

# **Colorado Springs Utilities**

## **Watershed Management & Planning**

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Source Water Protection PM

4/19/2017

# Outline

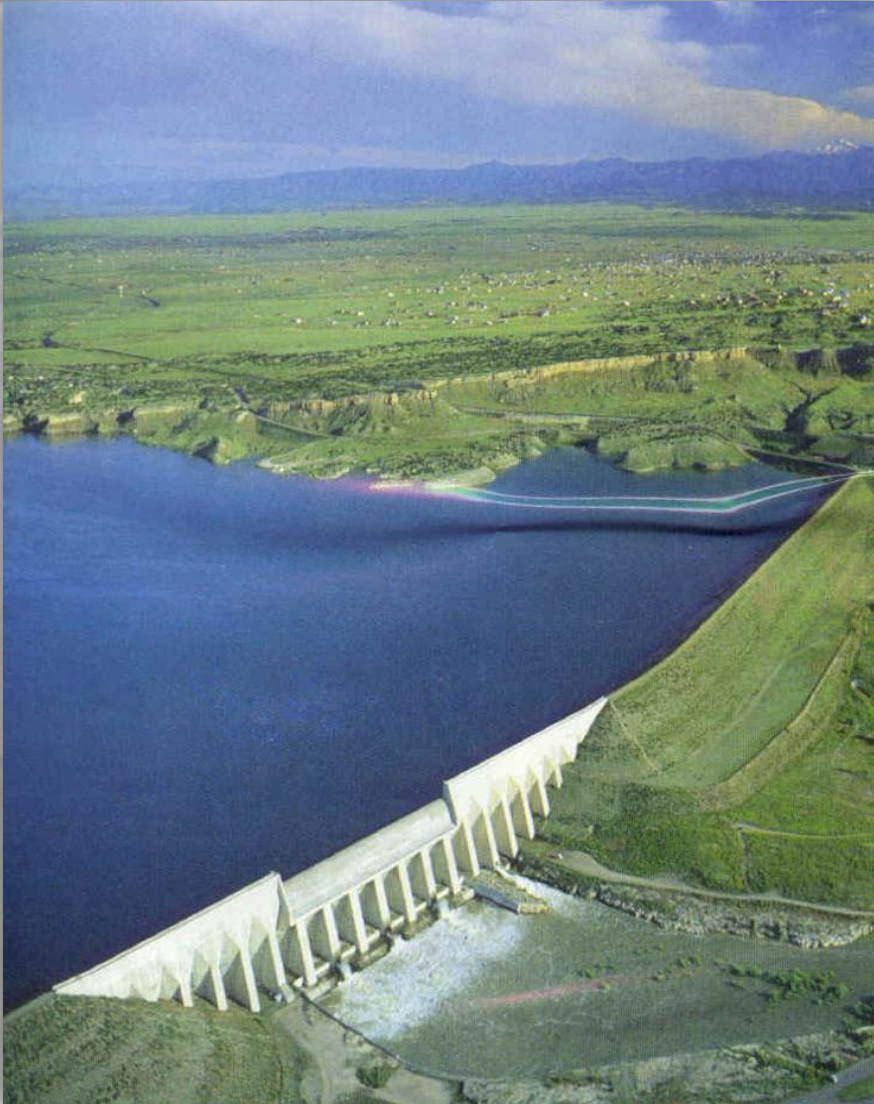
- Colorado Springs Utilities Water Services
- Value of Watershed Services
- WFDSS Project



Mason Reservoir: South Slope of Pikes Peak



# Water Service



Pueblo Reservoir

- Water Service for 450,000 customers
- Extensive Water System
  - Bring water from 100s of miles away to our customers
  - Collected from over 650 square miles in 10 counties and 67 distinct watersheds



# The Value of Watershed Services



Blue River Watershed

## 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**



# ***Watershed Management Priorities***

## Adapt to changing priorities and pressures:

- Engage and support local issues
- Support for internal and regional projects
- Initiate and respond to legislative actions
- Build key partnerships and collaboratives
- Provide timely outreach and education

## Respond to significant watershed disturbances



Prescribed fire: North Slope Watershed



Recreation at South Suburban Reservoir



Rampart Reservoir



# Waldo Canyon Fire 2012:

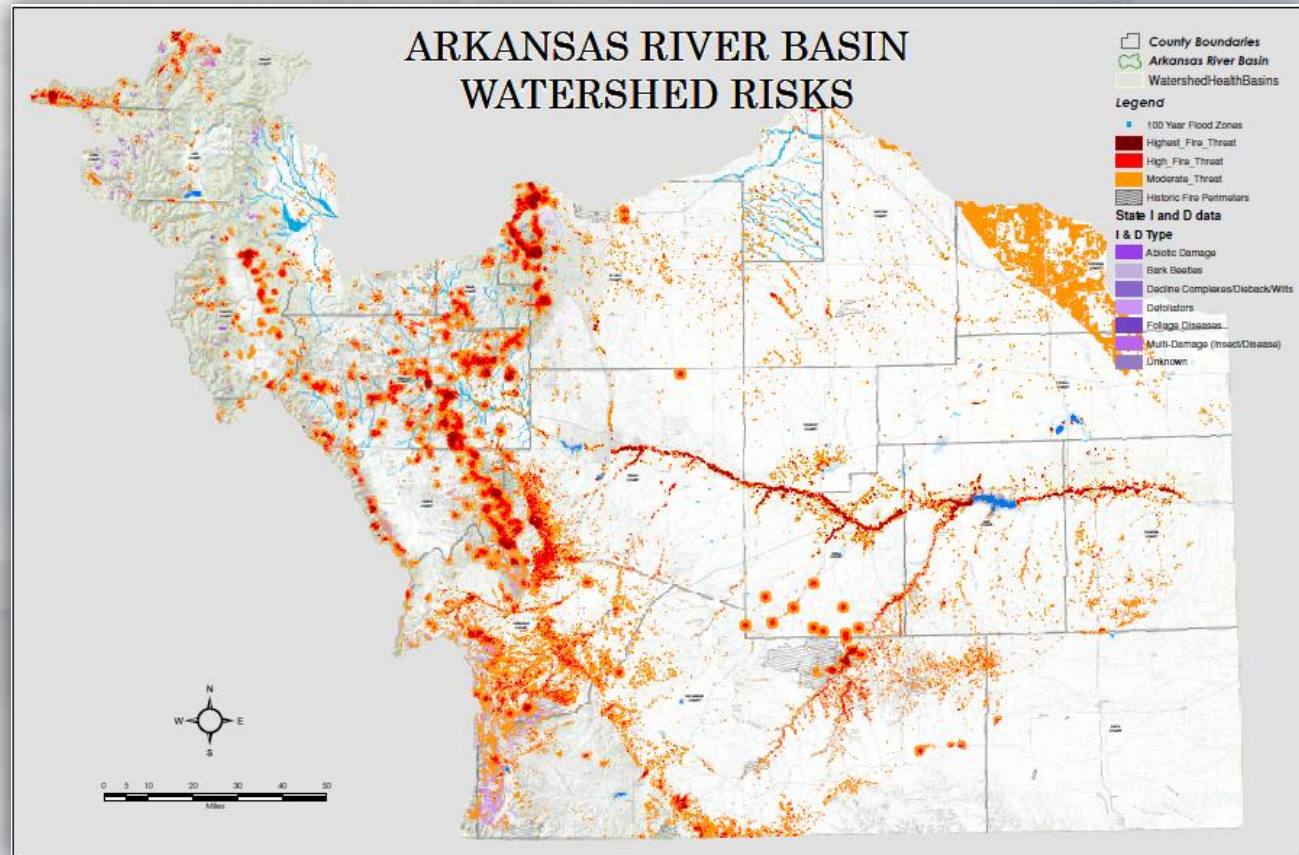
- Pre-fire
- During Event – (GIS Scramble)
- Post-fire – Values at Risk and BAER





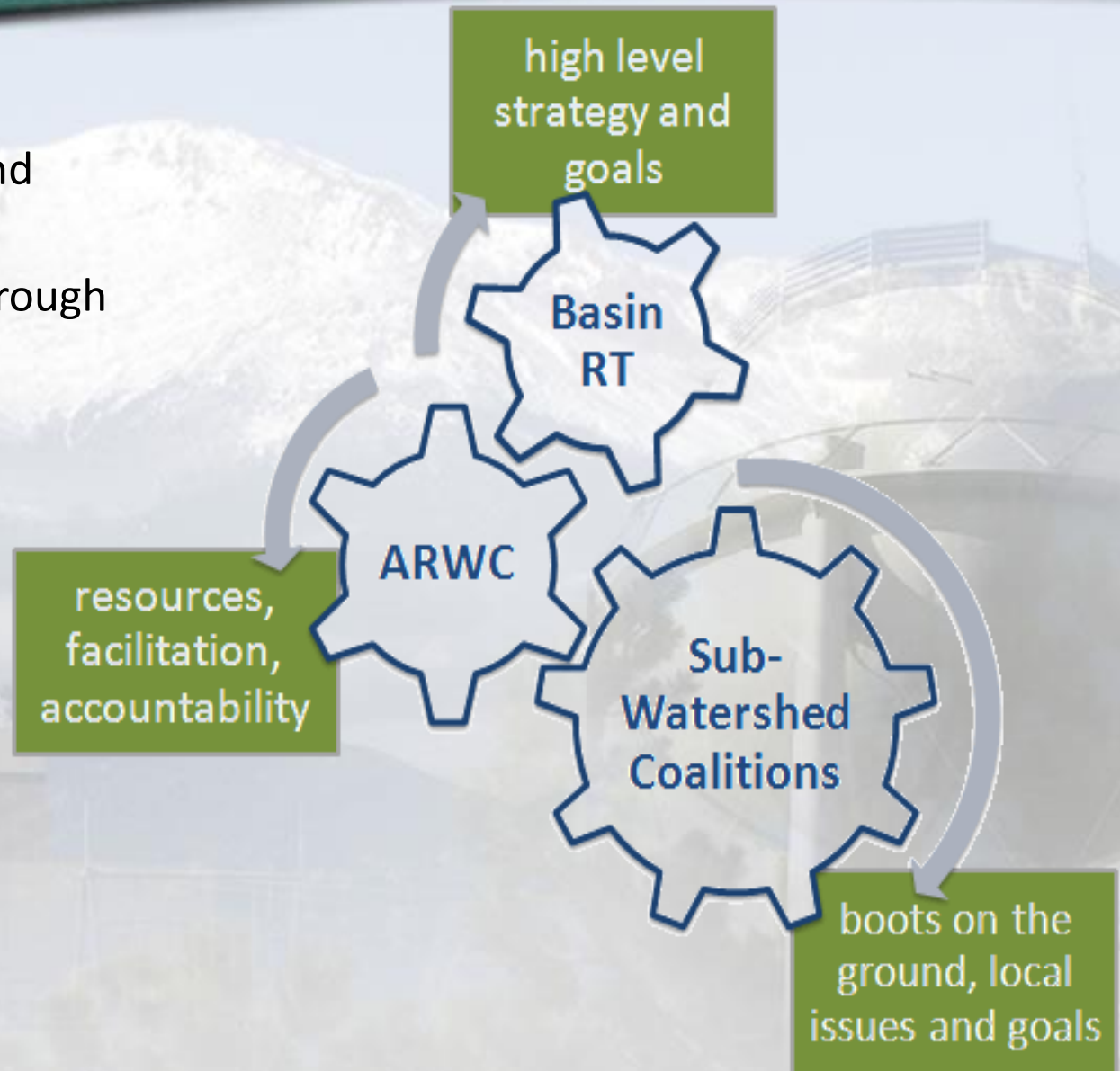
# Colorado State Water Plan:

- Watershed Health in the State Water Plan
- Arkansas Basin Implementation Plan
- The Watershed Health Working Group



# Arkansas River Watershed Collaborative:

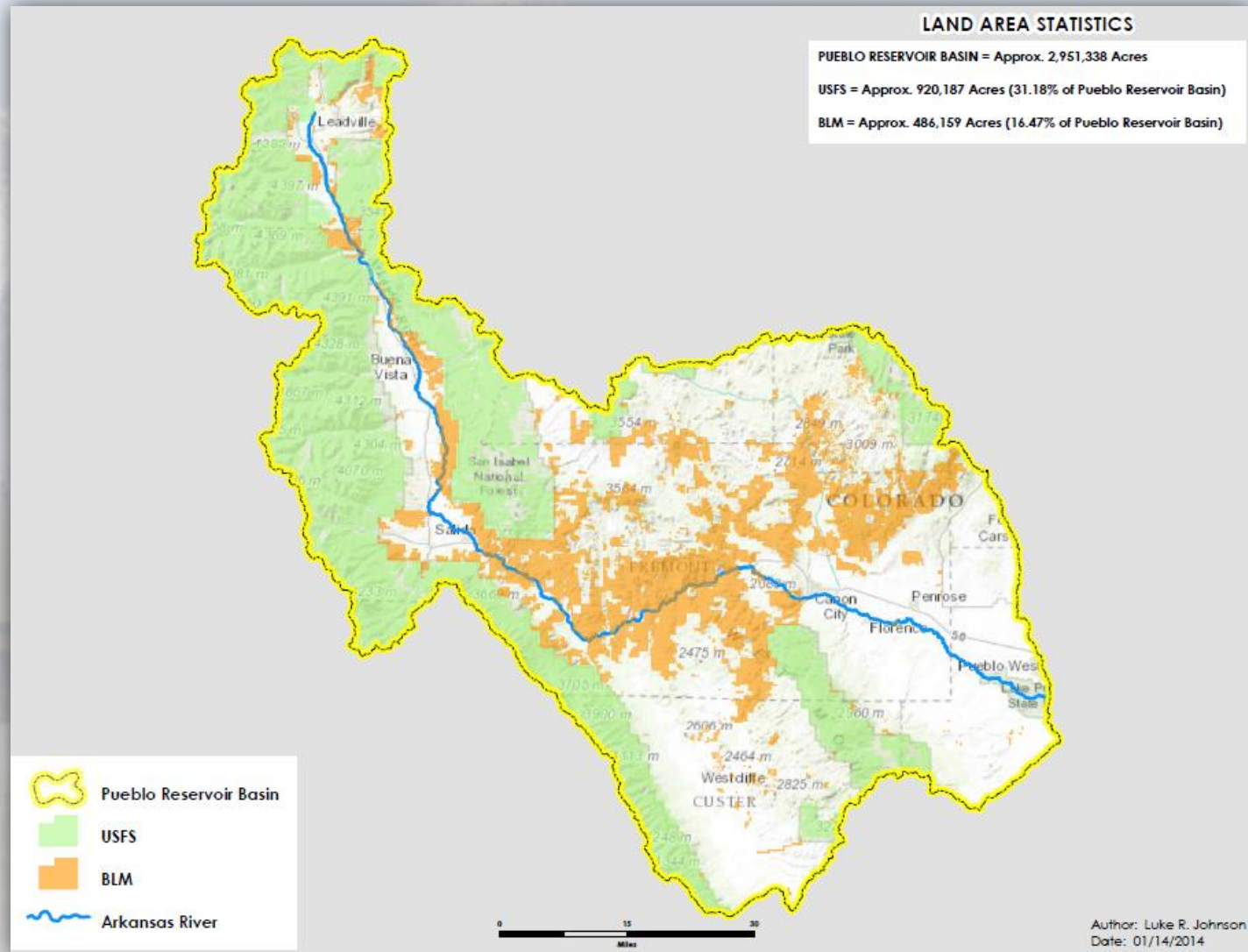
- Arkansas Basin Round Table/CWCB Grant
- Building Capacity through ARWC
- ARWC Projects



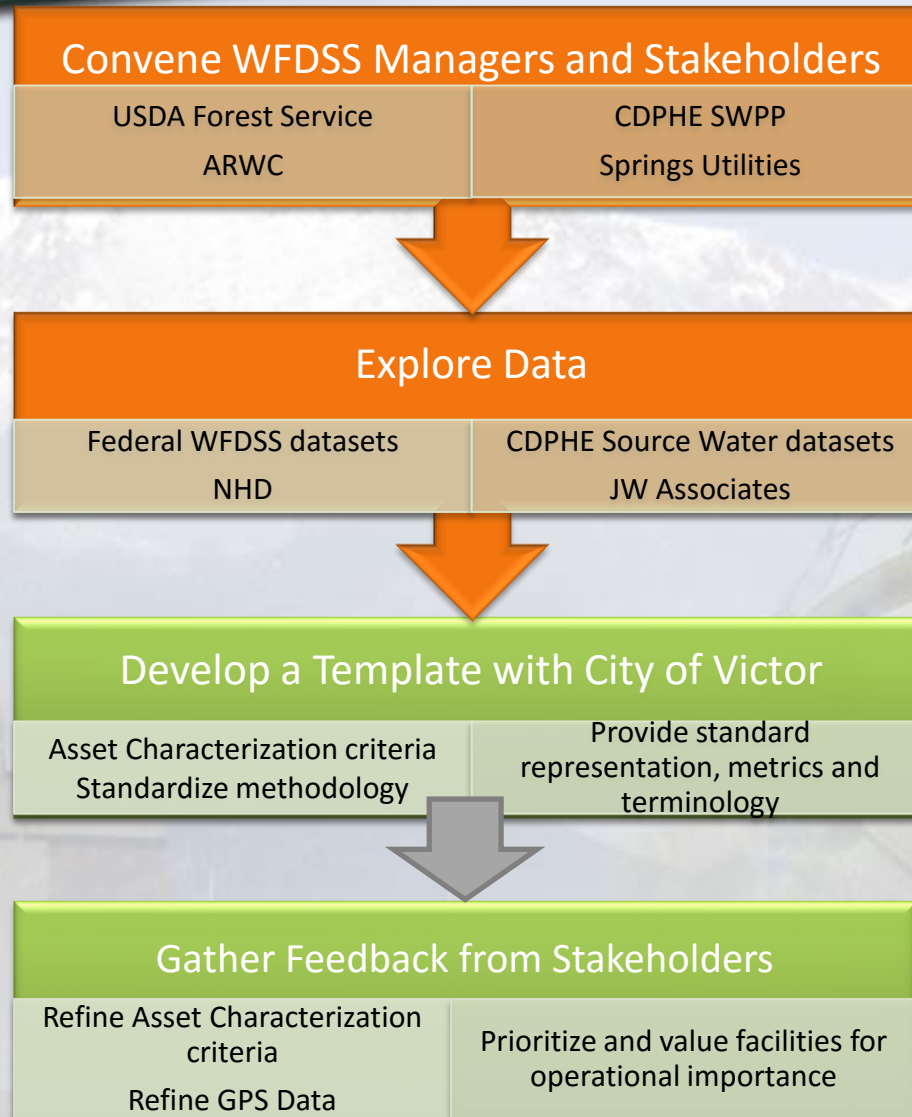


# Data Integration into WFDSS

## Why Provide Data to WFDSS



# Data Integration into WFDSS

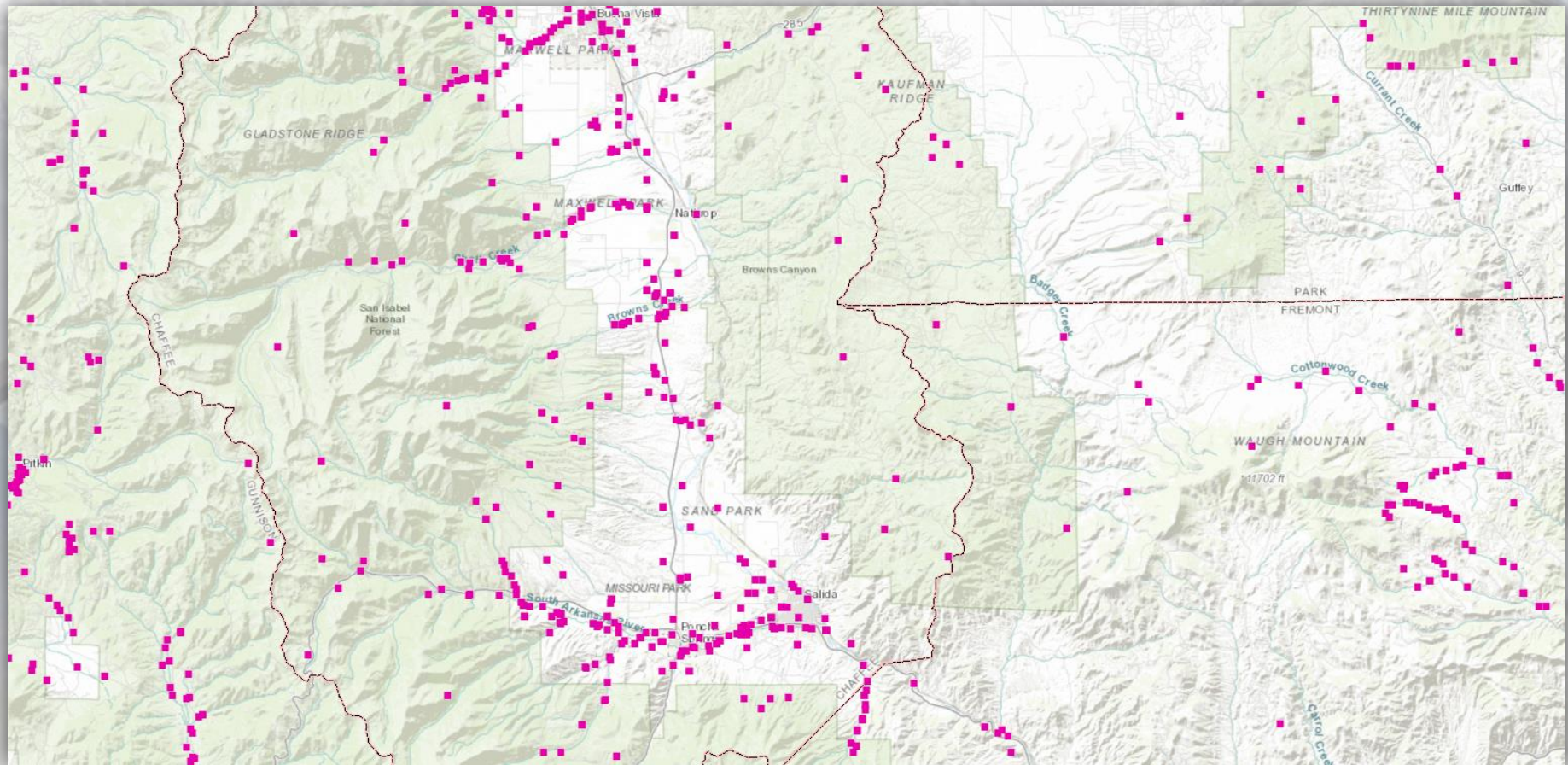




# Data Integration into WFDSS

## 1. Explore Data

Federal WFDSS datasets, NHD, CDPHE Source Water data, DWR Hydrobase  
Water Provider GIS



Local Forest Level WFDSS Data		National Level WFDSS Data	
PROS	CONS	PROS	CONS
Local control for updating and editing	11 National Forests and 2 National Grasslands plus BLM lands	Centralized dataset One "gatekeeper"	Will want entire dataset at once
Contact local FMO to integrate data	Staff level changes (frequency, reassignments)	Could be State level agency representing all water providers talking with National level agency	Rate of information exchange. Longer rigorous review process
Can have data only be available for incidents in the Forest	May cause delays to getting critical info to Line Officers.	Data layers cross multiple jurisdictions and agencies – going National could simplify process and coordination	Not as much editing power post-development
Updates can be almost instantaneous if using "Management Requirement" tools	Rate of update to LMPs. Some Forests have not updated plans for a while or have already done so.	Available to all incidents immediately	May have limitation on amount of descriptive data allowed.
Data can be descriptive and weighted.	Each Forest will likely have different Strategic Objectives and ways to describe priorities.	Data presentation would be one common platform.	May not be available until 2017 or later



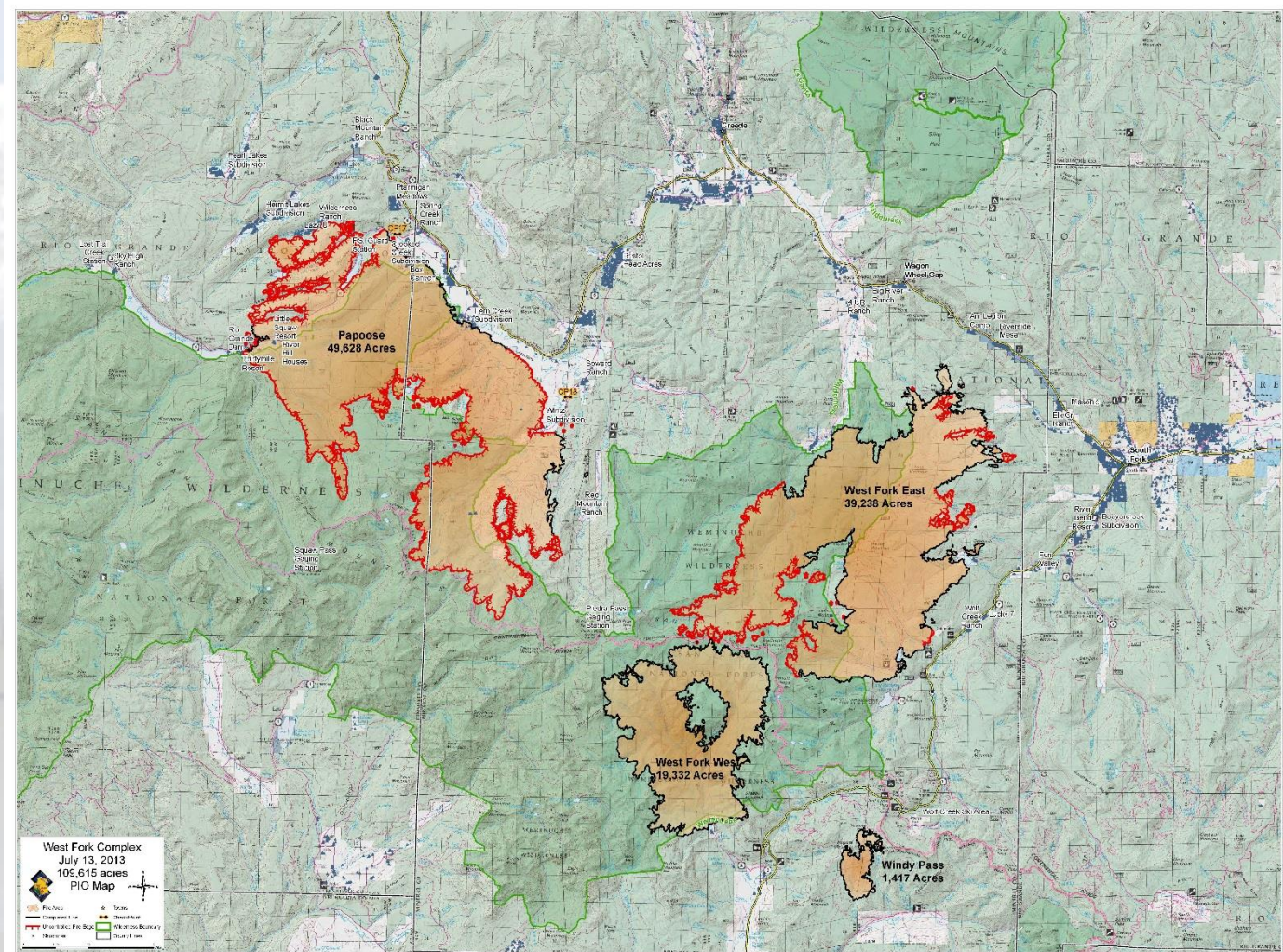
# Data Integration into WFDSS

## 2. Develop a Template

Standardized methodology

Asset characterization

Standard representation, terminology, metrics



## Critical Tier Rating System

Ranking	Criteria	Value Ranges	Definition
<b>Critical Tier 1</b>	% Supply % Reliance Outage Risk	75-100% 75-100% < 24 Hours	Facilities in this category represent “Catastrophic Impacts” to a community and no alternatives for sources are available.
<b>Critical Tier 2</b>	% Supply % Reliance Outage Risk	50-75% 50-75% < 1 week	Facilities in this category represent “Significant Hardship” to a community to find alternative sources but the challenges are not insurmountable.
<b>Critical Tier 3</b>	% Supply % Reliance Outage Risk	< 50% < 50% > 1 week	Facilities in this category represent “Harm and Challenges” would occur for the community but through redundancy, water restrictions and/or operational changes there are alternative sources.



## 3. Testing with Victor & Field Collection

Prioritize values at risk relative to operational importance

Refine asset characterization

Collect field data



# ***Data Integration into WFDSS***

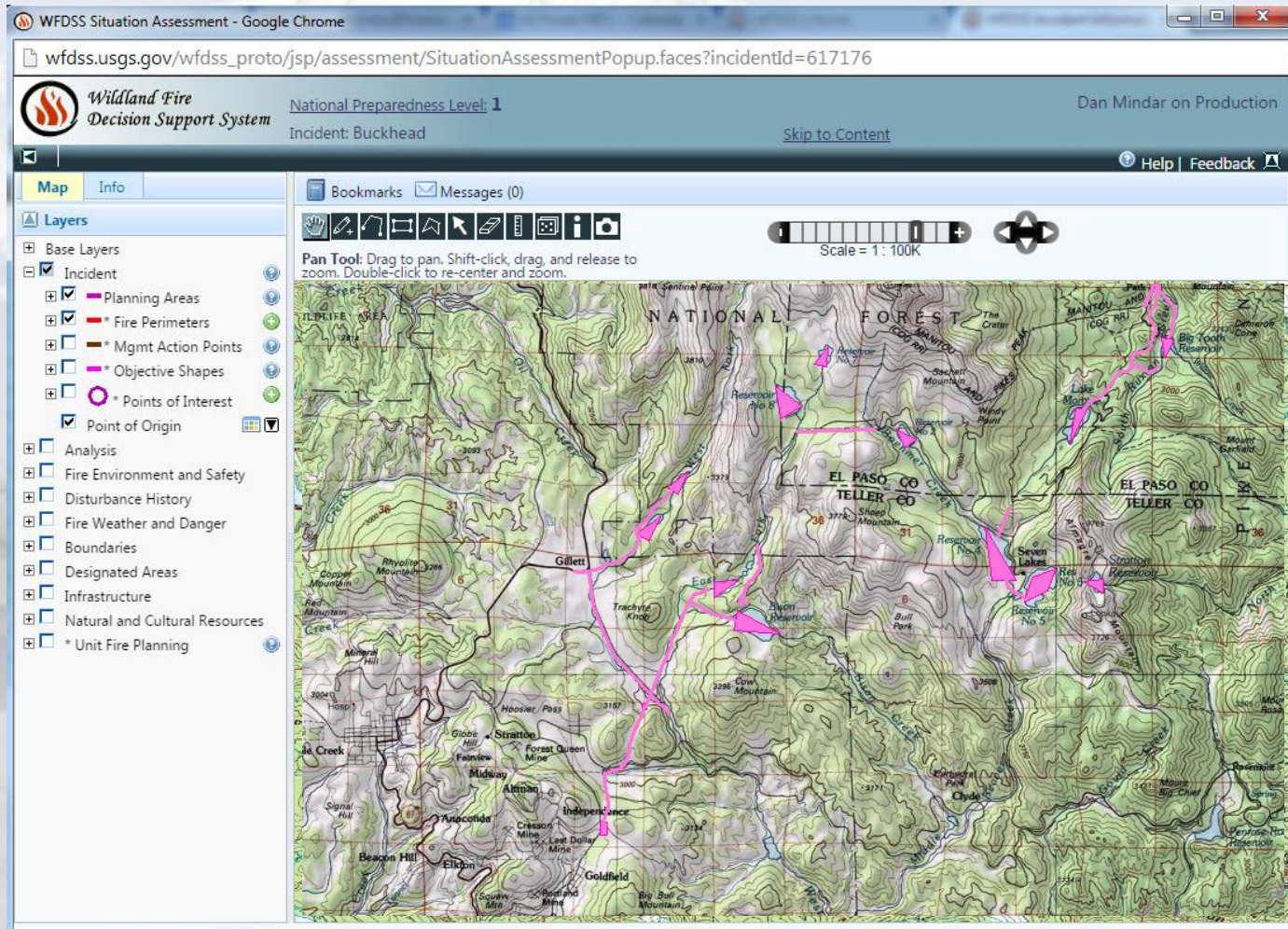


City of Victor: Bison Reservoir



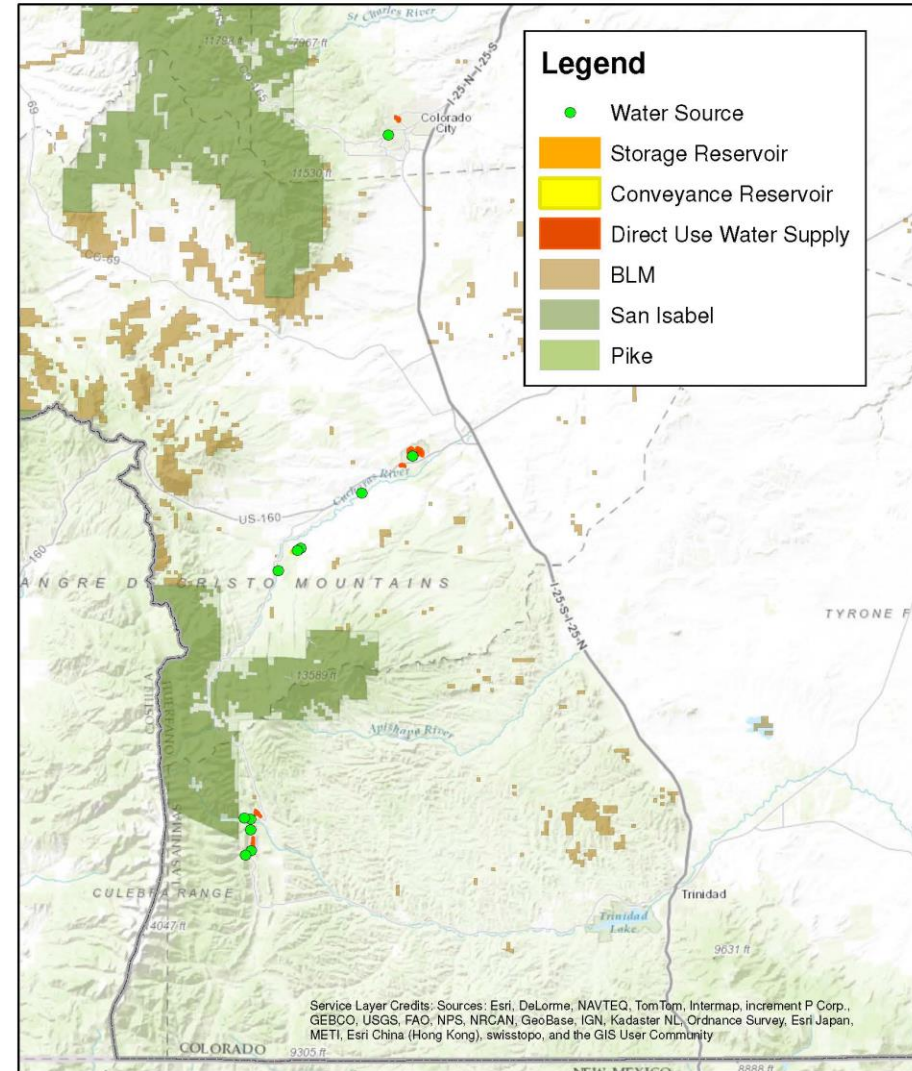
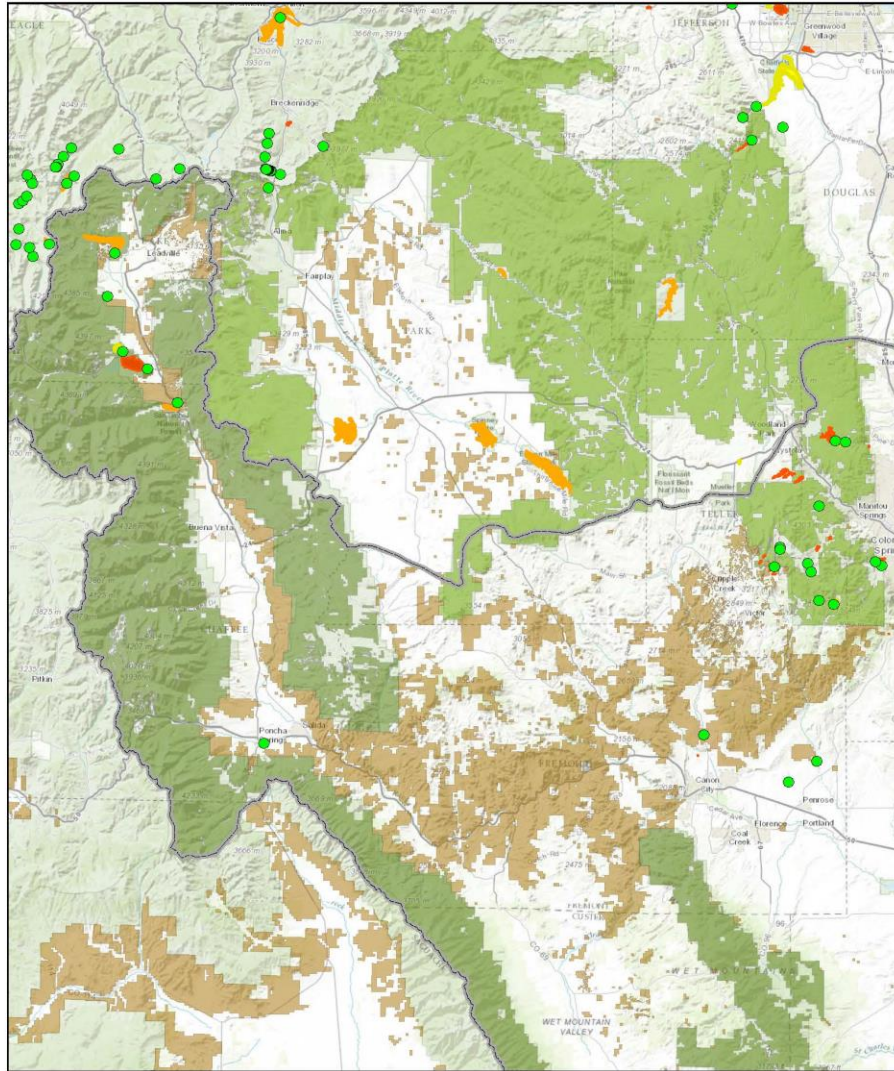
# Watershed Collaboration

## Integrating Water Supply Data into WFDSS





# Next Steps



Water Supply Providers on Pike San Isabel and BLM Lands in Arkansas Basin



# Watershed Collaboration

## Next Steps

