



Cameron Peak Fire: effects on air and water quality
Mark Kempton, Jill Oropeza, Lance Smith, Cassie Archuleta

Presenters

Mark Kempton - Interim Utilities Deputy Director – Water Resources & Treatment

Jill Oropeza - Director, Sciences

Lance Smith - Director, Utilities Finance

Cassie Archuleta - Manager, Environmental Sustainability

Available for Questions

Matt Zoccali - Senior Manager, Sciences

Gretchen Stanford - Interim Deputy Director, Customer Connections

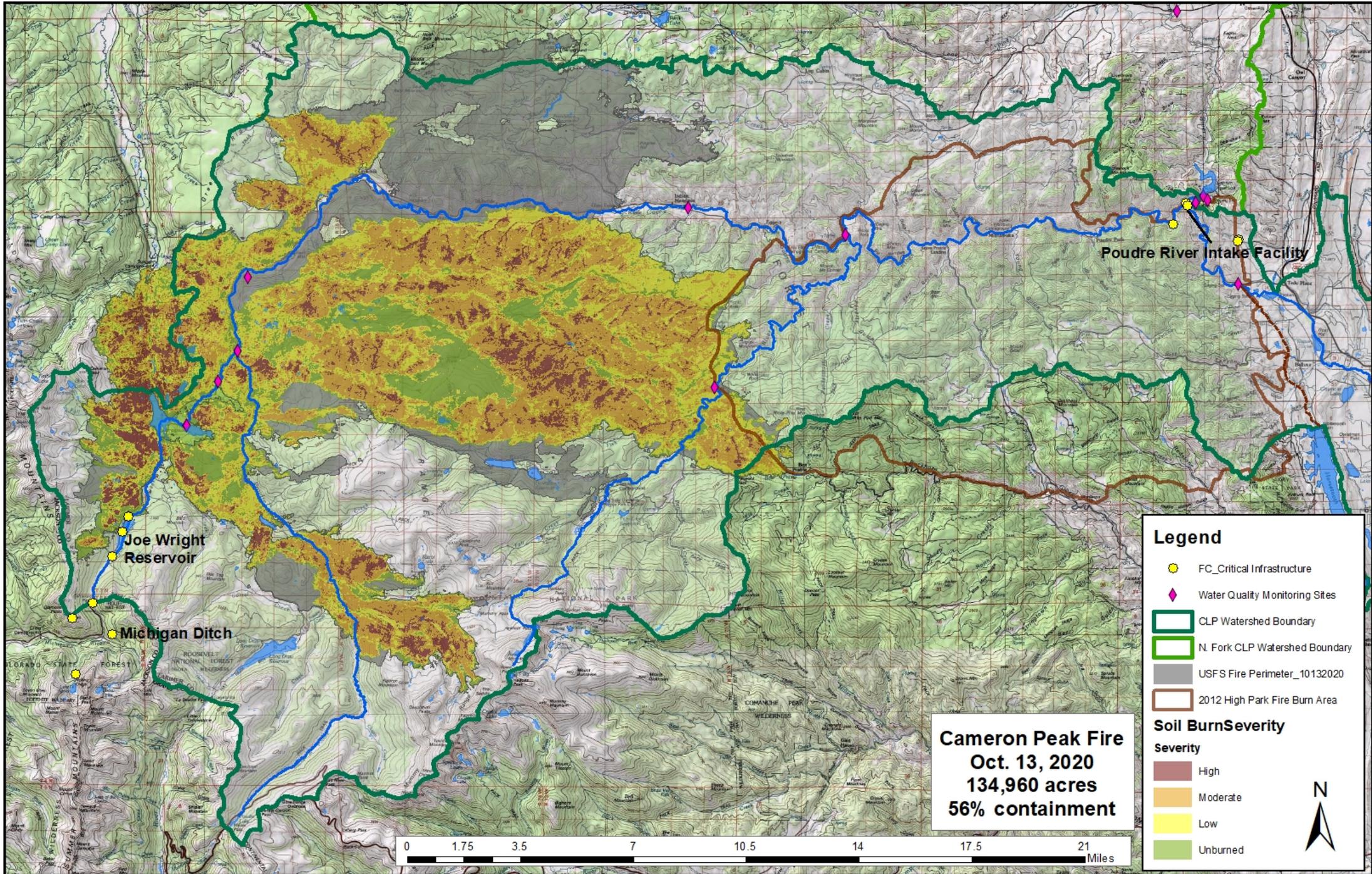
Alice Conovitz - Water Conservation Analyst

Mariel Miller - Interim Water Conservation Manager

Jim Byrne – Director, Emergency Preparedness and Security

- Cameron Peak Fire overview
- Water quality impacts and High Park Fire comparison
- U.S. Forest Service process, watershed restoration, partnering, and projected costs
- Financial considerations
- Air Quality Update
- Questions for Council

1. A 2% water rate increase is planned for 2022. Anticipating watershed restoration costs related to the Cameron Peak Fire, what feedback does City Council have regarding moving the water rate increase up a year earlier to 2021?
2. The City of Greeley has volunteered to be the Project Sponsor for the Federal Emergency Watershed Program which entails 100% up-front costs and a 25% cost match after reimbursement. What direction does Council have regarding the City partnering with Greeley and sharing the 25% cost match?



Cameron Peak Fire
Oct. 13, 2020
134,960 acres
56% containment

Legend

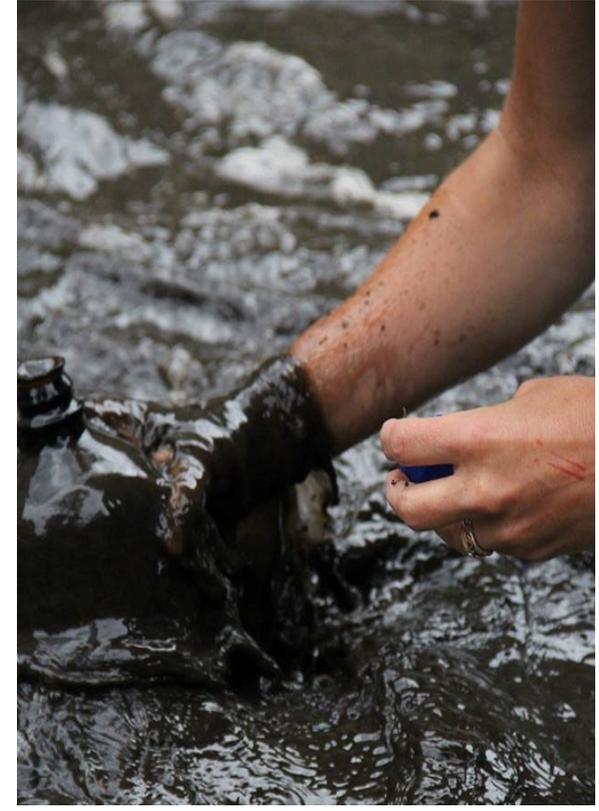
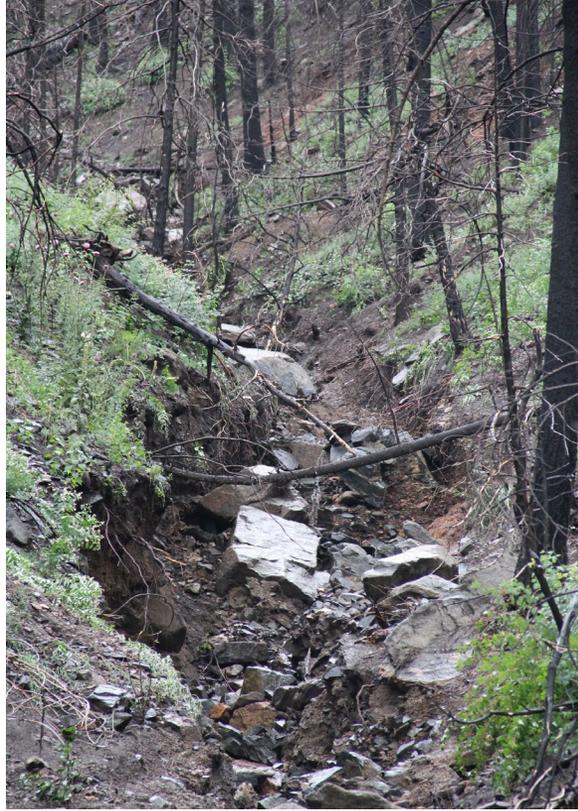
- FC_Critical Infrastructure
 - ◆ Water Quality Monitoring Sites
 - CLP Watershed Boundary
 - N. Fork CLP Watershed Boundary
 - USFS Fire Perimeter_10132020
 - 2012 High Park Fire Burn Area
- Soil BurnSeverity**
- Severity**
- High
 - Moderate
 - Low
 - Unburned



Water Treatment Response



- Increase Poudre River monitoring & shut off intake during rainstorms
- Switch to 100% Horsetooth water
- Utilize both sedimentation basins
- Increase chemical treatment processes (Alum and Carbon)
- Increase communication with customers
- Maintain **ALL** drinking water quality standards





Early Warning Alert Station on the Poudre River



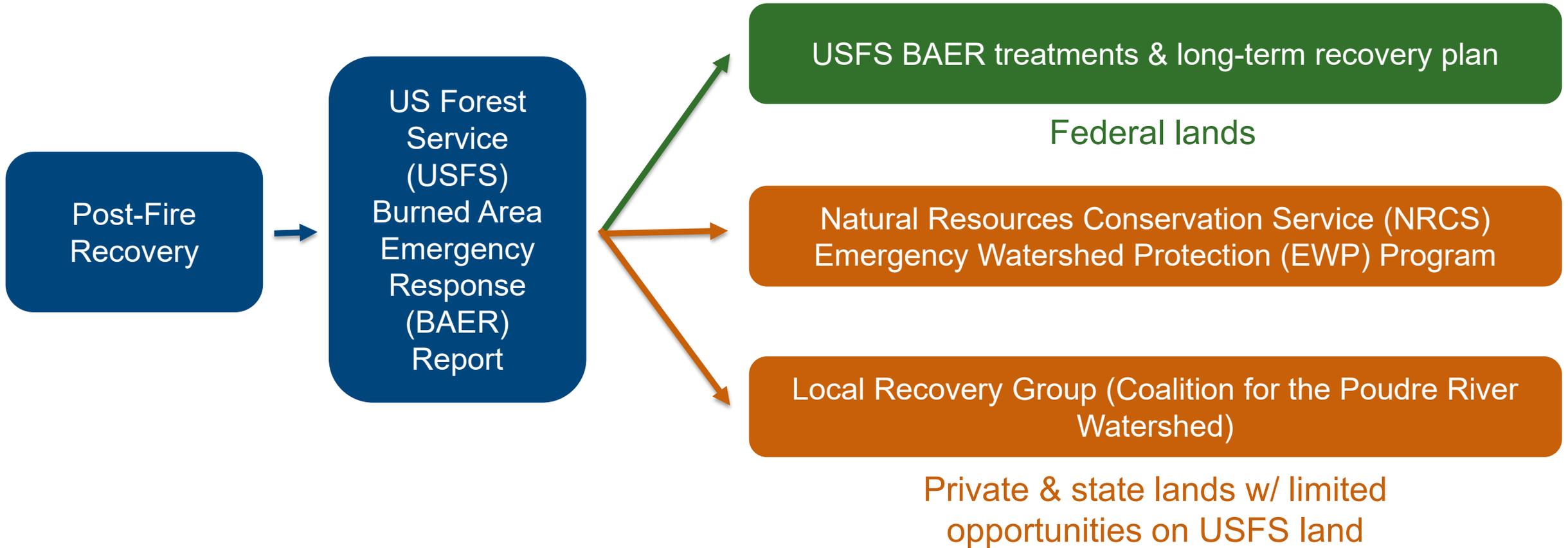
Water Quality Monitoring Instruments at the Poudre River Intake Facility

- Real-time measurements for treatment operations
- Early-Warning Water Quality Alert System
- Collaborative long-term monitoring program
- Post-fire recovery monitoring
- Water treatment studies

Water Quality Sonde used for continuous river monitoring



Samples from sediment leaching study during High Park Fire



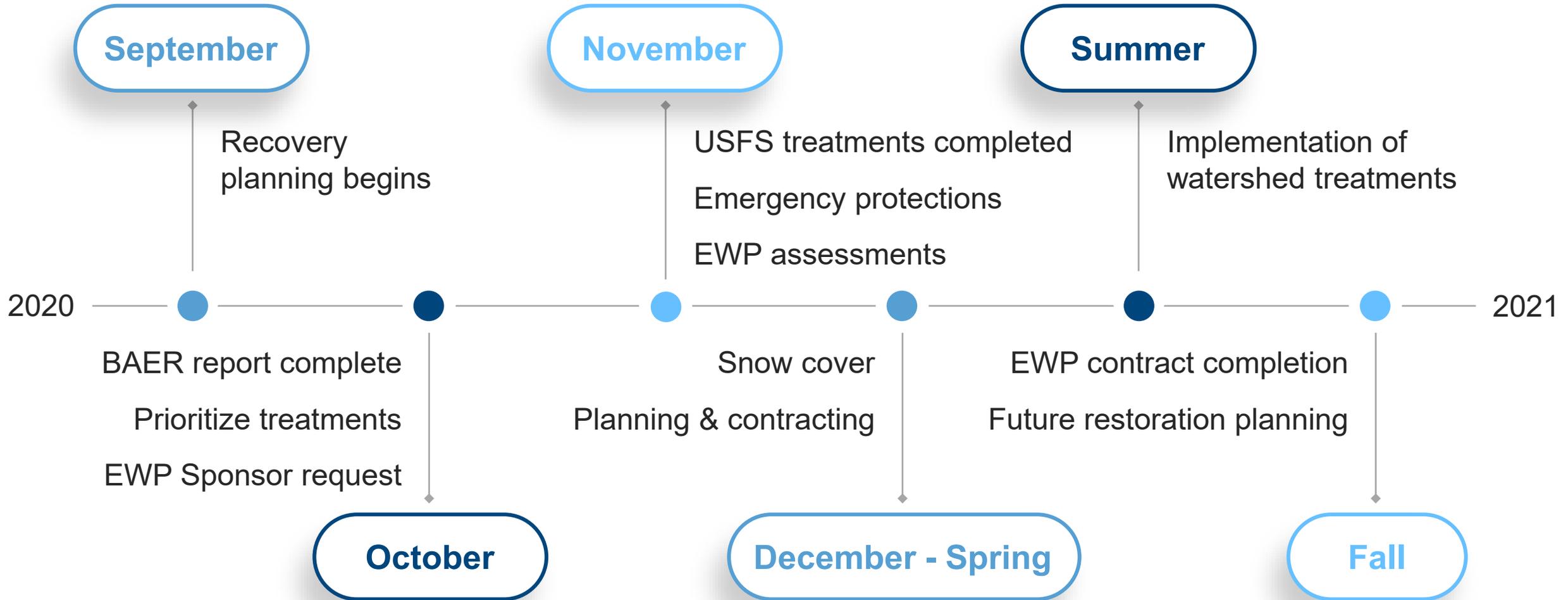
- Natural Resources Conservation Service (NRCS) - immediate post-fire threats to life and property, on private and State lands
- EWP Financial Sponsor – contracts directly with NRCS for financial assistance
- 25% match requirement, 75% reimbursement from NRCS after work is complete



Local Recovery Group



- Secures funding for additional post-fire restoration needs
- Coordinates with EWP and BAER treatments to maximize impact
- Led by Coalition for Poudre River Watershed (CPRW)
- Includes non-profit groups, local agencies and water providers



Estimated cost-share for City of Fort Collins*

\$1.0M - \$4.3M

* Large uncertainty in cost due to unknown scope of federal EWP program

Estimate Includes:

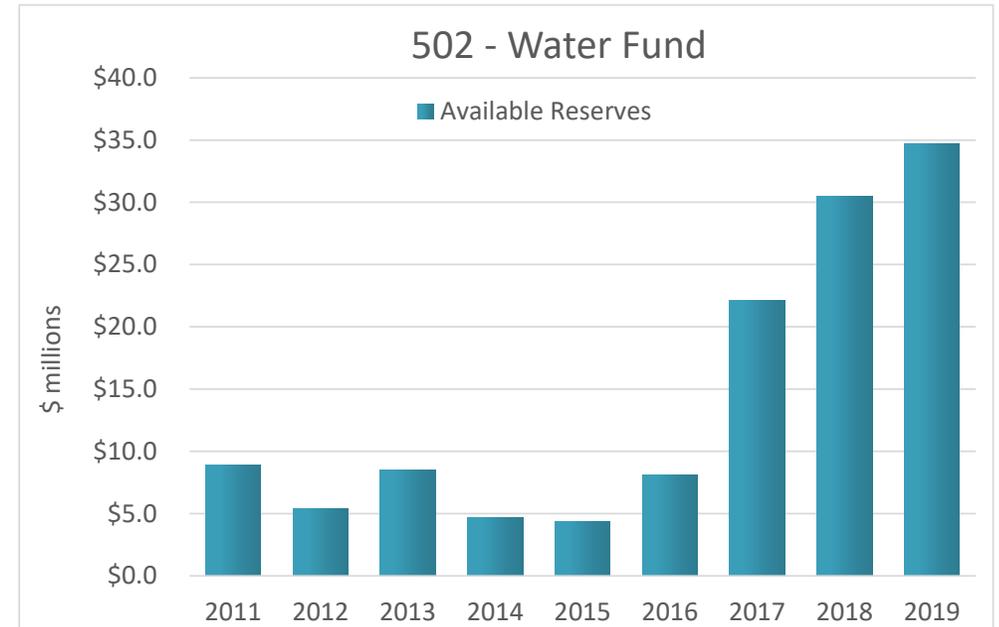
- Implementation of EWP (minimal & enhanced scope) and supplemental USFS watershed treatments
- Project management support (2 years)
- Post-fire treatment studies
- Other technical assistance (debris flow modeling)

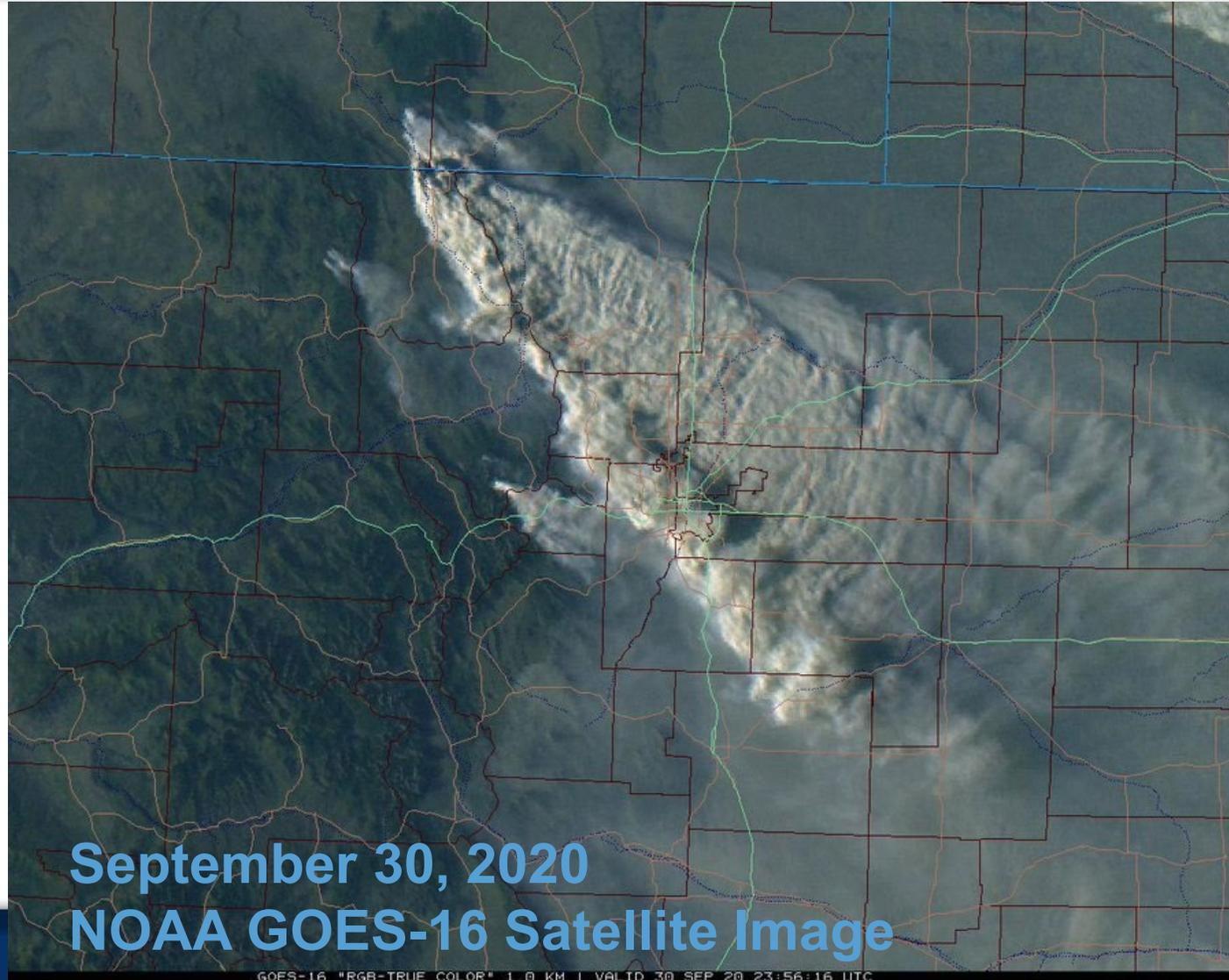
Water Fund Financial Considerations

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Rate Increase	0%	0%	2%	0-2%	0-2%	0-2%	1-3%	1-3%	1-3%	2-4%	2-4%
Debt Issuance					\$55-65M			\$30-35M			

\$209M of capital work is expected to be needed between 2020 and 2030 in addition to the current capital appropriations

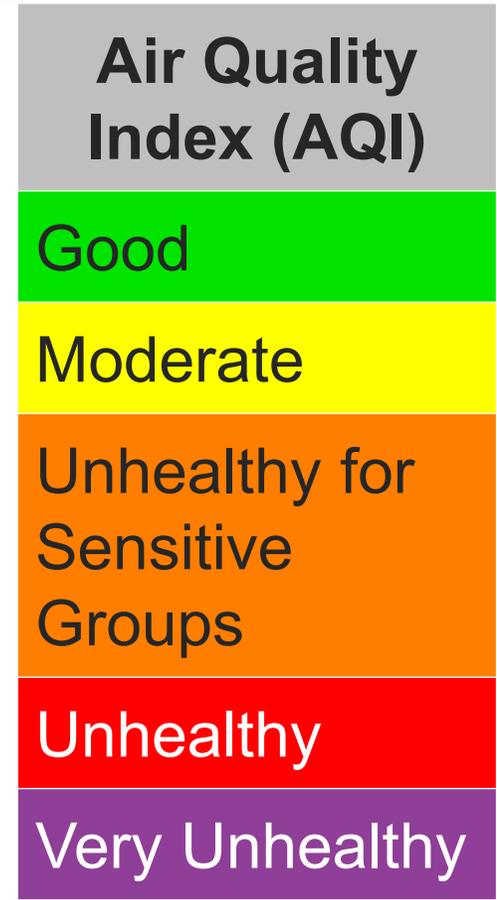
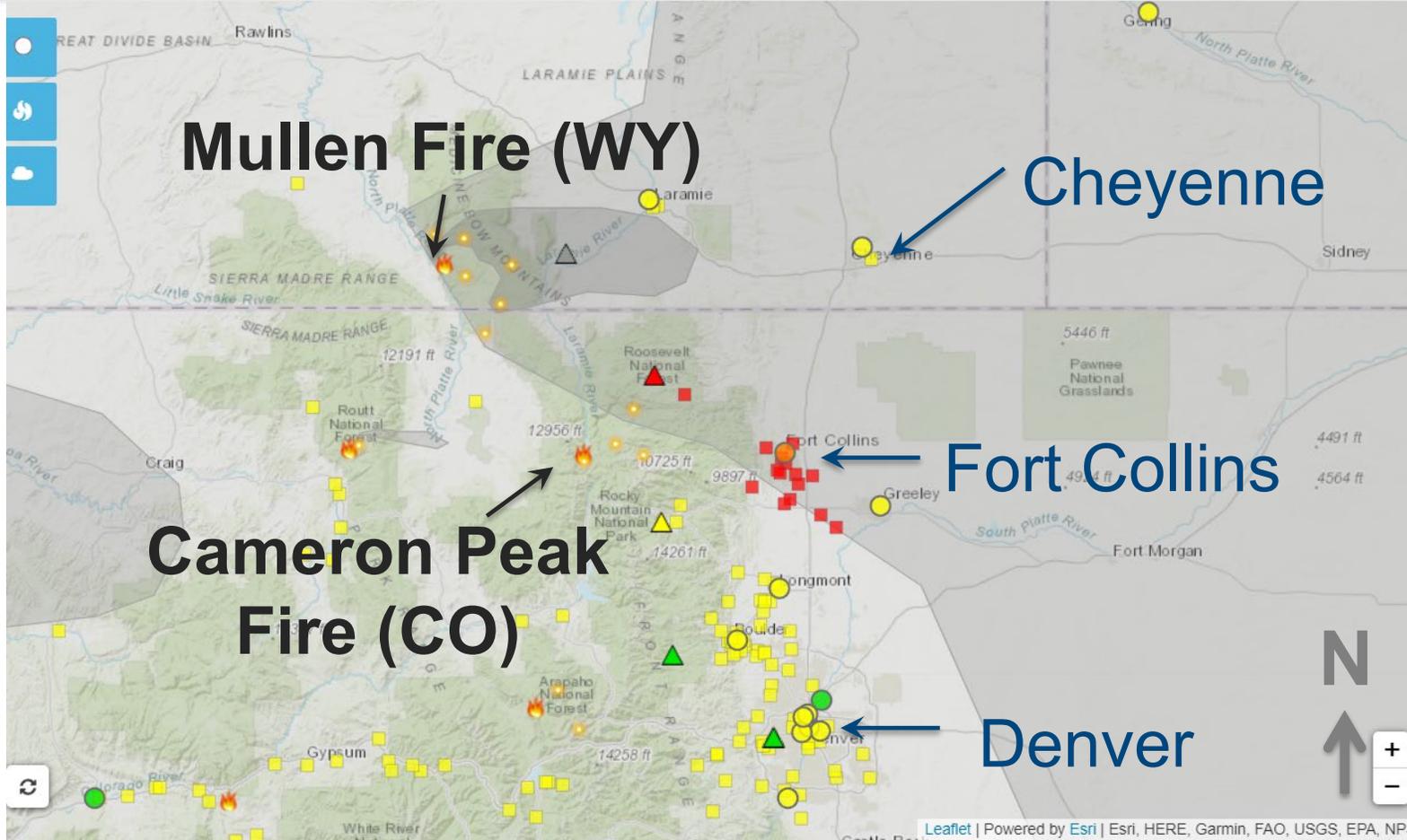
*A 2% rate increase is expected to increase operating revenues \$500-600K annually





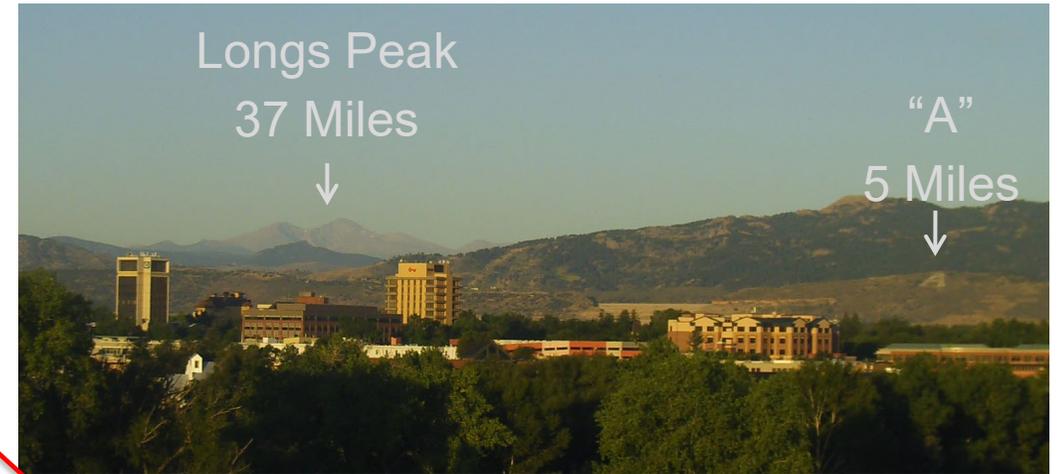
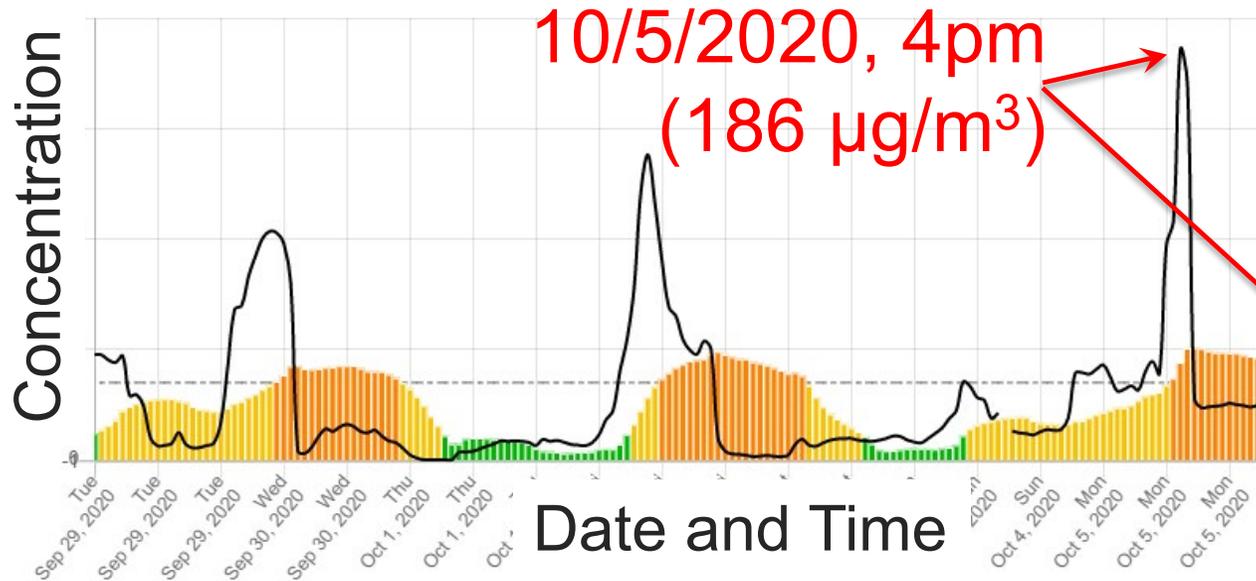
September 30, 2020
NOAA GOES-16 Satellite Image

GOES-16 "RGB-TRUE COLOR" 1.0 KM | VALID 30 SEP 20 23:56:16 UTC



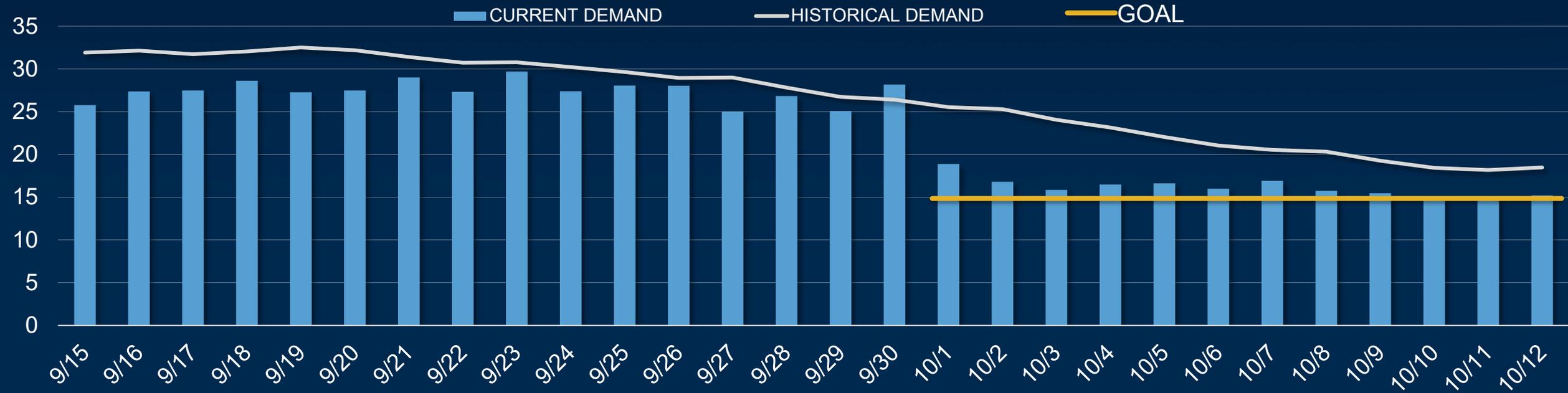
EPA Fire and Smoke Map: <https://fire.airnow.gov/>

Fine Particulate Matter (PM_{2.5})



Real-time AQ data and visibility images:
fcgov.com/AQdata

Fort Collins Utilities Daily Water Demand



THANK YOU!

Daily water demand has reduced significantly, but [we still need your help](#). Stop outdoor water use to help us stay below the water demand needed during HOP (15 MGD).

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Internal

- ICS team participant
- Utility-wide Wednesday email
- City intranet page
- Collaboration with experts on media requests
- Collaboration with Sustainability's air quality team
- Collaboration with CPIO

External

- Public Information Officer collaboration with federal, state and city organizations
- Utility website
fcgov.com/utilities/2020-wildfires
- Customer account notifications and water quality reports communicated
- Media requests – print, on air and film
- Social media, including Facebook live events

HOP Need: Reduce treated water demand to typical winter (indoor) levels this October.

Maximize water available during HOP

Be prepared for changing conditions

We need your help: City and community working together to reduce risk



HELP DURING
HOP
HORSETOOTH OUTLET PROJECT



HELP SAVE WATER DURING HOP:

Stop Outdoor Water Use Oct. 1

FCGOV.COM/HOP • 970-416-8040



NOT ALLOWED OCT. 1 ~ NOV. 30

- Lawn watering (residential and inactive areas of parks/fields)
- Vehicle washing at home
- Pressure/power washing hard surfaces

ALLOWED

- Drip and hand watering trees, plants, food production
- Active/athletic fields, new sod/seed (permit)
- Raw water (registration)
- Indoor use

Full list of water restrictions at fcgov.com/water-restrictions



- Reliance on Poudre River and reliable backup pump system
 - Limited capacity based on winter (indoor) use
- Cameron Peak Fire impacts to Poudre River increase likelihood of backup pump dependence
- Ongoing hot and dry conditions driving high demand

Looking forward: Strengthen Horsetooth infrastructure now, before anticipated fire-related runoff events in spring and after impact Poudre River



Cameron Peak Fire

- 135,000 acres
- ~5% private land, ~95% federal land
- Began August 2020
- Long term watershed restoration is a key requirement

High Park Wildfire

- 87,284 acres
- ~50% private land, ~50% federal land
- Began June 2012
- 259 homes lost
- 11,000 acres treated with mulch
- 100 days off Poudre River (100% Horsetooth water)
- 2013 flood washed ash and sediment from river