environments
- ▶ The contractor needs to show that they have the experience & ability to construct stream restoration projects.



Stream Restoration Contractor Requirements

- ▶ **During the bid process, Boulder County will require contractors to show:**
 - ▶ Overall stream restoration experience,
 - ▶ Examples of stream restoration projects, and
 - ▶ References for work they've completed
- ▶ **Award for the entire contract will be granted to the contractor that provides the best possible value for each project, price and other factors considered.**



Vegetation Contractor Requirements

- ▶ The establishment of native plant species is critical to restoration project successes.
- ▶ Vegetation contractor must show that they have experience & ability to install native plants on large-scale (over 1,000 plants) stream, wetland, or drainage way projects.
- ▶ Boulder County will require vegetation project examples and references.
- ▶ Award for the entire contract will be granted to the contractor that provides the best possible value for each project, price and other factors considered.



Funding Sources and Requirements

- ▶ Each project will have multiple funding sources
- ▶ Road Reconstruction
 - ▶ FEMA
 - ▶ Boulder County
- ▶ Creek Restoration
 - ▶ Emergency Watershed Protection (EWP) Program (NRCS)
 - ▶ Boulder County



Funding Sources and Requirements Cont.

- ▶ Quantities/costs must be tracked by funding source
- ▶ Rules/requirements of all funding sources must be met
- ▶ EWP has strict completion timeline of 220 days
 - ▶ Flexibility on when clock starts
 - ▶ Contractor will not have full 220 days due to contracting and administrative requirements
 - ▶ Some projects have multiple EWP projects



James Canyon Drive & James Creek



Boulder County Transportation Department

2525 13th Street, Suite 203, Boulder, CO 80304 | 303-441-3900 | www.bouldercounty.org/roads

Road and Creek Restoration Projects

James Canyon Road, EWP Creek Restoration, and Reach 17 Creek Restoration Project

Legend

Date: 8/3/2016

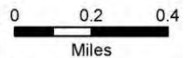
Emergency Watershed Protection Program Projects



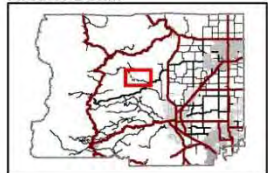
Reach 17 Creek Restoration



Road construction

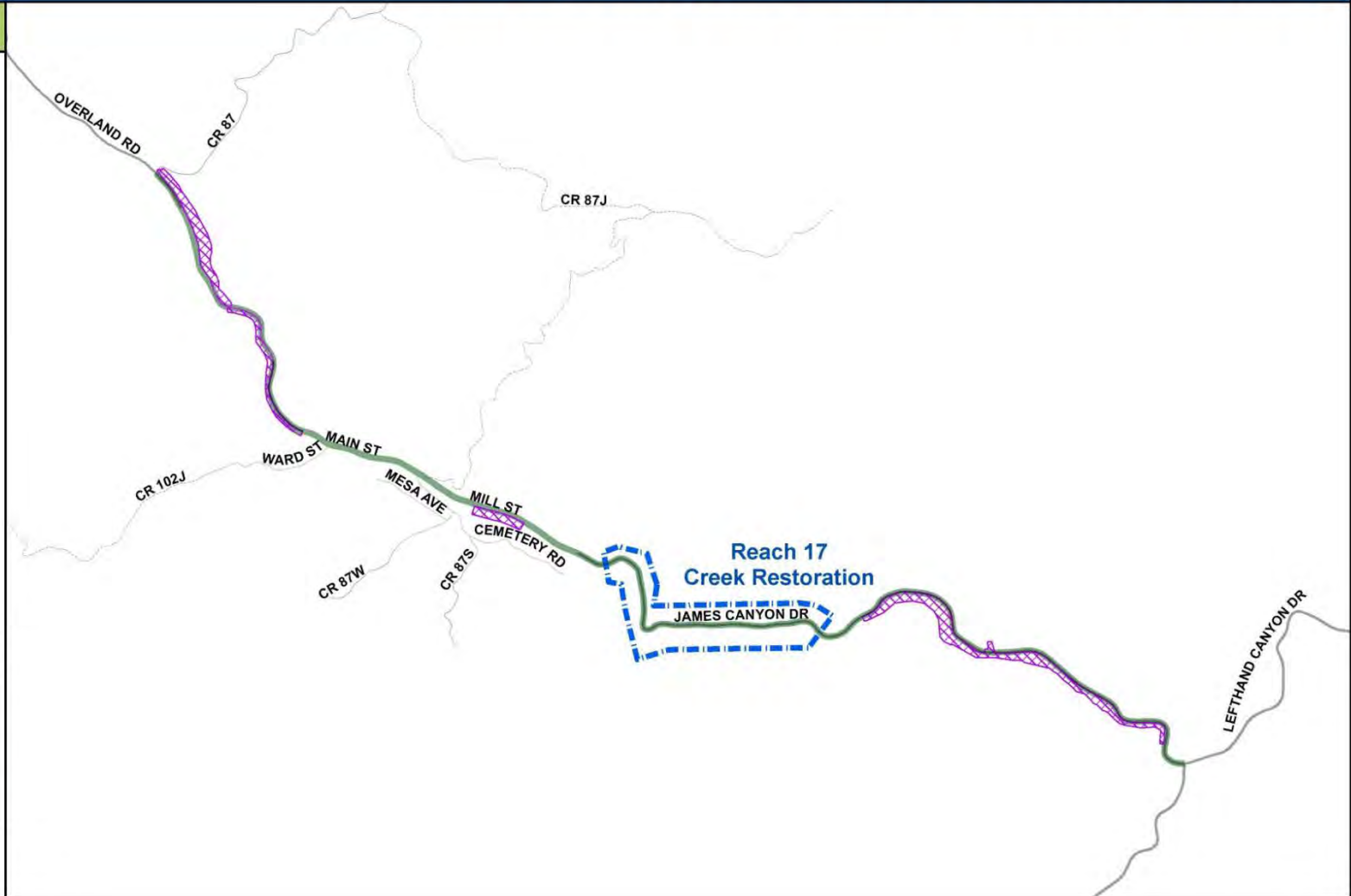


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James Canyon Drive & James Creek

▶ Road Construction

- ▶ Spot improvements from Lefthand Canyon Drive to just north of Jamestown including roadway reconstruction, drainage, culverts, embankment repairs
- ▶ 2.4 miles of roadway repairs over a 4.3 mile stretch

▶ Creek Restoration

- ▶ Grading/sediment removal, revegetation, bank stabilization, low-flow channel, in-stream structures (root wads, log vanes)
- ▶ ~3 linear miles of restoration





Legend

Date: 5/25/2016

- Fourmile Watershed Coalition Bank Stabilization
- Watershed Coalition Design and Implementation
- Boulder County Design and Watershed Coalition Implementation
- Boulder County Design and Implementation
- Boulder County Design
- NRCS Emergency Watershed Protection Program



Area of Detail



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Upper Fourmile Canyon Drive & Upper Fourmile Creek



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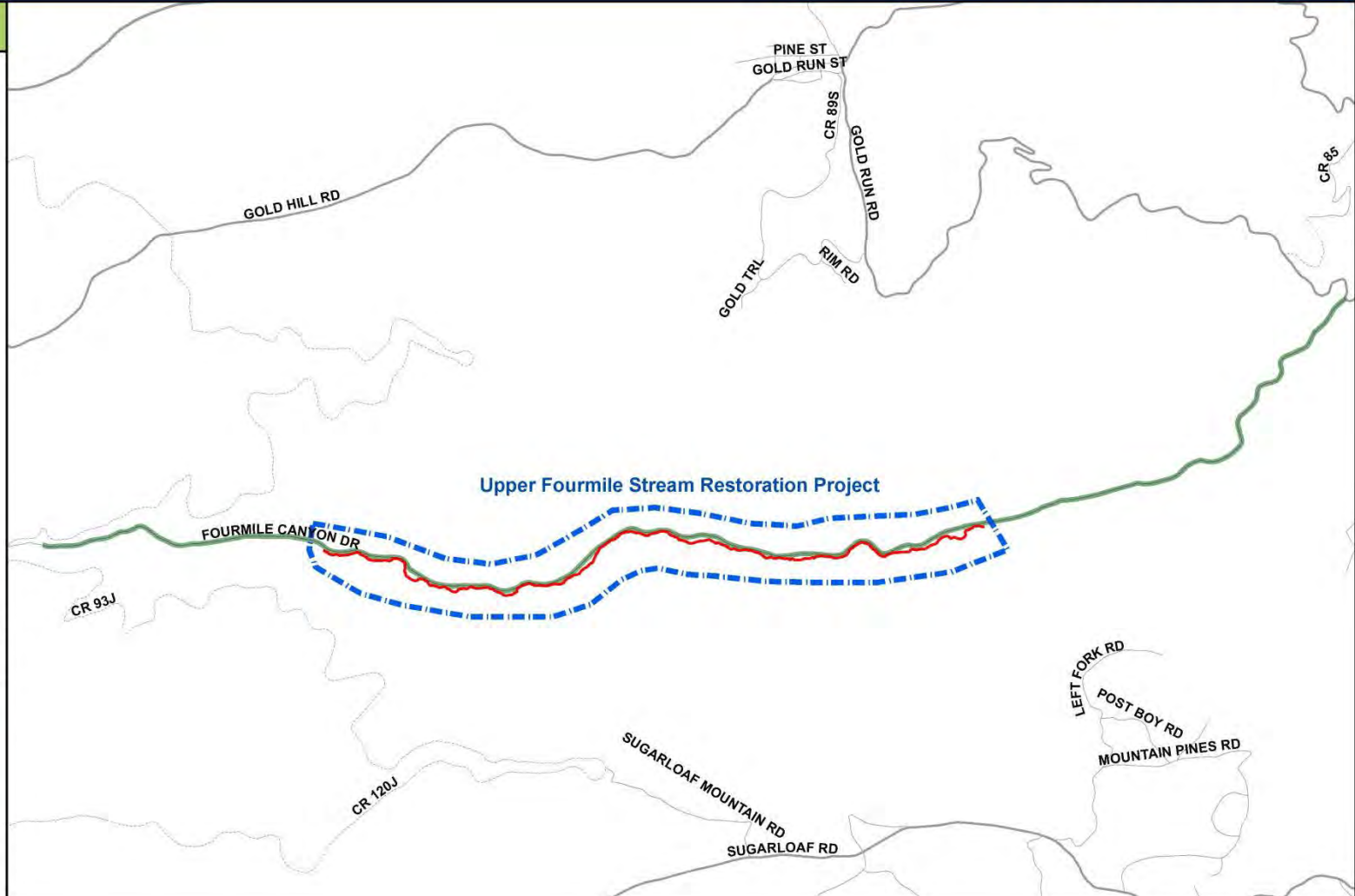
Road and Creek Restoration Projects

Upper Fourmile (Wallstreet) Road, and Stream Restoration

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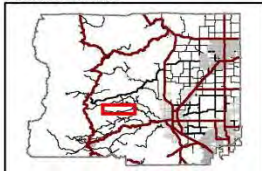
- Upper Fourmile Stream Restoration Project
- Stream Restoration Design
- Road construction



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Upper Fourmile Canyon Drive & Upper Fourmile Creek

▶ Road Construction

- ▶ Spot improvements along five miles of gravel road including drainage, grading, retaining walls and some paved areas

▶ Creek Restoration

- ▶ Wetland & riparian restoration, revegetation, boulder bank protection, toe wood soil-lift wraps, low-flow channel, & in-stream structures like log vanes, step-pools, riffles, rock wings, boulder clusters, & outlet protection.
- ▶ ~ 2 linear miles of stream restoration work



Gold Run Road & Gold Run Creek





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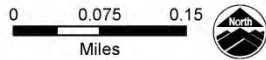
Road and Creek Restoration Projects

Gold Run Road and EWP Creek Restoration Projects

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-  Emergency Watershed Protection Program Project
-  Road construction

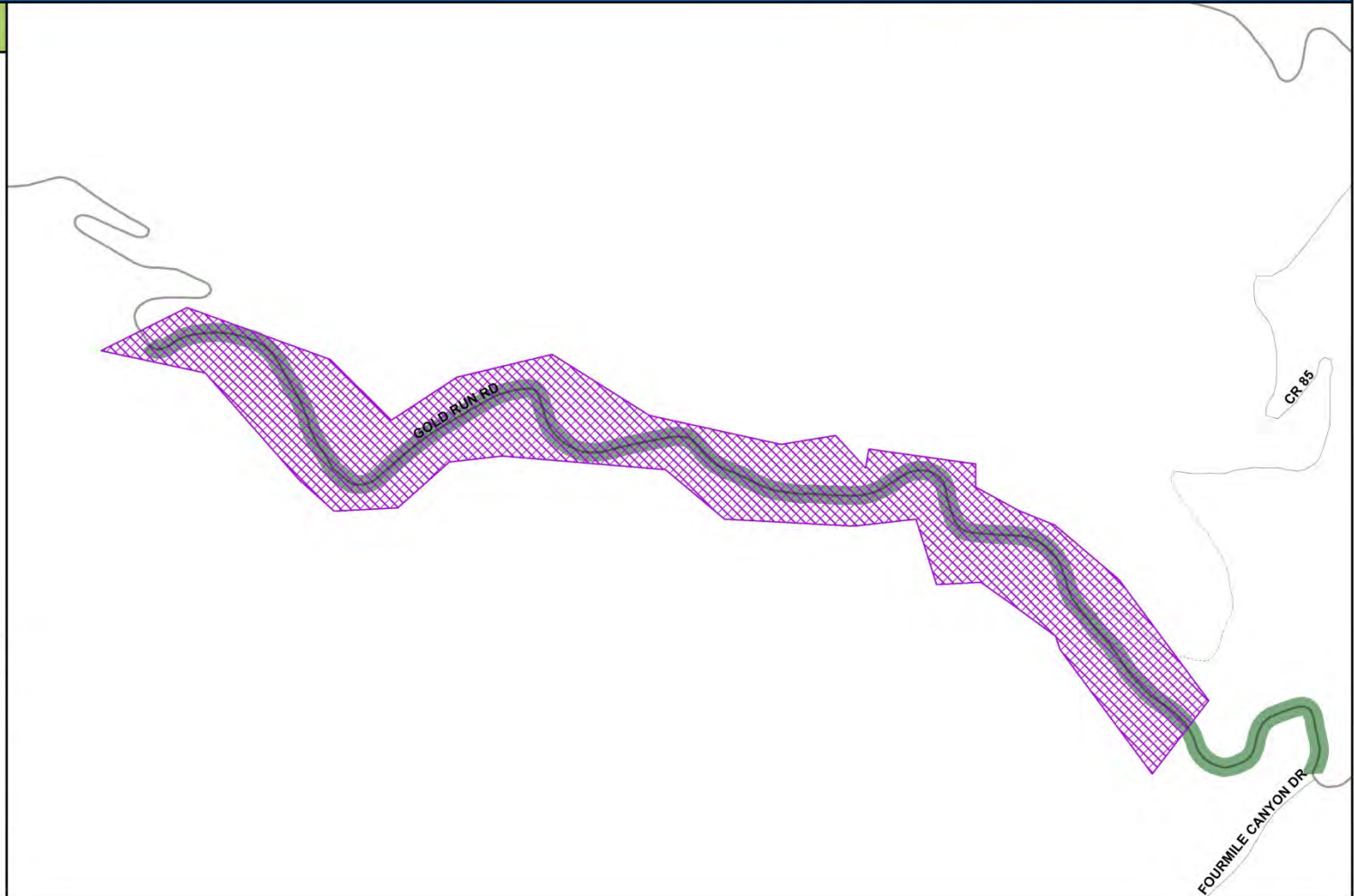


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Gold Run Road & Gold Run Creek

▶ Road Construction

- ▶ Reconstruct paved and gravel road sections from the Salina Townsite to approximately 1.5 miles west, including grading, drainage, culverts and retaining walls
- ▶ Stream and road are VERY close together with several culvert crossings
- ▶ Some stream work required for road work

▶ Stream Restoration

- ▶ Revegetation, boulder bank protection, stacked boulder walls, root wads, toe wood, converging boulder cluster, cross vanes, & step-pools, outlet protection, & sediment removal
- ▶ ~ 1 linear mile of stream restoration work



Lower Fourmile Canyon Drive & Lower Fourmile Creek





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Road and Creek Restoration Projects

Lower Fourmile Road, and EWP Creek Restoration Projects

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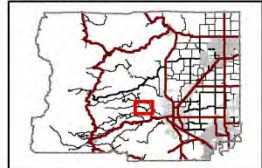
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-  Emergency Watershed Protection Program Project
-  Stream Restoration Design
-  Road construction

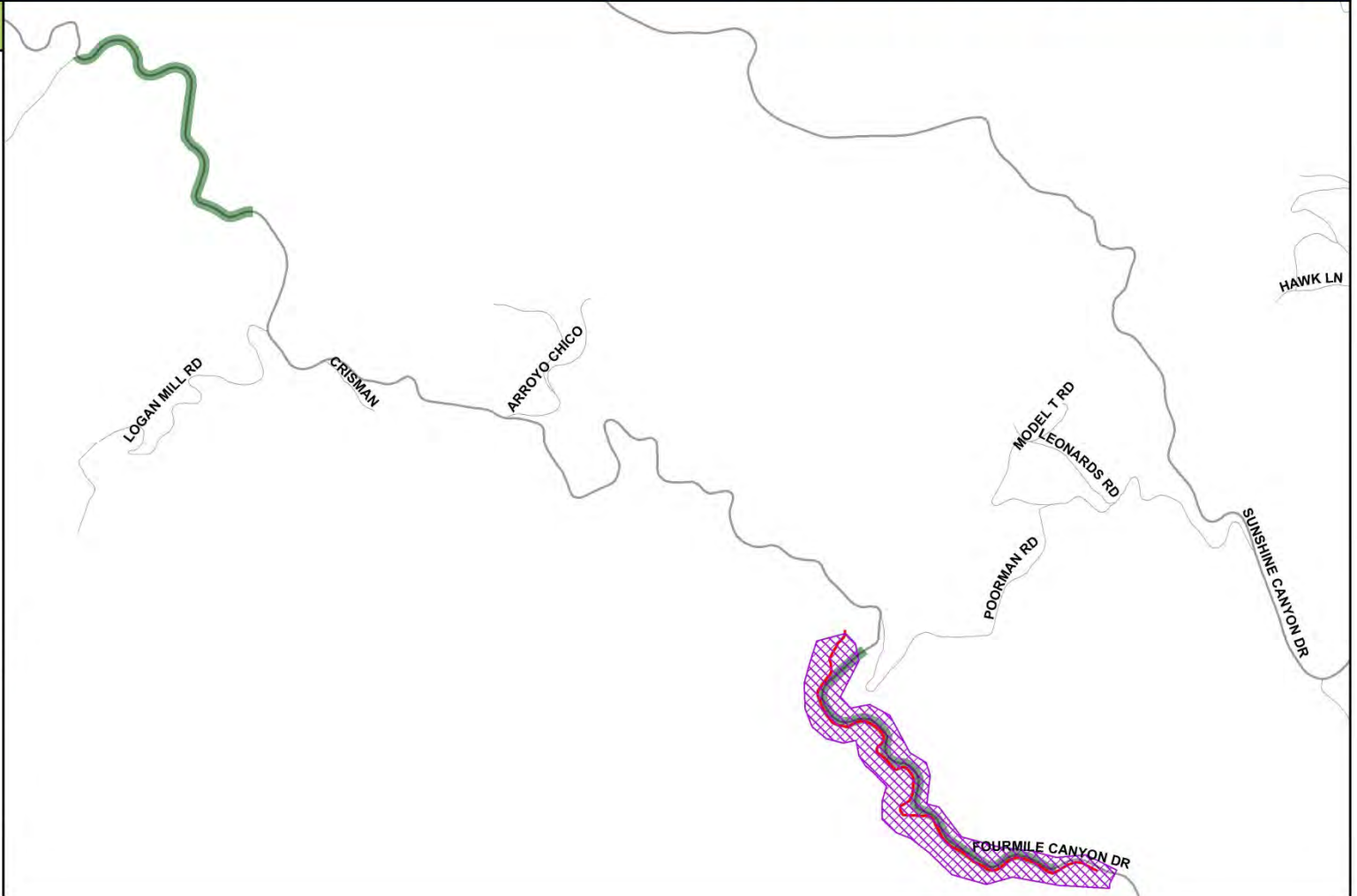
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Lower Fourmile Canyon Drive & Lower Fourmile Creek

▶ Road Construction

- ▶ Road reconstruction from north of SH 119 (Boulder Canyon) to Salina Townsite including new uphill shoulder, drainage, culverts, embankment repairs and retaining walls
- ▶ 1.6 linear miles of road reconstruction

▶ Stream Restoration

- ▶ Wetland & riparian restoration, revegetation, bank protection, low-flow channel, outlet protection & in-stream structures
- ▶ 0.5 linear miles of stream restoration work



Wagonwheel Gap Road & Fourmile Canyon Creek





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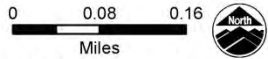
Road and Creek Restoration Projects

Wagonwheel Gap Road, Pinto Drive, and EWP Creek Restoration Projects

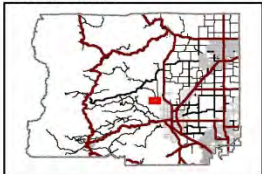
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-  Emergency Watershed Protection Program Project
-  Road construction

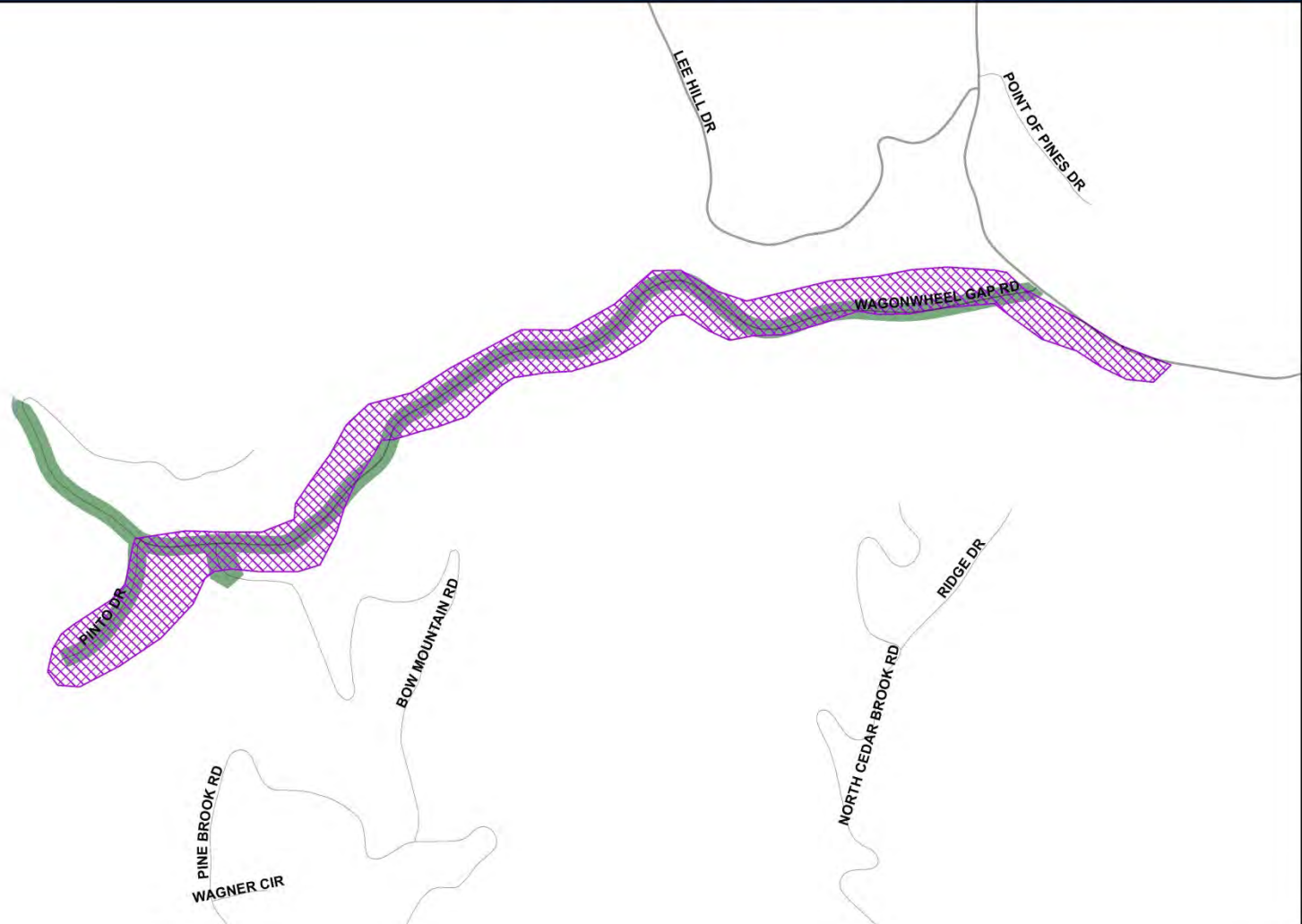


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Wagonwheel Gap Road & Fourmile Canyon Creek

▶ Road Construction

- ▶ Reconstruct approximately one mile of paved road from Lee Hill to Pinto, including two new bridges, retaining walls, drainage improvements and culverts
- ▶ Several stream crossings – must coordinate between stream and crossing construction
- ▶ Some stream work required for road construction

▶ Creek Restoration

- ▶ Wetland & riparian restoration, revegetation, boulder bank protection, root wads, toe wood, low-flow channel, & in-stream structures like converging boulder clusters, j-hooks, cross vanes, step-pools, riffles, & outlet protection
 - ▶ 1.3 linear miles of stream restoration work
-



Projects and Estimated Schedules

Project	Estimated Bid Release*	Estimated Construction Start*
James Canyon Drive/James Creek	Spring 2017	Summer 2017
Upper Fourmile Canyon Drive/Upper Fourmile Creek	Spring 2017	Summer 2017
Wagonwheel Gap Road/Fourmile Canyon Creek	Early 2017	Spring 2017
Gold Run Road/Gold Run Creek	Spring 2017	Summer 2017
Lower Fourmile Canyon Drive/Lower Fourmile Creek	Summer 2017	Fall 2017

*Best estimate at this time. May be sooner or later depending on permitting process.



Other Upcoming Projects

▶ Road Projects

- ▶ Boulder County Transportation will have solicitations for other flood and non-flood road projects

▶ Stream Restoration Projects

- ▶ Boulder County Parks and Open Space (POS) will have solicitations for other stream restorations projects
- ▶ Other local entities will have solicitations for EWP and CDBG-DR stream restoration projects



Contact Information

▶ Creek Projects- Stacey Proctor

- ▶ sproctor@bouldercounty.org
- ▶ 303-441-1107
- ▶ www.BoulderCountyCreekPlan.org

▶ Road Projects- Anne Pagano

- ▶ apagano@bouldercounty.org
- ▶ 303-441-1218
- ▶ www.BoulderCounty.org/roads

▶ Bid Postings

- ▶ Bids will be posted through Rocky Mountain E-Purchasing
- ▶ http://www.rockymountainbidsystem.com/?utm_medium=referra&utm_source=ADA84CO&utm_campaign=web_site

