



Colorado Springs Utilities
It's how we're all connected

Colorado Springs Utilities

Forests, Wildfire, Flooding and Water Supply

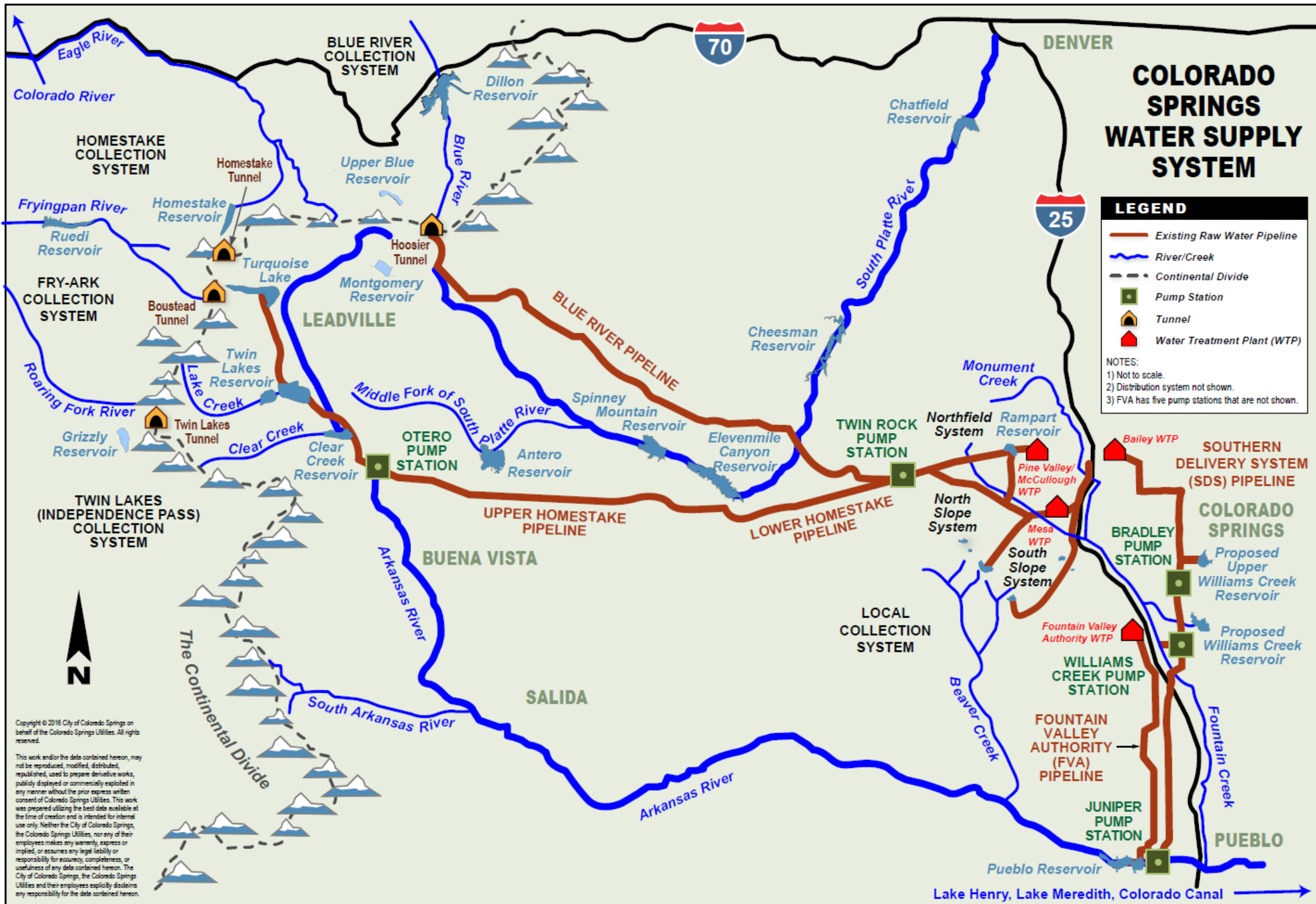
Andrew Colosimo

Colorado Springs Utilities

- Water, Wastewater, Gas and Electric Services
 - Serve a population of approximately 490,000
 - 25 Raw Water Storage Reservoirs
 - 260 miles Raw Water Pipes
 - 1800 employees
 - ~\$1.0 billion annual budget
 - Pipe water over 200 miles from mountains to treatment

Major Watersheds of Colorado



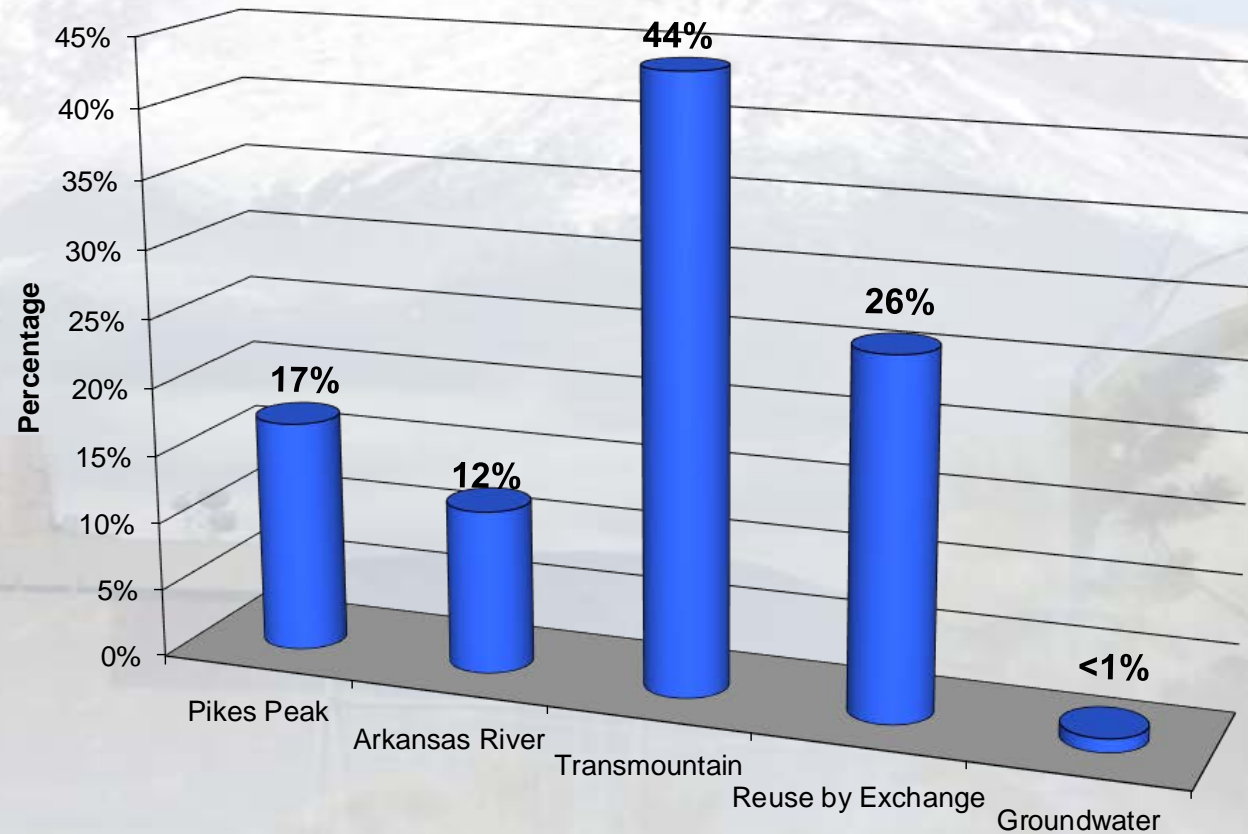


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Colorado Springs' Water Portfolio

Colorado Springs Utilities Water Sources by Type (Normal Hydrology, Current Levels)

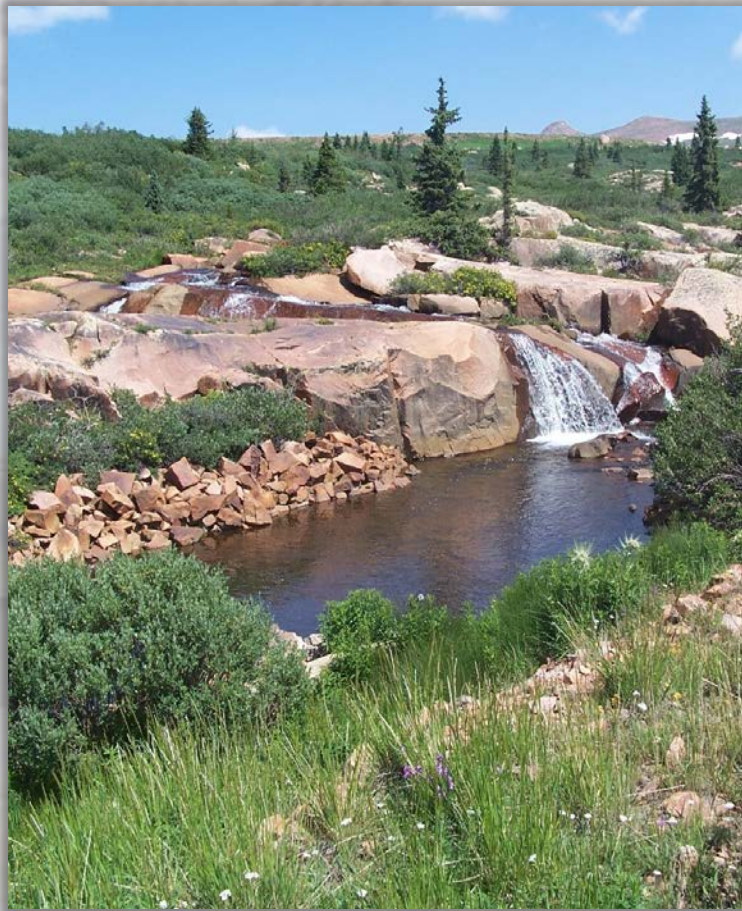


Watershed Lands

- 67 distinct watersheds, 11 counties
- Only 16,000 acres owned
- 30,000 federal watershed reserve lands – Pikes Peak
- 2,500 acres by U.S. Forest Service Special Use Permits



The Value of Healthy Watersheds



Healthy watersheds provide valuable services and benefits:

- Mitigate droughts and floods
- Create and protect soils
- Remove and decompose pollutants
- Cycle and move nutrients
- Maintain biodiversity
- Offer natural beauty
- *Provide sustainable, high quality WATER*

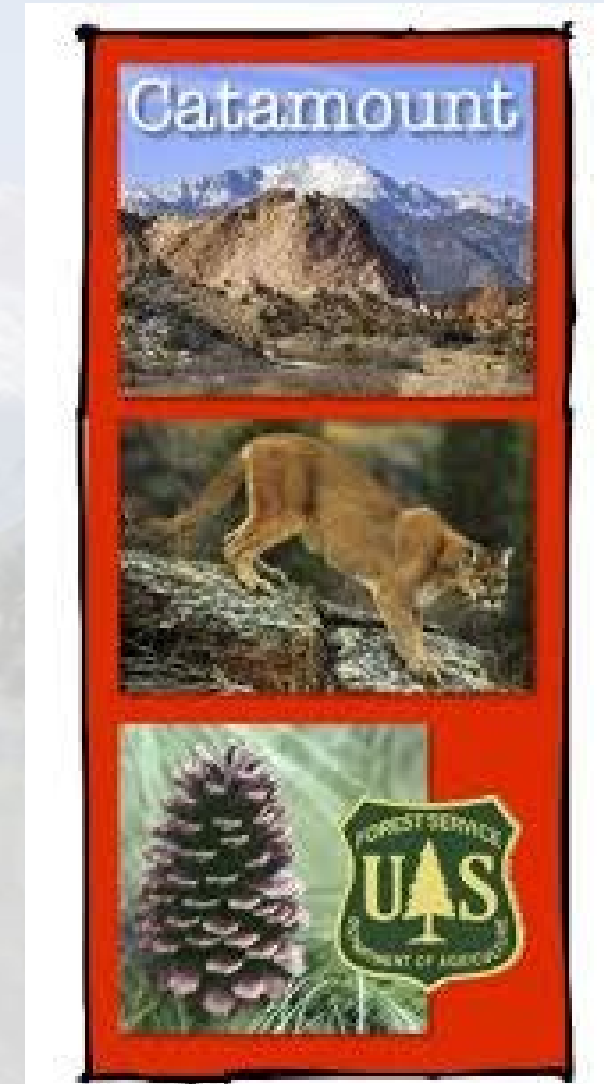
Pikes Peak Watershed Reserve Lands

- Congressional designations of 1914 and 1923
- Established 29,400 acres of Forest Service land for water supply protection
- USFS/City of Colorado Springs agreements that:
 - Coordinate and approve/restrict land use activities
 - USFS to manage the forest for protection of water supply and timber
 - Utilize Colorado Springs Utilities employees to aid in prevention and suppression of forest fires



Catamount Environmental Assessment

- 2008 Catamount Landscape Assessment Report
 - ~100,000 acres
 - ~ 70,000 acres Forest Service land
 - ~ 30,000 acres private land
- Purpose and Need
 - Reduce risk of catastrophic wildfire risk
 - Protect the Wildland Urban Interface (WUI)
 - Improve forest health conditions
 - Improve and protect riparian health
 - Reduce risk/severity of flooding & sedimentation for the protection of water supply and infrastructure



Catamount Environmental Assessment

- 2013 – 2017 MOU Achievements
 - Approximately 4,500 acres treated locally
 - Funding expended:
 - USFS \$6.0 M
 - CS Utilities \$3.7 M, \$2.5 M on CSU lands, \$1 M other partnerships
- Moving Forward 2018 – 2022 MOU
 - Maximize funding to complete work in priority watersheds and Zones of Concern
 - Identify best acres to increase fire suppression tactics and results
 - Increase 5 year planning to develop more effective annual work plans
 - Increase pre-post fire planning efforts for at risk areas – constrained vegetation management areas
 - Identify and grow key partnerships with local agencies and public

Waldo Canyon Fire

- **Waldo Canyon Fire**

- The fire ignited on June 23, 2012 off the Waldo Canyon trail west of Colorado Springs
- The fire burned 18,247 acres, most of which is part of the Pike National Forest.
- The fire destroyed 347 homes in Mountain Shadows and killed two people.
- 1000 firefighters
- \$15.3 million to fight the fire
- \$454 million insured losses

Waldo Canyon Fire



Waldo Canyon Fire



AP

Waldo Canyon Fire



Waldo Canyon Fire



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Post Fire Restoration

Watershed Stabilization & Restoration

- Aerial **Straw Mulch** treatments to slow flow
- LEBs – **Log Erosion Barriers** and Sedimentation Ponds to slow runoff
- **Raking & Soil Tilling** to break up Hydrophobic layer
- **Composting and Reseeding** with native grasses



Post Fire Restoration

Debris Net Installation



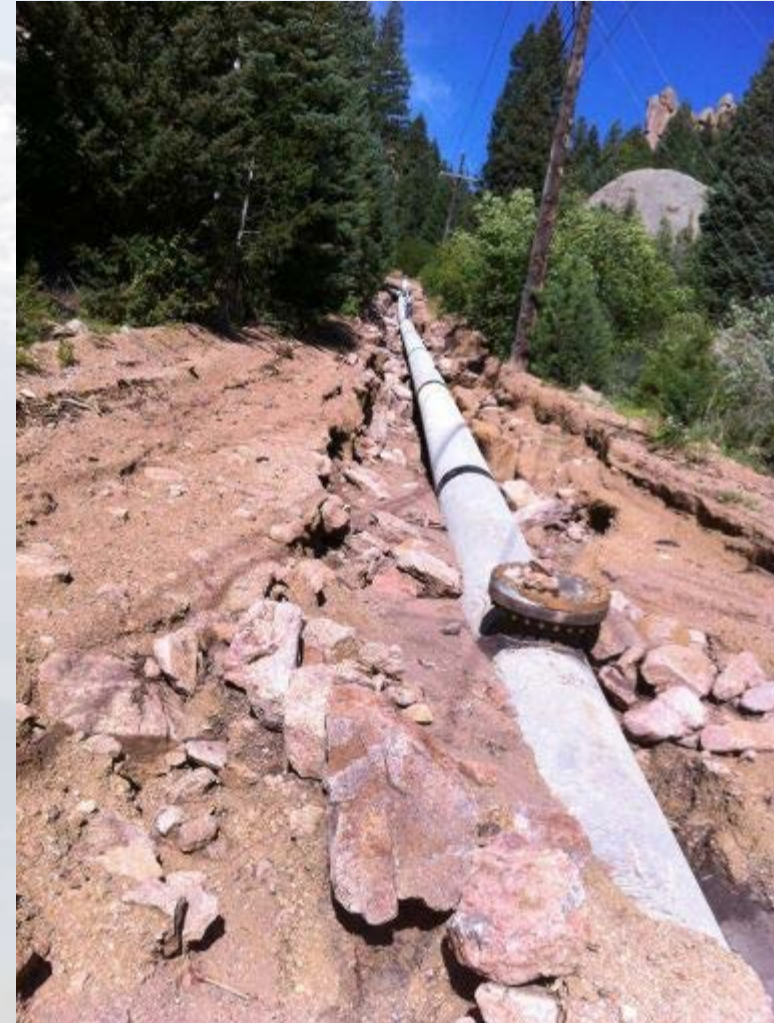
Post Fire Restoration

One Year Later



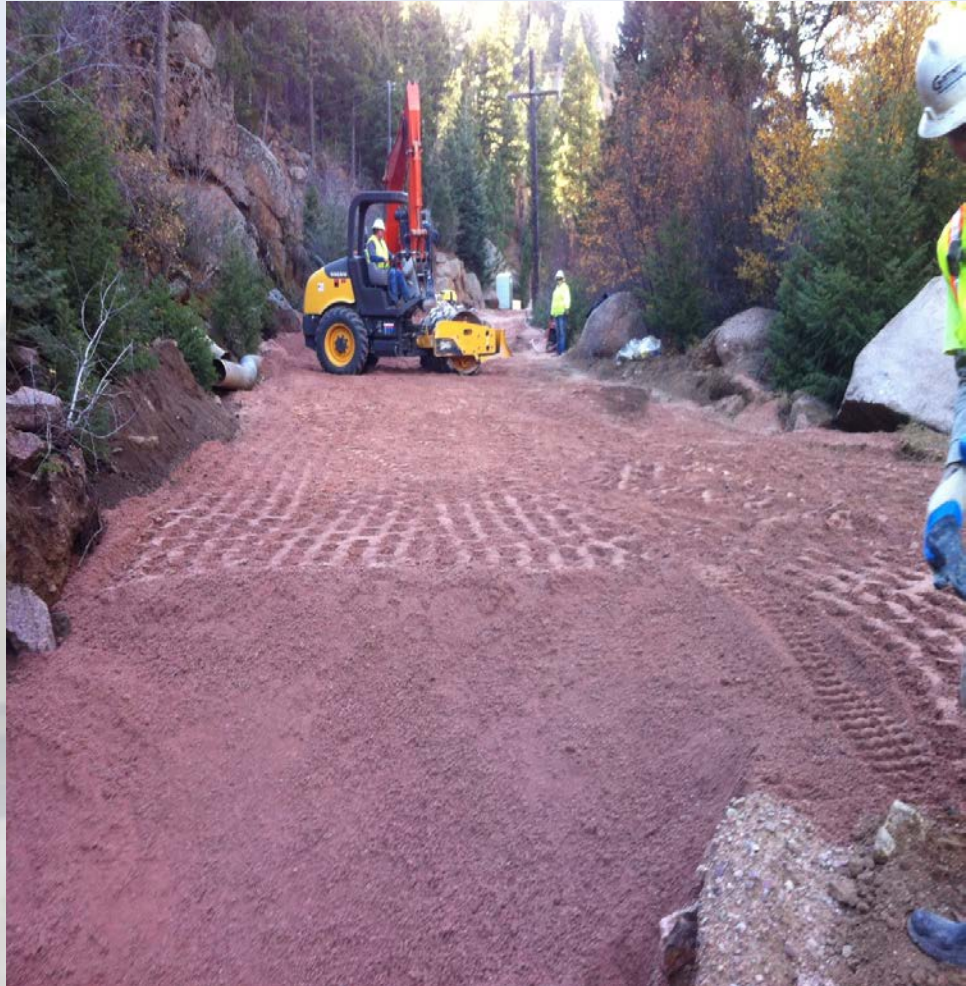
Post Fire Flooding

Impacts – Erosion



Post Fire Flooding

Northfield Watershed



Before



After

Post Fire Flooding

Impacts – Flood Flows



Post Fire Flooding

Impacts – Runoff



Impacts - Sedimentation



- Culverts and Crossings



Post Fire Flooding

Northfield Watershed



Before



After

Impacts – Water Quality

- Ash and sediment flows
- Increases in **Dissolved Iron & Manganese**
- Slight increase in **Total Organic Carbon**
- Higher **pH**
- Never exceeded a Maximum Contaminant Level under Safe Drinking Water Act (SDWA)



Waldo Canyon Fire/Northfield Flooding



+ West Monument Creek Watershed / Northfield Water Remediation	Natural Resources Conservation Service Funding	Colorado Springs Utilities	\$4,776,000.00
+ West Monument Creek Watershed / Northfield Water Remediation	Colorado Springs Utilities matching funds	Colorado Springs Utilities	\$1,592,000.00
+ Emergency Protective Measures (during fire)	Federal Emergency Management Agency - Public Assistance Grant Program (PAGP)	Colorado Springs Utilities	\$330,630.07
+ Emergency Protective Measures (during fire)	Colorado Springs Utilities matching funds	Colorado Springs Utilities	\$82,657.51
+ Wildland Fire Team/Suppression (during fire / with City)	FEMA - Fire Management Assistance Grant (FMAG)	Colorado Springs Utilities	\$111,467.68
+ Wildland Fire Team/Suppression (during fire / with City)	Colorado Springs Utilities matching funds	Colorado Springs Utilities	\$31,419.86
+ Metered Water Consumption Reservoirs	Pike San Isabel National Forest Cimarron Comanche National Grasslands	Colorado Springs Utilities	\$70,669.76
+ Metered Water Consumption Meters	Colorado Department of Public Safety - Div. of Fire Prevention and Control	Colorado Springs Utilities	\$120,312.76
+ Restoration/Mitigation	Upper Fountain Creek District and Cheyenne Creek Planning Application	Colorado Springs Utilities	\$25,000.00
+ Recovery / Mitigation	Department of Natural Resources Wildfire Risk Reduction	Colorado Springs Utilities	\$510,500.00
+ Erosion of Cheyenne Creek and exposure of 5 sewer lines	Colorado Department of Public Health and Environment Natural Disaster Grant	Colorado Springs Utilities	\$188,000.00
+ Watershed Restoration Northfield - Biosolids Project	2012 Colorado Fire Relief Fund - Round 2	Colorado Springs Utilities	\$25,200.00

Waldo Canyon Fire/Northfield Flooding

13	Technical Assistance	Natural Resources Conservation Service - Emergency Watershed Protection	City of Colorado Springs	\$85,203.80
14	Colorado Springs Utilities projects	Natural Resources Conservation Service - Emergency Watershed Protection	City of Colorado Springs	\$6,029,552.24
15	Colorado Springs Utilities projects	Local in-kind	City of Colorado Springs	\$482,603.01
16	Colorado Springs Utilities projects	Local	City of Colorado Springs	\$1,470,036.72

Waldo Canyon Fire/Northfield Flooding

Fire and Flood Damages; Reimbursements, Estimated and Actual Costs					
YTD thru 3/31/15	Reimbursements & Pending A/R's	Insurance Recovery	Total Reimbursements	Estimated Damages (Cost Amount)	Net Expense after Recovery
Waldo Canyon Fire	\$ 731,419.08	\$ 1,283,568.20	\$ 2,014,987.28	\$ 3,850,071.40	\$ 1,835,084.12
Northfield Flood	\$ 4,605,626.50	\$ 959,636.82	\$ 5,565,263.32	\$ 10,362,491.00	\$ 4,797,227.68
Black Forest Fire	\$ 197,812.77	\$ -	\$ 197,812.77	\$ 255,196.53	\$ 57,383.76
9/11 Colorado Flood	\$ 869,000.00	\$ -	\$ 869,000.00	\$ 2,763,550.00	\$ 1,894,550.00
Incident Totals	\$ 6,403,858.35	\$ 2,243,205.02	\$ 8,647,063.37	\$ 17,231,308.93	\$ 8,584,245.56

Waldo Canyon Fire: Majority of damage repairs and cost recovery is complete. A final reimbursement of \$132,441 is expected from FEMA, representing costs denied by the insurance carrier and a retention amount pending final FEMA close out.

Northfield Flood: Utilities successfully filed an insurance claim and recovered \$959,637. Of the \$4.6 mil in Federal and State Agency reimbursements, \$1.2 mil was received in 2013, \$2.8 mil was received in 2014, and final payments of \$615,003 were received in 2015. The majority of the reimbursement is funded from a Natural Resources Conservation Service.

In summary

- There is neither enough time, money or capacity to mitigate ourselves out of this situation:
 - Resilience is dependent on the resources we direct towards:
 - Focused Forest Management
 - Coordinated Fire Suppression Planning
 - Effective Pre-Post Fire Planning
 - Understanding as a community that we must adapt to fire as part of our natural environment of which we live and depend on.



Fire Funding in FY2018 Omnibus

- WILDFIRES AND DISASTER CAP ADJUSTMENTS:
 - Beginning in 2020 – the legislation includes a “fire borrowing fix” by creating a new wildfire suppression cap adjustment under the Budget Control Act (BCA).
 - Fully funds the 10-year average for wildland suppression costs for both the Department of the Interior and the Forest Service
 - \$500 million set aside for 2018 and 2019 for wildfire management
- FORESTRY REFORMS:
 - This legislation provides for incremental forest management reforms to help reduce catastrophic forest fires. Such reforms include:
 - environmental streamlining,
 - reduced litigation,
 - timber harvest contract certainty, and
 - vegetative management along electricity rights-of-way.
 - More effective timber management will ultimately help protect communities and the environment by reducing dangerous fuel growth on National Forest and other federal lands.

Questions?



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