

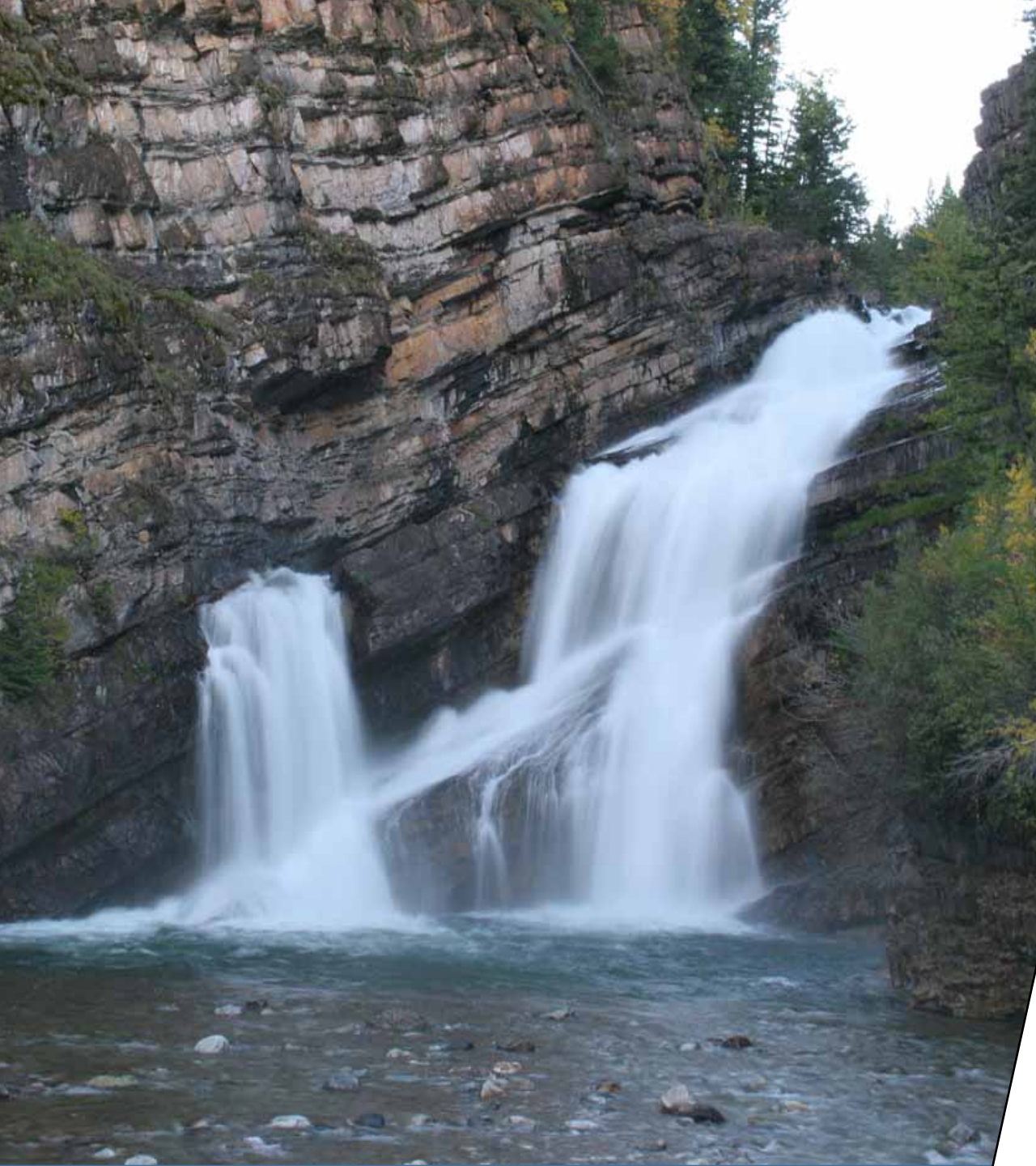
When Wild Fires & Water Quality Don't Mix

CUWCD Symposium
May 21, 2019



Wildfires and Water Quality





Wildfire in Emery County compromises culinary water supply, residents asked to conserve – fox13now.com

11 months ago

PLEASE CONSERVE WATER!



The Director of the Utah Division asked Utahns to stop watering.

EMERY COUNTY, Utah
Mountain Fire is impacting that supply culinary Emery County.

'Panguitch City: DO NOT USE DRINKING WATER,' deputies warn of watershed contamination

Elle Thomas

10 months ago


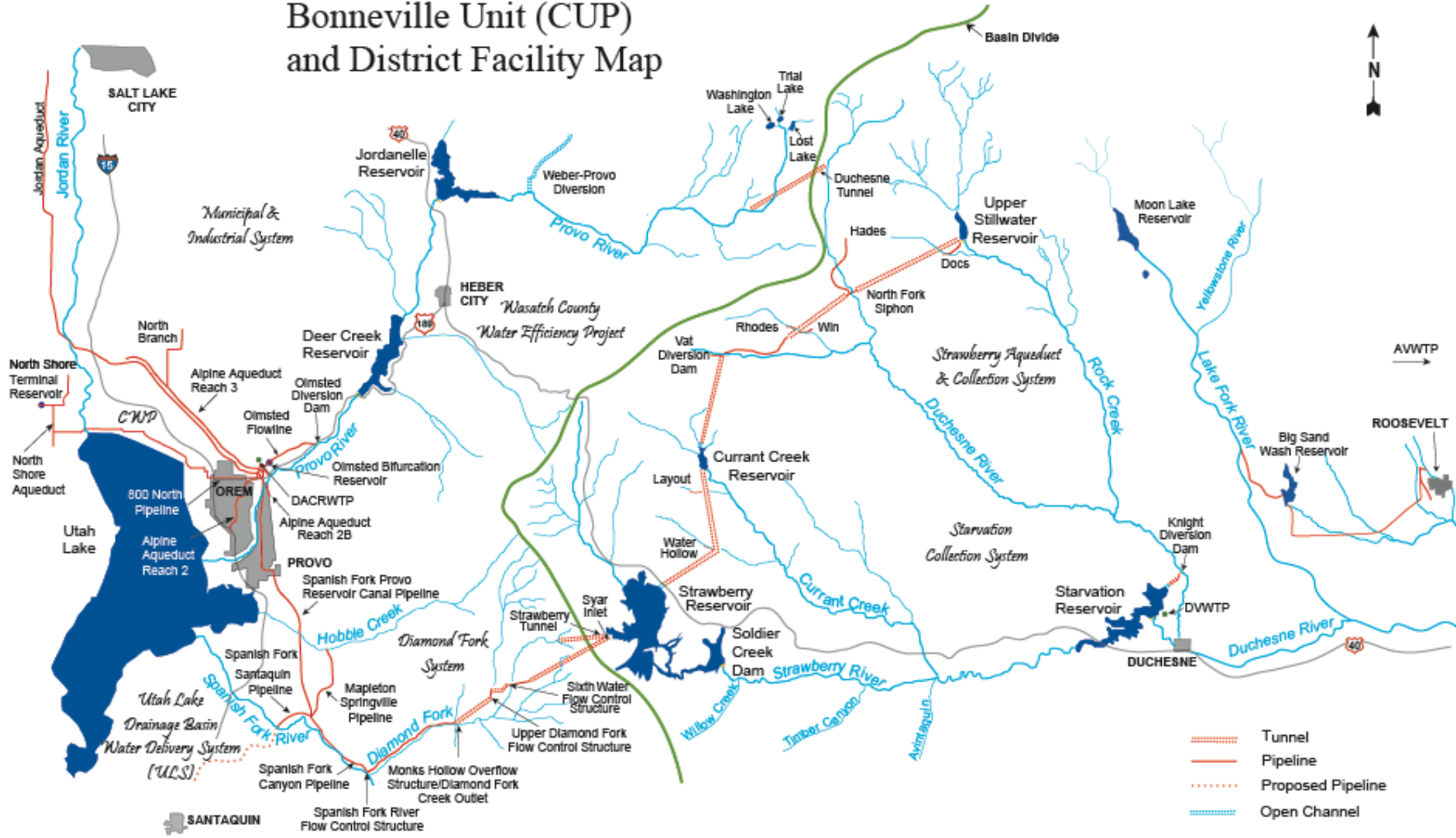


PANGUITCH CITY, Utah – Residents warned not to use culinary water after detecting high potential contamination levels at the Panguitch City water source.




Central Utah Water Conservancy District

Bonneville Unit (CUP) and District Facility Map



**Forest to
Faucet**







Wildfire Impacts to CUWCD



Cascade II Fire

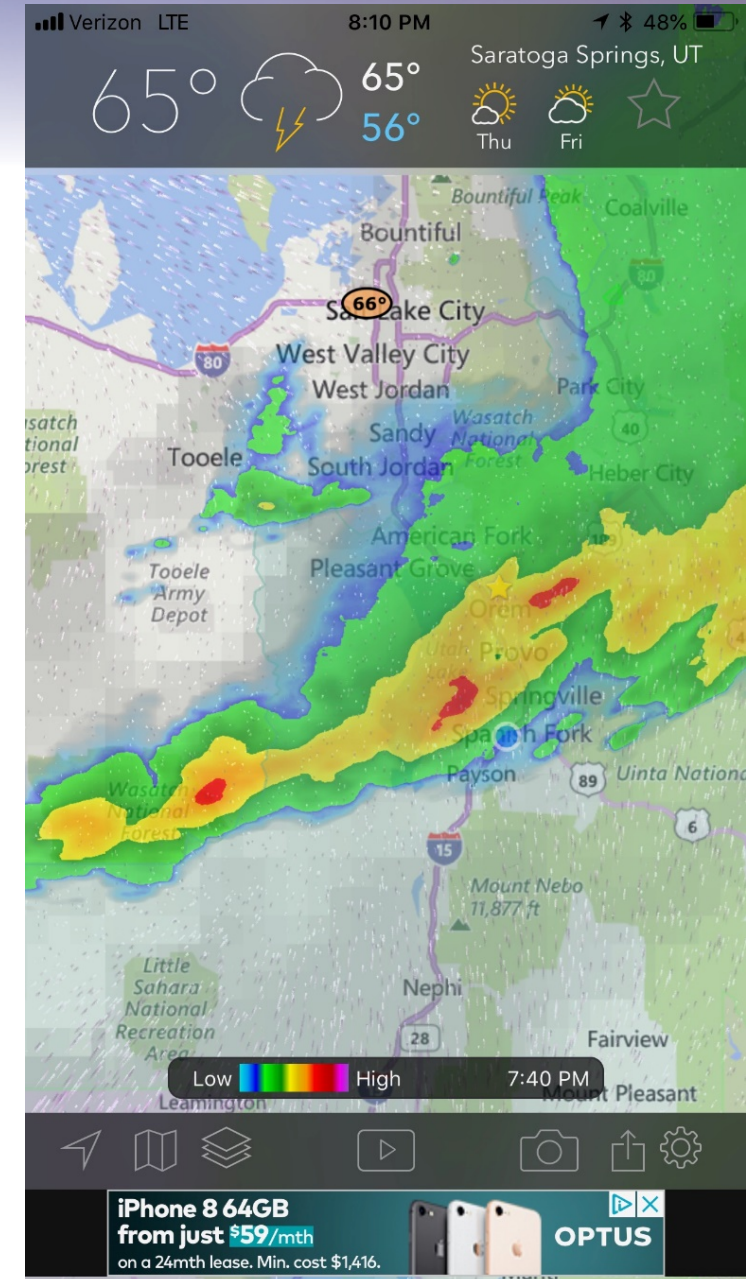


- September 23, 2003 Prescribed Burn Out of Control
- 7,828 Acres Forest Service, State and Private Land
- PRWC Members organized to change Federal Legislation (\$700,000)
- PRWC Members organized to obtain funding
- Water Quality Monitoring Equipment Installed
- Watershed restoration project (Gully check dams/fences, contour fences fences, with *Triticale* planted as a nurse crop “no grazing for two years”)



Heavy Rain Event (Aug 22, 2018)

300 acre fire











Plant Raw Water Turbidity: 459 NTU (650 NTU at Olmsted)

Settled Water Peak: 0.79 NTU (Goal <2.0 NTU)

Combined Finished Water Turbidity: 0.023 NTU (Goal <0.10 NTU)





Dollar Ridge Fire

Started approx. 1 pm.

Day 1: 7,000 Acres

Day 2: 30,000 Acres



July 1, 2018





Soldier Creek Dam



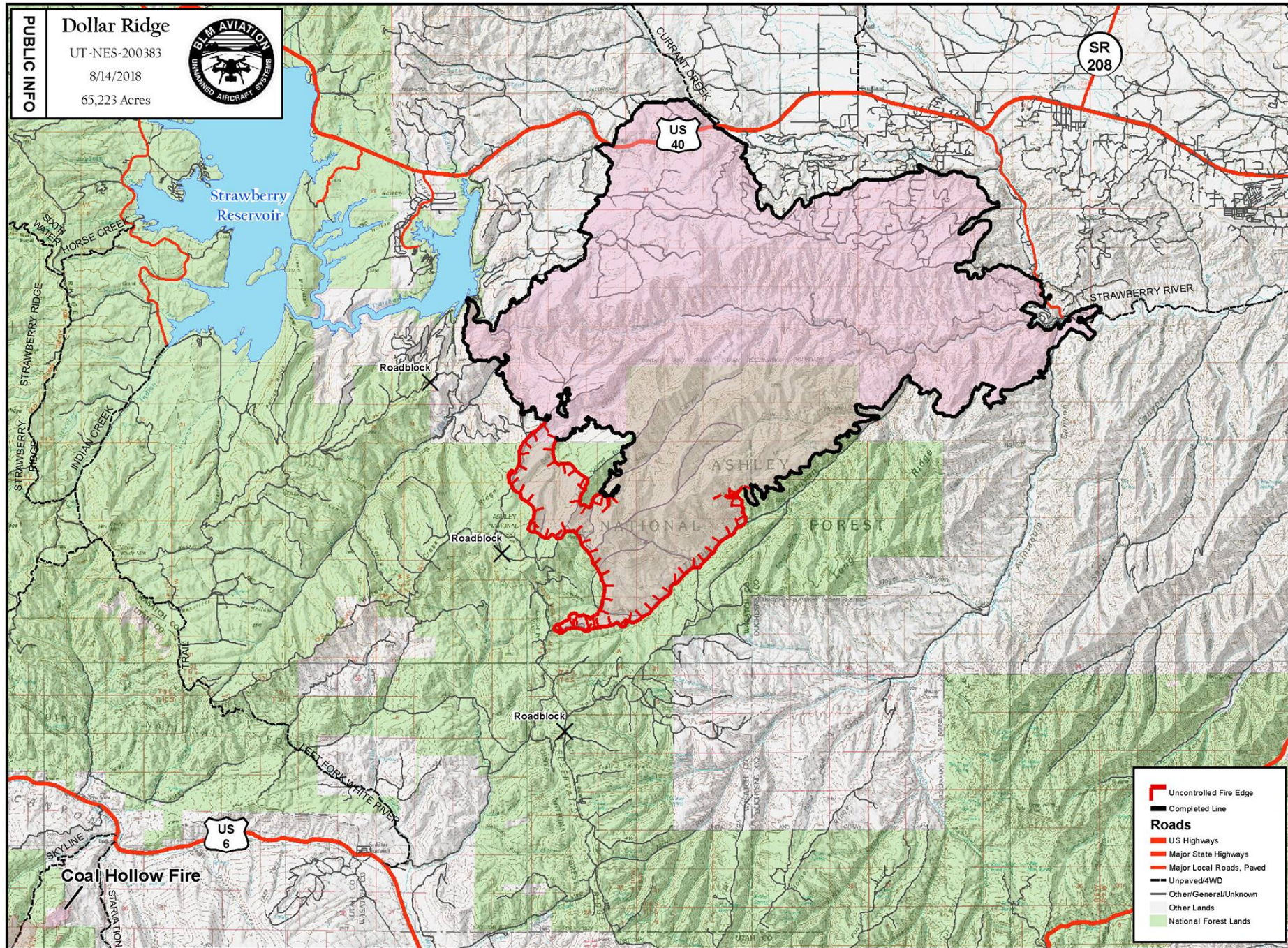
Highway 40



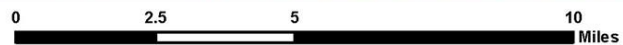
PUBLIC INFO

Dollar Ridge

UT-NES-200383
8/14/2018
65,223 Acres



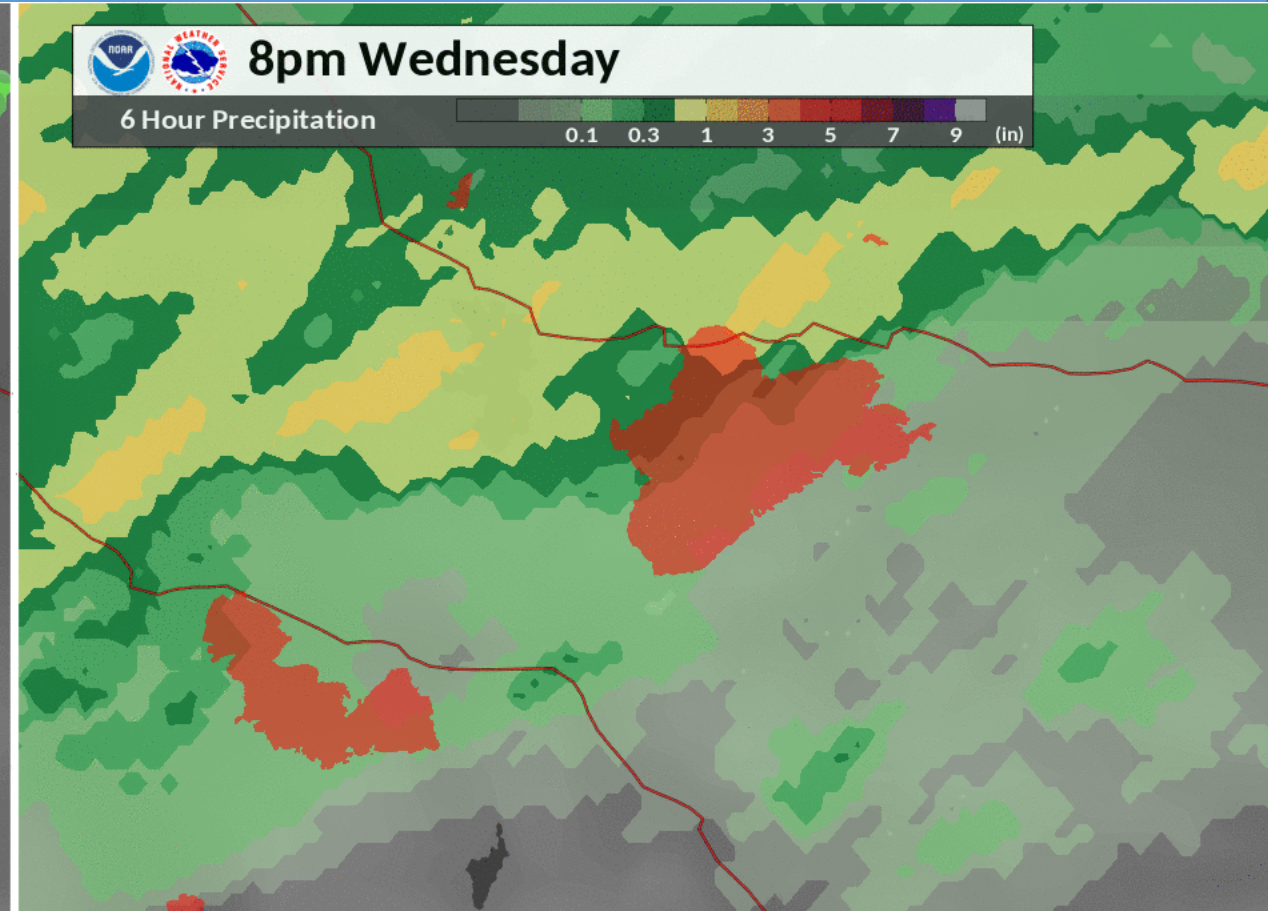
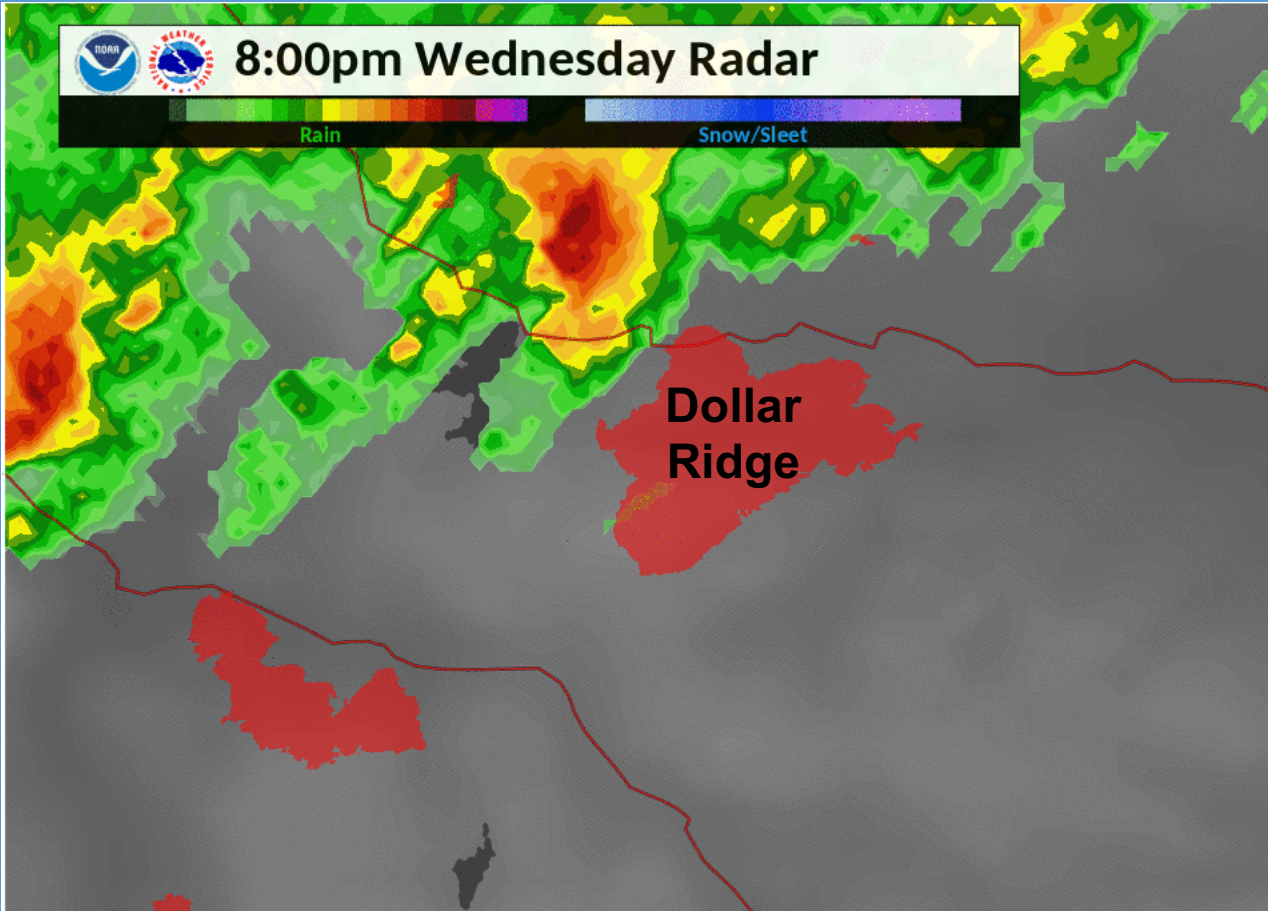
Coordinate System: NAD 1983 UTM Zone 12N
Map Scale: 1:200,000; 1 inch = 16,667 feet



8/13/2018, 22:17 Hrs
PUBLIC INFO

Radar Loop – August 22, 2018

Shows number of thunderstorms and intensity of the cells
Produced about 1.25” in a 6 hour period.



Rain Storms July 22 & August 22, 2018





Starvation Sedimentation Process



Reservoir “Influent” and “Effluent”





Short-term Water Quality Concerns

- **Turbidity (sediment) → Treatment/Filtration**
- **Nutrients (phosphorus) → Algae growth → Filtration/Cyanobacteria**
- **Organics (TOC) → Disinfection By Products (DBPs)/Taste & Odor**



DVWTP with Plate Settlers (Conventional floc/sed) Project Cost \$16-18 Million





Prevention Partnerships



Solutions



Denver Water with USFS Partnership (Fuels Reduction Treatment)



Denver Water and USFS - Dillon Reservoir Priority Watershed Treatment





Who Cares?

