



# Update on Flood Recovery: Creek and Floodplain Planning & Modeling, Private Access Creek Crossings, and Roadway Plans

**Lefthand Canyon and James Canyon Communities – June 4, 2014**

# Agenda

- Background
- Work Completed
- Current Work
- Funding, Next Steps, & Implementation



# Changes From Flood...

- Changes to Creek Channels
  - Floodplains
- Damaged Roadways
- Damaged & Destroyed Private Accesses



# Work Completed - County Infrastructure



- 30 Miles of Emergency Access Haul Roads
- 30 Miles of Winter Roads
- 3 Bridges Repaired
- 1 Retaining Wall in Construction
- 2 Bridges In Construction
- 5 Bridges & 2 Retaining Walls In-Design
- 2 Minor Structures Repaired
- **\$22.5 million committed/expended to-date**



Longmont Dam Road – Before & After



# Regulations – Why We Care

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## **Regulations Guide How We Move Forward:**

- Balance short-term impacts to public & private safety/infrastructure/risks vs. long-term planning/impacts to future generations
- State/Federal – Need to comply with requirements to maintain assistance eligibility (\$100s of millions) and flood insurance eligibility/discounts
- Affects all unincorporated county residents/property owners:
  - Who live in/own property in vicinity of creeks/rivers
  - Who buy flood insurance
- Cost of Emergency Response & Recovery



# Floodplain Regulations and Requirements

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**100-Year Flood/Floodplain = Foundation of Regulation (1% chance of occurring each year).**

**Floodplains changed during & after the flood:**

- Topography - deeper/shallower/wider/narrower/steeper/flatter
- Hydrology – how much water & how fast it flows
- Location – creeks moved horizontally

**Need to map/model to understand what may happen next time.**





# Floodplain Mapping Changes

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## State Initiated Efforts:

- **“Interim Maps”** with pre-flood hydrology and immediate post-flood topography
  - May not reflect current conditions due to ongoing work by county & residents
- **Updated hydrology reports** with new/different flood volume estimates for major drainages
  - Draft – Under Review



# Work Completed – High Hazard Debris Removal



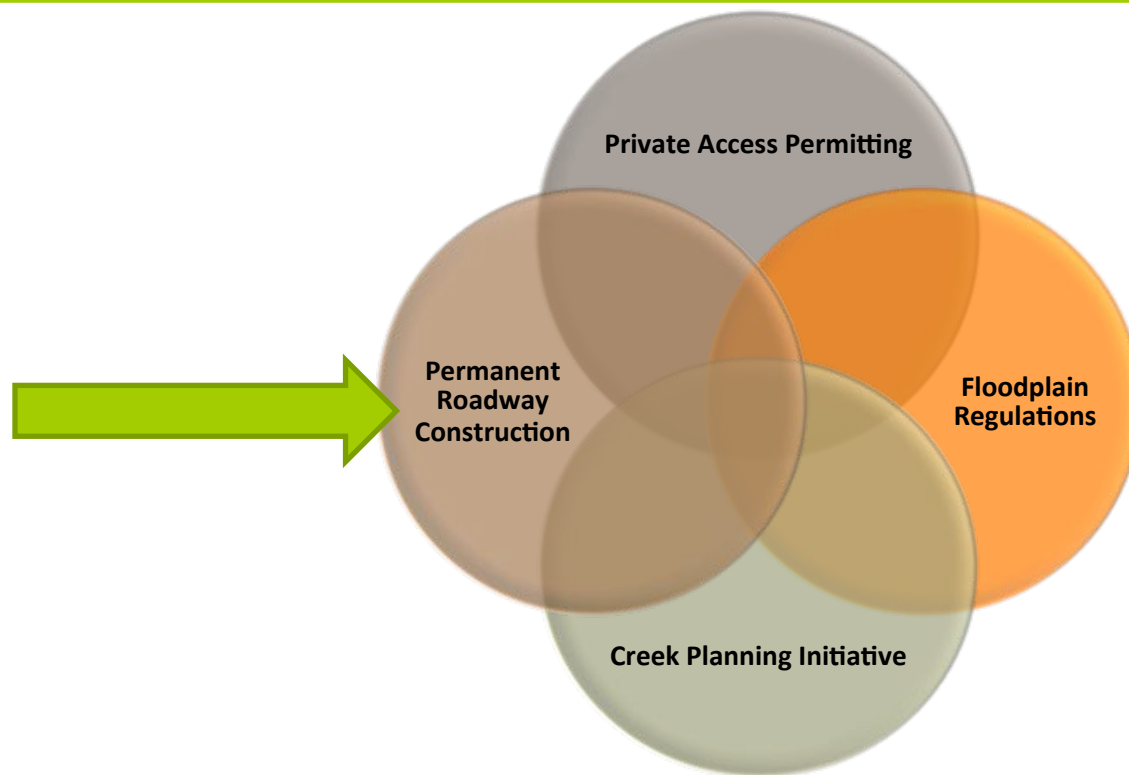
- **High Hazard cleanup complete in James Canyon & Lefthand creeks**
- **Total debris removed:**
  - 23,000+ cubic yards of vegetative debris
  - 33,000+ tons of mixed vegetative/sediment





# Overlapping Paths

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# County Work To-Date

	2013 Spent	2014 Spent	2014 Committed	2014 To-Date	TOTALS 2013 – May 31, 2014
Road Construction	\$3,410,000	\$6,250,000	\$2,260,000	\$8,510,000	\$11,920,000
Road Repair (In-House)	\$2,690,000	\$675,000	\$200,000	\$875,000	\$3,565,000
Bridge Construction	\$410,000	\$320,000	\$2,150,000	\$2,470,000	\$2,880,000
Road Design	\$210,000	\$170,000	\$1,220,000	\$1,390,000	\$1,600,000
Bridge Design	\$470,000	\$390,000	\$1,720,000	\$2,110,000	\$2,580,000
TOTAL	\$7,190,000 in 2013	\$7,805,000	\$7,550,000	\$15,355,000 in 2014	\$22,545,000 TOTAL spent or committed

# Unfunded Projects – June through August 2014



Upcoming Construction Projects	ESTIMATED COST	NEEDED IN
Flagstaff Road Repairs	\$ 2,200,000	JUNE
Interim Paving of Winter Roads	\$ 1 to 2,000,000	JULY
East County Line Road Bridge	\$ 4,200,000	JULY
Pine Brook Hills Repairs	\$ 2,000,000	JUNE
Wagonwheel Gap Culvert Upsizing	\$ 300,000	JULY
Raymond & Riverside Drive	\$ 750,000	AUG
<b>Total Construction Thru Aug 31</b>	<b>\$ 10,450,000</b>	
Upcoming Design Projects	COST	NEEDED IN
	\$	

# Next Steps – Permanent Roadway Construction



**Boulder County will rebuild County roadways damaged by the 2013 flood.**

- Opportunity to build better roads that are safer for motorists and cyclists.
- Public process for each roadway to present designs and listen to feedback.
- Cyclists & Motorists Working Group formed

Lee Hill Wall  
Washouts



# Next Steps – Permanent Roadway Construction

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## Construction/Approval Process

- 1) Design
- 2) Public Input
- 3) Engineering & Bid Process
- 4) Construction



**Must Comply with FHWA and FEMA Process/  
Requirements for Reimbursement Eligibility**

## ESTIMATED PERMANENT ROADWAY CONSTRUCTION SCHEDULE

	June 2014	July 2014	Aug. 2014	Sept. 2014	Oct. 2014	Nov. 2014	Dec. 2014	2015
Fourmile/ Gold Run	DESIGN PUBLIC PROCESS							CONSTRUCTION - JUNE through DECEMBER
Lefthand/ Geer	DESIGN PUBLIC PROCESS							CONSTRUCTION – START DATE TBD
Longmont Dam Road	DESIGN PUBLIC PROCESS							CONSTRUCTION – START DATE TBD
Raymond/ Riverside	DESIGN PUBLIC PROCESS		BUILD			FINISH		
James / Balarat	DESIGN PUBLIC PROCESS							CONSTRUCTION – START DATE TBD
Wagonwheel/ Pinto	DESIGN PUBLIC PROCESS							CONSTRUCTION – START DATE TBD
Flagstaff Road	BUILD					FINISH		



# Emergency Asphalt Overlay

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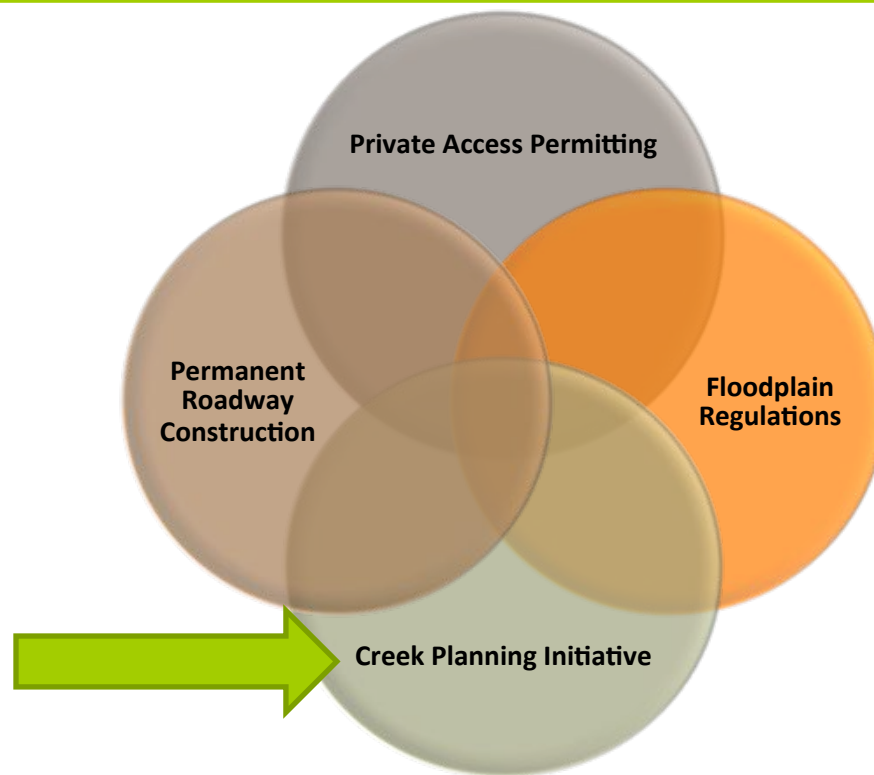
## **Lefthand Canyon Drive, James Canyon Drive & Fourmile Canyon Drive**

- **Currently being designed – Will go to bid ASAP**
- **Overlay work will begin ASAP after bids accepted – June or July 2014**
- **Estimated Projected Cost = \$1,000,000 to \$2,000,000**



# Overlapping Paths

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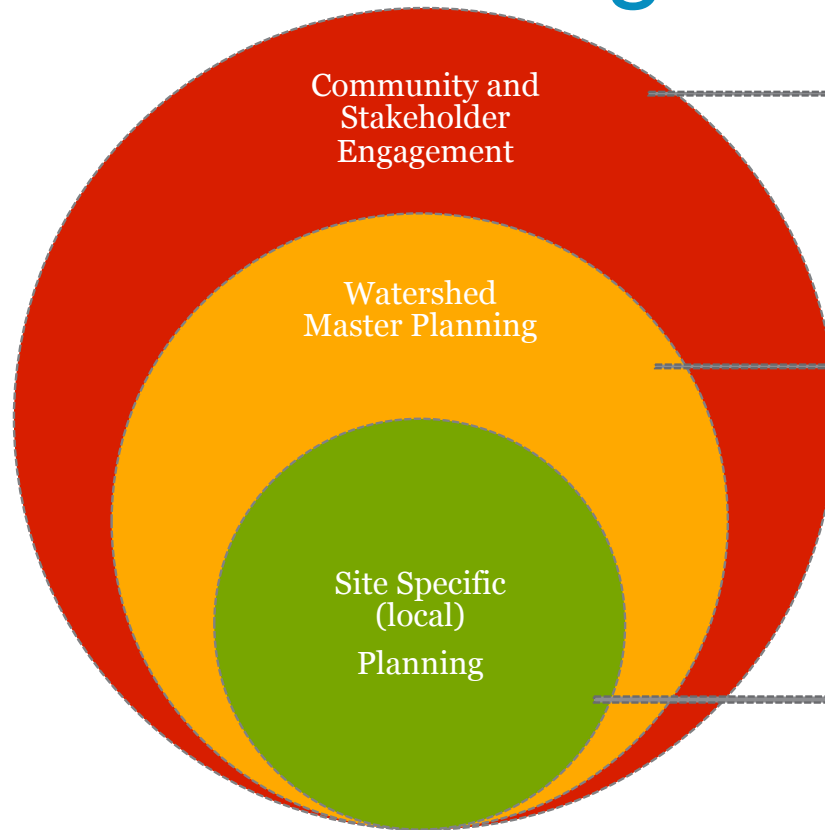
# Comprehensive Creek Planning - Purpose



The Boulder County *Comprehensive Creek Planning Initiative* is a forum designed to plan the creek stabilization and restoration process, thus enabling public infrastructure reconstruction, residential rebuilding and private access restoration, and revised floodplain mapping.



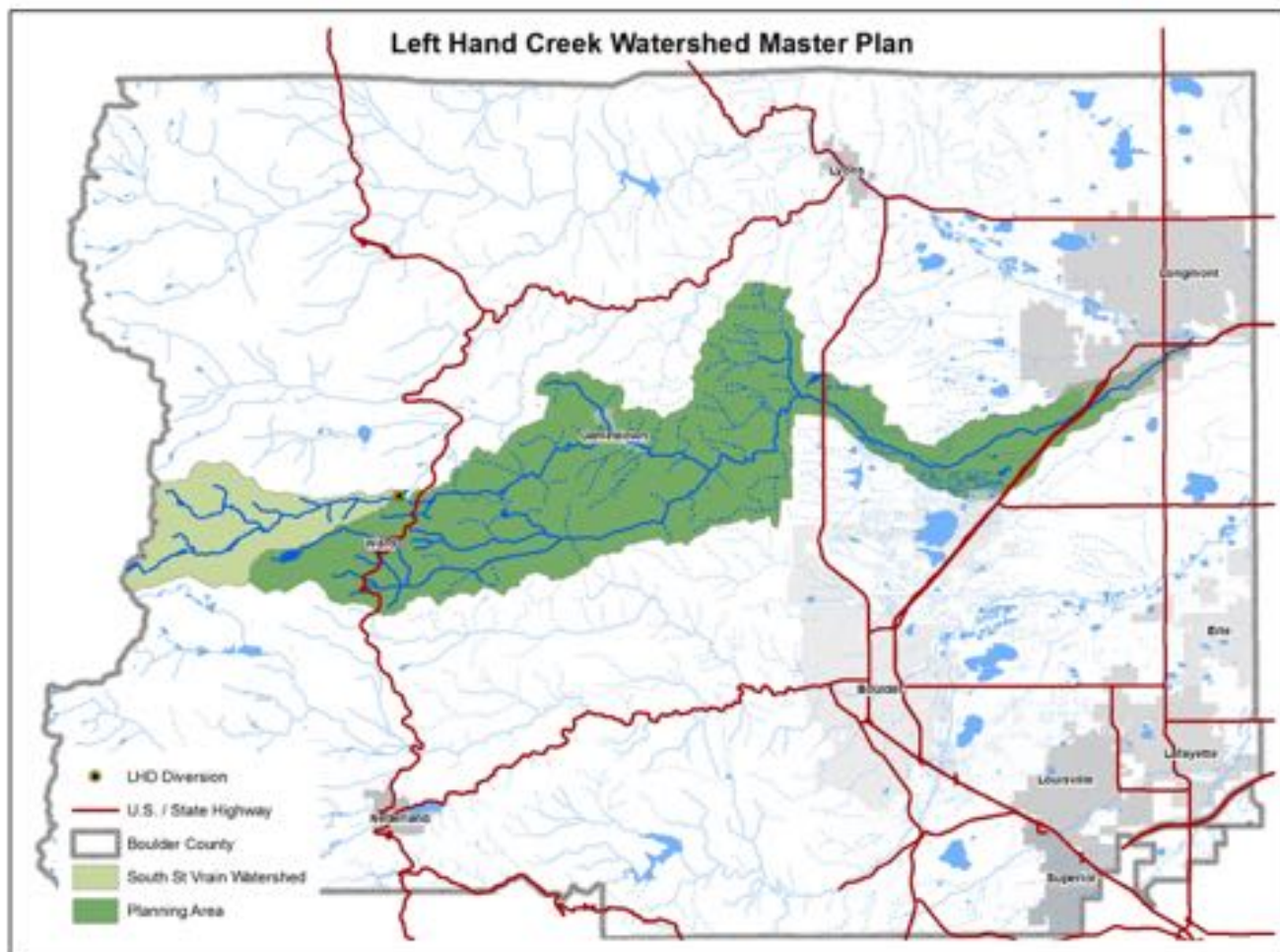
# Creek Planning Activities



- December – January community meetings
- 650 participants, data set
- Public information and communication

- **Long-Term Recovery**
- **Watershed Master Plans for major drainages in county**

- Short-term emergency mitigation
- Threat analysis (ratings)
- High Hazard Project identification location, scope, cost



# Left Hand Coalition



- Boulder County
- City of Boulder
- City of Longmont
- Colorado Division of Parks and Wildlife
- Colorado Department of Public Health and Environment
- Colorado Division of Reclamation and Mine Safety
- Colorado Water Conservation Board
- James Creek Watershed Initiative
- Keep it Clean Partnership (Boulder County)
- Left Hand Ditch Company
- Left Hand Water District
- Left Hand Water Oversight Group
- Natural Resources Conservation Service (NRCS)
- Saint Vrain and Left Hand Conservation District
- Town of Jamestown
- Town of Ward
- USDA Forest Service, Arapaho/Roosevelt National Forest
- U.S. Environmental Protection Agency, Region 8



# Left Hand Creek Master Plan

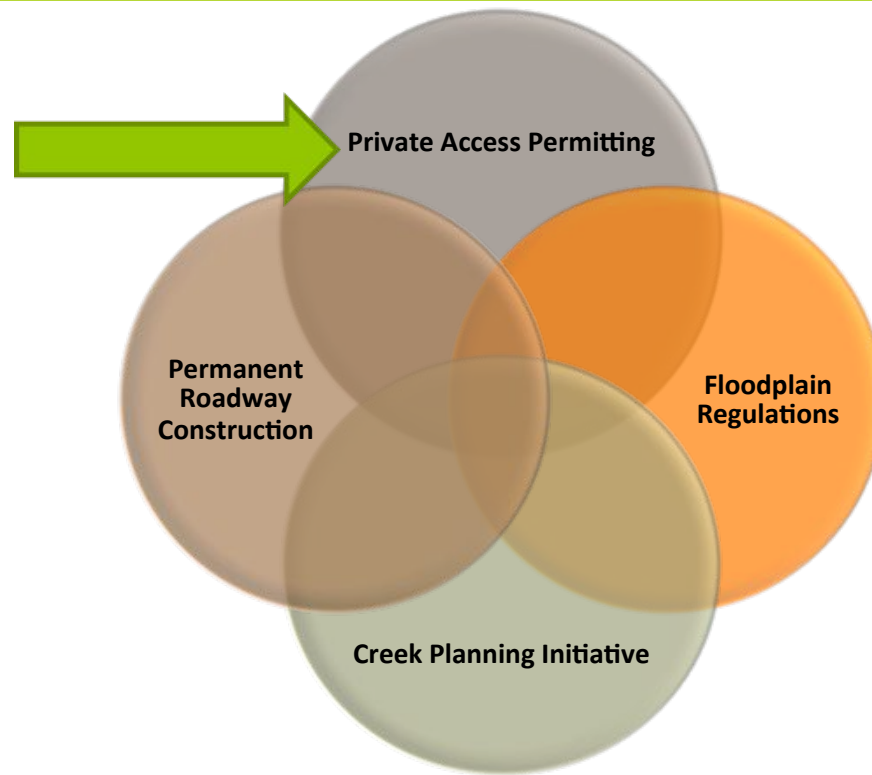


- Consultant AMEC has been selected.
- Project will begin in late June. Community meetings will be announced in early July.
- Final report will be completed in November.
- For more information contact Stacey Proctor at 303-441-1107 or [sproctor@bouldercounty.org](mailto:sproctor@bouldercounty.org)
- Or visit [www.BoulderCountyCreekPlan.org](http://www.BoulderCountyCreekPlan.org).



# Overlapping Paths

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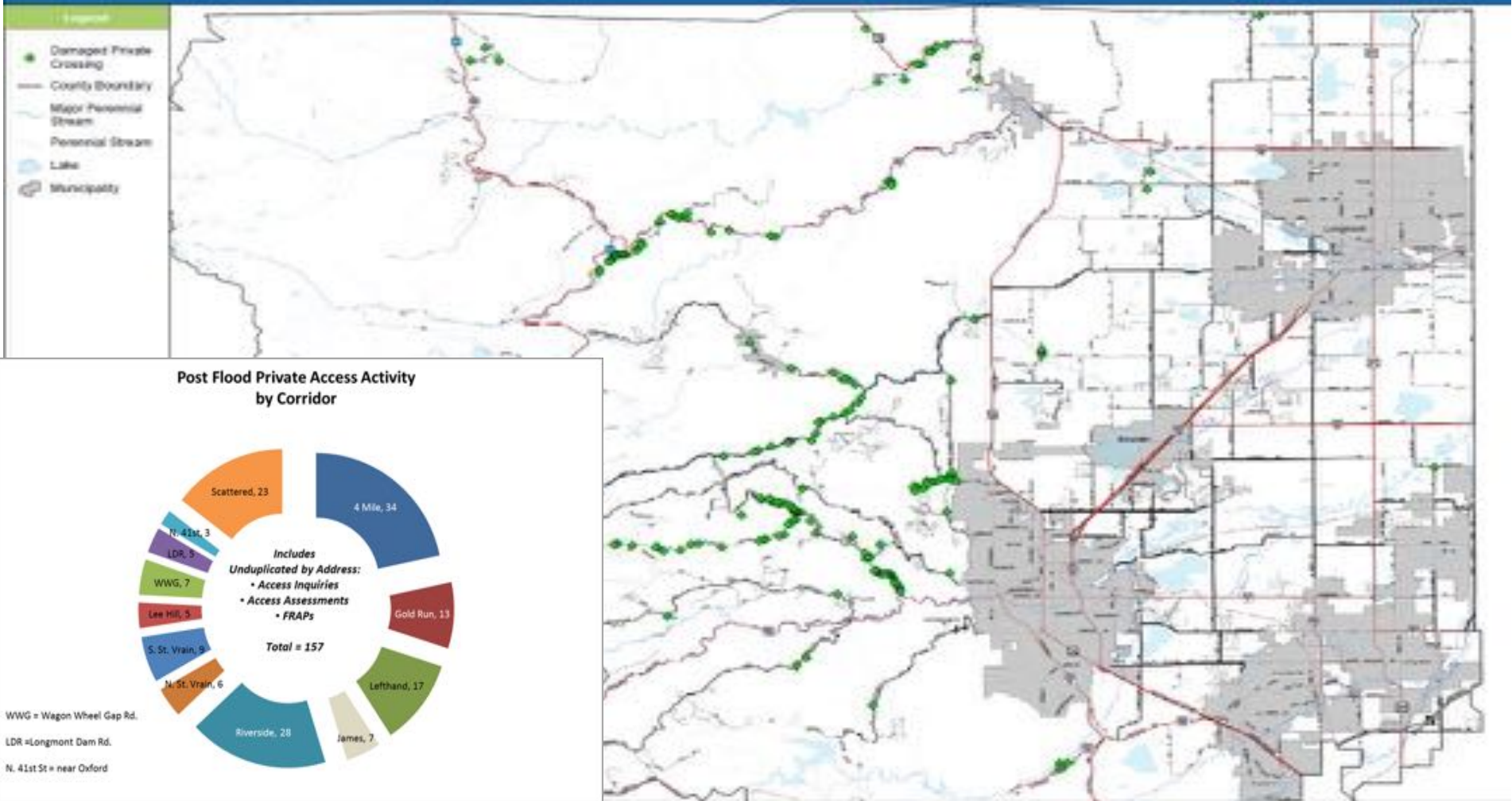


# Private Access – Culverts & Bridges

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- **118 total private access crossings damaged or destroyed**
- **People Needed to Get Home** - Many replaced with temporary structures
- **Created Temporary Flood Recovery Access Permits (FRAP)**
  - Access must accommodate 10-year storm event
    - Some do, some don't
    - Some simply can't





# Private Access: Culverts & Bridges



## FRAPs Are NOT Final Permits:

- Uncertainty with new floodplain, waterway hydrology, and permanent road alignment & elevation
- Until more is known, we won't know how large the crossing can be and where it will connect to final roadway



# The Road Ahead: Private Access Challenges & Concerns

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## Property Owner Compliance with:

- Floodplain Regulations & Storm Drainage Criteria
  - Connecting road & house that may already be in the floodplain
- Land Use Code, Bridge Standards, & FEMA regulations





# The Road Ahead: Private Access Challenges & Concerns

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## Property Owner Financial Impacts

- Situations where two temporary and one permanent accesses may need to be built
  - First did not meet FRAP regulations
- Cannot afford to build a temporary access & a permanent access



# **The Road Ahead: Private Access Challenges & Concerns**

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## **Property Owner Uncertainty**

- Unknown cost of permanent access
- Unknown location of permanent access
- Long-term decisions are difficult
- Tough to sell a property with “unknowns”



# The Road Ahead: FRAP Policy Changes

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## **FRAP Will Be Issued If:**

- ✓ Temporary access is as large as pre-flood crossing/  
largest possible for stream section
- ✓ Bridge replaced with a culvert & the culvert passes  
10-year OR is largest possible culvert for that  
stream section

# The Road Ahead: FRAP Policy Changes

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## **TEMPORARY FRAP NOW VALID UNTIL COMPLETION OF CREEK PLANNING STUDY**

- Crossings must come into compliance consistent with process & timeline outlined in final plan

## **MAY PURSUE FINAL INDIVIDUAL ACCESS/FLOODPLAIN DEVELOPMENT PERMITS PRIOR TO CREEK STUDY COMPLETION**

- Where connecting road alignment, elevation, or creek alignment is NOT anticipated to change; AND,
- Applicant proves (using current development requirements) no increase in floodplain elevation on adjacent properties.



# Private Access Options

## Evaluate Engineering Options/Solutions for Private Accesses in Mountain Areas:

- ☐ Low water/ mid-water crossings
- ☐ Breakaway/tethered crossings
- ☐ Other?

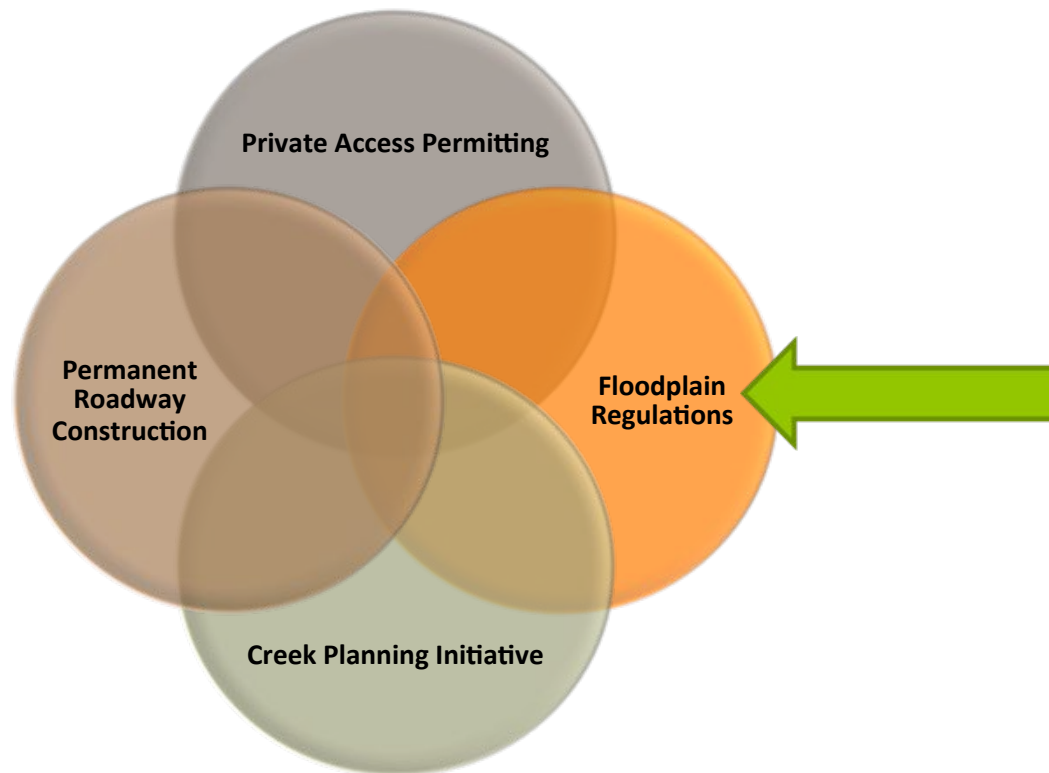
### Evaluated for:

1 - Effectiveness	2 - Cost	3 - Feasibility
4 - Reduction in Flood Risk	5 - Consistency with Applicable Regulations	



# Overlapping Paths

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# Regulatory Mountain Access and Floodplain Regulation Review

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## Evaluate Applicable Regulations to:

- ☐ Identify inconsistencies & requirements that are not appropriate, effective or feasible
- ☐ Identify exceptions, variances, or changes
- ☐ Ensure consistency with FEMA/State requirements



# The Road We're On: Floodplain Regulations/Requirements

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## **Floodplains changed during/after the flood:**

- Shape / Size / Location / Conveyance Capacity

**Map/model with proposed private access crossings in order to understand what will happen the next flood event and to regulate future floodplain development.**

- Property owners will not have to map if consistent with modeling

# Regulatory & Interim Mountain Floodplain Mapping

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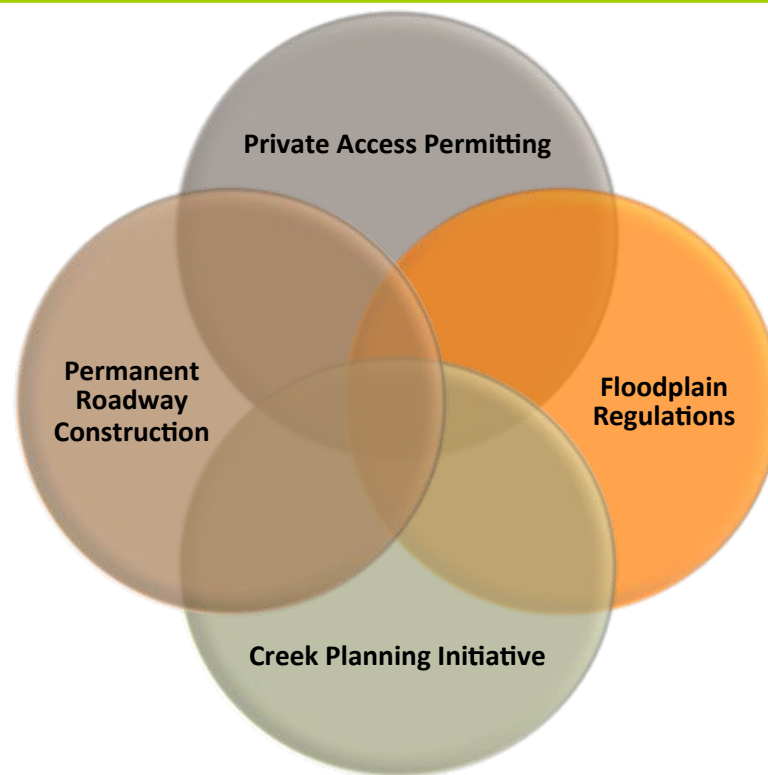
## Action Items/Next Steps:

- ☐ Development of a Schedule of Work and consultant retention/Resource needs
- ☐ Select consultant to review regulations/structure requirements
- ☐ Public outreach to affected communities



# Overlapping Paths

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# Funding for Flood Recovery



## Community Development Block Grant for Disaster Recovery (CDBG-DR)

- **\$62.8M for Colorado announced Dec. 2013 –Round 1 Funding**
- **80% of funds must go to Boulder, Larimer and Weld counties**
- **\$199.3M Round 2 funding – Late Fall 2014**
- **More Info = Colorado's CDBG-DR website**
  - <http://dola.colorado.gov/cdbg-dr/>

# CDBG-DR Purpose & Requirements

Intended to address “unmet need” after all federal and grant funding sources

- Two years to spend funds
- **Must meet one of 3 National Objectives:**
  - Serve low-to-moderate income persons (LMI)
  - Removing slum and blight
  - Urgent need
- **At least 50% of funds statewide must be spent on LMI households; LMI is at or below:**



	# of people in household							
	1 person	2 person	3 person	4 person	5 person	6 person	7 person	8 person
Income Limit	\$44,750	\$51,150	\$57,550	\$63,900	\$69,050	\$74,150	\$79,250	\$84,350

For more detailed HUD calculations, see: <http://www.huduser.org/portal/datasets/il/il2014/2014ILCalc3080.odn>

# CDBG-DR Grant Areas & Deadlines

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## Housing

- **Household Assistance:** County submitted May 29
- **Housing Development:** Developers apply

## Public Infrastructure

- **Infrastructure Projects:** NOIs submitted May 16; complete applications due in July
- **Resiliency Staff/Planning:** Applications due June 16

## Economic Development

- **Businesses:** Occurring now; apply through SBDC
- **Governments:** Tourism grants through OEDIT





# Household Assistance Application

Program	Amount Requested	Maximum Award Available	Service Area
Housing Repairs	\$4,000,000	\$4,000,000	Countywide except for Longmont
Temporary Rental Assistance	\$1,000,000	\$1,000,000	Countywide except for Longmont
Clearance and Demolition	\$250,000	\$500,000	Lyons and other targeted areas
Home Access Program (private roads and bridges)*	\$2,000,000	\$2,000,000	Countywide except for Longmont
<b>Total</b>	<b>\$7,250,000</b>		

*\* The Home Access Program is pending approval of a waiver submitted to HUD by the State. Funds will be available only if that waiver is approved.*



# Household Assistance Programs: Housing Repair



- Will fund:
  - Repairs to single family residences (area within the building footprint includes driveway, bridge/culvert, well, septic)
  - Relocation of a single family or modular home to a permanent location outside the floodplain.
- Cost to repair cannot exceed 50 percent of pre-flood county appraised value.
- Maximum per household award is \$100,000.
- Prioritization of funding: Persons directly impacted by the flood, persons with disabilities, seniors, and previous residents of damaged/destroyed manufactured housing.
- At least 75 percent of households served must be at or below 80% AMI.
- Second homes are not eligible.
- Reimbursement of prior expenses: under consideration.

# Household Assistance Programs: Temporary Rental Assistance



- While households' homes are repaired or they are awaiting buyout
- Priority to assist previous residents of damaged or destroyed mobile homes and persons below 30% AMI
- ALL households served must be at or below 80% AMI

	# of people in household							
	1 person	2 person	3 person	4 person	5 person	6 person	7 person	8 person
Income Limit	\$44,750	\$51,150	\$57,550	\$63,900	\$69,050	\$74,150	\$79,250	\$84,350

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# Household Assistance Programs: Home Access Program

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- Awaiting approval of waiver by HUD
- Funds only needed in Larimer and Boulder counties
- Will repair or replace damaged and destroyed roads, bridges and culverts that provide access to residences
- 51% of persons served through Home Access Program must be low- and moderate-income unless the national objective of urgent need can be substantiated.

# Household Assistance Programs: Application Process

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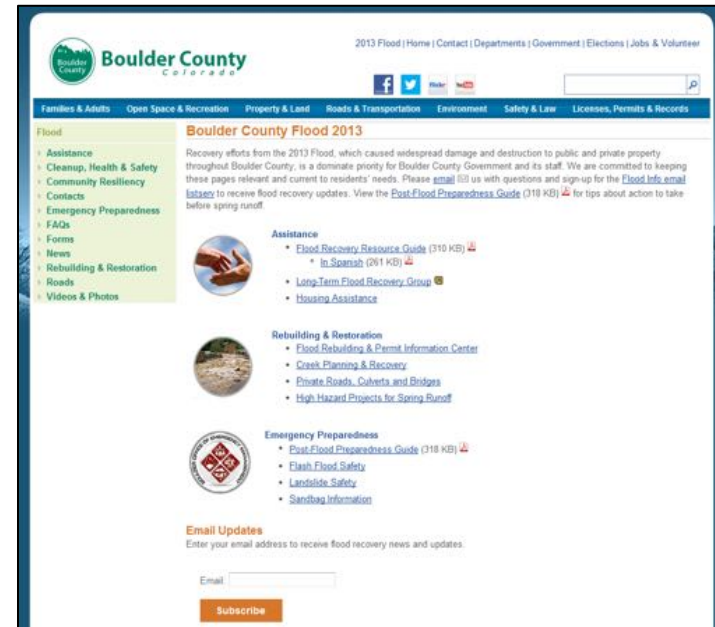


- Single Application (Boulder County Housing & Human Services)
  - Available July 2014
    - Intake, documentation and duplication of benefits review
    - Case management assignment and unmet needs planning
    - Program eligibility determination, project scoping
    - Assignment of a Rehabilitation Coordinator
    - Coordination with LTFRG (if project exceeds \$100,000)
    - Project begins (after permitting)

# How to Apply/Timing of Funds

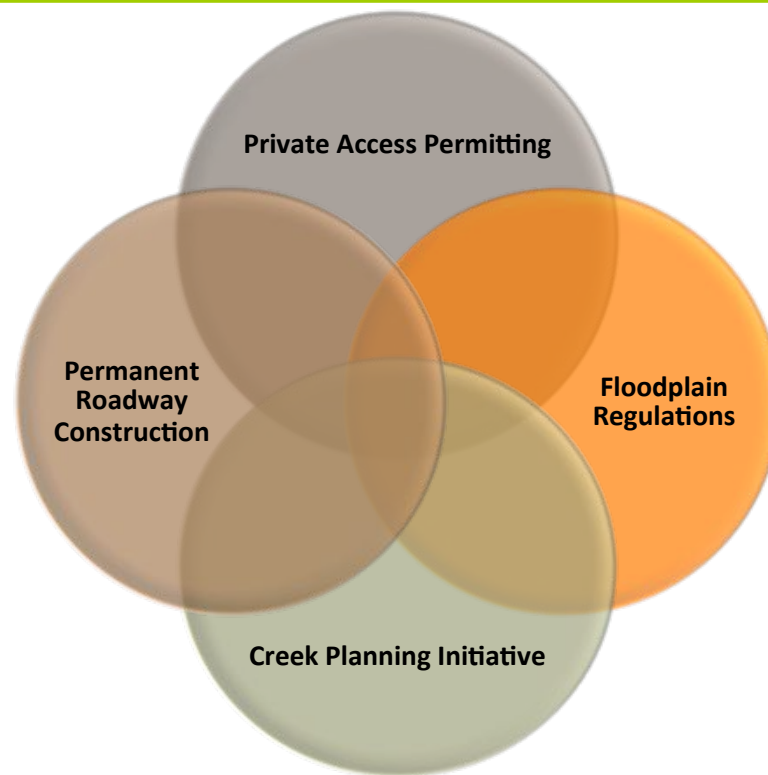


- **For Application:**
  - Register for BC listserv:  
[www.BoulderCountyFlood.org](http://www.BoulderCountyFlood.org)
  - Receive flood recovery updates
- **Estimated arrival date of funds from State = July/August**
- **CDBG-DR Housing Programs Implementation Study Session with County Commissioners**
  - Tomorrow - Thursday, June 5 – 1 to 3 p.m.
  - 1325 Pearl Street - Boulder



# Overlapping Paths

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# The Road Ahead

## Next Steps

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### **What we need to get all of this done...**

- Continued Public Outreach & Input
- Retain Consultants for Regulatory and Structural Review
- Initiate/Coordinate Creek Planning/Modeling with Private Access and Road Reconstruction
- Develop Guidelines/Administrative Structure for CDBG-DR Private Access Assistance Program
- Coordination/Evaluation of State Hydrological & Floodplain Remapping Efforts
- Patience & Understanding

# Questions? Comments?

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