

LARIMER COUNTY WATER MASTER PLAN

Larimer County Colorado

DECEMBER 2024

WATER PLAN OVERVIEW

The Larimer County Water Plan (Water Plan) is a comprehensive document developed to address the county's water resource challenges and opportunities. This plan was prompted by significant population growth and the pressing impacts of climate change, and it aims to ensure the sustainable management and health of Larimer County's watersheds.

Historically, Larimer County has experienced substantial population growth, with projections indicating a 56% increase from 2017 to 2040. This growth, combined with the effects of climate change, including more frequent droughts and severe weather events, has intensified the need for a robust water management strategy. In aligning with the County's Comprehensive Plan, Larimer County intends to address these pressures by enhancing long-term water planning in unincorporated areas, supporting agriculture through efforts to address water sustainability given the unique challenges, and promoting conservation and resilience across both natural and developed landscapes.

A water plan is crucial for the effective management and sustainability of water resources. Watersheds, defined as geographic areas that collect and channel water from precipitation to a common outlet, are central to this plan. Healthy watersheds are vital for maintaining water quality, supporting biodiversity, and mitigating the effects of natural disasters such as floods and wildfires. The Water Plan underscores the importance of preserving and enhancing watershed health to ensure a reliable water supply for all sectors—urban, rural, agricultural, and ecological.

The Water Plan is intended to guide Larimer County's strategic planning efforts related to water resources and watershed management. Not being a water provider, Larimer County intends to act as a convener and partner on topics presented through this plan. The Plan targets a diverse audience, including county officials, water service providers, agricultural stakeholders, environmental organizations, and the general public. By providing a clear framework and actionable strategies, the plan aims to foster collaboration and informed decision-making. The Water Plan will remain relevant and applicable over the coming decades, adapting to new challenges and opportunities as they arise. The Water Plan uses technical language throughout; please refer to the glossary in Section 7 for technical definitions. The Water Plan outlines:

- The purpose of a Water Plan and what the plan is (Chapter 1)
- Watershed Challenges (Chapter 2)
- Vision and Goals (Chapter 3)
- Focus Areas (Chapter 4)
- Watershed Strategies to address challenges (Chapter 5)

This plan is a proactive step towards securing a sustainable water future. By addressing key challenges, setting clear goals, and prioritizing strategic actions, the plan aims to protect and support the sustainable management of regional water resources for the benefit of everyone in the region.

- Adopted by Planning Commission on November 20, 2024
- Approved by the Board of County Commissioners on December 9, 2024

ACKNOWLEDGEMENTS

Larimer County would like to thank the following organizations and individuals for their contribution to the development of the Water Plan through their participation and feedback in stakeholder engagement events.

Board of County Commissioners

- John Kefalas
- Kristin Stephens

Planning Commission

- Patrick Rowe, Chair
- Lisa Chollet, Vice Chair
- Conor Duffy, Secretary
- Jordana Barrack
- Nick Casady
- Adam Eggleston

Water Advisory Group (WAG)

- Jordana Barrack, Planning Commission
- Gale Bernhardt, Open Lands Advisory Board
- Anna Cloud, Environmental Science Advisory Board
- Cory Dick, Coalition for the Poudre River Watershed
- Julie Dubin, Peaks to People
- Donnie Dustin, City of Fort Collins
- Wilynn Formeller, Estes Valley Watershed Coalition
- Kevin Gertig, City of Loveland
- Ellen Hilbig, Town of Johnstown

Technical Advisory Group (TAG)

- Doug Biggie, West Fort Collins Water District
- Sandra Bratlie, Fort Collins Loveland Water District
- Tom Chaffin, Northern Colorado Water Association
- Cibi Vishnu Chinnasamy, CSU One Water Solutions Institute
- Amber Graves, Specialized Individual and Morning Fresh Dairy
- Liesel Hans, Alliance for Water Efficiency
- Adam Jokerst, WestWater Research
- Chris Kurtz, Northern Colorado Water Conservancy District

- Jody Shadduck-McNally
- Shelby King
- Jon Slutsky
- Jon Weiss
- Bob Choate (through Jun. 2024)
- Anne Johnson (through Jun. 2024)
- Nicole Poncelet-Johnson, Environmental and Science Advisory Board
- Laura Quattrini, Big Thompson Watershed Coalition
- Gretchen Reuning, Larimer Conservation District
- Richard Seaworth, Specialized Individual and Seaworth Farms
- Ron Steinbach, Town of Windsor
- Zach Thode, Agricultural Advisory Board
- Pat Wells, Northern Colorado Water Conservancy District
- Bob Longworth, Pinewood Springs Water District
- Jill Oropreza, Fort Collins Utilities
- Eric Reckentine, North Weld County Water District
- Lindsay Rogers, Western Resources Advocates
- Travis Rounsaville, Flood Review Board and TriHydro Consulting
- Karen Schlatter, Colorado Water Center
- Randy Siddens, East Larimer County Water District
- Meagan Smith, Town of Wellington Water and Sewer

ACKNOWLEDGEMENTS

Larimer County Boards

- Agricultural Advisory Board
- Environmental Science Advisory Board
- Equity, Diversity, and Inclusion Advisory Board

Larimer County Staff

- Lesli Ellis, Community Planning, Infrastructure, and Resources Director
- Danielle Reimanis, Water Master Plan Coordinator
- Daylan Figgs, Natural Resource Director

Consultants

SWCA Environmental Consultants



- Open Lands Advisory Board
- Parks Advisory Board
- Eric Tracy, Senior Civil Engineer
- Josh Roberts, Mitigation Coordinator
- Jenny Axmacher, Planning Manager
- AE2S Water Engineering Consulting Firm



CONTENTS

WATER PLAN OVERVIEW	I
ACKNOWLEDGEMENTS	
CHAPTER ONE	
WHY IS LARIMER COUNTY DEVELOPING A WATER MASTER PLAN?	1
1.1 WHAT IS A WATERSHED?	
1.2 LARIMER COUNTY'S WATER SOURCES AND WATER RIGHTS	
1.3 HOW WAS THIS PLAN DEVELOPED?	
LARIMER COUNTY WATER PLAN PROCESS	
1.3.1 WHO WAS INVOLVED IN THE PLAN'S DEVELOPMENT?	
1.3.2 WHAT RESOURCES WERE USED FOR THE PLAN?	5
CHAPTER TWO	
IDENTIFYING CHALLENGES	
CHAPTER THREE	
VISION AND GOALS	8
CHAPTER FOUR	
FOCUS AREAS	
CHAPTER FIVE	
DEVELOPING STRATEGIES	
5.1 STRATEGY SUMMARY TABLE	17
5.2 DETAILS ON SELECTED PLAN STRATEGIES	
REFERENCES	v
GLOSSARY	



Chapter One

WHY IS LARIMER COUNTY DEVELOPING A WATER MASTER PLAN?

In this Chapter

What is a Watershed?

Larimer County's Water Sources and Water Rights

How was this Plan Developed?

The Larimer County Water Plan (Water Plan or plan) will support the county's goals outlined in the 2019 and 2024-2028 Strategic Plans of "improving long-term planning for water supply in unincorporated areas," to "promote water-sharing strategies to preserve agriculture and sustain water supplies," and to "support the conservation, stewardship, and resiliency of our natural and built environments" (Larimer County 2019a, 2024a). The plan will also support the county's Climate Smart Future Ready plan's strategy to "increase regional effectiveness of water use across urban, agricultural, and ecological needs" (Larimer County 2024b). This initiative, known as the Water Plan, will be a key part of Larimer County's strategy to guide decisions on water, stormwater, and the health of the county's natural water systems, including increased flows in river systems. Larimer County and community members have recognized the myriad of challenges about future water supply, drought, flooding, watershed health, and sustainability. While Larimer County is not a water provider, the county can play an important role in advancing water goals for the region and working with partners to ensure the health of our watersheds and future water supply.

Larimer County prepared this Water Plan to assist strategic planning efforts for the county's watersheds and water resources. The plan will help the county evaluate current and future water requirements in the community and set up long-term goals for sustainable water use and watershed management, which the county outlines in its 2019 Comprehensive Plan (Larimer County 2019b).

The sections in this plan highlight:

- How the county developed this plan (Section 1.3)
- Key challenges identified by stakeholders related to protecting water supplies (Section 2)
- The plan's vision and goals (Section 3)
- Focus areas that the county has prioritized for action (Section 4)
- Strategies and related actions that the county and/ or its partners intend to take to work toward water sustainability in the county (Section 5)

Because this is a countywide, regional plan, watersheds are an important component and organizing aspect of the plan and its strategies.

1.1 WHAT IS A WATERSHED?

A **watershed** is a geographic area that collects and channels water from precipitation, such as rainfall or snowmelt, into a common outlet, such as a river, lake, or ocean (Figure 1.1).



DEFINING A WATERSHED

- An area of land where all the water that falls as rain or snow drains into a common waterway.
- It acts like a natural basin, collecting and channeling water to a central point.
- Watersheds are scalable. They can be as small as ones shown in Figure 1 or they can cover larger areas such as the Cache La Poudre.



WHY DO WATERSHEDS MATTER?

- Many factors can impact watersheds, such as pollutants, natural disasters like forest fires and flooding events, the type of nearby land use, and recreation.
- Protecting the health and function of a watershed is important to have safe, reliable, and sustainable water supplies and recreational opportunities for Larimer County residents.

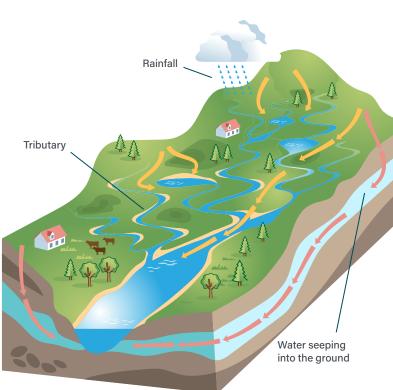


Figure 1.1 An Illustration of a Watershed.



Visit larimer.gov/planning/water for additional information and resources for water in Larimer County.

DID YOU KNOW?

In Larimer County, a lot of the water we use comes from the other side of the mountains on the Western Slope. Moving water from the Western Slope to our side of the Front Range is called transbasin diversions.

1.2 LARIMER COUNTY'S WATER SOURCES AND WATER RIGHTS

An existing conditions report (Brendle Group 2022) for water resources in the county was developed prior to the Water Plan and details the water profile in Larimer County. Water sources in Larimer County primarily come from surface water and groundwater aquifers. The demand for water generally increases as populations in the county increase. However, in some instances where land use changes from agricultural to urban, there may be a net reduction in water use. To meet water demand in Larimer County, there are many water service providers (Table 1) and eight major transbasin water diversions (Brendle Group 2022).

In Larimer County, all surface water uses and some groundwater uses are associated with a water right (Brendle Group 2022). Over time, water use in the county has shifted from mostly irrigation for agriculture to domestic water use in homes due to the increase in urbanization. Irrigated agricultural lands have declined 47% since 1987. Additionally, water rights have become more important and difficult to obtain as water resource supplies have decreased in the western United States and demand has increased (Brown et al. 2019). Tap fees have also increased, which can limit affordable housing options.

See Table 1.1 for a detailed summary of water resources and population growth in Larimer County.

Table 1.1. Water Resources and Population Growth Summary for Larimer County.

0

Metric	Description		Implication	
	56%	Population growth from 2017 to 2040.	Projections indicate that the population size in Larimer County will increase by 56%, with	
POPULATION GROWTH	96%	Percentage of population growth contributed to municipalities, compared to unincorporated areas, through 2040.	the population estimated to reach 535,756 by 2040. As population growth increases, water use is likely to increase as well.	
WATER SUPPLIES	43%	Percentage of water sourced from the Colorado River.	A lot of Larimer County's water supply comes from the Western Slope, specifically from the Colorado River. Natural hazards such as fire and drought can impact the ability to move water and can lower water supply across the county.	
AGRICULTURAL LAND	47%	Percentage decrease in irrigated agricultural lands.	As population grows in urban areas of Larimer County, agricultural lands have decreased by 47% in the past 30 years.	
WATER PROVIDERS	124	Number of water providers	As water demand increases in Larimer County, the number of water providers and	
WAIER PROVIDERS	13,090	Number of water wells	wells has increased.	

Source: Brendle Group (2022: subset of table 1)

1.3 HOW WAS THIS PLAN DEVELOPED?

The county began the process to create the Water Plan in August 2023 and completed it in December 2024. Stakeholders were involved throughout the plan's development. Water resource experts reviewed relevant water resource data and plans, performed a watershed analysis with relevant data, and developed actions to work toward water sustainability and reliability in Larimer County (Figure 1.2). The strategic planning and continued collaboration with stakeholders ensured that the plan will be relevant to the community and an effective and informed planning tool.

LARIMER COUNTY WATER PLAN PROCESS

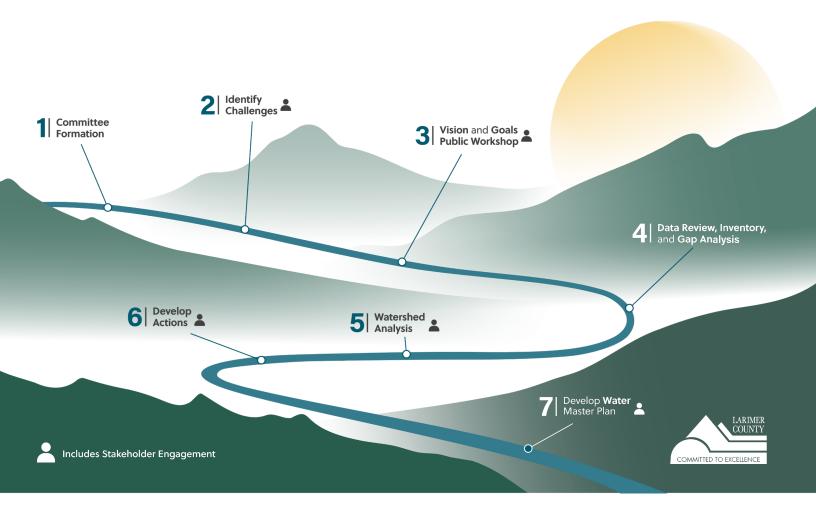


Figure 1.2. The Water Plan process

1.3.1 WHO WAS INVOLVED IN THE PLAN'S DEVELOPMENT?

Larimer County worked with the following five groups in the Water Plan process:

- 1. Technical Advisory Group (TAG)
- 2. Water Advisory Group (WAG)
- 3. Board of County Commissioners and Planning Commission
- 4. Larimer County Advisory Boards
- 5. Public



Larimer County created the TAG and the WAG to bring diverse technical knowledge and water resource experiences to the plan development process and invited individuals from water utilities and towns, water-focused nonprofit organizations, community water providers, water researchers, agriculture and irrigation practitioners, development groups, water educators, and indigenous groups to participate. The acknowledgements at the beginning of this document list the members of each group. Larimer County held several meetings with each group: four TAG meetings, three WAG meetings, four Board of County Commissioners and Planning Commission meetings, and three public meetings. These groups helped identify challenges of water supply protection (Section 2), create the vision and goals (Section 3), and identify strategies (Section 4) that the county or their partners could employ to support water sustainability and reliability in Larimer County.

1.3.2 WHAT RESOURCES WERE USED FOR THE PLAN?

In addition to the Larimer County Regional Water Existing Conditions Report (Brendle Group 2022; see Section 1.2), the county, the state of Colorado, the federal government, and county partners have extensive data sources and information to help inform the plan. Some examples of data that were used or reviewed for inclusion include Larimer County geospatial datasets and data from the Colorado Division of Water Resources, the National Drought Mitigation Center, the U.S. Geological Survey Water Quality Portal, the Federal Emergency Management Agency, the Colorado Water Conservation Board's (CWCB's) Colorado Water Plan, the City of Fort Collins, and the City of Loveland (see Appendix A, Exhibit A1). Section 2, Section 4, Appendix A, and Appendix B provide more information about the data included in this plan and how the plan uses the data to better understand water in Larimer County.



Chapter Two

IDENTIFYING CHALLENGES

In this Chapter

Key Challenges Watershed Health Factors

CHAPTER TWO

Before creating the plan's vision and goals, the county held discussions with stakeholders and the public to hear their thoughts on the biggest concerns in protecting our water supply. After gathering feedback, the TAG and the WAG, along with county staff, organized the suggestions and narrowed them down to the key challenges. Figure 2.1 shows these key challenges.



Figure 2.1. Some of the biggest challenges to protect our water supply.

To understand each of these challenges on a deeper level, the county collected and analyzed different types of data, including public information, data from partners, and internal records. For instance, for watershed health, the county examined data related to factors like high severity wildfires, water quality, and local habitats and how they affect the health of our watersheds and the cleanliness of our water supply (see Figure 2.2 for a detailed example and explanation of the role these factors play).



Wildfires destroy vegetation which helps keep soils in place. With the plants destroyed large amounts of soil can reach the river and make the water difficult or impossible to treat/clean.

WATERSHED HEALTH Protecting important

habitats and keeping water clean and safe from pollution.

Quality As water travels it can pick up dirt or pollution along the way. This eventually becomes our drinking water so it is important to do all we can to keep the water safe and clean.

Source Water

Habitat

It is important to maintain healthy and resilient forests that support clean water and to keep enough water in our rivers to protect wildlife. This allows us to enjoy these environments for recreational purposes as well. Figure 2.2. Decreasing the destructive potential of uncontrolled high severity wildfires, maintaining good water quality, and protecting local habitats all contribute to the overall health of our watersheds and promote a cleaner, more reliable water supply.

The figure here is just one example of how each key challenge is influenced by several factors that can impact water reliability. By collecting and analyzing data related to these challenges, the county and its stakeholders developed a vision and goals for the plan that address these issues. More details about the other challenges, their influencing factors, and the data used for analysis can be found in Appendix B.



Chapter Three

VISION AND GOALS

In this Chapter

Vision

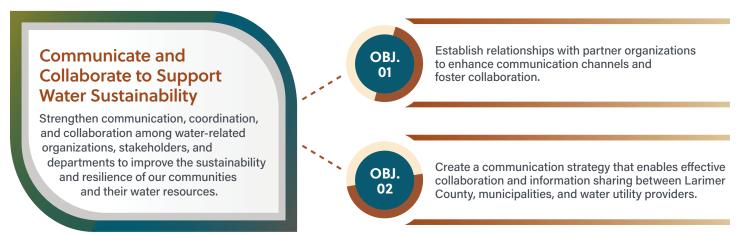
Goals

Objectives

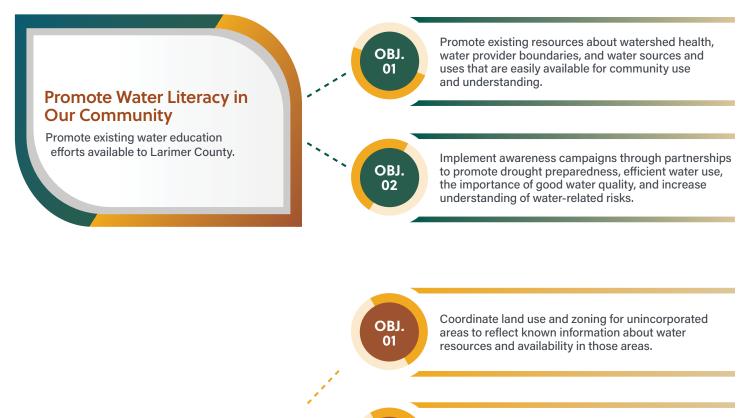
"Larimer County, guided by a commitment to stewardship, is dedicated to safeguarding local and regional water systems, aligning future land use with available water resources, and helping to build resilient communities and ecosystems equipped to address future water challenges." Larimer County developed the vision and goals for the Water Plan in consultation with the public, the TAG, the WAG, five Larimer County Advisory Boards, and various members from the Board of County Commissioners and Planning Commission. The vision and goals below show what Larimer County hopes to achieve by putting this plan into action in the future.



GOAL 2.



GOAL 3.



GOAL 4.

Align Land Use Planning with Water Resources

Develop and implement programs or policies that support sustainable growth and development while ensuring water supply reliability and adequacy. OBJ. 02 Address water affordability considerations alongside adequate water resources considerations. Implement equitable actions that address the diverse needs and challenges of different groups.

OBJ. 03 Ensure the long-term viability of agricultural water resources in Larimer County through the promotion of efficiency and conservation methods, helping to identify alternatives in 'buy and dry' situations, and aiding in the establishment of water-sharing agreements between stakeholders.

OBJ. 04 Incentivize the preservation and protection of the most agriculturally viable and ecologically important lands and water. Incentivize conservation easements and development areas to protect these lands.

OBJ. 05 Implement measures that minimize the transfer of water out of Larimer County to build local water resilience and improve instream flows.

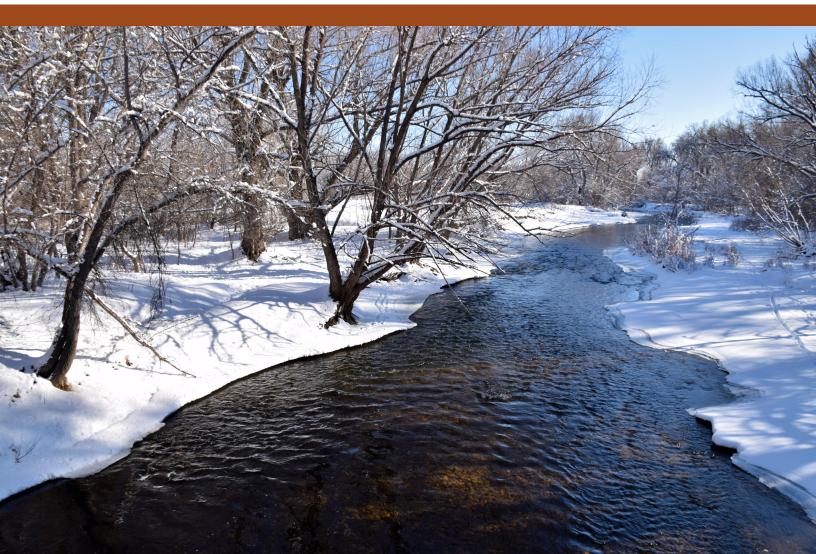
GOAL 5.

Enhance Water Efficiency and Conservation Measures

Support policies and practices that enhance water conservation and efficiency measures to ensure sustainable water supplies for the community and the natural environment. OBJ. 01 Evaluate and update Land Use Codes and policy that pertain to water use in Larimer County, aiming to improve water efficiency indoors and outdoors while prioritizing affordability and equitability. Reconcile policies and management approaches between Larimer County and local municipalities for better alignment and consistency.

OBJ. 02

Establish partnerships with key stakeholders, such as municipalities, water utilities, agriculture, and relevant community organizations to broaden the reach of water efficient programs and incentives.





Chapter Four

FOCUS AREAS

In this Chapter

Narrowed Focus

Health Scores

Prioritize Strategies

The goals of this Water Plan played a crucial role in narrowing the focus on strategies and actions for the county to take, especially since water management is a complex issue with many possible solutions. Recognizing the need to maximize the impact of its efforts, the county collaborated closely with the plan's stakeholder groups to identify geographic areas where it should focus its efforts. They used watershed boundaries to group relevant data by region and assigned scores from one to ten for each watershed based on data related to the challenges outlined in Section 2. The county identified the watersheds with the highest scores as higher priority and labeled them as Focus Areas. Figures of the Focus Areas for each of the mapped challenges are found in Exhibits B2 through B5 in Appendix B. These Focus Areas will help guide future actions and concentrate efforts where they may be needed most. Figure 4.1 provides an example of the mapping and scores for one of the Focus Area watersheds for the challenges related to Watershed Health.

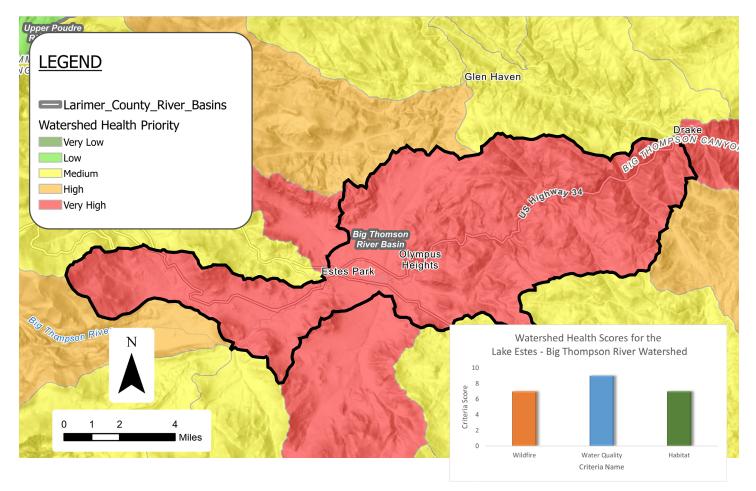


Figure 4.1. This figure shows an example watershed along the Big Thompson River selected as a Focus Area for Watershed Health. The scores given to this watershed show that all three influencing factors (high severity wildfire, water quality, and habitat) are a concern in this area. Maintaining good water quality in this watershed may be one of the biggest challenges.

Not all of the identified challenges are geographically focused. To prioritize strategies related to Water Conservation and Water Education, the county developed a collection of current resources, initiatives, and programs that other agencies are executing or are currently involved in. Having an inventory of these efforts will help the county identify partners as well as opportunities to improve its own strategies related to these topics. This information can be found in Appendix B.



Chapter Five

DEVELOPING STRATEGIES

In this Chapter

Narrowed Focus

Health Scores

Prioritize Strategies

With the key challenges carefully identified and the Focus Areas selected, Larimer County staff joined forces with members of the County Board of **Commissioners, the Planning Commission,** five Advisory Boards, the TAG, the WAG, and engaged community members to craft strategies for the plan. Guided by the Water Plan's vision, goals, and objectives, the groups' discussions naturally evolved into plans to strengthen water education, improve policies, and enhance watershed health through strong, communitydriven partnerships.

5.1 STRATEGY SUMMARY TABLE

Ten key strategies emerged from the stakeholder discussions. These strategies represent the most effective ways Larimer County can achieve this plan's goals by focusing on areas where it has the most influence and authority. Table 5.1 summarizes these clear, actionable strategies and outlines how each will help to achieve the plan's goals. Section 5.2 provides further details about each strategy and associated county actions. Appendix C provides the full list of strategies that were considered throughout plan development.

Table 5.1. Summary Table of Water Plan Strategies

Strategy	County Actions	Associated Goals	Timeframe
1. Integrate Water Plan Strategies and Actions into Related County Plans Update existing Larimer County plans to include relevant actions and goals from the Water Plan.	 Update the Comprehensive Plan and reassess other existing plans to determine if policies, codes, required buffers, and setbacks are in line with Water Plan goals. 	Goal 1: Objectives 2 & 3 Goal 2: Objectives 1 & 2 Goal 4: Objectives 1 & 4 Goal 5: Objectives 1 & 2	1-5 Years
2. Support Fuel Reduction Outcomes Identify funding opportunities and help support fuel reduction activities that remove dry plants and other flammable materials to slow high severity wildfires when aligned with watershed health goals.	 Work with partners to support fuel reduction efforts for both private and public lands. Identify funding and labor assistance for fuel reduction projects. Support effective mitigation treatment, including partner efforts on prescribed fires. 	Goal 1: Objectives 1 & 2 Goal 2: Objective 1	Ongoing
3. Support Watershed Health Outcomes Increase support to entities working in Larimer County that aim to improve the ecological health of forests and watersheds.	 Identify funding sources and mechanisms that could be used to help local practitioners enhance their current efforts. Share information about the benefits of partner events and projects. Support partner efforts to protect instream flows for river and habitat health. 	Goal 1: Objectives 1 & 2 Goal 2: Objective 1	Ongoing
4. Water Security Improve and clarify the process for the county to determine whether developments will have adequate and secure water into the future.	e Goal 2: Ob Goal 4: 0		1-2 Years
5. Protecting Water Supplies Show a unified commitment to protect local water supplies through partnerships, policies, and actions.	 Clarify concerns, limitations, and the county's role in protecting local water supplies. Draft public statement with partners to protect Northern Colorado water supplies. Explore ways to keep water tied to the land. Encourage water providers to pursue diverse and resilient water supply portfolios. 	Goal 2: Objective 1 Goal 4: Objective 5	1-2 Years

Strategy	County Actions	Associated Goals	Timeframe
6. Improve Water Efficiency and Conservation Update Land Use and Building Codes to enhance water conservation in new community developments and protect water resources.	 Align zoning with water provider service areas. Improve water efficiency through updated landscaping and building codes. Support partner incentive programs for removing nonfunctional turf from existing developments. 	Goal 4: Objectives 1 & 4 Goal 5: Objectives 1 & 2	1-6 Years
7. Protecting Water to Promote a Viable Agricultural Economy Improve public education and policies to maintain a viable agricultural economy that is connected with regional water.	 Bring rural and suburban communities together to improve relationships between residents. Work with farmers to improve irrigation water conservation. Explore tools to keep water tied to agricultural land. 	Goal 2: Objective 1 Goal 3: Objective 2 Goal 4: Objectives 1, 3 & 4	3-10 Years
8. Growing Water Smart Seek out opportunities for the county and their partners to learn about and apply best practices for water efficiency and conservation while planning for community growth.	 Follow through on the actions identified in the 2024 Water Smart Workshop. Consider participating in future years to advance strategies related to watershed health and coordinate with relevant partners. Host educational opportunities in-house, with additional partners. 	Goal 4: Objectives 1-5 Goal 5: Objectives 1 & 2	3-10 Years
9. Public Education & Resource Clearinghouse Identify and support programs and ideas to improve public water education and create a helpful resource center for residents on the county website.	 Expand water education through field trips, conservation projects, and information about where water comes from. Support existing, successful education programs. Develop an interactive map showing which water providers serve each area of the county, while also sharing water-saving tips and helpful information for new residents on the county website. 	Goal 2: Objective 2 Goal 3: Objectives 1 & 2 Goal 5: Objective 2	1-2 Years
10. Address Water Quality and Water Efficiency in Disproportionately Impacted Communities Identify opportunities to address disproportionately impacted communities through education and water efficiency programs.	 Support educational opportunities and system upgrades (such as water loss control, proactive leak detection, and improved water measurement/metering upgrades) when possible. Promote programs that offer free or discounted indoor fixture replacements to help lower water bills for residents and increase efficiency. 	Goal 2: Objective 1 Goal 4: Objective 2 Goal 5: Objective 1	3-10 Years

Combined, these strategies address every goal and objective of the water plan (Figure 5.1) and will allow the county to fulfill the plan's vision while operating within its realm of influence.

CHAPTER FIVE

Figure 5.1. Together, the 10 strategies that the county selected for this plan address every goal and objective that the county, with the help of stakeholders, set. Achieving each goal will help fulfill the plan's vision of protecting water supplies, aligning land use with resources, and building resilient communities for future water challenges.

GOAL 1.

Minimize the threat to watersheds from hazards (i.e., floods, severe wildfires)

Strategic Actions

1) Integrating the Water Plan into Existing Larimer County Plans

- 2) Support Fuel Reduction Outcomes
- 4) Water Security
- 5) Protecting Water Supplies

GOAL 2.

Communicate and Collaborate to Support Water Sustainability

Strategic Actions

- 1) Integrating the Water Plan into Existing Larimer County Plans
- 2) Support Fuel Reduction Outcomes
- 3) Support to Watershed Health Outcomes
- 4) Water Security
- 5) Protecting Water Supplies
- 7) Protecting Water To Promote a Viable Agricultural Economy
- 9) Public Education & Resource Clearinghouse
- 10) Address Water Efficiency in Disproportionately Impacted Communities

GOAL 3.



Strategic Actions

7) Protecting Water To Promote a Viable Agricultural Economy9) Public Education & Resource Clearinghouse

GOAL 4.

Align Land Use Planning with Water Resources

Strategic Actions

- 1) Integrating the Water Plan into Existing Larimer County Plans
- 4) Water Security
- 5) Protecting Water Supplies
- 6) Improve Water Efficiency and Conservation
- 7) Protecting Water To Promote A Viable Agricultural Economy
- 8) Growing Water Smart
- 10) Address Water Efficiency in Disproportionately Impacted Communities

GOAL 5.

Enhance Water Efficiency and Conservation Measures

Strategic Actions

- 1) Integrating the Water Plan into Existing Larimer County Plans
- 6) Improve Water Efficiency and Conservation
- 8) Growing Water Smart
- 9) Public Education & Resource Clearinghouse
- 10) Address Water Efficiency in Disproportionately Impacted Communities



The county is deeply committed to protecting one of our most precious resources: water. From the rivers and lakes that shape our landscape to the water flowing in our homes, every drop is valued. By promoting conservation, keeping our watersheds healthy, and partnering with local communities, the county will play a part in ensuring that future generations can enjoy clean, abundant water and healthy watersheds and ecosystems. This commitment is rooted in the belief that water is not just a utility but a shared resource that connects us all, and caring for it means caring for the health and well-being of every resident and the environment we call home.

5.2 Details on Selected Plan Strategies

THE FOLLOWING CUTSHEETS PROVIDE ADDITIONAL DETAIL ABOUT EACH STRATEGY AND ASSOCIATED COUNTY ACTIONS.

MITIGATION STRATEGY 1: Integrate Water Plan Strategies and Actions into Related County Plans

LARIMER COUNTY WATER PLAN

Strategy Tags: #SupplyAndDemandPlanning #ChangesInLandUse #PlanAdoption

) COUNTY ROLE: Lead

Opportunity Identified:

The Water Plan will become an element of the Larimer County's Comprehensive Plan, which is updated at least every ten years. It's crucial to integrate Water Plan outcomes into county-wide planning, policies, and decisions across all departments. This ensures water sustainability is embedded in our guiding documents.

Actions Identified:

- Ensure Water Master Plan goals are integrated into the
 Comprehensive Plan update and other relevant County plans.
- Determine staffing resources required for updates.
- Align the zoning map with water provider service areas and locations of secure water availability, paying attention to zoning types and locations with high demand uncertainty.
- Conduct a comprehensive review of current plans and codes, and assess current policy to identify specific areas for improvement around water efficiency and watershed health.
- Use the Comprehensive Plan update to reassess and determine





STRATEGY LOGISTICS

Key Department(s)

Larimer County Department: Community Development

Staff Commitment

- Time to support grant writing processes
- Time and resources for thorough public engagement
- Time to manage consultant contracts

Potential County Funding Mechanisms:

Community Development Budget and Grant Funding

if setbacks and buffer requirements are appropriate to protect watershed and agricultural health, and explore how adjacent land uses might affect water quality.

Why It's Important:

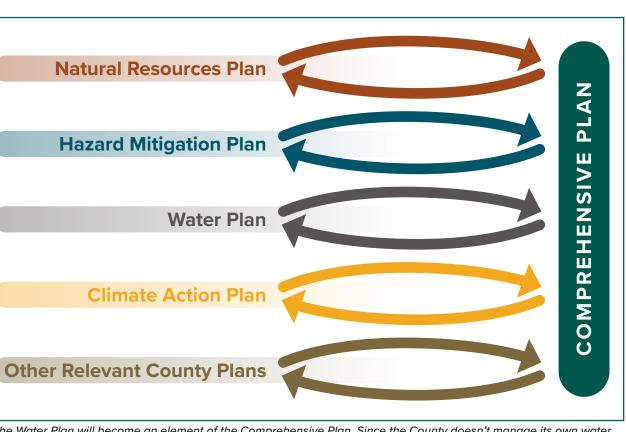
Aligning priorities is important for clear decision-making and smart use of resources. When all departments understand water resource goals, it helps avoid conflicting policies or projects that could harm sustainable water use. It also encourages better teamwork between departments and water providers, making sure water needs are a key part of planning decisions.

Desired Lasting Impact:

- Have water embedded in every level of planning.
- Become more resilient to climate change, improve water conservation, and protect watersheds.

Where Could the Efforts Be Focused?

Updating and integrating the water plan into existing County plans and codes will benefit the entire county.



The Water Plan will become an element of the Comprehensive Plan. Since the County doesn't manage its own water utility, it's important to figure out how the strategies from the Water Plan can work within existing plans and systems to ensure its success.

🔊) POTENTIAL PARTNERS

- Primarily an Internal County-Led Effort with Input from the Public
- Larimer County Municipalities & Water Providers
- Other Water Entities, Practitioners and Stakeholders

SUM	MARY
Level of Total Investment	$\bullet \bullet \circ \circ \circ$
Total Cost (\$)	$\bullet \circ \circ \circ \circ \circ$
Staffing Requirements	$\bullet \bullet \circ \circ \circ$
Lasting Value	$\bullet \bullet \bullet \bullet \bigcirc$
Partnership Opportunities	$\bullet \bullet \bullet \circ \circ$
Plan Goals Addressed	Goal 1: Obj 2, Obj 3 Goal 2: Obj 1, Obj 2 Goal 4: Obj 1, Obj 4 Goal 5: Obj 1, Obj 2



ADDITIONAL FUNDING OPPORTUNITIES

CWCB (Colorado Water Conservation Board)

<u>cwcb.colorado.gov/funding/grants</u>

DOLA (Department of Local Affairs)

- dlg.colorado.gov/climate-resilience-challenge
- <u>dlg.colorado.gov/community-development-block-</u> <u>grant-cdbg</u>

BOR (Bureau of Reclamation)

<u>usbr.gov/watersmart/index.html</u>

MITIGATION STRATEGY 2: **Support Fuel Reduction Outcomes**

space.

Why It's Important:

Desired Lasting Impact:

Improved forest and watershed health

contribute to fuel reduction efforts.

Reduced frequency and severity of wildfires.

LARIMER COUNTY WATER PLAN

Strategy Tags: #WatershedHealth #Wildfire

COUNTY ROLE: Lead and/or Partner

Opportunity Identified:

While it is known that forest fires naturally occur and can be beneficial for forest ecology and health, uncontrolled and extreme fires are hazardous for nearby communities as they can have detrimental effects on water quality, supply, and flooding. Many organizations work to reduce fuels in vulnerable locations. The County seeks to selectively support and add value as appropriate to these organizations to improve coordination, funding, and documentation to boost the effectiveness of these efforts.

Actions Identified:

- Support effective mitigation treatment, including partner efforts on prescribed fires.
- Support grant writing and reporting efforts.
- Consider providing financial and labor resources to support projects involving mechanical and hand crew forest restoration treatments, recognizing that this would require significant additional resources.
- Partner with State and Federal Agencies to facilitate mitigation treatment.





STRATEGY LOGISTICS

Key Department(s)

Larimer County Department: Office of Emergency Management, Dept. of Natural Resources, Larimer County Sheriff's office

Staff Commitment

- Time to coordinate with other entities •
- Time to support grant writing process •
- Potentially additional hires to execute projects •

Potential County Funding Mechanisms:

County General Fund, Department Funds, and Grant Funds

SUMMARY Level of Total Investment Total Cost (\$) Staffing Requirements Lasting Value Partnership Opportunities Goal 1: Obj 1, Obj 2 Plan Goals Addressed Goal 2: Obj 1

Explore the possibility of supporting mitigation treatment for

homes, or providing resources to ensure residents have access

Fuel reduction removes flammable materials like dry vegetation, slowing

wildfire spread and intensity, making fires easier to manage and less

destructive. Better coordination between organizations will make fuel

reduction efforts more impactful and use resources more efficiently.

Better coordination and data sharing between groups who

The County will aim to support partner efforts in areas that pose the greatest threat to people, homes, and water supplies in the event of a wildfire. The Big Thompson Watershed is highlighted on the map as an area of higher

Where Could the Efforts Be Focused?

to information on the home ignition zones and creating defensible

POTENTIAL PARTNERS

USFS United States Forest Service

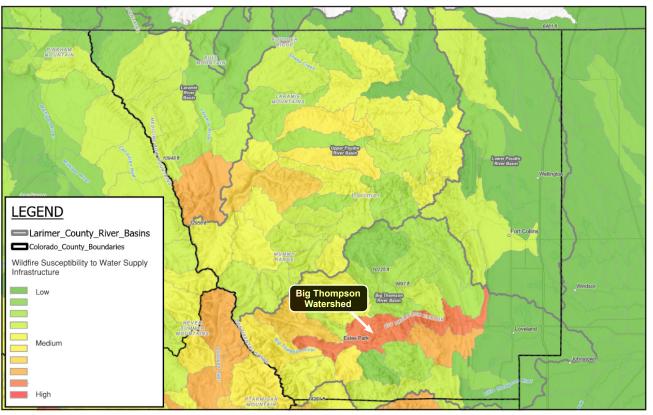
CSFS Colorado State Forest Service

CFRI Colorado Forest Restoration Institute

LCD Larimer Conservation District

CPRW Coalition for the Poudre River Watershed

BTWC Big Thompson Watershed Coalition



BTWHP Big Thompson Watershed Health Partnership

EVWC Estes Valley Watershed Coalition

WRV Wildlands Restoration Volunteers

LCCC Larimer County Conservation Corps

Fire Districts

LCSOES Larimer County Sheriffs Office

LC Municipalities and providers



The map above shows CWCB data highlighting watersheds where wildfires have a higher potential to affect the water supply.



ADDITIONAL FUNDING OPPORTUNITIES

- **CODNR/CWCB** (Colorado Department of Natural **Resources/Coloardo Water Conservation Board)**
- cwcb.colorado.gov/funding/grants

FEMA (Federal Emergency Management Agency)

• fema.gov/grants

DOLA (Department of Local Affairs)

dlg.colorado.gov/climate-resilience-challenge

Additional Partnering with CFRI (Colorado Forest **Restoration Service**)

cfri.colostate.edu/projects/wildfire-risk-reduction-grantprogram/

USFS (U.S. Forest Service)

fs.usda.gov/working-with-us/grants

CSFS (Colorado State Forest Service)

csfs.colostate.edu/grants

MITIGATION STRATEGY 3: Support to Watershed Health Outcomes

COUNTY ROLE: Partner

Opportunity Identified:

Larimer County's watershed health groups monitor water quality, restore ecosystems, educate communities, and advocate for protective policies. The County aims to boost their efforts. This strategy will be closely coordinated with the Support Fuel Reduction Outcomes strategy.

Actions Identified:

- Partner and coordinate on projects with local watershed practitioners and other agencies for both public and private lands.
- Identify potential funding sources.
- With funding sources identified, consider a fund for small grants for watershed practitioners that might grow into a larger fund for urgent needs and innovative projects as funding is available.
- Help watershed practitioners amplify event messaging, if desired, through communication support, ensuring broad audience reach, and visibility.
- Support efforts to protect instream flows and collaborate with



Key Department(s)

Larimer County Department: TBD

STRATEGY LOGISTICS

Staff Commitment

- Time to support grant writing processes
- Time for Finance Department to create a new fund
- Time to support educations efforts

Potential County Funding Mechanisms:

Various County Budgets and Grant Funding

SUM	MARY
Level of Total Investment	$\bullet \bullet \bullet \circ \circ$
Total Cost (\$)	$\bullet \bullet \bullet \bullet \bigcirc$
Staffing Requirements	$\bullet \bullet \bullet \circ \circ$
Lasting Value	
Partnership Opportunities	$\bullet \bullet \bullet \bullet \bigcirc$
Plan Goals Addressed	Goal 1: Obj 1, Obj 2 Goal 2: Obj 1

entities in Larimer County to enhance the ecological health of rivers, forests, and watersheds.

Why It's Important:

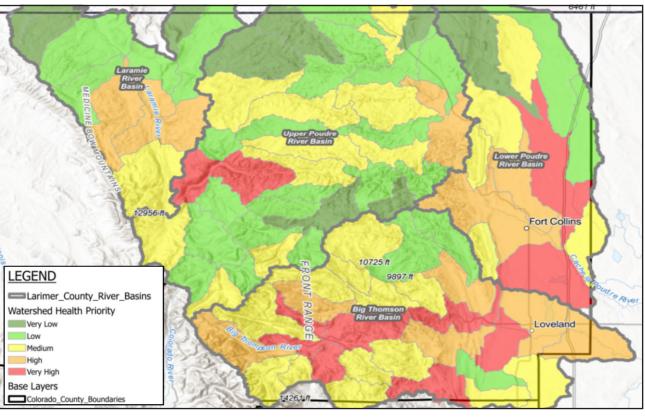
Healthy watersheds provide clean drinking water, support ecosystems, promote reduction of harmful erosion, and reduce the risk of flooding. They also filter pollutants, protecting water quality for humans and wildlife.

Desired Lasting Impact:

- Improved forest and watershed health.
- Ability to complete more projects to protect the County's watersheds.
- Increased audience reach and impact for education initiatives led by watershed practitioners in the County.

Where Could the Efforts Be Focused?

County resources will support projects and programs that address the needs of each watershed group and align with the County's watershed health priorities as well as the goals of the water plan.



The map above shows the priority related to challenges in watershed health (higher priority areas in orange and red). Projects in these watersheds will be prioritized when in line with County and watershed group goals.

🔊) POTENTIAL PARTNERS

NCWCD Northern Colorado Water Conservancy District

City of Fort Collins

City of Loveland

LCD Larimer Conservation District

CPRW

Coalition for the Poudre River Watershed **BTWC** Big Thompson Watershed Coalition

BTWHP Big Thompson Watershed Health Partnership

EVWC Estes Valley Watershed Coalition

The Nature Conservancy

Peaks to People

LARIMER COUNTY WATER PLAN

Strategy Tags: #WatershedHealth #Wildfire

#WaterQuality #Habitat



ADDITIONAL FUNDING OPPORTUNITIES

CWCB (Colorado Water Conservation Board)

<u>cwcb.colorado.gov/funding/grants</u>

FEMA (Federal Emergency Management Agency)

• <u>fema.gov/grants</u>

DOLA (Department of Local Affairs)

dlg.colorado.gov/climate-resilience-challenge

BOR (Bureau of Reclamation)

• usbr.gov/watersmart/index.html

USFS (U.S. Forest Service)

• <u>fs.usda.gov/working-with-us/grants</u>

CSFS (Colorado State Forest Service)

<u>csfs.colostate.edu/grants</u>

MITIGATION STRATEGY 4: Water Security

COUNTY ROLE: Lead

Opportunity Identified:

The County reviews water adequacy letters from the water provider for new developments to ensure proposed developments have secure water into the future. Due to the multiple water providers who operate in Larimer County, there is little consistency between what information is provided in the letters submitted. Feedback highlighted opportunities to improve water adequacy verification and ensure consistency between providers.

Actions Identified:

- Create consistency between water providers in the information provided to the County during the development review process.
- Involve water provider stakeholders in future zoning discussions. This could be through individual meetings or through a collaborative group.
- Identify approved but unbuilt projects affected by current water • moratoriums and collaborate with providers to address the issue.
- Start conversation with research institutions like the United States Geological Survey and Colorado State University on



Key Department(s)

STRATEGY LOGISTICS

Larimer County Department: Community Development

Staff Commitment

- Create consistency between water providers in the information provided to the County during the development review process.
- Time to host more stakeholder meetings for changes in zoning.

Potential County Funding Mechanisms:

Community Development Budget (No Significant Funding Required)

groundwater supply mapping and analysis.

Why It's Important:

Water adequacy letters confirm that there is enough water for new developments, preventing strain on local resources and ensuring access without impacting existing users. Coordinating with water providers on changes to zoning is crucial to ensure adequate water for future developments.

Desired Lasting Impact:

- Better aligned land use plans with water needs
- Improved coordination with water providers related to zoning changes.
- Alignment with state statutes around water adequacy requirements.

Where Could the Efforts Be Focused?

This strategy will focus on unincorporated Larimer County, with emphasis on areas where Commercial, Industrial, and Rural Residential zoning makes future water use harder to predict.

ZONING DISTRICTS "LUC2020" NR, NATURAL RESOURCES FO, FORESTRY A, AGRICULTURE A AGRICULTURE
 O, OPEN
 RR1, RURAL RESIDENTIAL
 RR2, RURAL RESIDENTIAL
 UR1, URBAN RESIDENTIAL
 UR2, URBAN RESIDENTIAL UR3, URBAN RESIDENTIAL IR, INTERFACE RESIDENTIA MR. MULTIFAMILY RESIDENTIA MR, NUCLIPANILI RESIDENTIAL MHP, MANUFACTURED HOME PARK ACE, AGRICULTURAL COMMERCIAL RC, RURAL COMMERCIAL CD, COMMERCIAL DESTINATION CN. COMMERCIAL NEIGHBORHOOD CC. COMMERCIAL CORRIDOR IL, INDUSTRIAL LIGHT IH, INDUSTRIAL HEAVY AP, AIRPORT PD, PLANNED DEVELOPMENT RPD, RURAL PLANNED DEVELOPME CF. COMMUNITY FACILITIES MU N, MIXED USE NEIGHBORHOOD MU C, MIXED USE COMMERCIAL 100 YEAR FLOOD ZONES ROAD FUNCTION CLASS State Hwys/Inte
 Arterial Road
 Major Collector
 Minor Collector - Rocky Mountan Na Incorporated Areas Berthoud Estes Park Fort Collins Johnstown Loveland Under Growth Manager tation & Renaming of Past Z April 2021

LEGEND

The map above shows the Larimer County Zoning Map (2021). Some land use types in undeveloped areas (such as Commercial, Industrial, and Rural Residential) can make it difficult for water providers to predict how much water they will use in the future.

POTENTIAL PARTNERS

Larimer County Water Providers

USGS U.S. Geological Survey

CSU

Colorado State University

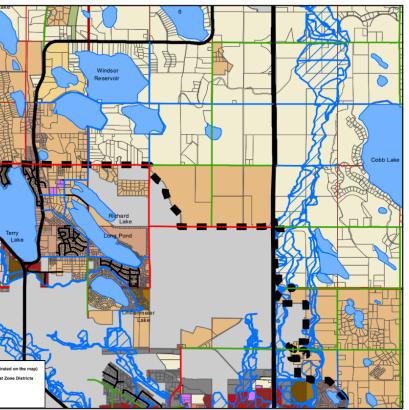




LARIMER COUNTY WATER PLAN

Strategy Tags: #SupplyAndDemandPlanning #LandUse





ADDITIONAL FUNDING OPPORTUNITIES

CWCB (Colorado Water Conservation Board)

cwcb.colorado.gov/funding/grants

DOLA (Department of Local Affairs)

- dlg.colorado.gov/climate-resilience-challenge
- dlg.colorado.gov/community-development-blockgrant-cdbg

BOR (Bureau of Reclamation)

usbr.gov/watersmart/index.html

MITIGATION STRATEGY 5: Protecting Water Supplies

LARIMER COUNTY WATER PLAN

Strategy Tags: #SupplyAndDemandPlanning #WaterRights #WaterExports

COUNTY ROLE: Lead/Partner

Opportunity Identified:

As communities grow, so does the need for water. Stakeholder discussions stressed the importance of uniting to protect local water supplies from export. Recognizing many County residents rely on imported water, and no one can control the water market, the County still aims to work together through agreements and public statements to make their desires to safeguard local resources known.

Actions Identified:

- Draft a statement with regional input to protect Northern Colorado water supplies.
- Educate the public on reservoir project benefits, challenges, and review process to foster informed discussions.
- Explore funding opportunities through grants or legislative means to help protect local water supplies.
- Explore ways to permanently preserve existing land use and



tools to keep water tied to the land - considering several ways to discourage dry up covenants.

- Encourage water providers in their pursuit of diverse and resilient water supply portfolios.
- Consider opportunities for the County to facilitate for stakeholders to meet regularly to discuss water supply topics.

Why It's Important:

Showing our unified commitment and desire to protect local water supplies helps our residents and outside entities understand our concerns and our limitations when it comes to water rights law. The County and its residents need adequate water in the region for agriculture, healthy environments and river systems, and for livable communities.

Desired Lasting Impact:

- Greater public and external awareness of the County's commitment to local water protection and the County's role in water supply projects.
- Enhanced unity among providers and County entities in safeguarding water resources.

Where Could the Efforts Be Focused?

This strategy will focus on coordinating with Larimer County water providers, Countywide public education, and discussions with agricultural landowners.



STRATEGY LOGISTICS

Key Department(s)

Larimer County Department: TBD (Natural Resources and other County departments)

Staff Commitment

Time to coordinate with water providers and partners

Potential County Funding Mechanisms:

No Significant Funding Required

SUM	MARY
Level of Total Investment	$\bullet \bullet \bullet \circ \circ$
Total Cost (\$)	$\bullet \circ \circ \circ \circ$
Staffing Requirements	$\bullet \bullet \bullet \circ \circ$
Lasting Value	$\bullet \bullet \bullet \circ \circ$
Partnership Opportunities	$\bullet \bullet \bullet \circ \circ$
Plan Goals Addressed	Goal 2: Obj 1 Goal 4: Obj 5

😭) POTENTIAL PARTNERS

NCWCD

Northern Colorado Water Conservancy District

Other Larimer County Water Providers

Various Stakeholders with Ties to the Agricultural Community





Additional Funding Unlikely Outside of Local Partners

MITIGATION STRATEGY 6: Improve Water Efficiency and Conservation

Strategy Tags: #WaterConservation #WaterRights #Agriculture # WatershedHealth #Habitat

COUNTY ROLE: Lead

Opportunity Identified:

Discussions revealed opportunities to update the County's Land Use and Building Codes to enhance water efficiency in new developments and to explore opportunities to encourage water efficient landscaping in existing developments.

Actions Identified:

- Update the Land Use Code to improve water efficiency in landscaping in new developments and ensure conformance with State requirements.
- Update the Building Codes to improve water efficiency in water fixtures and appliances. Work with Health and Environment to explore the possibility of allowing gray-water systems.

TIMEFRAME: 1-6 Years

 Look to implement, support, and connect residents to turf replacement and water-wise incentive programs.

Why It's Important:

Setting rules for efficient water use helps ensure a steady water supply, reduces environmental impact, and supports long-term management of water resources.

Desired Lasting Impact:

- Water resources that support rivers, wetlands and associated riparian habitats, and agricultural lands will be protected, maintained, and enhanced.
- Future developments will use less water.
- Existing developments will use less water.
- Larimer County becomes a leader in responsible water use.

Where Could the Efforts Be Focused?

This strategy will focus on unincorporated areas slated for future development and areas where water efficiency could be improved in existing developments.





STRATEGY LOGISTICS

Key Department(s)

Larimer County Department: Community Development

Staff Commitment

- Time to coordinate with municipalities
- Time to research best practices

Potential County Funding Mechanisms:

Grant Funded with potential matching help from departments above

SUM	MARY
Level of Total Investment	$\bullet \bullet \bullet \bullet \bigcirc$
Total Cost (\$)	$\bullet \bullet \bullet \circ \circ$
Staffing Requirements	$\bullet \bullet \circ \circ \circ \circ$
Lasting Value	
Partnership Opportunities	
Plan Goals Addressed	Goal 4: Obj 1, Obj 4 Goal 5: Obj 1, Obj 2

POTENTIAL PARTNERS

Neighboring Municipalities & Water Providers

Resource Central

NCWCD Northern Colorado Water Conservancy District

LARIMER COUNTY WATER PLAN





ADDITIONAL FUNDING OPPORTUNITIES

CWCB (Colorado Water Conservation Board)

cwcb.colorado.gov/funding/grants

DOLA (Department of Local Affairs)

- dlg.colorado.gov/climate-resilience-challenge
- dlg.colorado.gov/community-development-blockgrant-cdbg

BOR (Bureau of Reclamation)

usbr.gov/watersmart/index.html

MITIGATION STRATEGY 7: **Protecting Water To Promote Viable Agricultural Economy**

LARIMER COUNTY WATER PLAN

Strategy Tags: #ProtectingAgriculture #WaterConservation #WaterEfficiency

COUNTY ROLE: Lead

Opportunity Identified:

Opportunities were identified to create and improve education materials for communities in close proximity to agriculture to understand daily needs and processes for farmers. This coupled with other efforts could help residents understand the benefits of keeping water rights tied to the land they supply.

Actions Identified:

- Work with Larimer County Extension and other partners to educate urban users and foster informative discussions on agriculture operations, water use, and daily needs/ processes to promote mutual understanding and collaboration.
- Explore several tools to tie water to land. Maintaining viability of the agricultural economy.
- Work with farmers to increase water conservation while



addressing limitations associated with water rights.

Identify actions or strategies to help ditch companies improve infrastructure to reduce water loss and improve efficiency.

Why It's Important:

Strengthening relationships between suburban and agricultural communities reduces inconveniences for both sides. This effort could help protect Larimer County's agricultural heritage and economy by improving the likelihood of keeping the water tied to agricultural land.

Desired Lasting Impact:

- Stronger relationships between urban and agricultural communities.
- Fewer disruptions to farming operations.
- Improved viability of the County's agricultural economy through a higher likelihood of keeping water tied to agricultural land.

Where Could the Efforts Be Focused?

This strategy will focus on areas where urban development is in close proximity to agricultural areas throughout the County.



STRATEGY LOGISTICS

Key Department(s)

Larimer County Department: TBD

Staff Commitment

- Time to develop and implement education campaign
- Time to network among stakeholders to ensure attendance at discussions and meetings
- Time to work on implications and desires of stakeholders to develop districts

Potential County Funding Mechanisms:

Grant Funded

SUM	MARY
Level of Total Investment	$\bullet \bullet \bullet \bullet \bigcirc$
Total Cost (\$)	$\bullet \bullet \bullet \circ \circ$
Staffing Requirements	$\bullet \bullet \bullet \circ \circ$
Lasting Value	$\bullet \bullet \bullet \bullet \bigcirc \bigcirc$
Partnership Opportunities	••000
Plan Goals Addressed	Goal 2: Obj 1 Goal 3: Obj 2 Goal 4: Obj 1, 3 & 4

POTENTIAL PARTNERS

LCD Larimer Conservation District

NRCS Natural Resources Conservation Service

CSU Extension Colorado State University Extension

Colorado Water Trust

Colorado Open Lands

Other relevant municipalities and stakeholders



This photo illustrates how farmers may face pressures from urban expansion including traffic and nearby development. It also shows how natural buffers are one possible tool that can be used to help reduce some of those pressures.

ADDITIONAL FUNDING OPPORTUNITIES

USDA (United States Department of Agriculture)

usda.gov/topics/farming/grants-and-loans

CWCB (Colorado Water Conservation Board)

cwcb.colorado.gov/funding/grants

DOLA (Department of Local Affairs)

- dlg.colorado.gov/climate-resilience-challenge
- dlg.colorado.gov/community-development-blockgrant-cdbg

BOR (Bureau of Reclamation)

usbr.gov/watersmart/index.html

NRCS (Natural Resources Conservation Service)

nrcs.usda.gov/programs-initiatives/cig-conservationinnovation-grants

MITIGATION STRATEGY 8: Growing Water Smart

LARIMER COUNTY WATER PLAN

Strategy Tags: #WaterConservation #WaterEfficiency #SupplyAndDemandPlanning

■) COUNTY ROLE: Lead

Opportunity Identified:

Larimer County was invited to participate in the growing water smart workshop beginning fall of 2024.

Actions Identified:

- Follow through on the actions identified in the 2024 workshop and continue the conversation to help rural and urbanizing communities integrate water and land use planning to better ensure their sustainability and resilience.
- Explore the possibility of attending the workshop again in the future to advance strategies related to watershed health and convene relevant partners.
- Follow-up on the grant opportunities identified in the 2024 workshop.
- Utilize grant funding and Strategic Plan funding to ensure internal capacity to implement the Water Plan.



Why It's Important:

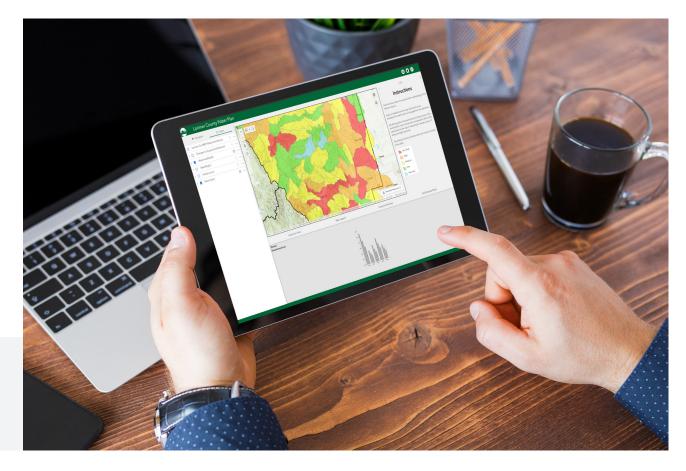
This workhop will help the County learn more about best practices for water management and conservation as our communities continue to grow.

Desired Lasting Impact:

- Growing water-smart will help the County and its residents use water wisely, reduce waste, protect resources, ensure supply, lower costs, and support ecosystems for long-term sustainability.
- Potential to attend the workshop again to advance strategies related to watershed health and continue the conversation with additional partners.

Where Could the Efforts Be Focused?

This strategy will educate County staff on practices, programs, and projects that could benefit the entire County as its communities continue to expand and require more water.



() STRATEGY LOGISTICS

Key Department(s)

Larimer County Department: Community Development

Staff Commitment

- Time to attend workshop
- Time to coordinate with neighboring communities on workshop and initiatives that may come out of it.

Potential County Funding Mechanisms:

No Significant Funding Required

SUM	MARY
Level of Total Investment	$\bullet \bullet \circ \circ \circ \circ$
Total Cost (\$)	$\bullet \circ \circ \circ \circ \circ$
Staffing Requirements	$\bullet \bullet \bullet \circ \circ$
Lasting Value	$\bullet \bullet \bullet \bullet \bigcirc$
Partnership Opportunities	$\bullet \bullet \bullet \circ \circ$
Plan Goals Addressed	Goal 4: Obj 1-5 Goal 5: Obj 1 & 2

🔊) POTENTIAL PARTNERS

NCWCD Northern Colorado Water Conservancy District

Municipalities in Unincorporated Larimer County





ADDITIONAL FUNDING OPPORTUNITIES

No Funding Needed for Workshop. Funding for Follow-up Activities Could Include:

CWCB (Colorado Water Conservation Board)

<u>cwcb.colorado.gov/funding/grants</u>

DOLA (Department of Local Affairs)

- dlg.colorado.gov/climate-resilience-challenge
- dlg.colorado.gov/community-development-blockgrant-cdbg

BOR (Bureau of Reclamation)

usbr.gov/watersmart/index.html

MITIGATION STRATEGY 9: Public Education & Resource Clearinghouse

Strategy Tags: #Education #PublicEducation #Resources

COUNTY ROLE: Lead and/or Partner

Opportunity Identified:

Stakeholder discussions helped the County identify programs and internal initiatives to enhance public water education and provide a resource hub for residents - partnered with Colorado Water Center water education series.

Actions Identified:

EDUCATION:

- Identify staffing resources.
- Help expand water education on sources, rights, and conservation. Share educational resources on the links between wildfire and water management, and conservation campaign materials.
- Explore supporting Project WET (Water Education Today) and other education efforts.

TIMEFRAME: 1-2 Years

Consider continuing Water Education Series.

Consider engaging in the Regional Water Messaging Initiative facilitated by Northern Colorado Water Conservancy District.

RESOURCE CLEARINGHOUSE:

- Create an interactive map of water provider service areas.
- Guide the public to local water conservation resources.
- Offer information for newcomers on the County website.

Why It's Important:

The public has a huge part to play in protecting our water. Education for children and adults leads to better decisions and more passionate and informed communities.

Desired Lasting Impact:

- Better-informed decisions and engagement.
- Increased passion for protecting water and the environment among people of all ages.
- Stronger partnerships with water education organizations.

Where Could the Efforts Be Focused?

This strategy will benefit the entire County but could also concentrate education efforts on identified focus areas based on the topic and need.





STRATEGY LOGISTICS

Key Department(s)

Larimer County Department: TBD

Staff Commitment

- Time to support networking with schools
- Time to develop resources and website hub •
- Potenetial time for GIS staff to develop portal •

Potential County Funding Mechanisms:

County Budget Matched with Grant Funding

SUM	MARY
Level of Total Investment	$\bullet \bullet \bullet \circ \circ$
Total Cost (\$)	$\bullet \bullet \circ \circ \circ$
Staffing Requirements	$\bullet \bullet \bullet \circ \circ$
Lasting Value	$\bullet \bullet \bullet \circ \circ$
Partnership Opportunities	
Plan Goals Addressed	Goal 2: Obj 2 Goal 3: Obj 1 & 2 Goal 5: Obj 2

POTENTIAL PARTNERS

CWC Colorado Water Center (Project WET)

CSU Colorado State University

NCWCD Northern Colorado Water Conservancy District

Resource Central

WEC

Water Education Colorado

Local Water Providers

LARIMER COUNTY WATER PLAN





CWCB (Colorado Water Conservation Board)

cwcb.colorado.gov/funding/grants

MITIGATION STRATEGY 10: Address Water Quality and Efficiency in Disproportionately Impacted Communities

COUNTY ROLE: Partner

Opportunity Identified:

Although the County has limited authority over water infrastructure in under-served communities, it will still promote water efficiency upgrades to lower resident water bills and support infrastructure projects when possible.

Actions Identified:

- Collaborate on efforts in incorporated areas and help to coordinate initiatives in unincorporated Larimer County.
- Promote existing programs to offer discounted or free water fixture upgrades to reduce resident water bills.
- Promote and support existing free water quality testing programs.
- Consider promoting water loss control and leak detection for vulnerable communities.



lev In Tot Rec Las Pa Ор P Addressed Goal 5: Obj 1

LARIMER COUNTY WATER PLAN

Strategy Tags: #Infrastructure #MobileHomeParks #DisproportionatelyImpactedCommunities

Why It's Important:

Many vulnerable communities rely on outdated water infrastructure that can leak and raise water bills. In some communities, these systems are privately owned and not managed by water providers, making maintenance difficult. It's important to help reduce the financial burden of the residents anyway possible.

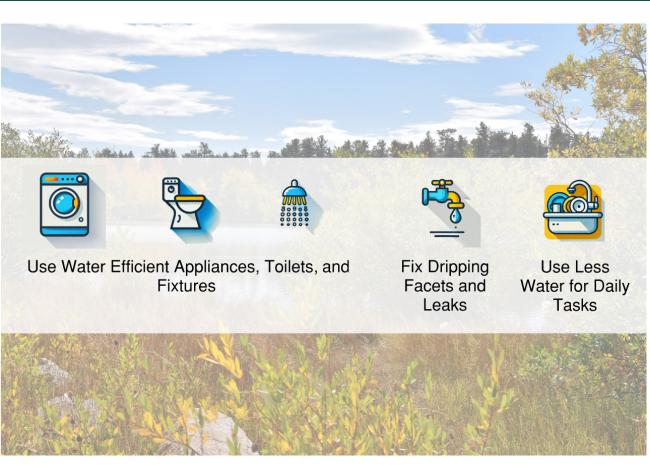
Desired Lasting Impact:

- Some reduction in water bills for park residents through water efficiency practices.
- Stronger partnerships to address the needs of these communities.

Where Could the Efforts Be Focused?

This strategy will target areas identified as vulnerable by the EPA's Enviroscreen database.





STRATEGY LOGISTICS

Key Department(s)

Larimer County Department: TBD

Staff Commitment

- Time to promote and educate residents on efficiency programs
- Time to coordinate with water providers as opportunities to support arise

Potential County Funding Mechanisms:

No Significant Funding Required

SUM	MARY
vel of Total ivestment	$\bullet \bullet \bullet \circ \circ$
tal Cost (\$)	$\bullet \bullet \circ \circ \circ \circ$
Staffing quirements	$\bullet \bullet \circ \circ \circ \circ$
sting Value	$\bullet \bullet \bullet \circ \circ$
artnership portunities	
lan Goals	Goal 2: Obj 1 Goal 4: Obj 2

POTENTIAL PARTNERS

CWC Colorado Water Center

NCWCD Northern Colorado Water Conservancy District

Local Water Providers

Housing Advocacy Groups

DOLA

Department of Local Affairs

CDPHE

Colorado Department of Public Health & Environment





ADDITIONAL FUNDING OPPORTUNITIES

CDPHE (Colorado Department of Public Health & Environment)

cwcb.colorado.gov/funding/grants

DOLA (Department of Local Affairs)

dlg.colorado.gov/climate-resilience-challenge

CWCB (Colorado Water Conservation Board)

cwcb.colorado.gov/funding/grants

REFERENCES

Brendle Group. 2022. *Larimer County Regional Water Existing Conditions Report*. Available at: <u>https://www.larimer.gov/</u> sites/default/files/uploads/2022/larimer_county_water_existing_conditions_report_final_1_6-6-2022.pdf</u>. Accessed August 2024.

Brown, T.C., Mahat, V. and J.A. Ramirez. 2019. Adaptation to Future Water Shortages in the United States Caused by Population Growth and Climate Change. *Earth's Future*, 7:219–234. Available at: <u>https://agupubs.onlinelibrary.wiley.com/</u> doi/epdf/10.1029/2018EF001091. Accessed September 2024.

Colorado Water Conservation Board (CWCB). 2023. *The Colorado Water Plan*. Available at: <u>https://www.cwcb.colorado.gov/colorado-water-plan</u>. Accessed October 28, 2024.

Larimer County. 2019a. *Larimer County Strategic Plan 2019-2023*. Available at: <u>https://www.larimer.gov/performance-budget-and-strategy/2019-23strategicplan</u>. Accessed August 2024.

Larimer County. 2019b. *Larimer County Comprehensive Plan 2019*. Available at: <u>https://www.larimer.gov/sites/default/files/</u>uploads/2019/larimercountycomprehensiveplan2019_vol1_0.pdf. Accessed September 2024.

Larimer County. 2024a. *Larimer County Strategic Plan 2024-2028*. Available at: <u>https://www.larimer.gov/performance-</u> budget-and-strategy/strategicplan/2024-2028. Accessed September 2024.

Larimer County. 2024b. *Climate Smart Future Ready Plan*. Available at: <u>https://www.larimer.gov/sustainability/climate-</u> smart-future-ready. Accessed September 2024.

Larimer County. 2024c. Water in Larimer County. Available at: https://www.larimer.gov/planning/water. Accessed August 23, 2024.

GLOSSARY

ADMINISTRATIVE CALL – A legal mechanism or process requiring water right holders to release or curtail their water withdrawals from a common source, usually to satisfy the needs of higher priority users or to comply with regulatory mandates.

CURTAILMENT – The reduction or limitation of water allocations to users due to shortages in a river's flow. It is typically implemented during times of drought or when the available water supply cannot meet the demands of all users. Curtailment measures may involve reducing water allocations to agricultural, industrial, or municipal users.

DITCHES AND CANALS – These elements of water infrastructure are artificial channels for water transport in water resource management. Ditches are narrow, often shallow trenches used for irrigation or drainage, while canals are larger waterways for conveying water over longer distances and across diverse terrain, serving purposes like irrigation, flood control, and urban water supply. In Northern Colorado, these tend to end up in some sort of water storage (i.e., reservoir) and are often managed by ditch companies.

DITCH COMPANY – An organization or entity responsible for managing and maintaining a network of ditches used for irrigation or drainage purposes. Landowners who rely on the ditches for supplying water to their fields or managing excess water typically form these companies. Ditch companies often oversee the construction, operation, and maintenance of the ditches, as well as the allocation of water shares among their members.

ECOLOGICAL CONDITIONS – The overall health, structure, and functioning of ecosystems, including factors such as biodiversity, habitat quality, species populations, and ecosystem services.

FLOODS – An overflow of water onto normally land, caused by heavy rainfall, rapid snowmelt, or the breaching of natural or artificial barriers such as levees or dams.

HIGHEST-PRODUCING LANDS – Agricultural lands or regions with high productivity and output in terms of crop yields, livestock production, or other agricultural activities, often supported by favorable climate, soil fertility, water availability, and management practices.

IMPAIRED WATERS – Bodies of water, such as rivers, lakes, and estuaries, that do not meet established water quality standards due to pollution, contaminants, or other factors, posing risks to human health and aquatic ecosystems.

HIGH SEVERITY WILDFIRES – Wildfires characterized by their rapid spread, high intensity, and significant ecological and socioeconomic impacts, often fueled by dry vegetation, hot temperatures, and strong winds.

MITIGATION STRATEGIES – Measures and actions aimed at reducing or preventing the adverse impacts of natural or human-induced hazards and disasters, such as floods, droughts, high severity wildfires, and climate change, through planning, preparedness, and risk reduction efforts. In the Water Plan context, these strategies will lessen water-related vulnerabilities.

RESILIENT – The capacity of a system, community, or ecosystem to withstand and recover from disturbances, shocks, or stresses while maintaining its essential functions and structures.

GLOSSARY

RIPARIAN AREAS – Ecologically significant zones adjacent to rivers, streams, and other waterbodies, characterized by unique vegetation, habitats, and wildlife, playing crucial roles in flood control, water quality maintenance, and biodiversity conservation.

STEWARDSHIP – The responsible and sustainable management and care of natural resources, ecosystems, and cultural heritage, with the goal of ensuring their preservation and protection for future generations.

SUSTAINABILITY – Using resources in a way that meets our needs today without hurting the ability of future generations to meet their own needs.

TRANSBASIN/TRANSMOUNTAIN DIVERSION – The legal transportation of water from one river basin to another river basin, generally across mountain ranges.

WATER ADEQUACY – The sufficiency of available water resources to meet the needs of various sectors, such as agriculture, industry, households, and the environment, without causing significant depletion or degradation.

WATER CONSERVATION – The deliberate and sustainable management of water resources to reduce consumption, minimize waste, and preserve natural ecosystems, often through the implementation of efficiency measures, regulations, and behavioral changes.

WATER EFFICIENCY – The optimization of water use to minimize waste and maximize productivity, often achieved through the adoption of technologies, practices, and policies that reduce water consumption and losses.

WATER LITERACY – The understanding and knowledge of water-related issues, including water availability, quality, conservation, and management practices, among individuals, communities, and decision-makers.

WATER PROVIDER – An entity or organization responsible for supplying and distributing water to consumers, including households, businesses, industries, and agricultural operations, often through public utilities or private companies.

WATER RIGHT – Legal entitlement or permission granted to an individual, organization, or entity to use a specific quantity of water from a water source for a defined purpose, typically regulated by government authorities.

WATERSHED – A geographical area defined by the natural flow of water, such as rivers, streams, and tributaries, where all surface water drains into a single point, typically a larger body of water like a lake or ocean.