

WATER EDUCATION SERIES



REGIONAL WATER PLANNING & EXISTING CONDITIONS IN LARIMER COUNTY

AUGUST 21, 2023



THIS PRESENTATION

1. Overview – Water planning:

- Part 1 – Existing Conditions (2022)
- Part 2 – Water Master Plan (2023-2024)

2. Information – Existing Conditions Report

3. Invitation - to participate and next steps

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RELATED COUNTY PLANS

LARIMER COUNTY
STRATEGIC PLAN
 2019-2023

Larimer County's 2019-23 Strategic Plan focuses on three goals to prepare our community and our government organization for our growing and evolving population. Achieving the plan's objectives will add value to everyone's quality of life.

COMPREHENSIVE PLAN
 LARIMER COUNTY

Adopted July 17, 2019

200 W. Oak Street,
 Fort Collins, CO
 80521 970.498.7000
 larimer.org

PART 1 – 2022 FOUNDATIONAL WORK

Existing Conditions Assessment

- **Scope:** assessed existing conditions related to water supplies and agricultural land and identified risks and vulnerabilities
- **Deliverable:** Regional Existing Conditions Report

Initial Vision and Goal Setting

- **Scope:** County staff work session and stakeholder open house
- **Deliverable:** final memo with key findings, action items and recommendations for developing the water plan

JUNE 2022



LARIMER COUNTY REGIONAL WATER EXISTING CONDITIONS REPORT



Posted at:
larimer.gov/planning/water



ABOUT LARIMER COUNTY

Population Growth	56%	Projected growth in total population from 2017 to 2040
	343,853	Total population in 2017
	535,756	Projected total population in 2040
	12%	Projected growth in unincorporated areas from 2017 to 2040
	66,639	Unincorporated population in 2017
	74,554	Projected unincorporated population in 2040
	96%	Growth that will be absorbed by municipalities through 2040
Development Units	39,384 acres	Land designated as urban expansion areas ^[1]
	23,245 acres	Land designated as urban/rural interface areas ^[2]

^[1] Per the Larimer County Comprehensive Plan, Urban Expansion Areas are areas located within Growth Management Areas where municipal development and services are anticipated (Logan Simpson et. al., 2019).

^[2] Urban/Rural Interface areas are areas adjacent to municipal planning boundaries that could be incorporated into Growth Management Areas or developed in unincorporated Larimer County (Logan Simpson et. al., 2019).

LARIMER COUNTY

Larimer County Comprehensive Plan Framework Map

Date: 4/24/2019

Framework Categories

- Mountains & Foothills
- Rural
- Urban/Rural Interface
- Urban Expansion
- Industrial
- Agriculture & Ranching
- Natural Resource
- Retail Service Node
- Rural Centers

Transportation

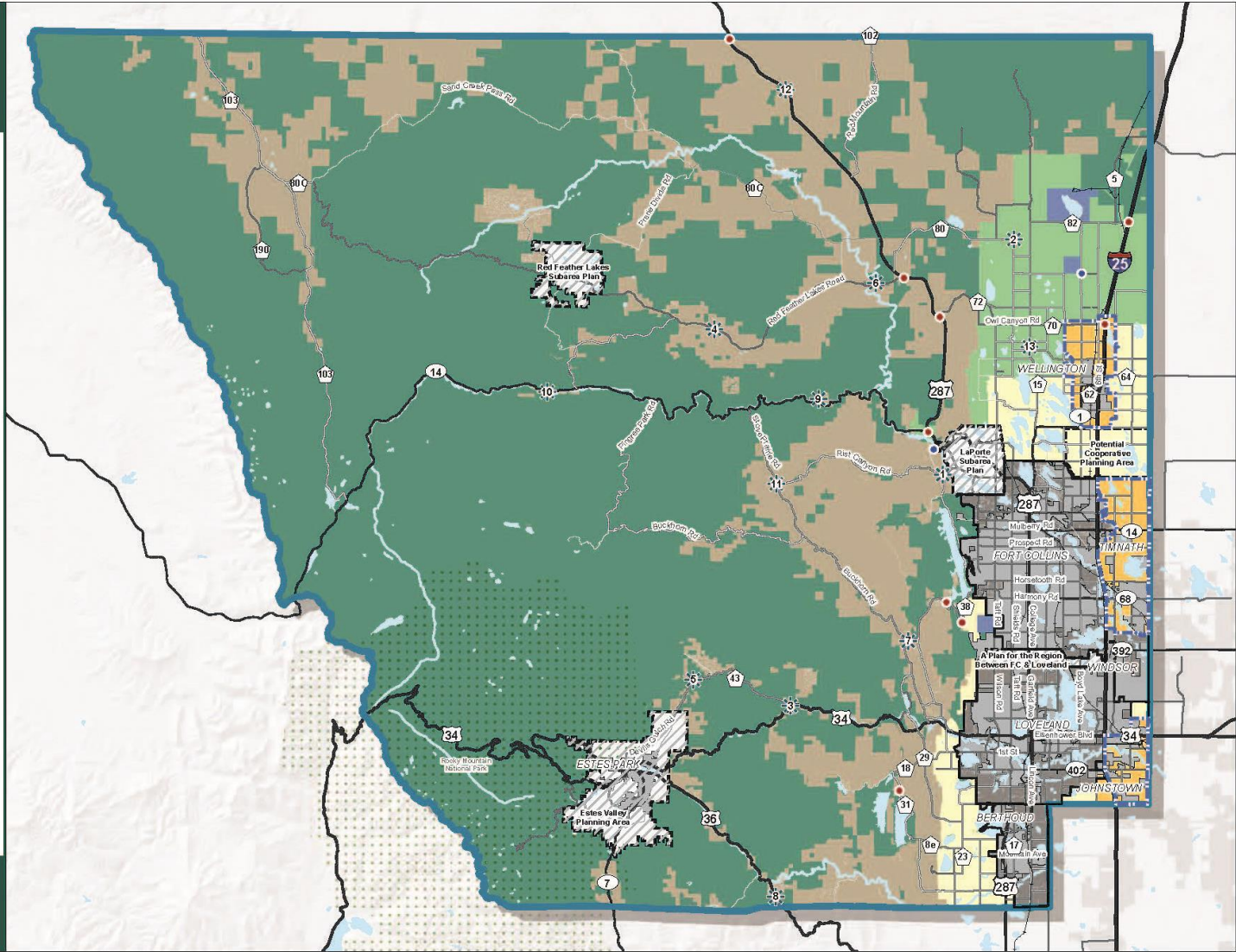
- Interstates
- US Highways
- State Highways
- County Road
- Arterials
- Major Collectors
- Minor Collectors
- Railroads

Planning Boundaries

- Planning Areas
- Approved GMAs
- Community Influence Areas
- Municipality
- Larimer County
- Rocky Mountain National Park

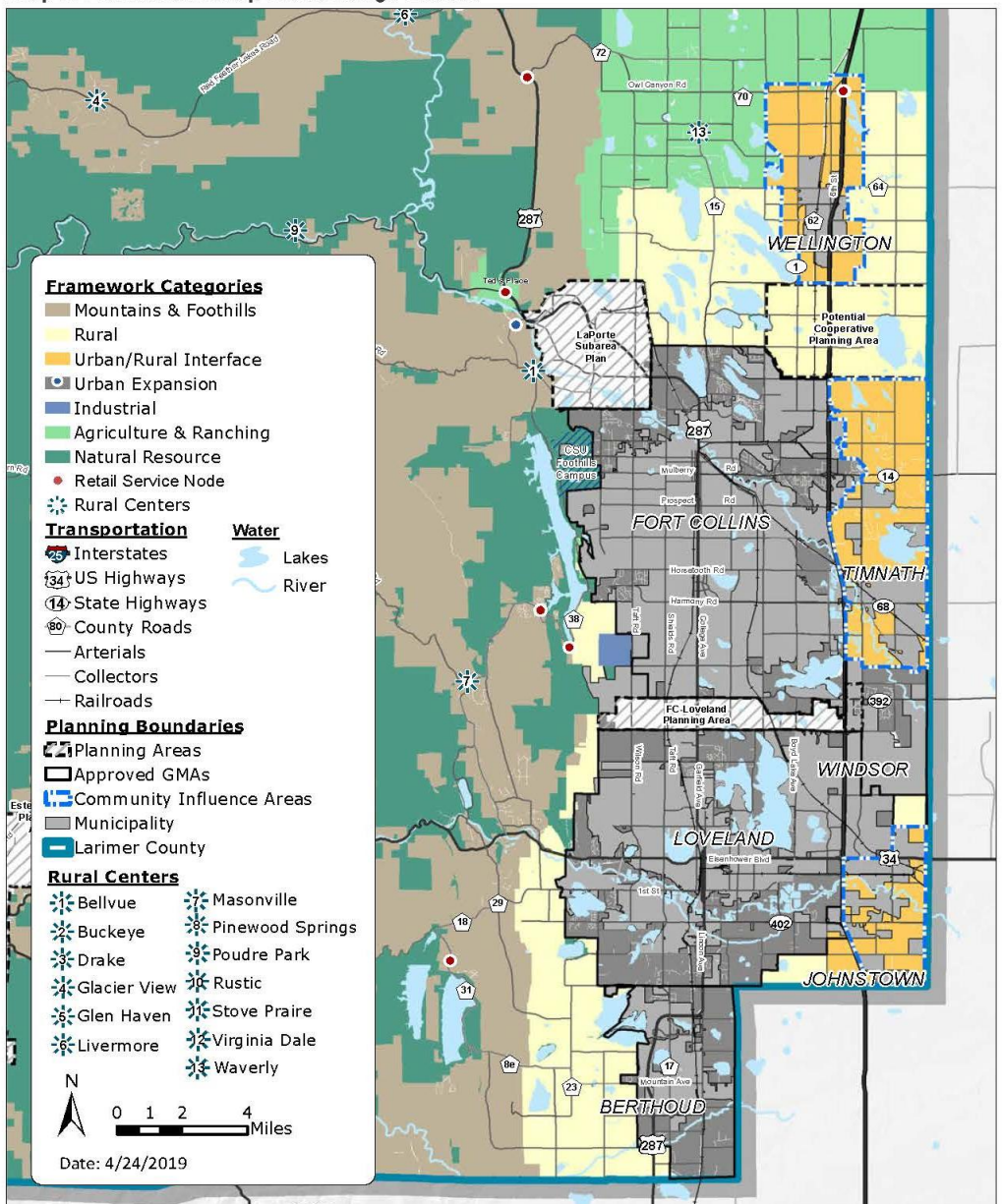
Rural Centers

- | | |
|--------------|------------------|
| Bellvue | Pinewood Springs |
| Buckeye | Poudre Park |
| Drake | Rustic |
| Glacier View | Stove Prairie |
| Glen Haven | Virginia Dale |
| Livermore | Waverly |
| Masonville | |



GROWTH MANAGEMENT AREAS

Map 7. Framework Map Front Range Extent





WATER IN LARIMER COUNTY

Water supplies	43%	Colorado River water supplies
	57%	Local water supplies
Agricultural land	47%	Decline in irrigated agricultural land between 1987 and 2020
	8% 38%	Farmland irrigated by sprinkler technology in 1987 and 2020
Water providers	124	Centralized public water systems that provide safe drinking water to residents and businesses
	385,559	People served by centralized public water systems ^[3]
	10,589	Homes reliant on groundwater wells
	47	Irrigation, ditch, and reservoir companies operating in the County that deliver non-potable (raw) water
	25-90%	Projected growth in water demands at community buildout

^[3] Population estimate may include service areas outside of Larimer County.

PROVIDER SUMMARIES (APPENDIX D)

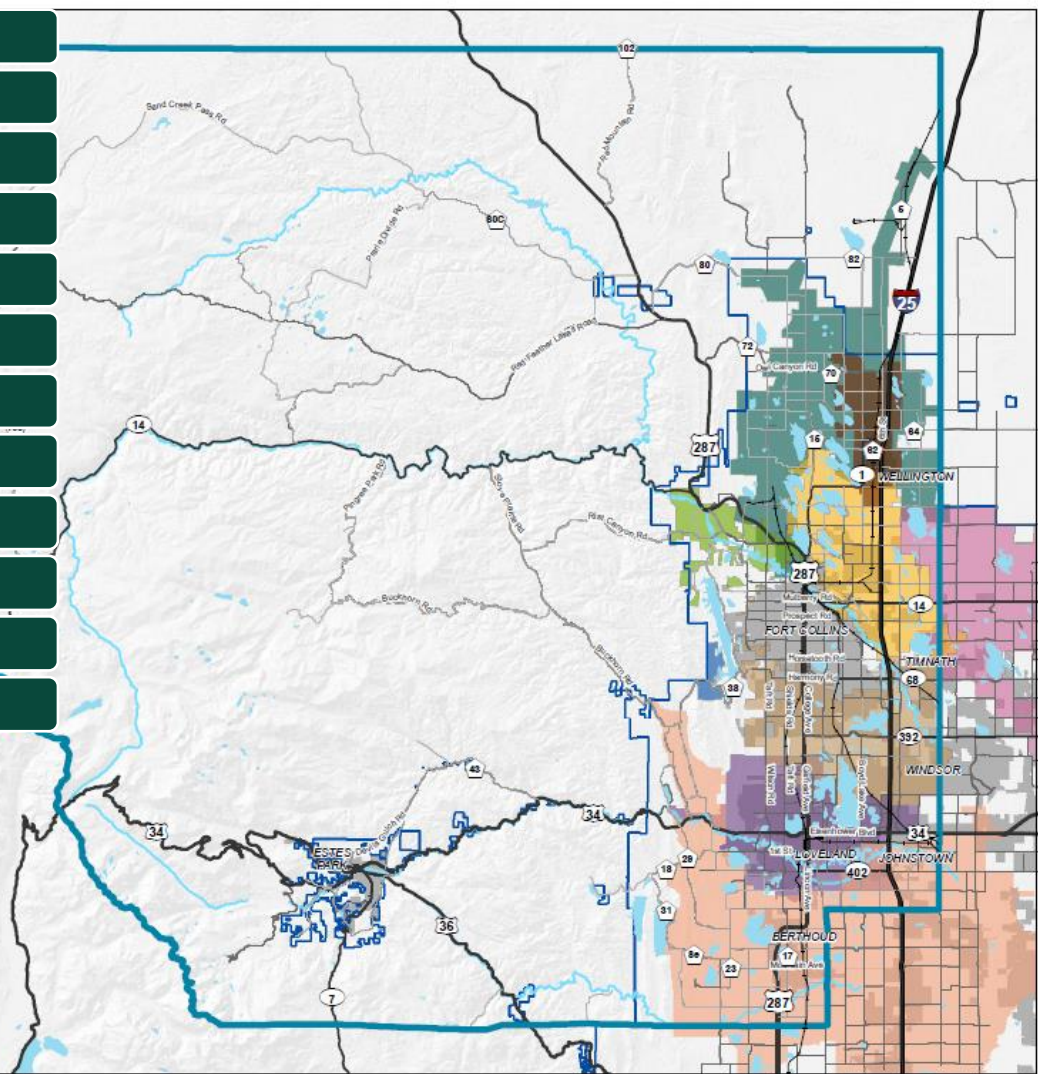
- Water service map
- Land use authorities
- Large contractual users
- Service population
- Buildout estimates
- Water supplies and yields
- Water Sales
- Notable info about water treatment, storage, and distribution
- System reliability and vulnerability
- Planned capital projects
- Links to billing rates and development fees
- Connections to the ag sector



— US Highways
 — State Highways
 — County Roads
 — Arterials
 — Major Collectors
 — Minor Collectors
 — Railroads


 LARIMER COUNTY
 COMMITTED TO EXCELLENCE

N
 0 2 4 8 Miles



WATER SYSTEM RISKS AND VULNERABILITIES

Heavy reliance on Colorado-Big Thompson water

Need for more raw water storage

Community water systems are more connected than may be apparent, creating both system resiliencies and cascading risks

Aging and insufficient infrastructure

Information and planning gaps

COUNTY-WIDE RISKS AND VULNERABILITIES

Reduced water availability and poor water quality from natural hazards

Curtailment of Colorado River water

Information gaps (e.g., non-tributary groundwater wells are generally not monitored and reported)

Development of additional water rights and diversions

Reduced water availability from climate change

Relatively low water reuse potential

Diminishing agricultural lands

Water delivery limitations by some providers

TOP WATER ISSUES IN THE REGION

1. Water is a **finite resource**, with supply susceptible to water calls
2. **Long-range water sustainability** for the region needs to be defined
3. **Adequate water supplies** are a key consideration that should be considered when evaluating development and planned growth
4. **Healthy watersheds and rivers** are of interest and important
5. **Productive agriculture lands** require water supplies
6. Water supply requirements (**volumes and costs**) vary by water service provider for new developments
7. **Housing affordability** has a nexus with water supply requirements and tap fee costs
8. **Recreation and tourism** rely on water and healthy watersheds and rivers
9. **Water exports** affect the Northern Colorado region
10. Understanding the needs of, and impacts to, under-served and **disproportionately impacted communities** is a regional water issue

PART 2 - WATER MASTER PLAN

Develop a detailed roadmap to implement actions, focusing on areas of high risk. The **Water Master Plan** will include detailed milestones to measure progress toward achieving the County's vision and goals.

Firms:

SWCA and AE2S

Timeline:

Through end of 2024

Funding:

FEMA and County



COUNTY'S ROLE AND GOALS – WHAT TO ADVANCE

1. Long range planning
2. Water sharing
3. Emergency operations
4. Data and information management
5. Public education and engagement
6. Regional convening
7. Fees and revenues to fund incentives and programs
8. Regulations (land use, building floodplain, streams)
9. Watershed risk assessment
10. Leader in water-wise County facilities
11. Legislative advocacy



REGIONAL CONVERSATIONS/ STAKEHOLDERS

Avoid duplicating work such as:

- The South Platte Basin Roundtable
- Regional StratOps
- Municipal efforts
- The “Poudre Runs Through It”



WATER RELIABILITY AND RISK APPROACH

Larimer County Water Reliability Risk Portal

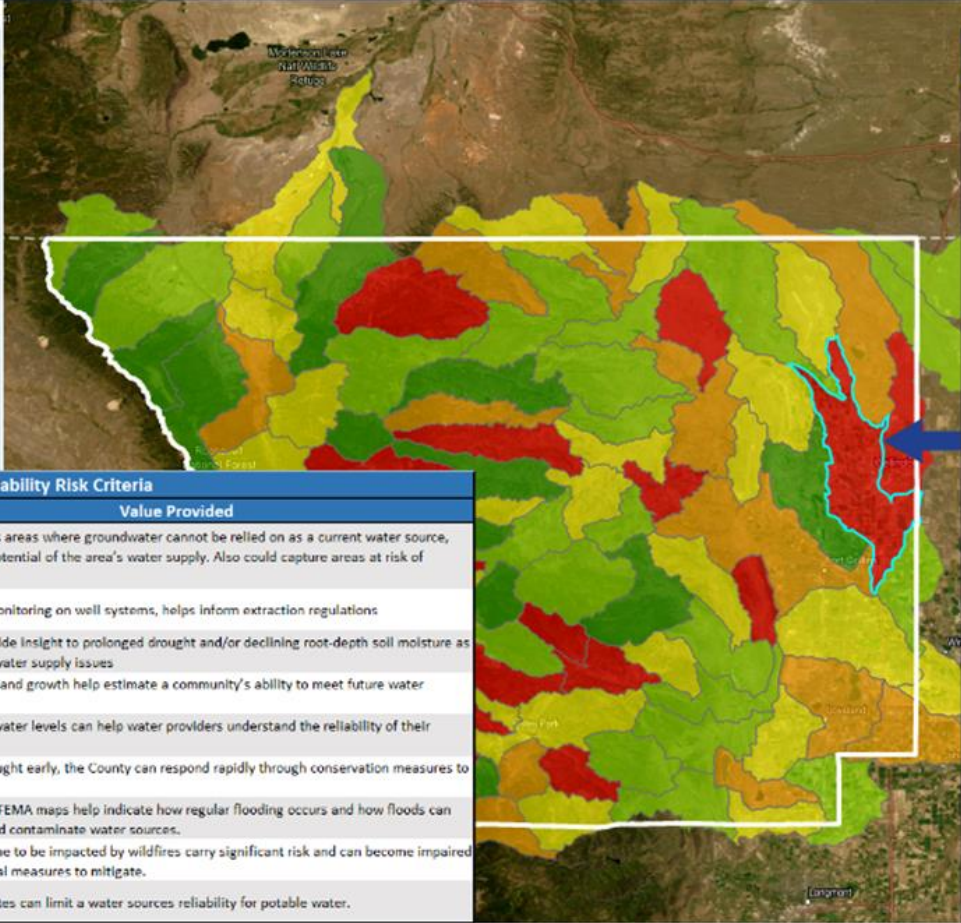
Select a template to create features

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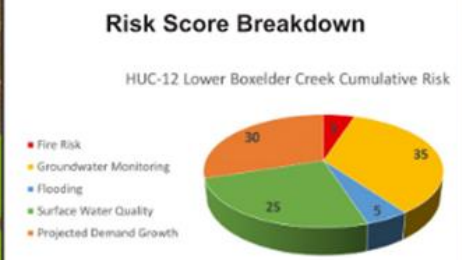
LEGEND

Watershed Water Availability Risk Level

- Extreme Risk
- High Risk
- Moderate Risk
- Low Risk
- Negligible Risk



Watershed #101900070905



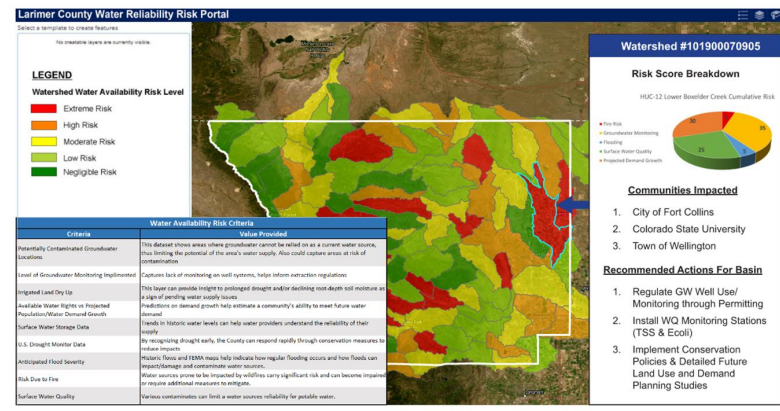
- Communities Impacted**
1. City of Fort Collins
 2. Colorado State University
 3. Town of Wellington

- Recommended Actions For Basin**
1. Regulate GW Well Use/ Monitoring through Permitting
 2. Install WQ Monitoring Stations (TSS & Ecoli)
 3. Implement Conservation Policies & Detailed Future Land Use and Demand Planning Studies

Water Availability Risk Criteria	
Criteria	Value Provided
Potentially Contaminated Groundwater Locations	This dataset shows areas where groundwater cannot be relied on as a current water source, thus limiting the potential of the area's water supply. Also could capture areas at risk of contamination
Level of Groundwater Monitoring Implemented	Captures lack of monitoring on well systems, helps inform extraction regulations
Irrigated Land Dry Up	This layer can provide insight to prolonged drought and/or declining root-depth soil moisture as a sign of pending water supply issues
Available Water Rights vs Projected Population/Water Demand Growth	Predictions on demand growth help estimate a community's ability to meet future water demand
Surface Water Storage Data	Trends in historic water levels can help water providers understand the reliability of their supply
U.S. Drought Monitor Data	By recognizing drought early, the County can respond rapidly through conservation measures to reduce impacts
Anticipated Flood Severity	Historic flows and FEMA maps help indicate how regular flooding occurs and how floods can impact/damage and contaminate water sources.
Risk Due to Fire	Water sources prone to be impacted by wildfires carry significant risk and can become impaired or require additional measures to mitigate.
Surface Water Quality	Various contaminants can limit a water sources reliability for potable water.

PLAN WORK (AND SCHEDULE)

1. Public Engagement Plan, Committee Formation (Oct '23)
2. Inventory Review and Gap Analysis (Feb '24)
3. Refined Visions and Goals (Oct / Nov '23)
4. Mapping and Analysis (May '24)
5. Identify Additional Risks and Vulnerabilities (May '24)
6. Identify Implementation Measures, Mitigation, and Other Strategies (Aug '24)
7. Compile and Complete Water Master Plan for Adoption (Dec '24 – Jan '25)
8. Update Land Use Code (Dec '24)



NEXT STEPS

**Contact me if interested in
more information about the
water master plan**

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[**larimer.gov/planning/water**](http://larimer.gov/planning/water)

JUNE 2022



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EXISTING CONDITIONS REPORT**

