



Larimer County Justice Center

VOLUME II APPENDICES

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APPENDIX A: GLOSSARY OF TERMS



*Viestenz-Smith Mountain Park.
Photo: Larimer County*

A. GLOSSARY OF TERMS

ACCESS/EGRESS: Points of entrance and exit from subdivisions and communities. These access and egress points prevent a population from being isolated from outside support in the event of a natural disaster.

ACCESSORY DWELLING UNIT: Finished habitable space in a single-family dwelling or in a detached building that is clearly accessory to the single-family dwelling on the lot. Accessory living area may contain a complete dwelling unit.

ADEQUATE PUBLIC FACILITIES: Facilities and services (including water and sewer systems, fire protection and roads) that are available and have the capacity to serve new development without reducing levels of service below established minimum standards.

AFFORDABLE HOUSING: Subsidized or deed-restricted housing built with federal funding and designed to be affordable for specific income levels (usually 40% or 60% of the area median income). See also Attainable Housing.

ALTERNATIVE TRANSPORTATION: Any and all transportation types other than the automobile. Alternative modes of transportation include bicycles, buses, car pools, van pools, pedestrians, and passenger railroads.

ASSET MANAGEMENT SYSTEM: A tool that would allow or accurate monitoring and tracking of county infrastructure through a systematic process of deploying, operating, maintaining, upgrading, and disposing of assets cost-effectively.

ATTAINABLE HOUSING: Decent and safe housing that is within the means of the local workforce in terms of condition, size, and price, regardless of whether or not the property is restricted by income level (see Affordable Housing). Housing is generally considered attainable when its cost does not exceed 30% of the household's gross income.

BROADBAND: The Federal Communications Commission defines broadband as internet connection speeds of at least 25 Mbps downstream and 3 Mbps upstream.

BROADBAND SERVICE: The provision, on either a commercial or non-commercial basis, of data transmission technology that provides two-way data transmission to and from the Internet with advertised speeds of at least 768 kilobits per second (kbps) downstream and greater than 200 kbps upstream to end users, or providing sufficient capacity in a middle mile project to support the provision of broadband service to end-users within the project area.

BUILDING CODE: A set of rules that specify standards for construction of buildings and are in effect for all permits.

BUILDING ENVELOPE: Areas within the boundaries of a lot within which all buildings on the lot must be placed.

BUSINESS RETENTION/CREATION PROGRAM: Focuses on the support of existing businesses through ongoing engagement and communication between the County and local businesses, and fostering high value, low impact employment creation in mountain communities.

CAPITAL EXPANSION FEES (CEFS): Fees paid by new development for the impact of that development on public facilities; also known as impact fees or exactions.

CAPITAL FACILITIES: Land and structures used by the public including fire stations, parks, and schools; also called public facilities.

CAPITAL IMPROVEMENT PROGRAM/PLAN: A schedule and budget for future capital improvements (building or acquisition projects) for roads, utilities and other capital facilities, to be carried out over a specific time period.

CENTRALIZED WASTEWATER SYSTEM: A publicly-owned, centralized sewage collection and treatment system.

CLUSTER DEVELOPMENT: A development design which concentrates buildings on portion or portions of the site to leave the remainder undeveloped and used for agriculture, open space and/or natural resource protection.

COMMERCIAL MINERAL RESOURCES: Areas delineated as "F1" and "T1" deposits, pursuant to 34-1-302(1) C.R.S., on the Aggregate Resource Maps, Schwochow et al., Colorado Geological Survey, 1974.

COMMUNITY FRAGILITY: An evaluation of unmet needs and a community's connectedness, stability and sustainability used to outline key actions for municipalities and strengthen systems overall to prepare for the next disaster.

COMMUNITY HUBS: An initiative by Larimer Connects that create community-led and operated hubs that serve informational purposes, provide community members access to resources, and provide a location for members and organizations to better connect and collaborate.

COMMUNITY INFLUENCE AREA (CIA): An area designated in an Intergovernmental Agreement within which County development applications will be sent to the adjacent municipality for comment and review.

COMMUNITY SEWER SYSTEM: A sewage system that collects sewage from more than one parcel or lot and provides treatment at a centralized location and is not owned by a sanitation district or municipality.

COMMUNITY WILDFIRE PROTECTION PLANS: A resource and tool that allows local communities to influence where and how federal agencies implement fuel reduction projects on federal and non-federal lands in the Wildland-Urban Interface.

COMPREHENSIVE PLAN: A document adopted by the Planning Commission to provide policy direction on the physical development of the County (also referred to as Master Plan).

CONCURRENCY: Adequate public facilities are available when the impacts of development occur.

CONSERVATION EASEMENT: A legal agreement between a landowners and a land trust or government agency that permanently limits uses of the land to protect its conservation values. The conditions of the land are monitored to ensure adherence to the terms of the conservation easement and to conserve the land in perpetuity.

COOPERATIVE PLANNING AREAS: An area beyond a municipality's immediate urban planning area (Urban Growth Area or Growth Management Area) where urban land development is not appropriate within the municipal plan's time frame but where development may have an impact on present and future municipal growth patterns. CPAs will be defined in Intergovernmental Agreements and development standards in these areas will be based on jointly developed plans.

CULTURAL RESOURCE: A site or structure which is part of the area's cultural heritage; that is, which typifies a particular stage of human activity in the area. Cultural resources include archaeological sites, historic buildings and sites, and undisturbed natural sites that have historic or prehistoric associations including those with paleontological (fossil) specimens.

DEFENSIBLE SPACE: An area where material capable of allowing a fire to spread unchecked has been treated, cleared, or modified to slow the rate and intensity of an advancing wildfire and create an area for fire suppression operations.

DENSITY BONUS: An increase in allowable density used as an incentive to a developer to benefit the community and/or maximize the protection of open space, water quality, or air quality.

DENSITY: The number of housing units per unit of land, i.e. per acre.

DESIGN STANDARDS/CRITERIA: A standard contained in a land use regulation which relates to design of a subdivision, site plan or structure.

DESIGN WITH NATURE: Development that incorporates natural factors and processes into its design to create benefits for communities and natural systems.

DEVELOPMENT POTENTIAL: A determination of how an area of land can be developed through analyzing physical attributes, carrying capacity for a specific land use, and potential market demand.

DEVELOPMENT REVIEW PROCESS: Larimer County has a variety of review processes used to evaluate development applications in the unincorporated area of the County outlined in the Land Use Code i.e. a pre-application conference, sketch plan review, neighborhood referral and meeting, general development plan, and public hearings by the Planning Commission and Board of County Commissioners.

DEVELOPMENT RIGHT: The right to develop property. This right may be purchased, or transferred under a Transferable Density Units program.

DEVELOPMENT STANDARDS: Standards or criteria that are applied to development based on its use, location, or other considerations.

DISASTER: Any natural catastrophe (including, but not limited to, any tornado, storm, high water, wind-driven water, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or, regardless of cause, any fire, flood or explosion in any part of Larimer County, which in the determination of the Larimer County Board of County Commissioners causes damage of sufficient severity and magnitude to warrant assistance through a re-build program to alleviate the damage, loss, hardship, or suffering caused thereby.

ENTITLEMENTS: Legal rights conveyed by approvals from governmental entities to develop a property for a certain use, intensity, building type, or building placement.

ESSENTIAL QUESTIONS: Set of questions used to authentically work toward achieving the County's overall vision.

NON-CONFORMING USES: Uses that do not comply with the existing zoning, but legally existed prior to the adoption, revision or amendment of the Land Use Code.

FEE-IN-LIEU: A fee paid instead of making a land dedication, capital improvement or other requirement, and equivalent to that requirement. An

example is a fee-in-lieu of a school site dedication as part of a subdivision approval.

FEMACOMMUNITYRATINGSYSTEMPROGRAM (CRS): A program that provides a variety of resources to improve flood mitigation and reduce risk to properties and residents. It scores communities on a scale from one to ten for their level of preparedness and mitigation measures implemented, and recognizes community efforts that go beyond the minimum standards of the National Flood Insurance Program (NFIP) through reducing flood insurance premiums for property owners.

FIRE/WILDLAND-URBAN INTERFACE (WUI) CODE: Land Use Code provisions that advance fire and life safety for the public, as well as property protection through a comprehensive approach to wildfire regulation and hazard management.

FLOODPLAIN ACQUISITION PROGRAM: Strategy that utilizes available funds, which could include open space funds where it matches Open Land Master Plan goals, to acquire properties or conservation easements/covenants to prevent future development on properties that are located in high hazard risk areas.

FLOODPLAIN: The channel and relatively flat area adjoining the channel of a natural stream or river that has been or may be covered by water during times of flood.

FLOODWAY: The channel of a river or other water course and the adjacent land areas that must be reserved in order to discharge the based flood without cumulatively increasing the water surface elevation by more than 0.5 foot.

FUEL MANAGEMENT AND REDUCTION PROGRAM: Focuses on providing resources and incentives that encourage private landowners to maintain their properties in a manner that reduces fire hazards.

FUTURE LAND USE PLAN: Guides the location, intensity, and design of development by identifying future growth opportunities and constraints, and providing future land use categories that include information such as density/size, primary and secondary uses, and design principles.

GROWTH MANAGEMENT: A system of land use regulations designed to influence the location, timing, and character of development, instead of controlling the amount or rate of growth.

GROWTH MANAGEMENT AREA: An area adjacent to a city or town and identified for future urban development according to a community plan in an

Intergovernmental Agreement with the County. Also known as Urban Growth Area.

HAZARD AREA: All areas that are or may become hazardous due to environmental conditions, including but not limited to wildfire; avalanche; landslide; rock fall; mud flow and debris fan; unstable or potentially-unstable slopes; seismic effects; radioactivity; ground subsidence; and expansive soil and rock.

- **Severe Hazard Areas:** Flood Way (FW) zoning districts as adopted on official zoning maps; areas classified as 5, 6, or 7 on the official Geologic Hazards Maps adopted by the Board of County Commissioners; slopes greater than 30 percent.
- **Moderate Hazard Areas:** Flood Fringe (FF) zoning districts as adopted on official zoning maps; areas classified as 3 or 4 on the official Geologic Hazards Maps adopted by the Board of County Commissioners; slopes 20 - 30 percent, dam breach areas.
- **Constraint Areas:** Areas of expansive soil and rock, radon areas.

HEALTH SERVICES: Include any number of health-related facilities, services, and organizations providing support to the medical profession and patients.

HOUSING COST BURDEN: Monthly housing costs as a percentage of household income over the past 12 months either as rent or mortgage payments. Housing costs equal to or greater than 30% of a household's income is considered to be a cost burden.

IMPACT: The potential direct or indirect effects of a proposed development on activities, utilities, traffic, surrounding land uses, the environment and other factors.

IMPACT FEES: (See capital expansion fees)

IMPLEMENTATION STRATEGIES: A plan of action intended to accomplish a specific principle.

INTENSITY: The level of concentration of non-residential land uses or activities occurring within an area.

INTERGOVERNMENTAL AGREEMENT (IGA): A contractual agreement between the County and another governmental entity. IGAs with municipalities are the County's primary means of achieving coordinated planning for the areas adjacent to city limits. The agreements define appropriate future urban areas and establish standards and

procedures for development in these areas. They may also define Cooperative Planning Areas and Community Influence Areas (defined above).

LAND USE: A description of how land is used or occupied.

LAND USE CODE: A regulatory document containing all of Larimer County's land use regulations, including zoning district provisions and subdivision requirements. It brings together all regulations under a single administrative procedure, with uniform definitions and other common elements to achieve a more understandable, user-friendly regulation.

LEVEL OF SERVICE: An established minimum capacity of public facilities or services that must be provided per unit of demand, i.e. per new housing unit.

LIFELINE SERVICES: Services to communities that are necessary for their daily needs, to maintain a high quality of life, and to support community and individual preparedness i.e. basic utilities, communication systems, transportation systems, etc.

LOW-IMPACT DEVELOPMENT: Systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration or use of stormwater in order to protect water quality and aquatic habitat.

MAGNITUDE: The intensity or size of an event.

MOBILITY CORRIDOR: A corridor designated for future multi-modal transportation facilities.

MULTI-MODAL TRANSPORTATION: A transportation system that includes multiple types (modes) of conveyances such as an automobile, rail, bus, pedestrian and bicycle.

MUTUAL AID AGREEMENTS: Agreements between agencies, organizations, and jurisdictions that provide a mechanism to quickly obtain emergency assistance in the form of personnel, equipment, materials, and other associated services.

NON-TRADITIONAL HOUSEHOLDS: Living arrangements that deviate from the traditional U.S. Census Bureau classifications of family households or non-family households. These can include, but are not limited to: cohabitating or unmarried couples, female-headed households, unrelated roommates, or single-person households.

OVERLAY ZONING: A regulatory tool that creates a special zoning district, place over an existing base zone(s), which identifies special and additional

provisions. These could include zoning requirements that address natural disaster risk, development patterns, the implementation of a "village pattern" in mountain communities, and areas unsuitable for intense development (including expansion of flood regulations to include geologic and wildfire hazards).

PARTNERSHIP LAND USE SYSTEM (PLUS): Comprised of the 1997 Master Plan and Land Use Code, a system that was developed to handle land use, growth, and environmental protection, as well as the development process in Larimer County. It utilized a public participation process that resulted in themes intended to guide the development of the Master Plan's principles and strategies.

PERFORMANCE STANDARDS: Criteria that must be met by development to limit a particular defined impact.

PLAN THEME: Important values that influence the development of the Principles, Policies, and Strategies.

PLANNING ADVISORY COMMITTEE: A form of governance structure in unincorporated communities that provides an organized forum to facilitate communication within communities and with the County on issues that impact unincorporated residents.

POLICY: A statement of standard or a course of action that guides governmental action and decision making.

PRIME AGRICULTURAL AREAS: Areas where land has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses.

PRINCIPLE: A desired ideal and a value to be sought; an end toward which effort is directed.

QUALITY OF LIFE: The personal perception of the physical, economic and emotional well-being that exists in the community.

RESILIENCE: The capacity to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience.

RESILIENCY METRICS: A set of indicators that measure progress toward achieving resiliency goals.

RESILIENCY/MITIGATION FEE: Strategy that imposes a fee for development located within designated hazard areas collected at the time of building permit application/review.

RIPARIAN AREAS: Areas of land and water forming a transition from aquatic to terrestrial ecosystems along streams, lakes, and wetlands.

RURAL CONSERVATION DEVELOPMENT: The name for the required rural cluster subdivision.

RURAL LAND USE PROCESS: Larimer County's voluntary procedure for development of properties that are 70 acres or larger; designed to provide an attractive alternative to division into 35-acre tracts.

SERVICE DISTRICTS: Service area for fire protection, road, and water districts.

SOCIAL COHESION: The strength of relationships and sense of solidarity among members of a community.

SPECIAL IMPROVEMENT DISTRICTS (SID): Areas organized and identified by property owners and local governments that are capitalized by a self-imposed real estate tax (i.e. a few cents per \$100 of assessed value) on properties in the SID. The tax revenue can be used for revitalization and enhancement, infrastructure maintenance and enhancement, business retention, etc.

STAKEHOLDER COMMITTEE: Representatives of mountain communities, organizations and boards that serve as community liaisons for the Mountain Resilience Plan.

SUBAREA PLAN: Detailed plan prepared for interested, unincorporated mountain communities that show cohesive characteristics, unique land use issues, and opportunities. These plans can detail location-specific needs, recommend changes or improvements on a scale that is not possible for the majority of the county area, and serve as an extension of the Comprehensive Plan.

SUSTAINABLE ECONOMY: A system which maintains or enhances current economic opportunities and community well-being without compromising the ability of future generations to meet their own needs.

TECHNICAL ADVISORY COMMITTEE: A team of Larimer County staff and agency representatives that provides an important in-house perspective throughout the Mountain Resiliency planning process.

TRANSFER OF DENSITY UNITS (TDU): An incentive program that allows additional density where the community wants to grow ("receiving areas") in exchange for reservation of sensitive or hazard areas that the community wants to protect from future development ("sending areas"). Also known as Transfer of Development Rights.

TRANSIT: A public transportation system (i.e. a public bus or light rail system).

TRAVEL DEMAND MANAGEMENT PROGRAM (TDM): A plan to alleviate traffic congestion through improved management of vehicle trip demand, often including strategies to reduce single-occupancy vehicles and encouraging travel at times of lower congestion.

URBAN DEVELOPMENT OR URBAN SERVICES: An average density of at least 2 housing units per acre and existing or planned availability of public water and public sewer.

VILLAGE PATTERN: A development pattern in which gathering spaces and commercial or civic uses serve local needs and are placed strategically without requiring urban level facilities and services. These areas create a focal point for a community within an otherwise residential, ranching, or open space area. Examples include, Masonville, Glenhaven and Livermore.

VULNERABLE POPULATION: The economically disadvantaged, racial and ethnic minorities, the uninsured, the elderly, the homeless, and those with other chronic health conditions. It also includes rural residents who encounter barriers to accessing healthcare services.

WATER AUGMENTATION PLAN: A court-approved plan which is designed to protect existing water rights by replacing water used in a new project.

WATERSHED: An area of land that drains rain water or snow into one location such as a stream, lake, or wetland and that supplies drinking water, water for agriculture and manufacturing, opportunities for recreation, and provides habitat.

WETLAND: The land transition between water and land systems where the water table is usually at or near the surface or the land is covered by shallow water, including swamps, marshes, bogs, riparian areas, salt flats, and vernal pools.

WILDFIRE HOME MITIGATION PROGRAM: Supports home and property owners through technical expertise, home wildfire vulnerability assessments and recommended actions can increase the likelihood of effective mitigation and lower insurance rates.

WILDLAND-URBAN INTERFACE (WUI): A zone of transition between undeveloped wildland and human development.

ZONING: An element of the Land Use Code that refers to land use entitlements and requirements that regulate appropriate use, bulk, height, density, and other characteristics appropriate for a specific site.



APPENDIX B: FOUNDATIONAL AND RELEVANT PLANS

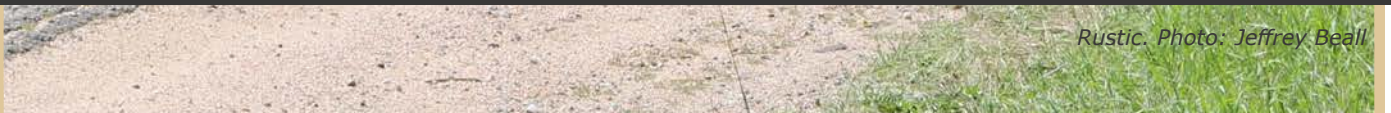
Included here:

Related Plans and Studies

Table with link to relevant plans and studies.

Foundational Plans

Summary of plans that are foundational to the development of the Comprehensive Plan.



Rustic. Photo: Jeffrey Beall

APPENDIX B. FOUNDATIONAL AND RELEVANT PLANS

The following is a list of planning documents reviewed and considered for this effort, accompanied by their publication date, and if applicable, the date they were adopted by Larimer County.

Table 1. Related Plans and Studies

Plan Name	Year	Formally Adopted by Larimer County
Chimney Hollow Open Space Stewardship Plan	2005	Sep. 2005
Code of the West		
Colorado Resiliency Framework	2015	
Community Wildfire Protection Plan. Berthoud Fire Protection District	2007	
Community Wildfire Protection Plan. Big Elk Meadows	2007	
Community Wildfire Protection Plan. Buckskin Heights	2014	
Community Wildfire Protection Plan. Cherokee Meadows	2012	
Community Wildfire Protection Plan. Crystal Lakes	2008	
Community Wildfire Protection Plan. East Portal FireWise Coalition	2006	
Community Wildfire Protection Plan. Estes Park	2009	
Community Wildfire Protection Plan. Uplands	2011	
Community Wildfire Protection Plan. Glen Haven Retreat	2007	
Community Wildfire Protection Plan. Hermit Park Open Space	2008	
Community Wildfire Protection Plan. Little Valley	2005	
Community Wildfire Protection Plan. Magic Sky Ranch	2008	
Community Wildfire Protection Plan. Pinewood Reservoir	2008	
Community Wildfire Protection Plan. Pinewood Springs	2010	
Community Wildfire Protection Plan. Pole Hill	2009	
Community Wildfire Protection Plan. Poudre Canyon FPD-Manhattan Creek	2007	
Community Wildfire Protection Plan. Poudre Canyon FPD-Poudre Park	2008	
Community Wildfire Protection Plan. Poudre Canyon FPD-Rustic	2007	
Community Wildfire Protection Plan. Poudre Canyon FPD-Spencer Heights	2008	
Community Wildfire Protection Plan. Poudre Fire Authority	2011	
Community Wildfire Protection Plan. Red Feather Lakes	2007	
Community Wildfire Protection Plan. Rist Canyon	2010	
Community Wildfire Protection Plan. Upper Cherokee Park	2011	
Dam Emergency Operations Plans	Multiple	
Devil's Backbone Management Plan Update	2014	Jan. 22, 2015
East Mulberry Corridor Plan (Larimer County/City of Fort Collins)		

Plan Name	Year	Formally Adopted by Larimer County
Estes Valley Comprehensive Plan	1996	
Fossil Creek Reservoir Area Plan (Larimer County/City of Fort Collins)		
Future Climate Extremes in Larimer County	2016	
Hermit Park Open Space Resource Management and Implementation Plan	2007	
Horsetooth Mountain Park Management Plan	2006	April 16, 2006
LaPorte Area Plan	2004	January 2004
Larimer County Bigger Vision for the Big T	2015	
Larimer County Comprehensive Emergency Management Plan	2015	Feb. 3, 2015
Larimer County Fire Plan	2009	MOU through Dec. 31, 2014
Larimer County Hazard Mitigation Plan	2016	June 21, 2016
Larimer County Health Improvement Plan	2014	
Larimer County Land Use Code	1963	1963
Larimer County Master Plan	1997	Nov. 19, 1997
Larimer County Noxious Weed Management Plan	2018	
Larimer County Open Lands Master Plan	2015	June 17, 2015
Larimer County Parks Master Plan *	2007	
Larimer County Strategic Plan 2019-2023	2018	
Larimer County Transportation Plan	2017	Aug. 16, 2017
Larimer County Unmet Needs and Community Fragility Study	2015	
Larimer County Our Land Our Future	2013	
Larimer Environmental Advisory Board Annual Report	2016	
Larimer Resiliency Framework	2016	
Little Thompson Farm Stewardship Plan	2016	Sep. 22, 2016
Larimer County Subdivision Wildfire Hazard Review	2002	
Needs and Opportunities in Housing and Care in Larimer County. Next 25 Years	2015	
Northern Colorado. Estes Park, Fort Collins, and Loveland. A ULI Advisory Services Panel Report	2014	
Northern Colorado Community Separator Study		
Northern Colorado Regional Airport Master Plan	2007	June 2007
North Front Range Regional Watershed Planning*		
Northwest Subarea Plan (Larimer County/City of Fort Collins)		
Our Lands Our Future: Recreation & Conservation Choices For Northern Colorado	2013	Oct. 2013
Partnering for Change: Larimer County Solid Waste Infrastructure Master Plan	TBD	TBD
Planning for Hazards. Land Use Solutions for Colorado	2016	

Plan Name	Year	Formally Adopted by Larimer County
Red Feather Lakes Area Plan	2006	Aug. 2006
Red Mountain Open Space Resource Management and Implementation Plan	2007	Sep. 27, 2007
Resource Management Plan for Long View Farm	1999	April 1999
Resource Management and Implementation Plan for Eagle's Nest Open Space	2002	Nov. 2002
Resource Management and Implementation Plan for the Red-Tail Ridge Open Space	2001	May 2001
River Bluffs Open Space Resource Management and Implementation Plan	2008	July 24, 2008
Special District Service Plan Review Resolution	1996	
Supplemental Resource Management Plan for Pinewood Reservoir: Ramsay-Shockey Open Space	2000	March 2000
Talent 2.0 Regional Workforce Study		
Visit Estes Park Operating and Marketing Plan		Oct. 16, 2017
Watershed Master Plan - Big Thompson River Restoration Plan	2014	
Watershed Master Plan – Fall River Corridor Plan for Resiliency	2015	
Watershed Master Plan – Fish Creek Corridor Plan for Resiliency	2015	
Watershed Master Plan - Little Thompson Watershed Restoration Master Plan	2014	
Watershed Master Plan – Upper Poudre Watershed Resilience Plan	2017	

* Currently being updated

FOUNDATIONAL PLANS

The recent floods and fires in Larimer County have led to a number of County planning efforts. These plans and studies outline important community needs and strategic initiatives to mitigate the impact of future hazard events. It is important to align the Mountain Resilience Plan with these previous community- and data-driven efforts; the plans discussed in further detail in the following pages were foundational to the development of the Mountain Resilience Plan. While the implementation of these plans will continue to shape specific projects and initiatives, the Mountain Resilience Plan incorporated and translated these plans' high-level direction into County land use policy.

1997 Master Plan

Why Prepared?

The 1997 Master Plan and Land Use Code are the two elements that comprise the written portion of the Partnership Land Use System (PLUS) that was developed to handle land use, growth, and environmental protection, as well as the development process in Larimer County. The public participation process for the PLUS project resulted in themes that guided the development of the Master Plan's principles and strategies.

Why Foundational?

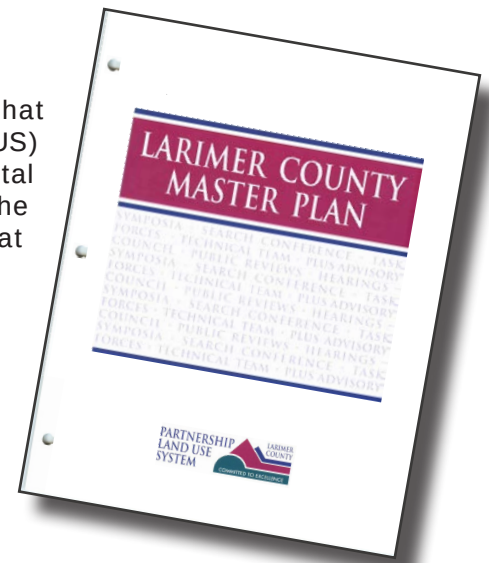
The 1997 Master Plan created a growth management process designed to ensure that Larimer County operates within its resources, protects the environment, and enhances the lives of its residents. The Plan was largely successful and the level of public confidence and satisfaction with planning has steadily increased since its adoption.

What are the Key Recommendations?

Two dozen County staff, Technical Advisory and Stakeholder Committee members as well as members of advisory boards evaluated the 1997 Master Plan's relevance to the mountain communities. This process unanimously determined that 46% of these Guiding Principles are still relevant, though all showed opportunities for refinement.

The top Guiding Principles to carry forward as identified by participants of the plan audit were:

1. Land use shall be suitable for and compatible with the environmental characteristics of the site.
2. Natural and cultural resources shall be identified, conserved and protected.
3. The planning and development review process shall be fair, open and predictable, and meet the needs and interests of the community without infringing on the rights of individuals.
4. Service demands of new development shall not exceed the capacities of existing roads and streets, utilities or public services.
5. Undevelopable land shall be defined in the Land Use Code and shall include the Floodway (FW) zone district and land below the high water mark of existing bodies of water.
6. New development in wildfire hazard areas shall be designed to allow defensible space around structures and otherwise mitigate potential hazards to life and property.
7. New development shall be approved only when adequate public facilities and services are available, or when necessary improvements will be made as part of the development project.
8. Larimer County will encourage private landowners and local, state and federal governments to develop and implement cooperative strategies to minimize critical wildfire hazards potentially affecting life and property.
9. Resources and environmental conditions potentially impacted by proposed development shall be identified in the initial stages of the project, to best design a development that protects the environment.



How does the 1997 Master Plan Influence Land Use Patterns?

The 1997 Master Plan influences land use patterns because it is a policy document that establishes a long-range framework for decision making in the unincorporated areas of Larimer County, including development, public services, and capital facilities decisions, as well as decisions related to environmental resource protection. The Master Plan outlines a Growth Management System, which not only influences the nature of land uses but also their distribution throughout the County. This plan also introduced the concept of Rural Conservation Development and the Rural Land Use Process. These processes have resulted in clustered residential development and preserve the existing open character of many rural areas of the County.

2019-2023 Strategic Plan

Why Prepared?

With the goals outlined in the 2013-2018 Strategic Plan largely accomplished, the Board of County Commissioners (BCC) updated their strategic plan in tandem with this Comprehensive Plan. The 2019-2023 Strategic Plan revisited the County's Mission, Vision Statement, and Guiding Principles, and placed priority on three specific overriding goals to prepare the community and government organization for a growing and evolving population.

Why Foundational?

This plan was developed by the BCC, the highest authority in the County, to shape immediate short-term results for priority objectives. Rooted in a strong visioning process, the Strategic Plan Update utilized factual data and qualitative input on the characteristics and needs of the community through a Community Survey, small group meetings with residents, and a Leadership Summit. With the 2013-2018 Strategic Plan as the catalyst that allocated necessary resources to update the Comprehensive Plan, these updates to the planning processes complement one another. Guiding Principles, strategic Goals, and specific, measurable, realistic, and time-stamped Objectives were developed as part of the Strategic Plan process that work in harmony with Principles and Policies from the Comprehensive Plan.

What are the Key Recommendations?

The Guiding Principles led to the formulation of three Goals, which are further defined by objectives to guide the County successfully into the future. The Guiding Principles include being a good steward of public resources, promoting innovation and continuous improvement, providing quality customer service, empowering people to take responsibility, cultivating partnerships, and being a fulfilling and enjoyable place to work.

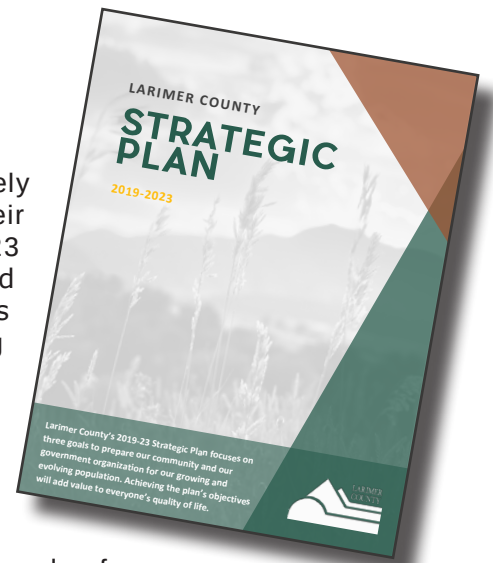
Goal 1: Larimer County works collaboratively to ensure adequate public infrastructure is available to support the needs of our growing community.

Goal 2: Everyone in Larimer County has access to economic opportunities and a vibrant quality of life. We work together to remove barriers.

Goal 3: Larimer County government is ready to support the future service needs of our residents and visitors.

How does this Influence Land Use Patterns?

Objectives within Goals 1 and 2 related to adequate public infrastructure, transportation, and community health, well-being, and resilience will influence land use patterns countywide. The plan's objectives will affect land use patterns by developing a comprehensive rural infrastructure strategy that addresses broadband services and long-term planning for water supply and wastewater treatment, as well as collaborating on increasing access to health services such as child care.

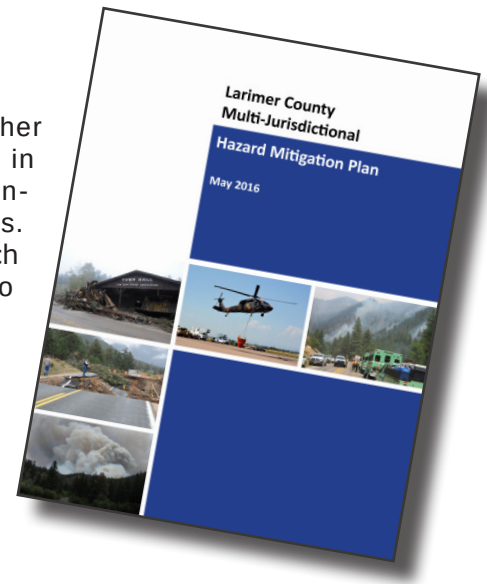


Hazard Mitigation Plan

Why Prepared?

Larimer County, along with its jurisdictions, special districts, and other organizations, conducted an update to its Hazard Mitigation Plan (HMP) in 2016. HMPs allow communities to become eligible for certain types of non-emergency disaster assistance, including funding for mitigation projects. A HMP must meet certain requirements defined in the Stafford Act, which was amended by the Disaster Mitigation Act of 2000. These plans are also required to be updated every five years.

Aside from the fact that an HMP qualifies communities for potential grant funding, the HMP planning process helps communities improve their resiliency to natural and human-caused disasters. It allows community representatives and the public to collectively define a Mitigation Strategy that aligns with a community's vision, while at the same time identifying mitigation actions and projects that can be implemented to ensure the long-term risk to hazards is reduced.



Why Foundational?

Larimer County has experienced 20 federally declared disasters since 1997, the same year that the 1997 Master Plan was developed. Also during that time, the County has seen 40% population growth. An increased population will mean that there will continue to be more persons at risk to the effects from these hazards. With these facts in mind, the HMP focused on two main topics; what are the County's risks to hazards, and what projects can be implemented in order to reduce or eliminate those risks and vulnerabilities?

As the County works on its update to the Comprehensive Plan, the HMP can ensure that future development and growth is accomplished in a way that does not increase the County's collective risk to disasters.

What are the Key Recommendations?

The HMP's risk assessment was performed county-wide and analyzed a number of natural and human-caused hazards. The HMP presents the results of a vulnerability assessment and loss estimations to determine the top hazards that impact each community.

The mitigation strategy is a collection of specific mitigation actions/projects that could be implemented within each community. The planning team identified over 100 projects, 22 of which came specifically from Larimer County. Over the course of the past year since the plan was adopted, the County has made great progress in implementing many of these mitigation projects.

How does this Influence Land Use Patterns?

There were a number of high risk hazard areas that affect current and future land uses. However, the twelve profiled hazards do not all have a specific high risk footprint (that is, they could occur anywhere, such as High Wind Events). The four with specific footprints include. Erosion/Deposition, Flood, Landslide/Rockslide, and Wildland Fire.

As part of the comprehensive planning process, questions relating to regulating development in known, high hazards areas can be vetted to help reduce or minimize impacts on the built environment, and reduce the tax subsidy for individuals who chose to build in hazard-prone areas.

In addition, the Comprehensive Plan helps fulfill two land-use related mitigation actions/projects identified in the HMP. 1) a long-range community planning effort to bring together all watershed coalition, governmental and non-governmental plans into one unified planning effort, and 2) an update to the Larimer County Land Use, Wildfire and Building Codes with recommendations to decrease future risk and disaster losses.

Unmet Needs & Community Fragility Study

Why Prepared?

In 2016, Larimer County, conducted a unique Unmet Needs and Community Fragility (UNCF) Study in response to recent hazard events. One year after the devastating 2012 High Park Wildfire and 2013 flood events, Larimer County conducted an all-encompassing study of remaining community needs. These 'needs' are related to outstanding actions or projects to combat damages from those disaster events so that the community can fully recover.

A second driver of this study was to attempt to measure community fragility across the County, specifically in those areas most impacted by these hazard events. Building on the prior theoretical frameworks of the Larimer County Department of Emergency Management, the Community Fragility Framework was developed. This was then assessed for various communities within the County, based upon three key components of fragility. Connectedness, Stability, and Sustainability. These results can both serve as a baseline measure of community fragility and identify recommendations for each community to decrease their overall fragility to not only disasters, but all six resiliency frameworks.



Why Foundational?

Larimer County has learned hard lessons following the recent wildfire and flooding events. Much of that institutional knowledge was captured as part of this UNCF Study. This study is therefore viewed as one of the major plans that will influence long-range planning strategies to ensure that the County's mountain communities can better understand their own strengths and weaknesses, and thereby take action to become more self-sustaining. The Comprehensive Plan update provides the best opportunity to define these community visions.

What are the Key Recommendations?

The UNCF Study presented a summary of those needs across each community, grouped in nine separate categories. Community Fragility recommendations are presented on a community basis and are not intended to be compared against each other, but rather taken as individual recommendations to help reduce fragility within each community.

Over the course of the past year since the UNCF Study was completed, the County has made great progress in meeting a number of the identified needs and also providing resources for mountain communities to work on decreasing their collective fragility. This includes the initiation of the Larimer Connects Program to establish resource hubs, improve community connectedness, and identify cultural, social or economic factors that impact how individuals are able to respond in a disaster.

How does this Influence Land Use Patterns?

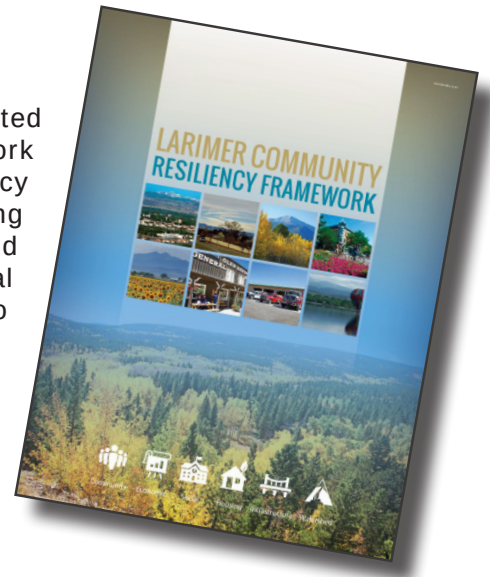
The UNCF Study focused on specific community needs that were not yet met by post-disaster recovery operations, as well as measuring baseline community fragility. While the intent of the study was not specifically targeted toward local land use changes, many of the infrastructure and service recommendations are impacted by development patterns, mix of land uses, and location and distribution of public facilities.

Larimer Community Resiliency Framework

Why Prepared?

As one of three pilot counties in Colorado, Larimer County was selected to create its own Community Resiliency Framework. This framework was developed in 2016 and was modeled after a statewide Resiliency Framework. As best stated by the Resiliency Framework Steering Committee, “We cannot remove all hazards from our environment, and disaster recovery can only take us so far. In a county that faces natural and human-caused threats every year, we must take an extra step to develop communities that are self-sufficient and when knocked down, will rise up, wipe the dust off, and come back swinging. This is the purpose of the Resiliency Framework.”

Through inter-governmental and inter-agency collaboration, the framework outlines the steps necessary to “create a connected, collaborative, and cooperative region that proactively works together to strengthen systems and to resolve complex issues.”



Why Foundational?

The Resiliency Framework represents the commitment and capacity of communities across Larimer County to embrace a more resilient future. As it is intended to be a living document – the framework will require ongoing support to both implement and to continue its relevancy. The Comprehensive Plan update is the most influential and useful vehicle for Larimer County and its communities to now execute the visions, goals, and strategies identified within the framework.

What are the Key Recommendations?

The framework was developed around six systems-wide sectors as established by the Colorado Resiliency Working Group. Community, Economic, Health and Social, Housing, Infrastructure, and Watersheds and Natural Resources.

From this perspective, a County-specific working group defined overarching visions and resulting resiliency goals. Then, as part of the planning process, which included over 300 stakeholders representing government, non-profits, the private sector, and individual community members, a number of strategies and specific projects were identified for implementation. These projects were split into immediate and long-range priority projects. In the year since the framework was developed, the County has made significant progress in initiating and completing a number of these projects.

As part of the implementation process, community members and leaders identified eight goals to address and improve disaster resiliency for the County with associated strategies that fall under each sector. These were the result of a cultural shift in decision making to think about building partnerships across jurisdictional and sectoral lines, encouraging individual responsibility while providing local services, building and maintaining infrastructure to mitigate damage from hazards, paying for the infrastructure and services desired, and analyzing the effects of long-term stresses in addition to better-known shocks, such as fire and flood. The eight resiliency goals are as follows.

Goal 1. Develop regional, long-range, comprehensive planning that is adaptive and collaborative.

Goal 2. Foster awareness, preparedness, self-sufficiency, and a greater sense of community by engaging and education residents of the County.

Goal 3. Increase energy and resource efficiency and reduce risk appropriate to rural and urban contexts by developing and implementing appropriate construction standards.

Goal 4. Increase the range of housing options and increase stock of affordable housing through traditional means as well as creative land use, building codes, and measures for innovative housing.

Goal 5. Develop and fund a regional, multi-modal transportation network using public and private

partnerships at all levels.

Goal 6. Manage natural resources through adaptive planning and management of land use, especially watersheds, floodplains, agricultural land, and the Wildland-Urban Interface.

Goal 7. Build public/private/non-profit sector partnerships to support and achieve the community's vision and goals.

Goal 8. Support the diverse production and supply needs of a sustainable supply chain for the regional food system.

How does this Influence Land Use Patterns?

The framework identified three major project areas where all proposed projects were grouped.

1. Risk Management. Risk management provides foundational information for communities to make informed land use, development, and capital improvement decisions to reduce exposure as communities grow and climate changes. Implementation of resilient strategies and projects depends on the availability of current and comprehensive risk data, analysis, and mapping.
2. Resilient Natural and Build Infrastructure. Plan and implement projects that have a system-wide ecosystem benefit. To do this, develop new design criteria for low-impact development and green infrastructure in watersheds across the county. Take into account the "new normal" post-disaster and anticipating climate change. This would include conservation easements, zoning to remove and prevent development in high hazard areas, and other best management practices in watershed management.
3. Innovative Land Use Planning. Allow for diversity in growth management and economic resiliency while supporting and protecting our natural environment. Include agricultural land protection where this doubles as floodplain and natural resource protection.



APPENDIX C: MOUNTAIN RESILIENCE DOCUMENTS

Included here:

Mountain Community Profiles

Profiles eight mountain subareas' demographics, issues, and defining features.

Foundation Snapshots

Overview of current issues in the Mountain Planning Area, by resiliency framework.

Mountain Resilience Outreach Summaries

Summary of in-person events and online engagement through Phase 1.



*Rocky Mountain National Park
Photo: Larimer County*

MOUNTAIN COMMUNITY PROFILES

INTRODUCTION

The communities in the mountainous portion of Larimer County are different from the eastern plains in many ways. These communities have developed differently, face unique challenges, and attract a different kind of resident. While some natural hazards are present county-wide, residents, structures, and infrastructure in the mountain portion of the County face an increased risk to landslides, rockslides, and, most importantly, wildland fires which together compound flood risks.

This section profiles the eight subareas in the Mountain Resilience Planning Area, further describing the unique issues and features that characterize these areas. As part of the planning process, additional issues and recommendations will be developed by community members and included in the final plan.

The following information summarizes some of the demographic differences between the mountain areas and the rest of the County. Demographic and housing data presented within this section were sourced from ESRI's Community Analyst, in addition to Larimer County's Assessor Department.

Population. The mountain communities as a whole only account for 4.25% of the entire Larimer County population, yet occupy 75% of the land.

Median Age. On average, the mountain communities are about 17.5 years older than the rest of the County; the smallest difference being 14.3 years older (Area 4) and the largest at 23.5 older (Area 7).

Household Income. Overall, the average median household income of the eight mountain subareas is higher than Larimer County as a whole, though three subareas are below the County average.

Seasonal Occupancy. As a whole, 49% of residential units are owner occupied, 9% are renter occupied, and 42% are seasonally/occasionally occupied or vacant.

MOUNTAIN RESILIENCE PLANNING AREAS

- Area 1. US 36 / St. Vrain Corridor including the Tahosa Valley
- Area 2. Carter Lake / Pole Hill
- Area 3. US 34 / Big Thompson / Glen Haven / Storm Mountain
- Area 4. Masonville / Stove Prairie / Rist Canyon
- Area 5. Highway 14 / Poudre River Corridor / Pingree Park
- Area 6. Red Feather Lakes / Glacier View / Crystal Lakes
- Area 7. North Fork / Livermore / CR 80C
- Area 8. Laramie River Valley

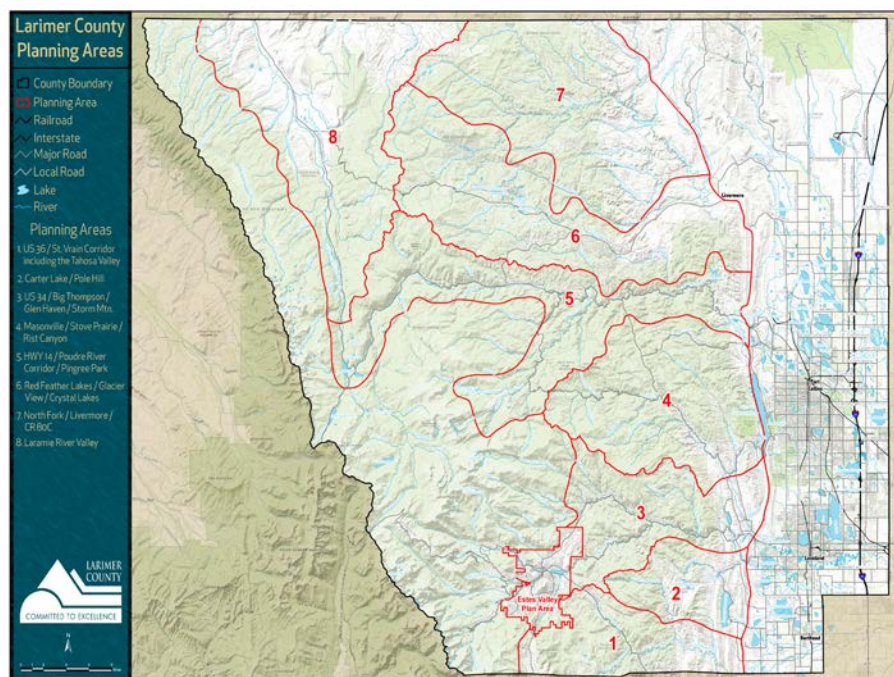


Table 2. Mountain Resilience Planning Areas Demographic Summary

Location	Median Age	Median Household Income	Population	Population % of County	Median household size	Median home value
Larimer County	36.5	\$60,994	318,111	100.00%	2.43	\$309,508
Mountain Resilience Planning Area	54.0	\$68,428	14,123	4.25%	2.26	\$373,040
Area 1	52.1	\$88,647	2,489	0.75%	2.32	\$486,294
Area 2	51.4	\$79,530	1,347	0.41%	2.30	\$429,259
Area 3	53.5	\$67,610	3,288	0.99%	2.31	\$364,417
Area 4	50.8	\$67,804	3,552	1.07%	2.26	\$357,895
Area 5	51.5	\$59,777	531	0.16%	2.15	\$295,370
Area 6	56.8	\$59,363	2,445	0.74%	2.16	\$281,045
Area 7	60.0	\$69,364	420	0.13%	2.19	\$305,172
Area 8	56.1	\$55,336	51	0.02%	1.76	\$294,444

The following table presents a summary of existing development potential across the eight planning areas. It should be noted this information comes from best available sources and that there are currently no timelines or guarantees associated with this development potential. Many of these available parcels still remain from subdivisions created in the 1970-80's. For comparison's sake, 100% full development of these parcels would equate to an increase of ~13,750 residents (the current study area's population is 14,123). For reference, Table 3 presents historical new construction counts across the planning area per decade.

Table 3. Summary of Existing Development Potential

Location	Subdivided, Unbuilt Residential Parcels	Private Parcels >35 acres that could be Built or Subdivided	Subtotal by Area
Area 1	122	229	351
Area 2	17	270	287
Area 3	395	272	667
Area 4	268	714	982
Area 5	94	146	240
Area 6	1,283	487	1,770
Area 7	1	662	663
Area 8	20	520	540
Total	2,200	3,300	5,500

Table 4. Number of Residential* Parcels by Decade Built

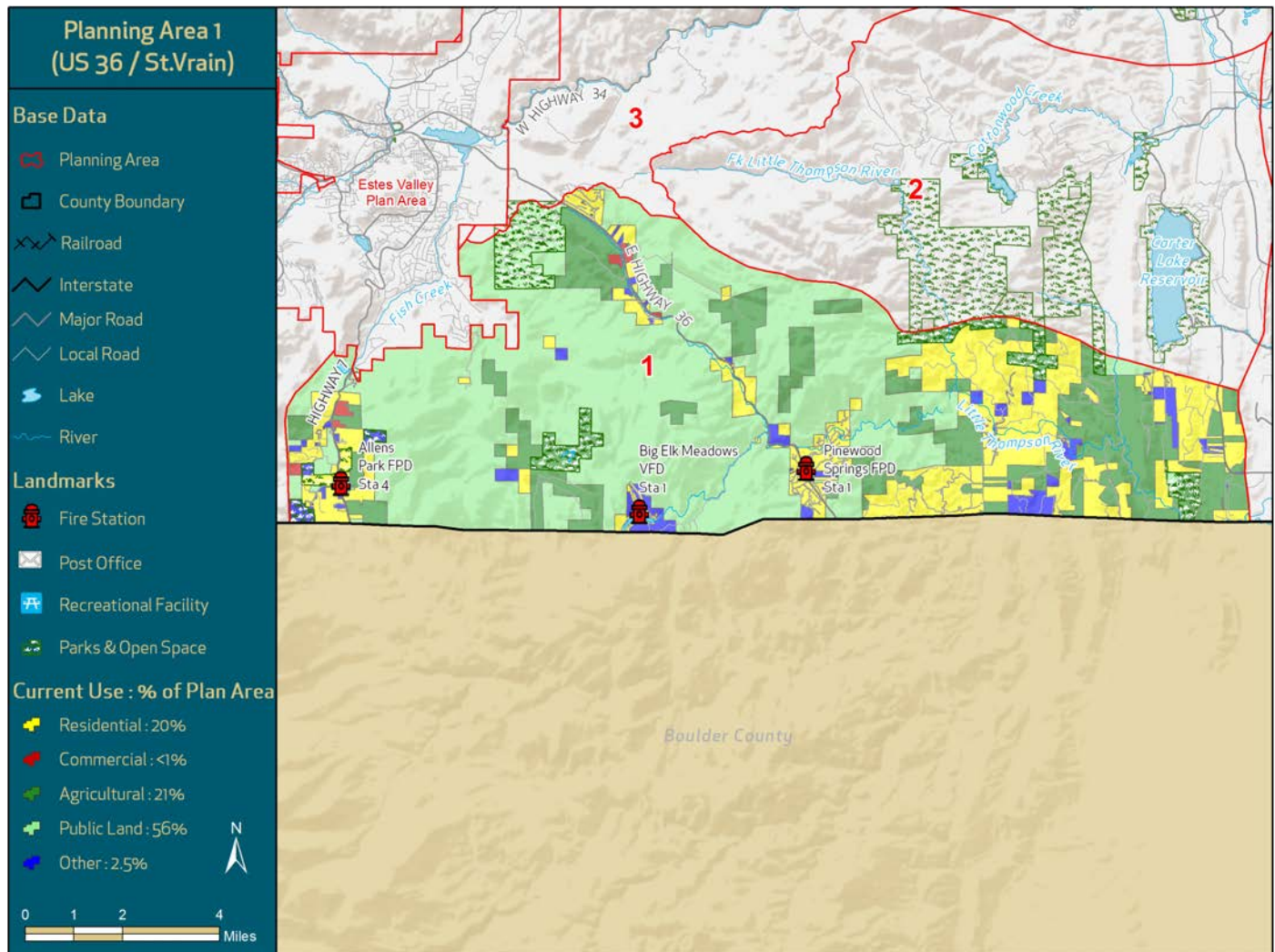
Location	1990s	2000s	2010s	Total
County	23,458	24,324	10,901	58,683
Mountain Resilience Planning Area	2,005	1,492	455	3,952
Area 1	262	141	47	450
Area 2	185	137	21	343
Area 3	355	228	69	652
Area 4	353	243	147	743
Area 5	56	53	23	132
Area 6	642	510	115	1,267
Area 7	103	104	17	224
Area 8	49	76	16	141

* Includes Condo, Duplex, Mobile Home, Multi Unit, Residential, Townhouse, and Triplex Parcel Property Types

The UNCF Study recommended actions for mountain communities based upon their unmet needs and the three key components of fragility. Connectedness, Stability, and Sustainability. Recommendations that are applicable to most mountain areas include.

- Although seemingly well connected as a community, community planning efforts would benefit these communities and would allow them to jointly plan for their own futures and clearly define their preferred future selves. These communities should consider organizing some type of neighborhood organization or entity to increase their collective voices.
- Individuals in these communities do not feel they are obtaining services they need, did not know how to access adequate resources, and/or feel isolated from County leadership. Community members also reported that they did not feel like they knew “where to go to get things done” or how to find out about and access potential resources.
- The survey participants reported lack of trust in County leaders and public officials and lack of representation or understanding in local politics. This lack of trust and feelings of isolation in this area may contribute to inadequate planning and preparedness actions. These communities would benefit from programs aimed at building public trust, such as education and outreach efforts.

Area 1. US 36/ ST. VRAIN CORRIDOR INCLUDING THE TAHOSA VALLEY



Unincorporated Towns and Communities

- Pinewood Springs
- Blue Mountain
- Spring Gulch
- Big Elk Meadows

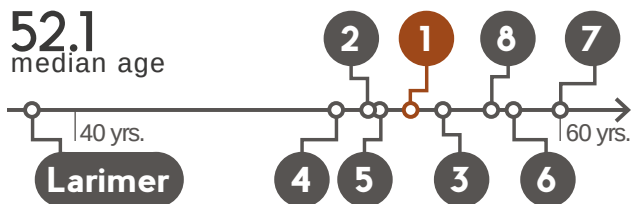
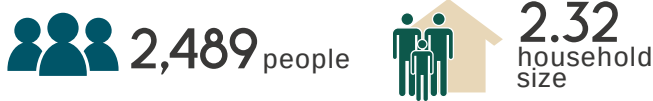
Location

The rural unincorporated communities in this subarea are located west of Berthoud and northwest of Lyons. The primary access to the area is provided by U.S. Highway 36 and Highway 7.

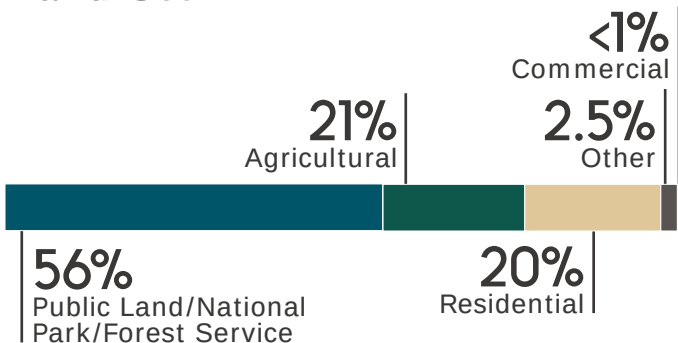
Physical Description

This subarea is located in the foothills where a majority of landownership is public that support a variety of outdoor activities including hiking, fishing, and hunting. The area includes extensive rural agricultural land with very little active agricultural activity, and residential uses concentrated in the eastern portion of the subarea. The major waterway in this subarea is the Little Thompson River.

Demographic Profile

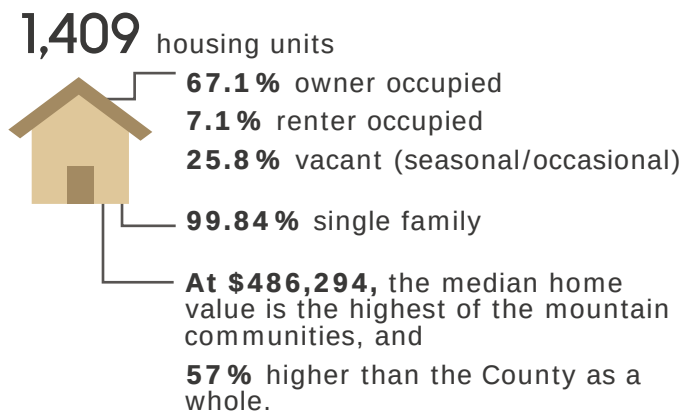


Land Use Mix



Source: Larimer County data 2017

Housing Information



Residential Development Potential

There are currently 122 vacant residential properties that are entitled or can be developed as single-family homes. Properties that are under 70-acre cannot be further subdivided by right.

There are another 229 privately-owned properties larger than 35-acres encompassing 16,648 acres that could be subdivided into residential areas in the future.

Fragility Scale

The 2015 [Unmet Needs and Community Fragility \(UNCF\) Study](#) assessed the communities in this region including Blue Mountain, Spring Gulch/Lyons Area, and X Bar 7.

In the UNCF survey, this region had high levels of Connectedness, low levels of Community Stability, and low Sustainability. Survey respondents reported that members of the community helped each other, were committed to the well-being of the community, felt like they belonged to the community, and worked together to improve the community.

Issues/Challenges Facing Area

During the UNCF study, specific issues and challenges were identified.

- Individuals in these communities do not feel they are getting the services they need and feel isolated from County leadership. The survey participants reported lack of trust in County leaders and public officials and lack of representation in local politics. Community members also reported that they did not feel like they knew "where to go to get things done" or how to find out about and access potential resources.
- The lack of trust in the County and feelings of isolation in this region may contribute to inadequate planning and preparedness actions.

Specific Area Plans

The Little Thompson Watershed Restoration Master Plan was created with the intention of breaking the disaster-rebuild cycle by developing new approaches to restoration that provide improved methods for flood response. Potential river restoration projects that would improve resiliency include relocating structures from the floodplain; single-span bridge replacements of existing culverts; expanding the riparian corridor with

native vegetation; revised floodplain regulations; and increased setbacks. Recommendations relating specifically to areas along the Little Thompson include refining the low-flow channel, grading and stabilization of the floodplain and headcut areas, and bank stabilization, as well as improvements to bridges and approach roads for flood/debris conveyance, reassessment of bridge design, and channel stabilization.

Recommendations from Existing Plans

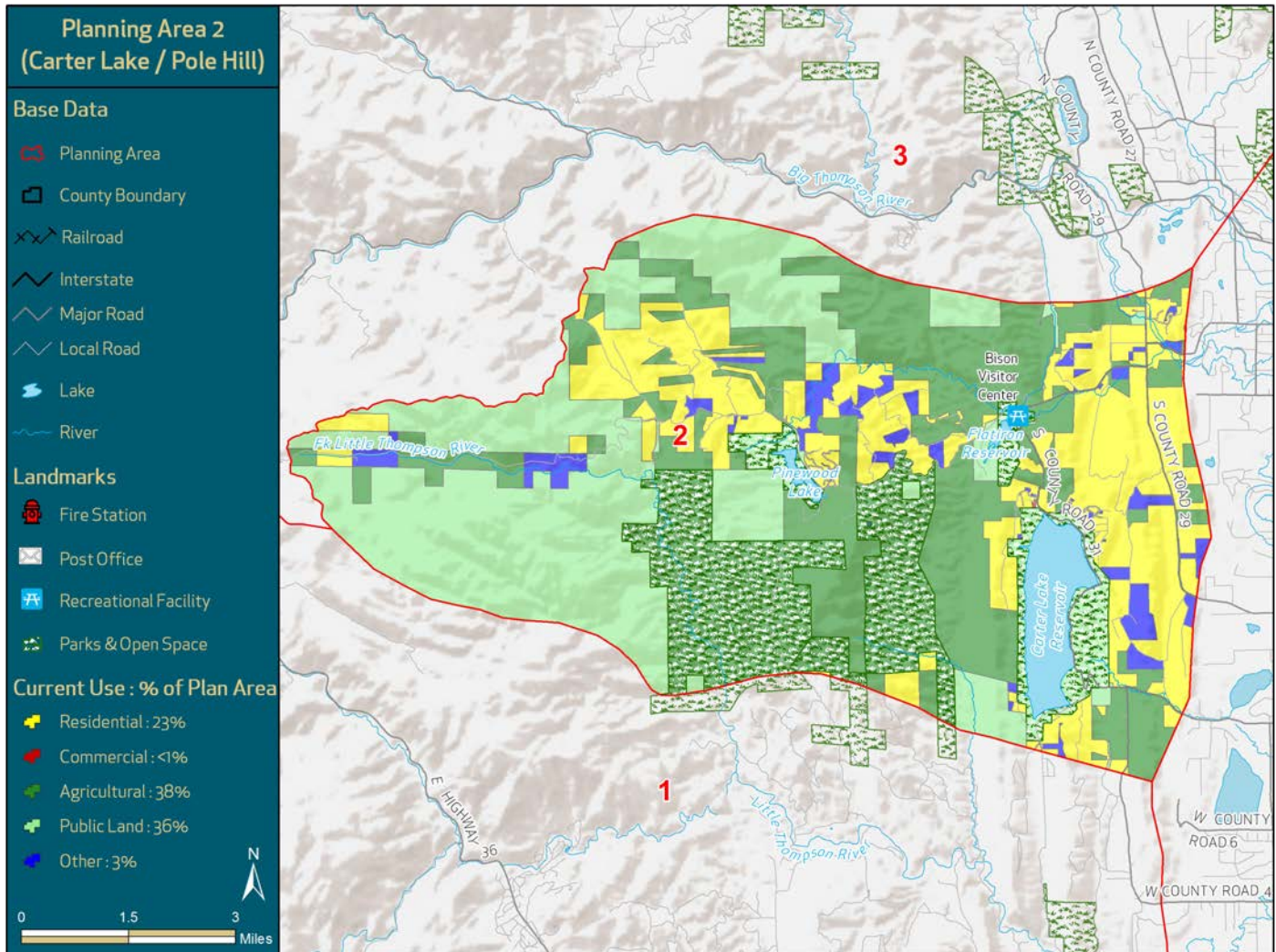
The following recommended actions were identified as part of the UNCF Study.

- Consider organizing some type of neighborhood organization or entity to increase their collective voices.
- Identify community projects that residents can participate in year-round, to help foster the sense of community (i.e., river restoration, wildfire mitigation).
- Organize community planning efforts that would both engage community members and allow them to develop a better plan for the future of their community. Such planning efforts may include detailed emergency plans for future evacuations, floods, or other disasters.
- Engage Larimer County officials in community planning efforts and community outreach to ensure strong relationships and connection. Involve Town of Lyons/Boulder County in these activities as many residents identify more with those communities than Larimer County.
- Host educational programs or events in the community to teach community members about the services and programs that are available to them and help familiarize residents with emergency plans and operations in the local area.
- Invite local, County and state leaders to community events to ensure resident concerns are heard and relationships are developed.
- Improve community preparedness by creating community-focused preparedness activities, whether it is through an association or through the yearly meetings of community members. Grassroots efforts are the most effective mechanism for local community preparedness.

Several agencies, including the County Office of Emergency Management, can assist in this process.

- Emergency supplies of water, food, medical supplies, gasoline, generators, and other items can be stored locally within the community and maintained so that the community may be self-supporting for the first few days following a disaster. Local fire departments or other emergency response organizations should be involved in this effort and can help train community members and assist in a leadership capacity during a disaster.

Area 2. CARTER LAKE / POLE HILL



Unincorporated Towns and Communities

- Pole Hill subdivisions
- Lands west of Berthoud

Location

The unincorporated communities in this region are located in the foothills directly southwest of Loveland. The primary access to the subarea is provided by County Road 31, Country Road 8E, County Road 29, and County Road 18.

Physical Description

This mountainous area contains National Forest and other County open lands and parks that are popular for outdoor activities including hiking, fishing, and hunting. The area is primarily used for agriculture and residential.

Major waterbodies in the area include Cottonwood Creek, the Little Thompson River, Pinewood Lake, Carter Lake Reservoir, and Dry Creek.

Residential Development Potential

There are currently 17 vacant residential properties that are entitled or can be developed as single-family homes. Properties that are under 70-acre cannot be further subdivided by right.

There are another 270 privately-owned properties larger than 35-acres encompassing 19,941 acres that could be subdivided into residential areas in the future.

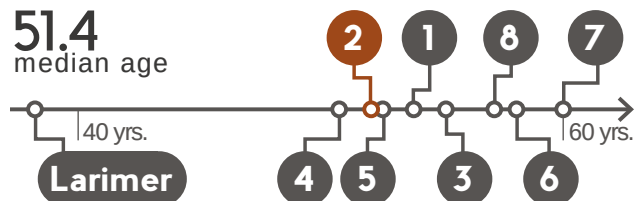
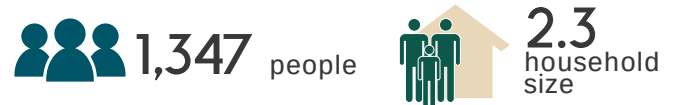
Fragility Scale

The 2015 [Unmet Needs and Community Fragility \(UNCF\) Study](#) did not assess communities in this region.

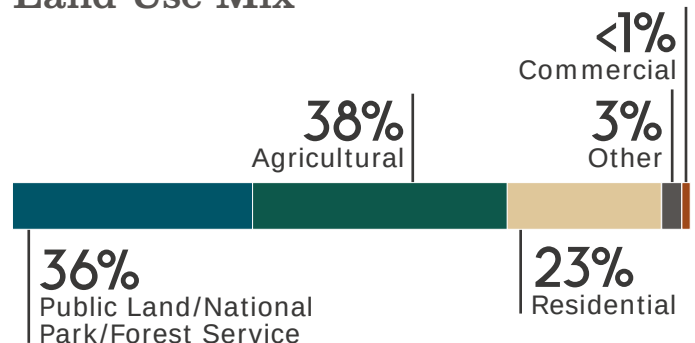
Specific Area Plans

The Parks Master Plan was finalized in 2007 and addresses the Pinewood Reservoir, Carter Lake, Flatiron Reservoir. It may be viewed at www.larimer.org/parks/masterplan/. The plan is currently being updated.

Demographic Profile

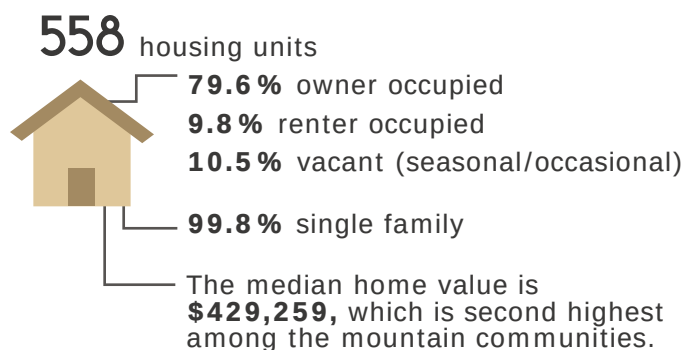


Land Use Mix

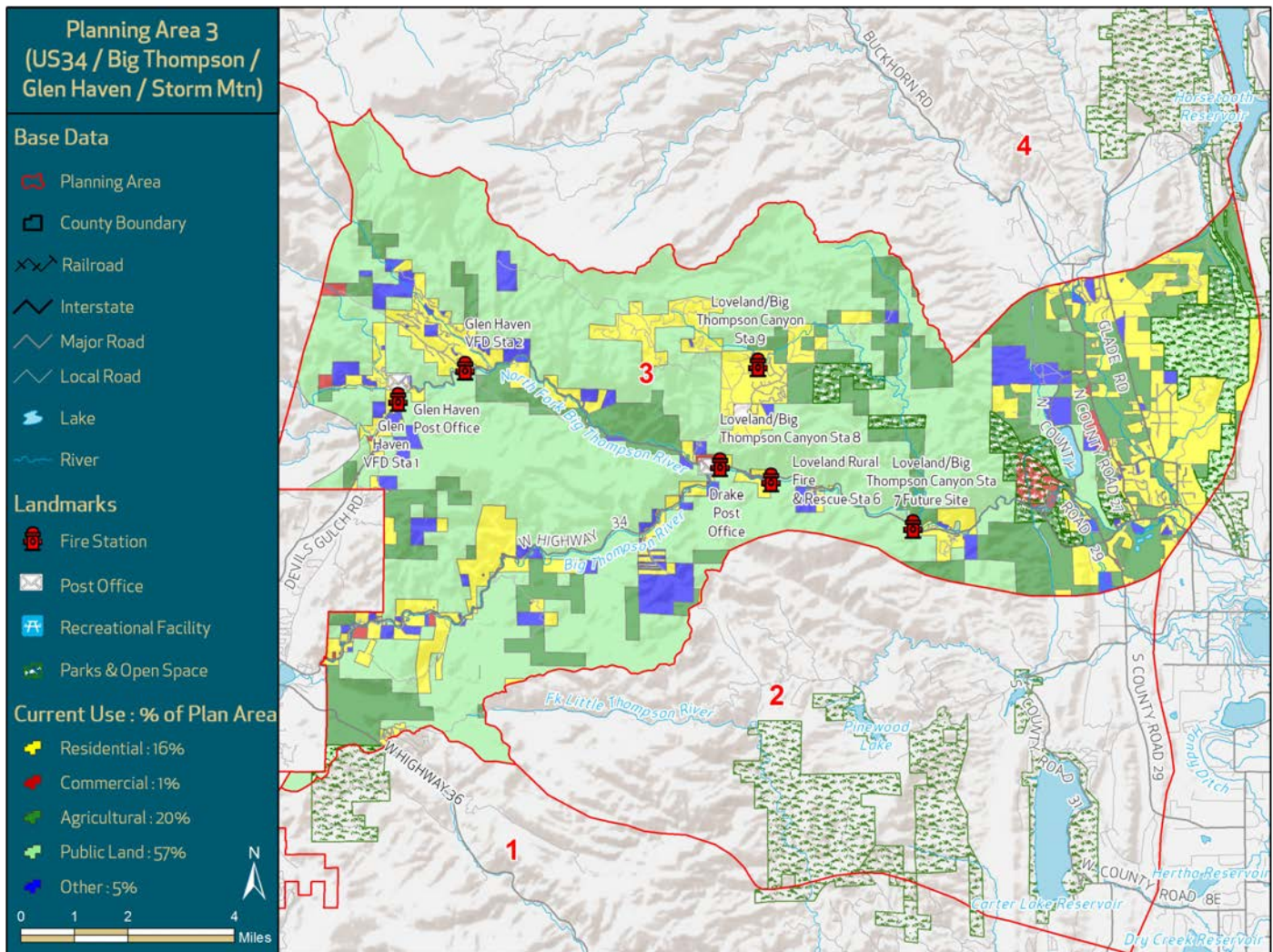


Source. Larimer County data 2017

Housing Information



Area 3. US 34 / BIG THOMPSON / GLEN HAVEN / STORM MOUNTAIN



Unincorporated Towns and Communities

- Drake
- Glen Haven
- Waltonia
- Midway
- Storm Mountain
- Loveland Heights
- Glen Comfort

Location

The rural unincorporated communities in this subarea are located directly west from Loveland, and northeast of the Town of Estes Park. Primary access is provided by U.S. 34, Devils Gulch/County Road 43, Big Thompson Ave, County Road 29, County Road 27 and Glade Road.

Physical Description

This mountainous area contains multiple public lands, including National Forest lands that are popular for outdoor activities including hiking, fishing, and hunting. The subarea is primarily rural agricultural land (with little active agricultural production outside of Sylvan Dale) and protected public lands with scattered small residential communities.

Primary waterways are the Big Thompson River and North Fork of the Big Thompson River. Smaller waterways include Cedar Creek and Redstone Creek.

Residential Development Potential

There are currently 395 vacant residential properties that are entitled or can be developed as single-family homes. Properties that are under 70-acre cannot be further subdivided by right.

There are another 272 privately-owned properties larger than 35-acres encompassing 22,713 acres that could be subdivided into residential areas in the future.

Fragility Scale

The 2015 [Unmet Needs and Community Fragility \(UNCF\) Study](#) assessed the communities in this subarea, which experienced heavy impacts from the 2013 floods.

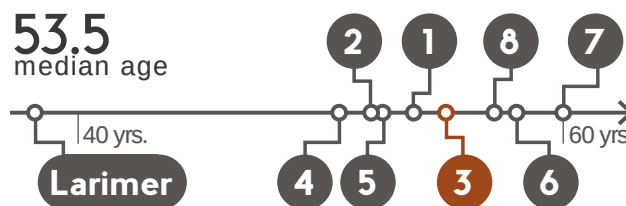
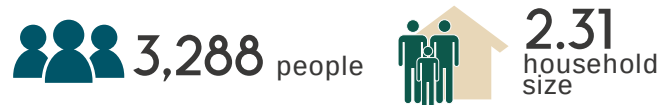
In the UNCF survey, some of the communities in this subarea had very high levels of Connectedness, high levels of Community Stability, and higher than average levels of Sustainability. Survey respondents reported that members of the community helped each other and were committed to the well-being of the community. Respondents also noted that the community members worked together to improve the community and felt like they belonged to the community.

Specific Area Plans

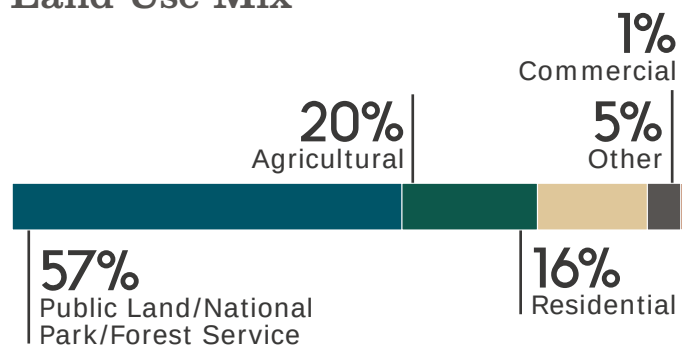
The Larimer County Bigger Vision for the Big T plan is intended to reduce risk to lives, private property and critical infrastructure, improve water quality and ecological function, and improve river function and resiliency throughout the year, as well as during flood events, by maximizing the area available for the river and its floodplain. The Plan identifies best practices for both river and ecosystem resiliency and land use and infrastructure resiliency. The following are best practices that relate to Region Area 3.

- Undertake strategic land acquisition for river enhancements.
- Actively enforce stormwater regulations.
- Retain strong floodplain regulations, including limiting buildings in the 500-year floodplain, and update floodplain maps.
- Discourage the placement of earth fill or dumping of any construction material within the floodplain.

Demographic Profile

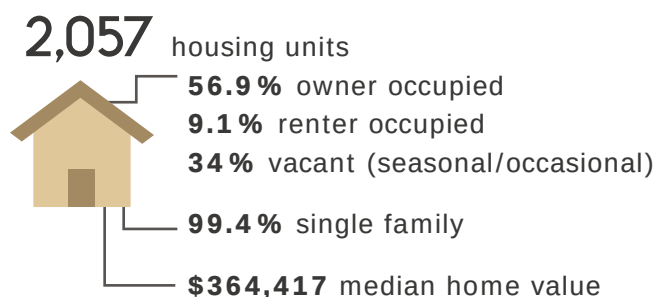


Land Use Mix



Source. Larimer County data 2017

Housing Information



The Big Thompson Watershed Coalition finalized the Big Thompson Management Plan in 2015. This plan outlines the river restoration master plan for the watershed and may be viewed at www.bigthompson.co/master-planning.

The plan focuses on creating a more resilient river system through improving river function over a broad range of discharges (including flood events); reduce risk and minimize damage to lives, infrastructure, and property; and rehabilitate ecological function, including riparian vegetation and aquatic habitat. One key recommendation is the enforcement of current floodplain management ordinances.

Recommendations from Existing Plans

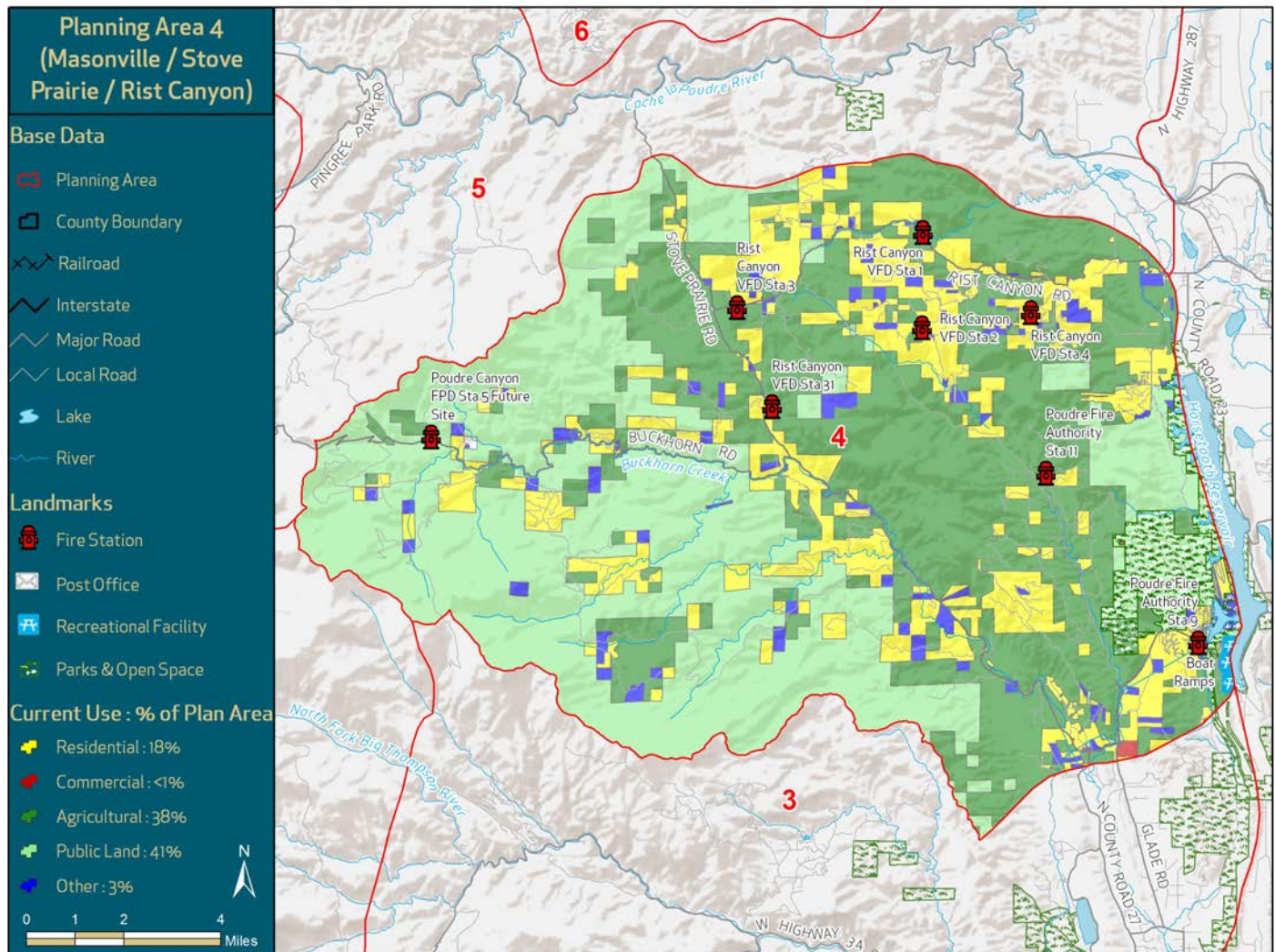
The following recommended actions were identified as part of the UNCF Study.

- These communities would benefit from programs aimed at building public trust, such as education and outreach efforts.
- Continue watershed planning activities, outreach, and implementation of proposed projects.
- The Glen Haven Association and the Big Thompson Association both provide some connection points between community members as well as to outside organizations and the county. The associations should continue efforts to work with organizations and individuals to build community connectedness and improve sustainability.
- Due to the fact that the Glen Haven Association is not an officially recognized entity, many of the assistance programs available to other communities were not available after the flood. By working to establish a more formal structure, such as a 501(c)(3) organization or a Title 32 Special District, the community will have better access to assistance pre- and post-disaster.
- Develop relationships with both formal and informal leaders in each community, whether through the fire departments or associations, to improve community coordination.
- Secondary modes of egress are needed for some areas throughout these communities. Continue work towards the identification and

development of secondary access routes where available.

- Although somewhat well connected as a community in areas, community planning efforts would benefit these communities and would allow them to jointly plan for their own futures and clearly define their preferred future selves.
- Continued work with the Big Thompson Conservation District on forest management would greatly benefit this area.
- Coordinate with cell phone service providers to identify potential solutions for expanding and improving cellular networks and consider also utilizing other possible communication networks.
- Install stream gauges to improve flood monitoring and notifications.
- Work with the County to implement mitigation efforts included in the [Hazard Mitigation Plan](#).
- As a community building event, develop a community supply of resources for use in emergency situations when the Area is cut off from the rest of the county.

Area 4. MASONVILLE / STOVE PRAIRIE / RIST CANYON



Unincorporated Towns and Communities

- Stove Prairie
- Masonville
- Bellvue
- Buckhorn

Location

The rural unincorporated communities in this subarea are located west of Fort Collins and Horsetooth Reservoir. The primary access to the area is provided by County Road 23, County Road 38E, Stove Prairie Road, and Rist Canyon Road.

Physical Description

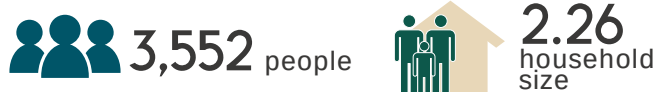
This mountainous area contains municipal and state parks and National Forest lands that are popular for outdoor activities including hiking, fishing, and hunting. The region is primarily rural agricultural land and public lands with scattered residential communities.

Residential Development Potential

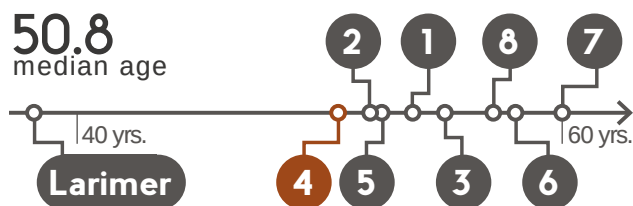
There are currently 268 vacant residential properties that are entitled or can be developed as single-family homes. Properties that are under 70-acre cannot be further subdivided by right.

There are another 714 privately-owned properties larger than 35-acres encompassing 50,399 acres that could be subdivided into residential areas in the future.

Demographic Profile



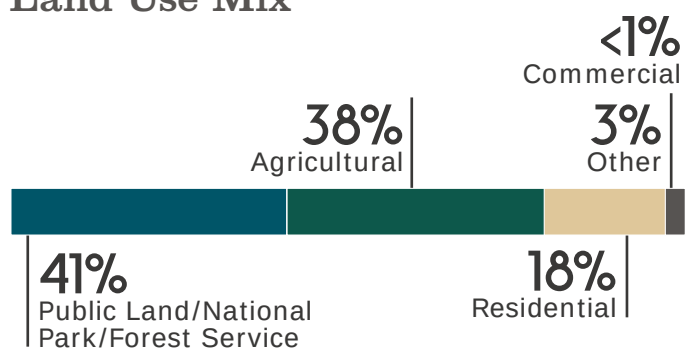
50.8
median age



\$67,804

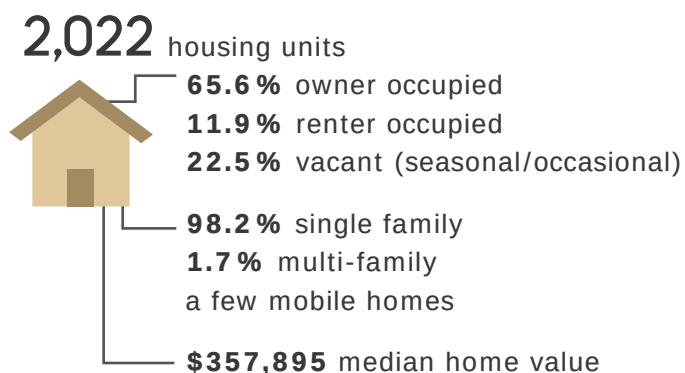


Land Use Mix



Source. Larimer County data 2017

Housing Information



Fragility Scale

The 2015 [Unmet Needs and Community Fragility \(UNCF\) Study](#) assessed the communities in this region together with LaPorte, Livermore, and the Poudre River Area due to their similar rural locations and community structure.

In the UNCF survey, this subarea had high levels of Connectedness, low levels of Community Stability, and low Sustainability. Survey respondents reported that members of the community helped each other and were committed to the well-being of the community.

Issues/Challenges Facing Area

Issues from the rural area visioning process in 2013 and 2014.

- Education to bicyclist and notification of races
- Education on what County services are available and how they are paid for
- Better internet
- More senior services (recreation center)
- Emergency services response time
- Community organization
- Limited community ties make organizing community activities or plans difficult.

Specific Area Plans

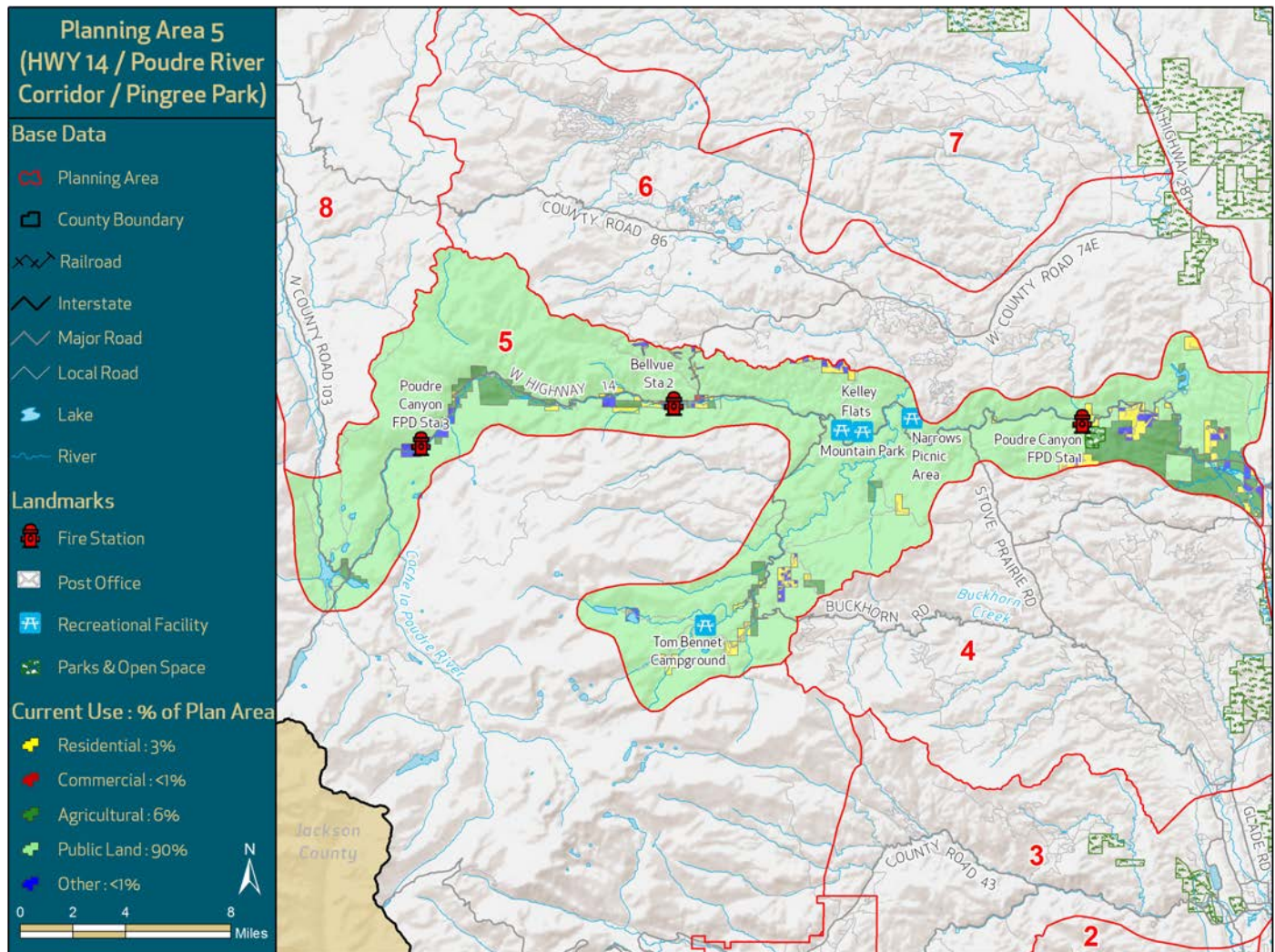
Horsetooth Mountain Park is located within this region and the current Horsetooth Mountain Park Management Plan was adopted by the Larimer County Parks and Open Lands Department in May 2006. This plan outlines resource management strategies for the park and may be viewed at www.co.larimer.co.us/parks/http_plan.

Recommendations from Existing Plans

The following recommended actions were identified as part of the UNCF Study.

- Continue coordination with the Coalition for the Poudre River Watershed and collective planning efforts. The Coalition can serve a vital role as a voice for community residents.
- Improved stream monitoring would be beneficial for a number of reasons. Install stream gauges to improve flood monitoring and notifications.

Area 5. HIGHWAY 14 / Poudre River CORRIDOR / PINGREE PARK



Unincorporated Towns and Communities

- Poudre River Canyon, including
 - Poudre Park
 - Rustic
 - Mishawaka
 - Indian Meadows,
 - others

Location

The rural unincorporated communities in this region are located along Highway 14 in the Poudre Canyon west of Fort Collins. This region may be accessed along Highway 14 through Poudre River Canyon.

Physical Description

The Cache la Poudre River runs through this area, flowing from west to east toward Fort Collins. Highway 14 runs along the river through Poudre River Canyon with steep slopes rising up from the river along many sections of highway. There are three fire stations in the canyon and four picnic areas and campgrounds.

Residential Development Potential

There are currently 94 vacant residential properties that are entitled or can be developed as single-family homes. Properties that are under 70-acre cannot be further subdivided by right.

There are another 146 privately-owned properties larger than 35-acres encompassing 13,467 acres that could be subdivided into residential areas in the future.

Fragility Scale

The 2015 [Unmet Needs and Community Fragility \(UNCF\) Study](#) assessed the communities along the Poudre River together with LaPorte, Bellvue, and Livermore.

In the UNCF survey, this subarea had high levels of Connectedness, low levels of Community Stability, and low Sustainability. Survey respondents reported that members of the community helped each other and were committed to the well-being of the community.

Issues/Challenges Facing Area

Issues from the rural area visioning process in 2013 and 2014.

- Cell Phone Service
- Improved Road Signage
- Motorcycle racing is a problem
- Build a bike lane up the canyon road
- Pave roads around the fire station
- Re-forestation of hillside, concerned about getting too much rain
- Watershed has a lot of dirt, rocks and debris thrown into it. Would like water companies to do more
- Prefer bridges to road culverts that collect debris in floods
- More forest thinning by the forest service
- Do not want shopping areas closer

Recommendations from Existing Plans

The following recommended actions were identified as part of the UNCF Study.

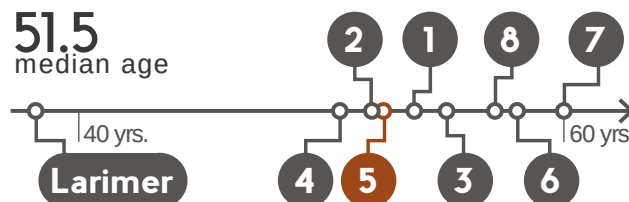
- Continue coordination with the Coalition for the Poudre River Watershed and collective planning efforts.
- Improved stream monitoring would be beneficial for a number of reasons. Install stream gauges to improve flood monitoring and notifications.

Demographic Profile

 **531** people

 **2.15** household size

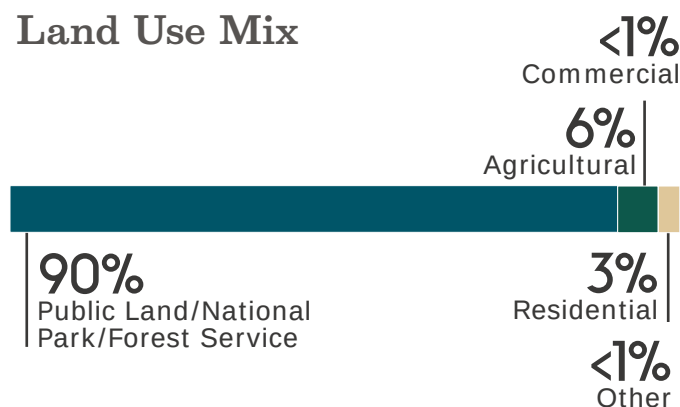
51.5 median age



\$59,777

 median household income

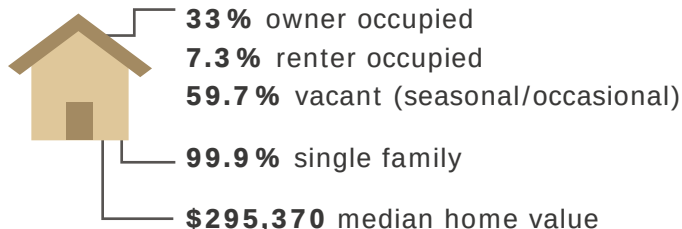
Land Use Mix



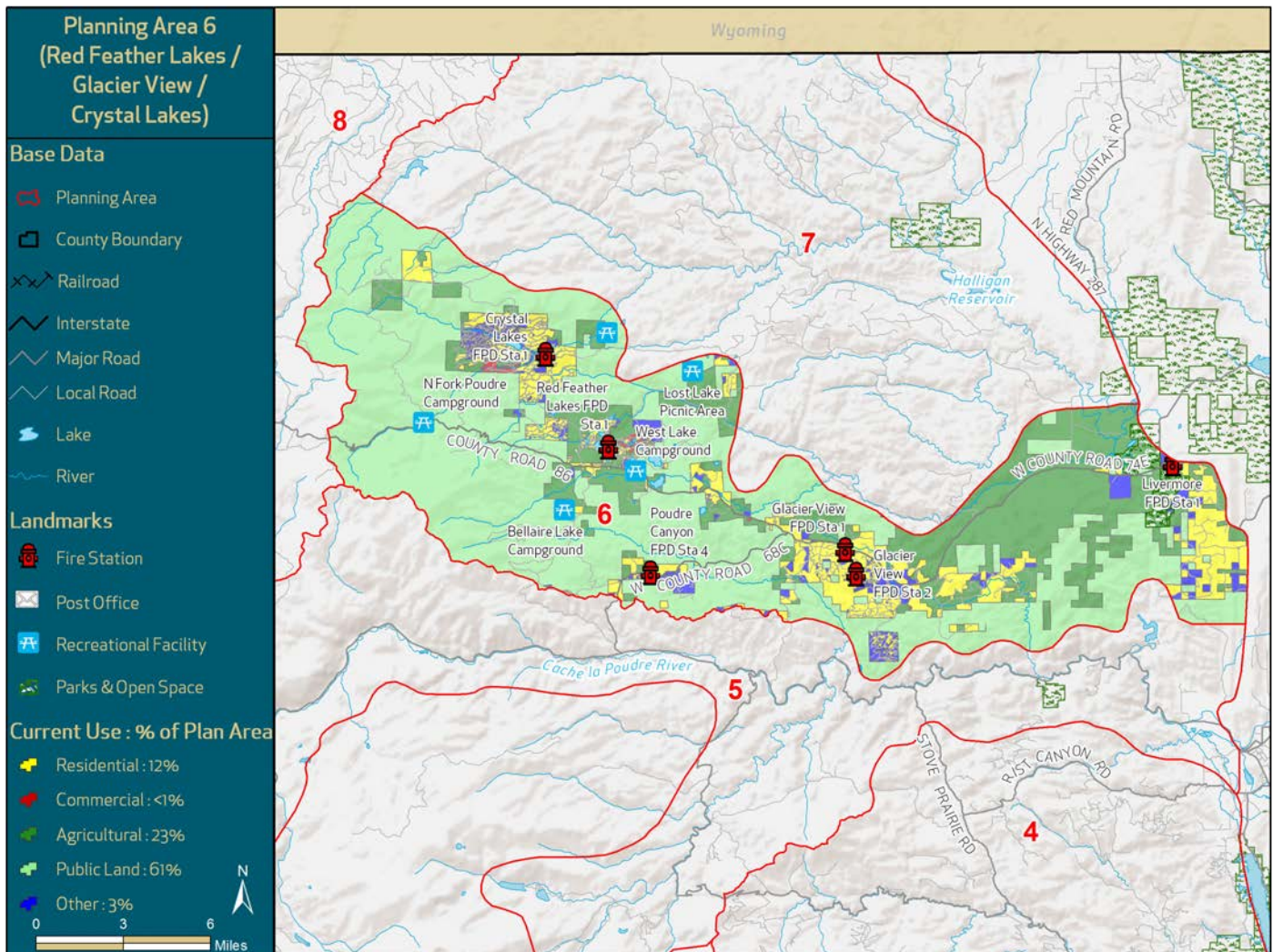
Source: Larimer County data 2017

Housing Information

598 housing units



Area 6. RED FEATHER LAKES / GLACIER VIEW / CRYSTAL LAKES



Unincorporated Towns and Communities

- Red Feather Lakes
- Glacier View
- Crystal Lakes

Location

The communities in this subarea are located approximately 50 miles northwest of Fort Collins. This area is accessed off of Highway 287 via County Road 74E/Red Feather Lakes Road west from Livermore. Much of this subarea is mountainous terrain that may have restricted or seasonal access.

Physical Description

This area includes multiple waterways including George Creek, Panhandle Creek, Cache la Poudre River, South Lone Pine Creek, Elkhorn Creek, North Lone Pine Creek, and Gordon Creek. The area is popular for hunting, fishing, hiking, and other outdoor activities. However, the limited accessibility and remoteness of these communities can leave them vulnerable to hazards including flooding and wildfires.

Residential Development Potential

There are currently 1,283 vacant residential properties that are entitled or can be developed as single-family homes. Properties that are under 70-acre cannot be further subdivided by right.

There are another 487 privately-owned properties larger than 35-acres encompassing 45,205 acres that could be subdivided into residential areas in the future.

Fragility Scale

The 2015 [Unmet Needs and Community Fragility \(UNCF\) Study](#) assessed the communities of Red Feather Lake, Crystal Lakes, and Glacier View Meadows.

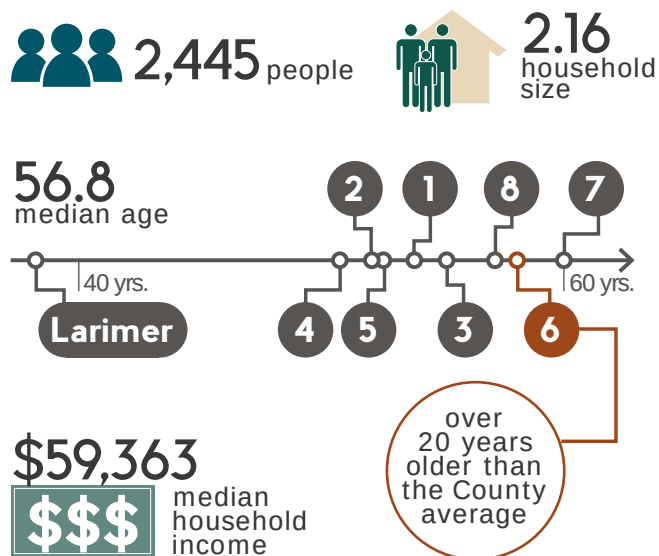
In the UNCF survey, this region had high levels of Connectedness, high levels of Community Stability, and low Sustainability. Survey respondents reported that members of the community helped each other, were committed to the well-being of the community, and felt like they belonged to the community.

Issues/Challenges Facing Area

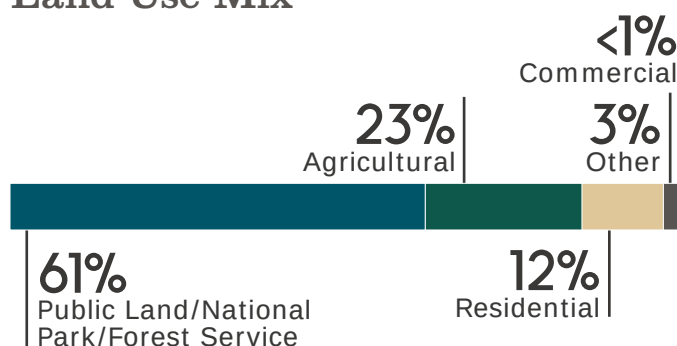
Issues from the rural area visioning process in 2013 and 2014.

- Internet/Cell phone coverage improvements
- Rural medical clinic
- Sheriff's presence
- Traffic/speed enforcement
- Fire protection
- Attract community members. medical, fire protection, school, maintaining national beauty
- Don't want to become another Estes Park
- Do not want large grocery store but interested in expanding commercial abilities to better serve communities
- Need to expand Red Feather Volunteer Fire District
- Simplify process for amending plats
- Insurance rates going up
- Concerned about marijuana facilities
- Do not want to become a urban area but want to add commercial uses

Demographic Profile

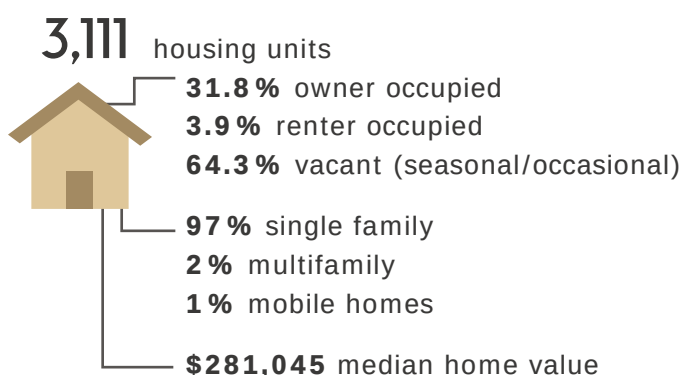


Land Use Mix



Source: Larimer County data 2017

Housing Information



- Better Medical facilities accessibility
- Closer recycling facility
- Ability to download maps of small areas
- Codes here are the same as Fort Collins and that is a problem – no way to meet code requirements because of rock landscaping and topography
- Build some rural requirements into land-use code
- Different road names from the County causes confusion during emergencies
- Fire mitigation
- Weed control

Specific Area Plans

The Red Feather Lakes Area Plan was adopted as a component of the Larimer County Master Plan in August 2006. The Red Feather Lakes Area Plan may be viewed at. www.co.larimer.co.us/redfeather.

Recommendations from Existing Plans

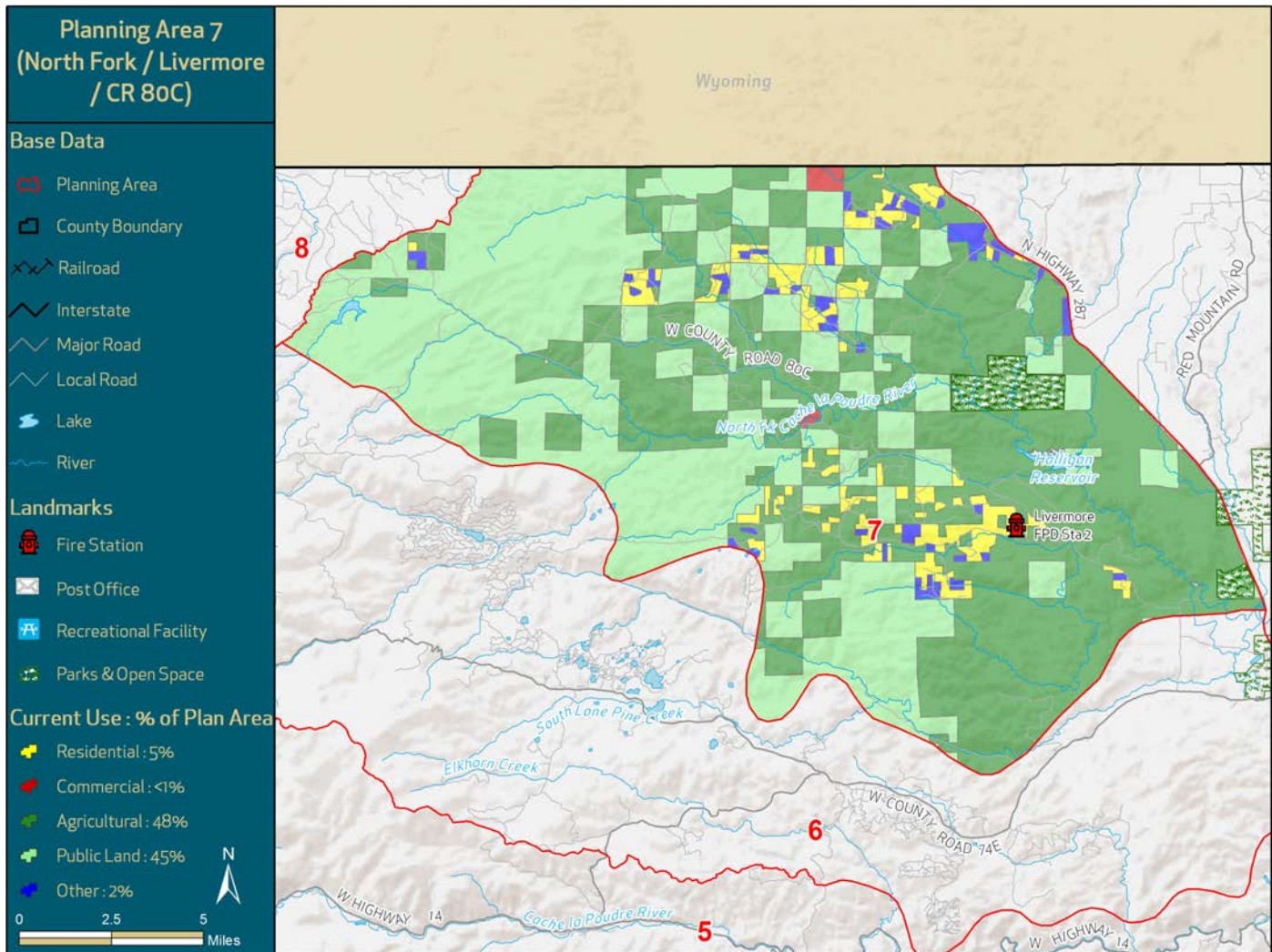
The following recommended actions were identified as part of the UNCF Study.

- Investigate the use of mobile health clinics and re-establish another medical care facility in the area (potential site in Glacier View Area).
- Work with neighbors to form home/road associations to deal with private road maintenance issues.

Ranking low in sustainability is an indication that adequate lifelines and resource management may not be available to these communities. Having community supplies and resources on hand will assist these communities when cut off from the rest of the county. This can be done through a community effort, with support from Larimer OEM.

- Although there were some concerns with the communications structure and the loss of VHF and 800 MHz, these concerns will actually be improving with the construction of the Killpecker Communications tower that is currently being planned. Continue to work with the county to ensure that this site meets the needs of the area. Due to the rural nature of the three communities, enhancing the capability of the Amateur Radio Emergency Services (ARES) Network will greatly improve communications.

Area 7. NORTH FORK / LIVERMORE / CR 80C



Unincorporated Towns and Communities

- Livermore
- North Fork

Location

The communities in this subarea are located northwest of Fort Collins. Access to the area is via Highway 287 and CR 80C. The community of Livermore is located at the junction of Highway 287 and Red Feather Lakes Road. Much of this region is mountainous terrain that may have restricted or seasonal access.

Physical Description

The North Fork of the Cache la Poudre River runs through this area. County Road 80C connects communities to Highway 287. This region is bounded to the north by the Wyoming state border.

Residential Development Potential

There is currently one vacant residential property that is entitled or can be developed as a single-family home. Properties that are under 70-acre cannot be further subdivided by right.

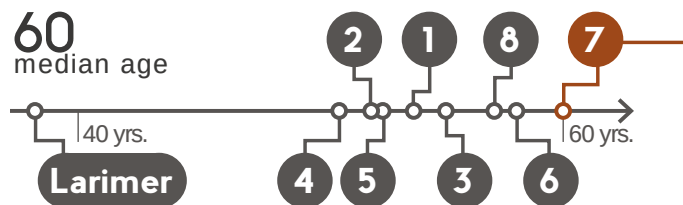
There are another 662 privately-owned properties larger than 35-acres encompassing 80,033 acres that could be subdivided into residential areas in the future.

Demographic Profile

 **420** people

 **2.19** household size

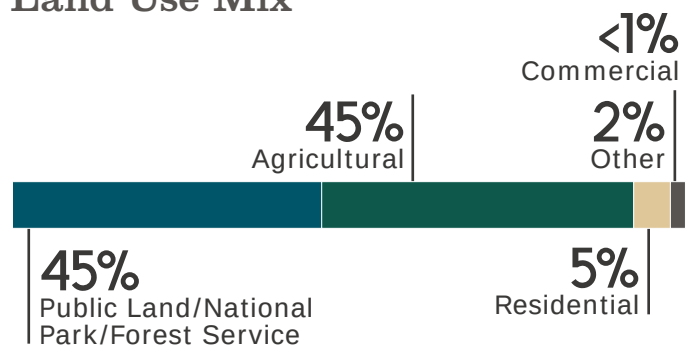
60 median age



\$69,364 median household income


the oldest of the mountain communities and **23.5** years older than the County average.

Land Use Mix



Source. Larimer County data 2017

Housing Information



Fragility Scale

The 2015 [Unmet Needs and Community Fragility \(UNCF\) Study](#) assessed the community of Livermore together with LaPorte and Bellvue.

In the UNCF survey, this region had high levels of Connectedness, low levels of Community Stability, and low Sustainability. Survey respondents reported that members of the community helped each other and were committed to the well-being of the community.

Issues/Challenges Facing Area

Issues from the rural area visioning process in 2013 and 2014.

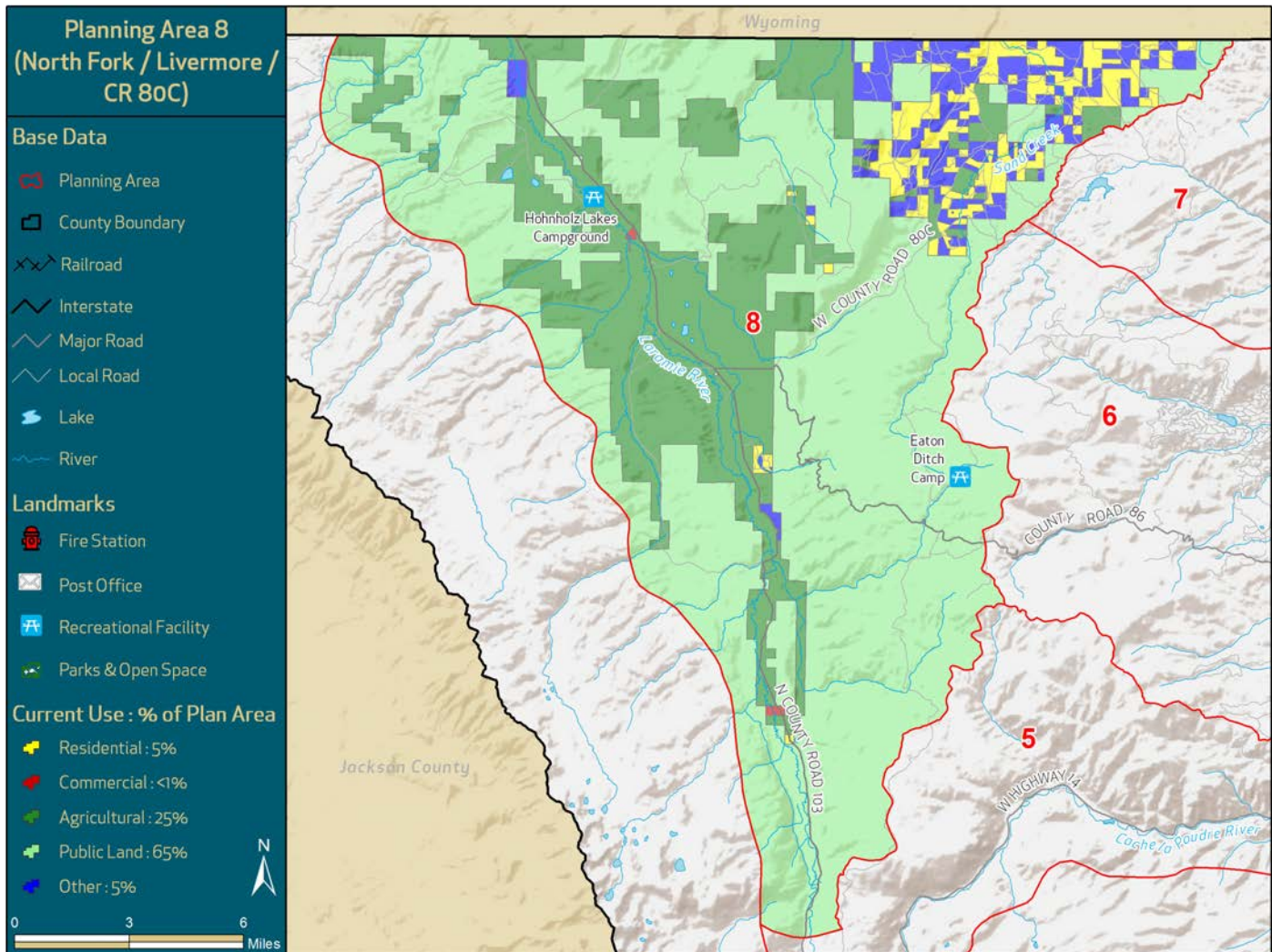
- Cell towers
- Grocery store
- Cell phone/internet service
- More senior services (65 or older)
- Roads need to be kept up (i.e. Road 80C, 82E, 179); better maintained emergency access
- Playground, soccer field
- Lower building permit prices
- Regulations are too expensive and improvements cost too much
- Concerned about reduced sheriff's patrol
- Need more information on fire mitigation
- Families leaving because funding based on number of students. No local middle school or high school options
- Feels like the community will die out

Recommendations from Existing Plans

The following recommended actions were identified as part of the UNCF Study.

- Continue coordination with the Coalition for the Poudre River Watershed and collective planning efforts. The Coalition can serve a vital role as a voice for community residents.
- Improved stream monitoring would be beneficial for a number of reasons. Install stream gauges to improve flood monitoring and notifications.

Area 8. LARAMIE RIVER VALLEY



Unincorporated Towns and Communities

- Glendevey

Location

The communities in this area are remote and difficult to access from the major population centers and primary highways of Larimer County. The rural unincorporated communities in the Laramie River Area are located along Laramie River Road in the mountains approximately 50 miles west of Fort Collins.

The community of Glendevey is located northwest of Spencer Heights and may be accessed in the summer from Route 14 via Laramie River Road (closed December to June off Highway 14) or all year from Wyoming via Highway 10.

Physical Description

The Laramie River Area is located along the Laramie River northwest of Highway 14. Shell Creek, Mill Creek, and the Laramie River Valley are prominent features in the area, an area characterized by working ranches and the soaring peaks of the Rawah Range area.

Residential Development Potential

There are currently 20 vacant residential properties that are entitled or can be developed as single-family homes. Properties that are under 70-acre cannot be further subdivided by right.

There are another 520 privately-owned properties larger than 35-acres encompassing 52,596 acres that could be subdivided into residential areas in the future.

Fragility Scale

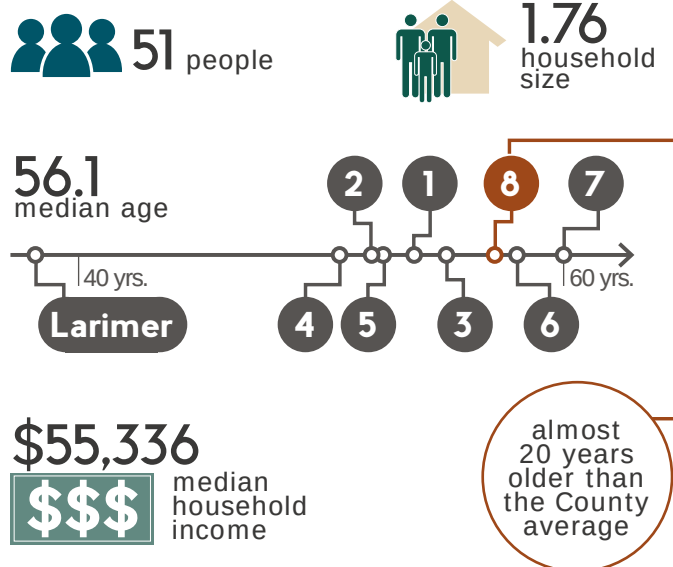
The 2015 [Unmet Needs and Community Fragility \(UNCF\) Study](#) did not assess this region of Larimer County, however, the region faces similar fragility challenges as other rural areas of the County.

Adequate primary and secondary access and egress routes are critical to the safety and resiliency of these communities. Natural hazards, including wildfires and floods, can pose a serious risk to isolated communities with only a single access route.

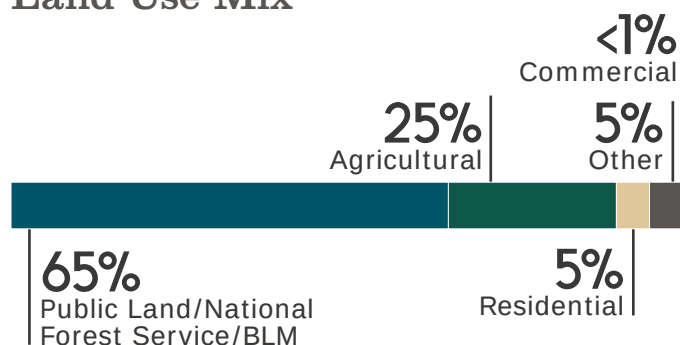
Issues/Challenges Facing Area

- Residents reported lack of trust in County leaders and public officials and lack of knowledge about County affairs due to the distance from the County seat and their proximity to Laramie.
- (To be identified by community during visioning outreach).

Demographic Profile

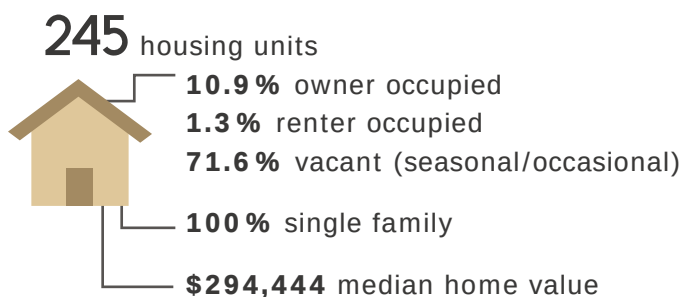


Land Use Mix



Source. Larimer County data 2017

Housing Information



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EXISTING CONDITIONS SNAPSHOTS

INTRODUCTION

The following “snapshots” provide an overview of current issues organized by each resiliency framework. Much of the existing conditions information is already cataloged in adopted plans and studies, and the intent is not to repeat it here. Instead, the snapshots provide a concise summary of relevant, adopted plans, and policy direction; indicates how trends and conditions can influence the development of policies; and substantiates the “big issues” facing the rural communities in the Mountain Resilience Planning Area.

As many of these issues are interconnected across resiliency frameworks, redefined policy direction and land use solutions in this Mountain Resilience Plan will have wide-reaching impacts. For example, past paradigms set aside environmental concerns in favor of what was perceived as economic necessity based on the belief that these were competing rather than complementary aspects of a truly sustainable future. Preserving [watersheds](#) protects the water supply and safeguards the health of human populations that use the water as well as the vegetation and wildlife that depend on it. Keeping floodplains intact and building-free mitigates the effects of storm events and limits damage to structures. Unmarred scenic views are a community asset for their intrinsic value, in addition to enhancing property values and fueling tourism. And ecologically valuable mountain landscapes contain features that benefit all living organisms in an area, not just people. Clustering housing and commercial development can strengthen social and service networks, while conserving valuable habitat and open space.



COMMUNITY



ECONOMY



HEALTH & SOCIAL



HOUSING



INFRASTRUCTURE



**WATERSHEDS &
NATURAL RESOURCES**



COMMUNITY

What Should We Know?

The foundation of community resiliency is the ability of a mountain community to be self-sustaining, and to assess, determine, implement, and learn from their own experience and the experiences of similar communities. The informal channels that currently exist for local governance capacity are ad hoc and largely ineffective in a community's ability to influence development and action that occurs there. Community associations and fire districts typically fulfill community organizing roles where present. The Red Feather Lakes Planning Advisory Committee (PAC) is the only current example of local governance in western Larimer County other than the Estes Valley Planning Commission. Rather than being proactive through long-range planning, the

County often responds reactively to development proposals, which leaves little monitoring of long-term trends, and limits a community's ability to shape their future.

Much like the rest of northern Colorado, Larimer County is undergoing growth and other transitions that have the potential to increase the demand for goods and services to a level previously unseen. The ability for mountain communities to adapt is fundamental to resiliency, both to rapid change and to natural disasters, which have caused millions of dollars in damage in the past five years alone.

The County's role in providing improved community development tools, especially those specific to mountainous areas, and establishing formal channels to create local governance is crucial in building resilience within these communities.

#1 The frequency and magnitude of disasters have increased. Community development tools have not.

In the western United States, largely due to changes in our climate, fire seasons now are an average of 78 days longer than they were in 1970 (USDA 2015). Fires are more frequent, larger and more severe with suppression costs often pushed into the multi-million dollar range. In 1995, the U.S. Forest Service fire budget was 16% and in 2016 it comprised over half the budget. There has also been a 39% reduction of non-fire personnel. Ironically, this shift has meant a decrease in restoration, fuel reduction, and assistance to local communities that would reduce catastrophic fire. Increased expenditures for fire are mirrored at the state and local level in spite of receiving federal cost sharing and technical assistance for fire.

Larimer County has vast swaths of forested land with heavy fuel loads, making it vulnerable to the two primary hazards in the Front Range; wildfire and floods. Just in the past decade, the County has been subject to severe instances of both of these disasters, the High Park fire in 2012 and the 2013 floods. In light of these recent disasters and the associated costs, long-range planning for resiliency in the County is critical, even more so with an increasing population—a factor that contributes to an escalation in frequency and magnitude of disasters.

According to the 2016 [Hazard Mitigation Plan](#), both frequency and magnitude are increasing over time. 4 shows the number of wildfires occurring annually in Larimer County increasing over time. Although the number of annual fires is variable, with extreme lows and highs, the overall trend from 1980 to 2013 shows a positive increase.

5 illustrates the magnitude of wildfires per year occurring in Larimer County from 1980-2013. Although a majority of wildfires affected less than 10,000 acres across three decades, spikes are becoming more intense. The largest wildfires occurred around 2012 and 2013 with the High Park, Hewlett, and Crystal fires, affecting around 97,000 acres in total. Not only is the magnitude becoming more severe for these wildfire events, but the frequency is in an upward trend as well.

Although the magnitude and frequency of these wildfire instances have increased, the use of improved community development tools has not. Planning efforts have certainly increased since the adoption of the [1997 Master Plan](#); however, the effort is being made outside of the County's Community Development Department. As seen in the figure below, a majority of the plans that have been developed in recent years were developed by

Figure 14. Timeline of Completed Plans from 1997-2016



LEGEND

Larimer County Plans Watershed Coalition Plans State Plans Natural Disasters

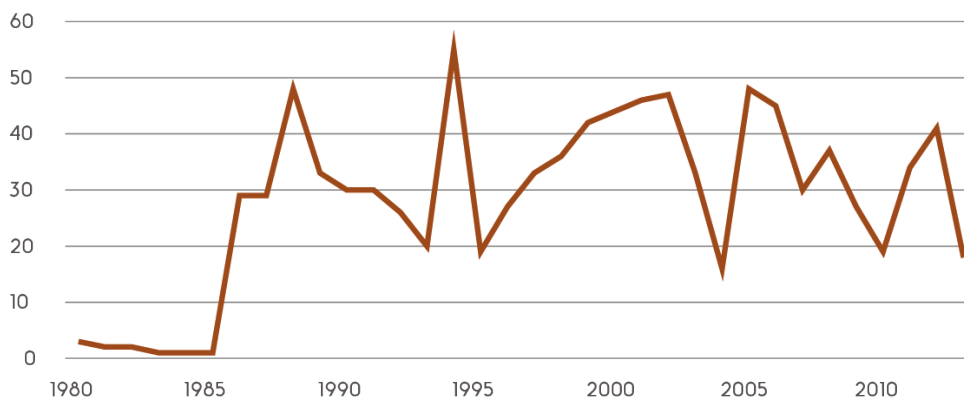


Figure 15. Frequency (Number) of Wildfires Annually in Larimer County from 1980–2013

Source. Larimer County Multi-Jurisdictional Hazard Mitigation Plan, 2016

watershed coalitions or other County departments. See for a full list of plans consulted in this Plan.

The [1997 Master Plan](#) is credited with creating the Transferable Density Units (TDU), the Rural Land Use Program (RLUP), and other community development tools that have improved land use patterns throughout the County. These existing tools, while successful in their implementation, are due for an update to bring new tools into use and to improve existing tools in light of experiences gained over the past twenty years. There is also the opportunity to update the Land Use Code in conjunction with the new Comprehensive Plan, which would allow for better integration of these important tools.

[Comprehensive Emergency Management Plan - Strategic Plan Update](#)

[Larimer County Open Lands Master Plan](#)

[Big Thompson Restoration Master Plan](#)

[A Bigger Vision for the Big T](#)

[State of Colorado Resiliency Framework](#)

[Unmet Needs and Community Fragility Study \(UNCF\)](#)

2010

Reservoir Road Fire

Crystal Wildfire

High Park Wildfire

Northern Colorado ULI Report

Little Thompson Watershed Restoration Master Plan

Larimer County Strategic Plan

Colorado Flood

2015

Larimer County Workforce Center Program

Larimer County Resiliency Framework

Larimer County Workforce and Overview Report

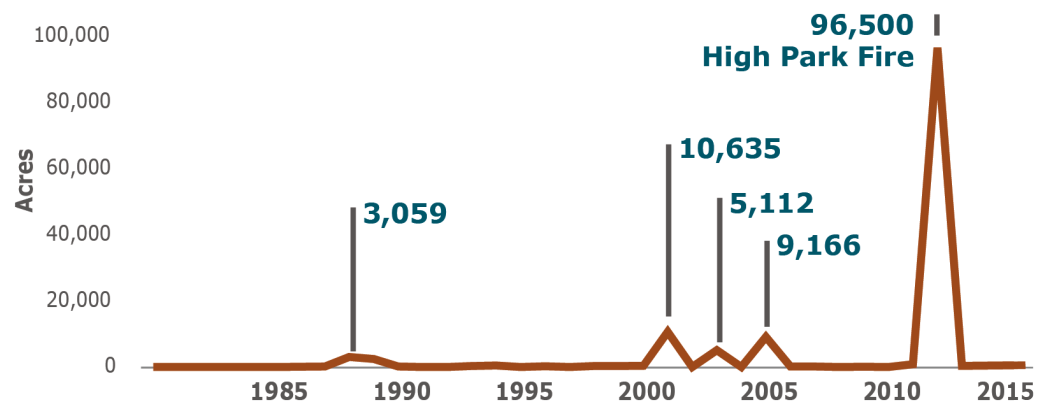
Planning for Hazards Land Use Solutions for Colorado

[Larimer County Hazard Mitigation Plan](#)

Lower Poudre River Restoration and Resiliency Plan

Upper Cache La Poudre Watershed Master Plan

Figure 16. Number of Acres Burned by Wildfire Annually in Larimer County from 1980-2015



Source. Larimer County Multi-Jurisdictional Hazard Mitigation Plan, 2016

#2 There are few formal channels for local governance, decision-making, and communication on long-range land use planning in mountainous areas.

In the eastern plains of Larimer County, there are multiple local governance entities; whereas in the unincorporated mountain communities there is only the Red Feather Lakes Planning Advisory Committee (PAC). PACs give a community legitimacy and County support. The PAC consists of a clerk to record minutes from regular meetings, committee members appointed by the Board of County Commissioners, and it receives planning staff assistance. The PAC's role is to provide an organized forum that facilitates communication within the community and with the County in order to address long-range planning needs and current issues.

The PAC form of local governance in an unincorporated community is currently unique to the Red Feather Lakes area. Before self-determination can be achieved, a community has to have self-organization. There is a lack of representation within mountain communities, which can be partially attributed to inconsistent methods of communication to address problems through organizations such as Homeowners Associations

(HOAs), road associations, or fire districts. Volunteer fire districts are a respected and unifying organization in the mountain communities; though they are faced with the common challenges of high turnover, non-career staff, and volunteers that are typically at retirement age or older.

Each mountain community should have the ability to create capacity for self-determination within a defined planning area, or community influence area, as well as influence the types of projects that move forward and their level of priority. While they do not approve the expenditure of funds, they help prioritize the needs for funds that the Commissioners can either deny or approve.

To accomplish local governance for mountain communities, it is the County's role to facilitate the creation of structures that formalize decision-making and enhance communication. These efforts enhance a community's capability of self-organization and self-determination, and thus contribute to long-term self-sustainability and community resiliency.

#3 The barriers to local governance and subarea planning in mountain communities limit their ability to resolve local issues.

A number of unincorporated towns and communities feel hamstrung at times by their lack of political authority, their constrained capacity to improve their own quality of life, and their quiet voice in promoting themselves or working toward customized economic development or land use strategies. These areas often feel a lack of control over future development, and complain of inadequate government services—including safety, recreation, and amenities found in the large incorporated towns along the Front Range. Furthermore, an ill-defined sense of place, or perhaps more appropriately, a desire to protect their own eclectic identity pushes many unincorporated community residents to seek to control their own destinies. Others fear annexation from neighboring urban areas.

Incorporation could be a solution to some of these problems, but most often the risks outnumber the rewards. The biggest issue is infrastructure, followed by financing. Upon incorporation, a new city is responsible for all raw water treatment and distribution, wastewater collection and treatment,

and road maintenance, not to mention parks, recreation, and other basic urban services. For almost every mountain community, the costs simply outweigh the benefits.

Subarea planning, on the other hand, enables a community to have a voice in whether to attract or redirect development, and decide how they want to grow. The benefits of these plans can be seen through the Red Feather Lakes Area Plan adopted in 2006. The establishment of the Red Feather Lakes PAC created a strong local governance foundation to develop the Area Plan, which creates a structure for the community to manage land uses, development, and infrastructure. This Plan, although successful in its initial implementation, was adopted before the wildfire and floods in 2012 and 2013. It could be updated to include elements that increase the resiliency of the community, emphasize the importance of services including fire, water, and sanitation, and address the costs to residents of water provision as well as fire and flood insurance.

How does this relate to resiliency?

Community resiliency rests on an ability to be self-sustaining through local governance and the application of effective community development tools. The [Larimer Community Resiliency Framework](#) identifies the need for the development of a County master plan that is tailored to community needs and incorporates hazard mitigation. The Mountain Resilience Plan is the realization of this identified need.

This Plan creates a foundation for the County to fulfill their role in creating formal channels for communities to establish local governance, and provide additional support to formal/informal leaders as stated in the [Larimer Community Resiliency Framework](#). This framework will in turn allow the County to more efficiently carry out their regulatory duties and enforcement within the mountain communities. The Plan provides strategies to increase resiliency in these areas, including tackling local land use, economic, and service challenges and identifying improved and refined community development tools.



ECONOMY

What Should We Know?

The foundation of economic resiliency is the capacity of the mountain communities to support the daily needs of residents; providing diverse, closer-to-home employment opportunities; maintaining a high quality yet unique character; and minimizing disaster losses.

Mountain residents are more vulnerable to impacts of economic stresses and shocks because they are more isolated from many necessary amenities and activities, do not have the same level of service as urban areas, and rely on tourism and natural resource extraction as primary contributors to the local economy.

The geographic and topographic constraints present in mountain communities limit the potential for development of both residential and commercial uses. This naturally leads to a limited number of commercial establishments and lack of diversity in the local mountain economies. Many residents consciously choose to commute to urban areas for work and to meet their daily needs. Both an increase in tourism dollars and a decrease in commuting could occur if more commercial uses were available in the center of mountain communities. Water availability also plays a role in the capacity of a community to accommodate additional residents or respond to tourism demands during both peak and off-peak seasons.

#1 Mountain tourism and outdoor recreation is a primary economic driver, which creates demand for services in mountain communities.

The economic benefits of outdoor recreation are greater than often realized. Tourism is the second largest industry in Colorado, and a significant economic generator for Larimer County. Natural areas and nature-based recreation areas play an important role in attracting visitors to the County who spend money at local businesses.

More than 3 million annual visitors to Larimer County make outdoor recreation a priority in their daily lives and they prove it by opening their wallets.² For destination tourists, direct spending on items such as outdoor gear, lodging, retail, eating/drinking, and entertainment/recreational establishments increases tax revenues to local governments. Colorado Travel Impacts, a study prepared for the Colorado Tourism Office, profiles tourism statistics from 1996 to 2015.⁵ According to this study, there were approximately 77.7 million visitors to Colorado in 2015 that spent an estimated \$19.1 billion, which is an all-time high for the state. Total direct travel spending in Larimer County was estimated to be \$622 million, of which \$91 million was spent on arts, entertainment, and recreation. This spending was estimated to produce \$180 million in earnings and approximately 8,290 jobs,

Table 5. Annual Overnight Travel/Tourism Benefits to Larimer County in 2015

Benefits	Monetary Benefit
Total Visitor Direct Spending	\$621,600,000
Earnings	\$179,600,000
Employment	8,288 jobs
Local Tax Revenue	\$19,300,000
State Tax Revenue	\$17,400,000

Source. Colorado Tourism Office. "Colorado Travel Impacts; 1996-2015."

of which \$47 million and approximately 3,010 jobs can be attributed to the arts, entertainment, and recreation. The Colorado travel industry generated \$19 million in local tax revenues within Larimer County in 2015.

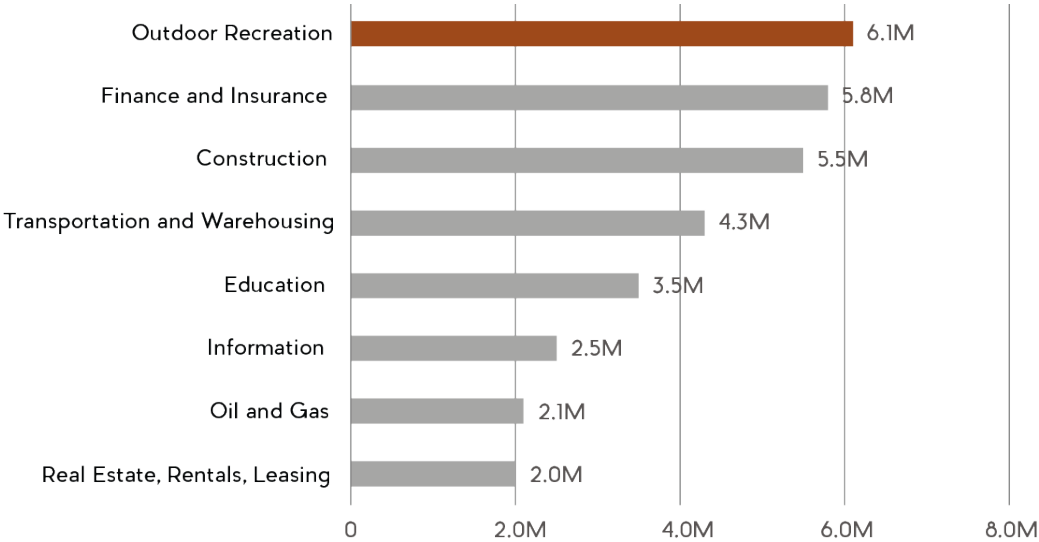
The main tourism destination in the County is Rocky Mountain National Park, which broke records in 2016 with over 4.5 million visitors and an

8.7% increase over the previous record in 2015. The growing population in the Front Range is a contributing factor to the increase in visitors, and every month of the year except December set a monthly record.⁶

The mountain communities of Larimer County have lesser known, yet still impressive, recreational opportunities. However, most do not possess the economic infrastructure to accommodate a continued increase in tourism—assets like contextual development (place-based design), water/wastewater infrastructure, transportation, and commercial amenities that support overall year-round regional tourism.

Stakeholders point to water availability, and the [1997 Master Plan](#) and Land Use Code as barriers to tourism and development opportunities. The [1997 Master Plan](#) deterred new commercial establishments in unincorporated areas and rural communities. Constraints of this nature need to be updated to allow for the balance of daily and tourism services with the community's desire to avoid fragmenting the landscape by concentrating commercial development in a limited number of town centers.

Figure 17. 2011 National Job Comparisons by Industry



Source. Outdoor Industry Association. "The Outdoor Recreation Economy." 2012.

#2 Broadband services to the mountain communities are very limited. Upgraded technology infrastructure would improve emergency and health services, business opportunities, economic self-sufficiency, and education.

Historic development patterns and employment have always followed road infrastructure, from the Overland Trail wagon road to railroads. Today, technology has evolved as a "road" to communication, collaboration, and accessibility, and is increasingly becoming a necessary element of daily life.

Baby boomers are living longer and some find themselves in a position where they have not accumulated enough assets to retire at the typical age. Entering into "encore careers" (or second professional positions following their initial retirement) is becoming a popular trend.⁷ In fact, 31 million people nationally are interested

in making the leap into “encore careers.” With a higher median age than the County, barriers to provide technological and broadband services will have a detrimental effect on the ability of residents in mountain communities to access these types of second professional positions.

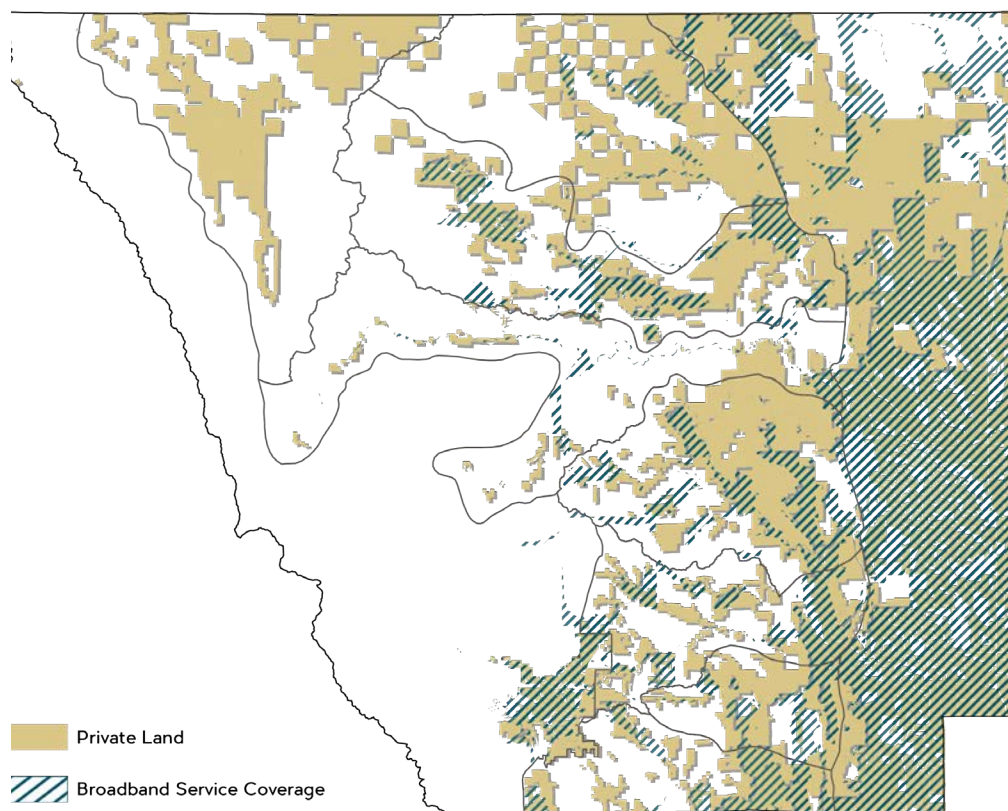
Telecommuting is also gaining traction. Regular work-at-home employees have grown 103% since 2005, not counting those that are self-employed.⁸ Of western Larimer County residents, 51% residents are in the workforce, of which 20-25% telecommutes at some frequency. With the upward trend of telecommuting and encore careers, broadband services would support this population in the mountain communities as well.

Currently, 45% of private land in Larimer County is not serviced by broadband technology. The Mountain Planning Area suffers most from this lack of or poor broadband service with low typical download and upload speeds of 200 kilobits per second (kbps) to 3 megabits per second (mbps). Some communities lack services entirely. There are 29 Community Anchor Institutions (CAIs) in the Mountain Resilience Planning Area, or institutions that offer policy makers an opportunity to understand where broadband access is located –these include 10 fire districts, 14 volunteer fire stations, four elementary schools, and one library. Emergency services and schools stand the most to benefit from improved communications. Six of these are located in US 34/Big Thompson/Glen Haven/Storm Mountain (Area 3) and eight in Red

Feather Lakes/Glacier View/Crystal Lakes (Area 6).⁹ As the population 55 and older has grown by 11% from 2000 to 2016 with an additional 3% increase projected between 2016 and 2021, improvements to this infrastructure would be necessary to support encore careers.

Lastly, western Larimer County residents are slightly more educated, on average, than eastern residents (97% high school degree or higher versus 95%), and 26% of western Larimer County have a bachelor’s degree.¹⁰ The ability to work remotely, age in place, and accommodate communications for those with learning difficulties (deaf, blind, ESL) could create a healthy social environment and network that would boost the availability for home occupation employment in the mountain communities, and lead to an increased sense of community and safety.

45% of private land in Larimer County is not currently serviced by broadband



Map 1. Broadband Coverage

#3 Local employment opportunities are scarce. The majority of residents commute on mountain roads to urban centers.

Apart from the lack of broadband services, local industry growth and work-at-home occupations are hampered by the Land Use Code that places limitations on number of employees, trips, and uses. Due to geographic and topographic constraints in the mountain communities, large-scale employment centers are not realistic. Typical physical employment centers require adequate provision of resources (i.e. water availability, sewage and wastewater, etc.), though natural resource-based employment (such as locally sourcing and processing products) does not fit the one-size-fits-all model in the Code.

The same is true for many home occupations, including those that fall into the Accessory Rural Occupations provisions that pertain to properties located outside a Growth Management Area (GMA) and within farming, forestry, open, or rural estate zoning districts. The main constraints in the Land Use Code that have been identified by stakeholders are.

Home Occupation Provisions.¹¹

- Vehicle trips associated with the home occupation will not exceed ten trips in any one day.
- Vehicle repair or similar activities are specifically excluded.
- The home occupation is conducted only by members of the family who reside on the premises plus up to one full time equivalent person who works at the site of the home occupation and does not reside on the premises.

Accessory Rural Occupations Provisions.¹²

- Criteria for agricultural uses prohibit farming on less than three acres.
- Vehicle trips are limited to 10 trips per day including employees, deliveries, and customers but can be extended to 20 trips a day under Public Site Plan Review.
- Process for Public Site Plan Review does not address types of uses.

With 53% of mountain community residents holding jobs in the services industry, allowing home occupation at certain times of the year is convenient and would supplement incomes without having to commute into more urban areas. An update to the Land Use Code would also present the opportunity to amend provisions of the Code to refine what is and is not allowed to keep pace with employment needs of the residents and modern practices. This may also fuel the trend toward year-round residency, which although beneficial economically, would require consideration of environmental and infrastructure issues.

In addition to challenges to local employment opportunities, business services that meet local, daily needs are few and far between. According to Quarterly Census of Employment and Wages data from 2012, there are 273 establishments that employ from 1-50 individuals in the Mountain Planning Area. However, a majority of these businesses are based in manufacturing/processing, with little provision for the daily needs of residents, or needs that are necessary during emergencies, such as access to grocery stores, hospitals, or hardware stores. A majority of residents in the mountain communities commute to urban areas to satisfy these needs, a commute that would not be feasible in the event of a disaster where access to these areas could be restricted due to damage.

#4 Reactive disaster recovery efforts place a financial and leadership burden on the entire County. Proactive preparedness provides dividends.

The High Park fire burned over 87,000 acres, destroyed at least 259 homes, killed one resident, cost \$38 million to suppress the fire, and resulted in \$113 million in insured losses.¹³ The flooding that followed in 2013 after 15 inches of rain kicked the County while it was down, with over 1,000 square miles affected, and 1,500 homes and 200 businesses destroyed. Extensive road damage in the St. Vrain and Big Thompson canyons cut off residents of Drake, Glen Haven, Estes Park, and Cedar Park, and both U.S. Highways 36 and 34 were severely damaged.

The costs of disasters are extremely high for communities; the 2013 flood cost Larimer County over \$107 million, of which \$24.7 million was reimbursed by FEMA. The County was also reimbursed \$13.6 million for the costs incurred from the High Park fire.¹⁴

In addition to these quantifiable direct costs, there are intangible but very real indirect costs from business/network disruption, death and injury, health/stress, community connectivity, erosion, and water quality that are often unaccounted for in reimbursable costs and span long periods of time following the disaster.¹⁵ There is also an opportunity to cost how many months and years were elected leaders, government staff, non-profits distracted by disaster recovery from other priorities.

Proactive planning for disasters not only yields leadership dividends but also mitigates the severity of effects and recovery costs, both direct and indirect, following the disaster.

How Does this Relate to Resiliency?

Economic resilience refers to the ability to prepare for, absorb and adapt to any economic change, whether caused by a disaster, a recession, or regional competition. With the expectation of continued increases in northern Colorado's population, communities that maintain healthy economic activity and employment will continue to thrive.

Currently, most counties regulate the use of land as a purely economic system, without consideration of environmental and quality of life values. Rarely do they have the tools to effectively assess existing conditions or model the effects of proposed policy changes. A resiliency approach identifies critical landscapes of economic, scenic, cultural, or hazard

mitigation values then works to leverage them towards a highest and best use.

The tools in this Plan can affect the quality of development, resilient land use patterns, hazard mitigation, and the ability for residents and mountain communities to become more economically self-sufficient. Apart from natural geographic constraints, this ability is constrained by a lack of services to meet daily needs; a lack of employment opportunities; and communication for education, emergency services, and home-based businesses. The outdoor recreation industry is expected to remain very active and can be leveraged county-wide beyond Estes Park.



HEALTH & SOCIAL

What Should We Know?

“Protection of the health, safety and welfare of the citizens” is written into Larimer County’s mission statement and is a central tenet of this Plan.¹⁶

This brings resiliency down to an individual level; making sure that basic individual and community needs are met for safety and education, mental and physical wellbeing, access to health services, exposure to a healthy environment, and managing the impacts of the built environment.

The County shares the burden of providing these health and social services with a network of federal, state, special districts, non-profit and private organizations, but the real impact of the Mountain Resiliency Plan can be felt in the pursuit of maintaining a high quality of life, fostering social cohesion, and encouraging healthy lifestyles through land use planning, hazard management, and environmental justice.

#1 Many residents covet their isolation, but building community requires organizations and a good place to hang out.

There are only a handful of commercial businesses or public facilities in the mountain communities of Larimer County (see the Economic Snapshot). Locals know exactly where they are and can often name them on a single hand in their area. These gathering places play a special role to bring a community together and make it stronger and more resilient. Even in the online era, physical hang out places are still indispensable in rural areas. While the low number of gathering places limits the opportunity for social interaction among neighbors, these restaurants, stores, schools, or libraries are routinely transformed into decision-making arenas and emergency management centers by providing information, shelter, energy, or a number of basic services.

Many residents feel that unless there is a strong homeowners association (HOA), a road association, a volunteer fire district, or community group, there is very little community governance or sense of community, which is still a desirable attribute of a mountain lifestyle. Volunteer organizations or HOAs not only help coordinate maintenance and

infrastructure improvements, they can also bring a community together socially through events, volunteering, and neighborly assistance. With mail and newspaper delivery and cell service limited in some areas, the most effective organizations use online platforms such as NextDoor and Facebook to aid in communicating.

While many residents rely on this network regularly to coordinate daily needs, it is appreciated most deeply during and after crises. In communities like Pinewood Springs and Glen Haven, this has extended to sharing provisions, coming together to help clean up or rebuild community spaces, and keeping the neighborhood safe from vandalism and looting in the aftermath of the floods.

Local restaurants and meeting spaces facilitate social connections and community engagement, which is a strategy in the Larimer County Community Health Improvement Plan (CHIP) to combat mental and emotional health issues. A physical community space provides more opportunities to make connections, taking the online social network to another level.

#2 Basic services are essential to health, safety, education, and quality of life, but there is a lack of schools and health care facilities.

The dispersed population makes provision of services inefficient and costly to mountain communities. New residents are informed about the differences in levels of service between urban and rural areas through the New Code of the West.

There are 18 different fire districts and authorities that cover the entire western County. There are a total of 29 fire stations, including two in Estes Park, however many of them are staffed with volunteer firefighters. Rural communities do not have a large enough population for paid staffing at these fire stations and volunteer turnover is a challenge. With an aging population it will continue to be a challenge to backfill these positions. For some communities, these fire stations play an important role in physically grounding a sense of community. Fire protection districts that function as special taxing districts that residents can choose to pay into, like those in Glacier View and Crystal Lakes, can be an effective measure to mitigate risks of fire. The structure of these districts often leads to a pro-active commitment to fire mitigation measures.

There are four public school districts that serve the mountain communities; Poudre School District encompasses the northern half of the County; and Thompson R2, Estes Park R-3, and St. Vrain serve the southern areas of the mountain communities. Including the schools in Estes Park, there are seven public schools.

- Red Feather Lakes Elementary
- Livermore Elementary
- Stove Prairie Elementary
- Big Thompson Elementary
- Estes Park Elementary
- Estes Park Middle School
- Estes Park High School

Western Larimer
County has:

27

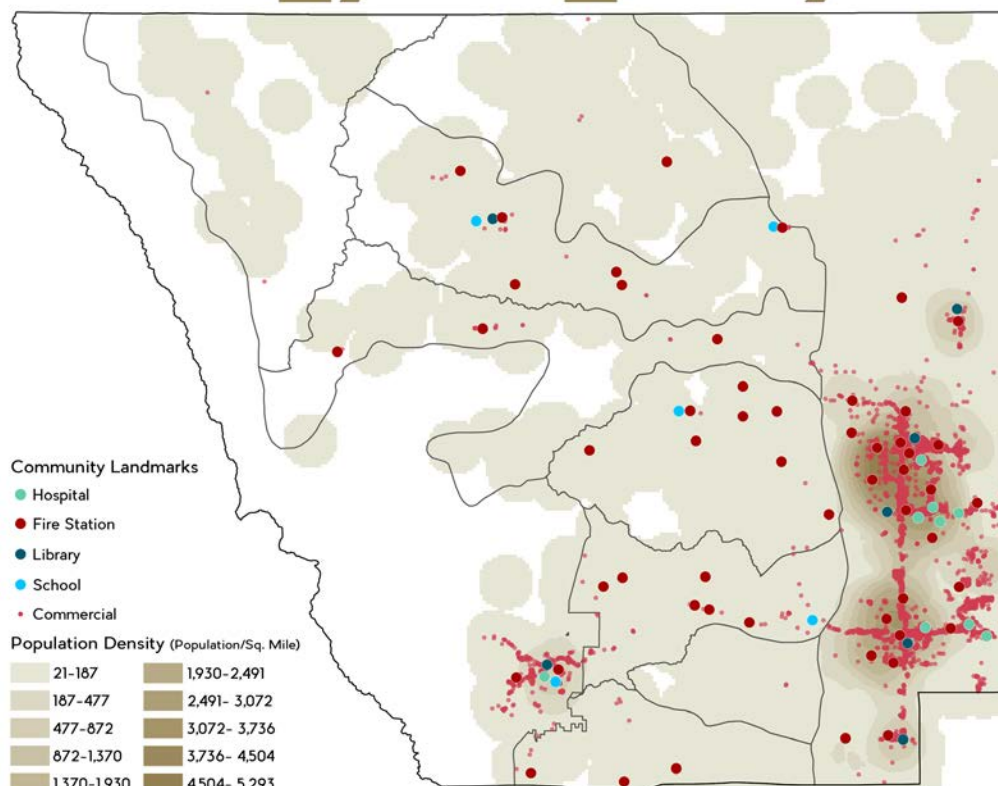
Fire
Stations

2

Libraries

7

Schools



Map 2. Basic Services

School consolidation has been a local discussion for several decades, and the small public schools in mountain areas have been at most at risk of closing. The majority of mountain community school-aged children attends schools in Estes Park or drive to schools in Fort Collins, Loveland or Longmont.

Residential development has a direct impact on public school facility needs. State law and supporting Larimer County Intergovernmental Agreements with these School Districts require county subdivisions to dedicate land for schools, or fees in lieu thereof, as part of the subdivision process. These fees currently range between \$1,300 and \$1,600 per building permit, or \$8 per platted lot for Park School District.¹⁷ Capital Expansion Fees are periodically reviewed by the school districts and the County Commissioners and adjusted as necessary.

There are few options for healthcare facilities for mountain residents. The only hospital in western Larimer County is located in Estes Park, Estes Park Medical Center, which makes the only other option driving down the mountain to facilities in the urban areas of Fort Collins, Loveland, or Longmont. Some northern Larimer County residents are actually closer to emergency and medical facilities in Laramie, Wyoming. Emergency medical response is an important part of the service provided by the fire protection districts and authorities, but response times have a wide range depending on the location and accessibility of residential homes.

NEW CODE OF THE WEST

"The fact that you can drive to your property does not necessarily guarantee that you, your guests and emergency service vehicles can achieve that same level of access at all times. Emergency response times (Sheriff, fire suppression, medical care, etc.) cannot be guaranteed. Under some extreme conditions, you may find that emergency response is extremely slow and expensive."¹⁸

How Does this Relate to Resiliency?

Communities can react and adapt to shocks, stresses, and threats to stability in many different ways, but the fundamental forces that shape a community's health and social resilience rely on access to health, education, and community resources. Residents can recover faster from the stress of instability when there is a continuum of basic needs, such as schools, health care, and housing that recruit the next generation. Furthermore, having a social network and community hub that can help connect residents to those resources can be a great benefit and work toward ensuring the continued health for every mountain community.

#3 Remote mountain living can put vulnerable populations at higher risk.

The impact of hazards, economic instability, or other causes of instability, combined with the geographic, services and communication challenges inherent in the mountains, often fall disproportionately on the most disadvantaged or marginalized community members. The solitude that attracts residents to the mountains can easily turn into isolation when needs aren't met; therefore it is important to establish systems and development standards that can ensure safety and wellbeing for all residents.

The median age for mountain communities is 53, nearly 20 years older than the County as a whole. This trend toward older residents presents a unique challenge to mountain communities, as many senior services and infrastructure are not available,

such as transit, universal design standards and medical assistance. According to a 2015 study on elderly housing and care, the number of seniors needing special services is anticipated to increase in the coming years.

As residents continue to age, it will also be increasingly important for communities to attract younger generations. An approach could be to facilitate communities' engagement in local development and growth, to protect their rural characteristics while bringing in services that attract a younger generation with shared values. This would extend to water, sewer, housing affordability, broadband, telecommuting, and home-based employment.



HOUSING

What Should We Know?

Shelter is a basic need for all Larimer County residents and, as such, ensuring that safe and adequate housing options are available and attainable is key to the overall wellbeing of County residents. When it comes to resiliency and stability in rural mountain communities, housing diversity, availability, affordability, quality, and location are important aspects to address.

Understanding the County's role in guiding development and growth patterns will help address emerging housing issues and anticipate future needs. Western Larimer County is not densely populated, and in fact only has about 10,519 total housing units, or an average of 7.5 units per square mile. The vast majority of developed parcels are used for residential purposes, which indicates that housing policies and standards have a wide-reaching impact in western Larimer County.

#1 The cost of development and obtaining water rights makes new housing subdivisions of lots less than 35 acres challenging.

With high demand for water and a finite supply, the price of securing water in Colorado is at an all-time high. Generally seen as an indicator for the state water market, the water pricing for Colorado-Big Thompson (CBT) Project water have reached a historic high—more than tripling between 2010 and 2015.¹⁹ This comes at the heels of a Front Range housing boom, making it even more expensive to fund new residential developments. New residential subdivisions in urban areas around Fort Collins and Loveland are burdened with additional costs to secure water with inflated tap fees and the increased cost of obtaining raw water.²⁰

This issue is compounded in the rural mountain communities of western Larimer County, as access to treated domestic water is not available to many remote areas, and those that do have access to water utility infrastructure often see higher monthly costs of service on top of high tap fees. Non-well based system costs are high due to water treatment, distributing and operation of the system. The majority of mountain homeowners opt to drill and maintain an on-site water well. These, too, come with a sizable price tag with the associated drilling and pumping costs, pushing expenditures into the tens of thousands of dollars.

A third alternative is to truck in water to fill an on-site cistern or vault. These are often referred to as electric cabins as they only have electricity. This is not a cost-efficient year-round water source, as it

is time and labor intensive. Additional challenges arise in drought conditions, when cities close their refilling stations, leaving residents without water or having to borrow from neighbors.

The cost of securing water can vary significantly between water utility providers. In or near urban areas, the average development costs between water districts as of 2015.²¹

With rising costs of land, development and utility fees, developers are pressured to alter their targeted housing price point or risk squeezing their profit margin. These costs are ultimately passed along to homebuyers, which compound the issue of housing affordability for middle-income earners. The cost of subdividing property is challenging due to water augmentation requirements of Colorado water law.

In 1972, the Colorado Legislature determined that constructing one residential unit on a parcel of 35 acres or more is considered a "use by right" and allowed landowners to have one well for indoor domestic use.^{22, 23} If a property is subdivided into parcels less than 35 acres with need for more than one well, a plan for augmentation must be approved by the Colorado water court to prevent injury to senior water right holders. The cost of a water augmentation plan is, on average, a minimum of \$200,000 when considering costs of water engineer, lawyer and court fees. This cost

is often too heavy for small developments to bear, leaving large developments with significant financial backing as the best suited to successfully obtain a water augmentation plan.

Larimer County or individual communities have very little influence over the price and installation of private water utilities, however, the County's Rural Land Use Process offers an incentive to subdivide properties larger than 70 acres with additional

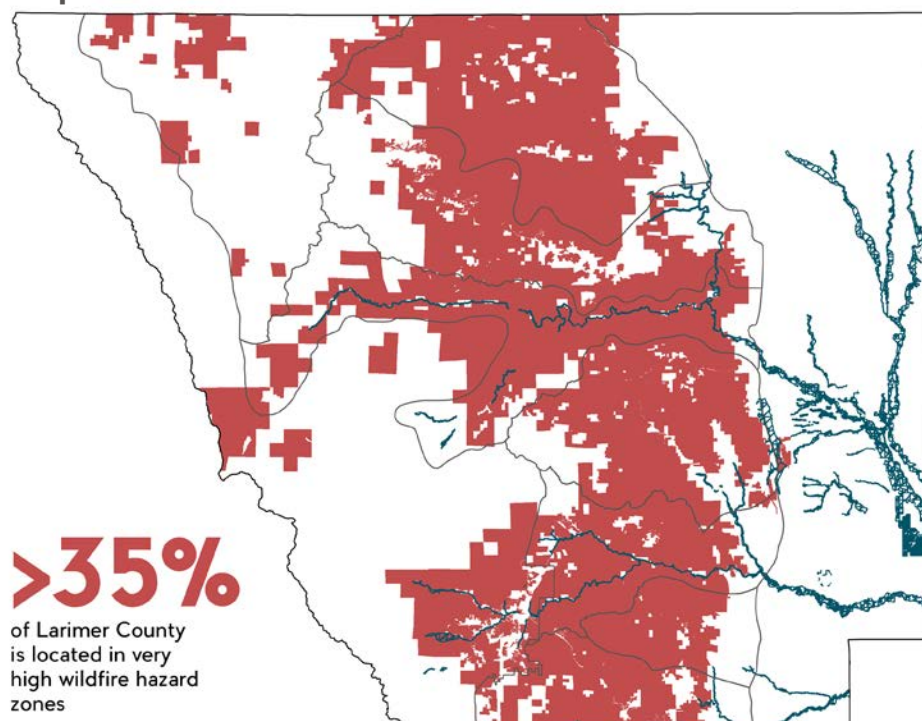
wells, in exchange for conserving 67% of the original property.²⁴ If the cost of obtaining water continues to be a defining barrier to residential development, the County may consider programs to further facilitate water well construction or supporting specific communities' centers to connect to treated domestic water. Site-specific strategies could be further identified in sub-area plans.

#2 The availability of fire and flood insurance strains residents and often results in homes being under-insured, affecting ability to recover and rebuild after disaster events.

Efficiency and reliability of housing assistance during and after disaster events relies heavily on private insurance, and federal assistance. Residents first look to insurance relief to cover the financial burden of rebuilding damaged homes after a disaster event. The UNCF Study quoted over \$11 million in claims from the National Flood Insurance Program (NFIP) for the September 2013 floods, and over \$113 million of claims were made as a result of the High Park fire.

The National Flood Insurance Program (NFIP) currently covers 654 homes in unincorporated Larimer County.²⁵ As a participant in the NFIP, Larimer County has adopted flood mitigation requirements into its Charter and County Code and Ordinance. The County's relationship with NFIP and the voluntary Community Rating System program can aid eligible residents in reduced flood insurance rates. The low

Map 3. Fire and Flood Risk Areas



number of policyholders is due to the misperception that flood insurance is unnecessary for homes that are not built in a FEMA-designated high-risk flood zone. In fact, the flood events like the one in 2013 do not reliably follow the historic floodways and often result in secondary events like dam failings or erosion. As a result, large number of uninsured or under-insured homes outside of the floodway can be affected, thereby affecting their capacity to recover and rebuild after a disaster.

One of the requirements to receive CDBG-DR recovery funding to rebuild homes in FEMA designated floodways is to have flood insurance. Recipients must confirm that

they will purchase flood insurance indefinitely, otherwise they will not be eligible for federal disaster recovery assistance in the future. For some, this is a cost burden that they may not be able afford or choose to discontinue after the 5-year grant monitoring ends.²⁶

In many rural mountain areas, residents also find it hard to secure homeowners insurance without additional costs or meeting fire mitigation requirements. Requirements and considerations vary, but most often include the distance to a

fire hydrant, fire station or other type of fire suppressant; or FireWise best practices such as creating a defensible space around the house. The New Code of the West considers “building at the top of a forested draw ...as dangerous as building in a flash flood area.”²⁷ With only 27 fire stations within the rural mountain study area, insurance providers can increase prices, require additional fire mitigation, or refuse a policy if considered too risky.

#3 Skyrocketing housing prices across northern Colorado are pushing into the mountain areas and influencing housing affordability.

In the years since the Great Recession, the housing market along the Front Range has bounced back in force and become even tighter for homebuyers. Five years ago, the median home price for Larimer County was between \$180k-\$220k, it has now jumped to over \$335k and growing.²⁸ Median housing values are also strong in the mountain communities; estimated at \$311,131 in 2015.²⁹ Increases in salary or new high-paying jobs have not accompanied that 65% increase, leaving many residents looking further and further outside of urban areas for housing options.

Eligible low-income residents displaced from the 2013 flood could apply for housing assistance through the CDBG-DR Program. According to the administering agency, the Loveland Housing Authority, none of the fully displaced applicants were able to find the qualifying level of affordability within their original mountain communities. Consequently, most relocated to the eastern plains, to Weld County or much further south. The housing boom was just starting in 2013, so when residents were emotionally ready to rebuild or buy, they were priced out.

County residents who are not eligible for housing assistance, but not making enough money to afford the increasingly high price of homes do not have a lot of options in the mountain community for sale market. There are no incentives to motivate builders to build entry-level housing in mountain communities, and middle-income households may not have the up-front capital to independently buy and develop a residential lot. This may explain why the median household income for western Larimer County is higher than Loveland, Fort Collins, the Estes Park area and Larimer County on the whole.³⁰ Overall, a healthy sale market is considered to be a six-month inventory, while currently there is only a 1-month inventory. The “drive till you qualify” mentality to find affordable housing is not driving residential homebuilding in the mountains.

The NOCO Housing Now group was recently formed to advise the Northern Colorado region on housing affordability initiatives and strategies. Additionally the [Larimer Resiliency Framework](#) recommended conducting a county-wide assessment of housing needs and availability. This Mountain Resilience Plan can reinforce these initiatives and partnerships through targeted Guiding Principles and strategies for some of the more vulnerable mountain areas.

How Does this Relate to Resiliency?

The long-term resiliency of residential mountain communities relies on the availability, affordability, strategic location and quality of housing in the area. Housing is in essence just bricks and mortar, but the impact of natural disasters on structures can ravage a sense of community both in the loss of inhabitable homes and in the loss of security, as history has shown. Without a framework to ensure housing resiliency, the foundation of mountain communities is at risk.

Studies show that fire suppression costs are highly correlated with the number and pattern of houses during a fire. Denser neighborhoods or

subdivisions are easier and more cost effective to serve than the same number of houses dispersed over a larger area.

Since 1997, Larimer County has guided the majority of new development to locations near urban centers, and focused on clustering new housing developments. These efforts have helped to maintain the rural character, preserve natural environments, and create more cohesive communities. The Mountain Resilience Plan advances these benefits by strengthening the County's adaptability to changing markets, environmental pressures, and disaster events.



INFRASTRUCTURE

What Should We Know?

Infrastructure is an organized system to facilitate the movement of people, goods, utilities, and information throughout the mountains and into the plains. It includes the physical connections for transportation, water, wastewater, solid waste, energy, communications, public facilities, and green infrastructure. Green infrastructure is the concept of “Designing with nature,” by bringing flood, fire and drought into land use planning and project design.

There is a need within the mountains to focus on holistic watershed health, stabilize river channel and banks, and consider how infrastructure is located in the floodplain to increase and improve aquatic and riparian habitat. These elements are essential to meeting communities’ basic needs,

and ensuring access, safety and health for all residents. As local infrastructure continues to age and be impacted by hazards, additional investment and a method to prioritize investments is needed. Upgrading infrastructure offers an opportunity to build in ways that are more resilient to hazards.

Key infrastructure issues in Larimer County’s mountain communities include the need for redundant and inter-operable systems that can meet changing customer needs and growing demand. Redundancy is defined as building in an extra layer of protection against system failure, creating a back-up system to ensure continued operation. The majority of older County infrastructure was built with only a partial understanding of the local risk and may not be designed to address emerging issues.

#1 The aging and vulnerable bridge and road system, critical for providing safe daily service and in the event of disaster, requires investments to improve community resiliency and safety.

There is a major funding need for updating critical and aging infrastructure in the rural mountain communities. Many bridges in the County were built 40 or more years ago, bringing them near the end of their design life. The Larimer County Transportation Master Plan (2017) identifies short-term needs for annual pavement maintenance, capacity, intersections and bridges at \$145.7 million county-wide. The long-term need through 2040 is estimated at \$804.9 million.

In accordance with [2013-2018 Larimer County Strategic Plan](#), the Engineering Department identified five structurally deficient publicly owned and maintained bridges for replacement. The bridge replacements will be completed by 2020, though it should be noted that not all of these bridges are in the mountainous areas in Larimer County.

The Mountain Resilience Plan looks at the future of roads and bridges in terms of vulnerability to hazards. It lays the policy foundation to ensure that all new facilities continue to be designed to withstand the impacts of hazards in the waterways and potential fire corridors where they are located.

The recently updated Transportation Master Plan should be used as a guide to develop road and bridge infrastructure requirements for development and maintenance in the mountain communities. Criteria for design of infrastructure will also meet standards to withstand potential hazards and should incorporate green infrastructure benefits when possible.

#2 Critical infrastructure is not currently designed to reduce the impacts of hazards or account for expected increases in population.

While the initial cost of designing infrastructure to withstand disasters, such as flooding and fire, is greater, the long-term benefit is substantial. New and replacement infrastructure could utilize technology and innovation in infrastructure projects to increase robustness, modularity, and diversity. In addition to the physical design and development of infrastructure, emergency action plans for infrastructure failure, including security procedures/systems for critical infrastructure should be implemented. Many critical roads and bridges in western Larimer County require modifications or upgrades to enable them to pass adequate flood flow and/or withstand the impacts of flooding and flood debris.

During the 2013 flooding events, landfill life years were decreased due to the large amount of debris accumulated. In the future, the impact of disasters could be reduced if alternative systems for debris, such as recycling, burning or compacting are in place. While the majority of public facilities are located in Fort Collins, there are some facilities in mountain areas managed by Larimer County, fire districts, and water districts. These facilities provide

meeting spaces and community information hubs, as well as emergency response and monitoring.

The Northern Colorado Community Connectivity Project will focus on improving vulnerable bridges and green infrastructure, such as river corridor design, and water diversion systems. These efforts will work to reduce the impacts of natural hazards. Currently, there is a need to identify infrastructure that is not already designed to withstand the stresses of potential disasters. To prepare for future needs, identifying growth patterns can also highlight where there is an increased infrastructure investment need.

New and existing development can evaluate risk and be designed to withstand hazards and vulnerability, which could greatly reduce mountain communities' exposure to hazards. Design criteria for new development and substantial improvements with low-impact and green infrastructure development could also improve communities' resiliency. Innovative land-use planning can also allow for identified floodplains to be retained as open space.

#3 Mountain communities without improved emergency access and secondary egress are more vulnerable.

The western two-thirds of Larimer County is mountainous terrain, and a limited number of highway and County roadways provide the only egress and ingress routes.

As the 2012 High Park Fire and 2013 floods demonstrated, these roadways are vulnerable to both fire and flood impacts. Many of the roads follow

major drainage ways, which are subject to riverine flooding; roads also cross dispersed flooding areas or have bridge crossings with varying flood conveyance capacity. Many of these County roads will remain exceptionally fragile until permanent repairs from the 2013 floods are complete. Some communities have potential points of secondary

Table 6. Public Roads in Mountain Communities

Responsibility	Name
US and State Highways	US 34, US 36, and SH 14
County Roads	43, CR 52E, CR 27, CR 38E, CR 74E, CR 73C

access that require improvements for use, or identification and coordination with the landowner. Big Elk Meadows, Buckhorn, Blue Mountain, Pinewood Springs and Glen Haven (Retreat) have all been identified as communities that have risk due to lack of secondary access.

New and existing rural residents need to be aware of potential hazards and ways that they can be prepared and ready to respond to these threats. Larimer County Office of Emergency Management is working to conduct a thorough assessment of the communities with egress concerns to determine priority areas and possible solutions.

#4 Communication channels, power and water supplies are susceptible to failure, leaving communities without access to basic services or a way to call for help.

There is sparse high-speed internet service in the mountain and foothill communities, and many areas of infrequent cell service. Many communities have services without redundancies or backups, which leads to frequent outages. Regulations to restrict public ownership of broadband were repealed in 2016, providing a new opportunity for extended broadband throughout Larimer County to increase access to high-speed internet in rural and mountain communities.

Many rural unincorporated areas are served by Poudre Valley Rural Electric Association. The County is also served by a number of publicly and privately owned utilities. Above ground electric lines and aging wells and sewer systems are vulnerable to natural hazards. Larimer County has 20 different utility sources, which does provide some redundancy, but poses the counter-issue of needing to coordinate with multiple sources in the event of disaster.

Existing plans call to incentivize the installation and implementation of redundant systems that support the viability of sheltering-in-place, or being able to stay at home during disaster events. Additionally, there is a need to proactively educate the public before a disaster regarding alternate [egress](#) and evacuation routing. These efforts can be better targeted by identifying and addressing key system vulnerabilities. Larimer County currently offers community emergency response team (CERT) trainings once a year but the number of trainings could be increased to build rural residents capacity to evacuate in the event of disaster.

The National Institute of Science and Technology pilot program in Larimer County has been established to identify critical facilities to implement redundant energy and communications systems, potentially through renewable sources. This study is ongoing and could offer valuable insight for mountain communities.

#5 Some publicly dedicated, non-county maintained, subdivision roads are in need of maintenance or reconstruction to function in a safe manner.

Publicly dedicated, non-county maintained, subdivision roads occur throughout the County. In mountain communities, they are often the single point of access. Many of these roads are not well maintained or designed to support the current level of traffic. This creates substandard roadways that are more susceptible to the impacts of hazards and are less safe for daily use. The roadway condition can cause access issues for both emergency responders as well as private companies delivering services. It is the responsibility of the subdivision to maintain these roadways and provide the necessary improvements. The cost to improve these roads can be substantial and is estimated in Table 7. According to the [Unmet Needs & Community Fragility \(UNCF\) Study](#), the annual maintenance for these roads could be an additional cost of \$5 to \$6 million per year, if included as part of County maintenance.

The County is considering the following.

- Continuing the policy that publicly dedicated non-county maintained subdivision roads must be privately maintained
- Promoting improvement districts
- Identifying roads that have a connector or community function and providing full County maintenance

Subdivision road owners may not be aware of their responsibility to maintain roads, to what level they should be maintained, or resources available to support maintenance.

Private Roads

The State of Colorado has worked with the Department of Housing and Urban Development (HUD) to include private roads and crossings in the CDBG-DR Home Access Program. These programs provide funding to improve or repair road access to primary residences in the event of disaster.

Table 7. Publicly Dedicated, Non-County Maintained Subdivision Road Improvement Costs per Mile

Publicly Dedicated, non-county maintained Subdivision Road Improvement Costs*	Per Mile (from UNCF study)	Total (in millions)
Unpaved Roads (160 miles)	\$50 - \$400 k	\$8 - \$64
Paved road to current standards (83 miles)	\$150 - \$800 k	\$12.5 - \$66.4
TOTAL		\$20.5 - \$130.4

Source. Unmet Needs & Community Fragility Study; County Highway data 2017

**Road miles do not include Public Improvement District Roads (37.2 paved and 45.3 unpaved)*

How Does this Relate to Resiliency?

Infrastructure is the backbone to maintaining a functioning system on a daily basis and in the event of disaster. These structures and systems need to have the capacity to withstand a disaster. Inadequate infrastructure impacts a community's ability to respond and recover. Mountain communities rely on strong and redundant roadways, communication, energy, and water systems that withstand the impact of hazards. There is an opportunity to put in place codes and regulations that boost awareness through education, ensure responsible development and investment and enforce continued compliance.



WATERSHEDS & NATURAL RESOURCES

What Should We Know?

The foundation of watershed and natural resource resiliency lies in understanding the interplay between land use, natural hazards, and water quality. Natural hazards are those natural events which may result in a threat to human life or property. Although termed “hazards,” such natural events are often part of predictable, even healthy, ecosystem cycles. Hazards are exaggerated by people and would not exist if people, property, or infrastructure were not placed in or near dynamic natural environments. Therefore, a fundamental philosophy is that developments and buildings should be guided away from areas prone to natural hazards.

Although there are regulations and policies in place to protect these communities from wildfire and flooding risk, they have not proven to be sufficient in the face of recent events. As the frequency and magnitude of disasters increases over time, approaches to floodplain management, managing wildfire risk, and the manner in which current services, such as water supply, are being provided to mountain communities require evaluation to improve resiliency of watersheds and natural resources for western Larimer County.

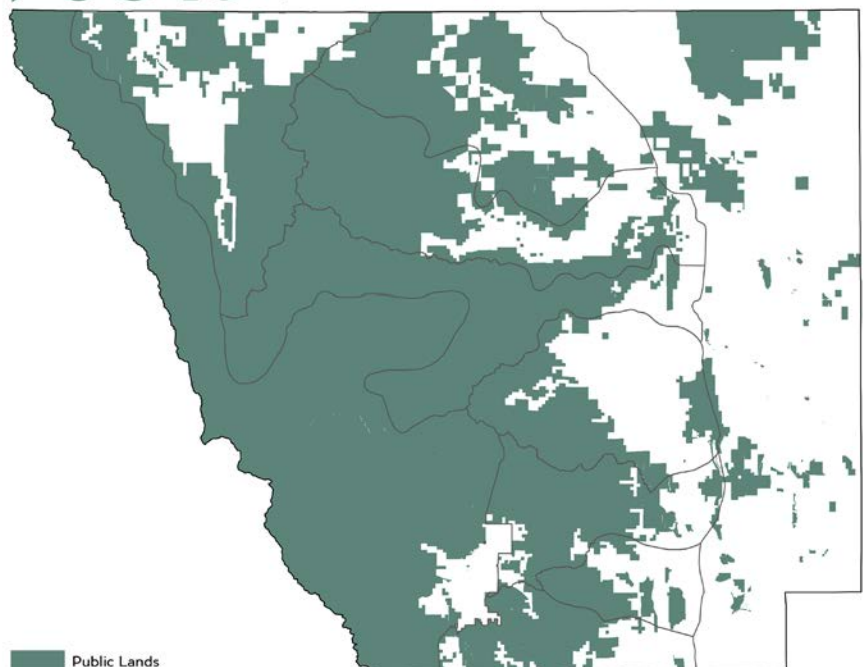
#1 Traditional approaches to floodplain management may prove to be ineffective in protecting the public from an increased risk of catastrophic events.

In Larimer County, climate change is expected to increase risk of wildfire and lead to higher flood flows as a result of the wildfire burn areas. The median projection is that with high emissions in mid-century, July highs in Fort Collins would average 92° –as hot as El Paso, Texas, in the recent past. By late in the century, July highs in Fort Collins would be 97°, for which no ready match is available, but beginning to approach Tucson’s recent average of 100.5°. ³¹

“High-severity fires can cause changes in watershed components that can dramatically change runoff and erosion processes in watersheds. Water and sediment yields may increase as more of the forest floor is consumed.”³² Also, “peak flows in high severity burned watersheds can increase dramatically.”³³

Traditional floodplain management relies on regulating development within and around mapped and

>50% of Larimer County is made up of public lands



Map 4. Public Lands

identified floodplains. Unfortunately, many properties have been severely damaged by recent flood events that were not located within a previously mapped 1% annual chance flood (100-year) floodplain, or even in areas previously thought to have flooding risk. The September 2013 flood destroyed many structures not located within a mapped floodplain, including areas along both the Big and Little Thompson Rivers. Although regular updating of floodplains is important as existing conditions change and historical data improves, it is not possible to accurately model floodplains that take into account future wildfire events and the resulting aftermath. This uncertainty means that communities need to re-evaluate how they identify flood risks.

Conserving additional lands along rivers provides a margin of error in floodplain management and an added level of resilience to what can be achieved by floodplain regulations alone.

Larimer County floodplain regulations are stricter than the state's minimum requirements. However, they allow rebuilding substantially damaged structures in the floodway as well as the floodplain based on a sliding scale of velocity and depth. That means landowners may continue to expose life and property to flood risks. Therefore, regulations are not sufficient as the only tool to protect public interests.

An effective floodplain management approach must be multi-layered, building on standard regulatory tools with buy-outs of willing sellers and open

space purchases on key drainage corridors.

An example of the benefits of open space protection within floodplains is provided by the work along the Meramec River in Missouri. The river presents a frequent risk of flooding, which has caused millions of dollars in damage to many small towns. Community leaders throughout St. Louis County have been working together for three decades to create the Meramec River Greenway, a program to acquire land along 108 miles of the river and conserve it as parks and wetlands. As of 2013, the organization had preserved roughly 9,000 acres of floodplain. The Federal Emergency Management Agency (FEMA) estimates that the buyouts and conservation of land prevent an average of \$7.7 million in flood damage annually, while the project also provides parks and recreational areas that benefit residents throughout the County.³⁵

"FIRST AND FOREMOST, TO BE SUCCESSFUL IN DESIGNING FOR RESILIENCE, IT IS IMPORTANT TO RECOGNIZE THAT WE CANNOT DESIGN AGAINST SUCH EVENTS, BUT MUST DESIGN WITH THEM."

-ULI Advisory Services Panel Report³⁴

#2 Larimer County is one of the most hazardous counties in Colorado for wildfire, and regulatory tools to protect the public have not kept pace with the increased risk.

Wildfires are a major concern in the mountain areas of Larimer County. The *Understanding Change: Wildfire in Larimer County, Colorado* report (2013) conducted by the U.S. Forest Service ranked Larimer County as the second most hazardous county in Colorado for wildfire hazards, and a warming climate will increase these risks.³⁶ As more forested lands are developed and recreation uses

increase, the potential for loss of life and property caused by wildfire is an ever increasing problem.

Larimer County has recently completed the first phase of a neighborhood wildfire risk assessment. This assessment took into account a number of risk indicators (subdivision design, vegetation, slope, fire project, structure hazard, and utilities)

Table 8. Neighborhood Wildfire Risk Assessment

Wildfire Risk	% of County Neighborhoods
Extreme	2%
Severe	10%
High	32%
Moderate	39%
Low	17%

to arrive at preliminary risk classifications. Table 8 shows the resulting assessment results of 295 neighborhoods summarized per risk classification.

It should be noted that some data inputs have the potential to be dated and others need in-person verification. The next step for the County is to more closely look at wildfire risk through the lens of egress and access only to prioritize which neighborhoods are further studied.

Some efforts are currently underway to reduce wildfire hazards. For example, Larimer County has partnered with the Big Thompson Conservation District on a Healthy Forest Initiative, including fuels reduction projects in Larimer County. These projects have been identified and work begins in 2017.

The Larimer County Land Use Code requires consideration of wildfire risk and references the Colorado Landowner Forest Stewardship Plan (LFSP) Guidelines (Code 30). The County takes a somewhat flexible approach in applying and enforcing the guidelines. For instance, County staff does not go out with a tape measure to check distances for defensible space and the County's enforcement is complaint-based.

On one hand, fire behavior is not fully predictable, - even when things are done right, bad things can still happen. For example, 65% of the homes destroyed in the High Park fire had defensible space established around them. Research shows that 30-35% of homes within a fire perimeter are destroyed no matter what mitigation efforts have been made. This led in part to the conclusion of a Planning Outcomes report written by Larimer Connects: "A group spent 2015 looking at Land Use, Building and Fire codes. This group sent recommendations to the Board of Commissioners and has since presented to the Planning Commission with suggested changes. Larimer did find that our codes are already mindful of mitigation and risk so few changes were recommended."

On the other hand, design and maintenance characteristics are proven to reducing structure loss. These include quality and maintenance of the defensible spaces, presence of a non combustible zone around the house, hardening of the structure itself including roof materials, water sources and sprinkling, architecture, maintenance of the structure, wildfire education of the homeowner and their willingness to embrace recommendations.

In light of fires becoming more extreme, intense, and escalating costs of firefighting and recovery as a result of climate change and the inability of any single mitigation action to fully reduce wildfire risk, Larimer County should consider policies and incentives that further discourage building within high risk wildfire areas. In addition to code content, the effectiveness of enforcement of compliance with best management practices following issuance of a building permit and construction requires review. A third tool to consider is increased public education and outreach efforts.

#3 Mountain and front range communities depend on limited water resources that are at risk.

These water resources are at risk due to a number of issues, the largest of them being population growth, contamination, aging infrastructure, and climate change. Ensuring water quality, availability, and protection of those resources are vital to everyone's daily life.

Watershed and groundwater health is important for effective conservation, hazard mitigation and as the source of water supply. Watershed health impacts both a community's vulnerability to disasters as well as the quality of a finite supply of water necessary to sustain their livelihood long-term. Mountain communities, due to the use of septic systems, the lack of wastewater treatment, and disaster events are vulnerable to degraded water quality. Damage to sewer lines also compromised water quality in the Big Thompson River. A majority of the mountain communities rely on individual or shared water wells and septic fields.

Inadequately designed and maintained septic fields and shared wells are primarily caused by historic land uses. Up until the 1960s, homes were built too close to each other for septic systems to properly function without contamination. When lots sizes are too small or soils are inadequate to accommodate septic systems, contamination increases. In the 1960s and 1970s, regulations were put in place to ensure new development does not negatively impact groundwater or downstream water quality. Still, flood events exacerbate the vulnerabilities of septic and wastewater facilities due to their placement in low areas, floodplains or areas susceptible to erosion. Furthermore, most homes were approved based on a seasonal septic system. The County-wide trend from seasonal residency to primarily full-time residency places year-round demands on undersized vault and septic systems, requiring some families to pump vaults monthly at a high cost (\$350-\$400).

The extent of degraded water quality is not fully known. Data to validate groundwater quality concerns is lacking. Sample sizes are too small (20 samples annually out of more than 600 wells) and sampling practices are inconsistent (contamination from aerators or outdoor faucets, water not being run for an appropriate amount of time before

sample collection, etc.). A statistically valid survey is needed. Still, some conclusions can be drawn.

- The highest percentage of unsafe samples taken from well water samples was 48% in 2004
- The highest percentage of E. coli present was 12% in 2008.
- E. coli test results are relatively stable each year (up to 2010) with presence in about 5% of samples.
- Nitrates fluctuate over time depending on amount of precipitation throughout the year.

Contamination of the water supply in Red Feather Lakes has the potential to impact the economic sustainability of the area, the actual or perceived health of the community, and the long-term quality of the watershed. Tourists, home buyers, and home construction can be deterred by reduced water quality, which can negatively impact home resale values, and the cost of trucking in water as a solution which is unsustainable long-term.

Potential solutions could focus on treatment, system upgrades, or land use. Small community water and wastewater treatment facilities serve rural areas at various locations in the County. Since sewage is anticipated to be the primary cause of the water quality contamination, increased investment in treatment facilities can reduce contamination currently and into the future. The implementation of centralized sewer and a wastewater treatment plant in concentrated residential areas like Red Feather Lakes would remedy the contamination of groundwater and downstream water supplies. Centralized raw water treatment may also be necessary in some areas with water contamination. Requiring that septic systems are brought up to code as part of a property title transfer is another potential solution to resolve this issue over time. The land use solution would be to extinguish undersized potential building lots, regularly pump concrete lined tanks, and require that septic systems are designed for full-time occupancy regardless of the intended use by immediate owners.³⁷

#4 Natural areas are undervalued for the resiliency and tax benefits they produce.

Recreation and conservation bring significant, synergistic economic, health, and quality of life benefits. Outdoor recreation helps people understand the importance of healthy, intact ecosystems, which builds support for their protection and stewardship. Conservation protects the natural resources and wild places upon which outdoor recreation depends.

A new report from Colorado State University found that each dollar invested by the state for conservation easements produced benefits of between \$4 and \$12 for Coloradans. Public benefits include clean water and air, scenic views, access to things produced by local farms and ranches, and wildlife habitat, all things that contribute to a high quality of life in the state.

Not only do natural areas, nature-based recreation areas, and conserved working farms and ranches contribute additional property tax revenue - they save local municipal governments money. Working farms and ranches and open lands save communities money through avoided costs on expensive infrastructure and other municipal services such as schools, police and fire protection, and other services required by residentially developed areas. Studies have consistently shown that open space

and working lands, while often removed from property tax rolls, contribute more in taxes than they require in municipal services.

Residential land, however, contributes less in taxes than it receives in municipal services, representing a net loss to local governments. The national median across 151 communities over 25 years is that for every \$1 paid in local taxes, working lands and open space require \$0.35 in services compared to \$1.16 in services for the average home. Two studies in Colorado counties confirm these findings. In Custer and Sagauche Counties working and open lands require only \$0.54 and \$0.35, respectively, in services for every \$1 generated to the community in tax revenues. Residential lands in these communities, meanwhile, require \$1.16 and \$1.17, respectively, in services for every \$1 in tax revenues received by the municipality.

The future of our public lands depends on support from all citizens of Larimer County, including the 95% of residents who live in the eastern plains and the private landowners whose lands provide connectivity and full-landscape solutions. Stewardship of Federal, state, county and city public lands and waters are the responsibility of all citizens.

How Does this Relate to Resiliency?

Resilience of watersheds and natural resources is the ability for these natural features to withstand and rebound from a natural disaster. To mitigate the effects on these resources, criteria, regulations, and policies should be in place to ensure that they can rebound as quickly as possible post-disaster. They should ensure that communities are minimally affected in their provision of water supply or destruction caused by wildfire and flood events.

With climate change causing disasters to occur more frequently and intensely over time, more stringent requirements such as no development in high wildfire risk areas, open space preservation within floodplains, and building regulations and enforcement relating to vulnerability to hazards may have to be implemented to curb the increasing risk. Current infrastructure in water retention and

provision and sewage and wastewater systems may require reevaluation. The trend toward a year-round population in mountain areas will exceed the original capacity. The transition from seasonal to full-time and short-term rentals continues, as well as the anticipated rapid population increase county-wide, can only make matters worse.

The Mountain Resilience Plan addresses health concerns, such as septic and wastewater systems, through recommendations to improved codes, regulations, and land use policy. The Plan aims to fill the gaps in existing policy and regulation relating to natural hazard mitigation, as well as evaluate alternatives to water supply provision in mountain communities that have the capacity to be negatively affected by the septic and wastewater infrastructure currently in place.

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MOUNTAIN RESILIENCE OUTREACH SUMMARIES

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BOARDS AND COMMISSIONS SUMMIT

Meeting:	Boards and Commissions Summit
Date:	September 6, 2017
Time:	5:30 PM – 8:00 PM

OVERVIEW

The Boards and Commission Summit hosted 30-40 members of advisory boards, commissions, and featured opening and closing remarks by a Board of County Commissioner and County Manager. The participants had the opportunity to provide feedback on top priority community choices strategies and tools following input received from the public, and commented on lower priority strategies and tools for the purpose of elevating them to be more effective for use by the County. The engagement by participants made the Summit a success, and will be incorporated into drafting of the guiding principles and policies and strategies and tools featured in the Mountain Resilience Plan.



PURPOSE

The purpose of this event was to bring all County boards and commissions together and provide an opportunity to gather diverse, informed, and vested feedback from participants that are already involved in Larimer County initiatives and planning. This event helped build credibility for the updated Comprehensive Plan in front of the Board of County Commissioners, and internal support for the implementation initiatives that will be outlined in the Plan. This was also a knowledge sharing opportunity between departments and across topics.

MEETING FORMAT

The meeting was structured as a workshop with small groups at round tables (6) to discuss one resiliency topic at a time. Following general introduction about the plan and process, participants were asked to engage in an exercise and open dialogue with staff and consultants to provide feedback on key choices that have been identified throughout the planning process. These include implementation strategies and tools across all six frameworks (Community, Economy, Health/Social, Housing, Infrastructure, and Watersheds/Natural Resources). The exercise mirrored the discussion at the public choices workshop and online survey.

CHOICES INPUT

Community Choices	Effectiveness Rating	Comments
Capital Improvement Plan (CIP) Specific to Rural Mountain Communities	11 High 1 Medium 1 Low	- Change 'attention' to 'resources ' in the sentence, "Current processes may not direct enough attention to mountain areas..." - But at the same time, it's a small percentage of the population that lives in the mountains.
Overlay Zoning	14 High 1 Medium	Makes a lot of sense.
Subarea Planning	10 High 2 Medium	If we are not changing basic zoning, then subarea planning is extremely important.
Accurate Asset Management System (Analysis of Existing Infrastructure)	15 High 1 Medium	- This should already be in existence! It is not a master plan issue but should just be part of the County process. (responded to previous 'how do we pay for it?' public comment) How about a resilience fee? - Should be valuable - focus system design on functionality, NOT cool interfaces and keep your development cost down. - Can communities use tourism taxes collected within the community to improve/repair tourism-used amenities (add public toilets, water fountains, trash receptacles, etc.) - How is it tracked now? - Admirable goal, difficult to assess how much money and staff would be needed to maintain it.
Transfer of Development Rights (TDR) or Transferable Density Units (TDU)	8 High 3 Medium 1 Low	Great idea, but difficult to implement in a fair way.
Future Land Use Plan (Map)	7 High 4 Medium	
Comprehensive Review and Update of Land Use Code	14 High 2 Medium	Often restrictions don't match needs, more community input.
Community Fuel Reduction Program	11 High 1 Medium	Seconded the "Once or twice a year. Be able to put slash on the side of the highway with someone to pick it up" as a great idea. Selling debris for biofuel, mulch, etc. is a great idea. Recycling!
Business Retention/ Creation Program	3 High 4 Medium 2 Low 1 Low	- Communication and support are good - overreach is NOT! Be careful. - This risks putting County government in the role of picking winners and losers.
Community Hubs	12 High 1 Medium	
Facilitate Cooperation of Nonprofit Organizations and Coalitions	7 High 2 Medium 1 Low	- Build on multi-sourcing of resource. Reduce redundancies. - Where will funding/staffing come from? Helpful to pool resources but is this realistic?

VISIONING EVENTS

Meeting:	Mountain Lions Pancake Breakfast	Big Thompson Canyon Pancake Breakfast	Glacier View Wildfire Community Preparedness Day
Date:	Sunday, May 28 th	Sunday, June 4 th	Saturday, June 10 th
Time:	7:30am—10:30am	8am—2pm	11am—2pm
Location:	Property Owners Association [POA] Building, 58 Firehouse Lane, Red Feather Lakes	Big Thompson Canyon Association Building [one mile east of Drake on US Hwy 34]	Glacier View Fire Station, 1414 Green Mountain Drive, Livermore

OVERVIEW

Outreach efforts are critical to building consensus around the direction and vision for the Mountain Resilience Plan. In order to effectively communicate goals and objectives for the Mountain Resilience Plan process, clearly define the problems the Plan is trying to solve, and receive feedback about what residents envision for their mountain community, the planning team and County staff attended three separate visioning outreach events throughout June: Mountain Lions Pancake Breakfast, Big Thompson Canyon Pancake Breakfast, and Glacier View Wildfire Community Preparedness Day. These events also provided an opportunity to distribute information and resources to the public about Plan process and Foundation phase.

To integrate other County planning efforts, County representatives also presented information about the updated Transportation Master Plan, broadband programs, and Larimer Connects. Residents were notified about the events through posters, factsheets, and postcards throughout western Larimer County, and residents were also encouraged to take an online survey through the Plan's website to gather input from those that did not attend events. The Foundation phase document and survey as well as the draft Transportation Master Plan were also loaded onto USB flash drives and distributed at key locations throughout the mountain communities and at the three events for those residents without reliable access to internet.

The three community events targeted the community areas of Red Feather Lakes, Crystal Lakes, US 34, Pinewood Springs, Big Thompson, Glen Haven, Storm Mountain, Glacier View, Livermore, and Poudre Canyon areas. Among the three events, around 400 attended with over 200 members of the public reached. At the events, paper surveys were completed, and the consultant team, county staff, and members of the Stakeholder Committee interacted with the public to hear residents' vision for mountain communities.



VISIONING INPUT SUMMARY

What do you love about your mountain Community?



Community

- Government which governs least, governs best.
- Planning is not a hindrance but a guideline for growth. Keep an open mind and flexibility.
- Rural Larimer County will be valued and supported by long-range strategic planning and respect the residents' rights and opinions.
- Building should feel more cooperative while working with the building department.
- Controlled growth and community engagement is especially important in rural areas.

Economy

- Tourism is great until it affects the character of the land with traffic, littering and uneducated campers.
- Establish a good working relationship between the County and mountain businesses.
- A prosperous economy is powered by freedom and free market principles.
- Small businesses, motels, and campgrounds are every bit as threatened as agriculture where housing developments are taking over.

- The main inhibitor to employment in Red Feather is high speed internet - inability for professionals to work at home.
- Don't structure mountain communities around heavy economic growth.
- Emphasize education in tolerance and environmental sustainability.

Health & Social

- Collaboration and advocacy is important.
- Provide education in CERT program, self-sufficiency education, personal empowerment.
- Provide professional and competent health care by more actively monitoring those responsible.
- Sometimes communities need to be helped out even if they attempt to be self-sufficient.
- The 2013 floods proved we can take care of ourselves.
- Our county, state, and national taxes should guarantee a certain amount of protection and "preparedness."
- Federal and state government should be included in promoting collaboration.

Housing

- Mountain communities do not have neighborhoods.
- Protect the rural nature of mountain communities.
- Economic factors determine the housing and transportation realities in our area and that is as it should be.

Infrastructure

- Yes to transportation alternatives. Consider shuttles between Estes and Lyons.
- Maintain roads as foundation.
- Support high-speed internet access to rural communities.
- No public transportation.
- A bike lane on Rt 36 MM20 to MM1 would be helpful.
- Mountain communities have little to no trash removal options.
- Water and sewer availability will inhibit future growth

ISSUES AND OPPORTUNITIES

"Mountain communities have unique issues that are different than aspects of life in flat land communities."

"We can get community members to show up immediately after a disaster when they need help, but don't have a compelling long-term vision that will keep them engaged long-term for preparedness."

"The new reservoir in Pinewood Springs is puny, more reservoirs are needed above Big Elk Meadows and in Pinewood Springs to protect the wildlife in river during drought years."

"We are concerned about losing our rural character as more businesses push for more tourists and more homes are converted to short term vacation rentals. There IS a carrying capacity in the mountains, including Estes and the park, and it seems that capacity has been reached. Planning needs to reflect that, despite the arguments you will get from those that want to bring more and more people here to buy t-shirts."

"State-of-the-art communications has no impact on the natural beauty, but has a big impact on the viability of the community - Ideally a broadband (1Gbit+) infrastructure would be available to all residences in the hills."

and will impact health and safety in the fairly near future.

- We have a lot of power surges and outages. There is no redundancy.

Watersheds & Natural Resources

- Financially support volunteer fire departments.
- Revise open space rules to allow horseback riding and hunting dog training.
- Identify and respect natural and cultural resources.
- Focus on the ecology of the rivers, especially the Little Thompson.
- Protect our natural resources and open space with adequate resources for fire protection.
- Loss of clean water would kill Red Feather. Both the lakes and domestic water are at risk.
- Expand cell phone coverage and design to run in adverse conditions.
- Emphasize disaster preparedness and infrastructure needs.

IMPROVEMENT NEEDS

- Traffic on Highway 36; need more passing lanes
- Minimize new development, or negative impacts of commercial uses
- No changes
- Slower speeds and traffic controls
- Improved broadband internet and cell service
- Road maintenance
- Bike lane from Lyons to Estes
- More local control and subarea planning
- Continue local control over snow removal and road maintenance
- Welcome small businesses like grocery store or gas station
- Water quality
- Wildfire mitigation and Firewise programs

COMMUNITY CHOICES EVENTS

Meeting:	Community Choices Events #1	Community Choices Events #2
Date:	August 28, 2017	August 29, 2017
Time:	4:00 PM – 7:00 PM	4:00 PM – 7:00 PM
Location:	Estes Conference Center Estes Park	Glacier View Fire Station Livermore

OVERVIEW

Two public events were held to identify and refine the key community choices regarding goals, objectives, and implementation strategies for the Mountain Resilience Plan. Educational information about each choice was presented, allowing participants to learn about the tradeoffs and potential benefits that could result from each choice.



MEETING FORMAT & EXERCISE

Following general introduction about the plan and process, participants were asked to engage in a board exercise and open dialogue with staff to provide feedback on key choices that have been identified throughout the planning process. These include implementation strategies and tools across all six frameworks (Community, Economy, Health/Social, Housing, Infrastructure, and Watersheds/Natural Resources). To evaluate effectiveness, participants were asked to place stickers on strategies/tools from each framework, ranking them on a scale from not effective at all to very effective. There was also a space for written comments on the boards to voice explanations or concerns. The eleven tools participants were asked to evaluate were:

- Capital Improvement Plan (CIP) Specific to Rural Mountain Communities
- Overlay Zoning
- Subarea Planning
- Accurate Asset Management System (Analysis of Existing Infrastructure)
- Transfer of Development Rights (TDR) or Transferable Density Units (TDU)

- Future Land Use Plan (Map)
- Comprehensive Review and Update of Land Use Code
- Community Fuel Reduction Program
- Business Retention/ Creation Program
- Community Hubs
- Facilitate Cooperation of Nonprofit Organizations and Coalitions

An online survey mirrored the events' materials and exercise, and was open to receive additional public feedback through mid-September.



CHOICES INPUT

Community Choices	Effectiveness Rating	Comments
Capital Improvement Plan (CIP) Specific to Rural Mountain Communities	13 High 3 Medium 3 Low	• I don't grasp this, what are examples of capital improvements (i.e. roads, power, etc.)? • Increased use by nonresidents is a problem. Don't encourage the need for infrastructure deterioration, thereby saving money and inconvenience of constant repair. • Not sure of any results yet. • More non-local government intrusion/less local control • A CIP should include increased revenue streams from the areas receiving the services. New development in mountain communities needs to do more to pay its own way. The per capita financial burden of mountain residents on the County is disproportionately high. Capital infrastructure projects are important, but those who benefit the most should shoulder more of the cost. • I'm very new to the area but the plan seems to address some of the areas that have needed attention. I plan to become more informed over the next year as I'm not fully aware or informed of the issues and how they might be prioritized.
Overlay Zoning	12 High 2 Medium 3 Low	• For new development proposals, some additional conditions of approval • Agree - for new development. Potential conflict with HOA covenants and water rights/shares. • Not interested in more zoning regulations • no guarantees that non-residents will propose/enforce zoning designations • The different risks and costs associated with development in these various zones can be addressed via overlay zoning. This is a good idea, but it must have some teeth. Even if those teeth are unpopular with some segments of the community. • Addresses the issue of unique and specific needs of the various mountain areas which are diverse.
Subarea Planning	11 High 4 Medium	• They help Planning Commission and BCC make better decisions.

	4 Low	- Concern about a few with megaphones driving the process. - Economic development corporations are not entirely concerned with keeping a community's quality of life, but often cater to the interest of developers' greed who come from outside the community or those interested in mostly profit. - I like limiting zoning changes - Subarea plans can be effective for small communities that wish to preserve or create a unique character. At the same time, costs associated by these plans must be shouldered by the communities they serve. - This is a very complicated issue. I would need to know more to rate it higher than a little effective. At least it is being discussed.
Accurate Asset Management System (Analysis of Existing Infrastructure)	12 High 3 Medium 3 Low	- How do you pay for it? - This seems to be a business basic for each department/agency. Does it belong here or a performance review for each department manager? - Like targeting effective use of resources - requires more analysis ... too many "could"s - If this will increase efficiency, then I believe it is a good idea. I do not know enough to comment on specifics. - Asset management is an expensive endeavor but management can and should increase services and reduce costs based on efficiency.
Transfer of Development Rights (TDR) or Transferable Density Units (TDU)	7 High 5 Medium 6 Low	- Need good recovery areas. - Slippery slope for the County to meddle with individual owners' rights. - People buy property based on current zoning. It is a good idea to protect areas for wildlife and environment, but otherwise not change zoning to accommodate developers. - Need local control/input - restrictive to existing property owners ... who determines "adequate compensation" ... if development on existing property restricted property value decreases significantly - I believe these are very good planning tools or managing the landscape. TDUs and TDRs can help to manage development patterns that honor County resource limitations and natural resource concerns. - Uncertain. Can't answer this question.
Future Land Use Plan (Map)	11 High 6 Medium 3 Low	- Basic to community functioning. - Critical success factor is for this to be bottom-up (community generated) rather than top-down (County generated). - Agreed. Must be done with respect to public input before decisions are made. - Public must be able to give input before application for funding for any project is made. - Leave things alone. Less regulation best. Don't impose on landowner rights 1997 map url not available - A plan is a good road map. A good plan will help to outline the direction of development for better long term outcomes. This serves people and our natural

		resources.
Comprehensive Review and Update of Land Use Code	13 High 4 Medium 3 Low	• Business basic to keep the Land Use Code updated. • Must have public input before final product. • The original intent of the Comprehensive Plan was not followed. The wetlands and wildlife corridors have been deleted. To protect the environment so people can enjoy mountain communities is imperative. People often do not know what a real mountain experience should be. • best left alone • obvious • Updating the Land Use Code can be contentious and controversial. But it is essential and is needed. This process will require true leadership from within County government. We will need Commissioners who are committed to public service and who have vision and leadership skills. Public service will need to transcend politics. • Update information is needed for several of the other programs to be effective, thoughtful, and timely.
Community Fuel Reduction Program	13 High 4 Medium 4 Low	• Once or twice a year. Be able to put slash on the side of the highway with someone to pick it up. • The noxious and invasive weed drop off for the Estes Valley is financially effective by saving labor of collecting cheat grass, etc. (i.e. fire hazards). Woody debris collection is also good. Selling debris for biofuel, mulch, etc. is a great idea. Recycling! • should be all voluntary • legislates property management • This is needed, but the cost must be carried primarily by the mountain communities. A Resiliency Fee must go along with the program. If people choose to live in the mountains and want their homes protected from wildfire, then those residents must absorb the cost. All of us on the plains are currently paying the cost of increased homeowners insurance due to the High Park Fire and poor planning by mountain residents. Moving forward, we must improve risk management and the costs must be paid by those who are getting the protection. • Needed.
Business Retention/ Creation Program	10 High 2 Medium 7 Low	• Broadband access is critical. There are many opportunities for entrepreneurs in mountain communities but must have reliable broadband. Coordinate with Innosphere. • Economic driven communities changes them to be what is not always desired. If it would allow businesses to support the needs of residents and pay workers what is needed for decent housing that would be good. If this were done, there would be good education. • let demand initiate any business services • more government interference • If mountain communities can support sustainable businesses, then let the economics drive that. The government should not be in the business of supporting for-profit businesses that are not sustainable on their own. If the government does

		become involved, the endeavors should be non-profit and should be subject to high degrees of community oversight (beyond just the mountain communities). I am opposed to business welfare programs for non-sustainable businesses in communities that are being built by choice (for people who also tend to be above median income, etc.). Sounds too much like welfare for the rich. • Complicated issue, I need to understand the core purpose in more detail.
Community Hubs	14 High 2 Medium 2 Low	• It is important for community members to stay connected - not just when there is an emergency. Need more ways to keep people engaged with preparedness mindset between disasters and reactionary vs. proactive action. • High value! My top choice for low-hanging fruit and immediately actionable. • facilitate local control • overdue • A good idea, but costs must be absorbed by the communities that are served. If you choose to live in the mountains, then pay the costs associated with the risks. Don't complain about taxes and then expect others to pay your way. • Safety and support = community cohesion. • Re emergency preparedness in mtn. communities, suggest compilation of list of active and retired volunteers, from industry and universities, based on their engineering training and experience: Civil Engineers (roads and bridges); Mechanical Engineers (ability to invent, design, build, and/or fix many different kinds of mechanical systems); Electrical Engineers and REA professionals (electric power generation and transmission).
Facilitate Cooperation of Nonprofit Organizations and Coalitions	13 High 1 Medium 7 Low	• Would be helpful as nonprofits don't always have time/resources to continually research efforts of other organizations or look for partnerships. • Could be important to have a way to reach different people with different interests, bring together folks who don't usually get along, get to people who are hard to reach. • Could be very helpful with fundraising for nonprofits. • Have more robust information system to provide information on resources/recovery status post-disaster. • Cost for non-government responsibility. • This method is biased in favor of developers and coalitions pushing their own interests and leaves small groups, individuals, and organizations with no power. • not sure county involvement needed • Larger government ... why? • Could be useful, but the costs must be absorbed by the communities being served.

REACHING FOR RESILIENCE EVENTS

Meeting:	Reaching for Resilience Event #1	Reaching for Resilience Event #2
Date:	October 25, 2017	October 26, 2017
Time:	6:00 pm	6:00 pm
Location:	Pinewood Springs Community Church	Livermore Community Hall

OVERVIEW

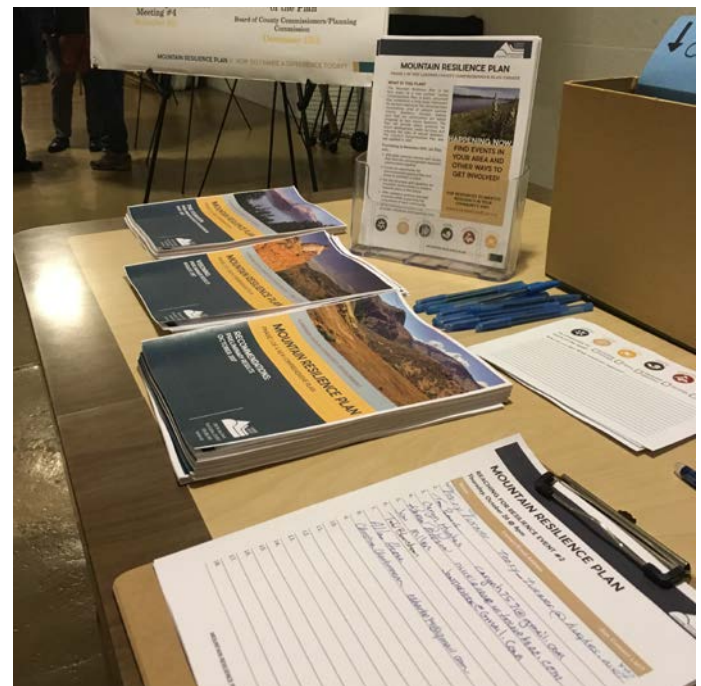
Two public events were held to refine the policy framework, implementation strategies, and how the County can measure the success of the Mountain Resilience Plan. The events and online survey provided mountain community residents with a forum to provide their input on the Recommendations Chapter of the Plan, as well as any concerns regarding the Foundation and Visioning Chapters.



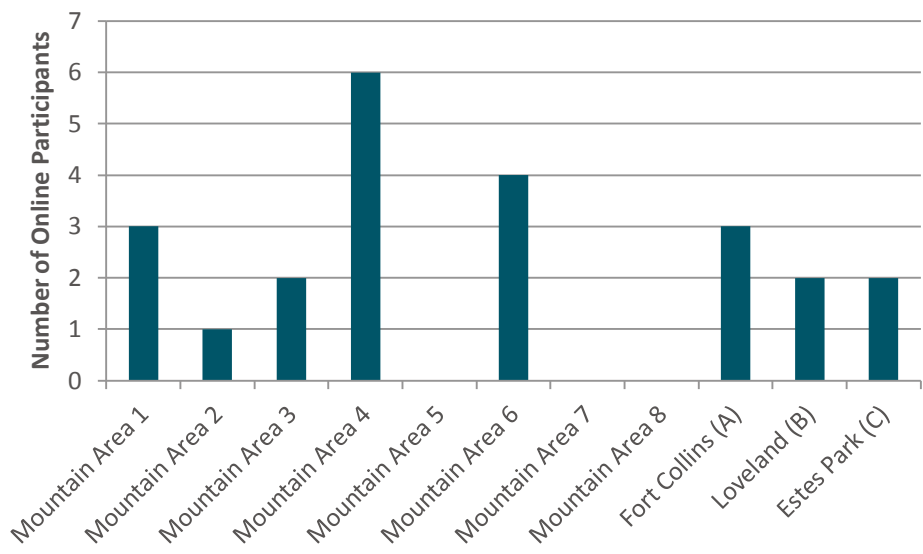
MEETING FORMAT & EXERCISE

The meetings were structured as a presentation with opportunities to ask and answer questions. After an overview of the planning process, presenters provided highlights of the draft chapter content. Participants asked questions and there was a public dialogue with the planning team and other community residents. Informational boards and copies of the draft were available around the room, for those that want to review before, during and after the presentation.

Residents could voice their concerns through one-on-one conversations, public statements, written comment cards, and the online survey. The online survey mirrored the events' materials and exercise, and was open to receive additional public feedback through mid-November.



RECOMMENDATIONS INPUT



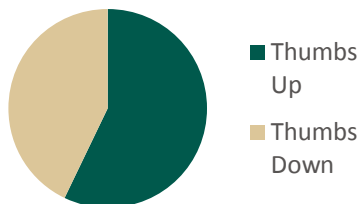
40 event participants

26 survey submissions

2 email comments

Policy Framework	Does this direction make the mountains more resilient? (online question)	Comments
Community	Thumbs Up Thumbs Down	- Too many rules again being placed on landowners who tend to be responsible managers of their properties - NO - glacier view has an established land use - you can't change it. GV has emergency management - don't change it - GV is a wonderful location to "live". - This all sounds like another way for progressives to get control of the people who specifically live a rural and independent life. You all make things worse not better--EVER. Leave us alone. - Less regulation - STAY OUT OF MY AREA WE DON'T NEED ANY MORE CROOKED POLITICIANS UP HERE TRYING TO FIGURE OUT HOW TO TAKE OUR HARD EARNED MONEY. IF WE WANTED YOUR COMMUNITY BS I WOULD HAVE MOVED INTO ONE ALREADY.
Economy	Thumbs Up Thumbs Down	- How do you successfully implement balanced employment opportunities and supply attainable housing? - Economy - what are you talking about - not applicable for GV.....!!! - Less regulation - GO HOME. NOT WELCOME UP HERE "What about technological infrastructure improvements (wifi, fiber, etc.) to improve the economy? - I think this should also address the give and take between tourism and locals who live in an area.

Health & Social

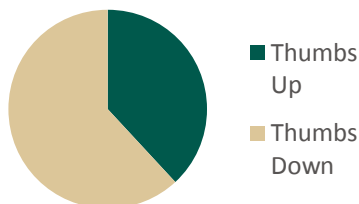


Larimer County tends to give preference to money making tourism over local residents values/desires.

- Shouldn't unincorporated Fort Collins area also have a subarea plan, not just Masonville."
- The reasoning behind economic development in mountain communities seems to be flawed in particular with regard to Red Feather Lakes. It would be better to discourage such development rather than encourage it. Please look at ways to do that rather than the sections "Economy 2." and "Economy 3."

- It seems to me to be creating more government jobs that will result in higher costs and end up with subpar services
- Allow swimming in horsetooth reservoir with the use of a marker or dive flag bouie.
- IF YOU HAVE HEALTH ISSUES AND LIVING UP HERE IS A PROBLEM FOR YOU MOVE OR DON'T MOVE UP HERE IN THE FIRST PLACE
- With regard to Red Feather Lakes, Section "Health and Social 2" is going to be rather problematic. What is needed there is Wastewater protection, not stormwater protection. Because there has not been proper county oversight on development in Red Feather Lakes, improper systems have been installed and continue to plague the area. There is no sufficient stream flow in Red Feather to dilute future wastewater effluent. This is a major problem for future development.

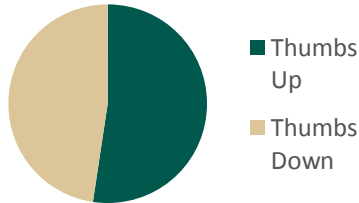
Housing



- Let's get specific to gain trust. If this plan is to help avoid infill then I can support it rather than agenda 21.
- Sounds like building regulations will become more restrictive. While maintaining open and natural looks, rights of individual landowners must be protected.
- AGAIN - glacier view has an established land use - you can't change it. GV has emergency management - don't change it - GV is a wonderful location to "live". This is the "mountains" NOT CITY LIFE - take your plans go away!
- Less regulation, dont want to promote new developments
- New development and re-development needs to meet strict requirements to minimize footprint, carbon load and water use.
- GO AWAY
- "Need to address infill housing in existing neighborhoods. Building beyond the original footprint may be ok if stormwater, etc. are addressed but it starts to change the character of neighborhoods and should have some process associated with it where neighbors can weigh in.
- Also, what about AirBNB and VRBO housing that is now creeping in and changing character of neighborhoods? This should be addressed."
- If the county is not currently enforcing the rules

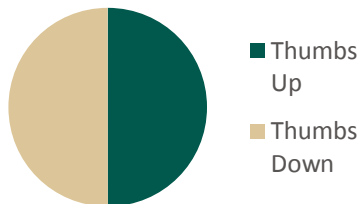
and regulations regarding housing, and it seems to be quite lax in the Red Feather Lakes area, how does the county plan on enacting and going forward with this plan?

Infrastructure



- How about some oversight for companies like Boxelder that can raise rates more than double in a single year.
- Less regulation
- MOVED UP HERE TO GET AWAY FROM BS LIKE THIS. STAY AWAY
- New development has NEVER paid its own way, that's why taxes always have to go up. All of the essential questions above need to be addressed before anything is done.

Watersheds & Natural Resources



- Changing flood plain regulations will impact current landowners' properties and multi agency regulations generally confuse and delay future building projects.
- the answer to the above question - NO
- Less regulation
- STAY AWAY

What other ways could these recommendations be improved?

- Bottom line for many of us is to not put economic development over maintaining the rustic environment - The reason we live here is this area is one of the few natural areas left.
- These principles and policies are great, but they don't mean much without a direct means of implementation. What my community (Horsetooth Lake Estates) needs to be more resilient:
 - o Technical/logistical and financial support for fuel management/reduction
 - o Technical/logistical and financial support for wildfire home mitigation
 - o Technical/logistical and financial support for installation of a community fire cistern
 - o Incentives or code requirements for power company to bury electric lines
 - o Technical and legal/financial support for identification/acquisition/installation of secondary egress route
- A plan on integrate up and down canyon pods.
- Define terms within Glossary to avoid planner jargon
- Need to connect with surrounding counties regionally
- Fire Authority needs radio communication within Larimer County. Phones aren't dependable.
- No cell or wire connection in Big Thompson (Emergency Communication)
- Continue agreement with Boulder County for Fire and Emergency services
- Collaboration between hubs, agencies up and down the canyon
- Need a "welcome wagon" to inform new residents what to do in the event of an emergency

- Need better access to communication (notifications, alerts). If you're not in cell service or by your home phone, you won't get the alert.
- We feel more connected to Larimer County than we ever have after moving here 10 years ago. Good people doing good things. Thank you! Would like to see better communications in the event of a disaster. How to cultivate that!
- Need cell service – more than just Verizon in Livermore. Red Feather doesn't have any service! And internet and other utilities. It's in certain areas and it's capped.
- Emergency exist. Secondary egress is really important. When there's a detour, not enough gas available to go all the way around the mountain.
- Roads are a problem for emergency evacuation
- Will a road into a private community be owned by the community, can you help that community get in and out? Help all is the goal; we may want to look at private land for emergency access. Need to build relationships in order to keep private land access open, when it is abused is when this closes.
- Need to ensure that future development doesn't have one way roads or not enough access points.
- Is there anything that talks about power lines? In wooded areas? They can cause fires. Burying power lines is expensive, but so is replacing houses.
- There are threats to our way of life. More population is a threat to wildlife, the water supply
- This plan is to help us grow smarter, so that growth infringes upon me or impact me less.
- I think that you guys have done a really good job. Thank you.
- In an ideal world, I would be more comfortable if we had a fire station every 5 miles, but maybe if there has been more growth there is a better system. Red Feather Lakes sounds like a great system. I would like to see more increase in fire coverage.
- It seems like development occurs, but doesn't require the infrastructure to support it (i.e. you put in 300 homes, but you don't improve the roads)
- Scanned the document, looks pretty thorough.

As a resident of Spring Gulch, in Larimer County by my fence line, I just want to emphasize that we generally feel left out of Larimer County decisions and culture. For example, we get property-taxed for the Thompson Valley Health facility, but I would guess 0% of the Blue Mountain and Spring Gulch residents have ever been there, let alone used it. Our only access out of our community is south into Boulder County, where most of us work, shop, and play.

I noticed that one of your areas of interest was single-access communities. This is a big concern for us; perhaps Larimer County can open up a roadway to the north (used to be a tortured path, but not for 40 years).

One other concern is debris and limb/tree chipping. From here, there has never to my knowledge been a reasonable site to haul a trailer full of slash/etc. Nederland and Allenspark are Boulder County sites (available for a few of us) but they are an unreasonable time/mileage distant. If you were serious about encouraging fire mitigation efforts, perhaps you could have a drop-off site within range. (Our community has a similar problem with hazardous materials, etc, which always seem to be in Fort Collins.)

Thank you for listening; I just wanted to put a bug in your ear about us orphans on the Boulder County border.

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APPENDIX D: FRONT RANGE DOCUMENTS

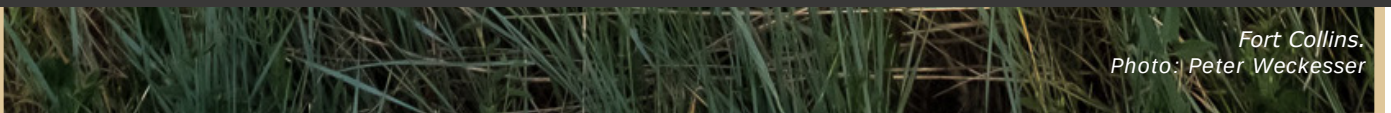
Included here:

Foundation Snapshots

Overview of current issues in the Front Range, by resiliency framework.

Front Range Outreach Summaries

Summary of in-person events and online engagement through Phase 2.



*Fort Collins.
Photo: Peter Weckesser*

FOUNDATION SNAPSHOTS

INTRODUCTION

Recognizing the significant changes that have occurred since the 1997 Larimer County Master Plan was adopted, the Board of County Commissioners set a goal to update the 1997 Plan in their 2013-2018 Strategic Plan.

A massive recovery effort from the 2012 High Park wildfire and the 2013 floods is still underway today. Following these events, the County and its jurisdictions have conducted numerous planning efforts and studies to benefit all aspects of the community.

The following “snapshots” provide an overview of current issues organized by each framework. They provide a concise summary of relevant, adopted plans, and policy direction; indicate how trends and conditions can influence the development of policies; and substantiate the “big issues” facing the rural Front Range communities.

As many of these issues are interconnected across frameworks, redefined policy direction and land use solutions in this Comprehensive Plan will have wide-reaching impacts. For example, past paradigms set aside environmental concerns in favor of what was perceived as economic necessity based on the belief that these were competing rather than complementary aspects of a truly sustainable future. Preserving watersheds protects the water supply and safeguards the health of human populations that use the water as well as the vegetation and wildlife that depend on it. Keeping floodplains intact and building-free mitigates the effects of storm events and limits damage to structures. Unmarred scenic views are a community asset for their intrinsic value, in addition to enhancing property values and fueling tourism. And ecologically valuable rural landscapes contain features that benefit all living organisms in an area, not just people. Clustering housing and commercial development can strengthen social and service networks while conserving valuable habitat and open space.



PLANNING AREAS

The development of this Plan was phased in two geographic areas: the first phase articulated common themes, policies, and best practices that apply to the unincorporated mountain areas and communities of western Larimer County; the second phase addressed the Front Range areas of the County, east of the foothills. These two phases and geographies allowed the County was able to strategically consider the extremely diverse issues and opportunities of the mountain areas and Front Range.

The following information summarizes some of the demographic differences between the mountain areas and the Front Range areas. Demographic and housing data presented within this section were sourced from ESRI’s Community Analyst, in addition to Larimer County’s Assessor Department.

Appendix C profiles eight subareas in the mountain planning area, including a description of risks, demographic profile, land use mix, housing types, residential development potential, issues facing the subarea, and recommendations from existing plans.

Population	Median Age	Household Income	Seasonal Occupancy
The mountains only account for 4.25% of the entire Larimer County population, yet occupy 75% of the land.	Residents in unincorporated communities are generally older than in urban areas.	Overall, the average median household income is higher in the mountains than Larimer County as a whole.	In western Larimer County, nearly half of residential units are seasonally/ occasionally occupied or vacant.

Accomplishments Since the Adoption of the 1997 Plan

Summarized in the following pages are a few planning accomplishments that have affected Larimer County communities since 1997.



planning means... ...inter-governmental partnerships

Larimer County conducted an economic and tourism asset assessment in 2016, looking at infrastructure and amenities that enhance or detract from our ability to grow our economy.

Started in 2014, the Regional Economic Development Partnership is a coalition of economic development professionals working to support the economic vitality of Northern Colorado.

The East Mulberry Corridor Plan was a 2-year, collaborative project between Larimer County, the City of Fort Collins, and affected businesses and residents.

The Ranch Events Complex Master Plan

Intergovernmental Agreements (IGAs) with cities and towns provided a regional approach to planning.

New urban zoning was identified only in Growth Management Areas where urban-level services are already available.

Cooperative Planning Areas allow joint planning at a city's periphery, where land use decisions today can impact tomorrow's city growth patterns.

Creation of the Red Feather Lakes Plan Advisory Committee and LaPorte Plan Advisory Committee has led to local-level guidance on development and maintenance of these areas.

The Ranch Events Complex Master Plan resulted in a successful 2017 ballot initiative to expand the collaborative campus with new meeting and event spaces available to municipalities, non-profits and businesses.



planning means... ...economic development

A police officer in a tan uniform and red life vest stands in a white boat. A young boy in a blue tank top and shorts stands next to him. Two orange life jackets are on the boat. The boat is on a body of water with a shoreline in the background.

planning means... ...a safer community

The Larimer Connects Program increases community outreach and education regarding mitigation and preparedness for risks and hazards.

The Adequate Public Facilities regulations were updated to ensure that facilities and services are available to new development, without compromising existing service levels and burdening existing residents with the costs of growth.

Larimer County is pursuing a partnership with FortZED, to establish net-zero energy/water/waste neighborhoods and shelter-in-place locations.

The Larimer County Community Master Plan for Behavioral Health cultivated broad partnerships and passed a 2018 funding measure to improve mental health services throughout the County.

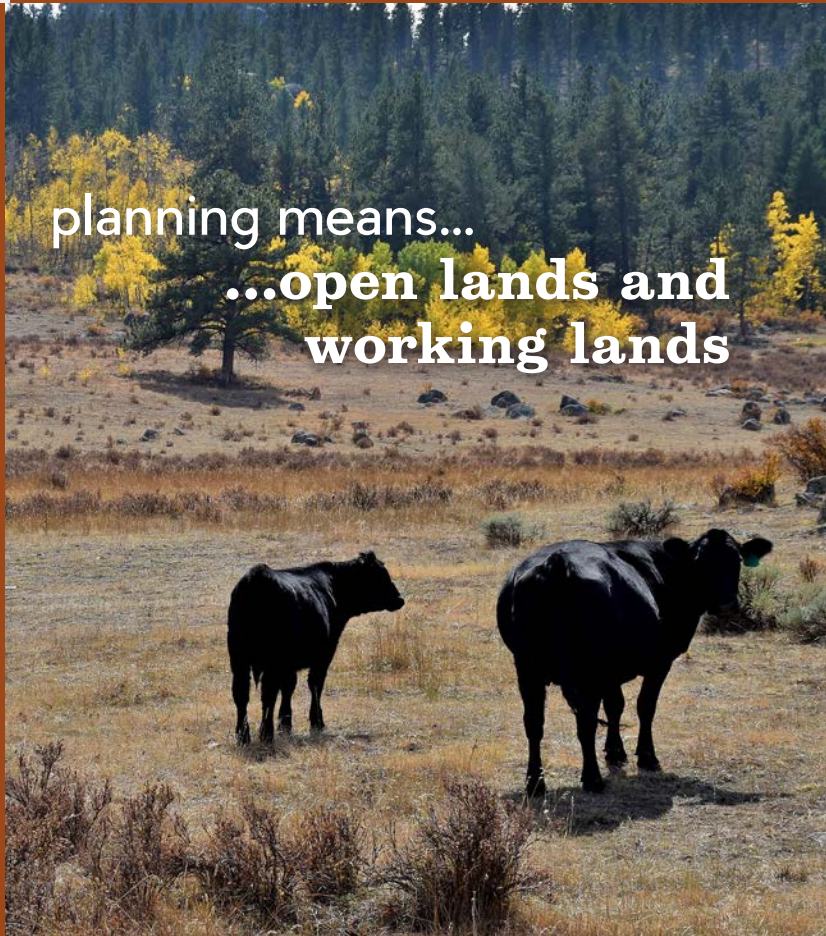
Environmental review and performance standards were incorporated into the development review process, to ensure new development is more compatible with wetlands, wildlife habitat and natural systems.

Partnerships with the Big Thompson Conservation District on a Healthy Forest Initiatives include several fuels reduction projects.

Larimer County partnered with four Watershed Coalitions that are actively working on watershed health and resilience through community-led groups.

The Open Lands Master Plan and a ballot initiative to extend the Help Preserve Open Space sales tax resulted in an astounding 82% voter approval.

As of 2018, the Help Preserve Open Space sales tax has shared back over \$100 million to the eight municipalities since its inception. The Larimer County Reservoir Parks Master Plan was adopted in 2017, providing guidance on current and future issues, needs and opportunities for the four large Bureau of Reclamation owned reservoirs that are managed by Larimer County.

Two black cows are standing in a dry, grassy field. In the background, there are trees with yellow leaves, suggesting autumn. The sky is blue with some clouds.

planning means... ...open lands and working lands



planning means...
...rebuilding better

Larimer County joined FEMA's High Water Mark Initiative to improve education, outreach and community engagement activities, as well as signage following the 2013 flood.

The Engineering Department identified all structurally deficient bridges in Larimer County and has a plan to upgrade them all by 2020.

The County is partnering with CDOT to make permanent infrastructure repairs from the 2013 floods.

Larimer County received grant funding in 2016 to install stream gauges along the Big Thompson River and the North Fork.

The Office of Emergency Management is participating in a National Institute of Science and Technology pilot program called the Resiliency and Recovery Assessment Program to begin the process of identifying critical infrastructure, key redundancies and interdependencies and key businesses.

A 2017 ballot issue 1B restored the County's right to explore and foster available options for broadband services in all communities.

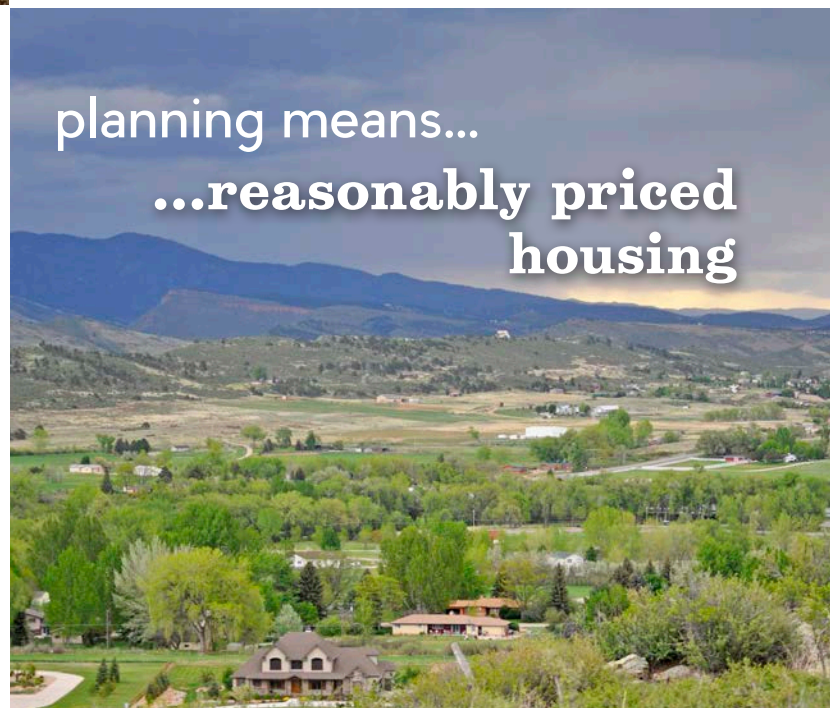
The Transportation Plan was updated in 2017.

The I-25 Corridor Plan, adopted in 2001, continues to be implemented, including the recent express lane construction.

Adopted new incentive-based subdivision clustering standards that create up to 80 percent open space and allow rural residential units to utilize infrastructure more efficiently.

NOCO Housing Now group has been formed to address housing affordability in the northern Colorado area.

The 2015 study "Needs and Opportunities in Housing and Care in Larimer County, Next 25 Years" helped community leaders prioritize how to address perplexing housing challenges.



planning means...
...reasonably priced
housing



COMMUNITY SNAPSHOT

The Front Range is undergoing growth that will holistically affect Larimer County, from the economy and workforce, to housing and services, to its agricultural heritage and rural character. The ability for Front Range communities to adapt and be proactive in the face of growth is fundamental to maintaining a high quality of life for all.

The County can support community adaptation to rapid growth by strengthening its role as a leader in regional collaboration and facilitation of current issues. This can be achieved by providing the tools and creating formalized channels for local governance and subarea planning for the differing needs of unincorporated communities, and by evaluating Growth Management Areas and other regulatory tools to best ease land use conflicts and encourage transitions.

#1

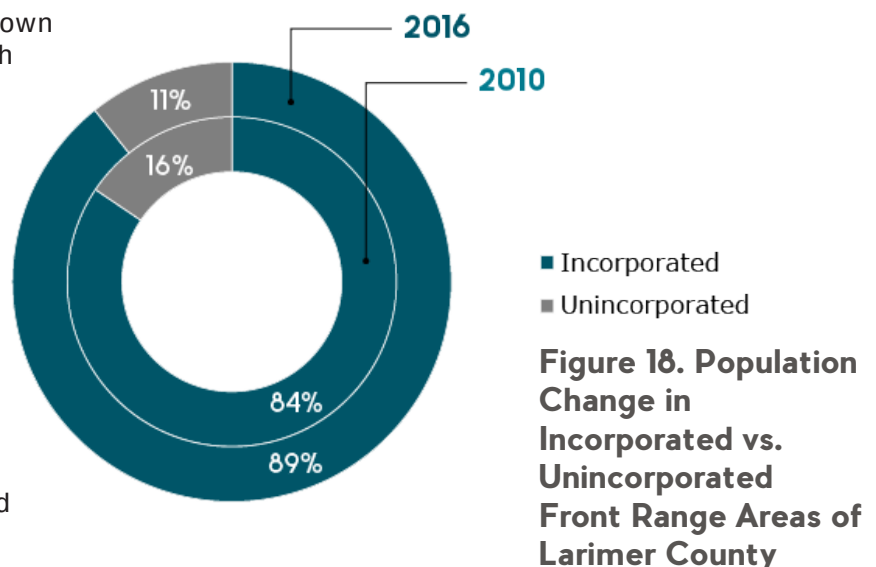
The magnitude and character of development east of the foothills is changing more rapidly than rural areas can adapt to and be proactive about, especially with regards to preservation of the County's rural character and agriculture heritage.

The State of Colorado is growing rapidly, ranking 7th in fastest growth and 8th in total growth from 2015-2016 in the U.S., with a disproportionate amount of growth concentrated in the Front Range. Larimer County was ranked the 5th fastest growing County with an annual growth rate of 2.4% from 2015-2016. In Larimer County's Front Range, large portions of unincorporated areas have been annexed since the 1997 Master Plan, resulting in an overall population increase for the County, but a decrease in unincorporated areas (see Figures 1 and 2). Although this growth will slow over time, there is an increasing imbalance between the housing stock, jobs, and population, which have economic, social, and environmental impacts.

The Front Range population has grown to an estimated 308,724 in 2016 with 33,148 of those residents living outside city limits. This is an increase of more than 26,000 people from 2010; however, the disparity between the influx of population, job creation, and development of housing has led to issues of underemployment and insufficient and unattainable housing stock. Larimer County has an above average level of educational attainment, with nearly 50% of the population having a Bachelor's degree or higher compared

to the state at 38%. Although a highly educated population is an asset, an excess of educated individuals for the County's employment capacity will exacerbate workers being underutilized.

Without proactive planning, the projected growth and its associated impacts will also cause increasing pressures on transportation infrastructure and commuting patterns, housing affordability, local access to basic needs and services, and more. What brings people to Larimer County is the open space, accessibility, and high quality of life; features that are at risk of disappearing. While the residents of the County have expressed their continuing commitment to open space and open space



acquisition with a model open space tax, there has been a decrease in farming and agriculture due to development pressures and aging farmers.

By 2012, Larimer County lost more than 13% of its working farmland in the previous 10 years; a loss of around 71,000 acres. But with the value of farmland acres increased 33% from 2002 to 2012, there is trend toward aging farmers selling as a viable option for retirement with children who do not want to

take over the family business. The rural character and agricultural history is inextricably linked to the County's identity, but a lack of formalized channels and structure to resolve local issues, rapid growth and development, and the "hands-off" approach of the County are disadvantages to preserving these rural areas.

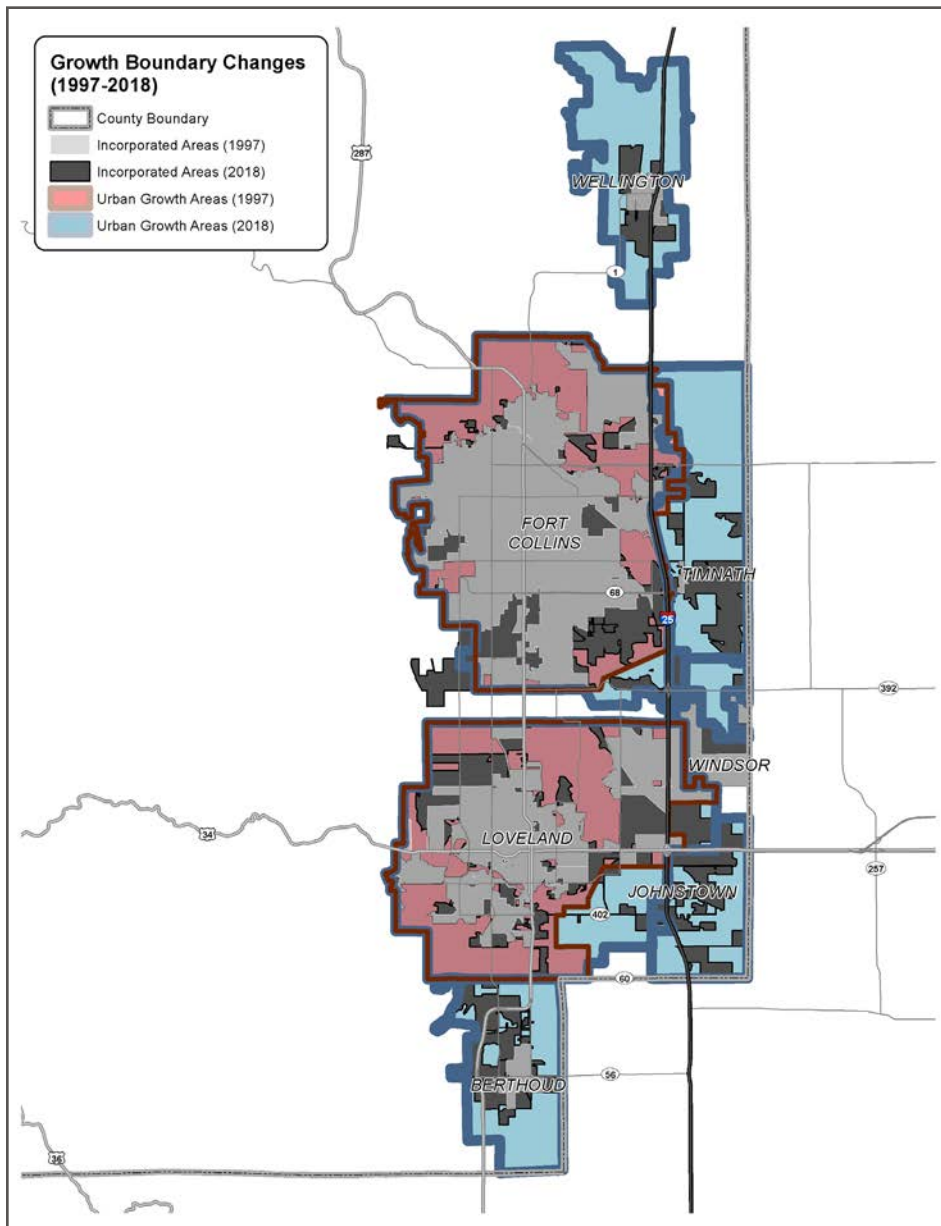


Figure 19. City Limits from the 1997 Master Plan vs. City Limits Today

#2 Residents of unincorporated areas tend to tie their identities to a municipality based on values and geographic proximity; however, they still desire strong representation and capacity to resolve local issues and meet the diverse needs of their communities.

With the strong urban presence of municipalities along Larimer County's Front Range, unincorporated community identities are dependent on both the proximity to urban areas and shared values. Many residential neighborhoods in the urban fringe, or within the GMA but not in city jurisdiction, tie their identities to the municipality based on geographic proximity but still desire direct representation of their interests. Communities such as Bellvue, Waverly, Buckeye, and LaPorte may already have a strong sense of identity but lack capacity to resolve local issues to meet their needs. Rural areas of the Front Range that identify with agricultural and farming communities often prefer a remote and rural lifestyle, but still want to be part of the conversation on issues that directly affect them.

To balance the different desires of these communities along the Front Range, there is an opportunity to leverage the County's subarea planning model introduced in the Phase 1 Mountain Resilience Plan. Subarea planning enables a community to attract or redirect development, decide how and where they want to grow, and tailor their planning efforts to what is most important to them. The LaPorte Area Plan, adopted in 2004, is an example of subarea planning as an effective tool; it allowed LaPorte to create a framework for making land use and development decisions for their community. This planning effort was spurred by the formation of the LaPorte Area Planning Advisory Committee (PAC) the only of its kind in the unincorporated Front Range of the County. Formation of a PAC creates the same strong local governance foundation and formalized channels to develop subarea plans as seen in the western mountain communities, and can be utilized by other communities that desire the capacity to resolve local issues and meet their needs.

For those rural communities within the urban fringes, strengthening the County's role as a collaborator and facilitator would benefit the ability for those communities to have representation without the same level of formalized community organization.

A strengthened role would allow the County to have a greater impact in defining appropriate urban boundaries based on technical development issues such as utilities or transportation access, as well as constraints such as irrigated prime agricultural lands or existing rural community character. Additional collaboration within the GMA areas, as well as reassessing County tools for growth management, would open those lines of communication and improve representation of those residents living on County land but identifying with municipal identities. Increased collaboration among the jurisdictions with the County as a convener would improve dialogue and representation of these types of unincorporated community residents along the urban fringes.

Rural and agricultural communities and their livelihoods are being directly affecting by the economic impacts of growth through disappearance of farms and agricultural land, additional traffic, and integration of incompatible uses such as residential subdivisions. Between 2008 and 2017, there have been roughly 79,000 acres of agricultural land replaced by non-agricultural uses much of which is residential. Although these farming communities primarily want to live remotely without overreaching governance and regulation, they also want to be part of the conversation to keep land open for agriculture and farming, identify community hubs to serve their basic needs, support appropriate commercial and industrial uses, and maintain the rural character.

Enhanced provision of communication channels and representation for these rural agricultural communities would allow for the opportunity to participate and have a voice without having to identify themselves as a formalized community. County tools such as subarea planning and a flexible framework for local governance and representation would cater to the differing needs and desires of the three types of unincorporated communities in the Front Range, and allow them to each meet the unique needs of their communities.

#3 The County will continue to experience significant growth that goes beyond political boundaries, indicating a need to reassess the role of the County in facilitation and collaboration.

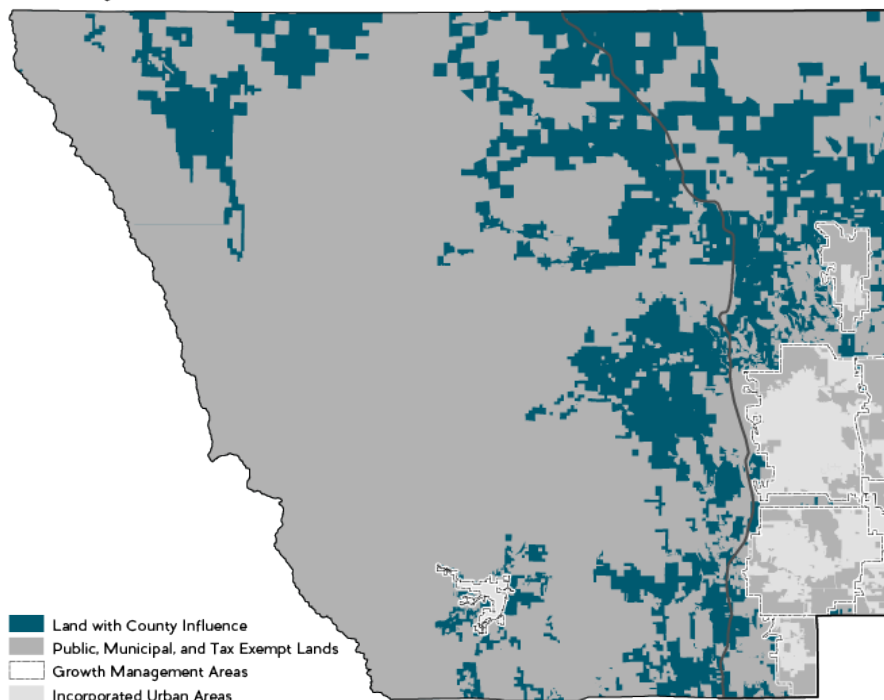
The 1997 Larimer County Master Plan's process laid the foundation for the key tenants of County governance: agriculture as a viable long-term segment of the County's fabric; development that reflects the character of the Open West; urban land uses ultimately being in cities and towns; open lands as a defining feature; and an emphasis on intergovernmental cooperation. The conclusion that urban-level growth had to be a product of municipalities has served the region well up to this point as the County has not historically had the capacity or funding to succeed in that role. However, when considering capacity for growth in the unincorporated County, there is 9% of land in the GMAs and 22% outside of the boundaries where the County directly influences development. Given these limitations and as the County embarks

on developing a new Comprehensive Plan, a strengthened role as a leader in facilitation and collaboration will be critical to paving a proactive path forward that extends beyond political boundaries in the region.

The County currently structures cooperation with municipalities through the Growth Management Areas (GMAs) and Intergovernmental Agreements (IGAs). Although these were effective planning tools that resulted from the 1997 Master Plan, the County's growth in the past twenty years has caused the GMAs to grow together and the IGAs to become outdated, signifying a need to reassess these tools.

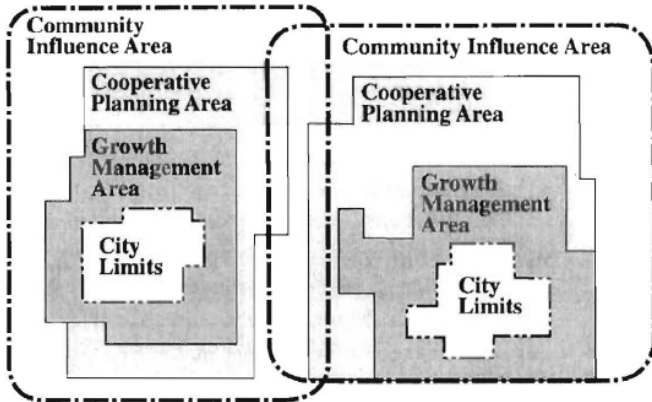
Larimer County currently has four GMAs that surround Windsor, Fort Collins, Loveland, and Berthoud, existing IGAs with Loveland and Fort Collins, and three GMAs that are not officially recognized by the County surrounding Timnath, Wellington, and Johnstown. There is an opportunity as part of this comprehensive planning process to reevaluate the GMAs based on feasibility of service provision and better utilize planning tools to solve the issues arising from areas where municipalities are growing together. Within the GMAs, there is currently around 3,500 acres of land that is not currently served by utilities and is not projecting an increased capacity in the future. In these areas where future growth will not be allocated based on lack of urban-level service provision, the boundaries should be amended. Updating GMAs and adjusting boundaries to reflect where infrastructure exists and utility service is feasible would allow the County to further emphasize

The County directly influences development on only **31%** of land



Map 1. Portion of Land with Direct County Influence on Development

Schematic Framework for Intergovernmental Agreements



coordinated planning for GMAs. This would position the County to play a more prominent role as a convener in land use decisions by assuring adequate land is made available to accommodate future growth while making strides to preserve the rural character of the County.

The outdated nature of IGAs between the County and municipalities can be attributed to cities not seeking engagement with the County on annexation issues. With the County's historically "hands-off" approach to land use planning and development with an emphasis on private property rights, there is often a disconnection between the regulations and requirements of the cities and the County when annexing land. Rather than relying on IGAs to address these obstacles, Cooperative Planning Areas (CPAs), a tool created as part of the 1997 Master Plan, would be valuable to leverage as part of this process.

CPAs were developed based on assumed future impacts caused by the possibility that municipalities could grow together. They are defined as a cooperative strategic planning area for residents and landowners, municipalities, and the County that could include areas ripe for annexation requiring urban services or areas with existing development patterns that are experiencing constraint. While this tool has been utilized in Waverly, LaPorte, East Mulberry Corridor, Fort Collins-Loveland Corridor, and Fossil Creek Reservoir, there is an opportunity to update and reinvest in CPAs to promote better cooperation around regional issues. Today, the mindset that growth abides by political boundaries, the County's role as a convener lacking in intergovernmental collaboration, and infrequent use of cooperative planning tools such as CPAs have led to consequences such as land grabs where cities are growing together and fighting for tax dollars. The area emerging as a 'new metro area' where Greeley, Windsor, Johnstown, Berthoud, Loveland, Timnath, and Fort Collins are abutting one another has seen annexation land grabs along the I-25 corridor to the extent where, while not all land is developed, it is annexed or marked for future annexation. This issue is a direct result of rapid growth in the County, and requires a comprehensive and regional approach to cooperation, collaboration, and facilitation, rather than relying on IGAs or addressing issues as they arise.



ECONOMY SNAPSHOT

The County's historically rural character, workforce needs, and land use trends are being impacted by the rapid urbanization and expanding regional economy occurring along the Front Range. Current County policies and regulations support the preservation of rural uses but do not represent the current economic realities necessary to accommodate changing needs of the workforce and shifting demographics. Therefore, updated policies and regulations are critical for sustaining long-term economic health and preserving what attracts people to Larimer County.

#1 Current regulations have attempted to preserve rural uses, but are becoming a barrier to supporting compatible economic development.

The established zoning districts and other development standards in the Land Use Code have a stated purpose of promoting compatible land use patterns and establishing appropriate bulk standards for each district. However, as Larimer County continues to urbanize –the population is projected to double by 2040– zoning regulations and development standards have not kept pace with changing needs and demands. Outdated regulations and allowable uses that are too broad are exacerbating issues of land availability for commercial and industrial uses, conflicts between land uses as cities expand, and preservation of agricultural and farming.

Zoning districts identify allowable uses and

lot, building, and structure requirements that are intended to promote compatible land use patterns and establish appropriate standards for development. While these requirements are designed to allow flexibility, the listed allowable uses are vague to a fault and are defined by whether they are allowed by right, site plan review, public site plan review, minor special review, or special review. In each zoning district category, there is a variety of allowable uses that do not adequately prevent conflicts between incompatible uses. See Table 2 below.

The Zoning Code's allowable uses place limitations on effective preservation of the County's farming and agricultural heritage and supporting patterns

Table 9. Zoning Districts and Additional Allowable Uses

Zoning District	Additional Allowable Uses								
	Agriculture	Commercial	Residential	Institutional	Recreational	Accommodations	Industrial	Utilities	Transportation
Business	✓	✓		✓	✓	✓	✓	✓	✓
Commercial	✓	✓		✓	✓	✓	✓	✓	✓
Farming	✓		✓	✓	✓	✓	✓	✓	
Heavy Industrial	✓	✓		✓			✓	✓	
Industrial	✓	✓		✓		✓	✓	✓	✓
Open	✓		✓	✓	✓	✓	✓	✓	✓
Tourist	✓	✓	✓	✓	✓	✓		✓	✓

Source: Larimer County Land Use Code, "Zoning Districts" (Larimer County), Section 4.1.

of compatible economic development. Allowing incompatible uses within each zoning district, even by special review, has resulted in inherent conflicts as urban-level development has increased. Currently, 1.6% of the unincorporated Front Range area of the County is zoned industrial, 0.5% commercial, 22% farming, and 72% open. As cities continue to expand and grow together, encouraging economic uses compatible with rural communities to locate in these areas by increasing the amount of industrial and commercially zoned land would be beneficial for the preservation of rural uses and community character.

In 1998, the County adopted a Right to Farm policy to protect the viability of agricultural operations. However, allowing residential development by right while limiting a farmer's ability to provide labor

housing or easily utilize their land for alternative sources of income limits their long-term viability. With a majority of property in the rural county falling under the zoning district O-Open, allowing uses that span all zoning districts within this category are also negatively impacting farming by contributing to the loss of rural character as demand for urban-level development increases. 50% of agricultural leases will end within the next five years. Amending the zoning districts to limit compatible commercial and industrial uses such as slaughterhouses, heavy machinery equipment sales, etc. to locate within farming communities, and implementing difficulty in changing the agriculture zoning to other uses would help preserve the County's rural character.

#2 Inadequate access to communication services and outdated provisions in the Land Use Code are preventing the County from leveraging local employment opportunities.

As Larimer County has experienced significant growth and urbanization in the past two decades, the Land Use Code has become limited in its ability to accommodate and support current economic realities and trends in leveraging home occupations. The County faces a reduction in farming operations and productive agricultural lands, constraints to home business expansion, and insufficient communication services such as broadband. Re-evaluating regulations and requirements surrounding home occupations and providing adequate access to communication services would benefit the workforce by supporting home business and new and expanding business opportunities, as well as preserve and support local farming and rural uses.

Telecommuting and home occupations are increasing as technology becomes a fundamental element of our economy. Working remotely has gained popularity in Colorado with 6.9% of residents telecommuting full-time - over 2.6% higher than the national average. Fort Collins, with 7.7% full-time telecommuters, is the second highest telecommuting municipality in the state. This type of employment provides opportunities for employers to draw from a broader geographic talent pool, and allows for more diverse employees, in gender and socioeconomically.

Currently, 77% of rural households in Colorado and about 69% of unincorporated Front Range communities in Larimer County have access to broadband service at speeds of at least 25 mbps download and 3 mbps upload. Broadband today has become critical to efficient and effective operations for schools, hospitals, homes, and businesses, as well as influencing a resident's decision to stay or leave. Broadband service is also important for farmers as it reduces farmers' costs and increases revenue by providing real-time access to information relevant for production and marketing decisions, facilitates access to weather and pricing information, speeds technology adoption, and improves management practices.

Passing an exemption to Senate Bill (SB) 05-152 in 2016 propelled Larimer County's broadband initiative, "Everywhere is Somewhere," and the anticipated completion of the Broadband Feasibility Study in spring 2018. As Larimer County makes strides to identify the "what" and "where" of broadband needs, the state is also bringing additional funding and opportunity to the Colorado Broadband Grant Program. Continuing engagement and investment in these efforts are critical to ensuring the adequate provision of this infrastructure.

With second, third, and fourth generation farmers not wanting to carry on the family business and development pressure leading to a decrease in agricultural lands, it is important to remove regulatory barriers and provide sufficient access to the amenities needed to ensure the preservation of rural areas. While the Land Use Code provides direction for home occupations related to rural uses in its Access Rural Occupations provisions, the vagueness of allowances are causing compatibility issues in areas around subdivisions. In addition to amending the allowances to be more definitive in order to avoid land use conflicts, there is the opportunity to reevaluate allowances regarding small-scale farming operations.

Today, Accessory Rural Occupations allowances by right require a lot of at least five acres in size or on a lot less than five but larger than two acres with a public site plan review, and zoning allowable uses are not consistent with the nomenclature clearly indicating what is allowed on the property. There is a demand in Larimer County for local and smaller-scale farming operations, currently being met by about 20 Northern Colorado farms that sell directly to the public. However, conflicts are arising between small-scale farming operations in general being located in close proximity to subdivisions and residential developments as the County is urbanizing. In one example, a resident who ran a farm located on property that was within a FA-1 Farming zoning district and met the 1963 minimum acreage of 2.3 acres moved to another location after complaints led to a code compliance issue; however, the minimum acreage for a farm was changed in 1986 to 3 acres based on 2.3 acres being a typical lot size in subdivisions, resulting in a year of hearings and discussions with the County regarding the dispute. The Land Use Code's zoning and Accessory Rural Occupation provisions and allowances should be consistent and clear in order to avoid increased conflicts between rural and urban uses, while still providing protection to farming and agricultural uses to maintain the rural character of the County.

Home occupations and employment opportunities add to the ability to sustain someone economically and fulfill them. With a lack of available sites for new or expanding businesses uses that are equipped with adequate infrastructure, many people are choosing to work from home rather than commuting elsewhere or paying for commercial space to run their businesses; but current home occupation regulations are vague and open to interpretation, leading to compatibility and noncompliance issues. The following use by right criteria areas are provided in the Home Occupation provisions:

- General
- Size
- Detached Buildings
- Employees
- Parking
- Traffic
- Signs
- Retail Sales
- Nuisance

The criteria within these categories are primarily focused on business operations rather than business type, with the only direction on that topic being "office work, the making of art or crafts, trade uses, the providing of personal or professional services and similar activities, including retail sales of products produced on the premises and products clearly incidental, secondary and ancillary to the home occupation." Due to the fragmented amendment approach to the Land Use Code over time, regulations have not kept pace and are not designed to evaluate or accommodate new and expanding business opportunities that are continuously evolving. A re-evaluation of these provisions that would allow for compatible home business uses and mitigate any associated impact would remove barriers to property owners, neighbors, and staff to balance allowed uses and address complaints or noncompliance.

#3

The County and larger region are unprepared to support the changing needs of the workforce as the economy becomes increasingly regional and demographic shifts occur.

Although the unemployment rate in Larimer County is one of the lowest in the state at 2.9%, there is the issue of a bifurcated workforce suffering from underemployment and employers being unable to find the workers and skills they need. This issue, combined with changing needs of the workforce as it becomes older and more racially and ethnically diverse, needs to be addressed by the County in order to effectively support an economy that increasingly functions at a regional scale rather than an isolated local economy.

In Larimer County, there is a gap between job creation and available workers with around 20,000 jobs added in the past five years but only 11,000 workers. This gap is exacerbated by issues of underemployment with 45% of the workforce having a college degree and only 20% of jobs requiring that level of educational attainment, an aging workforce as 22% of the local workforce prepared to retire, and gaps in the qualifications of the local workforce related to skills in manufacturing. There are existing collaborative efforts in the County, such as Talent 2.0 which is a regional workforce strategy dedicated to helping underemployed individuals re-employ at a higher level and tackling the challenges of narrowing the labor shortage. However, it is imperative that these types of initiatives are implemented and continued to collaboratively address the regional workforce issues affecting the County.

The state demographer's office is projecting that by 2030, seniors over the age of 65 will make up 19% of the population compared to 13% in 2012, adding nearly 40,000 older residents. This will have a significant economic impact on the County with supporting job creation and influencing occupational mix. In Colorado, each person over the age of 65 supports 0.3 jobs, leading to 240,000 jobs in 2014 forecasted to grow to over 410,000 by 2025. Although this increases job creation, these individuals generally support jobs in occupations with low wages with a few at higher wages in office, admin, sales, food prep, and healthcare. However, as the cost of living rises throughout the County, seniors are delaying retirement with 75% more individuals staying in the workforce past 65 years

of age. As these trends continue, implications will be seen across housing, transportation, workforce, health care, and social services.

More racial and ethnic diversity is also anticipated throughout the County and the state. The Hispanic population is anticipated to increase by 13% in Larimer County and 142% in Colorado from 2010 to 2040. These racially and ethnically diverse populations experience a significant gap in educational attainment and employment compared to the average adult educational attainment levels for Colorado, and ongoing efforts are imperative to ensure a regional economy that offers inclusive employment opportunities.

While Larimer County benefits from the presence of strong educational institutions—including Colorado State University (CSU), Front Range Community College (FRCC), and Aims Community College—there are challenges to strengthening the local talent pipeline to meet regional occupational demand. According to the Talent 2.0 Regional Workforce Strategy, these challenges include hiring and retention difficulties, as well as a lack of awareness among employers about the resources that exist to connect them to the talent they need.

Services are also the fastest growing sector in the region with a 9% increase from 2015-2016, but positions in this sector such as retail sales and tourism tend to be low-paying. With Larimer County offering an attractive quality of life, college graduates tend to stay in the region and contribute to the issue of underemployment as they take these positions for which they are overqualified. This perpetuates the gap in the labor force where employers cannot find applicants with sufficient vocational and technical training to support manufacturing industries. With 29 occupations including technical, medical, sales, and other fields that are difficult to fill in the County, employers are forced to hire from outside the County. Further collaboration among organizations involved in education and workforce training could improve the alignment of resources with the business community and local talent pool to benefit the future of the workforce in light of these conditions.



HEALTH AND SOCIAL SNAPSHOT

“Protection of the health, safety and welfare of the citizens” is written into Larimer County’s mission statement and is a central tenet of this Plan. This involves making sure that basic individual and community needs are met for safety and education, mental and physical wellbeing, access to health services, exposure to a healthy environment, and managing the impacts of the built environment.

The County shares the burden of providing these health and social services with a network of federal, state, special districts, non-profit, and private organizations. However, the real impact of the Comprehensive Plan can be felt in promoting positive health outcomes for the entire community, maintaining a high quality of life, fostering social cohesion, and encouraging healthy lifestyles through land use planning, hazard management, and environmental justice. Three specific issues deserve a discussion as part of this Framework Snapshot.

#1 Healthy and active lifestyles are an important element of our County’s livability, but regional coordination is needed to improve viable active transportation and recreational opportunities.

An integrated and connected bicycle and pedestrian network can realize multiple benefits to county residents. These include expanding access to open space, recreation opportunities, facilitating non-motorized access to destinations, and supporting land conservation. All of these amenities can have positive impacts on both mental and physical health.

Bicycle connections and trails have been consistently one of many priorities identified during public processes in Larimer County and Northern Colorado. This is reflected in high rates of users on trails and bike routes, and the emphasis that the County and individual municipalities have put on planning these facilities. Three times as many residents commute to work by bike, and nearly 10% more children bike, walk, or skateboard to school per week in Larimer County and the region compared to the state average. However, rural community members in Larimer County have a harder time walking and biking to destinations.

Despite the benefits and public support for bike and pedestrian infrastructure, of the 40 miles of bicycle lanes in unincorporated County, most are located near the urban areas of Fort Collins and Loveland. With rural residents lacking direct access to this infrastructure, the most important

bicycle facilities for transportation or recreation in unincorporated County are the shoulders of County Roads. The current County minimum standard of a five-foot shoulder width for bicycle use goes beyond the Colorado Department of Transportation (CDOT) recommendation. Despite this progressive standard to accommodate bicyclists, only 15% of County Roads actually meet this requirement, whether paved or unpaved.

Completing new bicycle and trail connections can

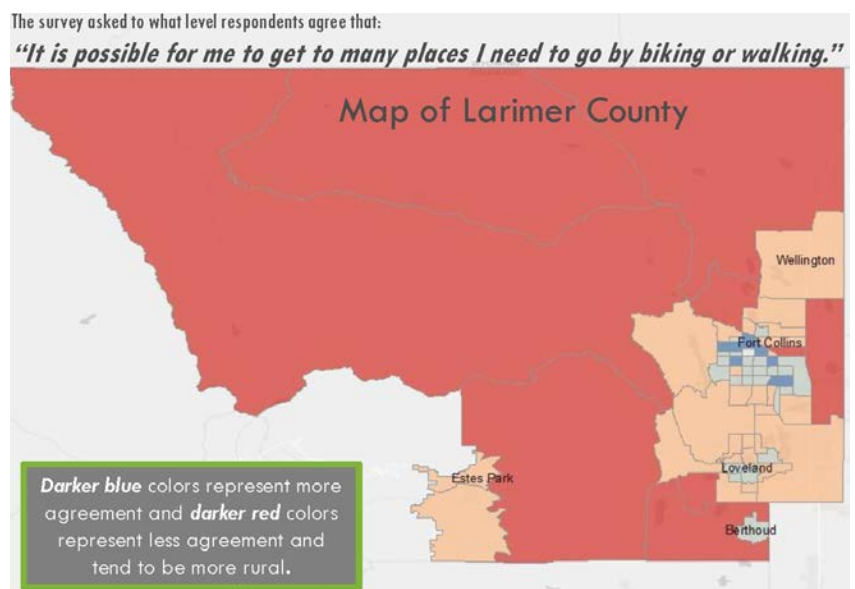


Figure 20. Ease of Biking and Walking in Larimer County

Source: “Healthy Eating & Active Living In Our Community; 2016 Survey of Larimer County Residents.” Health District of Northern Larimer County.

often take decades to implement. Challenges vary by project, but often include willingness of landowners to sell, funding availability, and competing priorities. Completing a regionally integrated network requires multiple jurisdictions to agree and help fund segments of the projects. For on-street connections, older roadways often need to be retrofitted and upgraded to accommodate larger shoulders or bike lanes. Expanding the right-of-way to accommodate wider shoulders, bicycle lanes, or pedestrian paths become less feasible in denser and more developed areas

of the County. For off-street trail connections, acquiring the right-of-way can be costly and take years of negotiation. Without forethought and inter-jurisdictional planning, new developments (residential, designated open spaces, agriculture) can create long-term gaps in connections that are hard to build around.

Coordinating on- and off-street networks can also be a challenge, despite a number of plans that are in place, including a 2017 Northern Front Range Metropolitan Organization plan (MPO) for non-motorized transportation. Conflicting requirements between urban, Growth Management Areas (GMAs), and rural areas have resulted in large gaps in the bicycle and pedestrian network, as referenced in the future regional bike facilities map provided by the MPO; this is especially evident in new urban annexation areas where infrastructure is not up to urban standards, due to a lack of coordination between internal and external government processes and agencies. Internal to the County, two separate departments oversee the planning, installation, and maintenance of bicycle facilities in Larimer County; the Engineering Department is responsible for on-street bicycle facilities, and the Natural Resources Department is responsible for off-road facilities. Externally, the County can increase regional coordination to prioritize corridor projects and connections and implement the regional trail plan as well as the MPO Non-Motorized Transportation Plan. Cost sharing agreements are important considerations for infrastructure improvements within the GMAs, as well as proactive land use easements and dedications as part of new developments, development fees, intergovernmental agreements, and private-public partnerships.

Figure 13. Existing Bicycle Facilities

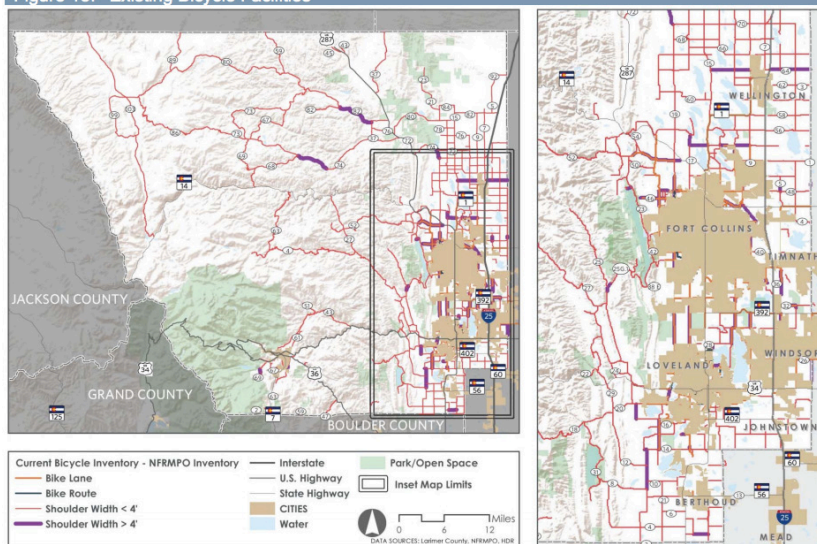


Figure 15. Future Regional Bicycle Facilities

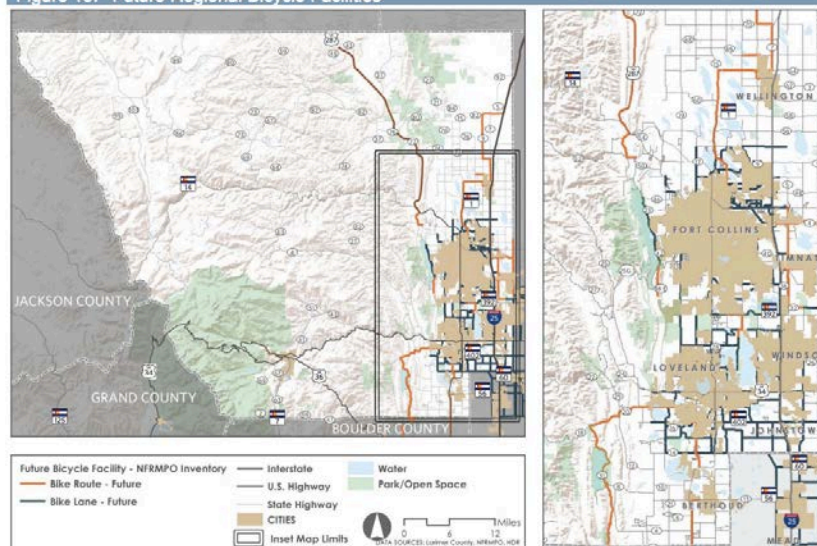


Figure 21. Existing Bicycle Facilities and Future Regional Bicycle Facilities

Source: 2017 Larimer County Transportation Master Plan

#2 Access to services will continue to be a challenge for residents living farther from population centers, creating demand for supportive land uses.

While residents in the unincorporated Front Range are not as dispersed and isolated as their counterparts in the rural mountain communities, the distance to population centers in Fort Collins and Loveland still makes provision of certain services costly and inefficient. The fundamental forces that shape a community's health and social resilience rely on access to health, education, and community resources.

A lack of specific Larimer County data makes it difficult to understand exactly where vulnerable populations are, their specific needs, and how they may be underserved. On the other hand, we do know that there are about 14,000 families in the rural Front Range with school-aged children, a population that has remained pretty stable over the years. At the other end of the age spectrum, 27% of the County's senior population (65 years of age and older) live in the unincorporated Front Range Planning Area. Uninsured rates are lower than the state average and mirror the national downward trend since 2013.

Special districts serve and encompass rural areas along the Front Range such as school districts, fire districts, and health districts (in the case of Northern Larimer County). However, with the exception of fire stations, all other public facilities are located within urban areas, including schools, libraries, and hospitals. For the 31% of families with school-aged children in the rural Front Range, there are few public schools outside of incorporated towns and cities in the Front Range Planning Area:

- Cache La Poudre Elementary (LaPorte)
- Middle School (LaPorte)
- Cottonwood Plains Elementary School (between Fort Collins and Loveland)
- Carrie Martin Elementary (just north of Berthoud in Campion)

VULNERABLE POPULATIONS

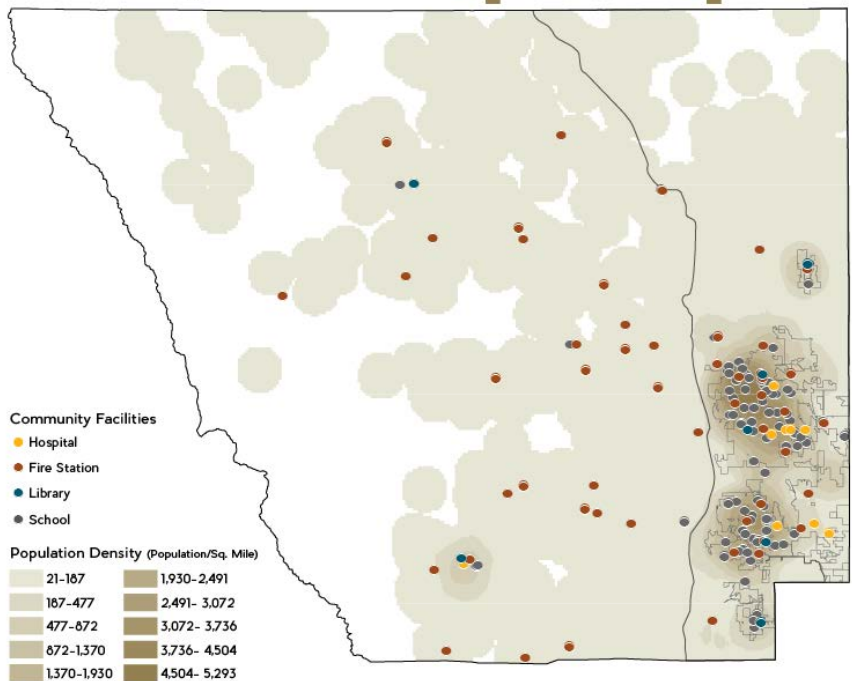
The economically disadvantaged, racial and ethnic minorities, the uninsured, the elderly, the homeless, and/or those with other chronic health conditions. In this context, this term also includes rural residents who encounter barriers to accessing healthcare services.

Public schools are served primarily by two school districts in the Front Range; Poudre School District encompasses the northern half of the County, and Thompson School District R2 serves the southern areas of Loveland and Berthoud.

There are few direct options to healthcare facilities for rural residents outside of urban areas. While all hospitals and urgent care clinics are located

Unincorporated Front Range
Larimer County has:

4 Fire Stations **4** Schools



Map 2. Community Facilities are Concentrated in Population Centers

within urban areas, Larimer County works with community partners and special districts to connect rural residents with health programs, services, and insurance providers. Unlike the mosaic of volunteer fire authorities in the mountain areas, six different fire districts and authorities serve the unincorporated Front Range. There are a total of four fire stations outside of urban areas along the Front Range, but response times have a wide range depending on the location of and accessibility to residential homes. The clustered location of these services can be a barrier to serving rural residents, especially vulnerable and less mobile populations.

#3 Maintaining environmentally healthy landscapes and the viability of local agriculture provides financially intangible yet essential health benefits.

Conserving our historic and currently operating farms and sustaining our natural landscapes brings real benefits to Larimer County. While these areas often provide buffers between communities and land uses, there are also health and social benefits that a community can experience by protecting agricultural and open lands. Unfortunately, since most of these farmland benefits cannot show a market value, they are often overlooked and undervalued.

Larimer County currently does not have much in the way of policies or programs to encourage preservation of agricultural land other than the conservation development standards within the Land Use Code. These standards are intended for parcels of 30 acres or more and encourage cluster-style development that locate homes on smaller lots and leave the majority of the site for open space or continued agricultural uses.

According to the Center for Disease Control, protection of agricultural lands and farms has clear health benefits for the surrounding community by creating stronger food security and improved access to local, healthy, nutritious food. This proximity of food production to urban areas, called “peri-urban agriculture,” can provide greater access to healthy foods that may not be otherwise be attainable for people who are low income and for those living in rural areas that may not have a grocery store within an acceptable travel-radius.

Encouraging the preservation of local farming improves access to nutritious food for community members, as well as multiple other co-benefits.

In spring 2018, Loveland Fire and Rescue Authority began assessing Capital Improvement Impact Fees for the first time. This comes at the heels of increased call volume for fire protection and emergency services due to increase in population and subdivision development.

The County should continue to extend health resources and access to rural areas along the Front Range, as well as work with municipal and community partners to anticipate future needs and increased demand as the region grows.

Conserved agricultural and open lands can:

- provide scenic views and recreational opportunities which promote physical and mental health;
- reduce carbon emissions related to food transportation promoting individual and environmental health;
- create agri-tourism which contributes to the financial health of an area;
- assist in historical relevance and cultural connectedness contributing to a sense of belonging, pride, and supporting mental health; and
- assist in the maintenance of biodiversity and ecosystem services (such as pollinators, water quality, etc.) which positively contributes to environmental health.

The Little Thompson Farm is a good example of a proactive approach to agricultural preservation with the intent of strengthening the related health and social benefits. Larimer County successfully negotiated the purchase of this farm in 2016 in a landmark deal that was the first of its kind in Colorado. By leasing the property back to farming operations, it continues to produce a variety of benefits for the community members of our County, including its agricultural, historic, scenic, community separator, and educational values.



HOUSING SNAPSHOT

Ensuring that safe and adequate housing options are available and attainable is an important aspect to the overall wellbeing of County residents. This includes housing diversity, availability, affordability, quality, and location. Understanding the County's role in guiding development and growth patterns will help address emerging housing issues and anticipate future needs. As the Front Range continues to attract new residents and communities expand into rural areas, housing diversity, availability, affordability, quality, and location will be increasingly important aspects to address.

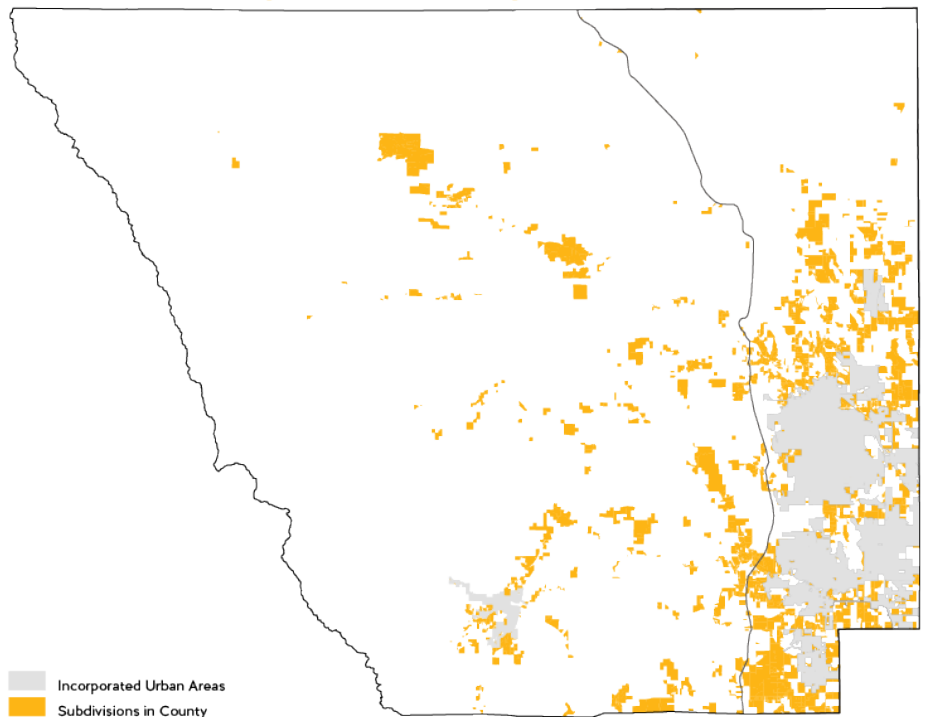
#1 Housing types, lifestyles, and preferences have changed but the subdivision processes and zoning codes have not kept pace, putting additional pressure on the housing market.

In the last two decades and with the rapid increase in population, the residents that live in the unincorporated Front Range of Larimer County continue to be older in age than their urban counterparts, but the proportion of younger families, minority families, and nontraditional households has risen. As new residents continue to flock to northern Colorado, not all are looking for traditional housing types and many have different housing needs and preferences than previous generations. Affordability and availability of housing in the current market compounds the challenge of matching the housing stock with residents' needs. The subdivision process and zoning codes have not changed to reflect these demographic and regional realities.

As previously mentioned, the Larimer County Land Use Code has not seen comprehensive updates in over two decades. Some of the housing and subdivision types that were originally written into this code in the 1990s, including the Rural Land Use Process and the Conservation Development, were innovative tools at the time, but residents, developers, and county staff alike are frustrated with the outdated content that restricts the flexibility of new housing types and development patterns.

Definitions that establish the precedent for the types of residential development are too narrowly defined or do not reflect modern housing types. Recent challenges include how accessory dwelling units (ADUs) are defined and implemented, inclusion of smaller housing types, how to address short-term rentals and tiny homes, and update recreation

unincorporated Front Range subdivisions cover the equivalent of **Loveland, Berthoud, and Fort Collins**



Map 3. Subdivisions in Unincorporated Larimer County

vehicle (RV) performance characteristics. These outdated regulations make it hard for farmers to house their workers in trailer houses or mobile homes. In the case of development in the Growth Management Areas (GMAs), aligning definitions and development standards with municipal standards are in the best interest of both the County and the municipality. The process for planned land divisions in the GMA is a challenge because there is often a lack of supplemental regulations that apply to those areas.

To help create additional flexibility and options in subdivision and development types, a pattern book could be developed and used in updating Zoning District Use Tables. This could reassess the process and standards for Conservation Developments, Rural Land Use Process, Planned Land Divisions, Standard Subdivisions, 35-acre lots, 1-lot simplified subdivision, and other forms of land divisions.

#2 The shortage of attainable housing in the County is forcing lower- and middle-income residents farther from their place of work and compounding associated issues of transportation and distribution of services.

In the years since the Great Recession, the housing market along the Front Range has bounced back in force and become even tighter for homebuyers and renters. Meanwhile, increases in wages and new high-paying jobs have not accompanied the 79% increase in housing prices from 2010 along the Front Range in Larimer County. Other factors, such as interest rates, construction costs, raw water fees, and federal tax reform further exacerbate the affordability issue.

Contrary to public perception, median housing prices are actually higher in the rural unincorporated plains areas than in urban areas; estimated at \$475,000 compared to \$368,200 in urban areas in 2018. Since 2010, the median home price for detached homes in the unincorporated Front Range area of Larimer County has increased by 75% from \$275,000 and continues to increase. Generally seen as a more affordable housing option, attached housing such as duplexes in unincorporated areas are still around \$61,700 more expensive than attached housing in urban areas. This difference in price is in large part due to the larger lot sizes and associated cost of additional land in rural areas; while the average rural residential parcel size is 6.98 acres in the unincorporated Front Range; urban residential parcels are at an average of 0.28 acres within towns and cities.

The ratio analysis of median housing cost to median income also indicates that residents in unincorporated Front Range areas are paying more of their income to housing than residents within urban areas. According to quarterly affordability index that ATTOM Data Solutions compiles,

northern Colorado counties are some of the least affordable in the state. As of early 2018, they estimate that Larimer County residents would need to spend almost 52% of their annual wages to buy a home in this market. This is significant because 43% is the maximum debt-to-income ratio allowed for a “qualified mortgage” under guidelines from the Consumer Financial Protection Bureau. The growing fear is that Larimer County is becoming a place of upper-middle class and pushing the lower-middle class (bottom 3rd) out of the County.

The majority of jobs in Larimer County are clustered in urban areas. With the pressure to find affordable housing, many residents are looking farther and farther from their place of work. This is reflected in the increasing number of commuters from Weld County over the last decade. Additionally, a lower proportion of County residents work within 10 miles of their homes since 2005. See the charts on the following page. Some urban communities are now just a place to work, and the large subdivisions are just a place to live.

On the other hand, some communities, like Berthoud, are seeing exploding residential growth. People are moving there because the area is

AFFORDABLE/ATTAINABLE HOUSING

Housing which has sale price or rent within the means of a low or moderate income household as defined by local, state or federal legislation.

still more affordable than Boulder or Longmont. Even with the infusion of new residential growth, new single-family market-rate housing is still unattainable for many residents.

For decades, local housing authorities in Loveland and Fort Collins have aggressively pursued increasing the affordable housing stock; whether through the purchase of an existing property, the development of new housing, or by providing assistance to those who already own a home. With transportation costs averaging over \$13,000 for Larimer County residents, or another 22% of the median income, it is in the best interest to buy and develop affordable housing near alternative transportation options, utilities, and services. The

catch is that these available sites are increasingly rare and generally located in urban areas. While access to transit and services are important criteria for new affordable housing development, supporting market-driven affordable housing in the County is more challenging. The local housing authorities primarily focus on multifamily housing options, as they are generally more affordable than single-family housing when considering construction, water, and land costs. Most multifamily lots in unincorporated Larimer County are close to urban communities and most are within the Growth Management Areas (GMAs). The notable exception is about 60 duplex and condos in LaPorte.

The 2,880 existing manufactured homes in the unincorporated County provide more affordable options for residents, but these areas can fall behind on maintenance and become stigmatized. Development costs and fees associated with securing water and sewer connections are also a barrier to building lower-cost developments. The limitations in utility infrastructure are tightly linked to housing because there are areas ripe for housing but without access to necessary infrastructure the cost is prohibitive.

While affordable housing is a broader issue along Colorado's Front Range, Larimer County can contribute by readdressing local policy and regulations, and building them into the Comprehensive Plan. It is unlikely that the County will choose to take direct action in the form of land banking and affordable housing projects, but the County could work with municipalities and housing authorities to assist in creating affordable housing opportunities in appropriate and serviceable areas. These could include improving mobile home communities, adding flexibility with smaller housing units, or reinvesting in a transferable density units (TDU) program.

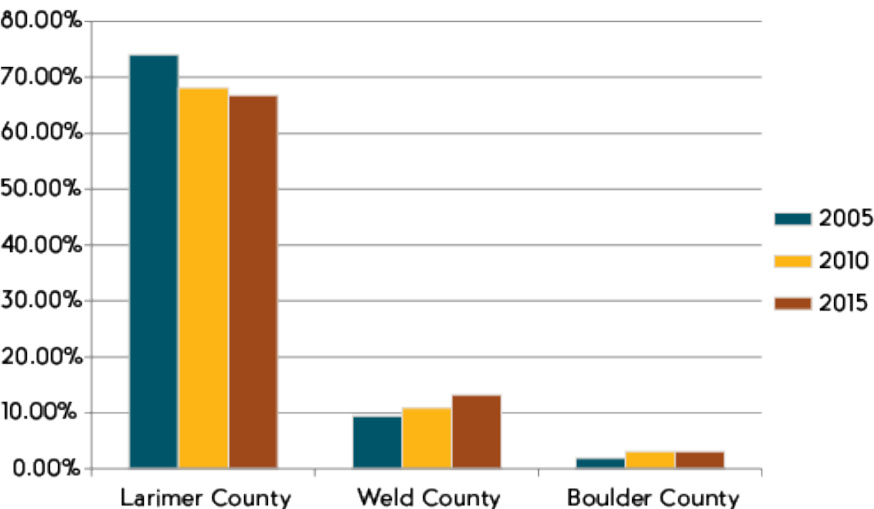


Figure 22. Counties in Which Larimer County Workers Live

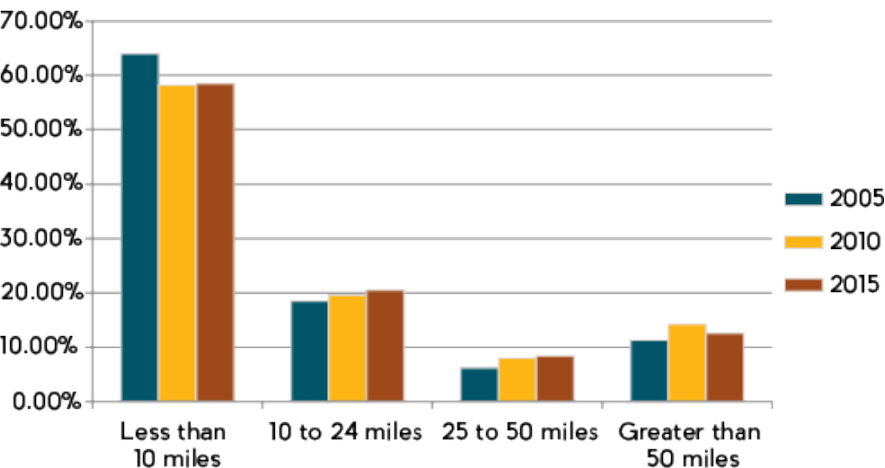


Figure 23. Driving Distance from Home to Work

Source: U.S.Census Bureau, Center for Economic Studies

#3 The availability and cost of water services is the largest barrier to new housing development on lots less than 35 acres.

With high demand for water and a finite supply, the price of securing water in Colorado is at an all-time high. Generally seen as an indicator for the state water market, the pricing for Colorado-Big Thompson (C-BT) Project's water has reached a historic high—more than tripling between 2010 and 2015. This comes on the heels of a Front Range housing boom, making it even more expensive to fund new residential development. Even within urban areas around Fort Collins and Loveland closer to utility-served areas, new residential subdivisions are seeing inflated tap fees and increasing costs of obtaining raw water.

With rising costs of land, development and utility fees, developers are pressured to alter their targeted housing price point or risk squeezing their profit margin. These costs are ultimately passed along to homebuyers, which compound the issue of housing affordability for middle-income earners. The cost of subdividing property is challenging due to the water augmentation requirements of Colorado water law.

In 1972, the Colorado Legislature determined that constructing one residential unit on a parcel of 35 acres or more is considered a “use by right” and allowed landowners to have one well for indoor domestic use. If a property is subdivided into parcels less than 35 acres with need for more than one well, a plan for augmentation must be approved by the Colorado water court to prevent injury to senior water right holders. The cost of a water augmentation plan is, on average, a minimum of \$200,000 when considering costs of water engineer, lawyer and court fees. This cost is often too heavy for small developments to bear, leaving large developments with significant financial backing as the best suited to successfully obtain a water augmentation plan.

Agriculture has strong roots in rural Larimer County, so it is expected that the majority of water rights are reserved for agricultural uses. This is still the case, even though agricultural land has been purchased in recent decades mostly for the water rights. The biggest and most publically noticeable is the Thornton Water Project. The City of Thornton acquired land and associated water shares in the Poudre River in the 1980s in anticipation of population growth. The proposal to install a pipe to transport the water south has renewed tensions between residents and agricultural users.

Larimer County and individual communities have very little influence over the price and installation of private water utilities; however, the County's Rural Land Use Process offers an incentive to subdivide properties larger than 70 acres with additional wells, in exchange for conserving 67% of the original property. If the cost of obtaining water continues to be a defining barrier to residential development, the County may consider programs to further facilitate water well construction or support specific communities' connections to treated domestic water. Site-specific strategies could be further identified in subarea plans.

In many cases, adding capacity to serve additional residential areas or additional housing density would require major upgrades to the utility infrastructure. This is especially problematic in the Growth Management Areas (GMAs), where larger housing developments are expected. Currently, there is capacity for utility expansion to most areas of the southern County, while expansion to the northwest and northeast may require substantial utility improvements to support major growth.

#4 Current buffer and transition requirements for subdivision development are not adequate to reduce conflicts between different land uses and/or different intensities of development.

New residential development that has occurred in the County over the past few decades parallels lost acres of farmland. As urban and suburban development creeps outward from cities, many farmers are facing the decision to sell their land now valued at a premium. Over the last decade, many ranchers and farmers have seen adjacent farms turn into subdivisions. As new residents are not used to living next to farms, conflicts arise.

In 1998, Larimer County adopted its Right to Farm policy that protects farmers from nuisance complaints, including sights, sounds, and smells that come with traditional farming operations. While this policy is supported by State law, the County's current buffer and transition requirements between agricultural and residential uses are not adequately explicit in reducing impacts from odors, dust, smoke, and traffic. While most land division processes include criteria to ensure that it is "compatible with existing and allowed land uses in the surrounding area" and will not "result in a

substantial adverse impact on other property in the vicinity" there are only specific buffer requirements called out for Conservation Developments.

The impacts between different adjacent uses affect both sides. While residents may complain about physical discomfort, farmers also find significant issues with increased traffic congestion and access for farming equipment. The transition of these areas is changing the culture and character of rural communities. With population projections set to double by 2040, pressure will increase to transition farmland into residential properties. Larimer County can actively help mitigate some of the more serious conflicts through more defined buffer or land use transitions between rural and urban uses, across other land division processes and residential projects. In some cases, it may also be beneficial to consider transfer of density units (TDUs) as an alternative, placing housing units closer to urban areas that can facilitate the necessary transportation infrastructure improvements.



INFRASTRUCTURE SNAPSHOT

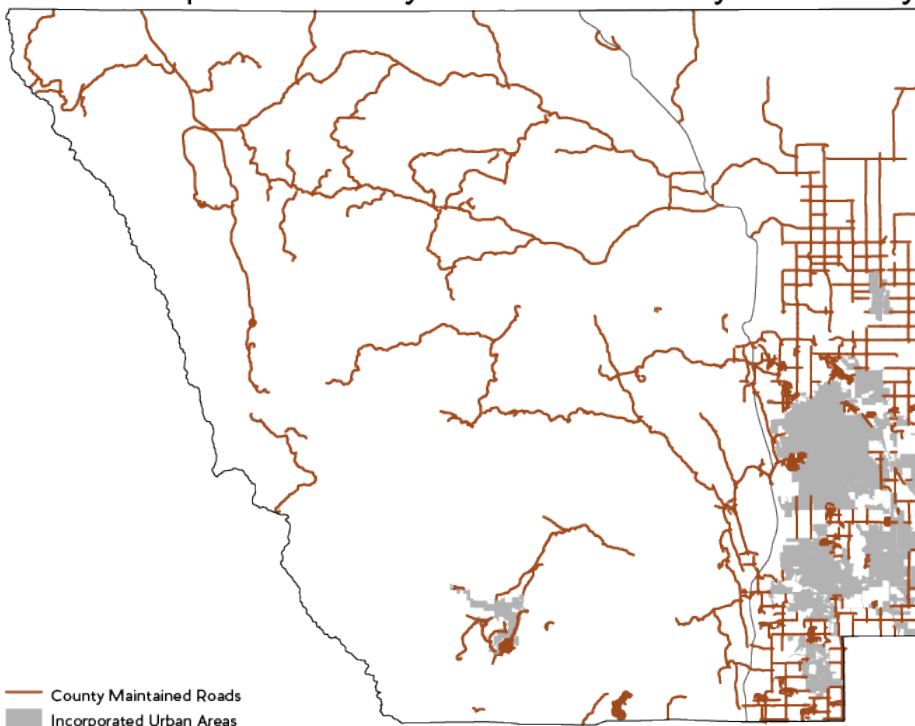
Rapid growth along the Front Range is impacting the County's ability to keep pace with infrastructure needs such as roads and transportation networks, utility provisions, communication services and high-speed internet, and energy development. Current funding mechanisms are not sufficient to accommodate the changing infrastructure needs; Growth Management Areas (GMAs) are not aligned with necessary infrastructure to support growth; insufficient communication infrastructure continues to be a challenge socially and economically; and energy development that is necessary for infrastructure improvements is met with difficulties. Addressing these issues is critical to the County's capacity to proactively plan for growth.

#1 Funding mechanisms have not maintained pace with transportation and mobility needs required for a rapidly growing County.

According to the 2017 Transportation Master Plan, Larimer County has approximately 1,325 miles of public roadways, of which approximately 900 miles are maintained by the County. Of the 900, there are 374 miles of paved mainline and 84 miles of paved subdivision roads. Additionally, there are 422 miles of non-paved mainline and 21 non-paved subdivision roads.

Over the years, the cost of roadway maintenance (specifically equipment, fuel, and asphalt) has significantly increased while the budget for roadway maintenance has remained relatively flat. For example, the cost of asphalt overlays increased 117% between 2006 and 2016. With population growth, the need for maintenance will only increase, as this means more and more people will be using the roads for commutes, recreation, and other trips.

75% of public roadways are maintained by the County



According to a survey done for the Larimer County Transportation Master Plan (TMP), 89% of County residents reported that a vehicle is their primary mode of transportation. The TMP also reports that over 60 miles of county roads are currently over capacity. With no improvements, this could grow to over 250 miles by 2040. Currently, the busiest County roads see as many as 20,000 vehicles per day. By 2040, that number is projected to be around 30,000. It is also projected that average daily traffic on most County roads will double between now and 2040. CR1 from US 34 to CR14 will likely grow from 200 vehicles per day to 13,000 per day, and other County roads are likely to see an increase in average daily traffic of 5,000% or more between now and 2040. Transit

Map 4. Roads Maintained by Larimer County

(carpools, buses) can reduce the number of vehicles on the road, though there are significant financial obstacles to implementing transit in rural areas and the County has traditionally been unwilling to take on a role as a mass transit provider.

Capital improvements to address capacity are estimated to cost \$123.4 million dollars for short term (existing conditions) and \$528.6 million for long term (future conditions). When pavement maintenance, intersections, and bridges are added to those numbers, the County is estimated to require more than \$145 million for short term needs and approximately \$800 million for long term needs. According to the TMP, the County has approximately \$23 million in available funds today and will accrue another \$529 million funds by 2040. To address the shortfall, the County has prepared a Capital Improvement Plan, and is conducting a Transportation Funding Study.

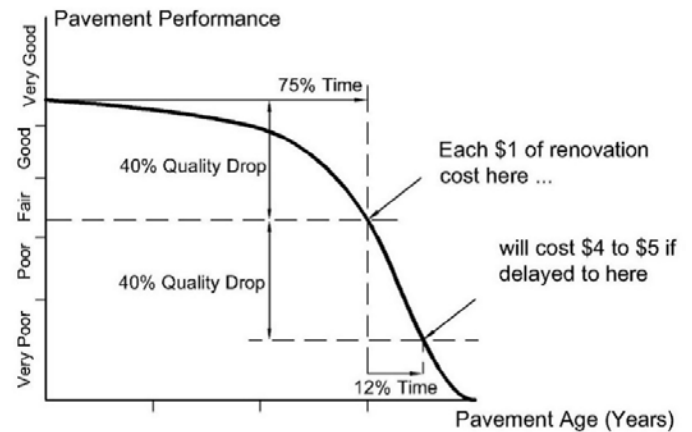


Figure 24. Pavement Performance and Cost Over Time

Source: Larimer County Master Plan

#2 Current Growth Management Areas are not aligned with the mosaic of water and sewer provider's service areas. This results in no clear plan for future delivery of the full spectrum of infrastructure services to guide the densification of growth and unified urban-level development.

As communities throughout Larimer County grow, a higher demand is placed on the infrastructure, resources, and overall systems of water and sewer providers. According to the 1997 Larimer County Master Plan, a Growth Management Area (GMA) does not need to exclusively be served by a municipality for all services but it should be serviceable by an existing urban service provider, and development within a GMA should adhere to the city's adopted plan and occur at an "urban level". However, when areas are annexed they do not always become part of the municipal water and sewer service area, leading to a mosaic of service provision throughout the County. This dynamic makes planning for utilities in unincorporated areas difficult as there is uncertainty surrounding future development and potential annexation if that area is not within a GMA.

Given the differences in each utility provider service area and various obstacles—be it topographic, inadequate existing infrastructure, or lack of funding—there is need for a regional approach

that aligns of growth management plans with and utility service areas and capacities. To date, most districts' capacity to serve has primarily been reactionary to new development and not necessarily in coordination with other districts or municipal growth ambitions.

Throughout the Front Range, it is likely that capacity will be a greater issue than slope regarding expansion of services to new development. However, limitations to utility provision vary based on geographic area and which way expansion occurs (see Table 4). To support growth, utility providers in the northeast Front Range will require improved infrastructure which is costly and will take careful planning, while in the northwest, development could be further down the road which poses a large unknown to utility providers.

Expansion and provision in southern and western parts of the Front Range face less difficulty. The biggest challenge to the overall County is raw water supply and coordination among the mosaic of utility provision by 16 different water and sewer

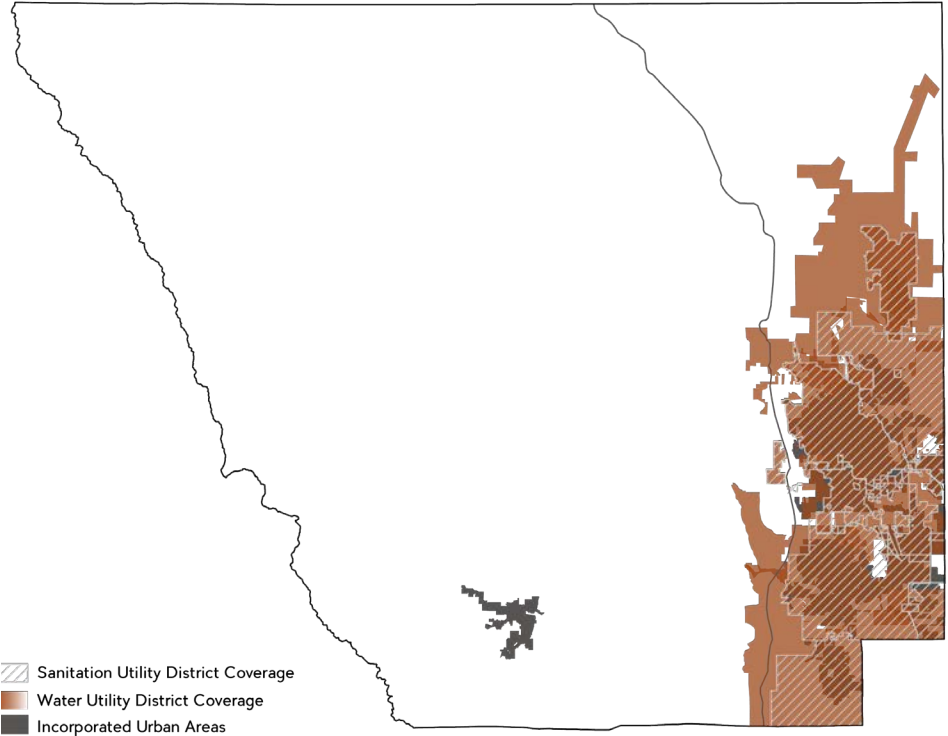
providers serving the Front Range. Typically, high-density developments are being annexed into cities such as Loveland and Johnstown and therefore served by cities. This gives the utility providers greater capacity for new development in unincorporated areas as municipalities continue

to expand and annex. Greater coordination and proactive planning for growth and expansion is critical as the County continues to urbanize. All parties need to collaborate and comprehensively evaluate current conditions to guide and plan for future growth.

Table 10. Limitations to Utility Expansion

Geographic Area	Limitations to Expansion Capacity
North	Abutting utility provider districts and the need for improved infrastructure
Northeast	Cannot support density without improved infrastructure
Northwest	Capacity will be a greater limitation than slope in service provision
West	Potential limitations associated with future planned developments
South	Raw water supply

the Planning Area is served by over **16 different** water and sewer utility providers



Map 5. Utility Provider Areas

#3 Rapid technological change and infrastructure-challenged areas create geographic separation leading to social and economic disadvantages for rural residents.

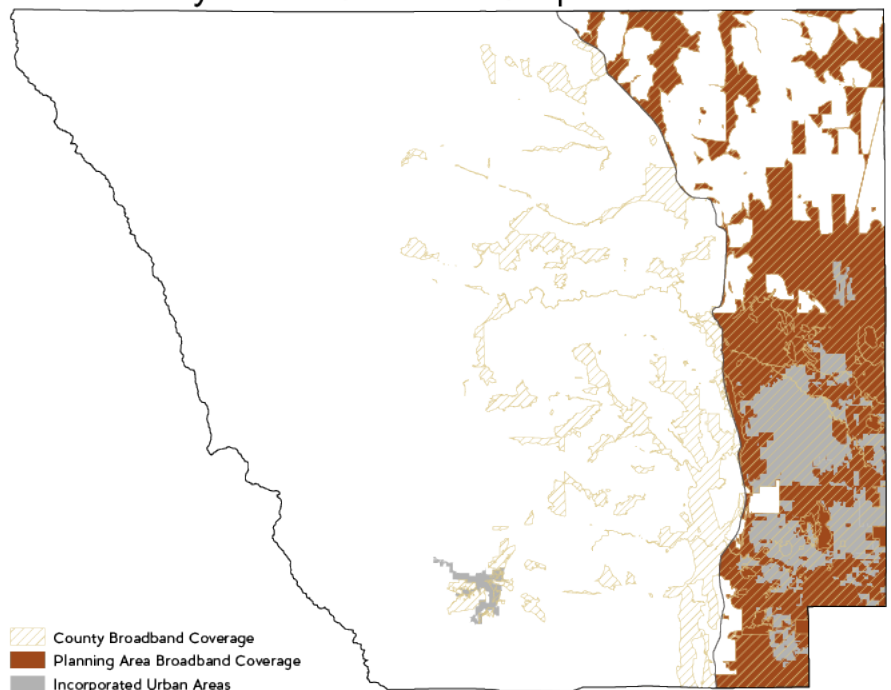
In Larimer County, stakeholders identified high-speed internet as a critical piece to every community's infrastructure as it impacts the economy, safety and well-being, education, and overall connectedness of residents, businesses, and institutions. Rapid technological change not only affects consumer demand for communication services, but has also changed the interaction with educational opportunities and business operations. As technology advances, rural areas are falling farther behind urban centers in access to information, ever widening the social and economic gaps. Economically, high-speed internet is impacting telecommuting and home-based businesses, home resale values, and operational agriculture. Socially, technological shifts at educational institutions are hindering students in rural areas.

The Federal Communications Commission (FCC) periodically changes the definition of broadband, with updates in 1996, 2010, and 2015. Advances in technology, market offerings, and consumer demand are among the reasons for the updates, but the "digital divide" in rural areas was a focus when adjusting the 2015 benchmark in an effort to connect all Americans to the digital age. Access to affordable, dependable, high-speed internet service is a significant challenge for both businesses and residents outside of major urban areas in Larimer

County. Educational institutions have made shifts toward online tools and requirements that are not easily met for students in rural areas due to lack of high-speed internet access. Realtors observe that high-speed internet is a "deal breaker" on sales of rural property, and nationwide trends are showing that access to fiber can increase home values by up to 3%. These examples are further supported by the fact that the Internet of Things (IoT) is impacting consumer demand at an accelerated rate, with a continuously compounding increase of 97 times the number of IoT devices connecting to the network per year.

Efforts to address the growing technological disadvantages of rural communities are being championed by Larimer County and new lobby efforts are moving forward to bring funding to Larimer County to study and develop options for increased rural broadband access. Regulations

69% of the Front Range Planning Area is serviced by sufficient broadband speeds



Map 6. Broadband Access in Front Range Area

INTERNET OF THINGS (IOT)

The Internet of Things (IoT) is the concept of connecting any device to the internet including kitchen electronics, household devices such as thermostats or washing machines, headphones and other wearable devices, and more.

to restrict public ownership of broadband were repealed in 2016 through approval of Senate Bill 152 by 73% countywide, providing a new opportunity for extended broadband throughout Larimer County to increase access to high-speed internet in rural communities. Since these political pushes, the County has created the “Everywhere is Somewhere” broadband initiative and kicked off the first major effort toward studying broadband. This initiative outlines the County’s goal to finding a solution that will enable at least 100 mbps (download) residential and 200 mbps commercial services to every home and business in the County. As rural access to broadband is improved, the living desirability of these areas will inevitably increase and directly influence growth and need for other services. As this occurs, collaboration and proactive planning for these effects is critical.

The 2015 broadband definition by the FCC still stands as a minimum of 25 mbps download and 3 mbps upload (25/3). Although 90% of Larimer County residents have access to some form of internet connection, only 69% of the Front Range Planning Area has access to broadband service at these speeds. However, insufficient access to high-speed internet is not the only issue. With 19% of all Larimer County utilizing copper telephone lines—known as digital subscriber lines (DSL)—as their primary home internet service, there are short-term risks to these residents due to decisions by the FCC that will make it easier for providers to discontinue service to this type of outdated technology. These risks place additional urgency on County efforts to close the digital divide in rural areas.

Insufficient broadband service affects telecommuting (or location-independent workers) and home-based businesses. In the County, 75% of survey respondents that either have or plan to start a home-based business stated that high-speed internet is very important to business operations. Specific to the rural areas north of Fort Collins, 40% of respondents have a home-based business and 11% plan

to start one in the next three years. In addition, 78% of household members who are allowed to telework by their employers and who have fast enough internet speeds take advantage of the opportunity, and 63% of the respondents that do not already telecommute would if their connection speeds were faster. With this growing desire for the ability to telework and a considerable share of the population in unincorporated areas with existing or potential home-based businesses, improved internet connections would provide significant economic benefit to rural residents.

As one of the County’s largest industries, agriculture is also directly impacted by accessible high-speed internet. Modern agriculture, including precision agriculture or smart farming, is very dependent on technology, from large-scale production operations to dairy farms, and use of technology has become inextricably linked to the success of these operations. Improvements to broadband service specifically in rural areas would support agricultural operations throughout the County.

In addition to economic impacts, rural access to reliable high-speed internet is affecting students in these areas. The Poudre School District issues every student a laptop computer that requires the majority of all school work and lessons to be completed online, requiring a broadband connection to do so. Rural communities where students lack this access must find alternatives outside

the home to complete lessons and homework. According to the Phase

1 Broadband Study’s residential survey, 58% of respondents throughout the County utilize an internet connection for educational purposes including completing assignments, research, or to study, and a resounding 76% expressed that high-speed internet for educational needs is at the highest level of importance.

With the rural County, the area north of Fort Collins is tied for the highest percentage of respondents at 61% that are using an internet connection for educational purposes, an area also suffering from unreliable internet service and slow speeds.

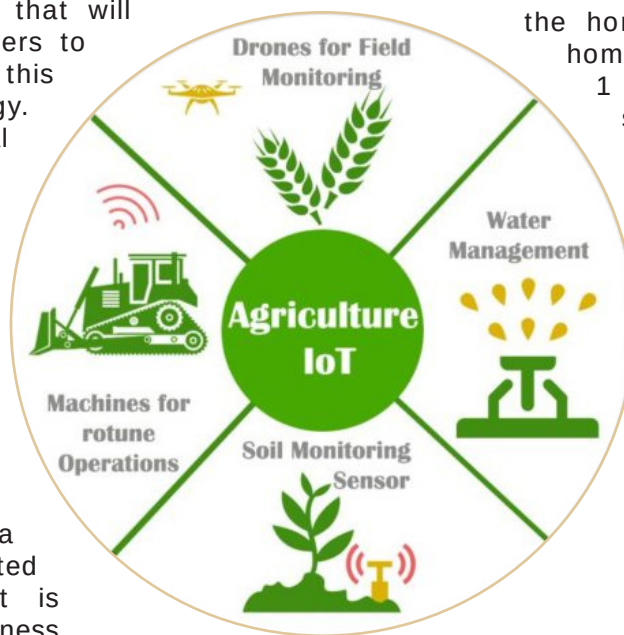


Figure 25. Use of Technology in the Farming and Agricultural Industry

Source: Ravindra, Savaram "The Impact of IoT on Agriculture" (Techno FAQ. May 27, 2018)

#4 Conventional and renewable energy development and production in the County is often a controversial and contentious issue.

Though energy development and production is a major industry in Colorado, it is not considered a major economic driver in Larimer County. Energy related uses such as oil and gas drilling production, small solar facilities, power plants, and small wind energy facilities are considered an industrial use and are zoned as such by the Larimer County Land Use Code. Additionally, Activities of State Interest which include power plants and pipelines, require County review and approval to obtain a 1041 permit. These regulations determine where energy development and production can occur throughout the County.

The points of contention, however, lay not in the County's regulations but in the reliability and public opinion of renewables and pollution from coal plants, oil and gas activities and other various energy industries. While energy efficiency practices are conserving and extending the energy sources currently being used, it is important to continue to expand the portfolio of sources and options for continued growth. Critics worry about the feasibility of relying on solar and wind power that can only be generated when it is sunny or windy, as well as an inability to store large enough quantities. There is also growing concern throughout Colorado about environmental degradation, habitat destruction, and air, water, and soil pollution from conventional energy development and production. This issue is timely as the County has seen increased applications for oil and gas, solar, and transmission (for wind energy) in 2017.

Current clean energy efforts span multiple sectors including Larimer County Property Assessed Clean Energy, Larimer County Conservation Corps (addressing low income energy efficiency), Efficiency Works (a collaboration between Estes Park Light & Power, Fort Collins Utilities, Longmont Power & Communications, Loveland Water and Power, and Platte River Power Authority to promote energy savings programs), and a pledge from Colorado State University and other large energy consumers to purchase 100% renewable energy by 2030. The Larimer County Land Use Code allows for small and accessory solar facilities and wind generators making renewables directly accessible to property owners throughout the County.

As energy needs are commensurate with the growth of Larimer County, the County has a voluntary Green Building Program to encourage environmentally responsible and resource-efficient development of single family housing. Additionally, the County has adopted residential energy conservation rules. Alternative and renewable energy should continue to be expanded and encouraged along with new technology and partnerships to grow the existing investment in alternative energy. Oil and gas production continues to be a necessary energy source now and in the future and will likely remain an important component of the energy portfolios of Xcel Energy, Platte River, and Poudre REA. High-voltage transmission lines, natural gas pipelines and railroad traffic are also necessary energy infrastructure that affect quality of life and land uses. The placement of new and upgraded transmission lines can present a complex set of trade-offs within the community. Historic preservation, recreation, natural resources, and potential fire hazards must be considered and weighted against the necessary infrastructure. Distance from their point of origin also presents a problem as they must find routes that disrupt the least amount of people and natural resources.

The necessity for both renewable and traditional energy leads to differing opinions amongst the public regarding development and production, and strong sentiments about jobs and economic development. The industry continues to adapt to meet the call for conventional and renewable energy.

WATERSHEDS AND NATURAL RESOURCES SNAPSHOT

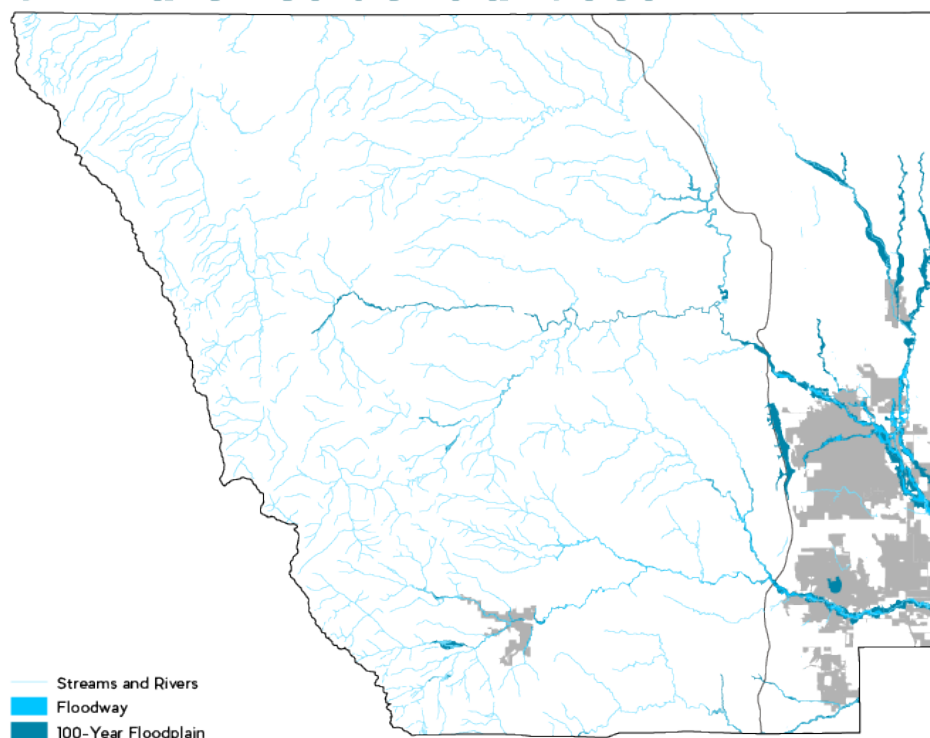


Larimer County residents are vocal in their support for preservation of natural resources and open space, and associate these resources with a high quality of life. However, growth is affecting Larimer County's natural resources as seen through land use conflicts, disappearance of agricultural lands, and competition for water. Disaster resiliency is still a concern for the Front Range as well, as the area saw significant destruction from the 2012 wildfire and 2013 floods. Although there are regulations and policies in place to address these issues, re-evaluating floodplain regulations, community separation, and protection of important farmlands and wildlife habits and corridors is critical for the County to adapt to and mitigate the effects of growth. The focus of natural resource conservation efforts should include ensuring the continued and improved health, vitality, and protection of native and ecologically significant landscapes and natural areas. These include riparian/river areas, rare plant communities, and areas that contribute to sustainable landscapes and communities such as rivers, community separators, and buffers to existing protected lands.

#1 Stream corridors and their associated floodplains are a nexus of important resource conservation priorities. Effectively managing these corridors requires a combination of tools rather than sole reliance on standard floodplain regulations.

This topic was addressed in the Phase 1 Mountain Resilience Plan, and much of the background information and recommendations on this issue are also relevant for the Front Range portion of the County. Traditional floodplain management relies on regulating development within and around mapped and identified properties. Yet many properties located outside of the 100-year floodplain were severely damaged by the September 2013 flood, including sites located along both the Big and Little Thompson Rivers. Regular updating of floodplain mapping remains an important activity, but it needs to be paired with a recognition that it is not possible to accurately model floodplains that takes into account the effects of future disaster events, a changing climate, and other variables that are not fully understood. This uncertainty means that the

Of Planning Area parcels located in the floodplain,
54% are residential uses



Map 7. Streams and Floodplains

County needs to re-evaluate how they identify flood risks and investigate the use of complementary management strategies rather than relying only on standard floodplain regulations. Conserving additional lands along rivers provides a margin of error in floodplain management and an added level of resilience to what can be achieved by floodplain regulations alone. The County's support of local governance and subarea planning is also a critical opportunity to build capacity to address this issue at the community-level.

Further, and as stated in the adopted Open Lands Master Plan (2015), a key principle of floodplain management is to allow rivers to act as rivers – providing reasonable space for flood lands and the ability of rivers to move laterally within their floodplains. In addition, floodplains and their adjacent benches provide critical habitats, wildlife movement corridors, and a scenic setting through which people travel to Rocky Mountain National Park and other regional attractions.

Encouraging conservation of lands around river corridors provides other opportunities in addition to its ecological value including recreation and regional connections, and contributing to goals of maintaining community separation. Floodplains and their river corridors also serve as an important recreation setting for a variety of activities, ranging from fishing to commercial rafting. For all of these reasons, the Open Lands Master Plan identifies the Cache La Poudre, Big Thompson, and Little Thompson River corridors as priority conservation areas and encourages expanded efforts in protecting stream flows.

In addition to targeting floodplain lands as conservation priorities, opportunities to strengthen regulatory tools should also be considered, including increasing floodplain/stream setbacks where feasible.

#2 With continuing growth of our communities, the need for community separators remains important. However, efforts have lagged indicating a need for a renewed and regional approach to strengthen this planning tool.

Maintaining community separation has been a topic of interest in Larimer County for several decades. Initial interest on the topic focused on the area between Fort Collins and Loveland, which historically had been separated by a distance of more than 10 miles but was increasingly losing undeveloped land. The 1995 adoption of A Plan for the Region between Fort Collins and Loveland, together with the provision of funds provided by a series of successful sales tax initiatives, finally resulted in protection of portions of the remaining corridor.

Continuing growth in the region demonstrated that the Fort Collins-Loveland corridor was no longer an isolated situation in northern Colorado. Recognition of this fact led to the adoption of a comprehensive IGA that was signed in 1997. In order to further the goals defined in the IGA, a more ambitious regional study entitled the Northern Colorado Community Separator Study was adopted in 1999, resulting in the identification of a series of additional community separators. In Larimer County, these include

portions of the areas between Wellington and Fort Collins, an area south of Timnath, an area east of Loveland, and the Loveland Berthoud separator. In 2001, the first Larimer County Open Lands Master Plan was created, which acquired around 48,000 acres for community separation and conservation of lands with ecological, agricultural, or scenic value through 2009. However, these efforts were primarily focused on the tri-city area around Fort Collins, Loveland, and Fossil Creek.

While efforts targeting these areas were successful and mostly completed, there has been a lag in additional work in other priority areas experiencing significant growth such as Timnath, Windsor, and Berthoud. While eight community separators were proposed in the Northern Colorado Community Separator Study, most of the more recent activity focused on the area between Fort Collins and Wellington. The weaknesses in this planning tool lie in a lack of formalized channels for collaboration to utilize available funds that would benefit smaller municipalities with limited capacity, as well as

limitations stemming from the Open Lands Program being the sole funding stream for these efforts.

With 65% of Larimer County residents identifying community separators as very important, the need for renewed efforts to maintain community separation is apparent. To address the issue of community separation, there are other underutilized planning tools that could be leveraged at the County and better cooperation and communication between the various cities and the County is integral to addressing this issue. The Rural Land Use Process (RLUP) and conservation development both provide alternatives to traditional development and are intended to offer the ability to subdivide property while still maintaining agricultural lands or open space. There is the opportunity to strengthen these tools to encourage clustering or specific

development patterns through conservation or agricultural districts, create partnerships and collaborate with municipalities who may have less capacity to prioritize these efforts in the face of rapid population growth, and create regional trails as part of these limited developments. The use of a transferable density units (TDU) program to concentrate development closer to urban areas would also contribute to both preservation of agricultural lands and community separation at little to no cost. Other regional strategies that could support community separation include taking advantage of other funding opportunities such as State Conservation Tax Credits, encouraging landowners to dedicate conservation easements, and collaborating with communities to reassess GMA boundaries.

#3 Increased development adjacent to land uses related to natural resources are intensifying.

Conflicts between residents and industrial uses, such as aggregate mining and processing, agriculture, and oil and gas development are creating issues but growth is fueling additional demand for these resources.

Extractive natural resource uses, such as mining, are often viewed by the general public as an issue because of noise, dust, traffic, etc. associated with the activities. Recent years have seen a number of conflicts between various types of resource development and local residents. In just the past year, proposals for the development of two planned aggregate resource mining and processing facilities have generated controversy, intense public meetings, and calls for more restrictive regulation.

In Colorado, aggregate resource projects are primarily reviewed and regulated by the state through the Mined Land Reclamation Board, with additional review by local governments. Larimer County reviews these projects through a special review zoning process and looks at the technical issue of the mine and its impacts, as well as the appropriateness or compatibility of the operations. This process is intended to ensure compliance with the County's Master Plan but lacks specific performance criteria, such as those contained in the 1041 process. Most mines also require review and permitting by the Colorado Division of Reclamation, Mining, and Safety.

Gravel extraction can occur on lands designated for parks, open space, mineral extraction or floodplain areas. Due to the history of development that has occurred around permitted mining sites not in operation at the time, and the land use designation that could deceive future property owners, Larimer County should establish a system that makes it easier for adjacent property owners to identify when they are purchasing land adjacent to an approved mining site.

Section 6.4 "Mineral Resources" of the County's 1997 Master Plan sought to fulfill Section 34-1-304 of the General Assembly of Colorado by providing a master plan for the extraction of commercial mineral deposits. Here, the County emphasized the importance of the preservation and protection of the County's mineral deposits "from encroachment that would limit the options of future decision makers in considering the demand for aggregate resources." It also notes that Larimer County is "critically" interested in the reclamation of these sites after extraction.

Despite potential impacts, some mining and extraction activities are essential to the continued

economic health of the County. Growth in Larimer County calls for more roadways and interstate expansion. To meet this demand, gravel must be extracted to build and maintain connectivity. Additionally, as communities build out, less area becomes available for viable gravel extraction, which limits the options for miners and extraction companies. The economies of such types of uses require relatively close proximity between the source material and the market (i.e. construction location). Many of the remaining viable sites are in unincorporated Larimer County, leading to disputes between extraction companies and residents.

As of June 2018, there were 26 active permits for gravel mines and sand and gravel mines in Larimer County, with approvals dating from 1979 through 2009. In many cases, mining permits were approved decades prior but were not immediately pursued due to the decline in the economy. A potential option to alleviate some of the conflicts between property owners and mineral development companies could be to investigate ways to create a clear system for residents to identify mining permits when purchasing land or building homes.

Following the approval of the mining permits, residential development often occurs prior to implementation of the mining operation. While excavating companies generally take measures to reduce the impact of their operations, mining operations can cause a property value decline of up to 30% for the surrounding properties. After mining operations end, there are state laws in place to ensure reclamation of the site. Currently, an operator must post a bond with the state that is returned only after reclamation work—such as grading and planting native plants to re-vegetate a site—is completed and the permit closed. The reclamation and treatment a pit receives depends on its next use, but many become ponds used for water storage or recreation. Despite these reclamation and impact reduction efforts, these operations often lead to opposition by residents and public concerns such as fears that the gravel pits will be noisy, disruptive, and a health hazard, and that this industrial use is not compatible with surrounding neighborhoods. This Comprehensive Plan recognizes that some level of extractive natural resource uses will need to continue in order to sustain the well-being of the County. At the same time, such uses should be undertaken only when care is taken to protect the environment and the character of our communities.

Oil and gas development is regulated by the State

of Colorado through the Colorado Oil and Gas Conservation Commission (COGCC). Regulations have also been adopted by local governments; however COGCC is the authority in the State for oil and gas regulations. The adoption of local regulations, which generally seek to address the impacts of drilling in individual communities, has occurred despite the state asserting primacy in the regulation of oil and gas development. A local example of this type of regulation was adoption of a 5-year moratorium on fracking within the Fort Collins city limits, an ordinance that was struck down in 2016 by the Colorado Supreme Court. As a result, the ability of local governments to control oil and gas development within their jurisdictional boundaries is sharply constrained.

The COGCC provides a number of protective measures such as a limit on developing oil and gas facilities within 1,000 feet of schools, subdivisions, and residences. For perspective, Larimer County has far fewer wells than Weld County, which is one of the nation's top producers and has in excess of 23,000 actively producing wells. That compares to less than 200 actively producing oil and gas wells in Larimer County. Nevertheless, increased development of oil and gas projects may increase in the future. While Larimer County could explore additional measures to regulate these types of development, authority will remain with COGCC.

#4 Protection of important farmlands provides many benefits, ranging from protecting the quality of our food supply to maintaining community identity and separation, yet we are still losing farmland.

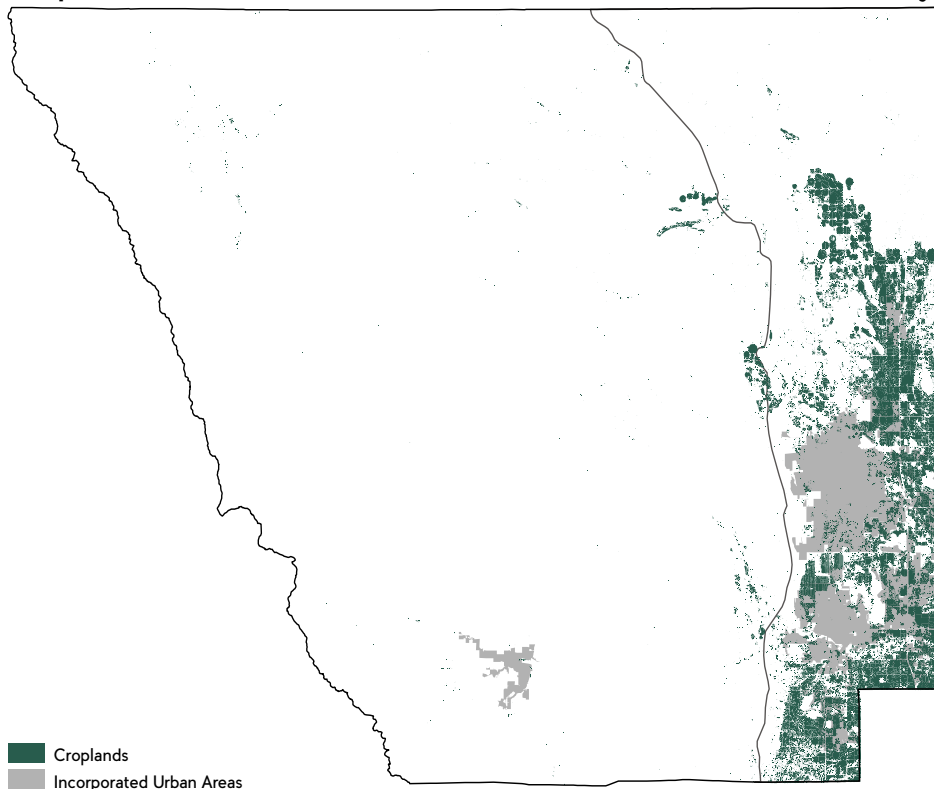
In the 10-year period between 2002 and 2012, Larimer County lost over 70,000 acres of farmland. This trend continues today. Larimer County's farmlands provide many important benefits, including economic, environmental, and social. As reported in "Our Lands Our Future" (2011), the market value of the products produced by Larimer County's farms was nearly \$130 million. Beyond monetary value, local food production contributes to our overall quality of life, including protecting historic landscapes, preserving a traditional way of life for agricultural producers, and providing fresh and sustainably produced products.

A concept that could be explored in Larimer County is creation of an agricultural initiative to

focus resources and prioritize protection efforts. An example in Colorado is Adams County, which jointly created an agricultural district in 2017 with the City of Brighton. Key principles and strategies of the district include:

- Adams County and Brighton should commit to annually and jointly applying for a minimum of \$1M of competitive Adams County Open Space Grant Funds, and applying 250K each of their Open Space share-back funding for preserving agricultural lands within the District.
- Prioritize lands that inherently help maintain agricultural operations and wildlife habitat.
- Define goals around water resources to sustain agricultural production and address future municipal need.
- Focus on designated prime agricultural lands that are contiguous to optimize farming efficiencies.
- A new, full-time equivalent employee dedicated to local food system programming and marketing efforts.
- Amend Adams County and City of Brighton regulations and standards to help implement the Local District Plan in regards to transfer of development rights (TDR), and other zoning and design related amendments.
- Pursue opportunities in which historic preservation grants and tax credits might help to rehabilitate historic farm properties.

croplands account for **84,000 acres** of the County



Map 8. Cropland in Larimer County

#5 Competition for water between agricultural, industry, riparian, and residential use and development is pronounced, resulting in the loss of cultivated farmland and affordable housing.

In the past several decades, competition for water in Colorado, particularly along the Front Range, has become extreme. Increasingly, Front Range communities are turning to agricultural water rights to meet future needs, a process sometimes referred to as a strategy of “buy and dry”. The City and County of Broomfield alone has spent \$12.6 million on acquiring water rights since the beginning of 2016 and more purchases are anticipated. Other communities, including Thornton and Aurora, have pursued similar strategies to meet future needs. As a result of this and other trends, Larimer County continues to lose farmland. Some estimates predict that the South Platte River Basin could lose up to 1/3 of the current amount of irrigated land by the year 2050.

As is often stated, water law and the tactics utilized to acquire and protect water rights in Colorado are complex undertakings. Furthermore, the role of local governments in contributing to solutions that protect agricultural water use is limited and other agencies including the Colorado Water Conservation Board and local water districts have more clearly defined roles. Nevertheless, Larimer County has a role to play. In particular, a fundamental role of the county is to assist in the protection of important farmlands. Without adequate farmlands, the conversion of agricultural water rights becomes a moot point.

In response to increasing “buy and dry” efforts, the water provider and conservation communities have developed a new focus on strategies referred to as “buy and supply” or Alternative Transfer Methods (ATMs). These programs explore alternatives to drying up farmland. Using proceeds from the quarter cent sales tax, which enjoys overwhelming support in Larimer County, has resulted in implementation of at least one “Buy and Supply” concept in the Poudre Basin. In 2016, Larimer County purchased the 211-acre Berthoud-area Little Thompson Farm for \$8.4 million, which includes a portfolio of water rights to the property. Among these are 240 units of Colorado-Big Thompson, 16 shares of Handy Ditch and 20 shares of Dry Creek Lateral Ditch water. The County was able to offset the cost of the farm and its valuable water rights by entering into

an innovative water-sharing agreement with the City and County of Broomfield. The arrangement keeps farmland in production and meets some of the needs of municipal water providers.

Efforts are being made by the City of Fort Collins to purchase water rights and place conservation easements on farms are examples of effective strategies to support agricultural land and water preservation. Collaboration across city departments is also working toward these goals by coming up with new strategies, such as exchanging water units in the Big Thompson River for agricultural use shares. These efforts and strategies present opportunities for the County to continue, further leverage, and improve upon these regional and collaborative approaches to water conservation and the preservation of farmland.

In addition to the importance of agricultural water use, residential use and demand for water as development continues is putting pressures on water supply and cost of living. The majority of rural properties in northern Larimer County are serviced with water wells. Most of these wells are exempt wells, meaning they do not require an augmentation plan, are generally limited to 15 gallons per minute, and require septic tanks or leach fields to handle wastewater. Exempt wells are either a domestic well for parcels over 35 acres, allowing for 1-3 residences, lawn/garden watering for up to 1 acre, and livestock watering, or a household use only well for smaller properties that allows for water use inside the home and excludes livestock or lawn/garden water. Water wells are common in rural areas of the county, but growth is increasing development costs for housing around cities and within GMAs. Since this population of the County relies on connections to public water systems, costs of delivering water are driving up home prices.

While cities, such as Fort Collins, are taking on a greater role in residential water conservation through monitoring programs, sprinkler audits, and equipment and xeriscaping rebates, County regulations surrounding water conservation are limited. While the Land Use Code specifies promotion of xeric design in landscaping, there is no

specific requirement for landscaping that supports the effort. Collaborating with municipalities and strengthening support for residential water

conservation in the Land Use Code could be opportunities to find a balance for competing users of water with limited supply.

#6 Protection of important wildlife habitat, corridors, and native vegetation is imperative to mitigating impacts of growth, maintaining healthy and natural ecosystems, and providing ecological services and quality of life for residents.

Protection of natural areas enjoys strong support in Larimer County, which is evidenced by the willingness of the public to consistently tax themselves for this purpose. In 2015, a 25-year extension of the open space sales tax was supported by more than 80% of the voters; an unusually high level of support for a sales tax measure. In part through this public support, Larimer County has built a successful open lands program, with over 33,000 acres of high quality land, including more than 25,000 acres conserved in fee simple and more than 8,000 acres in conservation easements.

A report from Colorado State University found that there are good reasons for conserving land. Each dollar invested for conservation easements, the study found, produced benefits of between \$4 and \$12 of public benefits. These benefits include clean water and air, scenic views, access to things produced by local farms and ranches, and wildlife habitat, all of which contribute to the high quality of life we enjoy in Colorado and here in Larimer County.

Yet challenges remain. As pointed out in the 2015 Open Lands Master Plan, in order to maintain the current balance of open space to population, Larimer County and their partners would need to conserve more than 45,000 additional acres by the year 2040. By that year, more than 175,000 additional people are forecasted to reside within Larimer County and its communities.

In regards to these challenges, the County has taken proactive steps in the right direction. To meet these future needs, the County has identified several general priority areas for future conservation efforts:

- Laramie Foothills/Livermore
- Buckeye/Waverly
- Buckhorn/Redstone
- Blue Mountain

- River corridors, including the Poudre, Big Thompson and Little Thompson Rivers

Several additional areas were identified as priorities for joint efforts with municipal and other partners, including the Wellington Separator, Bellvue/Mouth of Poudre Canyon, Foothills Corridor/Devil's Backbone to Horsetooth, Estes Valley and the Laramie River Valley. Utilizing these identified priority areas for conservation would not only promote the importance of the ecological services that they provide, but position the County to continue to support and maintain the quality of life for residents that attract people to the region.

As was previously discussed, there is never enough funding available to accomplish all or even most of the conservation goals adopted by the County. This challenge indicates a need to leverage available funding through other sources, as well as through the use of planning tools and partnerships.

In addition to the geographic priorities previously identified, conservation priorities should be guided by the following considerations:

- Identify important wildlife habitat areas (wetlands, riparian, large blocks of intact natural vegetation/unfragmented areas in a variety of habitat types).
- Identify target wildlife species of importance and their likely habitats as identified in the Statewide Wildlife Action Plan and rare plant communities/species as identified by the Colorado Natural Heritage Program.
- Consider fragmentation of habitats when permitting new roads, developments, 1041 projects, subdivisions so as to minimize impacts to these species and habitats.
- Require/encourage management of habitats to improve quality (restoration, revegetation, water management, weed control, forestry practices) of natural landscapes

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FRONT RANGE VISIONING EVENTS

Meeting:	Front Range Visioning Event #1	Front Range Visioning Event #2
Date:	July 19, 2018	July 26, 2018
Time:	5:30 pm	5:30 pm
Location:	BlockOne Events, Fort Collins	Grace Place, Berthoud



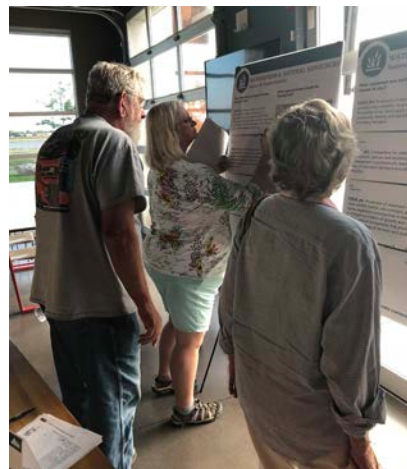
OVERVIEW

Two public events were held to identify and refine shared values and themes that will influence the future of Larimer County's unincorporated Front Range, and start to identify opportunities to address the big issues facing the County. The events were accompanied by online survey, which is still open for input on LarimerCompPlan.com. These provided Front Range residents a forum input on envisioning the future of the County, identifying opportunities to address the big issues, and any concerns regarding the Foundation chapter.

EVENT FORMAT & EXERCISE

The events began with an introductory presentation on the plan and process, followed by a keynote presentation by the State Demographer giving an overview of pertinent demographic and economic trends, with opportunities to ask and answer questions. Following these presentations, attendees participated in facilitated small group exercises and open dialogue with staff to provide feedback on key themes, big issues, and opportunities. In addition to the presentations and exercise, attendees could participate in a 'visioning brainstorm' through interactive boards and a handout. Informational boards and copies of the Foundation were available around the room, for those that want to review before, during, and after the presentations.

Residents could comment through one-on-one conversations, facilitated group discussion, board and handout responses, and the online survey. The online survey mirrors the events' materials and exercise, and is still open to receive additional public feedback.



VISIONING BRAINSTORM INPUT

What is one thing that you'd want the next generation to be able to experience in Larimer County?

- Safe travel for all bikers and drivers and road-sharing with all forms of transportation.
- Natural resource and open space preservation, including farms and riparian areas.
- Opportunities to enjoy nature.
- A better sense of what Larimer County has been like over time – from wide open spaces, to an agricultural heartland, to overflowing cities.
- Clean air and water.
- Preservation of agricultural and farm lands that is integrated into open space.
- Regional connectivity with integrated multi-use path systems and better trail connections to natural areas and open lands.
- Reasonable wages.
- Diverse and high quality outdoor recreation opportunities.
- Hiking and camping in the foothills.
- Accessibility to bike from cities to rural areas or the foothills.
- Maintain the current recreational experience and non-overcrowded outdoor activities.
- Open space acquisition to match the amount of new growth.

Finish this sentence: In 2040, Larimer County will be...

- ...a lot like Denver with congestion and people everywhere if we proceed with development at the pace we are going.
- ...connected with improved infrastructure and connectivity.
- ...much more crowded at this rate.
- ...a nationwide model for balancing outdoor recreation opportunities, protecting natural resources, job growth, and economic development.
- ...still rural and beautiful.
- ...have adequate growth without overcrowding.
- ...peaceful.
- ...have dark skies.
- ...the best place to live on Earth.
- ...age-friendly as population shifts equalize all age groups.
- ...have a sense of community.
- ...will care about others.

50 event participants

92 survey submissions

22 online mapping
feature responses

How can the County better prepare for the future?

- The County can look at available resources, specifically water, open space, ability to handle wastewater, traffic, etc. and decide how to maintain a safe and pleasant living space for all residents.
- Regional transportation. Cars are not the future. Start working on a comprehensive transit and bike plan now.
- The County needs more adaptive reuse rather than throwing away entire buildings.
- Avoid suburban sprawl and closed “private” greenspace in new neighborhoods.
- Smart water, land use, and zoning as resources are already strained.
- Avoid large, sprawling homogenous homes with lawns.
- Make tourism an important part of the economy.
- Fair wages.
- Save farmland and farming.
- Separate land uses and provide adequate buffers.
- Better community engagement with neighbors.
- Support all modes of transportation, with safety prioritized for bikes and pedestrians and shoulders provided on new roads, and added on old roads, where possible.
- Have adequate development fees for new development to pay its own way and not dilute or drain existing resources.
- Provide user-friendly infrastructure such as Park & Rides, buses, etc.
- Be a facilitator between the city and the developer when county zoning is impacted.
- Encourage bus availability.
- Increase County Commissioner interaction with county residents by visiting their areas.
- Broadband availability in rural areas.
- Safe bike routes out of traffic.
- Plan!
- Look to clearing traffic problems and increase infrastructure to accommodate growth.
- Talk about unincorporated areas.
- Seniors need access to affordable transportation.
- Preserve history and heritage.
- Uphold existing documents such as the Laporte Area Plan.

PLAN THEMES INPUT

Community Framework

Plan Theme	Comments
The County is a regional convener, bringing together all community members and organizations, local governments, businesses, non-profits, and district providers to influence the County's future.	• Add proactive before 'regional convener' • Use a stronger word such as 'plan' or 'guide' rather than 'influence'
Intergovernmental cooperation, collaboration, and partnerships are critical among the County, incorporated municipalities, and district providers.	• Assuring age-friendly services/ infrastructure including housing and transportation. • Include economic diversity in all home developments - age, ethnic diversity, education, etc. Mixed affordability to dilute ghetto-ization. Multi-generational communities and events.
The planning and development review processes and supporting regulations are consistent, transparent, and balance the needs and interests of developers, neighboring municipalities, and communities.	• Use common metaphors to explain planning. This will help with future plans/communication. • Property owners. • What about residents? • Notice - bring awareness sooner and in a findable way! • Education on how to be involved.
The Comprehensive Plan, the Land Use Code, and supporting programs and plans are in alignment, while recognizing each community's identities and values.	• Not one size for all. • Foster/develop community identity to make each community a 'destination' for visitors/customers. One has a few good restaurants, others unique museums, others great activity centers, etc.

Economy Framework

Plan Theme	Comments
The County promotes a sustainable, resilient, and diverse economy to support a range of housing and employment opportunities.	• Collaboration/ coordination with municipalities. • While supporting agricultural needs.
The County's economy is adaptable, driven by innovation, connectivity, and access to high-quality education and training.	• Community Colleges are a vital part of a trained, educated workforce. • The County promotes wide shoulders for bike transit.

Agriculture of all sizes and types remains a viable long-term segment of Larimer County's economic, cultural, and social fabric.

- Are we ready for hemp?
- But a dwindling part due to unrestricted development.

Health & Social Framework

Plan Theme	Comments
The County's strength lies in empowering the collective diversity, talents, character, and resiliency of our people.	• History and heritage. Culture - connects people to place, builds community, strengthens sense of place and a feeling of belonging.
The need to maintain community and environmental health, safety, and welfare guides all County standards, rules, and regulations.	• Not a one size fits all - the standards may be different in rural areas. • Add 'livability and affordability' after 'The need to maintain...' • Allow for mixed income and land size in the same community: some homes that cost more next to more affordable (1st time buyers), next to duplexes/townhomes (retirees), etc. Mix ages, ethnicities, etc.
The County supports both physical and mental health, and the diverse educational needs of a multigenerational population.	• Aging in place needs to be considered. • Promoting CSAs - sustainable farming. • More diverse farming practices. • Bus services for health-related issues, or other options for rural population. • Connection to services, programs to maintain older homes.

Housing Framework

Plan Theme	Comments
The County supports the viability of a diverse range of housing options to meet the needs of all residents.	• Defined "area" for seniors - not assisted living - but a "community" atmosphere. They sell their houses sooner and free up housing stock. • Utilizing Hughes Stadium for "labor force" housing. • Including options such as community owned "trailer park" communities that enable people to own their homes at a far cheaper cost than traditional single-family homes. • Supporting NOAH - Naturally Occurring Affordable Housing: Providing ways for people to reuse older homes, perhaps supporting maintenance (see Fort Collins

	zero interest loans for older homes as an example). • Include "co-housing."
The County supports logical development patterns that reflect the changing demographic needs and character of the Open West.	• What is the Open West? Please define. • How is "logical" defined? Encourage development where services are in place. • "Infill" area with services before going to remote areas. • Tiny homes. • Provide options for owners to decide what they want. • Need smaller lot options. • Boulder County has 1 ac septic system.
Larimer County encourages housing attainability.	• Need affordable housing options for seniors. • What about co-op housing? Provide a variety of ways - flexibility. • Encourage developments to have percentage of low-income available. • Look at length and cost of planning processes.

Infrastructure Framework

Plan Theme	Comments
Adequate public and/ or private facilities and services are provided concurrent with development.	• And in areas that have been previously developed but adequate facilities weren't included at the time.
Urban-level development aligns with Growth Management Areas and the full range of urban service provision.	• How does the County help Urban Centers to plan for bringing those services into their GMA?
Integrated regional connectivity of bicycle, trail, and transportation networks requires collaboration between and across political boundaries.	• Add 'affordable' after 'integrated' • County Roads 21 and 23 need bike lanes - integrate with Boulder County. • Regional connectivity for seniors via volunteer driver programs supported in part by the County. Possible incentives for volunteer programs. Towns and cities are doing this. • Need to cross town limits and county lines.
The County supports a safe, connected transportation network for all modes of transportation.	• Consider a center for individuals to contact to access available transport. Which include volunteer and paid services.

Watersheds & Natural Resources Framework

Plan Theme	Comments
Natural and cultural resources are valued, identified, protected, and responsibly managed by protecting our air, open spaces, and watersheds and water supply.	• Trees and native landscape preservation, encouraging more efficient use and conservation of water and natural resources (i.e. groundwater protection and conservation) but balance water use for trees. • Education on native vs. non-native species. • Especially in rural areas, historic preservation and the preservation of natural and cultural resources go hand in hand. Preserving our historic places often also provides opportunities to talk about nature and people working together.
Open landscapes, agricultural lands, waterways, and community separators will continue to be a defining feature of the landscape of Larimer County.	• Add 'parks and open spaces' after 'waterways' • Stronger emphasis on preserving and protecting farms and farmland --> finding why farmers are dwindling or losing farming industry (we need to find root cause) --> help provide strategies to ensure sustainability to industry. • Comment on community separators: Does this also apply to mountains vs. urban areas? • Understand that Ag land is not your viewscape. Ag people are entitled to put to, and sell for, uses which maximize the return on their investments. Don't discriminate in favor of alleged "public interest." (This comment has two check marks next to it).
The County prepares for wildfires, floods, and other natural disasters and helps citizens and businesses prepare themselves to be resilient to such events.	• We can give info to residents to allow them to prepare themselves. Not County's job to protect everyone (their private property). • Add 'and self-sustainable, well-connected, and less dependent on outside resources when facing such events' after 'resilient'
Wetlands and riparian areas are conserved to maintain water quality, wildlife habitat, flood protection, and other critical environmental functions.	• No comments.

ISSUES & OPPORTUNITIES INPUT

Importance Rankings

Issues	Not Important	Somewhat Important	Important	Very Important
COMMUNITY				
Issue #1. The magnitude and character of development east of the foothills is changing more rapidly than rural areas can adapt to and be proactive about, especially with regards to preservation of the County's rural character and agriculture heritage.	0	1	2	10
Issue #2. Residents of unincorporated areas tend to tie their identities to a municipality based on values and geographic proximity; however, they still desire strong representation and capacity to resolve local issues and meet the diverse needs of their communities.	1	0	3	8
Issue #3. The County will continue to experience significant growth that goes beyond political boundaries, indicating a need to strengthen the role of the County as a leader in facilitation and collaboration.	0	0	5	9
ECONOMY				
Issue #1. Current regulations have attempted to preserve rural uses but have become a barrier to supporting compatible economic development.	2	3	2	2
Issue #2. Provisions in the Land Use Code that are not representative of current economic realities, which when combined with inadequate access to communication services are preventing the County from leveraging home and accessory rural occupations to support local farming, home business expansion, and telecommuting.	1	0	3	6
Issue #3. The County and larger region are unprepared to support the changing needs of the workforce as the economy becomes increasingly regional and demographic shifts occur.	0	2	4	4
HEALTH & SOCIAL				

Issue #1. Healthy and active lifestyles are an important element of our County's livability, but regional coordination is needed to improve viable active transportation and recreational opportunities.	0	0	1	9
Issue #2. Access to services will continue to be a challenge for residents living farther from population centers, creating demand for supportive land uses.	0	1	1	6
HOUSING				
Issue #1. Housing types, lifestyles, and preferences have changed but the subdivision processes and zoning codes have not kept pace, putting additional pressure on the housing market.	0	0	1	10
Issue #2. The shortage of attainable housing in the County is forcing lower- and middle-income residents farther from their place of work and compounding associated issues of transportation and distribution of services.	0	0	2	12
Issue #3. The availability and cost of water services is the largest barrier to new housing development on lots less than 35 acres and reducing farming and rural character.	0	0	1	8
Issue #4. Current buffer and transition requirements for subdivision development are not adequate to reduce conflicts between different land uses and /or different intensities of development.	0	2	2	9
INFRASTRUCTURE				
Issue #1. Funding mechanisms have not maintained pace with transportation and mobility needs required for a rapidly growing County.	0	0	2	9
Issue #2. Current Growth Management Areas are not aligned with the mosaic of water and sewer provider's service areas. This results in no clear plan for future delivery of the full spectrum of infrastructure services to guide the densification of growth and unified urban-level development.	0	0	2	8
Issue #3. Rapid technological change and infrastructure-challenged areas create	2	0	4	7

geographic separation leading to social and economic disadvantages for rural residents.				
Issue #4. Conventional and renewable energy development and production in the County is often an issue with the public.	0	0	4	8
WATERSHEDS & NATURAL RESOURCES				
Issue #1. Stream corridors and their associated floodplains are a nexus of important resource conservation priorities. Effectively managing these corridors requires a combination of tools rather than sole reliance on standard floodplain regulations.	1	0	1	8
Issue #2. With continuing growth of our communities, the need for community separators remains important. However, efforts have lagged indicating a need for a renewed and regional approach to strengthen this planning tool.	0	0	4	5
Issue #3. Increased development adjacent to land uses related to natural resources are intensifying. Conflicts between industrial uses, such as aggregate mining and processing, agriculture, and oil and gas development, and residents are creating issues but growth is fueling additional demand for these resources.	1	0	2	7
Issue #4. Protection of important farmlands provides many benefits, ranging from protecting the quality of our food supply to maintaining community identity and separation, yet we are still losing farmland.	2	0	2	4
Issue #5. Competition for water between agricultural, riparian, and residential use and development is pronounced, resulting in the loss of cultivated farmland and affordable housing.	0	0	1	6
Issue #6. Protection of important and high-value wildlife habitat and corridors, as well as native vegetation communities is imperative to mitigating impacts of growth and maintains healthy, natural ecosystems that provide both important ecological services and quality of life for residents.	1	0	1	6

ISSUES & OPPORTUNITIES INPUT

Identified Opportunities

Community Framework

- I like the use of the term "heritage." As we grow, we need to find ways to capture the history and strengthen the sense of our history even as things change and develop. Our "sense of place" and the things we love about LC is bound up in our history.
- I think we need more use of the rural lands as rural lands, keeping open space, creating and retaining wildlife habitat and adding educational spaces within that.

Economy Framework

- Be bold and innovative to proactively manage the growth.
- Lack of broadband connectivity. Transportation options in and out of Wellington. Mobility is key to jobs, entertainment, education, etc.
 - *North around Wellington and rural areas.*
- Need for workers to fill low-wage and blue-collar jobs. Opportunity to provide vocational and technical schools.
- Smaller communities like Berthoud, Wellington, etc. need to identify and build unique community characters.
 - *Smaller communities and their periphery i.e. Berthoud, Wellington, Johnstown, Windsor, Timnath and unincorporated communities i.e. Bellvue, Laporte.*

Health & Social Framework

- GIS data to help determine where resources should be taken.
- Standards need to address high density mining.
- Pollution monitoring near mining areas.
- Aging in place - more services.
- Affordability of services.
- More services in rural areas i.e. sidewalks, pharmacies.
- Better emergency services.
- Food availability.
- Deficiency of services.
 - *Area north of Fort Collins, south of Wellington, and west of I-25 within and outside of the GMA.*

Infrastructure Framework

- Develop a plan of water utilization to support growth.
- How do we keep up with internal infrastructure keep up with growth so residents can move east and west?
- Urban needs for infrastructure with rural infrastructure and facilities. Incompatible land uses as population expands in to rural areas - asphalt plant, Lincoln Middle School.
 - *Northwest of Fort Collins near the Poudre River.*
- Add appropriate facilities (such as sidewalks) in leap frogged areas where new developments have jumped past rural neighborhoods.
- Pedestrian accessibility especially to Lincoln Middle School. No sidewalks.
 - *Around Lincoln Middle School.*
- Balance successful inexpensive energy sources and not allow them to be closed by less reliable newer technologies.
- Shoulders to mountain open spaces wider so not scary.

- Connectivity of mobile home parks located in unincorporated County to retail, food, services, and resources - particularly those along 57th.
- Gap in shoulders and bike lanes near MCR.
 - *Near UCHealth Medical Center of the Rockies (MCR).*
- Technology is a short term issue as 5G comes about negating issue of underground lines.
- Any thoughts about unpaving roads that are not used as much anymore?

Watersheds & Natural Resources Framework

- Preserve Ag land. Awareness in urban communities about criticality of Ag industry.
- Prioritize flows in rivers.
 - *Rural area of Larimer County around Wellington and north to the border.*
- Better dispersal of high quality recreation opportunities. Funneling to few areas.
- Protect small/family-owned farms.
 - *Area northwest of Fort Collins, south of Wellington, around Poudre River.*
- Land use strategies that promote collaboration between flatlands and mountain communities and promote tourism economies.
- Encourage density and improve transportation in GMAs and leave rural areas rural.
 - *Within GMAs.*
- More trail opportunities connecting urban to open space. Vehicles/driving.
 - *West of Loveland.*
- Preserve Ag land.
 - *South of Loveland and around Berthoud and Johnstown.*

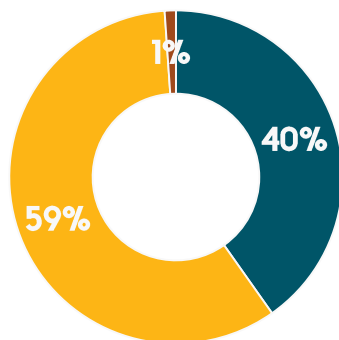
FRONT RANGE VISIONING ONLINE SURVEY SUMMARY

OVERVIEW

Two public events were held to identify and refine shared values and themes that will influence the future of Larimer County's unincorporated Front Range, and start to identify opportunities to address the big issues facing the County. The events were accompanied by the Front Range Visioning Online Survey, which is still open for input on LarimerCompPlan.com. These are providing Front Range residents a forum to provide input on envisioning the future of the County, identifying opportunities to address the big issues, and any concerns regarding the Foundation Snapshots.

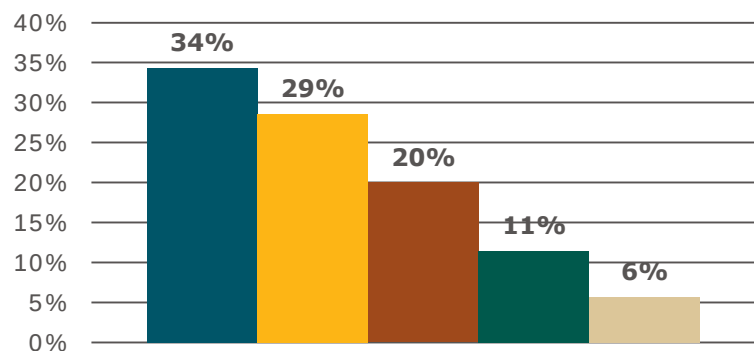
WHO PARTICIPATED IN THE SURVEY?

Where do you reside?



- Rural unincorporated Larimer County
- Within a city or town
- Outside Larimer County

Where in the rural unincorporated County?



- South: Around Loveland and Berthoud
- West: In the mountains
- Foothills: Bellvue, Laporte and Horsetooth Reservoir areas
- North: areas between Fort Collins and the Wyoming border
- East: Along I-25

In which city or town?

Municipality	Percentage of Respondents
Fort Collins	61%
Loveland	28%
Windsor	6%
Timnath	4%
Wellington	2%

92 survey submissions

22 mapping feature responses

VISIONING BRAINSTORM INPUT

What is one thing that you'd want the next generation to be able to experience in Larimer County?

- Carbon-neutral with electricity generated entire by renewable resources.
- Vibrant and resilient natural environment, including rivers and forests.
- The natural and cultural heritage of the area.
- Clean air and healthy rivers.
- Enjoy both the environment and rapid growth in our County.
- Special outdoor places.
- The feeling of a small community even as growth continues.
- Equitable access to health, safety, recreation, resources, and opportunities they need to live a prosperous life.
- Safe, affordable housing options at any income level.
- Less roadway congestion by providing a more robust transportation framework.
- A diverse and integrated community.
- A local government that is environmentally-sensitive and support increased open and recreational spaces.
- Affordable cost of living.
- Smaller-town feeling and a community atmosphere.
- Flexible and affordable housing.
- Open space that separates our cities.
- Untouched natural beauty and wide open spaces.
- Well-managed planning that provides for an active lifestyle, including wilderness.
- Open space, recreational opportunities, and trails without having to travel to the mountains.
- Opportunities to live, work, and play.
- Controlled growth to sustain essential requirements for a quality of life.
- Open space, both agricultural and mostly conserved for wildlife habitat.
- Access to natural areas, open space, and wilderness.
- A rural setting and rural areas that are still rural.
- Not so many people on top of each other.
- High speed connectivity.
- Balance between rural/open space and urban areas.
- The small "Colorado feel" with open spaces, clean air, and navigable streets.
- Improved traffic flow and speedy drive times.
- Wildlife habitat and interacting with nature.
- Public spaces and the ability to easily move around.

Finish this sentence: “In 2040, Larimer County will be...”

- ... will remain the jewel of Colorado.
- ... finding itself squeezed due to population growth and climate change.
- ... a mecca of sustainable travel and self-sustaining energy production.
- ... the epitome of the modern west!
- ... meeting the demand of its residents while protecting the environment.
- ... a diverse, vibrant, economically healthy, and environmentally sound place to live.
- ... a preferred place of residence for working families and retirees.
- ... filled with newcomers and a generation not connected to the rich history and heritage of our local area.
- ... more residential along the Front Range with open areas and farms east of I-25.
- ... a well-balanced place with rural and small communities, clear plans, and manageable growth.
- ... irreversibly degraded by poor planning and weak enforcement of the development code.
- ... mass multi-story apartments and jammed together homes.
- ... a thriving location with abundant recreational opportunities.
- ... a sustainable, thriving, fossil fuel free community.
- ... overpopulated and suffering from water shortage and bad air.
- ... a thriving community working collaboratively to create quality economic development, education, health care, and safe neighborhoods.
- ... a smart growth county maintaining a blend of neighborhoods, urban areas, and natural areas.
- ... so crowded with people, houses, and other buildings that there will be little open space or wildlife.
- ... overcrowded, too expensive, and experiencing big city problems like higher crime, poor air quality, and congestion.
- ... the most desirable place to live.
- ... too expensive to live in, largely urban, and congested.
- ... a highly desirable community; rich with nature, recreation, high-paying jobs, and quality infrastructure.
- ... too crowded and will have lost its rural feel and function.
- ... a supportive community and healthy environment.
- ... a place where people can affordably live and enjoy the fruits of the outdoors and technological advancements.
- ... helping to lead the nation in sustainability, resiliency, and diversity.
- ... highly populated with traffic gridlock.
- ... continuing to grow and become more diverse.
- ... have equitable access to housing, transportation, food, and health care.
- ... known for biking, health, and sustainability.
- ... clean! With clean cities, air, waterways, and a Poudre River with running water.
- ... an example to the rest of the country in fostering sustainable development and participatory governance.
- ... a region where community, the natural environment, and inclusivity are the focus.
- ... booming with lots of people and businesses.
- ... racially, ethnically, and economically diverse where everyone feels valued and connected.

How can the County better prepare for the future?



- Limit growth in the undeveloped areas while meeting the needs of the residents of the surrounding communities.
- Plan for a larger and older population with less available water, transportation needs, changing trends, and housing that accounts for wildfire and impacts to wildlife.
- Build and fund better public transportation, open spaces, parks, and more multi-family developments for the aging population.
- Ensure our infrastructure can handle the projected population growth.
- Educate and involve citizens so that a high standard of living is maintained.
- Development priorities that focus on reducing climate impact and preparing for climate change.
- Plan for residents that will need housing and other resources, as well as for climate change and drought.
- Preserve open lands and spaces as much as possible, and provide ample public interpretation natural and cultural history.
- Manage the growth through planning and keeping objectives.
- Improve online access to County information, including comprehensive GIS.
- Support law enforcement.
- Establish a balance among developers, community's needs for tax revenue, and preservation of open space and undeveloped areas.
- Fund and implement recommendations of the Mountain Resilience Plan.
- Keep government lean and efficient.
- Control growth through thoughtful development with clear standards.
- Establish resources before or in conjunction with new development.

- Improve water conservation and management efforts.
- Allow more types of housing, including accessory dwelling units.
- Make it affordable for more homeowners and businesses to install solar panels, implement tiny housing communities, and make sustainable living the focus.
- Expand roads to allow for better traffic flow, ensure basic services are available for all present and new communities, and continue providing parks and natural areas.
- Draft, implement, and enforce major land use planning regulations designed to mitigate population growth, water shortages, and poor air quality.
- Provide opportunities for community resilience through education, health, wellness, and open space preservation.
- Have a plan that brings all these desired elements into balance.
- Eliminate the carbon footprint.
- Keep living costs affordable while balancing access to open space with development.
- Set aside more open space and wild areas to separate communities.
- Stop the sprawl.
- Continuing a long-term and large-scale development plan that helps create urban centers and preserves open spaces.
- Stop encouraging and facilitating sprawl, and institute very aggressive water conservation regulations.
- Conserve what we haven't lost yet and restrict the waste of natural resources, especially water.
- The County needs to balance attracting development with preserving the open lands and agricultural heritage of this area.
- Public transportation extending to all communities and among cities.
- Tighten up land use regulations - do not allow buildings on prominent hills, require substantial open space, and virtually no grass for residential subdivisions. Mandate continuous monitoring for existing oil and gas facilities and limit the size of residential developments. Keep acquiring open space in conjunction with the cities and towns.
- Protect as much of the remaining natural, open spaces as possible.
- Strengthen relationships and drive regional solutions and collaboration.
- Better historic preservation initiatives and preserving a sense of place.
- Base growth management on natural constraints and available resources such as water, ag land, air quality, and wildlife.
- More affordable housing, better public transportation, protect natural areas, and innovative water usage, transport, and storage solutions.
- Share with other municipalities that have met similar challenges.
- Ensure a resilient transportation system and common sense protections for the environment, affordable housing, and access to quality care and services.
- Commit to diversity of landscape, people, housing, and jobs.
- Enhance the quality of life and economic viability of rural agricultural communities.
- Engage residents of all ages, income levels, nations of origin, languages spoken, and other identities in the planning processes.
- Work closely with municipalities and involve communities of color and low-income residents in the decision-making process.
- Work toward clean air and water, and use renewable energy resources.
- Protect great assets: farmland, rivers, open spaces, multi-modal connectivity, sense of place, and care for well-being of residents.
- Raise fees to developers and builders to discourage unbridled growth.
- Promoting equity, diversity, affordability, and making this a place where everyone wants to live, work, learn, and play.
- Build, design, and invest in infrastructure for the future rather than playing catch-up.

ISSUES & OPPORTUNITIES INPUT

Community Framework

How important are each of these issues to you?



- Issue #1. The magnitude and character of development east of the foothills is changing more rapidly than rural areas can adapt to and be proactive about, especially with regards to preservation of the County's rural character and agriculture heritage.
- Issue #2. Residents of unincorporated areas tend to tie their identities to a municipality based on values and geographic proximity; however, they still desire strong representation and capacity to resolve local issues and meet the diverse needs of their communities.
- Issue #3. The County will continue to experience significant growth that goes beyond political boundaries, indicating a need to strengthen the role of the County as a leader in facilitation and collaboration.

What are the land use and community opportunities?

- Any development or land use issues should consider the existing land uses.
- Maintaining Pleasant Valley as a visual treasure.
- Balance between development of the land and the farming community, as well as the recreational areas.
- Preserving open spaces, farms, and facilitating mixed use trails between neighborhoods/communities.
- Balancing growth and economic development while retaining community character. Collaboration and regional cooperation is so important.
- Concentrate growth in well-planned, sustainable, walkable cities so that open space is preserved and access is controlled via permits.
- Some agriculture won't make sense here with increasing temperatures and drought. Consider buying out willing landowners and water rights for strategic habitat and open space restoration.
- Rural areas such as Laporte and Bellvue are at risk of being overrun by development. There are no municipal governments to impose restrictions and protect current citizens. Larimer County needs to do a better job of representing its rural

communities that lie just outside explosive development.

- Regulate and support open land objectives through planning. It is imperative that open space be preserved for residents and wildlife alike. New developments should be encouraged or mandated to plan for open spaces for recreation (fields for soccer, baseball, biking paths, etc.).
- Ability to develop rural areas in such a way that protects mountain views, such as keeping house rooflines below ridgelines.
- Careful long-term planning. Look at total ecological effects on decisions, not just economic factors.
- The opportunity exists for better planning and better enforcement of the existing development code.
- Establish and enforce zoning that helps cluster development and preserve open space.
- Open space is critical to the health of an urban community. Larimer County has the opportunity to "plan" to balance urban sprawl and open spaces, knowing these benefits.
- Regional responses to effective water conservation and management and transportation.
- Urban and rural populations need to be actively involved in seeking resolution of priorities as to the current unfettered development. Urban areas must understand and appreciate the important role of rural areas and activities.
- Maintain and protect private property rights.
- Make regulations and building codes in unincorporated areas common sense.
- To seek the balance required in diverse communities for quality environments and limiting growth for the sake of growth.
- Provide tax breaks and other incentives to landowners so they will not consider selling their land for development.

- There is an opportunity to make sure open spaces provide some separation of communities.
- As the county grows, I think it would be great if residential and commercial development were managed so that suburban/urban residents are walking distance to a commercial core.
- The County should not facilitate growth. Largely because of water use and ozone generation, I do not think a key role for the County is to increase water consumption and encourage the burden of mass movement of cars from rural to urban areas every day. Opportunities are for concentrated, dense development close to the city centers while actively preserving open space.
- Do not subsidize growth in fragile/flammable/erodible areas.
- Preserving agriculture operations, open space, and access to recreation on some open space areas. Pay fair market value for this kind of land use and farmers won't have to "sell out" to big developers.
- Collaboration on development and strengthening of land use controls.
- Tourism and outdoor activities.
- Sharing expertise and resources between cities to save costs for mutual investment, such as habitat restoration or youth opportunities in natural areas.
- Creating interlinking recreational opportunities and environmental stewardship and education.
- Continue to build and protect open space, as well as build affordable housing for a good quality of life for all.
- Help keep farmers and ranchers in the County.
- Parks and recreation trails for hiking and biking.
- Affordable, mixed-income housing connected to transit; better intergovernmental agreements to plan communities around schools that include affordable childcare.

Economy Framework

How important are each of these issues to you?



- Issue #1. Current regulations have attempted to preserve rural uses but have become a barrier to supporting compatible economic development.
- Issue #2. Provisions in the Land Use Code that are not representative of current economic realities, which when combined with inadequate access to communication services are preventing the County from leveraging home and accessory rural occupations to support local farming, home business expansion, and telecommuting.
- Issue #3. The County and larger region are unprepared to support the changing needs of the workforce as the economy becomes increasingly regional and demographic shifts occur.

What are the economic development opportunities?

- The County and municipalities must not push population growth or development through tax breaks or land zoning exceptions.
- Affordable housing i.e. low rent apartments.
- Provide tax breaks and other incentives to landowners so they will not consider selling their land for development.
- Rural internet broadband is a big issue. Creating some sort of partnership between urban residents and rural residents would provide cohesiveness.
- Attract businesses and young people to work at them.
- We should continue to try to keep or develop industrial parks that provide manufacturing and light industrial jobs, as manufacturing jobs are essential to the economy.
- County- and city-supported demand for solar installations.
- Balance those needs and wants of rural residents with urban needs and wants.
- Sustainable agriculture, recreation, and tourism.
- Agriculture and tourism. Environmentally-friendly industries that pay for their water needs.
- Mental health care should provide good-paying jobs; outdoor recreation and conserved open space already do.
- Primary employers, business retention and expansion, and workforce development and housing.
- The agricultural heritage and rich history of rural Larimer County needs to be protected. Exploitation at the hands of gravel pits and

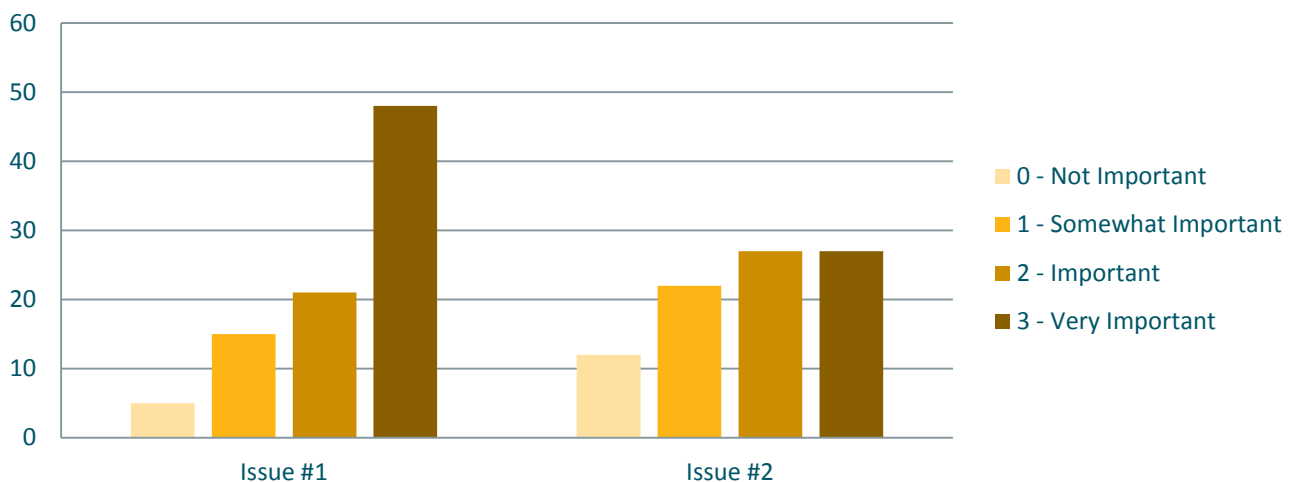
suburban home developers needs to be curtailed.

- Broadband access throughout the County.
- Organic local farms, cottage industries, and tourism to include rural areas.
- Support local farmers whether it be through farmers markets, advertising, or telemarketing. Help to find ways to help farmers sell produce and livestock directly to the public, and to interact with the public.
- Economic development should continue to happen mainly within municipal boundaries; however, the County can encourage home businesses and ag/nature related businesses to grow.
- Workforce development. Vocational and technical training in high schools and community colleges.
- Be a leader in sustainability and clean energy technology, and other businesses will come.

- Stop allowing incompatible developments such as commercial ventures like events centers in rural areas.
- Businesses and services that address the needs of an aging population to provide employment opportunities.
- Balance large businesses moving to Colorado with infrastructure improvement and open space preservation.
- Larimer County has already seen the shift to a partially tourism-based economy. Tourism can be an effective tool for preserving rural areas and bringing economic vitality.
- Tighter restrictions to keep land available than a push for more development. We must protect what we value.
- Encourage the utilization of existing buildings, lands, roads; all the while keeping them current instead of trying to maintain a decaying infrastructure.

Health & Social Framework

How important are each of these issues to you?



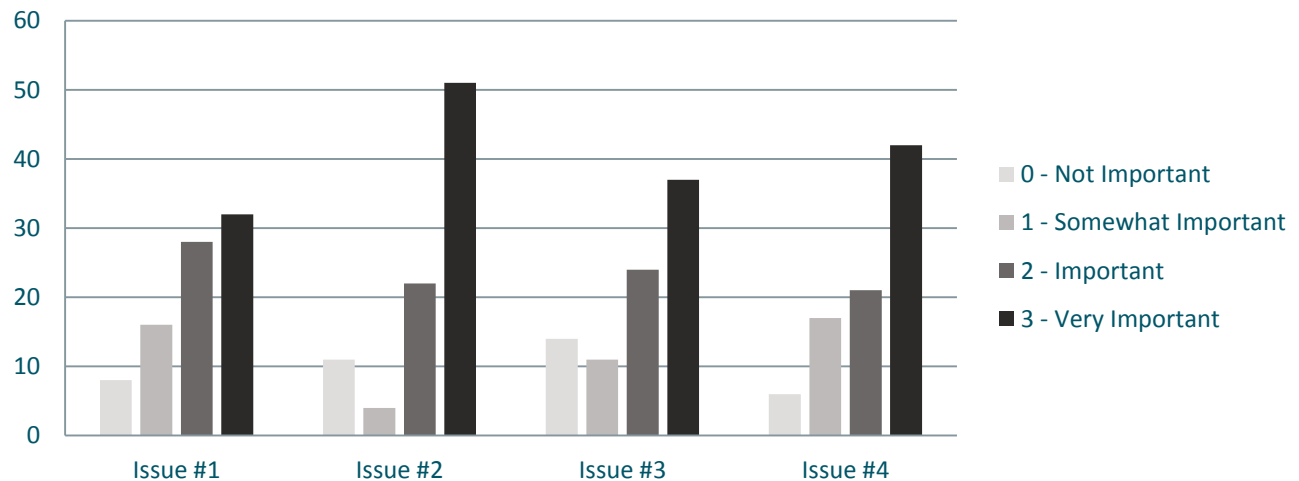
- Issue #1. Healthy and active lifestyles are an important element of our County's livability, but regional coordination is needed to improve viable active transportation and recreational opportunities.
- Issue #2. Access to services will continue to be a challenge for residents living farther from population centers, creating demand for supportive land uses.

What are the health & social opportunities?

- A unified public transportation network, including light and heavy rail which is needed along the Front Range.
- Ensure all residents, especially rural, have prompt, affordable access to all health services. Many of these services can be provided, at least in part, via broadband connections. May need to set up some county-sponsored treatment facilities in two or three rural locations. Rural areas would benefit from access to County-supported transit to health facilities in urban areas.
- Mental health services, expansion of the CCCAP program, creating a sliding scale system to address the cliff affect.
- Revisiting the housing and transportation vouchers for homeless residents and creating a program following the model of Harvest Farm for rehabilitation and on-the-job training in trade for services that will benefit our infrastructure issues.
- Access to needed services.
- Supporting the quiet enjoyment of nature as a "recreational opportunity" and necessary for mental health, particularly as our community grows and brings all of the inherent problems of growth.
- Rural medical facilities or ability to get reasonably-priced transportation to them.
- A regional approach to mental health, behavioral health, and intellectual and developmental health.
- Enhance public transportation so residents living farther from population centers can access services.
- Addressing the needs of an aging population through housing, workforce, and services.
- For recreational and social opportunities, balance tax-supported services with permits, licenses, and co-pays because the fairness forms of money generation are use taxes, i.e. toll roads, entrance permits. For health and social opportunities, provide tax supported services to all including low-income.
- More options for transit and active transportation, mental health care, and solar energy.
- Better rural public transportation to provide access to health services in urban areas.
- Increased mental health services.
- Teach rural property owners alternatives to propane tanks and septic fields.
- Bike lanes on rural roads and pocket parks with playgrounds and picnic areas near hiking/biking trails.
- To be progressive with planning to minimize congestion and pollution.
- Continue with local events to bring people together and promote recreational facilities.
- Broadband internet service.
- Ensuring connectivity of large pockets of residents in unincorporated County to services and resources.
- Continued expansion of outdoor areas as well as healthcare providers in the region.
- Bike commuting, hiking, and other outdoor activities and the air quality to support it.
- Create a transportation system that is comprehensive and accessible to all community members, ultimately lessening the number of cars on the road
- Prioritize preventative funding for health and human services rather than wasting money on interventions that cost far more (sheriff, jails, etc.).
- Human health is linked to the health of the surrounding environments. More attention needs to be paid to developing and protecting clean energy/air/water as well as the negative health effects caused by the rapidly expanding fracking industry.

Housing Framework

How important are each of these issues to you?



- Issue #1. Housing types, lifestyles, and preferences have changed but the subdivision processes and zoning codes have not kept pace, putting additional pressure on the housing market.
- Issue #2. The shortage of attainable housing in the County is forcing lower- and middle-income residents farther from their place of work and compounding associated issues of transportation and distribution of services.
- Issue #3. The availability and cost of water services is the largest barrier to new housing development on lots less than 35 acres and reducing farming and rural character.
- Issue #4. Current buffer and transition requirements for subdivision development are not adequate to reduce conflicts between different land uses and/or different intensities of development.

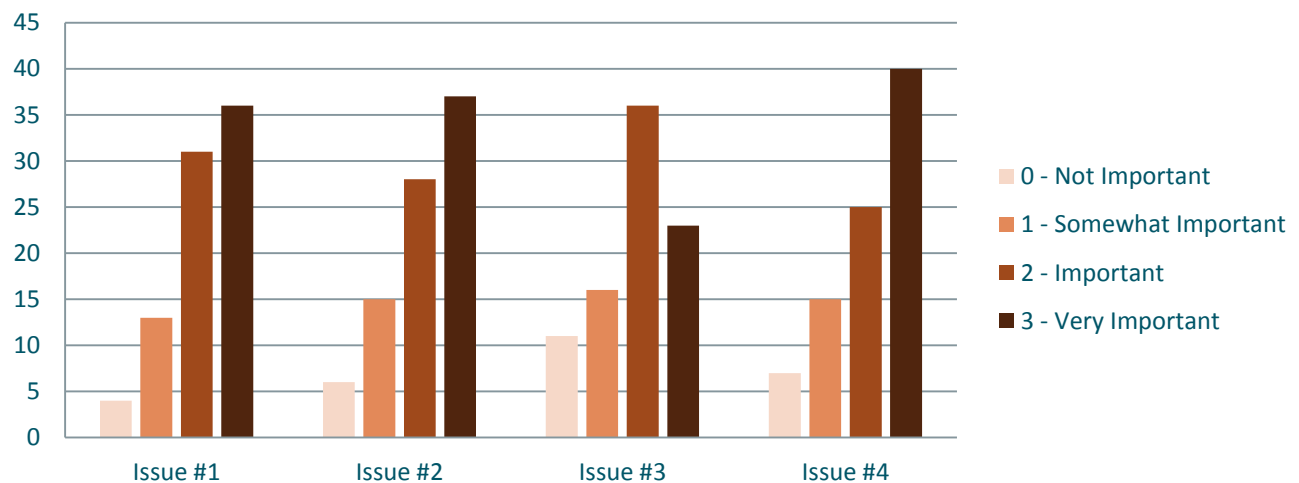
What are the housing opportunities?

- The county should require significantly greater distances between housing/schools and petroleum wells.
- Do not make development of subdivisions easier by gutting zoning and land use codes.
- Do not want the County to do anything to underwrite actual costs of water no matter whether urban or rural.
- We need affordable housing options in order to bring employees to the area, addressing the projected 10,000 qualified worker shortage the County will be facing.
- Affordable housing such as low rent apartments and accessory dwelling units.
- Zoning that only allows developers to create smaller homes with far less water use (because landscape water use is one of the highest)? There are a number of additional water-use issues that the County could directly impact with incentives for developing lower-water use neighborhoods as well as for homeowners who reduce water use.
- Better county participation in local organizations and on committees.

- The real cost of water should be part of the cost of developing land.
- Cost of water hookups should be based on the size of the housing to support affordability. Developers should be rewarded with lower hook-up costs for building small, energy efficient, zero-lot homes with xeriscapes.
- Subdivisions should not be allowed to be built in remote areas unless the developer pays all costs of connector roads and infrastructure connections to the nearest municipality.
- Conflicts between different land uses and development intensities should be prevented by publicly-owned green space.
- Cooperative housing is a good choice but one that is not familiar to many people.
- Water is a precious resource and should be priced as such. Housing should be planned to have plenty of intervening space to allow for the wildlife and mountain views that define our community.
- Concentrate growth, preserve heritage farms, provide low-income and high-income housing within each development.
- Awareness of the harm that oil and gas development brings to health, safety, and environmental quality.
- Support new housing options i.e. tiny houses.
- Smaller starter homes to accommodate young families.
- Keep high-density housing close to city centers and urban areas.
- Rethink modular housing developments with creative design to provide low-cost housing options.
- Affordable housing. There is plenty of land to build structures that can be viewed as desirable to live in while being "green" and affordable to the average Larimer County resident. Opportunity for public-private partnerships with local builders to help achieve sustainable homeownership.
- Balancing the needs of residential areas and farming areas is difficult, but necessary. Possibly include more "setback" areas in new developments so farming uses might cause less conflict.
- To sustain our farming neighbors, we need to educate our residential population that this is part of our objective to keep open spaces for farming, wildlife, and recreation.
- Finding ways to accommodate alternative housing options is important as housing costs continue to increase.
- Property taxes for owners of large homes to subsidize small-footprint, shared resource housing.
- Protect residential areas from incompatible development.
- Preserving mobile home communities to provide affordable housing options.
- Affordable housing and providing multiple housing options for all community members, as well as policies to support mobile home park preservation.
- Building small affordable home subdivisions with the same availability of park and open space as subdivisions with large expensive homes.
- Provide improved public transportation infrastructure.

Infrastructure Framework

How important are each of these issues to you?



- Issue #1. Funding mechanisms have not maintained pace with transportation and mobility needs required for a rapidly growing County.
- Issue #2. Current Growth Management Areas are not aligned with the mosaic of water and sewer provider's service areas. This results in no clear plan for future delivery of the full spectrum of infrastructure services to guide the densification of growth and unified urban-level development.
- Issue #3. Rapid technological change and infrastructure-challenged areas create geographic separation leading to social and economic disadvantages for rural residents.
- Issue #4. Conventional and renewable energy development and production in the County is often an issue with the public.

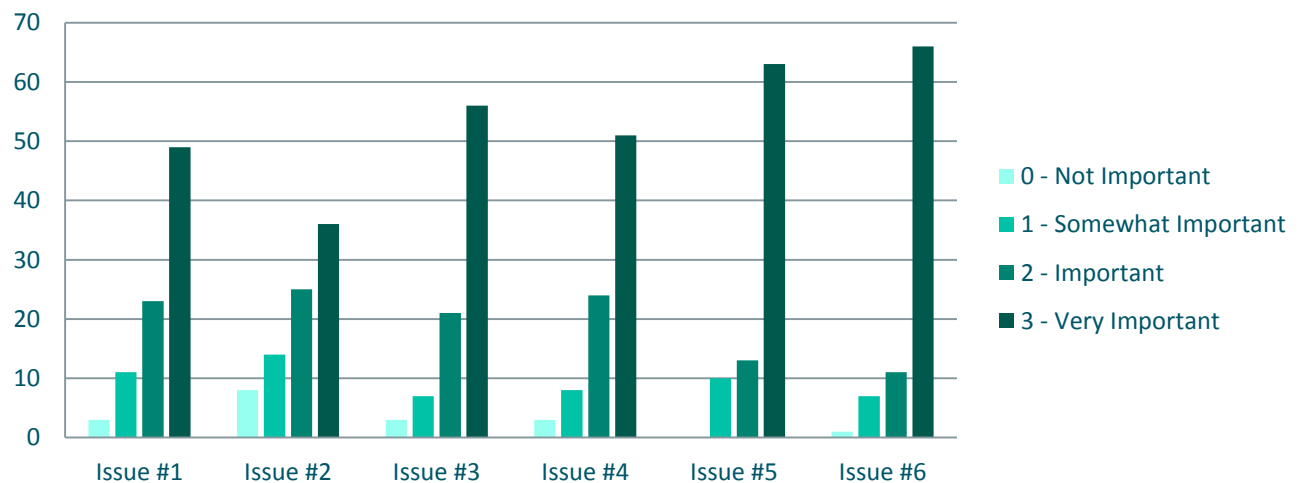
What are the infrastructure opportunities?

- Larimer County (and the greater Front Range) has the unique opportunity to be a national leader in the development and support of renewable energy and storage.
- County needs to bring together all the water and sewer providers to promote and reward cooperation and collaboration.
- Improve within first with truly needed infrastructure.
- Hyperloop.
- Renewable energy will ultimately help solve several issues.
- Broadband service throughout the County.
- Update the Land Use Code and ensure broadband is available in rural parts of the County.
- Implement for the future rather than catching up with yesterday's needs.
- New developments should be sited directly adjacent to existing towns and cities to avoid long commutes.
- Larimer County should encourage disbursed solar generation of electricity.
- Development of neighborhood-scale shared renewable energy systems and water collections/grey water systems.

- Expanded bike networks and identification of priority roads around the cities to facilitate transit.
- Attention and resources to unincorporated areas' concerns with mining and pollution.
- Developers need to pay larger impact fees for their subdivisions, and they need to be limited in charging those costs back to the potential buyers.
- Protect remaining natural lands, and invest heavily in alternative energy and water conservation.
- Increase fuel tax to fund improvements to existing and development of new infrastructure.
- A single provider, publicly owned internet utility (like PVREA for electricity) might be a better alternative for rural areas than an open market of providers.
- More solar energy development – preferably rooftop.
- Solar and wind incentive programs should be expanded for rural residents. Public transportation in rural areas needs to be expanded to provide resources for the economically disadvantaged populations.
- Investing and improving our transportation infrastructure is vital. Looking at building commuter rail lines across the Front Range is something that would ease congestion and provide people with alternative means to get where they need to go for work and pleasure.
- Renewable clean energy sources are vital to keeping our objective for clean air and clean water. Programs supporting solar panels and wind technologies should be readily available and the information widely circulated.
- Landscaping regulations limiting use of grass in developments.
- Renewable energy should be encouraged.
- Infrastructure must be balanced with planned growth.
- County maintenance of public rural roads – maintain what you own and regulate.
- Work with providers to expand utility service areas - perhaps establish funds to support this effort.
- No densification of growth in rural areas.
- Increasing wind, hydro, and solar power rather than fracking?
- Smarter bike connections between communities for commuters, and regional bus and rail lines.
- Wind power, solar power, hydro power are all opportunities that have not been tapped into here.
- Public transportation and clean energy are greatly needed.
- We need better public transit.

Watersheds & Natural Resources Framework

How important are each of these issues to you?



- Issue #1. Stream corridors and their associated floodplains are a nexus of important resource conservation priorities. Effectively managing these corridors requires a combination of tools rather than sole reliance on standard floodplain regulations.
- Issue #2. With continuing growth of our communities, the need for community separators remains important. However, efforts have lagged indicating a need for a renewed and regional approach to strengthen this planning tool.
- Issue #3. Increased development adjacent to land uses related to natural resources are intensifying. Conflicts between industrial uses, such as aggregate mining and processing, agriculture, and oil and gas development, and residents are creating issues but growth is fueling additional demand for these resources.
- Issue #4. Protection of important farmlands provides many benefits, ranging from protecting the quality of our food supply to maintaining community identity and separation, yet we are still losing farmland.
- Issue #5. Competition for water between agricultural, riparian, and residential use and development is pronounced, resulting in the loss of cultivated farmland and affordable housing.
- Issue #6. Protection of important and high-value wildlife habitat and corridors, as well as native vegetation communities is imperative to mitigating impacts of growth and maintains healthy, natural ecosystems that provide both important ecological services and quality of life for residents.

What are the watersheds and natural resources opportunities?

- The northern Front Range is not adequately prepared for increased water demand due to population growth. Water conservation desperately needs to be highlighted with greater force via public information campaigns, expanded utility incentive programs, and policy-related regulations.
- Fracking must be banned. We need to focus on renewable energy and adding in more electric vehicle charging stations.

- Imperative to preserve open public spaces, protect amount and quality of water, riparian areas, and fish and wildlife. Address the declining air quality.
- Community separators and wildlife migration patterns.
- Prevent instances of houses being built next to gravel mines.
- Improved floodplain management is essential through buffer zone setbacks.
- Support reclamation of old mining sites for wildlife habitat and recreation areas.
- Maintain natural corridors, space between cities, and ability for farmers to have access to water.
- Xeriscape, support gardens rather than lawns, and shared resources in communities.
- Open space is essential to our well-being and the county should continue its efforts to buy open space.
- It should be clear that we are in a long process of reallocating water from agricultural to urban uses – including the well-stated desire to reallocate water back to rivers and streams.
- Additional regional cooperation and collaboration.
- Joint planning efforts for watersheds and natural resources.
- Time of day charges in terms of water and energy use.
- Drastic revision to Colorado's outdated water laws.
- Protecting wildlife habitat and natural areas should take priority over everything else.
- Manage growth in balance with green space, both large and small scale, so that cities are high density yet walkable, i.e. micro-services in each vertical neighborhood, with nearby parks, and large parks/green space is a bike-ride away.
- Extraction industries must preserve the environment.
- Minimize loss of agricultural land and water.
- Tax-benefited heritage farms, forever as agriculture, will help balance land use.
- Invest in industries that re-use/re-process materials rather than need to extract new supplies.
- Municipalities and the County need to curtail new development and focus on reorganizing and improving current development to better utilize space and resources. With better collaboration and planning strategies for the entire region, we can become a shining example for the rest of Colorado.
- Opportunities exist in protecting the environment for future generations. Xeric landscaping should be encouraged – maybe even mandated in new communities – to preserve water.
- Prevent loss of natural resources.
- Enforce and strengthen existing riparian buffer requirements.
- Bring together interested agencies to collaborate and integrate efforts.

PLAN THEMES INPUT

Community Framework

What ideas are missing from these statements?

Comment
We need to address cultural inclusion in bullet point 1. Although it is addressed well in the 2 following groups.
The concept of adaptive management and revision of established code based on dynamic community priorities.
Bringing together communities and not allowing the financial contributions of businesses and industries to overshadow individual rights.
Citizens feel safe in this community.
There is a drastic shortage of implementation strategies which need to be identified as part of the planning process. Funding mechanisms, management plans, monitoring efforts, etc. need to be sought early on.
There is the glaring absence of a commitment to the environment and preservation of wild lands and wildlife.
Specify that "community" is diverse, inclusive of all economic levels, ethnicities, etc.
People have to realize and accept that communities and values change over time. How do we do that gracefully and inclusively?
Preservation of historic and culturally significant spaces and places.
Stated goals should be clearer i.e. open spaces, opportunities for farmers, and agriculture to thrive.
Address the needs of landowners. Unincorporated areas don't necessarily recognize themselves as a "community."
Opportunities for participation are culturally appropriate and welcoming to all.
Too much development seems to be approved without considering the impact on traffic, services, and lifestyle.
Importance of education and commitment to support.
The County should be serving its residents' interests, not those of developers. I think the highest purpose is to maintain quality of life for people who live here.
Balance the needs and interests of current residents and businesses with those of developers, neighboring municipalities, etc.

Revised Plan Themes

- The County is a regional convener, bringing together all community members and organizations, local governments, businesses, non-profits, and district providers to influence the County's future.
- ~~Intergovernmental cooperation, collaboration, and partnerships are critical among the County, incorporated municipalities, and district providers.~~
- The planning and development review processes and supporting regulations are consistent, transparent, and balance the needs and interests of communities, property owners, developers, and neighboring municipalities, ~~and communities.~~
- The Comprehensive Plan, the Land Use Code, and supporting programs and plans are in alignment, while recognizing each community's identities and values and the needs of residents.
- The County inclusively values and collaborates with cCommunities ~~are valued and supported by through~~ proactive, long-range, regional comprehensive planning, and meaningful representation.

Economy Framework

What ideas are missing from these statements?

Comment
Promote collaboration to support diversity in kinds of businesses that are appealing to County residents – provided those businesses are not economically or ecologically harmful.
Agriculture needs to be balanced with the growing economy and remain sustainable and equal to economic business growth.
Natural systems and ecological functions are important to a community's quality of life.
I think that there should also be weight to the value of manufacturing in the County's economy.
A commitment to preserving our environment, natural lands and wildlife will be a viable, long-term segment of Larimer County's economic, cultural, and social fabric.
Education is life-long.
Adaptive reuse of historic buildings.
The County will not indulge short-term profit or jobs over long-term environmental risk for all its citizens.
Building infrastructure with long-range growth and population is at the forefront.
The County recognizes that the residents of this county want the high quality of life to be always of the utmost importance, and every effort should be made to ensure that this continues.
The County is welcoming to all of its residents –and appreciative of diversity.
Support for programs which enable agricultural land to be maintained in perpetuity should be a priority.
Economic development is viewed in the context of quality of life for residents, and developments that degrade community values are prohibited.
Locate housing and employment opportunities appropriately as to not create conflicts or undue pressures on existing land uses and economic activity.

Revised Plan Themes

- The County and community partners promotes a sustainable, resilient, and diverse economy to support a range of housing and employment opportunities and a high quality of life for all.
- The County's economy is adaptable, driven by innovation, connectivity, and provides access to high-quality education and training.
- Agriculture ~~of all sizes and types~~ remains a balanced and viable long-term segment of Larimer County's economic, cultural, and social fabric.

Health & Social Framework

What ideas are missing from these statements?

Comment
Promoting ways to sustain community via transport to health and education services and improved communications (broadband and transport).
Mental health and supporting our school systems.
Focus on the safety and health of residents.
The county needs to actively support the efforts of individual cities to control the location of extractive facilities of all kinds to protect citizen health.
Protecting lands and improving trail systems will improve our quality of life as well as our health and fitness.
We recognize the value that new people, from different cultures, can bring to our community, including seeing new opportunities and new potential values.
Educational needs are surpassing physical buildings.
The root causes of mental health/homelessness are not being addressed enough.
Innovation in bringing affordable health care to all citizens.
The link between protecting the environment and committing to clean energy development are directly linked with human health.
Full interpretation of what is meant by diversity - to include racial, ethnic, ability, and gender identity. Currently, this county is lacking in diversity and not a very welcoming place to people who are not white, upper middle class, etc.
Manifestation of health standards will require bold decisions by the County by not permitting activities that are known to be contradictory to these regulations.
Should use the word 'promote' rather than 'support,' which is weak and not very clear.

Revised Plan Themes

- The County's strength lies in empowering the collective diversity, talents, character, and resiliency of our people.
- The County recognizes the need to implement policy to maintain and improve the community's physical and mental health, and environmental health, safety, and welfare as health guides all County standards, rules, and regulations.
- The County supports the creation of healthy, inclusive, and livable communities that offer access to physical activity, recreation, health care and services, environmental justice, safe neighborhoods, healthy food choices, and community gathering spaces~~promotes access to emergency services and education to meet the needs of a diverse multigenerational population for all ages.~~
- The County supports the integration of healthy lifestyles as an element that leverages multiple topic areas including housing, services, open space conservation, and connected transportation and trail systems.

Housing Framework

What ideas are missing from these statements?

Comment
Those with lower incomes need recognition at the same level as university housing and higher level incomes.
Tiny home communities must be emphasized.
No to "logical" development! Especially if "logical" means logical to developers and unhealthy businesses and industries.
Housing planning will support changing demographic needs without compromising the character of the Open West which includes plenty of open spaces and respects nature.
I think that "character of the Open West" is vague and philosophically problematic. I would prefer "environmentally sound."
Housing is an evolving concept. Housing re-invention, flexibility, and inventiveness might be good additions.
The County supports housing built to sustain the environment.
In addition to the County "encouraging" housing attainability, there needs to be a commitment to pursue realistic methods and regulations to having an affordable housing plan in the next decade.
We should also encourage farm retention as much as we encourage housing attainability.
I would add to the last statement the following: while balancing the environmental, and quality of living factors that impact the county.
The County incentivizes efficient lifestyles.
Encourages housing attainability and protects attainable options.
The county supports preserving affordable housing options.
Affordable housing is a priority of builders and the County.
Requiring a set percentage of new builds to be for low/middle income families.
It doesn't account for AFFORDABLE housing.
The County sets a goal of no homelessness. The County provides for the educational and health care needs of all who live here.
Implementation of plans needs to happen.
Use of the word 'support' is weak. It doesn't mean substantial action would be taken, i.e. in creating a diverse range of housing options.

Revised Plan Themes

- The County supports the viability of a diverse range of housing options to meet the changing demographics of rural residents~~needs of all residents.~~
- ~~The County supports logical development patterns that reflect the changing demographic needs and character of the Open West.~~
- Larimer County encourages housing attainability in partnership with municipalities.

Infrastructure Framework

What ideas are missing from these statements?

Comment
Should be more restrictive on how many locations for the same businesses.
Broadband as a utility to all.
Infrastructure planning will respect the needs of wildlife, the environment, and recognize that plenty of wild, open lands are at the heart of a beautiful, happy, and healthy community.
Missing is the idea of continuous adaptation to new ideas, new modes, new inventions. Since I think this change will come faster than we realize, I would like to add the idea "that we are open to new ideas and constantly re-inventing our infrastructure."
The County recognizes that the current dependence on individual cars will not be viable in the future.
Historic preservation and adaptive reuse of buildings instead of wastefully building new ones.
Architecture and building design that fosters best efficiency possible will be sought in all future county facilities, as well as in the restoration of existing facilities.
The County adequately funds the maintenance of its infrastructure, including rural roads, rather than forcing private landowners to maintain public roads.
The public and/or private facility providers are inadequate to meet the needs for expansions required to meet the population growth.
The County works with municipalities on projects that cross county/city borders.
Recognition of a need for more public transportation options, especially between Fort Collins and other cities in Colorado.
They all seem to be focused on transportation infrastructure. What about water, sewer, garbage collection, recycling, composting, broadband, etc.
Bicycle safety is of the utmost importance, and certain roads are dangerous and not fit for their use.
Development should pay for itself in terms of these sorts of provisions, and it's too expensive to provide full city services to rural residents unless they are willing to support large tax increases.
Intergovernmental agreements should be vigorously pursued in order to coordinate efficient infrastructure and avoid exurban sprawl.

Revised Plan Themes

- The County will ensure that Adequate public and/ or private facilities and services are provided and maintained concurrent with development.
- Urban-level development aligns-occurs with Growth Management Areas where and the full range of urban services provision is available and provided.
- ~~Integrated regional connectivity of bicycle, trail, and transportation networks requires collaboration between and across political boundaries.~~
- The County collaborates with state and local agencies to provide supports a safe, integrated regionaleconnected transportation network for all modes ~~of transportation.~~
- The County collaborates with district providers on the provision of utility and communication services.

Watersheds & Natural Resources Framework

What ideas are missing from these statements?

Comment
Water conservation and management are essential to a growing Larimer County.
The County encourages fire mitigation efforts by rural residents and offers incentives for actual mitigation.
Preserving wildlife migration patterns.
Encourage less grass and non-native species.
Encourage communication and education of these topics.
Citizens are encouraged to participate in conservation and restoration of natural areas.
The County actually provides funds to implement its resiliency plans.
Minimization of oil and gas development and invest in renewable, clean energy sources.
Recognition that this is becoming more challenging (due to population increase and climate change) and more time/effort/money needs to be committed to these issues.
Fewer cars, commitment to minimizing environmental impact of people.
The rights of river systems to thrive (i.e., flows and flow patterns that sustain the system) may need to be enshrined in law as climate change and over-commitment of water resources continue to put lethal pressure on these systems.
Mining is an industry that has no place in the heart of the community, next to a school, or in the backyards of homes.
Agricultural lands and water resources are valued by undertaking collaborative strategies to minimize the loss of productive land and water and continuing to pursue water sharing between agriculture and domestic utilities.

Revised Plan Themes

- ~~The County Natural and cultural resources are~~ valued, identified, protected, and responsibly managed ~~its natural and cultural resources to minimize impact and~~ by protecting our air, open spaces, and watersheds and water supply.
- Open landscapes, agricultural lands, waterways, and community separators will continue to be ~~economic generators and~~ defining features of the landscape of Larimer County.
- The County prepares for wildfires, floods, and other natural disasters and helps citizens and businesses prepare themselves to be resilient to such events.
- Wetlands and riparian areas are conserved to maintain water quality, wildlife habitat ~~and~~ corridors, flood protection, and other critical environmental functions.
- ~~The County recognizes that r~~ Recreation and conservation bring significant, synergistic economic, health, and quality of life benefits.

BOARDS & COMMISSIONS SUMMIT

EVENT SUMMARY

Meeting:	Boards & Commissions Summit
Date/ Time:	October 29, 2018 from 5:30 pm – 8:00 pm
Location:	Restaurant in the Budweiser Events Center 5290 Arena Circle, Loveland, CO



OVERVIEW

After two successful Community Choices public events, the planning team held a Comprehensive Plan Boards & Commissions Summit to build upon what was heard from residents. This event invited all County boards and commissions together to gather diverse, informed, and vested feedback, further ideas and internal support for the Comprehensive Plan, and provide an opportunity for knowledge sharing between departments and across topics.



EVENT FORMAT & EXERCISE

The Summit began in an open house style room where attendees could review the public feedback received at the Community Choices events in Wellington and Loveland the week before. The exercise at the Summit was structured as a workshop with small groups at round tables to discuss one framework topic, and mirrored the discussion at the public choices workshops. At the sign-in and welcome table, each attendee self-selected a framework group for the exercise.

Once attendees were seated, the Summit began with the attendees introducing themselves and listing one thing that they would love to keep or change in Larimer County in the future. A brief presentation followed that provided an overview of what a Comprehensive Plan is, the role and importance of the boards and commissions in the process, a summary of the Community Choices public events, and the key decisions that attendees will respond to. After the presentation, there were two exercises:

1. Attendees broke into small groups to discuss policy choices for a single framework. As a group, attendees reviewed the public feedback on one framework's choices and reached informed consent on a direction with supporting strategies. The exercise was followed by a report back on one policy choice and supporting strategies for the County to consider that would help achieve the vision.
2. Attendees used a framework map to provide feedback and ideas on an eventual Vision Map for future land uses as appropriate throughout Larimer County. Each group defined uses and suitability criteria by drawing on the map using three basic colors. As part of this exercise, groups also discussed trade-offs and how uses could be planned better.

After the group exercises concluded and closing remarks were made, the open house style format resumed.

WHO ATTENDED THE EVENT?

- Larimer County Comprehensive Plan Technical Advisory Committee (TAC)
- Larimer County Comprehensive Plan Rural Stakeholder Committee (RSC)
- Office on Aging Advisory Council
- Parks Advisory Board
- Environmental and Science Advisory Board
- Agricultural Advisory Board
- LaPorte Planning Advisory Committee
- Larimer County Department of Human Services
- Planning Commission
- Board of County Commissioners
- Workforce Development Board
- Rural Land Use Board
- Land Stewardship Advisory Board
- Larimer County Code Compliance Department
- Larimer County Community Development Department
- Larimer County Economic and Workforce Development Department
- Northern Colorado Regional Airport Commission

33 event participants

In 20 years, one thing I would love to keep or change in Larimer County is...

- ... Adequate transportation access
- ... Mental health support
- ... Partnership for age-friendly communities
- ... Services available for a growing and aging population
- ... Broadband connectivity
- ... Public areas remaining beautiful and accessible
- ... Agriculture as strong as ever
- ... Agriculture still viable
- ... Urban with more dynamic rural areas at the edge
- ... Healthy land management
- ... A regional perspective
- ... Staying green and ozone free
- ... Open space and parks that have capacity and smart growth
- ... Better collaboration between agencies
- ... Being affordable for young families
- ... A balanced economy with different types of employment and residential
- ... A balance of live/work/play
- ... Public health
- ... Growth patterns and best practices with water distribution
- ... Work-based training partnerships
- ... A variety of housing types
- ... Flexibility in housing

POLICY CHOICES EXERCISE SUMMARY

Community Framework

Policy Direction and Discussion

- With the potential for development to be hindered by availability of water, encourage providers to work together.
- Encourage growth within the GMAs near municipal boundaries.
- Do we plan for farming/ag given the age of farmers in rural Larimer County?
- Commercial growth within the GMA near rural municipalities should be concentrated and serve the area.

Supporting Strategies

- Promote clustering through subarea plans.
- Investigate metro districts as a way to bring utilities and services to an area.
- Implement mixed-use developments when commercial growth occurs within the GMA near rural municipalities.

Economy Framework

Policy Direction and Discussion

- Encourage light industry primary employers.
 - Difficulty with water/sewer capacity.
- Encourage regional types of businesses i.e. the airport.
 - Opportunity to bring airport-related businesses that would be attracted by the Northern Colorado Regional Airport.
 - Regional shopping centers since the County has the goods and services.
- Need for additional infrastructure to support large population of elderly/disabled workers.
 - Require lower-skill employment opportunities, minimum wage is not enough, and infrastructure is insufficient to support this workforce cohort.
- Address not having enough employers to provide services and inability to house/transport workers. This issue will only grow as population increases.
 - Opportunity for accessory dwelling units?
- Focus on workforce retention.
- Need to fill gaps in the need for unskilled workers. Often, the talk is to attract more skills workers.
 - Solid, steady base of workers on low-end of wage scales.
- Those employees in lowest paid jobs can't afford to live here. This is a problem everywhere.

- Tourism and open spaces are valued as amenities to stimulate the economic.

Supporting Strategies

- Utilize high-tech agricultural approach for water conservation.
- Develop Commercial uses around interstate and regional airport

Health & Social Framework

Policy Direction and Discussion

- Provide safe, accessible connections to transit and bus.
- Improve bike trail connections to create a cohesive regional network.
 - Take well-designed areas and connect them i.e. trail connections to Devils Backbone, Coyote Ridge and Horsetooth Mountain Park.
 - Boulder Example: Connectivity for bikes and peds from within the City to activities such as Chautauqua or Boulder Canyon.
- Educate communities about how they benefit from multiple modes of transportation, and the attractiveness of other modes to tourists i.e. trail from Fort Collins to Loveland.
- Address the issue of a city/county disconnect at boundaries related to bus ridership.
 - There is a lack of ridership on buses in the Thompson School District, leading to reduction in number of buses and students walking farther to bus stops.
- Aging-in-place accessibility.

Supporting Strategies

- Weed control along roadway shoulders and at intersections to increase safety where shoulder used as primary bike/ped lane i.e. where there are no sidewalks.
- Utilize open space tax dollars to support community connections.
- Create more community resources i.e. an education/awareness plan.
- Coordinate mapping format and colors between communities for ease of moving from one to the next i.e. Fort Collins and Loveland have different colors for multi-use trail vs. bike route, etc.

Housing Framework

Policy Direction and Discussion

- Protect and preserve mobile home parks.
- Accessory housing dwellings should be allowed and permitted to be rented.

Supporting Strategies

- Allow the rental of accessory housing dwellings.

Infrastructure Framework

Policy Direction and Discussion

- Development should not be permitted where infrastructure is not available.
- With water availability being an issue, investigate a regional study showing where and how service can be provided.
- Do we want more service in the rural areas of the County?
 - County (specifically Health Department) should look into whether smaller lot sizes are an option on septic.
- Create a larger entity that can create standards among service providers.
- Encourage consolidation of districts.
 - Convene water/sewer districts without telling them how to run their agency and encourage cooperation and collaboration.
- Base oil and gas regulation on what is real vs. what is perceived.
- Roads in rural areas are public roads with private maintenance.
 - Quantify costs of maintaining roads and incorporate into development and HOA costs
 - Provide a plan to maintain roads.
 - Potential for a self-taxing mechanism.

Supporting Strategies

- Develop a regional study showing where and how service can be provided.
- Create a map that indicates where it is possible to extract oil and gas.
- Convene water/sewer districts to encourage cooperation and collaboration.
- Develop a plan for unincorporated areas to maintain roads.
- Utilize special districts to fund maintenance of roads.

Watersheds & Natural Resources Framework

Policy Direction and Discussion

- Support and improve irrigation efficiency.
- Preserve best soils from other developments.
- Incentivize ag-supportive industries with voluntary ag districts for those uses.

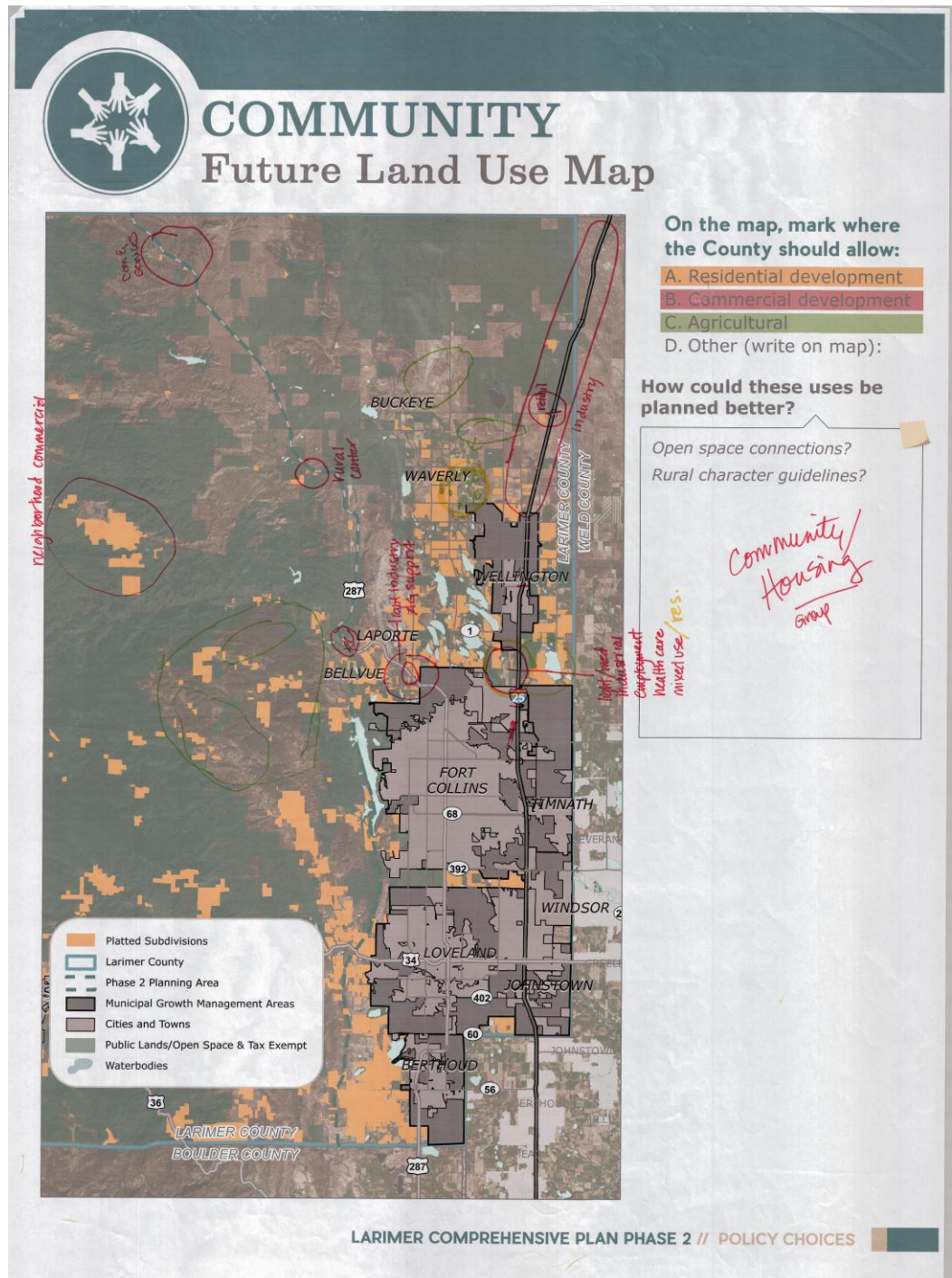
Supporting Strategies

- Ag district zoning and ranching districts.
 - Simplify review process for Ag Districts.
 - Provide clear goals/vision for Ag Districts to remove barriers.
- Preserve agricultural parcels through Transfer of Development Units with cities/towns.
- Create Land Use Code performance standards for “value-added activities.”

VISION MAP EXERCISE SUMMARY

Community and Housing Framework

- There is a need for commercial and services where platted subdivisions are clustered along Highway 287 and in the Mountain Planning Area.
- Bellvue and LaPorte would be appropriate for development of a rural center, as well as light industrial and agricultural-supportive industries.
- The area between Wellington and Fort Collins would be suitable for light/medium industrial, employment, health care, and mixed use commercial development, with residential uses around Cobb Lake.
- Retail and industry development along I-25 north of Wellington.
- Areas identified for agriculture are north around Buckeye, north of Waverly, and west of Bellvue into the mountain areas.



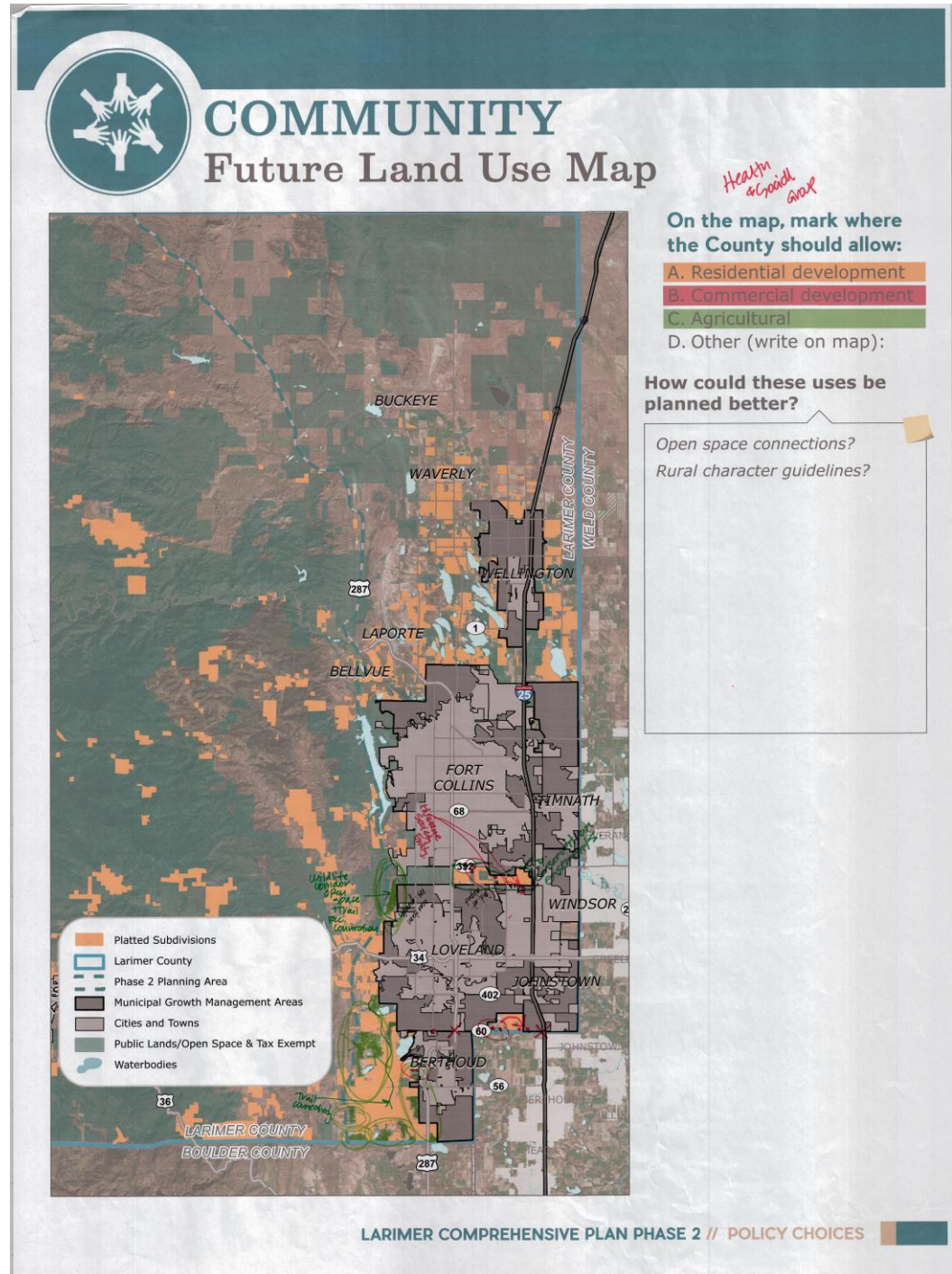
Economy Framework

- Commercial uses should be allowed in the unincorporated area south of Windsor and east of I-25.
- Residential uses are most appropriate around the periphery of Loveland and Berthoud to the south and south-west, and Johnstown to the south.



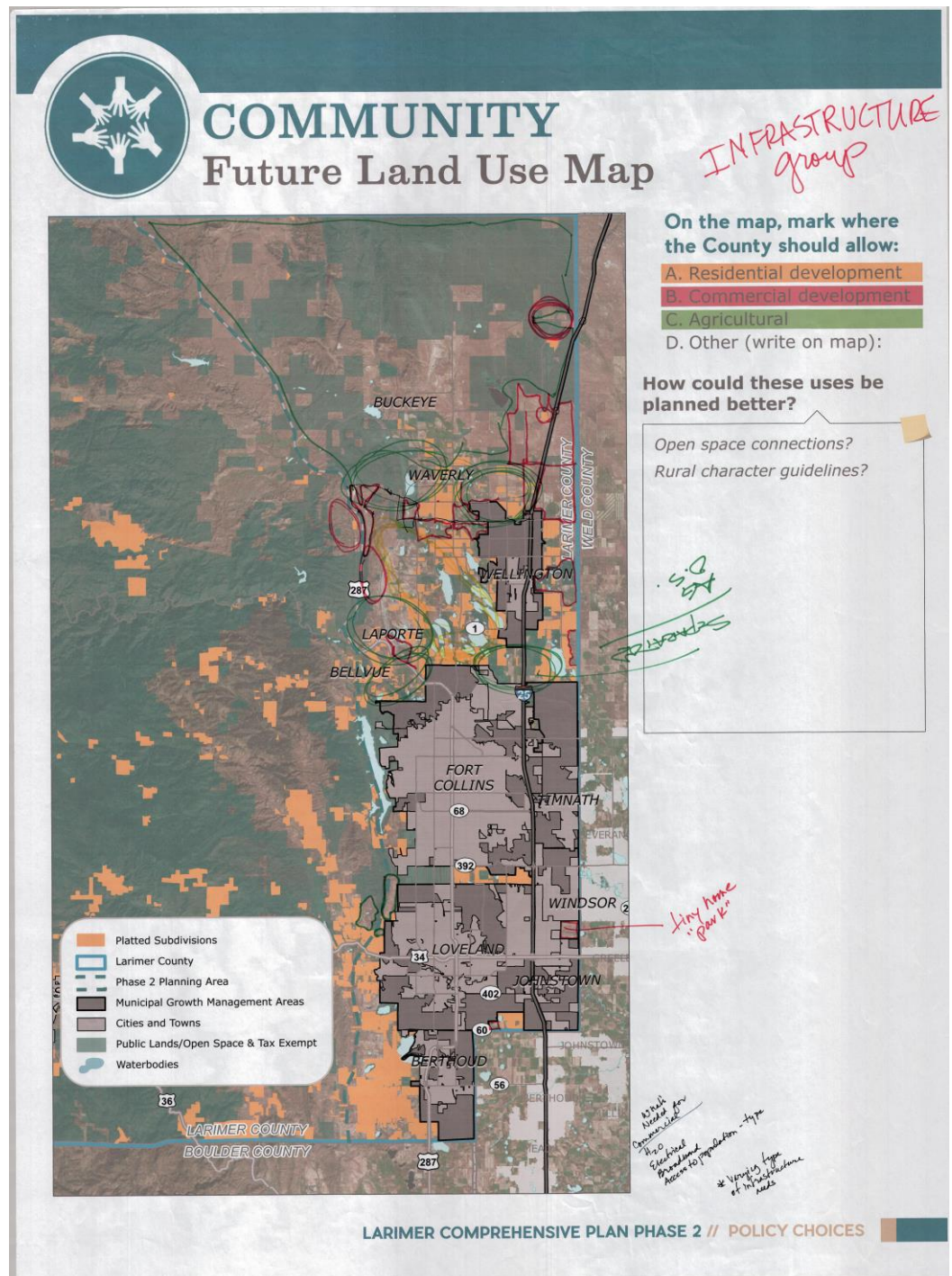
Health & Social Framework

- There is an existing Humane Society located in the unincorporated area between Fort Collins and Loveland. However, this area east of Hwy 287 would also be appropriate for additional commercial uses.
- Along the western edges of Loveland and Berthoud, wildlife corridors, open space and trails, and recreation connections would be appropriate. Agriculture is also an appropriate use in these areas, with opportunities to improve trail connectivity.
- Commercial uses should be allowed along the western periphery of Berthoud, as well as in the unincorporated area south of Johnstown along CO-60.



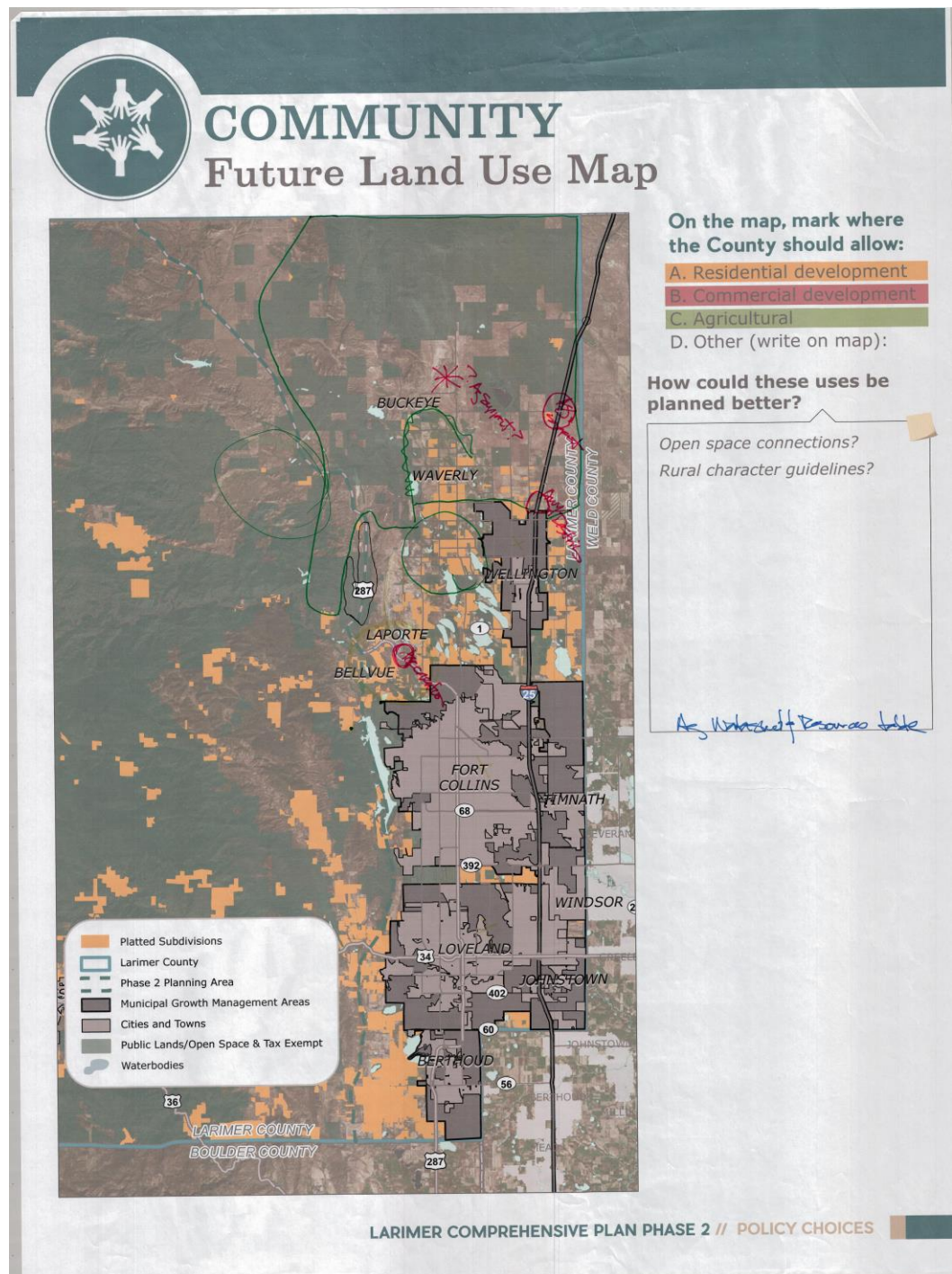
Infrastructure Framework

- Commercial uses should be allowed along Hwy 287 in LaPorte and to the north around the periphery of Wellington's northern GMA boundary and south of Waverly, and along I-25 north of Wellington and before entering Weld County.
- Commercial uses were also identified as appropriate east of Wellington and I-25, directly east of Cobb Lake, and in an unincorporated enclave between Windsor and Johnstown.
- The area between Wellington and Fort Collins should remain an agriculture/open space separator.
- Agricultural uses are appropriate around the LaPorte and Waverly communities, as well as throughout the large unincorporated area north of Wellington.
- Additional lands west of the Fort Collins-Loveland separator were identified as appropriate for agriculture/open space uses.



Watersheds & Natural Resources Framework

- Agricultural uses are identified as appropriate in the large unincorporated area north and west of Wellington, and south and west of Waverly in the Mountain Planning Area.
- Commercial areas, including commercial development of agriculture-supportive industries, are appropriate near LaPorte, along I-25 north of Wellington near the County boundary, and northeast of Buckeye.
- Residential uses were identified as appropriate around Bellvue and LaPorte, as well as north of LaPorte east of Hwy 287.



FRONT RANGE COMMUNITY CHOICES SUMMARY

Meeting:	Front Range Community Choices Event #1	Front Range Community Choices Event #2	Front Range Community Choices Online Activities
Date:	October 22, 2018	October 25, 2018	Oct. 1 – Nov. 30, 2018
Time:	5:30 pm	5:30 pm	
Location:	Leeper Center, Wellington	The Rialto, Loveland	www.LarimerCompPlan.com



OVERVIEW

Two public events were held to understand community opinions regarding opportunities and constraints associated with growth that will influence the future of Larimer County's unincorporated Front Range. The events were accompanied by an online questionnaire and other activities, including a strategy brainstorm wall and opportunity mapping activity. These input opportunities provided Front Range residents a forum to give their input on policy choices and brainstorm strategy ideas that provide direction on achieving the vision, as well as any concerns regarding the Foundation chapter and results from the Visioning stage.



EVENT FORMAT & EXERCISE

The events began with a brief orientation and introduction at the sign-in table, where residents could learn about the planning process, how to get involved, and indicate where they live on a map. After visiting the welcome table, attendees participated in facilitated station exercises for each framework and open dialogue with staff to provide feedback on policy choices and indicate any additional opportunities on a map.

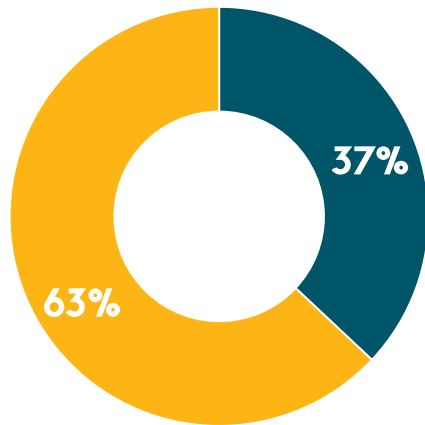
Attendees could freely move through the open house station format to provide feedback on any or all of the frameworks. Attendees were also provided with a handout that mirrored the board exercise to provide feedback. In addition to the policy choices exercise, attendees also participated in a 'strategies brainstorm' on a large idea wall, where they gave their ideas for potential programs, tools, and strategies that would help to implement the County's policies. Informational boards and copies of the Existing Conditions Foundation Snapshots were available around the room, for those that want to review during the event.



Residents could comment through one-on-one conversations, facilitated discussion, board and handout responses, as well as the online questionnaire, mapping activity, and strategy idea wall. The feedback on the following pages is a summary from all events and online activities.

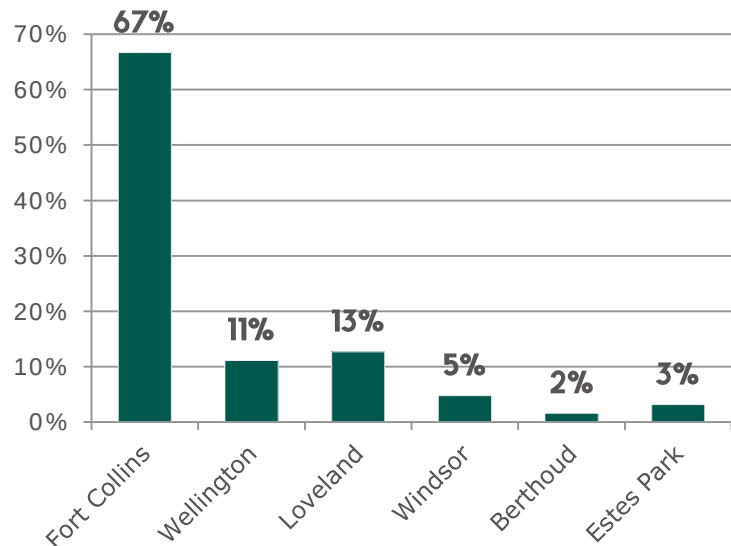
WHO PARTICIPATED?

Where do you reside?

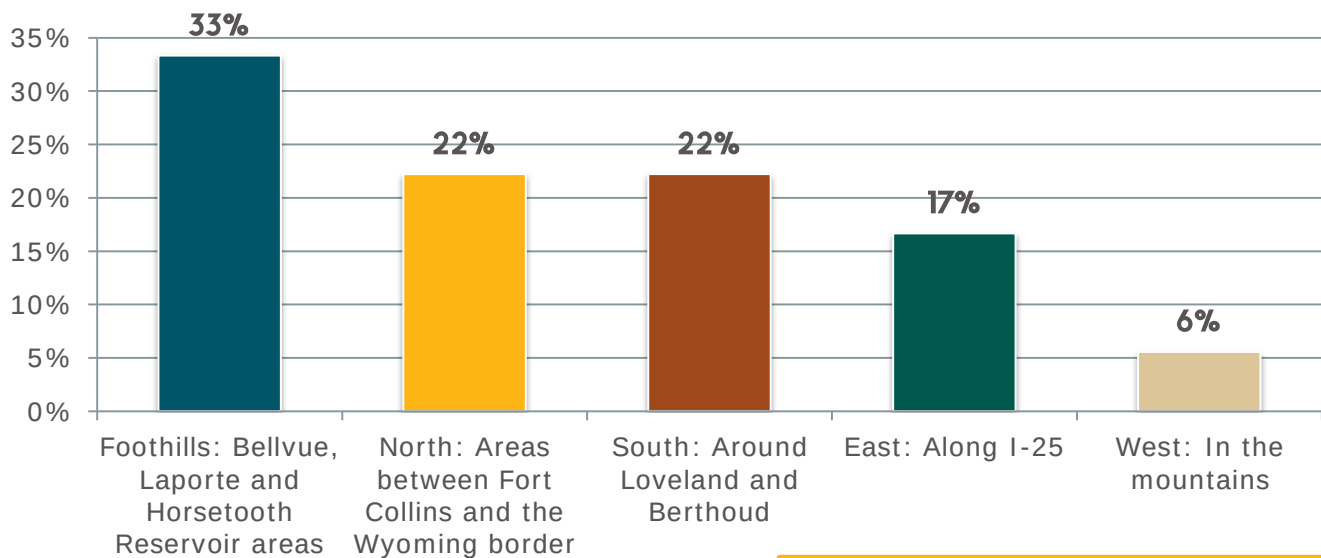


- Rural unincorporated Larimer County
- Within a city or town in Larimer County

In which city or town?



Where in the rural unincorporated County?



OVER 225 PARTICIPANTS
at public events and through
online activities

COMMUNITY POLICY CHOICES

1. Are you satisfied with the types of development found within unincorporated areas of the Front Range:

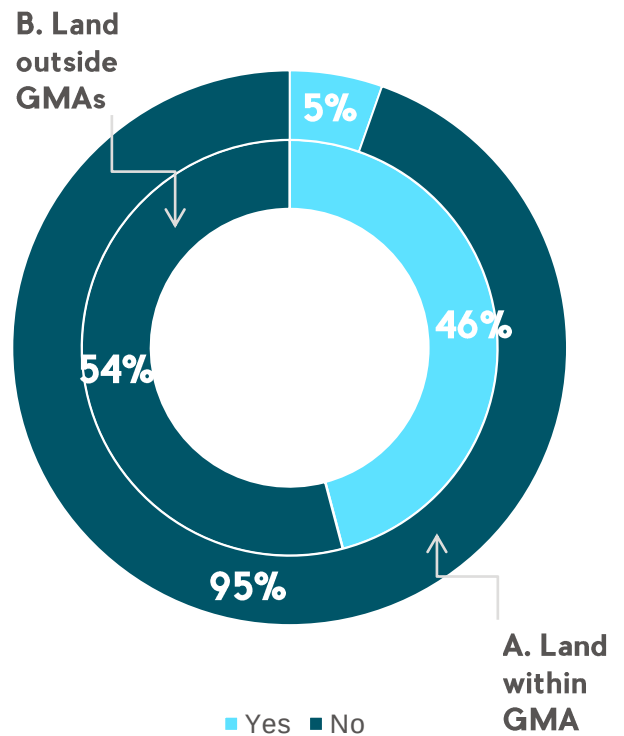
If not, explain:

A. Land within GMAs

- Maintain natural separation between urban areas
- Affordable, attainable, workforce housing
- Poor regulations and no vision
- Keep rural and maintain farming
- Encourage density and urban fringe with good access to roads
- Concentrate growth in pockets surrounded with parks and protected natural lands
- Require contiguous city development standards
- Discourage sprawl with no ped/bike infrastructure
- Focus growth east and protect the foothills

B. Land outside GMAs

- Small farming
- Larger acreage lots for residential (10 or 30 acres) to avoid fire and utility issues
- Recreation areas and open space
- Cluster development to preserve open space and separation between urban areas
- No more growth of any kind
- No commercial in rural areas
- Conflicts between resource mining, oil/gas extraction, residents, and recreation/tourism
- Less regulation on vacation rentals
- More businesses
- Development should only occur where adequate public services are available
- Too much development in high hazard risk areas



2. Where should the County allow agriculture, residential or commercial development? How could these uses be planned better?

- **Agricultural:**

- West of Loveland and Fort Collins, north of Fort Collins, and southeast of Johnstown
- Large-scale outside of GMAs, small-scale (less than 5 acres) in GMAs
- Don't let agricultural lands grow smaller, develop different types of agriculture
- Rethink what constitutes "agricultural" and how the small local farm augments commercial large-scale farming
- Agriculture needs to be where there is good soil and available water
- Us ag as a buffer between cities, close to I-25 and areas outside low density dev.
- Everywhere

- **Commercial:**

- near Johnstown
- North Eastern Fort Collins (Vine/Timberline/Mountain Vista);
- between Wilson and County Road 27
- within and near GMAs; commercial outside GMAs should have nearby residential to support it
- targeted pockets of commercial only;
- along major roads, especially at intersection
- light commercial mixed with residential helps make areas more liveable
- along I-25

- **Industrial:** on East Mulberry and near Northern Colorado Airport

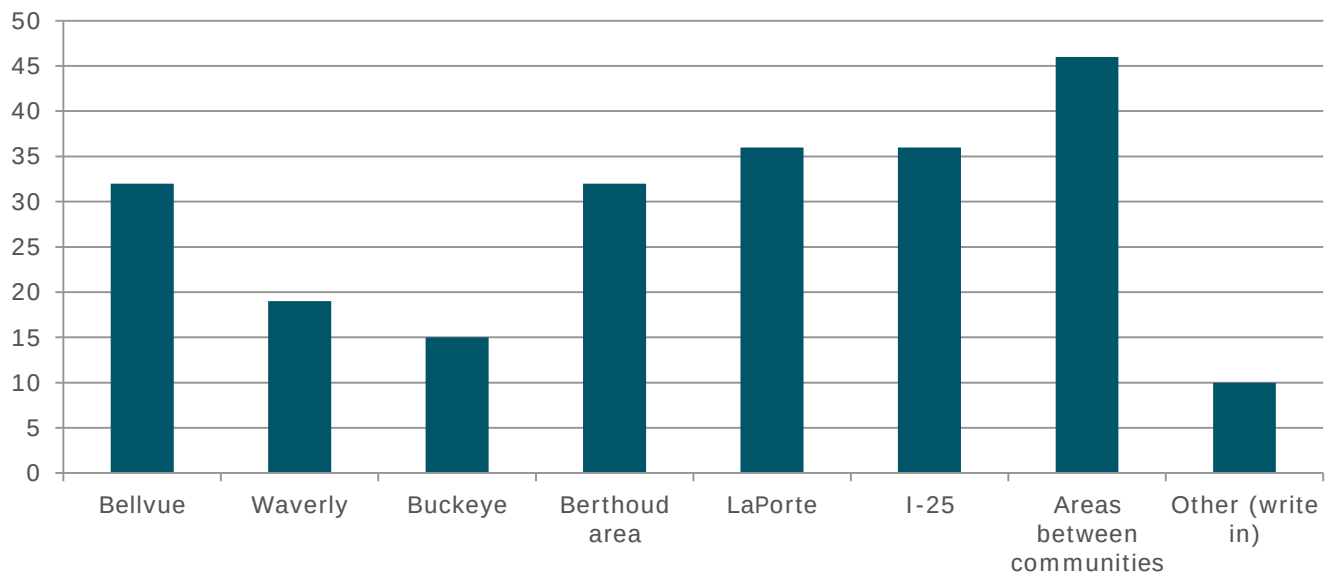
- **Residential:**

- in GMA and within cities/towns; as close to urban areas as possible
- concentrated areas with services in mountains
- discourage development in hazard prone areas
- on a case-by-case basis only
- east of 287

- **General Comments:**

- Preserve open space Fort Collins/Loveland
- Development should only be allowed where public services/infrastructure is available
- Where there is enough room while not negatively impacting a community
- Where landowners want it as long as proper resources exist or landowners pay.
- Build up, not out

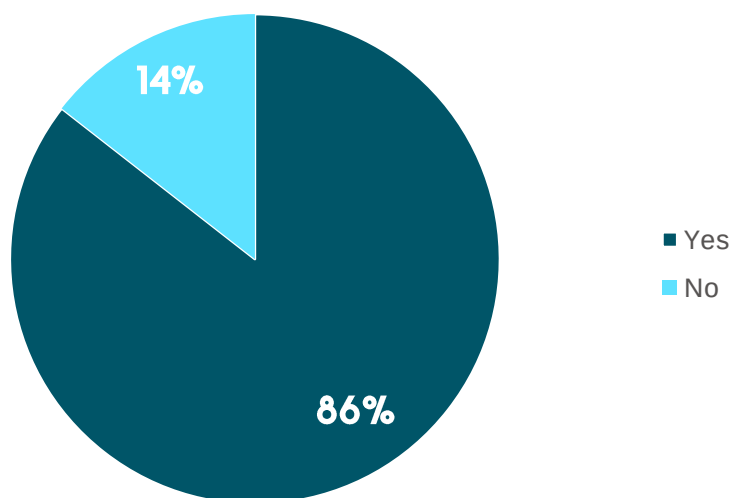
3. Where should the County conduct more detailed long-range planning for subareas and rural communities? (check all that apply)



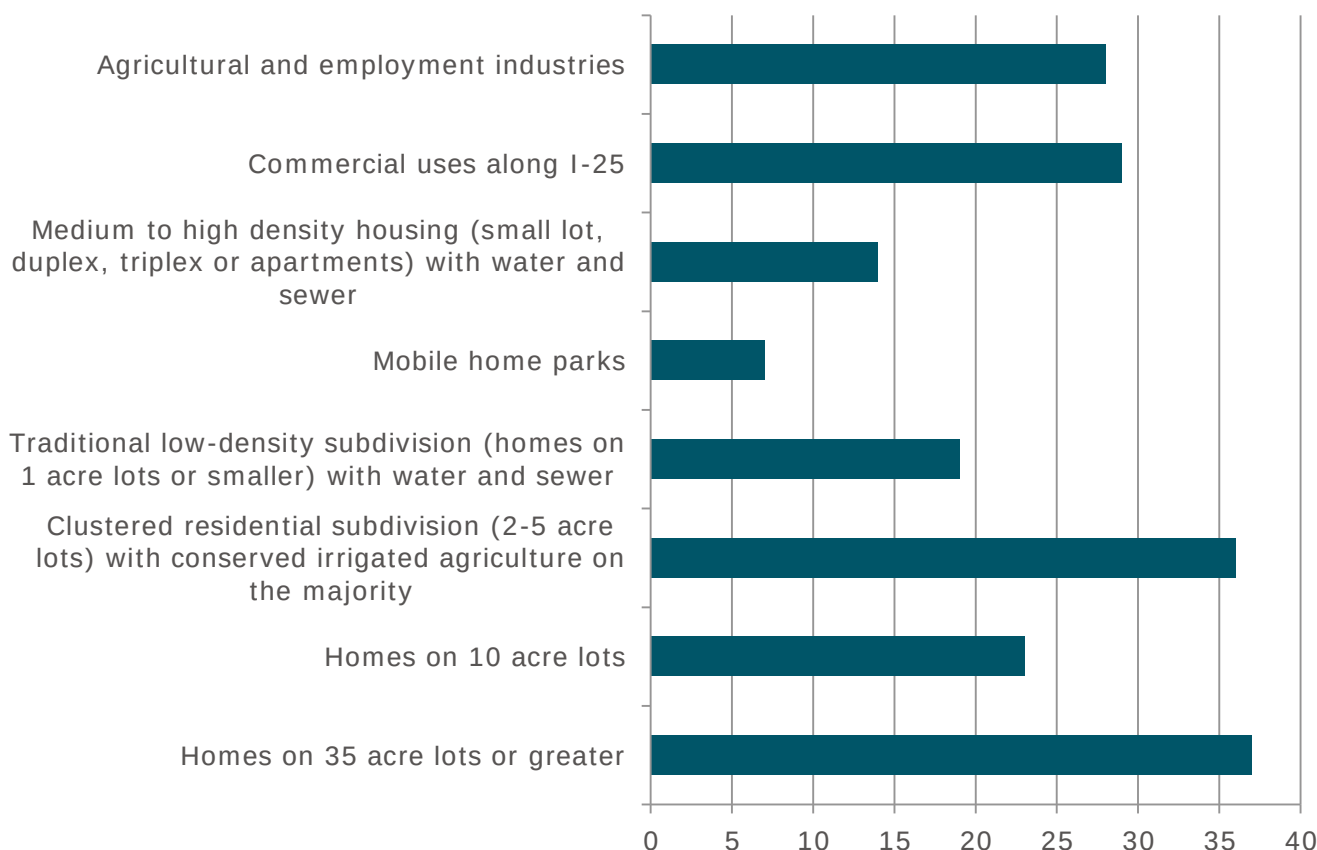
Other/write-in

- Only where areas want county help
- Everywhere
- Red Feather Lakes
- Larimer/Boulder County interface areas

4. Do you support efforts to maintain separation between Wellington and Fort Collins?



5. Apart from agriculture, what other land use patterns should be supported within this area?



ECONOMY POLICY CHOICES

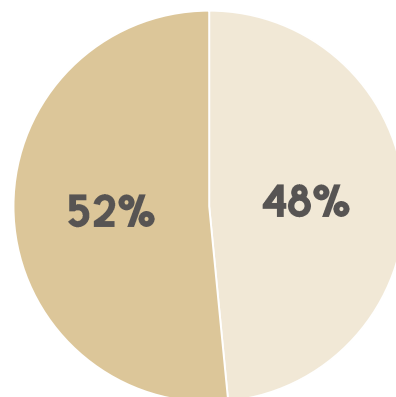
1. Should the Plan encourage retaining, growing, and attracting certain types of employment?

Why or why not?

- Guide growth towards tech, rec, and other sustainable industries compatible with large populations
- Attract industry/corporations that provide employment opportunities that cross all socioeconomic strata
- Not just high tech, but also service level manufacturing, etc.
- Include self-paying energy industry like solar farms and wind farms

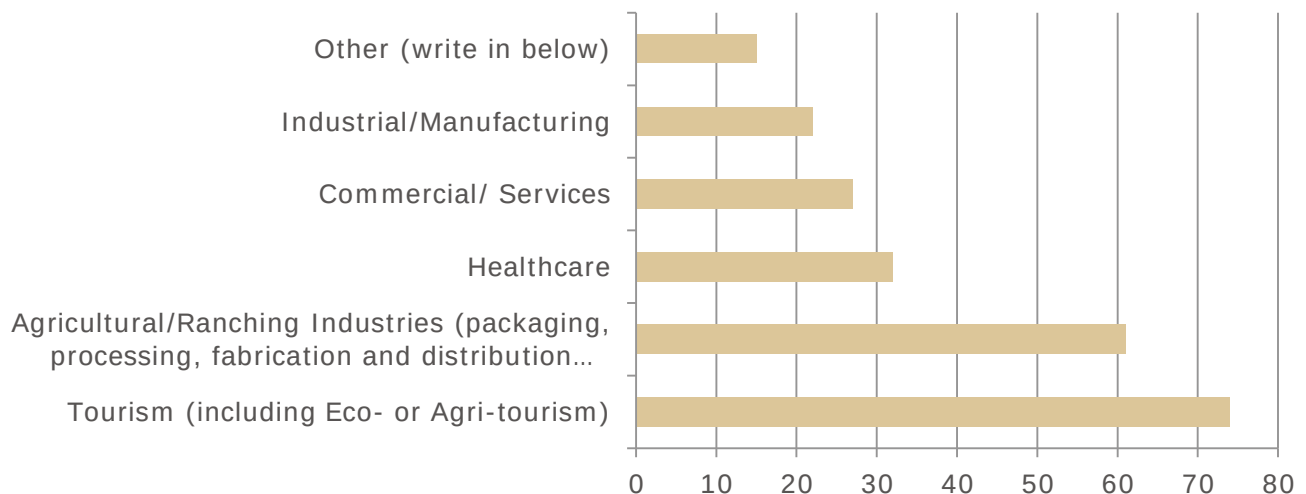
■ No, this is not the County's role

■ Yes, the County should encourage certain types of employment.



- Industry for people who already live here. Not industry that brings more people
- Business that attracts high paying jobs and provide training to promote local/talented workforce
- Leverage the County's strong workforce development program to meet the growing needs of employers in the community
- Retraining education for currently available and projected jobs
- Businesses will choose where opportunities exist; County shouldn't 'encourage' types unless an economic development specialist is on board.
- Businesses should be associated with communities, excluding home occupations
- County should work with cities/towns
- Encourage non-polluting/non-damaging and socially responsible industries
- Help local businesses, not huge chains/corporations
- The County's economic development is a joke: wasteful spending and lack of transparency
- Less governmental regulation, better coordination between workforce and private sector
- Serve as a mediator between business developers and citizens living in target areas
- Support diverse range of industries that are expanding regionally/ nationally over the long-term
- Work with the Chamber of Commerce

2. What types of employment uses are compatible with rural areas? (mark all that apply)

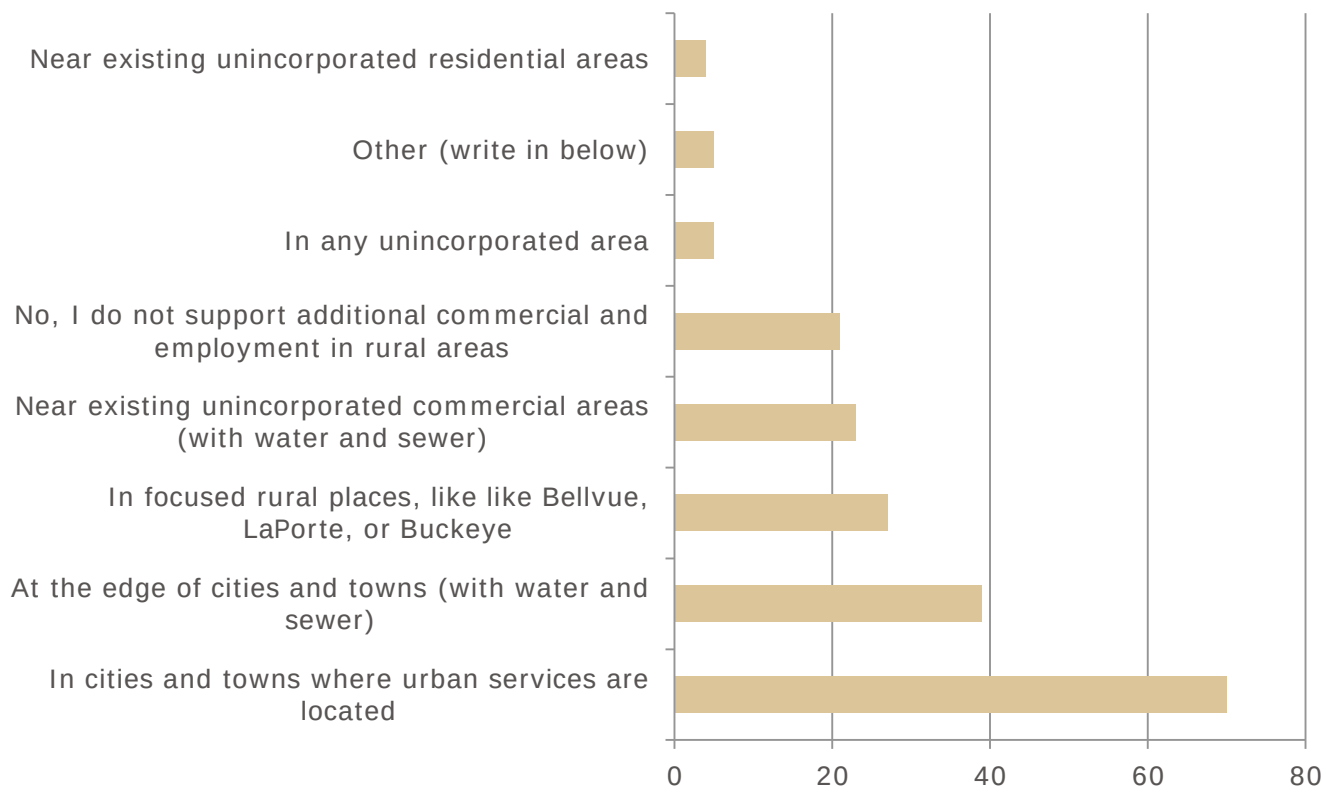


Other/write-in

- Discourage new commercial/industrial development in rural areas
- Industrial/Manufacturing needs to be regulated
- Some types of industrial/manufacturing are appropriate (environmentally friendly practices) and some are not appropriate

- Mobile healthcare to better serve unincorporated areas
- Scale is important – all may be appropriate at the right scale
- Compatible with limited water needs and recycled water systems
- Green energy production
- Heritage-tourism
- High Tech
- No industrial agriculture (like hog farms)
- Outdoor recreation; parks; open land
- Small specialty farms

3. Where would retail and commercial service be appropriate? (check all that apply)



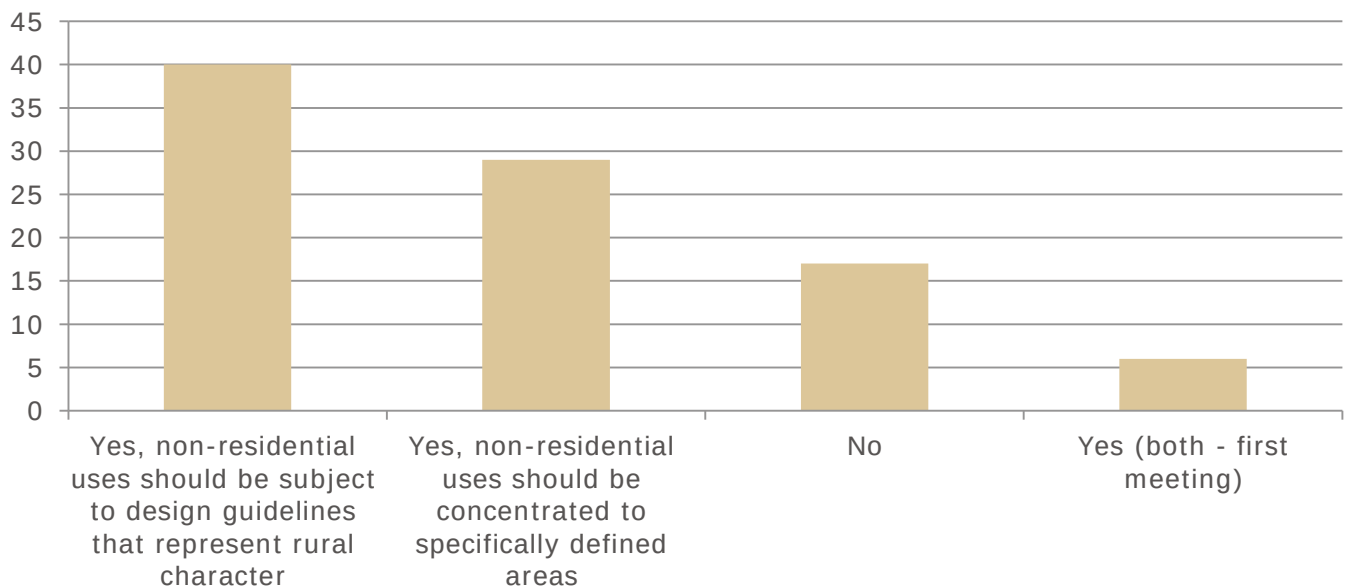
Other/write-in

- Along major roads, especially at intersections
- Along I-25

4. How should the County encourage businesses to locate in rural areas?

- Retail/small commercial that is there specifically to serve those communities. Not draw from a regional area
- Commercial business shouldn't be encouraged to locate in rural areas
- Only encourage businesses in small communities like Drake and Glen Haven
- Repurpose areas currently being used
- Put schools and infrastructure
- Housing has to be affordable
- Infrastructure has to be updated/maintained
- Broadband has to be available
- Better transportation: buses and bike paths
- Incentives, tax breaks, or help with building water/sewer/infrastructure
- Zone the land appropriately
- Provide good trails and recreation areas

5. Should the County require non-residential uses be concentrated and/or designed with a rural character?



Comments:

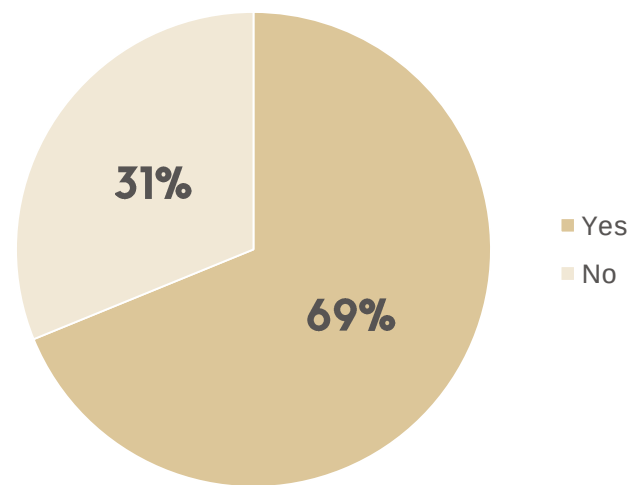
- Guidelines might create a visual feeling, but little else. Design guidelines will not preserve a way of life in rural areas. Only control of growth will accomplish that.
- At least a character that fits into the natural environment.
- Development is going to happen. We might as well have it happen on our terms!

- It's about standards for density and innovation. We were known for sustainability and rural open lands. Those values are being compromised big time.
- Good-looking business areas increase overall morale and real estate values.
- Not county's role to dictate how buildings look
- To minimize the need for traffic and other utility support everywhere.
- Yes, should be concentrated to where there are residential uses so there are enough people to support a business lasting in that area
- Yes, there should be design guidelines to ensure buildings look similar and to keep a rural character

6. Should water and sewer be a requirement for unincorporated commercial uses?

Why or Why Not:

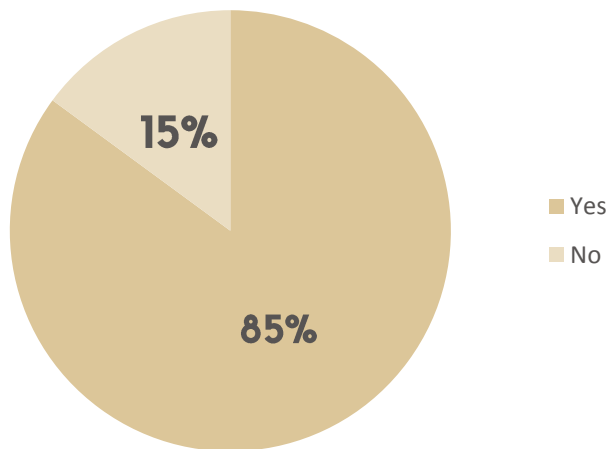
- Public health reasons
- A well and adequate septic system is more efficient, self sufficient, and cost effective
- Because it's fair allocation of limited resources, i.e. water is retained, used, treated, released.
- Because new sewer lines cost millions of dollars and are cost prohibitive. If the county wants sewer to be required, then the county should be footing the bill.
- Because without this requirement costs will be paid by taxes rather than development fees
- Depending on specific location the availability of water resources is of the utmost concern. Increasing population will put more pressure on water resources.
- Depends on type and size of business.
- Improve property value, reduce cost for local infrastructure investments by private land owners
- It helps monitor water usage for better planning.
- It is very expensive for a municipality to add sewer pipes beyond incorporated areas.
- Non-sewer wastewater disposal is environmentally problematic.
- Where does the county plan on getting the water?
- Potential pollution could be a problem in the future without water and sewer requirements.
- This would put a severe burden on rural landowners
- Unincorporated areas cannot and should not be expected to provide urban services.
- With the poor quality of most of the soil in the area, proper disposal of sewage is needed to keep surface and ground water as safe as possible.



7. What steps should the County take to support the Northern Colorado Regional Airport, if any? (online question only)

- Its an economic driver so they should work toward supporting it but I have no idea what that looks like step-by-step
- Bring back commercial airlines that goes to several destinations
- Bulldoze it over and turn into a park or lake
- Collaborate with FT Collins and Loveland
- Direct investment; local cities can not carry the entire cost burden
- Important transportation hub. Incentives for businesses moving to airport business park.
- It should remain a small airport or take it out of town.
- NOCO should consider teaming up with Cheyenne Wyoming to construct a larger airport to support northern Colorado and southern Wyoming
- None
- Seems like an underutilized area and resource. No specific ideas.

8. Should the County support innovation and technology in the agriculture industry as an economic development strategy? (online question only)



HEALTH & SOCIAL POLICY CHOICES

1. How can the County encourage bicycle and pedestrian infrastructure within Growth Management Areas and between cities?

- New development should have to complete a "health impact analysis"
- Work with cities to ensure complete linkages in infrastructure
- Every County road should have bike lanes
- Need to have a funding source for bike/ped infrastructure
- Maintain clean/clear and wide shoulders for cyclists
- Promote "share the road" ethics among cyclists
- Improved signage i.e. "share the road"
- Indicate separation of uses i.e. (bike, ped, vehicle) using different surfaces
- Keep in GMA and cities
- Fix the most hazardous areas
- Plan for long-distance multimodal connections
- Ongoing education
- Partner to fund the regional trail system identified by NFRMPO
- Zoning that anticipates connections; get easements through development applications
- Off-street paths incentivize cyclists and pedestrians since they're safer and separated from motor traffic.
- Connect paths to county facilities, city centers, and natural areas
- Adopt complete streets policy
- Require this infrastructure with new development
- Continue to expand bicycle routes and regional systems
- Coordinate with cities and leverage partnerships
- Connect paved and soft-surface trail
- Require all road projects to include bike lanes
- Require bike registration and bicycle taxes to support bike paths, etc.
- Stop applying chip seal to existing shoulders. Add smooth shoulders to roads without them.

2. Where do you envision additional bike and pedestrian systems that could improve circulation between cities and rural destinations like open space?

- Build a pedestrian bridge across I-25 in Wellington
- Sidewalk from mobile home parks along 57th to trail
- 287 to LaPorte. Bingham hill road, over the reservoir
- All proposed trails should be implemented.
- Along existing road within the county by widening them
- From Ft. Collins to Horsetooth Mountain; from Indian Summer to Glade Rd.
- Bellevue to LaPorte to Wellington; Berthoud to Loveland
- Berthoud, Mountain Ave, North through the new golf course
- Connect our open space/recreation areas directly from the urban areas
- Extended foothills trail, widen shoulder on US 287, CO 1
- Fort Collins to Wellington will need better bicycle route options in the future

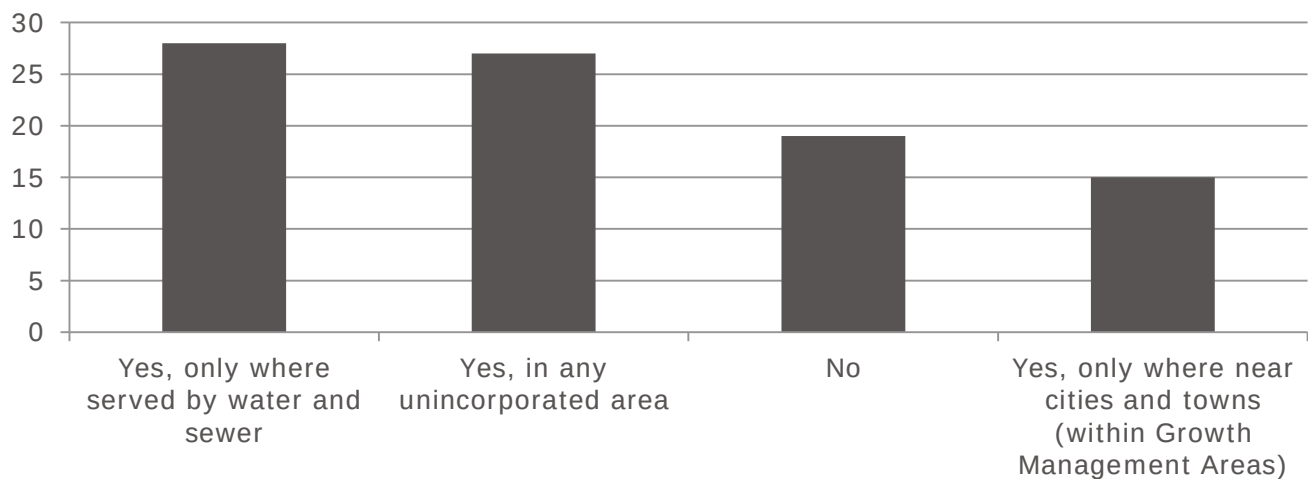
- Safer and convenient options to cross I 25 by bike
- Fort Collins to Timnath/Greeley/Windsor
- Between Ft Collins and LaPorte
- Prioritize connections between areas with concentrated employment and areas with residential development
- N.83rd. St. from Woodland Rd. in Boulder County, northward to Loveland
- I25/34 from Thompson River Range east
- Commuter bicycle route between downtown Fort Collins and downtown Greeley
- North east Fort Collins

HOUSING POLICY CHOICES

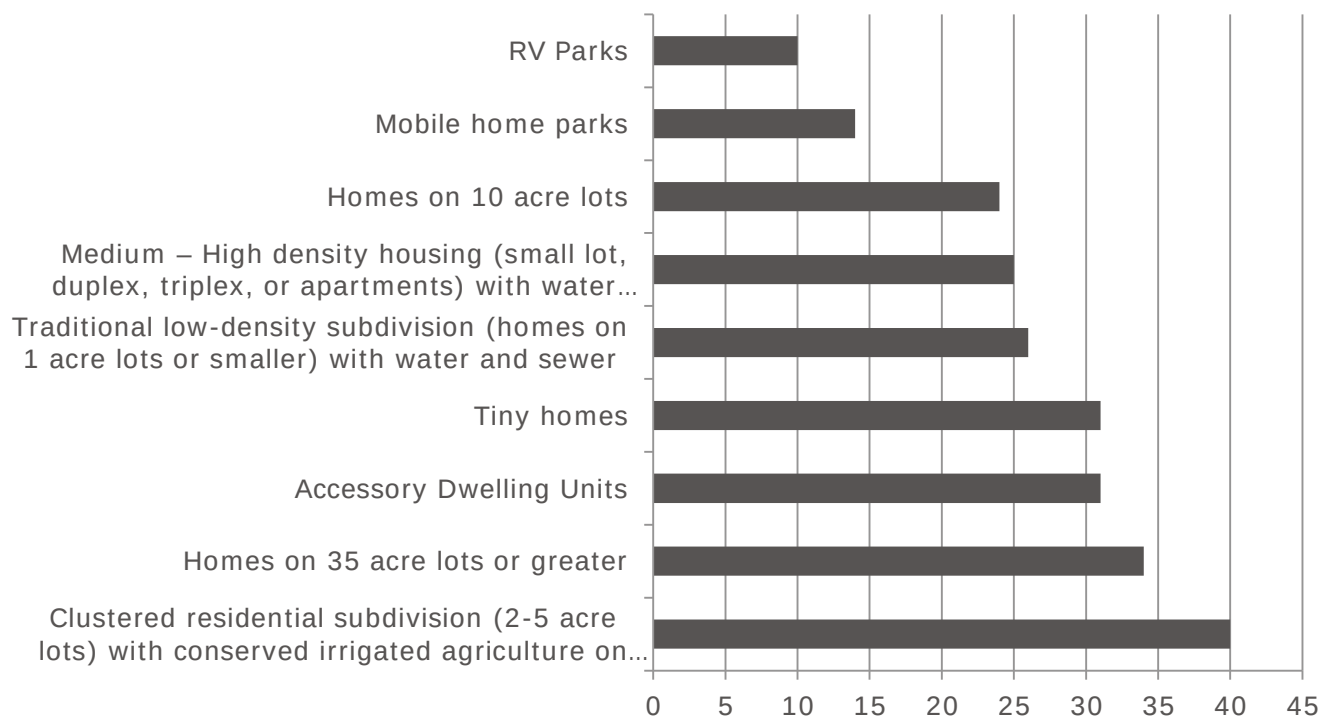
1. How should the County support demand for attainable housing and the housing needs of an aging population, multi-generational families and non-traditional households?

- Build affordable, rent-controlled apartments or small sub-communities
- Allow ADUs in the entire county with rental control and standards
- Reduce costs to builders for new construction
- Partner with companies that create factory homes on-site
- Preserve mobile home communities
- Incentivize affordable housing development
- Focus populations in urban areas
- Potential for tiny home communities
- Differentiate ADU allowances by use i.e. AirBnB vs. housing family members
- Increase number of nursing homes and wellness facilities throughout the County
- Allow homes to be used as needed unless complaints arise from neighbors
- Accessory dwelling units make it easier for families to care for each other or provide helpful income for life in a high priced area
- Keep this type of development in/near existing cities/towns
- Allow for ADUs (both attached and non-attached) but only for family members
- Build affordable housing
- We need more trailer/mobile home parks
- Need high quality modular housing for lower income homeowners
- Eliminate zoning that prevents families from sharing homes
- Support community organizations
- Encourage development east and north
- Encourage cities to revise "you plus two" regulation
- Consider co-housing options
- Every new development should include houses of varying prices
- Focus on smaller, multi-family options that are well-built and energy-efficient
- No need for the county to get involved
- Incentivize developers to require a certain percentage of units be affordable, below market rate units
- Make it easier for adaptive reuse of older buildings
- Rent control for at risk communities like single parents and the elderly
- Support Housing Catalyst and Loveland Housing Authority

2. Should Accessory Dwelling Units be allowed to be rented?



3. Should the County allow more of the following housing types?



How could these types be better planned?

Clustered Residential Subdivisions:

- Executed better with covenant enforcement and landscape requirements
- We need more options than just clustered
- 75% of the homes on 25% of the land on any proposed development
- Better bike/ped/transit transportation
- Have a more formal planning process
- Make sure roads can properly serve the area with increased traffic and there is public transportation and dedicated bike lane
- Minimize all ag land conversion

Traditional Low-Density Subdivisions:

- Have a more formal planning process
- In GMA or right outside of the GMA
- Incorporate more parks and open space
- Make sure it fits with the character of the area
- Make sure they have roads, sewers and water and electricity and broadband.
- More sidewalks and bike lanes
- Stop building them so close together

Medium – High Density Housing:

- Master planned, higher-density housing with services, amenities, and community spaces
- Build in and higher density where utilities and infrastructure can be supplied affordably
- 75% of the homes on 25% of the land on any proposed development
- Co-develop it with regional transit plans to discourage driving for the majority of trips
- In the GMA only
- More parks, more trees, more sidewalks and bike lanes

Tiny Homes:

- A few tiny home "parks" or cluster communities might help fill the housing gap
- Tiny homes may be necessary

Mobile Home Parks:

- Preservation for existing mobile home parks and enforcement of code
- Ensure infrastructure is equipped to support them, internet, bike/ped infrastructure
- Protect and preserve mobile home parks
- Allow for them in unincorporated rural areas
- Better infrastructure (water quality)
- Location, quality of homes requirements, accessible layouts and landscaping

RV Parks:

- Allow in unincorporated rural areas
- Good in a camping setting, probably not super close to town, more in mountains
- Separate areas: one area for generators; one quiet area without any generators
- You need large, roomy spaces for bigger RV's. Drive throughs and hookups are necessary

4. Where would new housing types be appropriate (online question only)

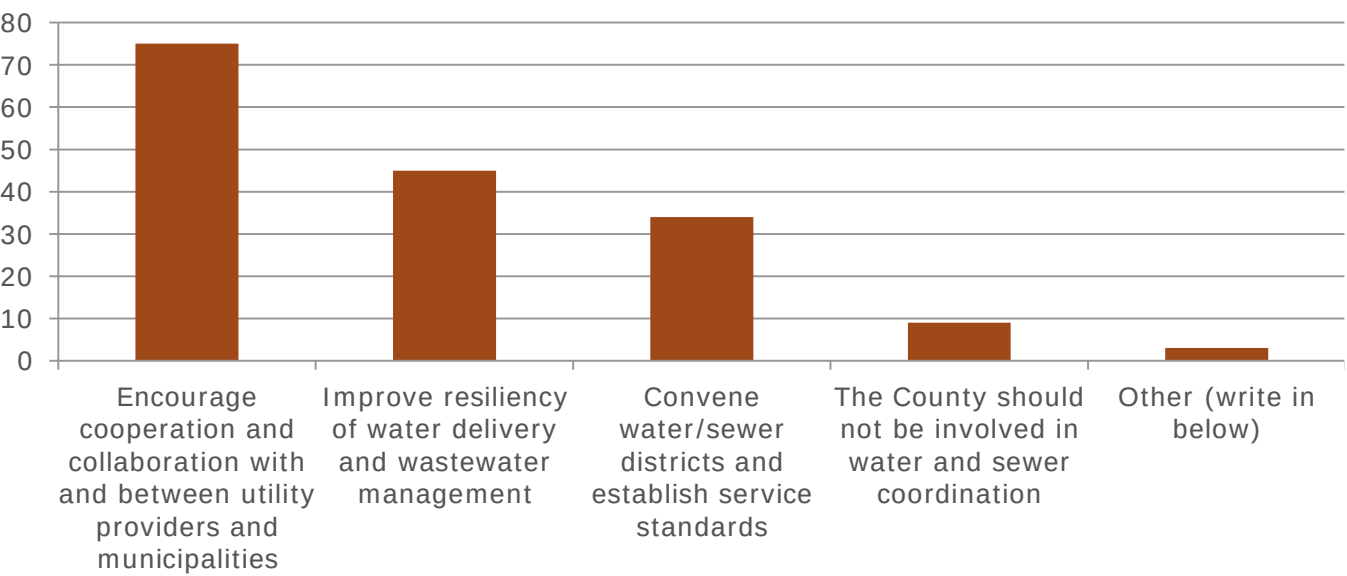
- Along or east of 287
- Along or east of I-25
- Limited areas to the West along foothills
- Anywhere they can be connected to the appropriate level of services to safely support the population
- Avoid the "retire and build a home on 35 acres with horse" mindset
- Between cities for buffer
- Unincorporated townships, areas with existing access to highways.
- Within GMAs and not obstructing viewsheds along the foothills
- Big acres, fewer houses = rural; clustered with open spaces = right outside of GMA & maybe in GMA; smaller lots, higher density = in GMAs where it makes sense and in the cities/towns
- Clustered near other like developments
- East Loveland and Johnstown
- In all areas except mountains
- Northwest Fort Collins; LaPorte, Wellington
- Near existing cities/towns and urban areas
- West of Loveland

INFRASTRUCTURE POLICY CHOICES

1. How should residential and commercial density patterns coincide with water and sewer service areas?

- Any new water and sewer facilities should be planning for expanded commercial and residential customer growth
- Either bring water and sewer to the population, or push the population closer to water and sewer service
- All development should be concentrated where infrastructure can or will easily support development
- Remain in the water and sewer service areas to limit development costs and preserve undeveloped land
- Keep existing sewer systems for those using them but make it hard to expand service area
- Require sewer for commercial uses, or provide a plan to hook up within a decade
- They should coincide with water availability
- Need to facilitate partnerships with existing districts that are near and could eventually combine
- Only permit where currently available
- Water and sewer where there is growth management

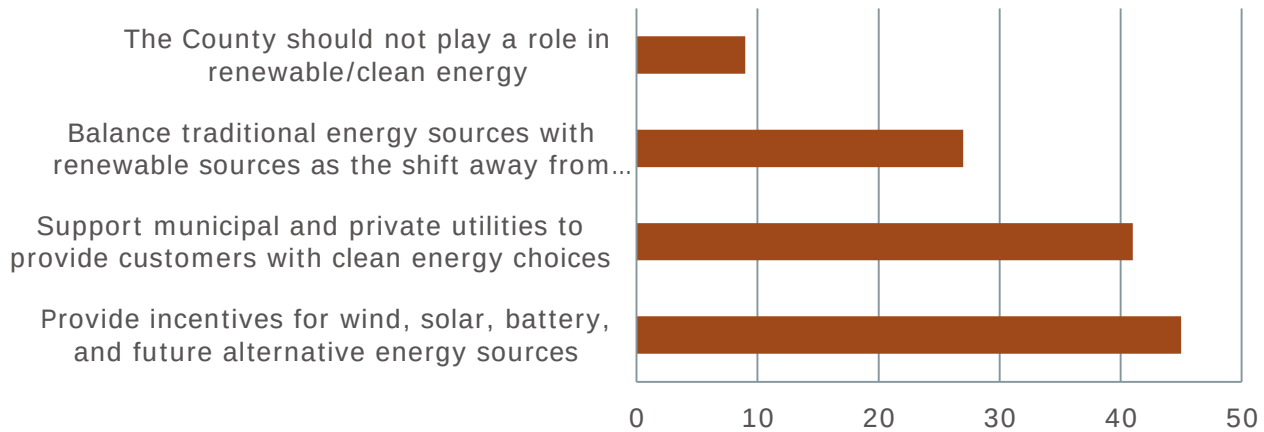
2. To what extent should the County coordinate with water/sewer districts to address capacity expansions? (check all that apply)



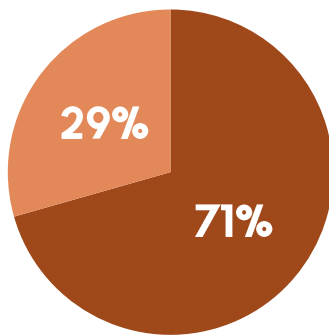
Other/write-in

- Incentivize Ag in Larimer and Weld to increase water use efficiency. For example, grants for flood irrigation systems
- Involve Northern Colorado Water Association in the conversation

3. Should the County establish new policies for renewable/clean energy? What should be the policy direction? (check all that apply)



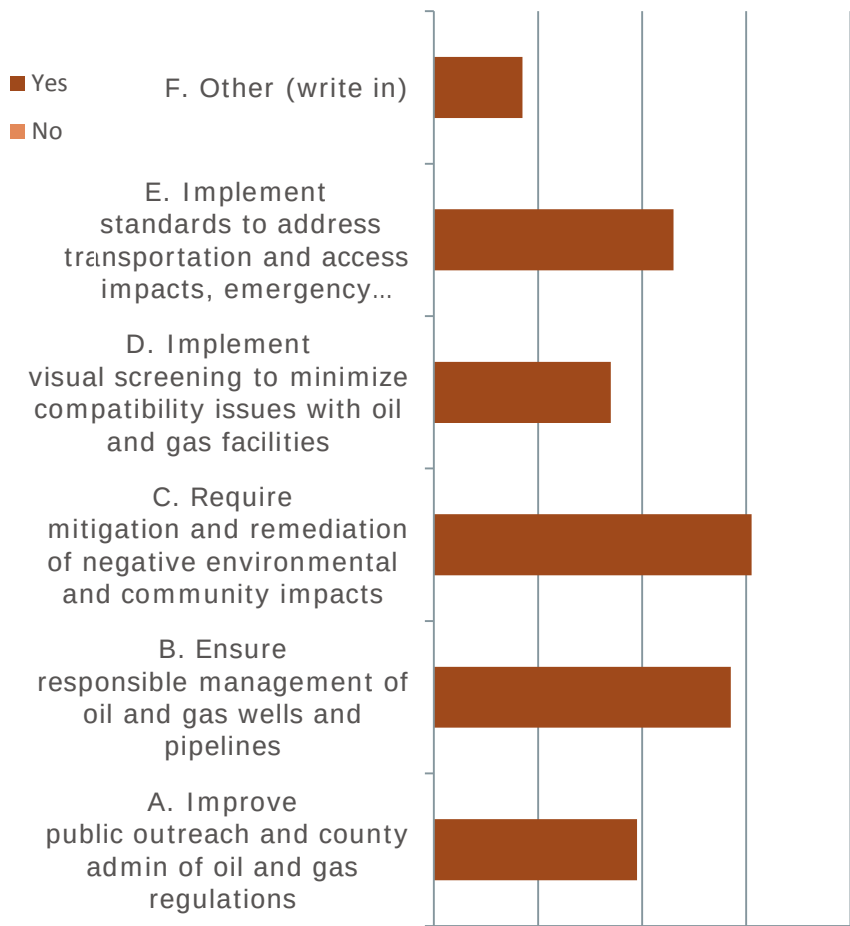
4. Should the County start regulating oil and gas facilities?



Other/write-in

- Leave it up to the state
- Not a big concern for Larimer County
- Balance state regs with local values and concerns
- Oil and gas taxes fund schools, fire districts, etc.
- County's role is to maintain the health of residents
- Minerals are private owned not public
- Create a large increase on severance taxes, and earmark these funds for inevitable

If yes, how?

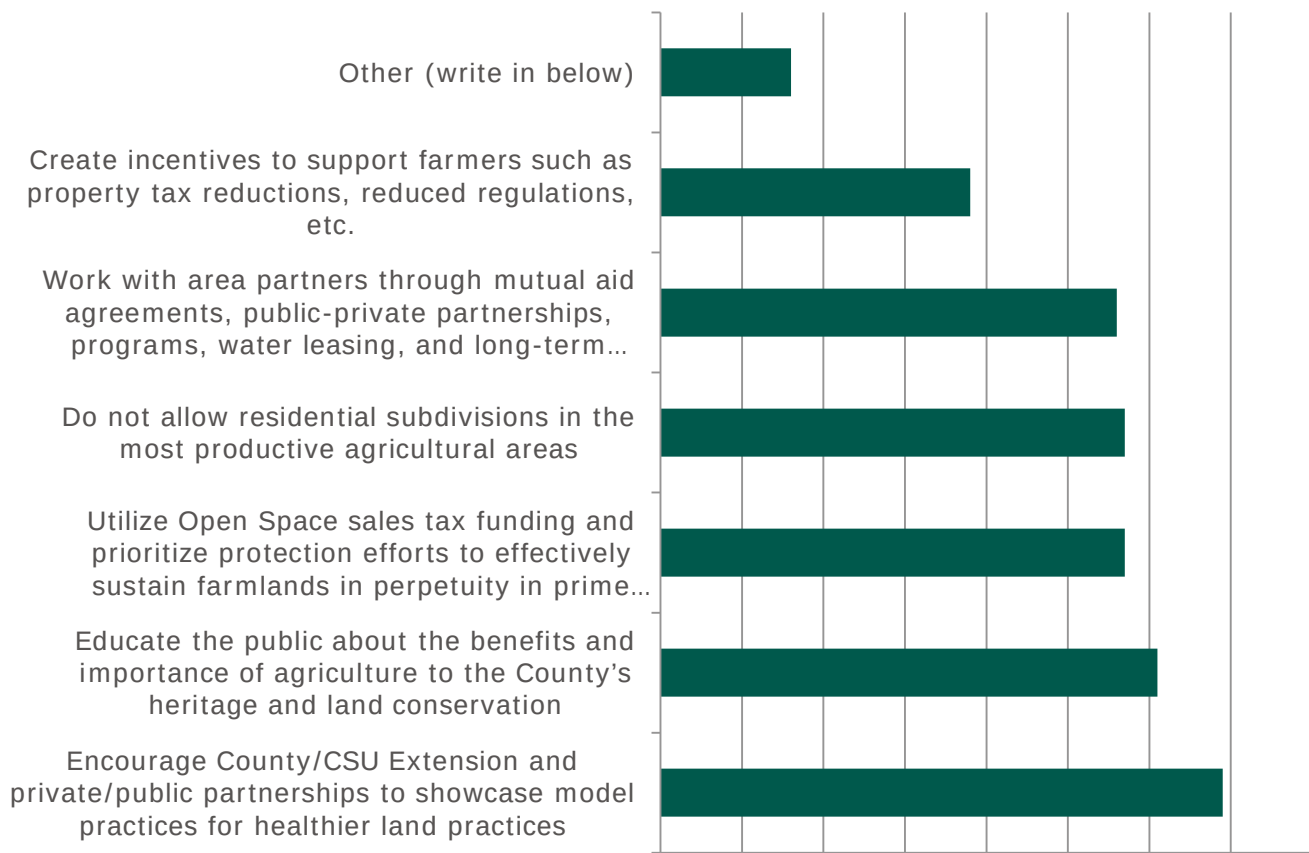


reclamation work and other environmental cleanup

- Regulate at both county and state
- State Regulation doesn't cover specific issues that Larimer County sees regularly. County should regulate more strictly.
- Private property is not the County's land but if someone else's way of life impedes my way of life, the County should keep me safe
- Impose setback requirements greater than the state minimum
- Limit any new drills sites
- Most oil and gas facilities away from schools and homes
- No oil/gas/mining near residential areas.
- Stop the oil and gas expansion. Stop the fracking.
- This is a water intense industry that also has the ability to destroy the groundwater

WATERSHEDS & NATURAL RESOURCES POLICY CHOICES

1. How can the County better retain, support and adapt to all forms of agriculture, from small farms to large-scale production for the next 100 years? (check all that apply)



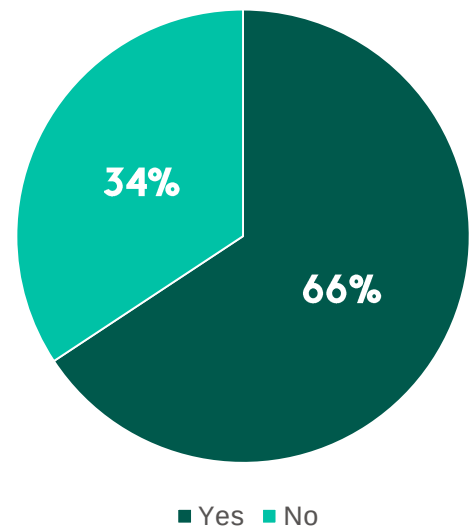
Other/write-in

- Encourage and support smaller, more specialized farms
- Incentivize new technologies that address efficiencies
- Revise "highest and best use" terminology to be more reflective of ecosystem goods and services rather than simple monetary value
- Leave it up to individual property owners
- "Agriculture" needs no help from the county
- Encourage organic farming and lowering the suffering of livestock
- Encourage small scale farmers that are living in properties that could be landmarked
- Prohibit new farms from establishing; encourage greater efficiency & eating less
- Working small farms can be built into subdivisions

2. Should the County allow agricultural and ranching supportive industries (packaging, processing, fabrication and distribution plants)?

If so, where:

- With advance outreach to neighbors with a process to ensure feedback is included
- With strong zoning regulations
- Waverly
- Need to support agriculture with supportive industries but with appropriate setbacks
- In the areas currently more heavy agricultural areas
- Industrial uses are primary employers and should be encouraged
- along I-25, transportation corridors and/or rail lines
- No not allow processing and packaging – odor issues
- Close to existing non-farm development
- Given environmentally sensitive and contained development, allow market forces to operate.
- Do not allow commercial animal feeding farms
- Wherever they can do it without exceeding pollution standards (including odor) and where the infrastructure can support them

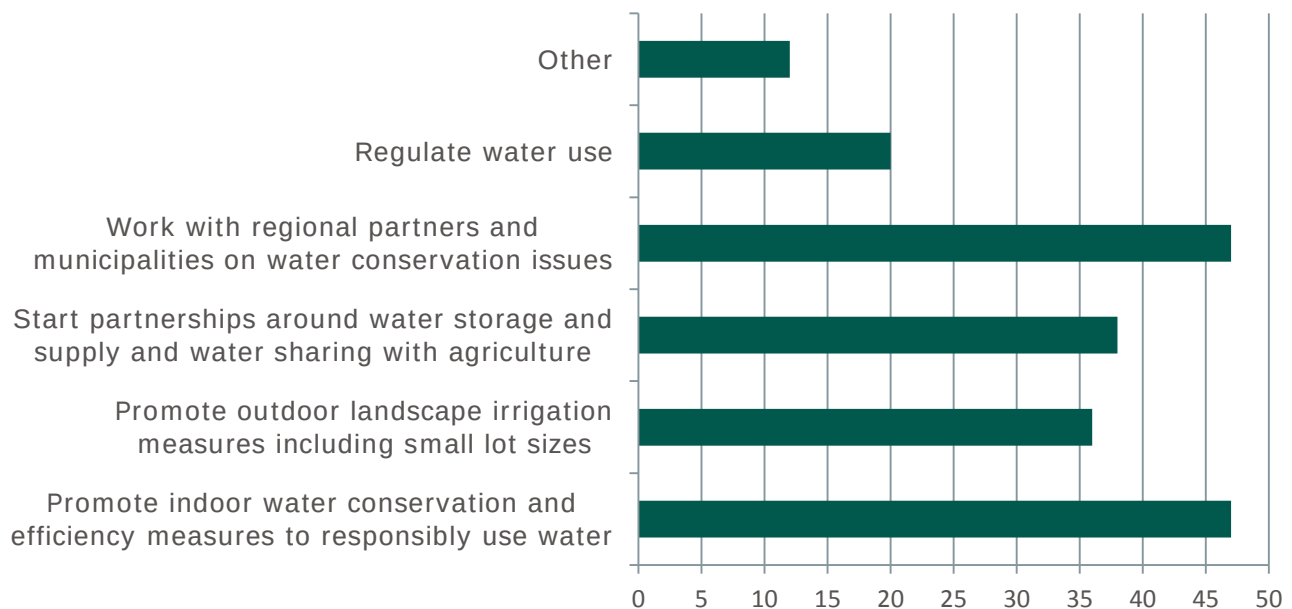


3. What additional actions can the County take to best support responsible use of natural resources?

- Avoid requirements for green belts
- Encourage subdivision contractors and neighborhoods to xeriscape
- Don't build subdivisions
- Leave the Poudre River as is
- Lead in water conservation
- Open up use to natural space for hunting, fishing, bicycling, hiking, etc.

- Pass legislation keeping CO water in CO, and not going to adjacent states
- Watch and support clean processing companies
- Water quality and wildlife monitoring
- Ensure open space usage does not exceed capacity
- Prioritize agricultural and natural lands as a valuable resource
- Educational outreach
- Invest in open space and disincentive the Buy and Dry methods
- Less growth equals less use of limited resources
- Purchase more open space lands

4. What role should the County play in water conservation? (check all that apply) (online question only)



Other/Write in:

- Conduct outreach to neighbors with a process to ensure feedback is included

STRATEGIES BRAINSTORM IDEA WALL INPUT

- Address affordable housing east and north of Wellington, Fort Collins airport runway, Hughes Stadium area
- Citizen grievance procedure with provided representation
- Complete Streets Program focusing on areas near city limits first
- Larimer Broadband Program focused on areas of the County have outdated internet infrastructure (mobile home parks)
- Make affordable, reliable, tiered broadband a public utility available to everyone
- Pave parking lot south of McKee Hall and The Ranch
- Need a way to sign up for more information on county topics
- Affordable and attainable housing
- Protect wildlife
- Televise Admin Matters
- Improve cell service in the foothills
- Need to fund, improve/expand existing storage, build new storage, and do the vertical tube reactor for water
- Connect urban areas to open space trail systems to provide access to soft-surface trail systems without having to drive
- Anything to keep agriculture/hobby farms viable is worthy. Incentives for land acquisition for young farmers, partnering with CSU when possible, encouraging value-added activities, and revising code for impact-based conditions
- Protect rangelands through more conservation easements
- Need dog parks and/or locations to take a dog off-leash
- Explore village concept to organize communities around common activities, with local governance and codified defense against aggressive adjacent municipalities, and a community center with very limited commercial. Community separators can help achieve this goal
- Provide additional soft-surface multi-use single track trails and consider new trails connecting paved and soft-surface trail systems to reduce the need to drive
- Keep Extension Service alive and well
- Think creatively about potential senior services in rural areas, potentially through community centers in “village” clusters
- Look for alternative energy solutions for the future
- Community separators for quality of life, community/village identity retention, wildlife habitat and corridors, functioning natural lands, views, and agricultural viability
- Take a “No Adverse Impact” approach to floodplain management in which no action of any community or property owner, public or private, is allowed to adversely affect the property or rights of others
- Keep local agriculture & livestock practices viable. Public/private partnerships are crucial to maximize success of supportive programs
- ADU's can be beneficial, but may need oversight to ensure properties with ADUs don't become a de facto sprawling mess later on
- Don't allow development in high wildfire hazard areas

DRAFT PLAN PUBLIC REVIEW SUMMARY

Meeting:	Plan Debut Event #1	Plan Debut Event #2	Draft Plan Online Activities
Date:	May 7, 2019	May 13, 2019	May 1 – May 31, 2019
Time:	5:30 pm	5:30 pm	
Location:	Larimer County Loveland Center, Loveland	Larimer County Courthouse, Fort Collins	www.LarimerCompPlan.com



OVERVIEW

A full draft Larimer County Comprehensive Plan was released on May 1, 2019. Community members were invited to review and comment on the draft through May 31, online, at two public open house events, and at 7 staff presentations throughout the month.

This draft builds on the public input received at a dozen community events, online questionnaires, and committee meetings over the last two years. The comments and discussions during this public review period were positive generally show strong support for the Plan.

GATHERING FEEDBACK

The draft document was available online to explore, comment on, and download.

Two public events were held to understand community opinions regarding the draft Plan and the recommendations made within the Plan. These open-house events provided residents with an opportunity to provide direct comments, indicate support, or ask questions. Also provided was the opportunity to speak with members from the project team (county and consultant staff) regarding their questions and concerns.

Thirty-six residents took part in the draft plan debut events and the plan received almost 400 views online with 248 comments provided digitally, with more comments emailed and mailed in.

7 Staff Presentations

36 Open House Participants

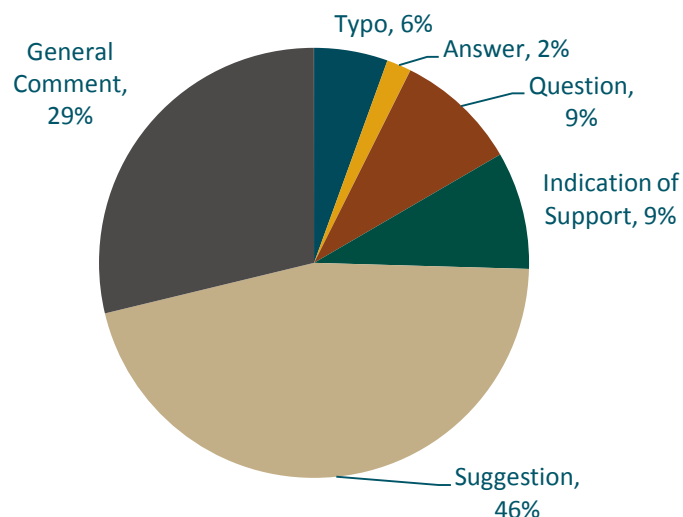
397 Online Reviewers

248 Comments on Draft



COMMENT ANALYSIS

Comment Type	Number	Percent
Typo	15	6%
Answer	5	2%
Question	25	9%
Indication of Support	24	9%
Suggestion	124	46%
General Comment	78	29%



PRIORITIZED TOPICS

The most common topics of the public comments on the draft plan included housing (tiny homes and accessory dwelling units), mineral extraction, local food systems, and small scale agriculture. Included below is a brief summary of the comments for each of the main issues:

Accessory Dwelling Units (ADUs): Public comments demonstrated strong support for ADUs and a desire to specify the intention to allow ADUs as rentals while also highlighting their benefits in relation to reducing the amount of development within the Wildland Urban Interface (WUI).

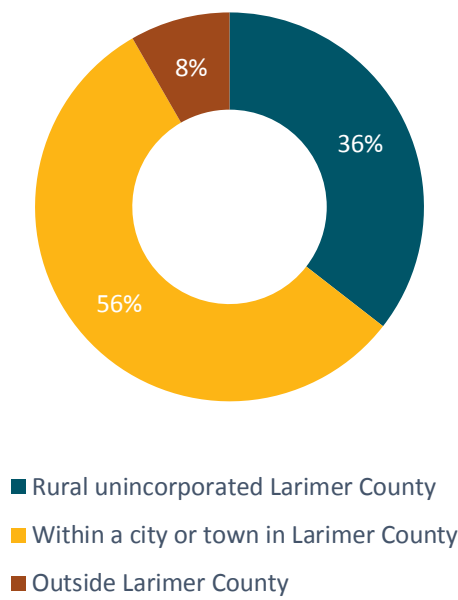
Tiny Homes: Public comments indicated a desire to include “tiny homes on wheels” when discussing tiny homes. Additional comments indicated a desire to see tiny homes on wheels allowed as ADUs and as rentals.

Mineral Extraction: Public comments cited mineral extraction, primarily gravel mining, as being largely left out of the draft. Other comments highlighted the industry’s importance to the County’s economy and that it should be reflected in the framework map.

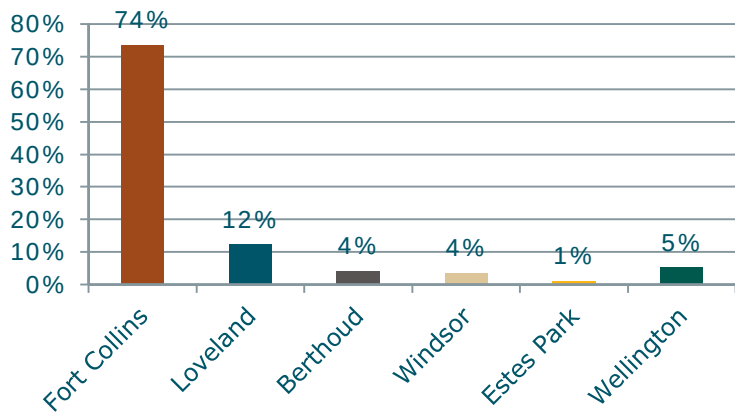
Local Food Systems: Consider developing a strategy related to the County’s role and overall support for a regional food systems program.

Small Scale Agriculture: Develop a new policy indicating small scale agriculture is supported by new code language. Additionally, add a strategy related to clarifying zoning and exemptions for small and mid-sized agricultural operations that are not economically viable.

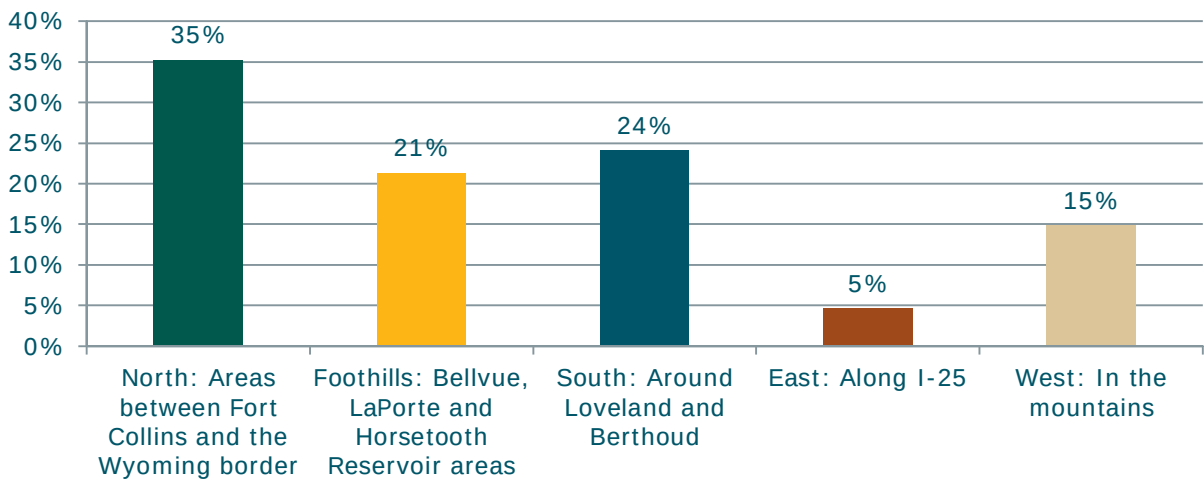
WHO PARTICIPATED?



In which city or town?

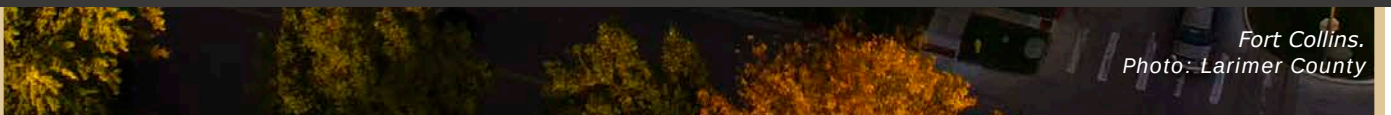


Where in the rural unincorporated County?





APPENDIX E: COUNTY AND MUNICIPAL GROWTH PROJECTIONS



Fort Collins.
Photo: Larimer County

APPENDIX E: COUNTY AND MUNICIPAL GROWTH PROJECTIONS

OVERVIEW

Since the last Master Plan twenty years ago, the County **increased nearly 50 % in population** from roughly 234,000 residents (1997) to 349,079 (2018 estimate).

Job growth has been equally impressive and a significant driver of population growth since the great recession.

Larimer County will add approximately 150,000 new residents by 2040.

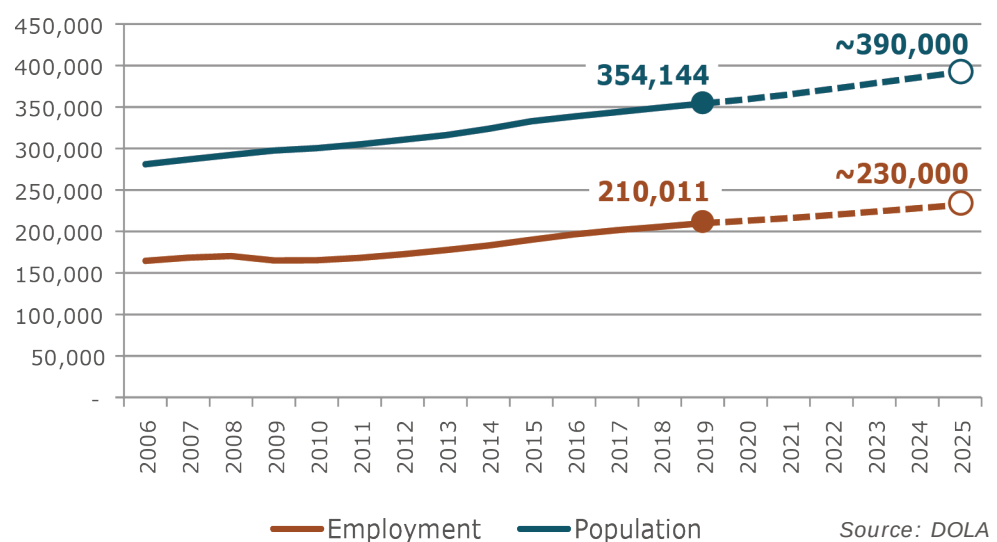
More recent projections by Larimer County municipalities indicate growth is exceeding state forecasts.

The project team performed a capacity analysis to accomplish the following:

- Verify the most up-to-date population and land supply (i.e. entitlement inventory) information from the County's municipalities,
- Calculate the expected absorption of projected growth into incorporated areas, and
- Evaluate the County's capacity to absorb additional growth into unincorporated areas based on existing unbuilt residential entitlements.

Almost all of the forecasted growth is expected to be attracted to and accommodated within cities and towns, according to information provided. Those cities with Growth Management Areas (GMAs)—Fort Collins, Loveland, Windsor, and Berthoud—expect to grow to annex most of the remaining unincorporated lands within their GMAs during the 20-year timeframe. Beyond the 20-year timeframe, Timnath and Wellington expect to expand past their Community Influence Areas.

Figure 1. Larimer County Employment and Population Trends



POPULATION PROJECTIONS

The capacity analysis compared projections and figures provided by the Colorado Department of Local Affairs (DOLA) and the North Front Range Metropolitan Organization (NFRMPO) as its foundation, and updated current and projected population numbers through 2040 with more recent figures provided by municipalities. These models are the best available estimates based on a number of assumptions, such as land availability, future land use, and continued economic growth and water supply.

DOLA data served as the basis for the 2017 population numbers, and NFRMPO data was utilized for 2040 population projections. Each municipality was contacted to update or defer to the 2040 NFRMPO figures. Notes indicate important information gathered from these interviews. Because Berthoud, Johnstown, and Windsor are all located in both Weld and Larimer Counties, only the Larimer County portion of the populations is utilized in the analysis. These updated 2040 projected numbers resulted in an estimated population of 461,202 that is expected to be accommodated within incorporated areas. See Table 1.

Key Takeaways

- Fort Collins, Timnath, Wellington and Windsor predict faster growth than the NFRMPO. These municipalities are also planning to accommodate a larger population than projected by the NFRMPO within their planning areas.
- In 2017, 20% of Larimer County's population lived in unincorporated areas. No data exists on whether these residents are within or outside of GMAs, though it is estimated that the majority live within GMAs near urban populations.
- The unincorporated County population in 2017 already exceeds the NFRMPO 2040 unincorporated population projection.

Table 1. Population Projection Analysis

Municipality	2017 Population (DOLA)	2040 Population (NFRMPO)	2040 Updated Population Estimates (from municipalities)
Berthoud	6,828	24,258	24,258
Berthoud (within Larimer)*	6,762	18,974	18,974
Estes Park	6,276	22,181	22,181
Fort Collins	167,000	229,473	236,903
Johnstown	15,825	33,056	(unavailable)
Johnstown (within Larimer)*	833	12,726	12,726
Loveland	76,797	118,235	107,971
Timnath	3,312	23,234	30,000
Timnath (within Larimer)*	3,003	21,110	27,204
Wellington	9,501	9,629	20,000
Windsor	26,319	55,627	56,970
Windsor (within Larimer)*	7,042	8,055	15,243
Incorporated Total	277,214	440,383	461,202
Unincorporated Total	66,639	52,700	74,554
Larimer County Total	343,853	493,085	535,756

+Totals only include the Larimer County portion of the population

*Note: Johnstown information was not available, therefore NFRMPO 2040 projected numbers were utilized in the analysis.

LAND SUPPLY ANALYSIS

To calculate the population accommodated within unincorporated areas, unbuilt residential entitlements (as of 2018) were analyzed to understand where growth will likely be absorbed within the unincorporated County and within municipalities. Unbuilt residential lots were subtotaled by Framework Categories and municipality to represent where growth would most likely occur in Tables 2 and 3.

Population was estimated through the use of different average household sizes based on Census block group data:

- Unincorporated Mountain Planning Area Average Household Size (2016): 2.26
- Unincorporated Front Range Planning Area Average Household Size (2016): 2.59

- Municipalities with Community Influence Areas (Timnath, Johnstown, Wellington) Average Household Size (2017): 2.93. This larger household size is due to their large stock of market-supported bedroom housing.

In Table 2, the number of unbuilt residential parcels within County subdivisions are attributed to each Framework Category, and then multiplied by the respective average household size. Most of the unbuilt entitled lots lie in the Mountains & Foothills (2,098) and LaPorte, Red Feather Lakes, and the Region Between Fort Collins and Loveland Planning Areas. Table 3 shows the number of unbuilt residential parcels reported by each municipality and corresponding population.

Table 2. 2018 Land Supply Outside of GMAs (Unbuilt Residential Parcels) and Population Capacity Analysis

Framework Categories	2017 Population (DOLA)	2040 Population (NFRMPO)
Mountains & Foothills	2,098	4,741
Rural	186	482
Urban/Rural Interface	20	59
Industrial	0	-
Agriculture & Ranching	19	49
Natural Resource	143	323
Planning Areas	873	2,261
Outside of GMAs Areas Total	3,342	7,915

Table 3. 2019 Municipal Land Supply and Population Capacity Analysis

Municipality	Estimated Unbuilt Residential Parcels (2019)	Additional Population Capacity (2019)
Berthoud	(not provided)	-
Fort Collins	5,772	14,199
Johnstown	(not provided)	-
Loveland	4,502	10,805
Timnath	6,097	17,864
Wellington	1,166	3,451
Windsor	1,977	5,437
Incorporated Areas Total	19,514	51,756

Key Takeaways

- Nearly 8,000 new residents can be accommodated in the unincorporated County without any further entitlements.
- Draft recommendations in the Comprehensive Plan may lead to additional unit capacity in the County.
- Municipalities are positioned to accommodate more than 51,000 (Table 3) new residents without any further entitlements.

EXPECTED DISTRIBUTION OF GROWTH

2040 population estimates for incorporated and unincorporated areas range from 484,597 (DOLA) to 493,085 (NFRMPO) to 535,756 (municipalities). Using the more aggressive 2040 municipality estimate, this could result in an increase of 183,988 residents within municipalities. Municipalities are actively planning to accommodate that population. The more conservative 2040 DOLA estimate could be more readily accommodated within municipalities, who are planning for 50,000 more residents than DOLA projects.

If the 2018 supply of 3,342 unbuilt parcels outside of GMAs were added to municipal population estimates, only 4% of all future growth would locate in the unincorporated County (see Table 3). Tables 2, 3, and 4 do not take into account future residential entitlements and the associated increase in population for unincorporated areas.

Table 4. Estimated Growth Capacity

Location	Estimated 2040 Population Increase*	% of 2040 Population Increase
Unincorporated County (from Table 2)	7,915	4.1%
Municipalities and GMAs (from Table 1)	183,988	95.9%
Total	191,903	100 %

*Updated Municipal Population Estimates, Table 1.

Key Takeaways

- Municipalities are actively planning to accommodate 40,000 to 50,000 more people than NFRMPO and DOLA estimates.
- The capacity analysis assumes that unincorporated areas could, at a minimum, absorb growth from the development of unbuilt residential entitlements already in place. This reduces the necessity of unincorporated areas outside of GMAs to accommodate 2040 growth anticipated.
- If the current residentially entitled land supply were developed by 2040, cities and towns would absorb nearly 96% of the County's total forecasted population growth. The 4% of population growth the unincorporated County can expect to absorb is shown to be accommodated through the Framework Categories, indicating alignment between projections and proactive planning efforts.

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APPENDIX F: IMPLEMENTATION STRATEGIES

*Phase 1 Boards and Commissions Summit.
Photo: Larimer County*

APPENDIX F: IMPLEMENTATION STRATEGIES

This table is a compilation of all strategy ideas generated by the public, committees, and staff throughout the process. The numbers in the Framework columns refer to the number of the Principle that this strategy directly supports. For example, the Broadband Program directly supports Principle #2 in Economy, Principle #2 in Infrastructure, and Principle #3 in Health & Social.

Topic	Specific Strategies	Relevant Principle Number						Type	New or Continued
		Community	Economy	Health & Social	Housing	Infrastructure	Watersheds & Natural Resources		
ADUs	Strengthen code enforcement of ADUs				2			Process	Continued
ADUs	Update regulations for ADUs				2			Regulatory	Continued
ADUs	Identify other compatible locations for ADUs				2			Process	Continued
Agricultural/ Ranching District	Evaluate an Agricultural District concept and reevaluate zoning districts and property tax structure to support perpetual farming and agricultural uses in specific areas		2				2	Regulatory	New
	Create a pilot Agriculture District in rural areas where prime soils, irrigated agriculture and supportive infrastructure exist		2				2	Program; Capital Project	New
Agriculture	Develop a "Buy and Supply" program for agriculture/ farmlands						2	Program	New

<i>Agriculture</i>	Land purchase support program for new farmers with a specific, new funding base such as property tax or Ag District revenue	2			2		Program	Continued
<i>Agriculture</i>	Encourage County/CSU Extension partnerships to promote innovation in agriculture	2					Collaboration	New
<i>Agriculture</i>	Create a County/CSU partnership program to educate and encourage healthy soil and low water use farming practices, ecological restoration, and agricultural production on residual and conserved lands				2	x	Program; Collaboration	New
<i>Agriculture</i>	Implement Agricultural Enterprise Zones and the creation of a regional land and water bank	2			2	x	Program	
<i>Agriculture</i>	Clarify zoning and exemptions for small and mid-sized agricultural operations that are not economically viable	2					Regulatory	Continued
<i>Agriculture</i>	Consider a tax credit for property or assets leased for agricultural use. This will incentivize landowners to share resources with young or beginning farmers in the face of difficult agricultural business start up and the associated financial risk.	3					Program	New
<i>Agriculture</i>	Assist to fund a paid full-time employee who specializes in regional agricultural development. The focus of the employee will be to build economically viable local food systems that protect and regenerate Larimer County's natural resources.	2	2	3			Collaboration	New

[illegible]

<i>Broadband</i>	Continue the Larimer Broadband Program		2	3		2		x	Program	Continued
<i>Broadband</i>	Develop regulations to require installation of conduit to support the future provision of fast, reliable, and affordable high speed internet and broadband in new developments and connect to such services where available					2		x	Regulatory	
<i>Capital Improvement Plan/Asset Management Program</i>	As repair/replacement to electrical distribution powerlines are needed, bury them to minimize vulnerabilities					2		x	Capital Project	Continued
<i>Capital Improvement Plan/Asset Management Program</i>	Upgrade aging rural infrastructure and public facilities					3		x	Capital Project	Continued
<i>City/ County Collaboration</i>	Joint city/county staff meetings on unincorporated applications (not just referrals)	1, 4							Process	Continued
<i>City/ County Collaboration</i>	Update and renew GMA boundaries and associated IGAs ,and ensure they take into account community separator goals between cities	1, 4							Regulatory	Continued
<i>Code Compliance</i>	Streamline process of regulation enforcement							x	Process	Continued
<i>Community Separators</i>	Identify allowable uses and consistent design and development standards for community separators that are compatible with natural resource conservation	6					1	x	Regulatory	Continued

<i>Community Separators</i>	Increase the minimum lot size allowed within community separator areas	6				1	Regulatory	Continued
<i>Community Separators</i>	Use Cooperative Planning Areas as a tool to create areas that separate communities	1, 6				1	Regulatory	Continued
<i>Conservation Easements</i>	Expand use of conservation easements for working farms by providing new funding sources through an Ag District, special tax district, or other source		2			2	Regulatory	Continued
<i>Economic Development</i>	Strengthen the Business Creation, Retention, and Expansion Program		1				Program; x Regulatory	Continued
<i>Economic Development</i>	Strengthen the Grant/ Business Assistance Program to fund redevelopment of outdated commercial sites		1				Program	Continued
<i>Economic Development</i>	Develop a Regional Economic Development Plan that supports value-added agricultural and heritage tourism, and connects local agriculture to local food markets		1	3			x Plan/Study	New
<i>Economic Development</i>	Designate non-residential areas to protect from residential encroachment	6					Regulatory	New
<i>Egress</i>	Develop a Neighborhood Access Study/Secondary Egress Action Plan					5	x Plan	New
<i>Energy</i>	Form an Alternative Energy Board/Commission					4	Process	New
<i>Energy</i>	Provide incentives (i.e. tax breaks, grant funding, etc.) to support the development of renewable energy sources					4	Process	New

<i>Energy</i>	Develop a Larimer County Energy Plan				4				Plan/Study	New
<i>Energy</i>	Implement a residential and commercial solar program				4				Program	New
<i>Energy</i>	Require energy efficiency measures for new development in the Building Code				4				Regulatory	New
<i>Energy</i>	Investigate incentives or regulations to encourage solar installations				4, 6				Regulatory	New
<i>Fee Structures</i>	Evaluate impact fee for subdivisions and to address other infrastructure needs				3	1			Process	New
<i>Fee Structures</i>	Evaluate parkland fees and update on a regular schedule to increase over time						1		Process	Continued
<i>Fee Structures</i>	Utilize development fees for trail, bicycle, and pedestrian implementation			1				x	Process	New
<i>Floodplain Management</i>	Adopt a No Adverse Impact approach to floodplain management						3, 5	x	Regulatory	Continued
<i>Floodplain Management</i>	Develop a Flood Surge Plan that includes “receiving lands” along river corridors that can absorb storm surge overflow						3, 5	x	Plan/Study	New
<i>Floodplain Management</i>	Formalize a Floodplain Acquisition Program						3, 5	x	Program; Capital Project	New
<i>Floodplain Management</i>	Participate in the National Flood Insurance Program Community Rating System						3, 5	x	Program	New

<i>Floodplain Management</i>	Update floodplain regulations to regulate flood erosion hazard areas, update floodplain maps, and identify buffer setbacks to rivers, streams, and floodways and increase where feasible					3, 5	x	Regulatory	Continued
<i>Food Security</i>	Align County efforts with the Colorado Cottage Food Act and strengthen the County's role in the regional food systems.		3					Program	New
<i>Funding Mechanisms</i>	Develop regional funding sources to support regional transportation planning and implementation efforts				1		x	Process	New
<i>Funding Mechanisms</i>	Provide a stable funding mechanism outside the current county weed district boundary for education, cost-sharing, and compliance		2			1		Process	New
<i>Funding Mechanisms</i>	Expand weed district boundary to be county-wide		2			1		Regulatory	New
<i>Hazard Mitigation</i>	Develop a Wildfire Home Mitigation Program					1, 5	x	Program	New
<i>Hazard Mitigation</i>	Develop Forest Management and Fuels Reduction Programs					5	x	Program	New
<i>Hazard Mitigation</i>	Implement a county-wide Fire Code (aka WUI Code). Specifically, structures for human use or occupation shall not locate in severe wildfire hazard areas					5	x	Regulatory	New

<i>Hazard Mitigation</i>	Create an Overlay Zoning specifically related to natural hazards. Update wildfire, geologic, and floodplain GIS data and public maps with the best available datasets					5	x	Regulatory	New
<i>Health Care</i>	Partner with health care providers to offer mobile or shared facilities in rural areas		3				x	Collaboration	New
<i>Health Impact</i>	Require Health Impact Assessments to identify and evaluate public health consequences of a proposal and suggest action to minimize adverse health impacts and to optimize health benefits		3				x	Process; Regulatory	Continued
<i>Health Impact</i>	Encourage voluntary environmental public health conditions of approval in land use reviews which exceed existing federal, state, and local regulations		2						
<i>Health Impact</i>	Develop criteria for selecting applicable projects to conduct Health Impact Assessments		3					Regulatory	New
<i>Historic Preservation</i>	Develop Historic Preservation Guidelines							Regulatory; Plan/Study	New
<i>Historic Preservation</i>	Require that cultural resource sites and structures listed on State and National Registers of Historic Places and local landmarks be included in environmental reviews at the initial stages of development projects. The development review process shall consider options for preserving and protecting cultural and historic features and sites							Process; Regulatory	New

<i>Land Division</i>	Require connected development patterns that limit fragmentation or create narrow ribbons of undeveloped land					1	Regulatory	New
<i>Land Division</i>	Streamline land division processes to improve efficiency and ease of use			3			Process	Continued
<i>Land Division</i>	Require City/County coordination meeting for Planned Land Divisions			3			Process; Regulatory	New
<i>Land Division</i>	Update buffer requirements between residential and non-residential land uses			3			Regulatory	Continued
<i>Land Division</i>	Develop Subdivision Pattern Book			3			Regulatory	New
<i>Land Division</i>	Transition community character through varying types of subdivisions directly adjacent to existing incorporated areas and/or GMAs	6		3			Regulatory	Continued
<i>Land Division</i>	Evaluate larger landscape framework to ensure minimized fragmentation across parcel boundaries in land division processes			3		1	Process	New
<i>Land Division</i>	Design clustered rural subdivisions to avoid building sites in hazard areas, wetlands and riparian buffers, and highly visible areas such as ridgelines and open fields	6		3		5	Regulatory	New
<i>Land Use Code</i>	Consider a PUD regulation for rural areas	6		3			Regulatory	New

<i>Land Use Code</i>	Reevaluate Home Occupation and Accessory Rural Occupation provisions and allowances to remove barriers and ensure regulations support local employment opportunities and provide protections to farming/ag uses	1			2	Regulatory	Continued
<i>Land Use Code</i>	Evaluate commercial redevelopment provisions to remove barriers	1				Regulatory	Continued
<i>Land Use Code</i>	Reevaluate secondary or ancillary uses occurring on auxiliary land	1				x Regulatory	New
<i>Land Use Code</i>	Develop land use regulations that support small-business development and entrepreneurship in compatible locations	1				Regulatory	New
<i>Land Use Code</i>	Consider food production, particularly value added poultry (slaughter and processing), and direct sales of produced goods in agriculturally zoned properties as a Use by Right similar to Boulder, Weld, Jackson and Grand county codes and in compliance with state health and safety laws (i.e., Colorado Senate Bill 16-058 for poultry processing)	3				Regulatory	Continued
<i>Land Use Code</i>	Consider codified protection or exemption for low tunnels covered by hoops and row cover material used by agricultural operations.			3		Regulatory	Continued
<i>Land Use Code</i>	Extend and expand agricultural Uses by Right to FA1 zoned properties which will retain these rights and uses if annexed.	3				Regulatory	Continued

<i>Land Use Code</i>	Maintain new and existing agriculture operations by allowing on site slaughter and processing for farms in compliance with state health and safety laws, particularly by recognizing the Colorado State Bill 16-058 for poultry processing as applying to and taking precedent in Larimer County.			3				Regulatory	Continued
<i>Land Use Framework</i>	Maintain consistency with municipal future land use maps for areas within GMAs	4						Regulatory	Continued
<i>Land Use Framework</i>	Recommend minimum residential densities	3			3			Regulatory	Continued
<i>Land Use Framework</i>	Identify serviceable utility areas					2		x Regulatory	Continued
<i>Local Governance and Representation</i>	Create and empower formal citizen feedback channels (i.e., boards, commission, committees) for unincorporated areas including within GMAs	2						Process	Continued
<i>Local Governance and Representation</i>	Re-evaluate notification criteria for different project types and permits with an eye toward expanding transparency and citizen involvement	2						Process	Continued
<i>Mitigation Plans</i>	Wetland Mitigation Plans and Wildlife Mitigation Plans will continue to be required for any development project which does not avoid impacting these resources						1, 3	Plan/Study; Regulatory	New

<i>Monitoring</i>	Establish a process for identifying and monitoring key environmental factors to validate the success of environmental performance standards									Regulatory	New
<i>Monitoring</i>	Incorporate development monitoring into the Planning Department proposed work plans and budgets to provide consistency in monitoring and enforcement									Regulatory	New
<i>Oil and Gas</i>	Include mitigation efforts for oil and gas development					4				Regulatory	New
<i>Oil and Gas</i>	Evaluate oil and gas regulations to address setbacks from residential and non-residential development					4				Regulatory	Continued
<i>Oil and Gas</i>	Develop an Oil and Gas Inspection Program					4				Program	New
<i>Oil and Gas</i>	Create an Oil and Gas Overlay Zone for properties with facilities					4				Regulatory	New
<i>Public Education and Outreach</i>	Reduce impacts from use of residential and commercial fertilizers, herbicides, and other chemical pollutants to land and water by educating on best practices			2				4		x Program; Regulatory	New
<i>Public Education and Outreach</i>	Strengthen outreach to underrepresented populations	2								x Process	Continued
<i>Public Education and Outreach</i>	Locate social services offices and hours in rural communities and provide educational resources about availability/criteria			3						x Process	Continued

<i>Public Education and Outreach</i>	Create an educational program with Code of the West	2						x	Program	New
<i>Regional Organizations</i>	Encourage formation of a Council of Governments (COG) or expand the function of/transition the Northern Front Range Metropolitan Planning Organization (NFRMPO) into a COG to have oversight of special districts and transportation infrastructure	1						x	Process; Collaboration	New
<i>Standards</i>	Implement development standards for rural areas that distinguish between the rural mountain and rural Front Range, including water, sewer, fire protection, and access standards	6			3				Regulatory	New
<i>Standards</i>	Within GMAs, develop common standards for development such as the sign code, road standards, transit facilities, and sidewalk connections	4							Regulatory	New
<i>Standards</i>	Develop Dark Sky compliance standards			2					Regulatory	New
<i>Standards</i>	Create performance standards with a tiered system based on adjacent land use and planned development	6			3				Regulatory	New
<i>Standards</i>	Evaluate construction performance standards to improve water quality			2			4	x	Regulatory	Continued
<i>Standards</i>	Implement Low Impact Development (LID) strategies			2			4	x	Regulatory	New
<i>Standards</i>	Create design guidelines that represent rural character for non-residential uses in rural areas	6	1						Regulatory	New

<i>Standards</i>	Allow for development of mobile home parks in rural areas and create regulation around location, quality of homes requirements, accessible layouts, landscaping, etc.			1, 2			x	Regulatory	New
<i>Standards</i>	Develop design guidelines or development standards that address protection of key scenic vistas and view corridors county-wide							Regulatory	New
<i>Stormwater Management</i>	Develop a Stormwater Management Plan for the unincorporated Front Range					4	x	Plan/Study	New
<i>Stormwater Management</i>	Strengthen the MS4 Program (Municipal Separate Storm Sewer System)					4	x	Program	Continued
<i>Subarea Planning</i>	Develop Subarea Plans that tailors policies, zoning, and initiatives to location-specific needs	5					x	Regulatory; Plan/Study	Continued
<i>Support Services</i>	Partner with educational institutions on land use planning, transportation infrastructure, connectivity, Safe Routes to Schools, and school facility retention and expansion		1				x	Collaboration	New
<i>Trails</i>	Require landowners to dedicate easements for trail connections, where appropriate for local and regional connections			1		3		Regulatory	New
<i>Trails</i>	Emphasize recreational amenities and trail connections through the land division process			1		3		Regulatory	Continued

<i>Trails</i>	Review regulations for trail dedication requirements		1					Regulatory	Continued
<i>Trails</i>	Build priority multi-use trail connections in the Open Lands Master Plan by requiring dedication of trail easements and construction dollars as a condition of development review		1					x Capital Project	Continued
<i>Transferable Density Units</i>	Implement/expand the Transferable Density Units Program. Designate "receiving areas" inside GMAs, Municipal Planning Boundaries and Subarea Planning Boundaries that are appropriate for higher density development and the availability of facilities and services. Designate "sending areas" in sensitive natural areas, hazard areas, and community separators	6			3	5		x Program	Continued
<i>Transit</i>	Build new and retrofit existing bus stops and transit facilities where appropriate that meet city transit authority and ADA standards		1					x Capital Project; Collaboration	New
<i>Transportation</i>	Develop a Regional Travel Demand Management (TOM) Program. Encourage all major employers to adopt a TOM program and adopt incentives for promoting use of alternative modes of transportation and for implementing telecommuting programs		1, 2					x Program	
<i>Utilities</i>	Create public/private partnerships or an advisory body for district providers and County					2		x Process; Collaboration	New

<i>Utilities</i>	Create a utility provision “portal” through the County to keep utility provider information up-to-date				2					Process	New
<i>Utilities</i>	Evaluate GMAs to reflect utility provision service areas	1, 4				2				x Regulatory	Continued
<i>Utilities</i>	Convene water/sewer districts to establish consistent service standards	1				2				x Regulatory	
<i>Utilities</i>	Update the Building Code to require heat pumps whenever and wherever practicable					2				Regulatory	New
<i>Water</i>	Develop a Water Quality Management Plan			2				4	x	Plan/Study	New
<i>Water</i>	Develop a Water Resources program to work with water agencies on conservation, quality, and efficiency incentives and initiatives							4	x	Program	New
<i>Water</i>	Evaluate gray water uses and systems			2				4			
<i>Wildlife</i>	Utilize the Statewide Wildlife Action Plan and Colorado Natural Heritage program as resources to identify and protect wildlife species and their habitats as part of county planning processes and to protect significant conservation values on land being considered for rural land use and conservation development							1	x	Process	Continued

<i>Wildlife</i>	Partner with related non-profit and environmental groups to identify and prioritize significant wildlife habitat areas to inform how to minimize development or land use impacts to these lands or species					1	x	Collaboration	New
<i>Workforce</i>	Develop a Workforce Development Plan that supports additional training opportunities like apprenticeships and exposure to occupations in skilled trades	1					x	Plan/Study	Continued
<i>Zoning</i>	Amend zoning districts to allow for compatible economic development in rural areas	3	1					Regulatory	New
<i>Zoning</i>	Amend zoning districts to include a “mixed-use” designation that will support a “village pattern”	6	1		3			Regulatory	New
<i>Zoning</i>	Revise non-residential zoning district language for consistency, clarity, and allowable uses		1					Regulatory	Continued
<i>Zoning</i>	Allow for zoning/use changes to provide for neighborhood services		1	3				Regulatory	Continued

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LARIMER COUNTY WATER MASTER PLAN

Larimer County
Colorado

APPENDIX G: LARIMER COUNTY WATER MASTER PLAN

ADOPTION DRAFT
NOVEMBER 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.**

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Board of County Commissioners

- John Kefalas
- Kristin Stephens
- Jody Shadduck-McNally

Planning Commission

- Patrick Rowe, Chair
- Lisa Chollet, Vice Chair
- Conor Duffy, Secretary
- Jordana Barrack
- Nick Casady
- Adam Eggleston
- Shelby King
- Jon Slutsky
- Jon Weiss
- Bob Choate (through Jun. 2024)
- Anne Johnson (through Jun. 2024)

Water Advisory Group (WAG)

- Jordana Barrack, Planning Commission
- Gale Bernhardt, Open Lands Advisory Board
- Dan Brown, Fischer Brown Law
- Anna Cloud, Environmental and Science Advisory Board
- Cory Dick, Coalition for the Poudre River Watershed
- Julie Dubin, Peaks to People – Wildfire Ready Action Plan
- Donnie Dustin, City of Fort Collins
- Wilynn Formeller, Estes Valley Watershed Coalition
- Kevin Gertig, City of Loveland
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- Pat Wells, Northern Colorado Water Conservancy District

Technical Advisory Group (TAG)

- Doug Biggie, West Fort Collins Water District
- Sandra Bratlie, Fort Collins Loveland Water District
- Tom Chaffin, Northern Colorado Water Association
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- Bob Longworth, Pinewood Springs Water District
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- Randy Siddens, East Larimer County Water District
- Meagan Smith, Town of Wellington Water and Sewer

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- Agricultural Advisory Board
- Environmental Science and Advisory Board
- Equity, Diversity, and Inclusion Advisory Board
- Open Lands Advisory Board
- Parks Advisory Board

Larimer County Staff

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- Danielle Reimanis, Water Master Plan Coordinator
- Daylyn Figgs, Natural Resource Director
- Eric Tracy, Senior Civil Engineer
- Josh Roberts, Mitigation Coordinator
- Jenny Axmacher, Planning Manager

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- SWCA Environmental Consultants



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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.

STAY INFORMED

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

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.

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.

Metric	Description		Implication
POPULATION GROWTH	56%	Population growth from 2017 to 2040.	Projections indicate that the population size in Larimer County will increase by 56%, with the population estimated to reach 535,756 by 2040. As population growth increases, water use is likely to increase as well.
	96%	Percentage of population growth contributed to municipalities, compared to unincorporated areas, through 2040.	
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 wells has increased.
	13,090	Number of water wells	

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

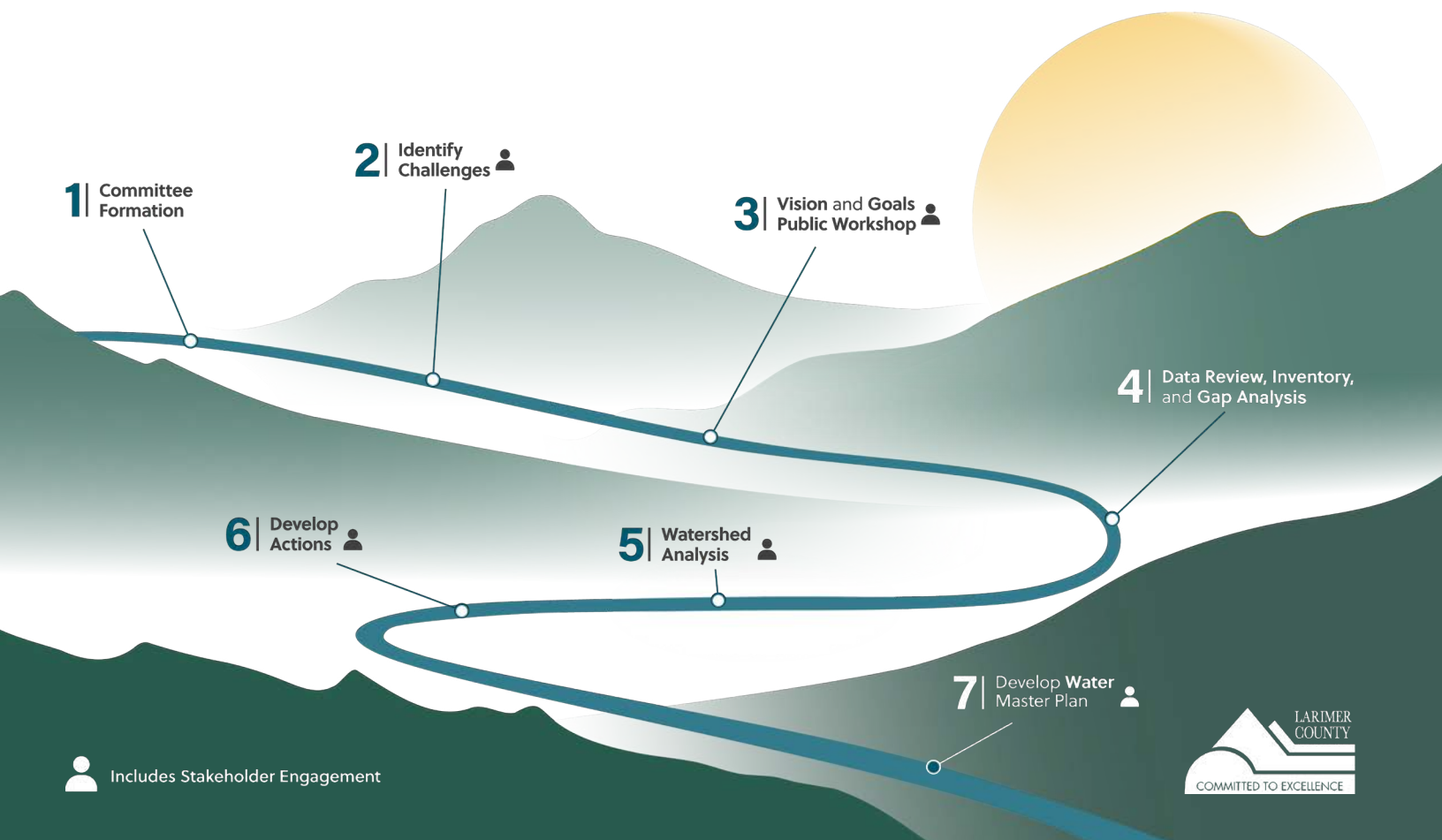


Figure 1.2. The Water Plan process

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 non-profit 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

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).



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

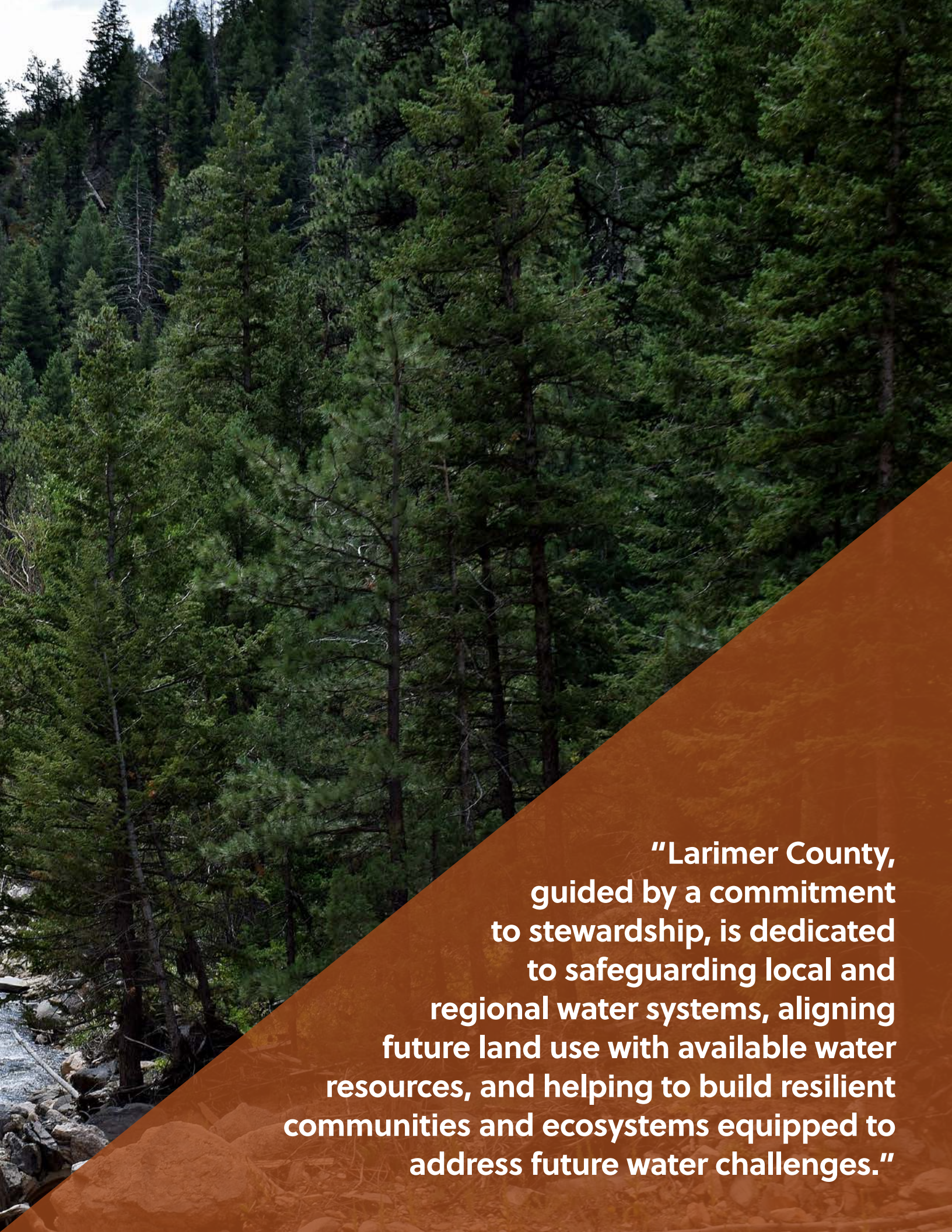
VISION AND GOALS

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 1.

Minimize the threat to watersheds from hazards

(i.e., floods, severe wildfires)

Improve ecological conditions to enhance water quality, while increasing resilience focusing on the high-risk watersheds identified in the Water Master Plan.

OBJ. 01

Identifying grants, funding opportunities, and restoration support groups to improve the conditions of fire-scarred areas while proactively helping to increase the ecological resilience of unburned forested areas.

OBJ. 02

Collaborate with local, state, and federal agencies, community organizations, education institutions, and other relevant stakeholders to incorporate risk mitigation strategies and actions into existing planning processes.

OBJ. 03

Integrate water-related hazard mitigation strategies into ongoing and future planning processes, such as the Hazard Mitigation Plan, Climate Smart Plan, Comprehensive Plan, and Larimer County's Land Use Code.

GOAL 2.

Communicate and Collaborate to Support Water Sustainability

Strengthen communication, coordination, and collaboration among water-related organizations, stakeholders, and departments to improve the sustainability and resilience of our communities and their water resources.

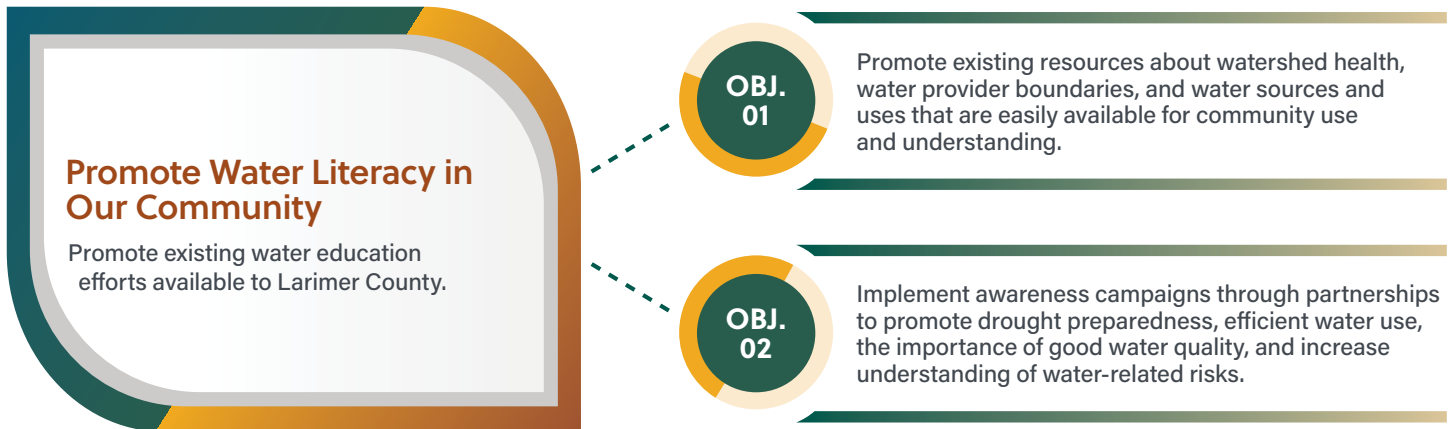
OBJ. 01

Establish relationships with partner organizations to enhance communication channels and foster collaboration.

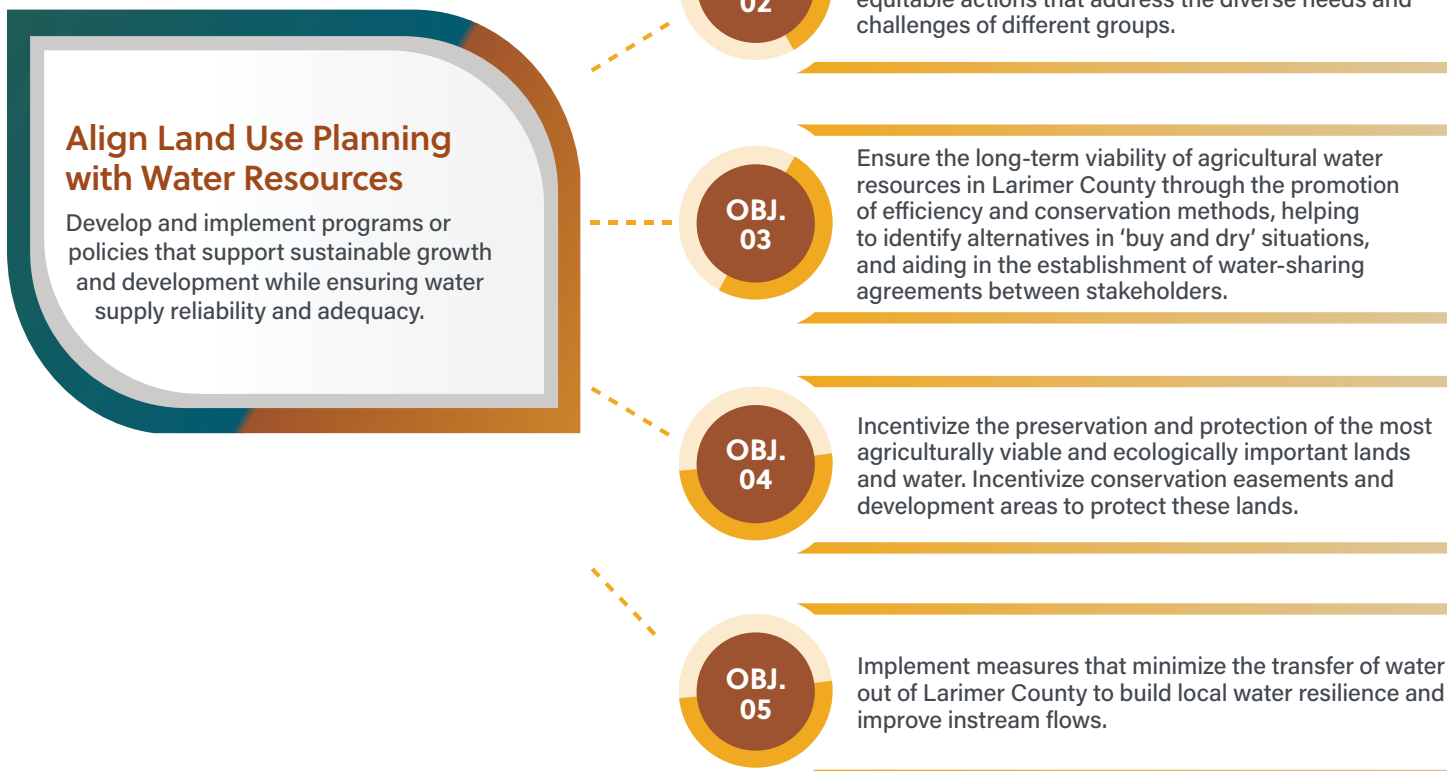
OBJ. 02

Create a communication strategy that enables effective collaboration and information sharing between Larimer County, municipalities, and water utility providers.

GOAL 3.



GOAL 4.



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.

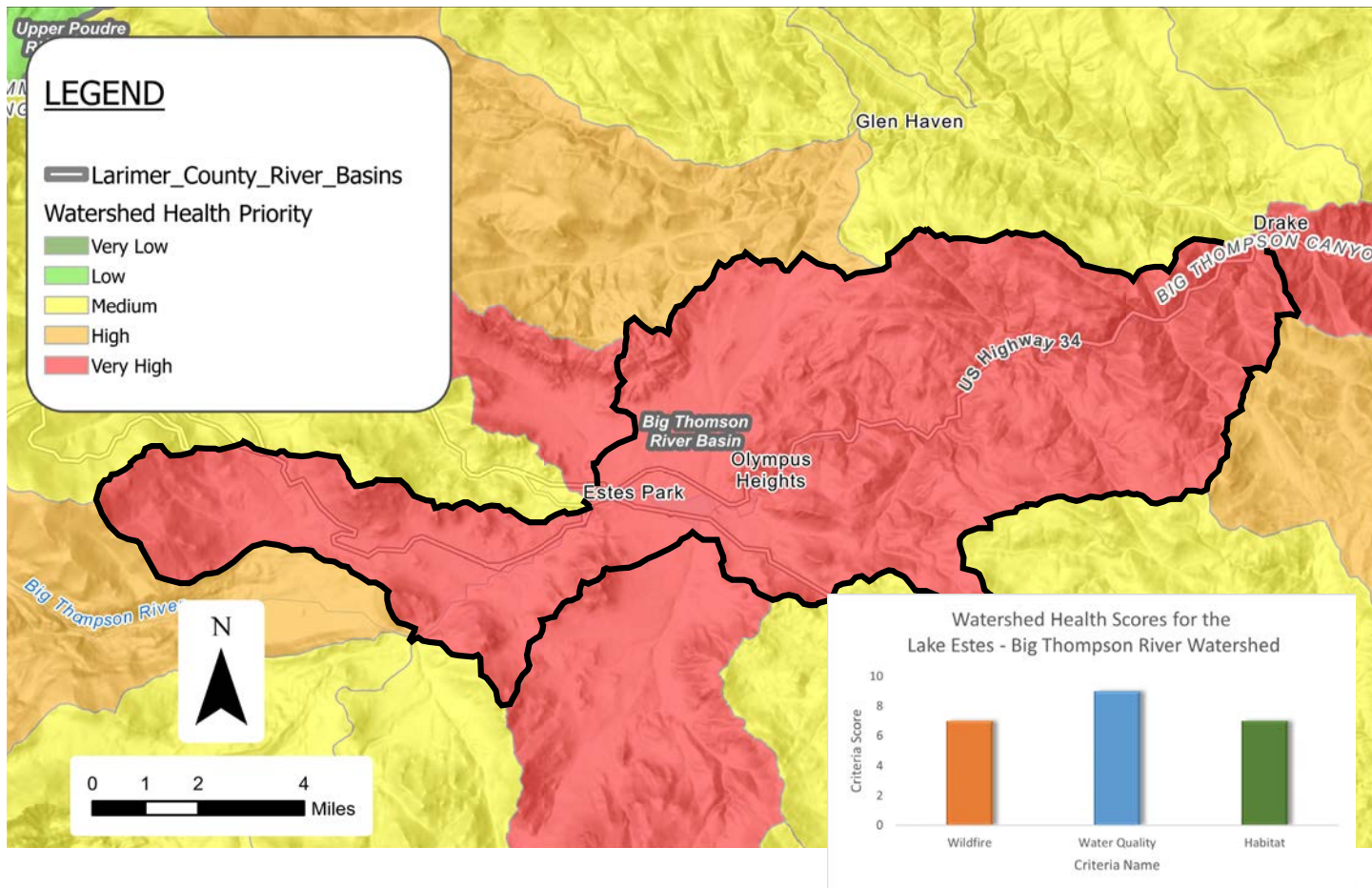


Figure 4.1. This figure shows an example watershed along the Big Thompson River selected as a Focus Area for Watershed Health. The scores given to this watershed show that all three influencing factors (high severity wildfire, water quality, and habitat) are a concern in this area. Maintaining good water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

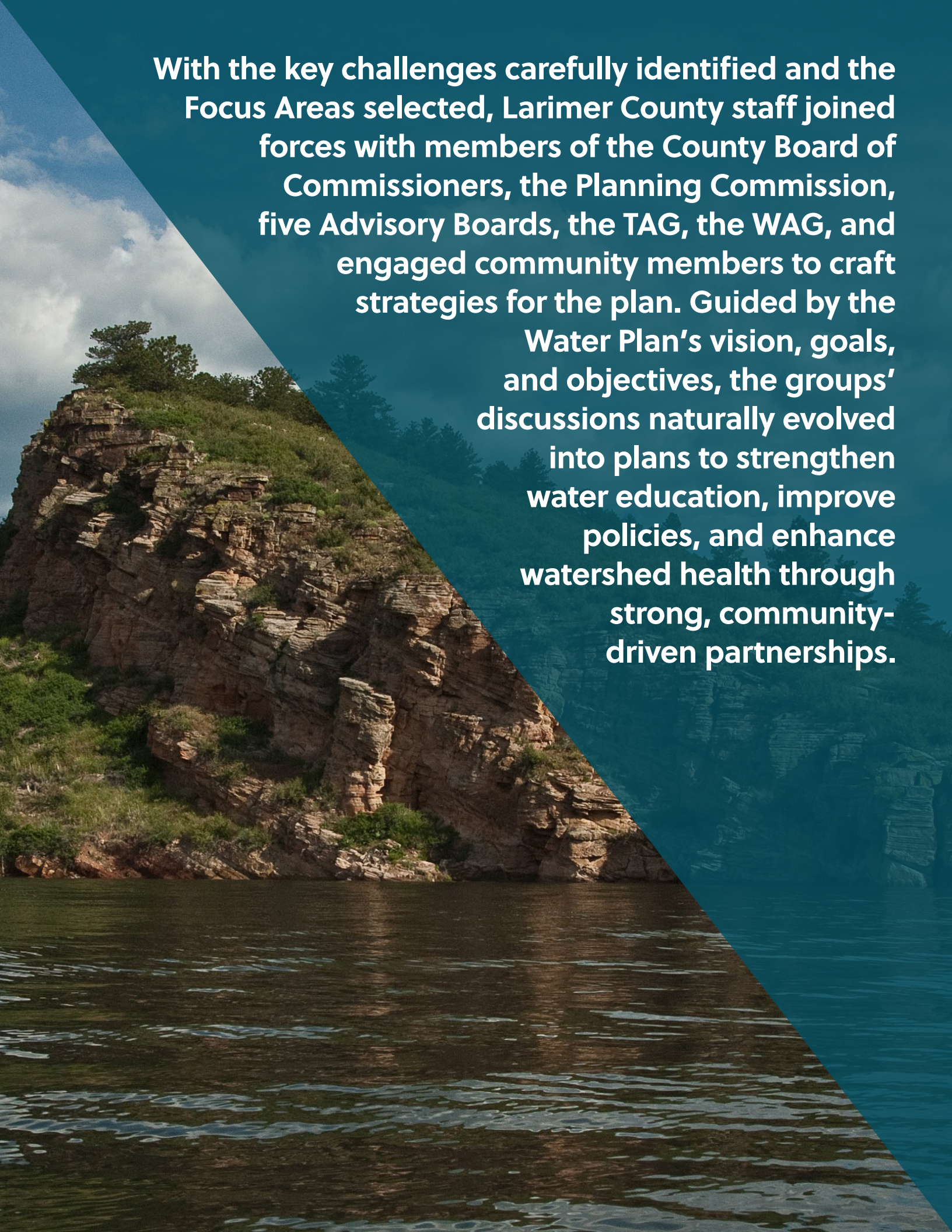
DEVELOPING STRATEGIES

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, community-driven 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.	- Make sure all water providers submit the same type of information during the county's review process and include them in zoning discussions. - Find projects that were approved but not built because of water limitations and work with providers to solve problems.	Goal 2: Objectives 1 & 2 Goal 4: Objective 1	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.

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.

Promote Water Literacy in Our Community

Strategic Actions

- 7) Protecting Water To Promote a Viable Agricultural Economy
- 9) 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



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

TIMEFRAME: 1-5 Years

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

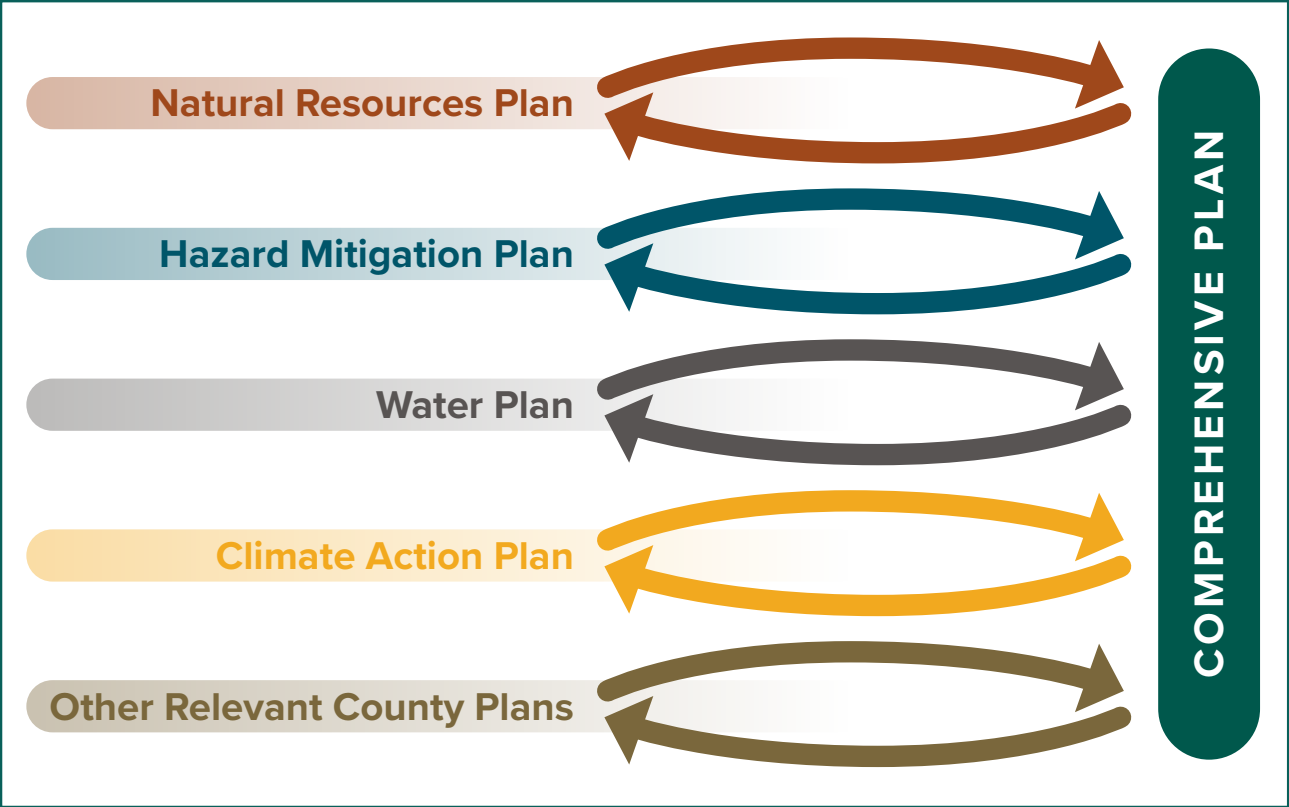
Why It’s Important:

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.

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

SUMMARY	
Level of Total Investment	● ● ○ ○ ○
Total Cost (\$)	● ○ ○ ○ ○
Staffing Requirements	● ● ○ ○ ○
Lasting Value	● ● ● ● ○
Partnership Opportunities	● ● ● ○ ○
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

POTENTIAL PARTNERS

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

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-block-grant-cdbg
- BOR (Bureau of Reclamation)**
- usbr.gov/watersmart/index.html

MITIGATION STRATEGY 2:

Support Fuel Reduction Outcomes

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.



TIMEFRAME: Ongoing

- Explore the possibility of supporting mitigation treatment for homes, or providing resources to ensure residents have access to information on the home ignition zones and creating defensible space.

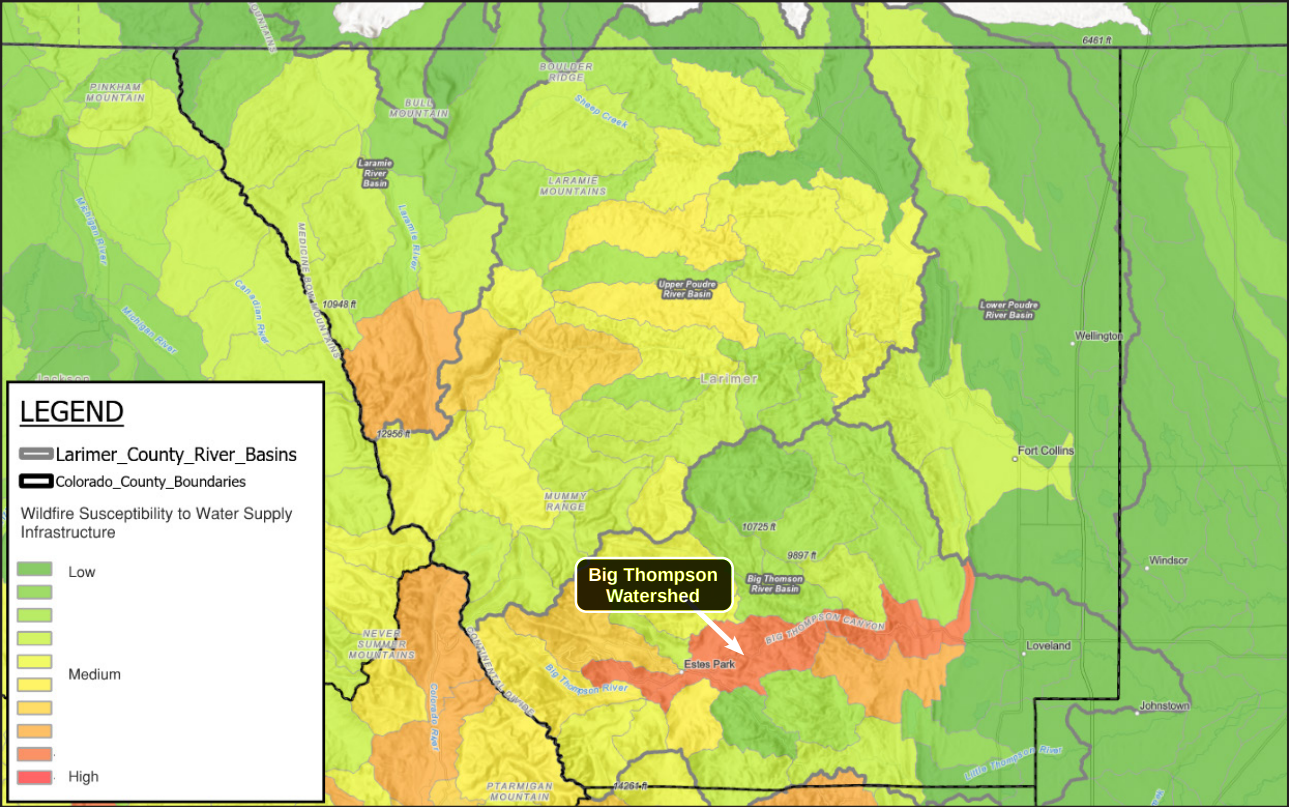
Why It’s Important:

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.

- Desired Lasting Impact:**
- Improved forest and watershed health.
 - Reduced frequency and severity of wildfires.
 - Better coordination and data sharing between groups who contribute to fuel reduction efforts.

Where Could the Efforts Be Focused? ►►►

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



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

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	● ● ● ● ○
Plan Goals Addressed	Goal 1: Obj 1, Obj 2 Goal 2: Obj 1

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

ADDITIONAL FUNDING OPPORTUNITIES

- CODNR/CWCB (Colorado Department of Natural Resources/Colorado 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-grant-program/
- 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

LARIMER COUNTY WATER PLAN

Strategy Tags: #WatershedHealth #Wildfire
#WaterQuality #Habitat



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



TIMEFRAME: Ongoing

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

Why It’s Important:

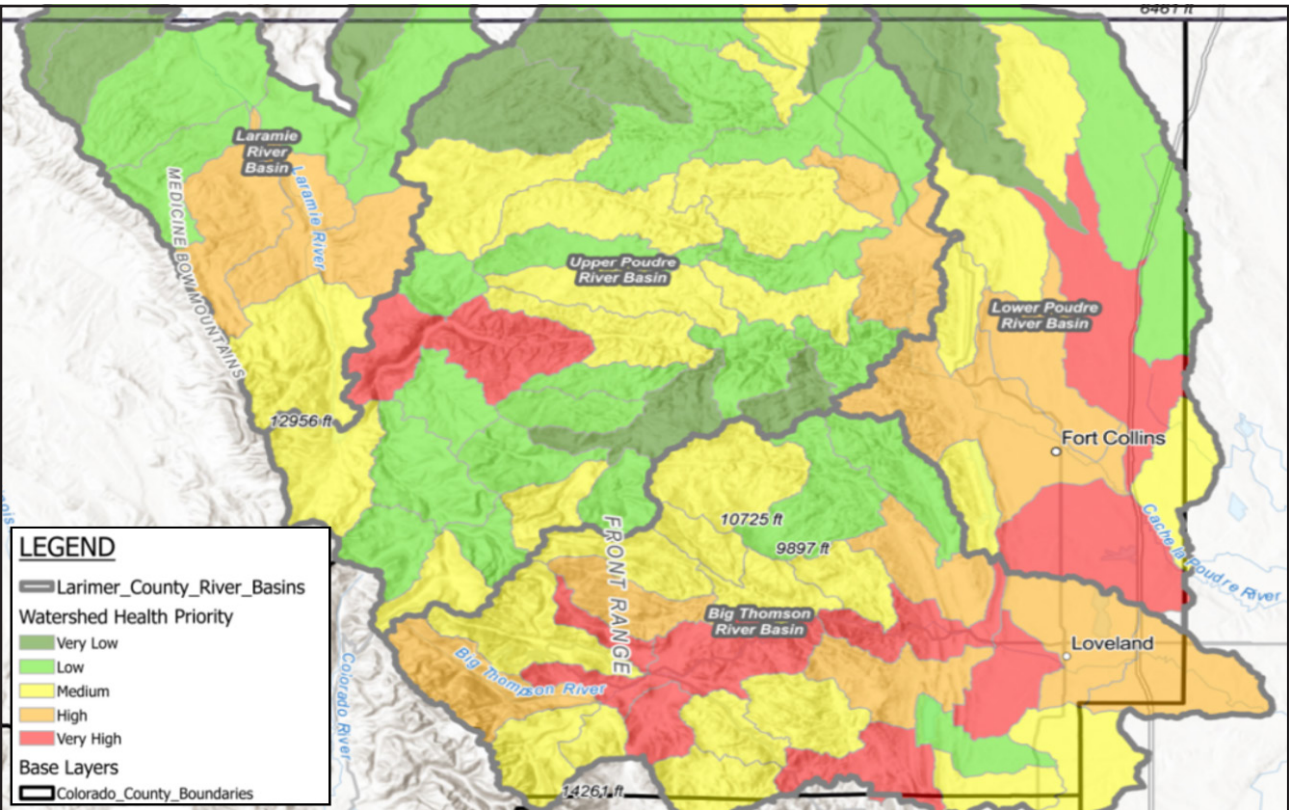
Healthy watersheds provide clean drinking water, support ecosystems, promote reduction of harmful erosion, and reduce the risk of flooding. They also filter pollutants, protecting water quality for humans and wildlife.

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.



STRATEGY LOGISTICS

Key Department(s)

Larimer County Department: TBD

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

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



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



ADDITIONAL FUNDING OPPORTUNITIES

CWCB (Colorado 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

BOR (Bureau of Reclamation)

- usbr.gov/watersmart/index.html

USFS (U.S. Forest Service)

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

CSFS (Colorado State Forest Service)

- csfs.colostate.edu/grants

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



TIMEFRAME: 1-2 Years

groundwater supply mapping and analysis.

Why It's Important:

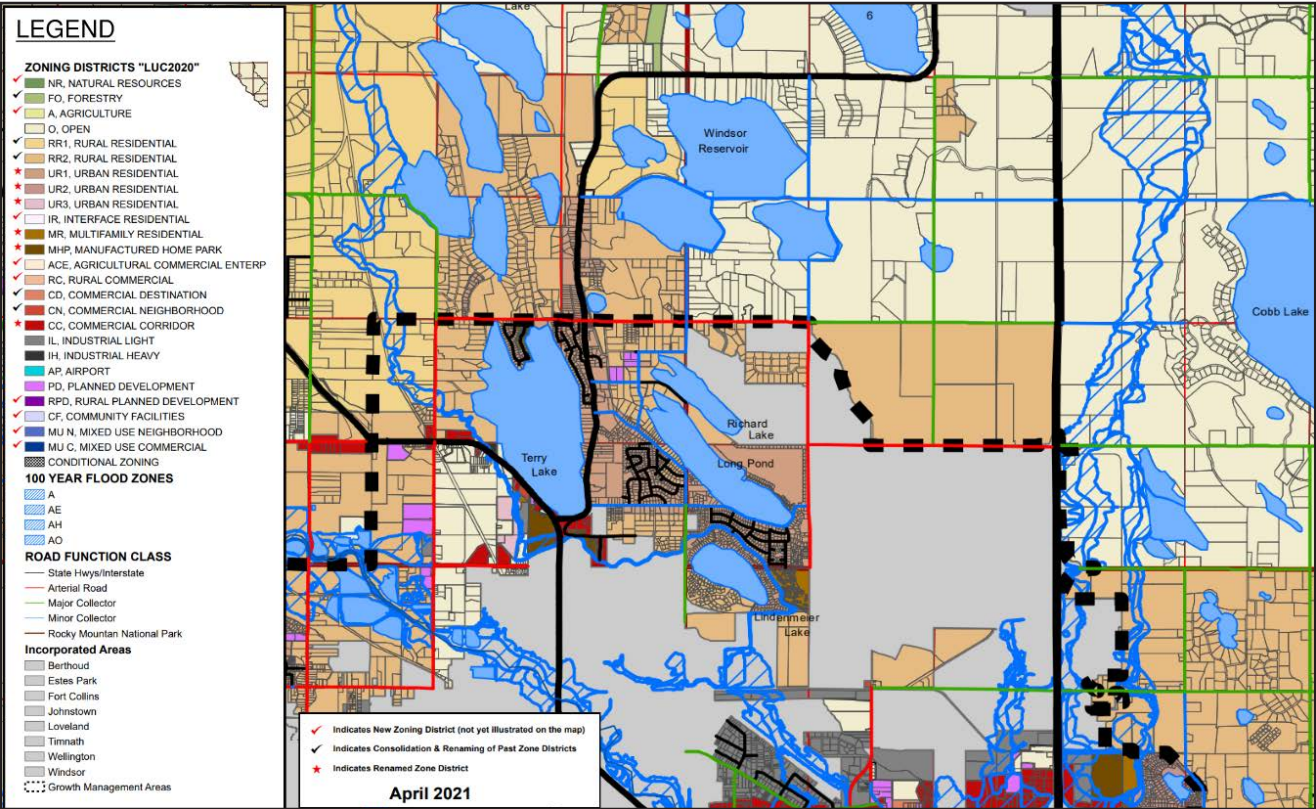
Water adequacy letters confirm that there is enough water for new developments, preventing strain on local resources and ensuring access without impacting existing users. Coordinating with water providers on changes to zoning is crucial to ensure adequate water for future developments.

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.



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.



STRATEGY LOGISTICS

Key Department(s)

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)

SUMMARY	
Level of Total Investment	● ● ○ ○ ○
Total Cost (\$)	● ○ ○ ○ ○
Staffing Requirements	● ● ○ ○ ○
Lasting Value	● ● ● ● ○
Partnership Opportunities	● ● ● ○ ○
Plan Goals Addressed	Goal 2: Obj 1, Obj 2 Goal 4: Obj 1



POTENTIAL PARTNERS

Larimer County Water Providers

USGS

U.S. Geological Survey

CSU

Colorado State University



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-block-grant-cdbg

BOR (Bureau of Reclamation)

- usbr.gov/watersmart/index.html

MITIGATION STRATEGY 5:

Protecting Water Supplies



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



TIMEFRAME: 1-2 Years

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, County-wide 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

SUMMARY	
Level of Total Investment	●●●○○
Total Cost (\$)	●○○○○
Staffing Requirements	●●●○○
Lasting Value	●●●○○
Partnership Opportunities	●●●○○
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 OPPORTUNITIES

Additional Funding Unlikely Outside of Local Partners

MITIGATION STRATEGY 6:

Improve Water Efficiency and Conservation

LARIMER COUNTY WATER PLAN
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

SUMMARY	
Level of Total Investment	●●●●○
Total Cost (\$)	●●●○○
Staffing Requirements	●●○○○
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

ADDITIONAL FUNDING OPPORTUNITIES

CWCB (Colorado Water Conservation Board)

- cwcw.colorado.gov/funding/grants

DOLA (Department of Local Affairs)

- dlg.colorado.gov/climate-resilience-challenge
- dlg.colorado.gov/community-development-block-grant-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



TIMEFRAME: 3-10 Years

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.



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.



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

SUMMARY	
Level of Total Investment	● ● ● ● ○
Total Cost (\$)	● ● ● ○ ○
Staffing Requirements	● ● ● ○ ○
Lasting Value	● ● ● ● ○
Partnership Opportunities	● ● ○ ○ ○
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



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-block-grant-cdbg

BOR (Bureau of Reclamation)

- usbr.gov/watersmart/index.html

NRCS (Natural Resources Conservation Service)

- nrcs.usda.gov/programs-initiatives/cig-conservation-innovation-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.



TIMEFRAME: 3-10 Years

Why It's Important:

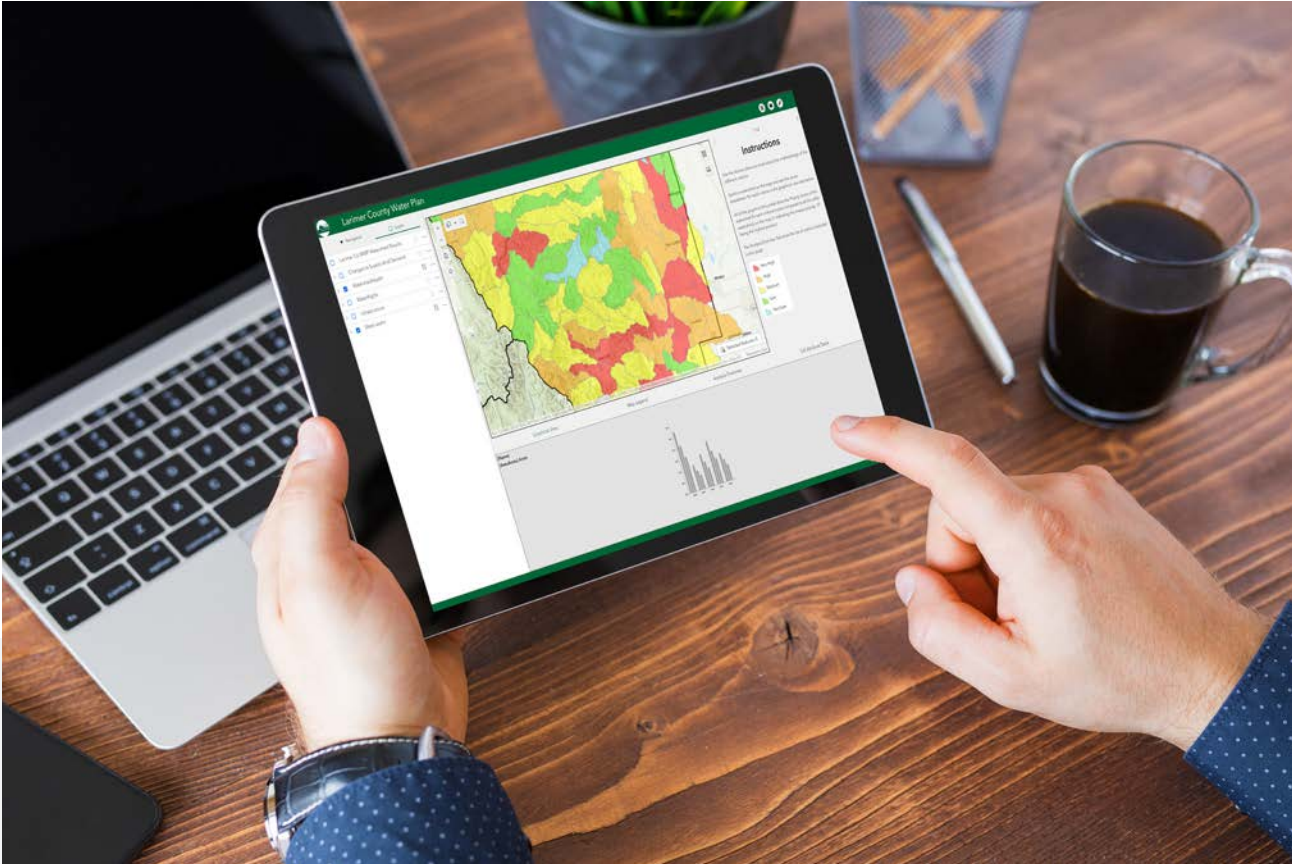
This workshop will help the County learn more about best practices for water management and conservation as our communities continue to grow.

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

SUMMARY	
Level of Total Investment	● ● ○ ○ ○
Total Cost (\$)	● ○ ○ ○ ○
Staffing Requirements	● ● ● ○ ○
Lasting Value	● ● ● ● ○
Partnership Opportunities	● ● ● ○ ○
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)

- cwcb.colorado.gov/funding/grants

DOLA (Department of Local Affairs)

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

BOR (Bureau of Reclamation)

- usbr.gov/watersmart/index.html

MITIGATION STRATEGY 9:

Public Education & Resource Clearinghouse



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.
- Consider continuing Water Education Series.



TIMEFRAME: 1-2 Years

- 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:

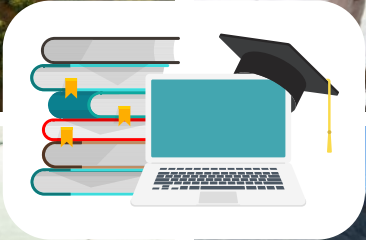
The public has a huge part to play in protecting our water. Education for children and adults leads to better decisions and more passionate and informed communities.

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

SUMMARY	
Level of Total Investment	●●●○○
Total Cost (\$)	●●○○○
Staffing Requirements	●●●○○
Lasting Value	●●●○○
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



ADDITIONAL FUNDING OPPORTUNITIES

CWCB (Colorado Water Conservation Board)

- cwcb.colorado.gov/funding/grants

MITIGATION STRATEGY 10:

Address Water Quality and Efficiency in Disproportionately Impacted Communities

LARIMER COUNTY WATER PLAN

Strategy Tags: #Infrastructure #MobileHomeParks #DisproportionatelyImpactedCommunities



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.

Why It's Important:

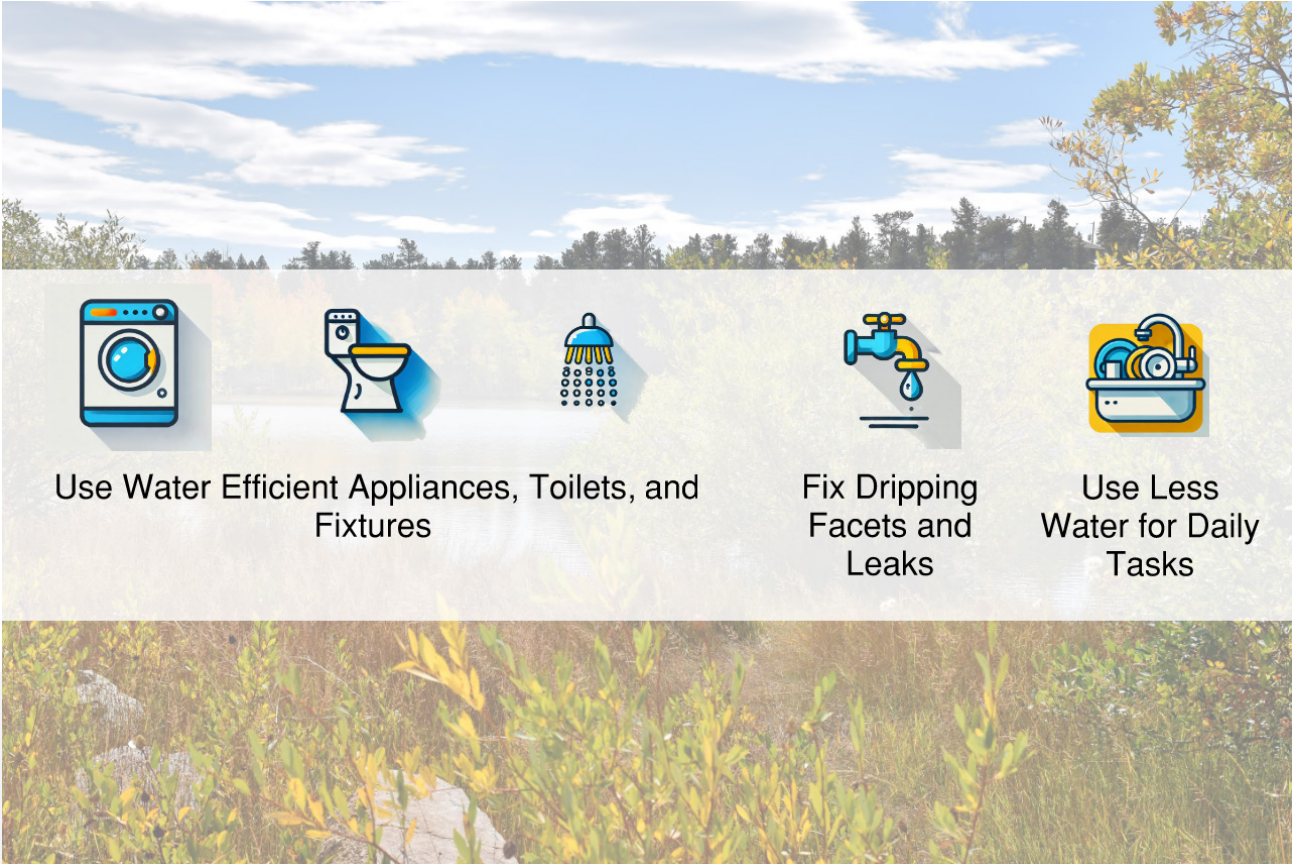
Many vulnerable communities rely on outdated water infrastructure that can leak and raise water bills. In some communities, these systems are privately owned and not managed by water providers, making maintenance difficult. It's important to help reduce the financial burden of the residents anyway possible.

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

SUMMARY	
Level of Total Investment	●●●○○
Total Cost (\$)	●●○○○
Staffing Requirements	●●○○○
Lasting Value	●●●○○
Partnership Opportunities	●●●○○
Plan Goals Addressed	Goal 2: Obj 1 Goal 4: Obj 2 Goal 5: Obj 1

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

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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.

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MAY 2022



LARIMER COUNTY REGIONAL WATER EXISTING CONDITIONS REPORT

APPENDIX H: LARIMER COUNTY REGIONAL WATER EXISTING CONDITIONS REPORT

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EXECUTIVE SUMMARY

INTRODUCTION

Larimer County is committed to planning for current and future water demands and to supporting healthy watersheds, productive agriculture, recreation, and tourism. The County’s 2019-2023 Strategic Plan establishes the following goals and objectives (Larimer County, 2019):

Goal 1, Objective 3

Improve long-term planning for water supply in unincorporated areas

Goal 1, Objective 4

Promote water-sharing strategies to preserve agriculture and sustain water supplies

Additionally, a top priority in the 2018 Citizen Survey for Larimer County residents was to initiate “more regional planning to manage growth” (The Center for Research & Public Policy, Inc., 2018). To address these objectives, County staff are exploring options to develop, adopt, and implement a long-range water element. However, Larimer County is not a water service provider and therefore seeks to understand the issues and how best to make water-related decisions that support communities and are collaborative in the region. Larimer County intends to work with water providers and other stakeholders to gather and share information and to define appropriate roles and objectives for the County’s regional water planning and collaboration.

REGIONAL WATER CONDITIONS IN LARIMER COUNTY

In 2021, the County initiated a Regional Water Existing Conditions project to assess existing regional water conditions as a foundation for performing the initial visioning and goal-setting activities to guide future work. This assessment focuses specifically on water supply and agricultural land. Sustainable water supply and agricultural land preservation in Larimer County are complex topics. Over the past 30 years, the County has experienced rapid population growth and development that support our economy yet strain our water and land resources. To better understand these impacts and the state of water sustainability in the county, the regional water conditions assessment includes:

- Metrics that quantify the growth drivers and impacts to land and water resources
- Success stories in advancing water supply resiliency
- Notable water-related risks and vulnerabilities

METRICS

It is difficult to succinctly summarize water supplies and demands across Larimer County due to the complex and interconnected systems, which include 124 water providers, 308 diverting structures, 6,229 water rights, and 13,090 water wells. Together, these systems supply water to a rapidly growing population that is expected to exceed more than half a million residents by 2040. While 96% of Larimer County’s projected growth is anticipated to occur within municipalities, all of Larimer County’s incorporated and unincorporated areas are inextricably linked to water supplies diverted from local watersheds and aquifers as well as the Colorado River. **Table 1** summarizes the water and growth metrics compiled and presented in the report.

TABLE 1. WATER AND GROWTH IN LARIMER COUNTY: BY THE NUMBERS

Population growth (Logan Simpson et. al., 2019)	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 potential (Logan Simpson et. al., 2019)	39,384 acres	Land designated as urban expansion areas ¹
	23,245 acres	Land designated as urban/rural interface areas ²
Water supplies	43%	Water supplies that originate from the Colorado River
	57%	Water supplies that originate from local watersheds and aquifers
Water rights and well permits³	6,229	Water rights administered under the prior appropriation doctrine (first in time, first in right)
	24,299 cfs	Fully developed direct flow rights (absolute rights)
	32,180 cfs	Direct flow rights under development (conditional rights)
	600,321 ac-ft	Fully developed storage rights (absolute rights)
	521,977 ac-ft	Storage rights under development (conditional rights)
Agricultural land	2,260,405 ac-ft ⁴	Water volumes diverted for use in 2020
	308	Structures actively diverting water in 2020
	47%	Decline in irrigated agricultural lands between 1987 and 2020
	104,063 acres	Irrigated agricultural land in 1987
	55,206 acres	Irrigated agricultural land in 2020
Water providers	8%	Farmland irrigated by sprinkler technology in 1987
	38%	Farmland irrigated by sprinkler technology in 2020
	124	Centralized public water systems that provide safe drinking water to residents and businesses
	385,559	People served by centralized public water systems in 2020 ⁵
	13,090	Water wells
	10,589	Homes reliant on groundwater wells
	47	Irrigation, ditch, and reservoir companies operating in Larimer County that deliver non-potable (raw) water
	9	Community water systems that publish their annual water demands and forecast future water demands
	25-90%	Projected growth in water demands at community buildout

¹ 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).

³ Data represent water rights and diversions at structures located in Larimer County, some of which transport water from the Colorado River and other sources.

⁴ This value represents all diversions that occur within Larimer County for all source waters (i.e., the Colorado, Laramie, Sand Creek, Cache La Poudre, Big Thompson, and Little Thompson Rivers). Water is diverted, used, and returned multiple times in the watershed system.

⁵ Population estimate may include service areas outside of Larimer County.

KEY WATER RISKS AND VULNERABILITIES

While Larimer County has notable water resiliency successes (including excess treatment capacity, water sharing and interconnection agreements among providers, improving irrigation efficiency, and improved consideration of riverine health), this report focuses on important risks and vulnerabilities related to reliable water supplies and preservation of agricultural land that must be considered and mitigated. In no particular order, they include:

- All water supplies are at risk of reduced water availability and poor water quality due to natural hazards such as drought and wildfires.
- Water used in Larimer County that originates from the Colorado River could be curtailed during a compact call⁶.
- Non-tributary groundwater wells⁷ are generally not monitored and reported, presenting a gap in water use information.
- Direct flow and storage rights in Larimer County are still being developed, putting additional strain on available water resources.
- Weather trends show warming temperatures and periods of low precipitation, which reduce water availability.
- Based on water source alone, the water in Larimer County has relatively low reuse potential, as Colorado-Big Thompson return flows are reserved for agricultural users downstream and native supplies cannot be reused without additional water court actions. Windy Gap and other transmountain water can be reused.
- Agricultural water rights continue to be converted to municipal water rights, diminishing agricultural lands. While water-sharing pilot projects are occurring, water sharing efforts are needed on a larger scale to overcome buy-and-dry.
- Some community water systems are experiencing water delivery limitations. Service pressures are expected to grow as water demands are projected to increase from 25-90% through community buildout.
- There is a trend toward water supply diversification, but some providers remain heavily reliant on Colorado-Big Thompson water.
- Many community water systems report the need for more raw water storage to increase the yield of their water supplies. Many providers are actively participating in new storage reservoir and reservoir expansion projects, which are expensive and take many years to complete the permitting process.
- Community water systems are more connected than may be apparent, given they are legally distinct entities with their own water rights and service areas. These interconnections (including common water sources, joint infrastructure, and intergovernmental agreements) create the potential for both system resiliencies and cascading risks.
- Nearly all community water systems report aging or insufficient infrastructure, underscoring the need for water system infrastructure investment to ensure future water supply reliability.
- Information and planning gaps remain. These gaps include a lack of publicly available water information and missing (or outdated) long-range plans.

⁶ On any given day, a river may not have enough water available to satisfy all water rights. Water users then “call” for their water, and water rights are satisfied in order of priority date from most to least senior. The priority date that distinguishes which rights are fulfilled and which are not varies each day based on water availability and water calls (Hobbs Jr., 2004).

⁷ Non-tributary wells are groundwater wells (usually wells that are very deep and/or far from rivers) that are deemed not to be hydrologically connected to streams and therefore are exempt from administration under the priority system (Hobbs Jr., 2004).

FUTURE WORK

This regional water existing conditions report presents a profile of growth and water in Larimer County as a starting point to understanding regional water supplies, demands, and issues. Future work could include a broader look at water in the County that may include watershed, stormwater, and wastewater management as these topics are addressed in other plans and policies and as they relate to supporting integrated water resources management (also known as One Water principles) as well as identification of additional stakeholders and related work. The work that Larimer County is exploring can be valuable to help look across individual water providers and better understand systemic risks and vulnerabilities. As future work ensues, the following questions remain to be answered:

- **Defining Larimer County's role** in engaging in different types of water matters. That role is likely to differ for different situations, such as addressing water supply risks for residents who supply their own water, understanding development costs and water supply reliability for developments serviced by a centralized water utility, and engaging with other stakeholders in regional water conversations.
- **Defining desired outcomes** from the County's involvement in water matters, such as what achieving water supply reliability means in Larimer County and quantifying the relationship between water and other issues, such as water costs, development costs, and housing prices.
- **Filling gaps in the County's planning** and understanding of water issues that could be bolstered by development of a long-range water element. The County has done extensive stormwater master planning but has done less formalized work to date on water and wastewater.
- **Defining the implementation levers** the County has available to address water matters, such as educational and other programming, funding streams for projects and incentives, and policy and regulatory tools.
- **Identifying key stakeholders** the County needs to have ongoing and collaborative relationships with to address regional water issues. For example, working with water providers where appropriate in areas of mutual benefit, such as garnering grant and federal funds to Larimer County, improving collective water system resilience, and promoting water sharing to maintain productive agriculture.

ACKNOWLEDGEMENTS

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INTRODUCTION

Larimer County staff and Commissioners endorsed long-range water sustainability as a high priority in the County's 2019-2023 Strategic Plan. The plan's objectives include **"improving long-term planning for water supply...in unincorporated areas"** and **"promoting water sharing strategies to preserve agriculture and sustain water supplies"** (Larimer County, 2019). Residents identified the need for **"more regional planning to manage growth"** as a top community priority in the 2018 Citizen Survey (The Center for Research & Public Policy, Inc., 2018). To address this collective priority, the County is exploring options to develop a long-range water element as a component of Larimer County's Comprehensive Plan (Logan Simpson et. al., 2019). However, Larimer County is not a water service provider and therefore seeks to understand the issues and how best to make water-related decisions that support communities and are collaborative in the region with water providers and other stakeholders.

This regional water existing conditions report presents a profile of growth and water in Larimer County, as a starting point to understand regional water supplies, demands, and issues. The water profile focused specifically on water supplies and agricultural land. There are other water-related topics of importance to the County that were beyond the scope of this project. Those topics include watershed protection, environmental and recreation flows, wildfire impacts, floodplain mapping and regulations, stormwater management, flood warning systems, water quality inspections, and emergency management. Some or all of these topics may be addressed in the future long-range water element.

ABOUT THIS REPORT

Methodology and Outcomes

This section describes the data sources used in the water and growth assessment, the methods used to analyze the data, and the outcomes the County received from the project.

Larimer County Growth Forecast

This section describes high-level growth and development trends in Larimer County.

Larimer County's Water Profile

This section describes water supplies and agricultural land in Larimer County, starting upstream where water originates, and moving downstream to how water is used in the County.

Conclusions

This section summarizes future work that remains for exploration of a long-range water element.

METHODOLOGY AND OUTCOMES

OBJECTIVES

The regional water existing conditions assessment was intended to answer foundational questions about the state of water supplies, agricultural land, and growth in Larimer County:

- How is the population expected to change?
- How is land use expected to change?
- Where does the water come from?
- How is the water used?
- How much water are we diverting?
- What is happening to agricultural land?
- Who provides water?
- Are our water systems sufficient and reliable for current and future needs?
- What are the key risks and vulnerabilities related to reliable water supplies and preservation of agricultural land?

METHODOLOGY

The regional water conditions assessment is based on a significant amount of data that were collected and analyzed, including:

- Population growth and land use projections (Logan Simpson et. al., 2019).
- Service area boundaries and municipal boundaries from the Department of Local Affairs (DOLA), as well as those previously collected for the Larimer County Comprehensive Plan update (Colorado Department of Local Affairs, 2022; Logan Simpson et. al., 2019).
- Water well permit data from the Colorado Division of Water Resources (CDWR) (Colorado Division of Water Resources, 2022a).
- Structures, water rights, diversion volumes, irrigated lands, and spatial data from the State of Colorado's HydroBase database

and Colorado Decision Support System (CDSS) modeling framework (Colorado Division of Water Resources, n.d.; Colorado Division of Water Resources, 2022b).

- Transmountain diversions and related characteristics (Open Water Foundation, 2018).
- Water master plans, water efficiency plans, development fees, and billing charges from community water systems (various references included in **References** and **Appendix C: Water Provider Summaries**).
- Weather data collected from the Applied Climate Information System maintained by the National Oceanic and Atmospheric Administration (NOAA) Regional Climate Centers (NOAA Regional Climate Centers, 2017).

All collected data have been shared with County staff for future use.

OUTCOMES

Significant data analyses and findings are included in this report.

Additional outcomes include:

- A geodatabase of water-related data
- An inventory of water providers, including public water systems, groundwater wells, and irrigation and ditch companies (**Appendix A: Water Provider Inventory**)
- A summary of public water system characteristics and a compilation of annual water use metrics, including historical and forecasted service population, water demands, systemwide per capita water use values, and residential per capita water use values (**Appendix B: Water Provider Overview**)
- Profiles of each community water system with a publicly available long-range water efficiency and/or water master plan (**Appendix C: Water Provider Summaries**)

LARIMER COUNTY GROWTH FORECAST

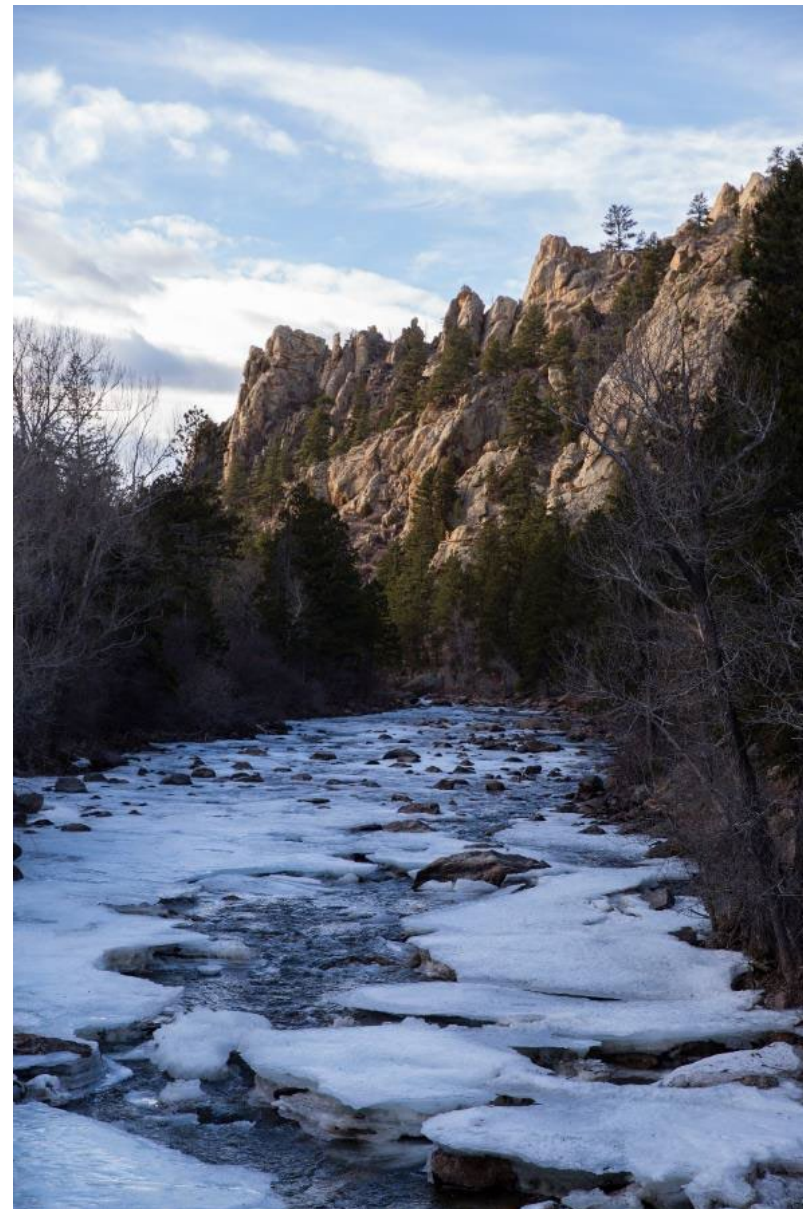
In 2017, Larimer County was home to 343,853 people with approximately 20% (66,639 people) of the population located in unincorporated areas (Logan Simpson et. al., 2019). By 2040, Larimer County is expected to add 150,000 new residents (Logan Simpson et. al., 2019). Cities and towns are expected to absorb 96% of the County's population growth; the remaining 4% is expected in unincorporated areas. High growth areas include the municipalities of Fort Collins, Timnath, Wellington, and Windsor. Coordination among municipalities, the County, and water service providers will be increasingly necessary given their varying jurisdictions to ensure sufficient and reliable water systems now and into the future⁸.

LARIMER COUNTY WATER PROFILE

WHERE DOES OUR WATER COME FROM?

Larimer County's water is diverted and pumped from local surface water and groundwater supplies and is imported from the west slope of the Continental Divide.

Approximately 57% of the water volumes used in Larimer County in 2020 originated from local watersheds and aquifers (Colorado Division of Water Resources, n.d.). Local surface water supplies are diverted out of the Laramie River, Sand Creek, Cache la Poudre, and Big Thompson watersheds (**Figure 1**). The County's groundwater supplies are pumped from aquifers that underlay these watersheds (**Figure 2**) (Colorado Division of Water Resources, 2022a).



⁸ Municipalities have jurisdiction over their Growth Management Areas. The Growth Management Area is defined as the area into which urban development and annexation shall be directed and within which urban level services to support urban development will be needed (City of Loveland and Larimer County, 2004). The County has jurisdiction over the growth in unincorporated areas. Water service providers plan for water service in their service areas to supply future growth.

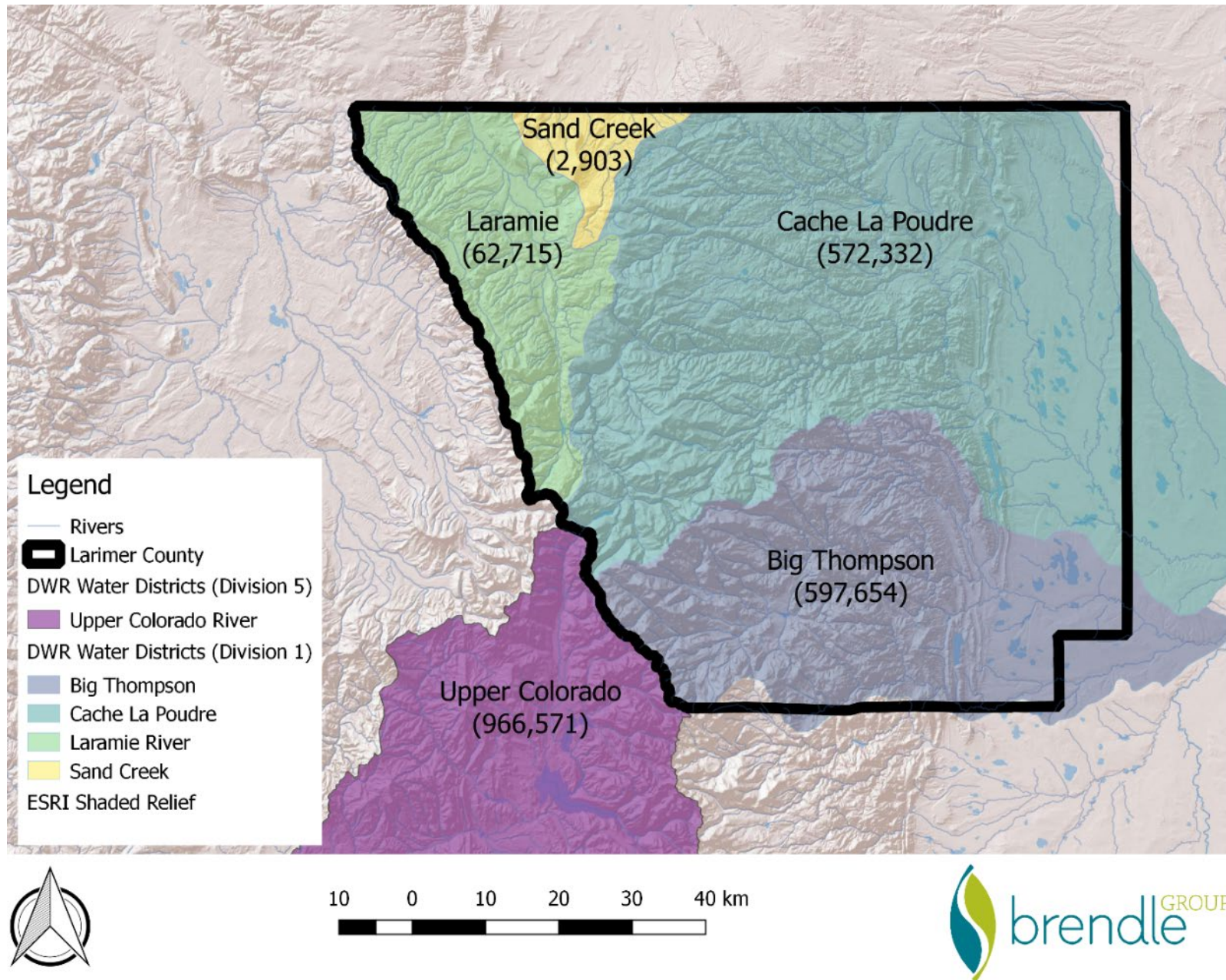


FIGURE 1. SURFACE WATER SUPPLIES WITH MEASURED DIVERSIONS (AC-FT) BY WATER SOURCE (2020)

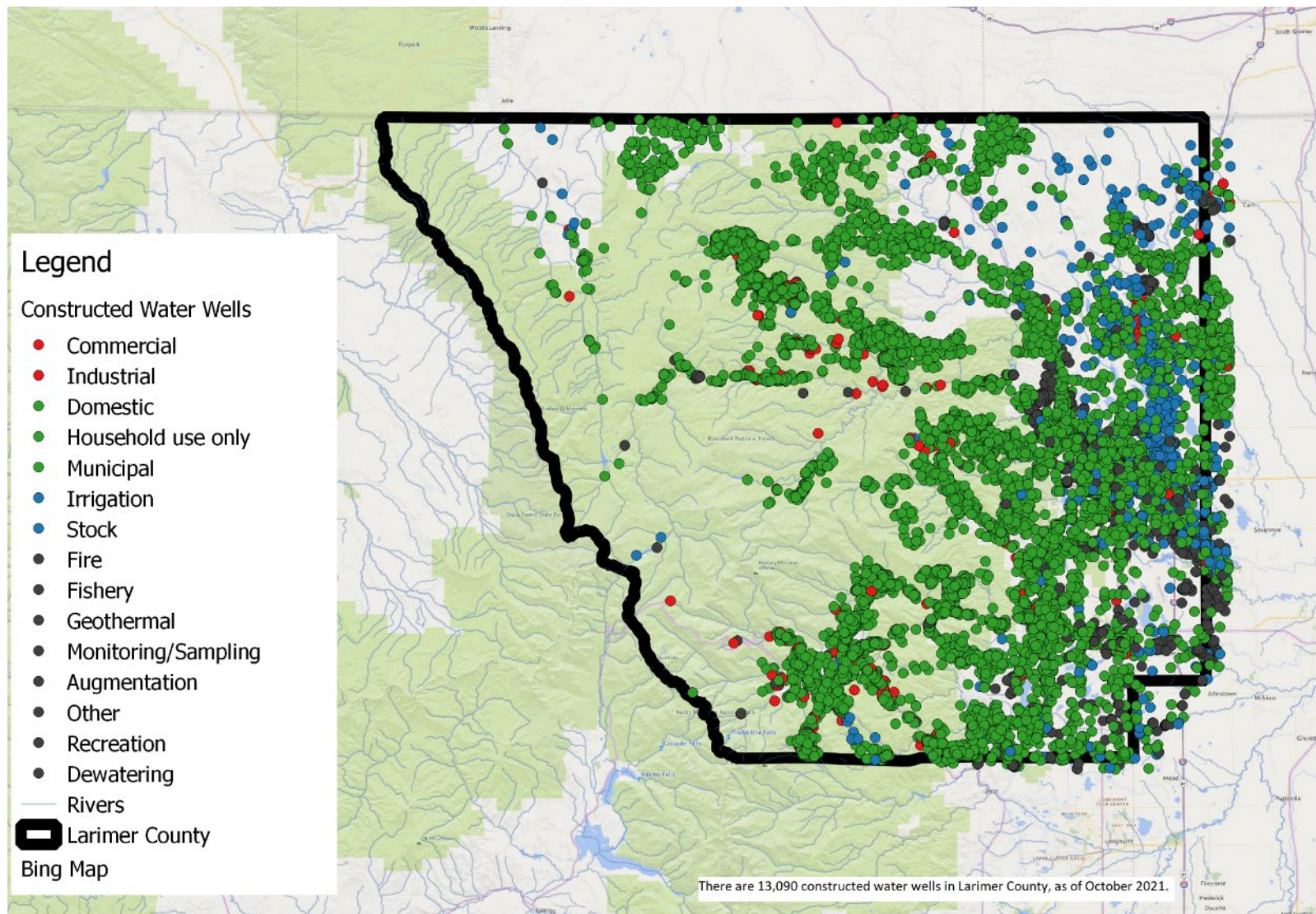


FIGURE 2. GROUNDWATER WELLS IN LARIMER COUNTY (2021)

Transmountain diversions move water from one river basin to another across a mountain range. Transmountain diversions in Colorado typically move water from the west slope of the Continental Divide (where approximately 80% of the State's water resources originate) to the east slope of the Continental Divide (where approximately 80% of the State's population resides). Eight transmountain diversions supply Larimer County (**Figure 3**) (Open Water Foundation, 2016):

- The **Deadman Ditch, Bob Creek Ditch, Laramie Poudre Tunnel, and Skyline Ditch** are transmountain diversion structures included in the Laramie River Agreement between Colorado and Wyoming.
 - Bob Creek Ditch is owned by the City of Greeley.
 - The Laramie Poudre Tunnel is part of the larger Laramie River System of the Tunnel Water Company, a mutual ditch company with two shareholders (the Water Supply and Storage Company and the Windsor Reservoir and Canal Company).
 - Skyline Ditch (also known as the Laramie River Ditch) is owned by the Water Supply and Storage Company.
- The **Wilson Supply** and **Sand Creek Ditch** systems are owned by the Divide Canal and Reservoir Company.
- The **Michigan Ditch** diverts water from the Michigan River into the Cache la Poudre watershed. The ditch is owned by the City of Fort Collins.
- The **Grand River Ditch**, owned by Water Supply and Storage Company, diverts water from the north fork of the Colorado River into the Cache La Poudre watershed.
- The Colorado-Big Thompson (C-BT) Project diverts water from the Upper Colorado river basin into the South Platte basin via the **Alva B. Adams Tunnel**. The C-BT project is jointly owned and operated by the US Bureau of Reclamation and Northern Water.

In total, 43% of the water volumes used in Larimer County in 2020 originated from the Colorado River (**Figure 3**) (Colorado Division of Water Resources, n.d.).



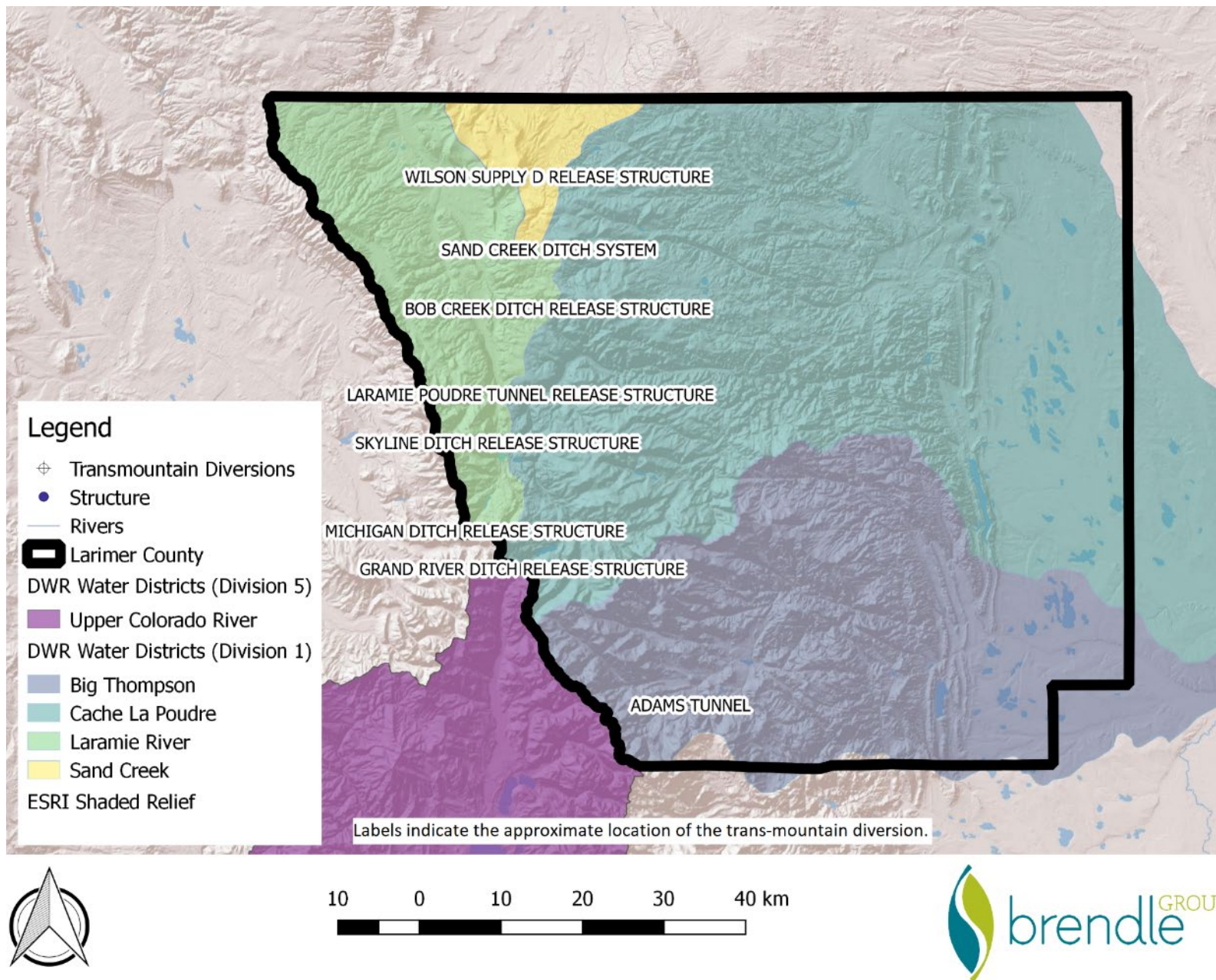


FIGURE 3. TRANSMOUNTAIN DIVERSIONS IN LARIMER COUNTY

Under Colorado Water Law, trans-basin and transmountain diversions are qualified as fully reusable water (i.e., can be used “to extinction”), as the water has already left the source watershed (Hobbs Jr., 2004). The exception to this rule is C-BT water – though C-BT is a transmountain diversion, Northern Water’s repayment contract with the Bureau of Reclamation states that return flows are reserved for agricultural users downstream. This requirement is reflected in a Northern Water policy (Northern Water, 2021). Native water supplies (water that originates and is used within the same watershed) cannot be reused without additional water court actions, as the return flows are obligated to more junior water rights holders. Windy Gap and other transmountain water can be reused. For more information about Colorado Water Law and the prior appropriation doctrine, refer to (Hobbs Jr., 2004; Kurath, 2015).

Water supplies are subject to many natural hazards and risks, such as reduced water availability during drought and poor water quality after wildfires, regardless of where they originate. However, transmountain supplies may be subject to additional infrastructure risks (as the water travels farther) and legal risks. For the Front Range, 97% of transmountain water from the Colorado River comes from water rights granted after the Colorado River Compact of 1922, making these rights subject to curtailment during a compact call (Hydros Consulting, Inc., 2018).

HOW IS THE WATER USED?

All surface water use and some groundwater use in Larimer County is associated with a water right. Shallow groundwater wells (also known as alluvial wells) are hydrologically connected to the river system and are therefore administered along with surface water rights. There are 6,229 water rights in Larimer County, of which 4,279 (69%) are associated with surface water and 1,950 (31%) are associated with groundwater (Colorado Division of Water Resources, n.d.).

A water right specifies where the water is diverted (removed from its natural waterway) and the approved beneficial use of the water, with an expectation that water will be used efficiently and not wasted. Direct flow rights represent the flow rate (in cubic feet per second, or cfs) that may be diverted when the water right is in priority. Storage rights represent the volume of water (in acre-feet, or ac-ft) that may be stored in a reservoir for later use (when the storage capacity is available). Examples of beneficial uses include power generation, storage, irrigation, maintaining minimum flow levels, and more. Water rights information is maintained by the Division of Water Resources (Colorado Division of Water Resources, n.d.).

The water rights in Larimer County were summarized by decreed beneficial use. When water rights were associated with more than one beneficial use, they were classified as mixed use for this analysis. In Larimer County, the top beneficial uses for direct flow rights are mixed use, storage, irrigation, power generation, and maintaining minimum streamflows (**Figure 4**). The top beneficial uses for storage rights are mixed use, irrigation, municipal, domestic, and maintaining minimum lake levels (**Figure 5**).

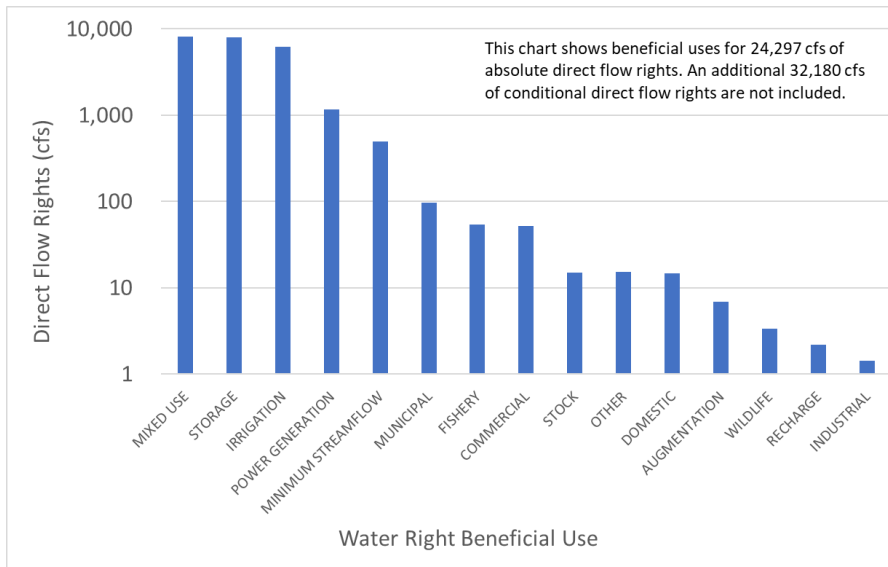


FIGURE 4. ABSOLUTE DIRECT FLOW RIGHTS (CFS) IN LARIMER COUNTY BY BENEFICIAL USE (2022)

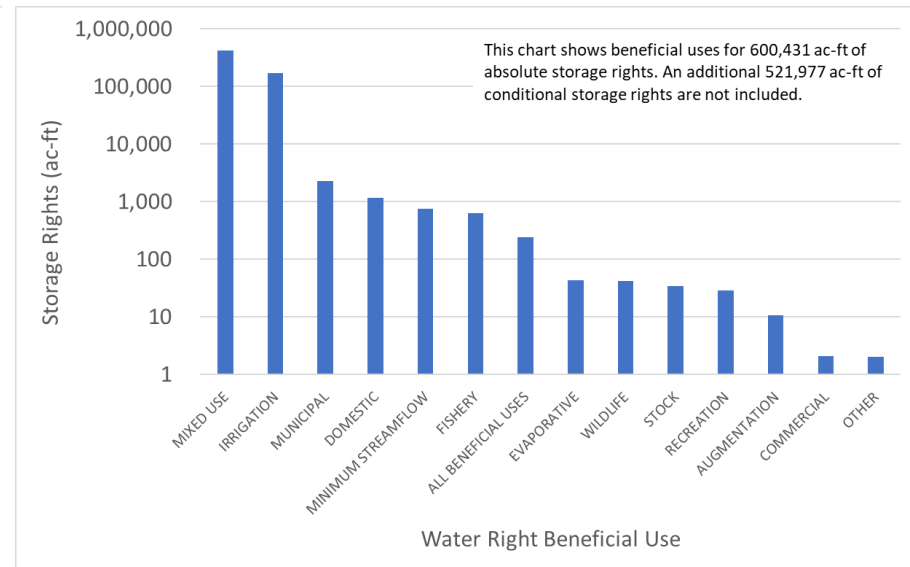


FIGURE 5. ABSOLUTE STORAGE RIGHTS (AC-FT) IN LARIMER COUNTY BY BENEFICIAL USE (2022)

Non-tributary wells, though exempt from administration under the prior appropriation doctrine, do require permits from the Division of Water Resources (Colorado Division of Water Resources, 2020). Like water rights, the well permits specify the authorized use of the water and information is maintained by the Division of Water Resources. Most of the wells are not metered, so the exact water use volumes are not known. Of the 13,090 groundwater wells in Larimer County, 81% are used for domestic or household use⁹. The full summary of well count by beneficial use is shown in **Figure 6** (Colorado Division of Water Resources, 2022a).

⁹ Household use provides indoor water for single-family homes on lots less than 35 acres. Domestic use is for residential dwellings on lots greater than 35 acres, and allows for irrigation and stock water use, in addition to indoor use (Colorado Division of Water Resources, 2020).

It is important to understand the beneficial uses of water in Larimer County because they indicate areas of opportunity for water efficiency, the impact water use has on local watersheds and aquifers, and how water rights compare to water supplies. Some beneficial uses, such as storage, power generation, and recreation may affect diurnal and seasonal variations in natural flows but essentially do not affect total water volumes in the environment. Some uses, such as maintaining flow levels and recharge, are environmentally beneficial by keeping and adding water to the environment, respectively. Water use by residents and businesses (e.g., irrigation, municipal, domestic, commercial) have varying degrees of environmental impact. Water that is used indoors typically returns 95% of the water to the environment through sanitary sewer systems¹⁰; 5% of the water is consumptively used through hot water evaporation.

Irrigation varies greatly in impact – anywhere from 0-45% of water is returned to the

environment through infiltration and groundwater recharge; 55-100% of water is used consumptively through evapotranspiration of the vegetation being watered (Food and Agriculture Organization of the United Nations, 1989). Augmentation is currently a relatively minor use in Larimer County but is important to track as an indicator of the degree to which water supplies are over-appropriated¹¹.

The surface water rights shown in **Figure 4** and **Figure 5** represent absolute water rights that are fully developed and in use today. Conditional direct flow and storage rights are still being developed and reserve their priority date while being developed (Kurath, 2015). The development of these rights does not guarantee that water will be available to fulfill them, but they do indicate continued growing pressures on the County's water resources. By far

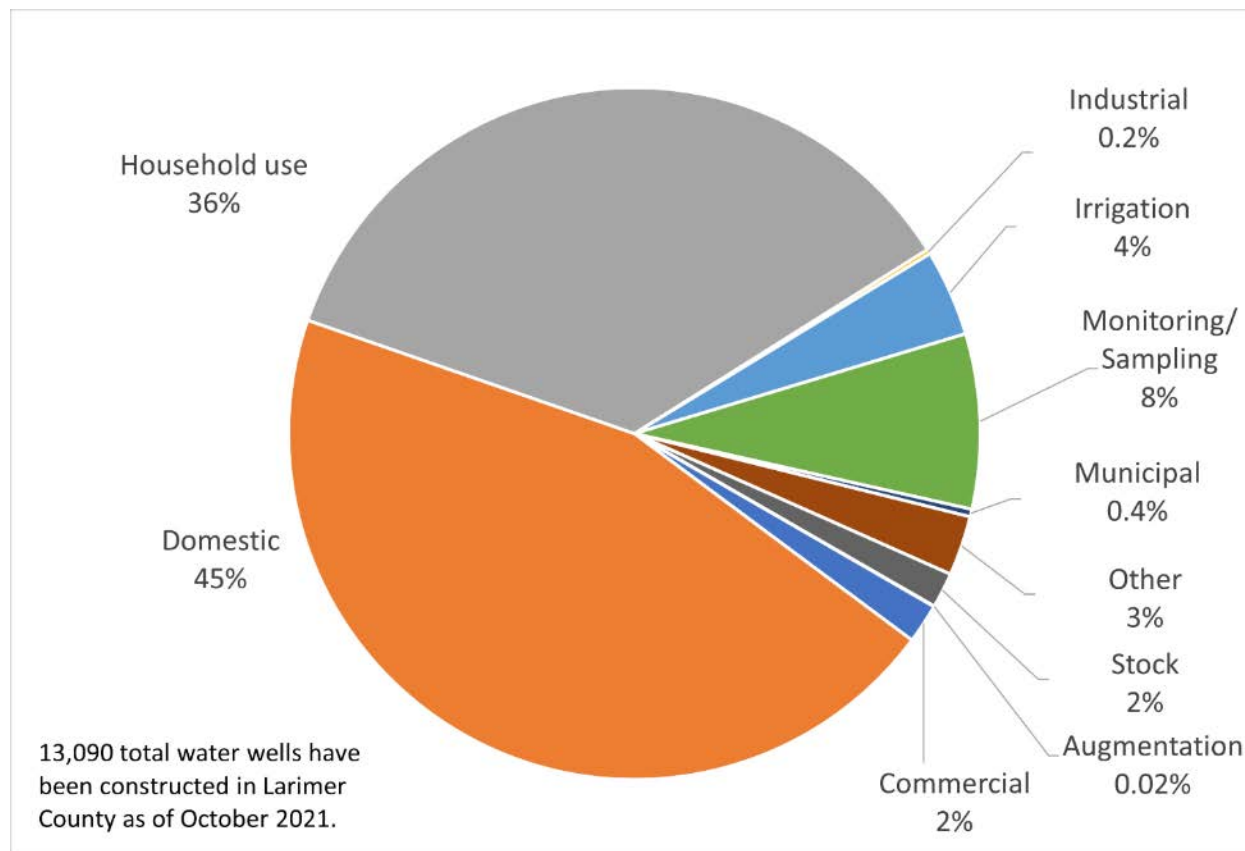


FIGURE 6. GROUNDWATER WELLS IN LARIMER COUNTY BY BENEFICIAL USE (2021)

¹⁰ Wastewater captured by evaporative septic systems do not return any water to the environment.

¹¹ A watershed is over-appropriated if the water court has approved more water rights than there is water available. In over-appropriated watersheds, new rights may be obtained, but water may be available only for a short period of time, or only during wet years. Augmentation plans protect senior water rights while increasing reliability for junior water rights by allowing out-of-priority diversions if the water is replaced. Examples include releasing stored water or using unlined ditches and ponds to recharge groundwater (Hobbs Jr., 2004).

the largest beneficial use associated with conditional direct flow and storage rights is mixed use (31,093 cfs and 419,937 ac-ft, respectively), though municipal and irrigation storage rights are also a priority (64,637 ac-ft and 36,000 ac-ft, respectively) (Colorado Division of Water Resources, n.d.). Organizations are increasingly considering riverine health in their water management plans, including the effects of low flows (which can result in warming waters, higher sediment concentrations, and disruption to aquatic species migration) and reducing peak flows (which are needed for sediment transport sediment, natural channel morphology, and preservation of deep pools) (City of Fort Collins, n.d.).

HOW MUCH WATER ARE WE DIVERTING?

Water rights represent the amount of water a rights holder is entitled to if the water is available based on flow conditions and the administrative priority of the water right. When insufficient water is available to satisfy all water rights, a “call” is placed on the river, and a complex administration process is used to determine the priority date associated with the call. Essentially, senior rights with an earlier priority date may continue to divert water, while junior rights with a later priority date must curtail their use until more water becomes available. The water right alone is not enough to determine the water yield associated with the water right.

Actual diversions are tracked by the Colorado Division of Water Resources (Colorado Division of Water Resources, n.d.). There are 3,586 structures in Larimer County classified as active points of diversion. Diversion records are maintained for 340 of the structures. Almost 80% of structures that do not have diversion records are groundwater wells, seeps, and springs that are not measured. The remainder of structures include monitoring gauges, recharge areas, and other structure types.

Over the period 1980-2020, the number of measured active structures has increased from 150 to more than 300 (**Figure 10**). This increase in measured diversion points is likely attributable to change-in-use cases associated with the water rights. Measured annual diversions have increased from 991,000 ac-ft/yr to 2,260,000 ac-ft/yr (**Figure 9**). These diversion values represent all diversions that occur within Larimer County for all source waters (i.e., the Colorado, Laramie, Sand Creek, Cache La Poudre, Big Thompson, and Little Thompson Rivers). Additionally, water is diverted, used, and returned multiple times in the watershed system. A comparison of annual diversion volumes to annual streamflow volumes shows that water is reused on average twice in the Laramie River watershed, three times in the Poudre watershed, and six times in the Big Thompson watershed.

Weather conditions over the period 1980-2020 have been changing in ways that reduce water availability (NOAA Regional Climate Centers, 2017). Average temperatures increased 2.6 °F over that period (**Figure 8**). Annual precipitation has been 1.6 inch/yr lower on average over the 2002-2020 period compared to the 1980-2001 period (**Figure 7**). Rising temperatures contribute to longer growing seasons and higher evapotranspiration demands, both of which increase irrigation demands. Higher temperatures also result in a higher proportion of precipitation falling as rain instead of snow, which reduces the duration of the runoff season. Reduced precipitation directly reduces water availability, regardless of whether it falls as rain or snow. These trends are troubling indicators of reduced water availability.



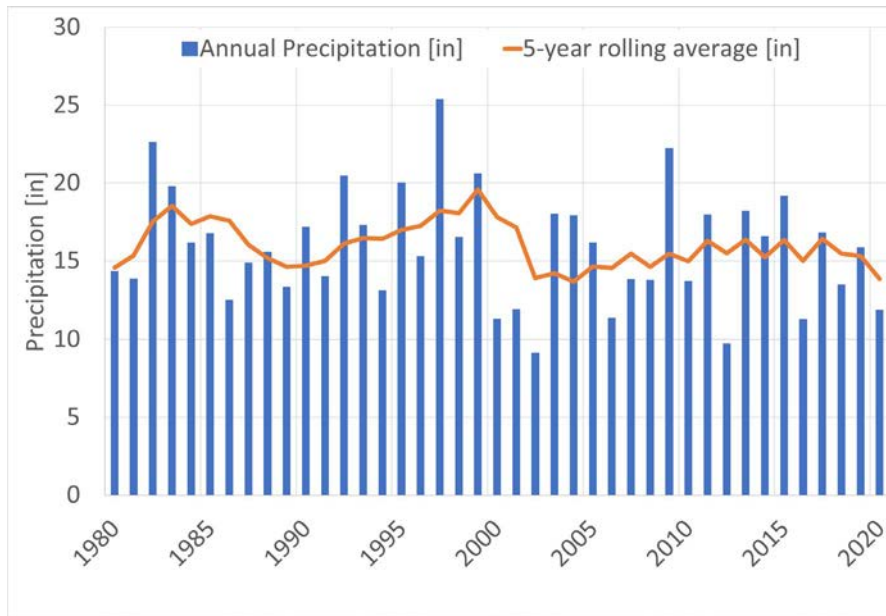


FIGURE 7. ANNUAL PRECIPITATION IN FORT COLLINS, COLORADO

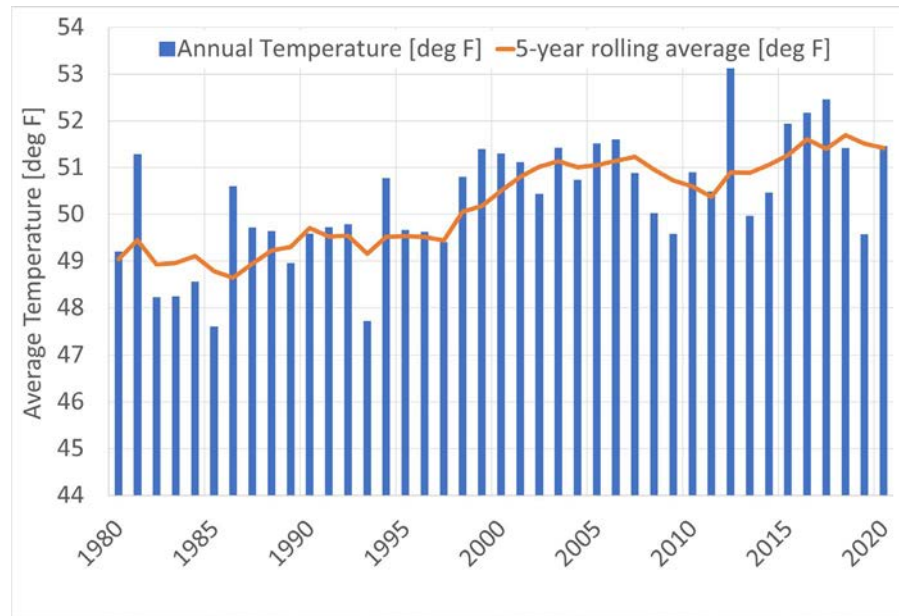


FIGURE 8. AVERAGE TEMPERATURE IN FORT COLLINS, COLORADO

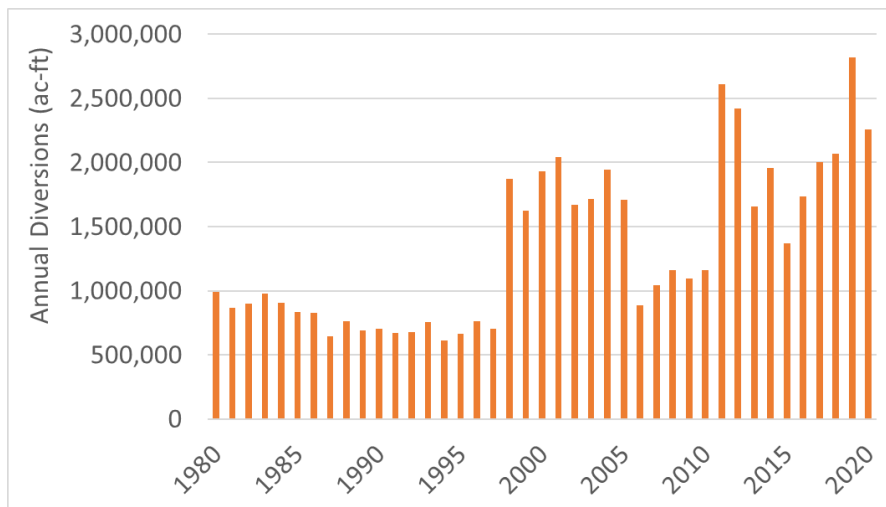


FIGURE 9. MEASURED WATER DIVERSIONS (AC-FT) IN LARIMER COUNTY

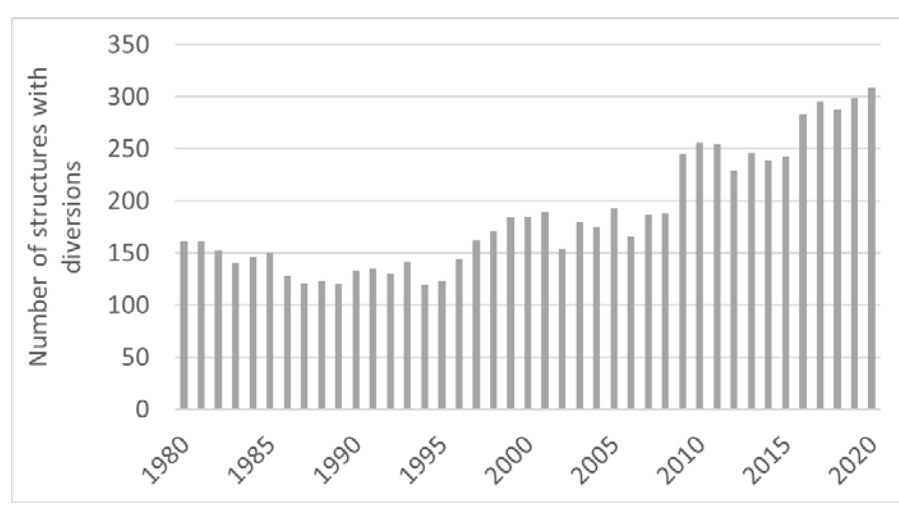


FIGURE 10. NUMBER OF STRUCTURES WITH MEASURED WATER DIVERSIONS IN LARIMER COUNTY

Because most groundwater wells are not measured, the total pumping volumes can only be estimated using a rule of thumb that one household uses 1-2 ac-ft/yr of water. With this rule of thumb, groundwater use is estimated to be 10,600-21,200 ac-ft/yr, though this estimate does not specifically account for commercial, industrial, or irrigation use.

WHAT IS HAPPENING TO AGRICULTURAL LAND?

The importance of agricultural land to Larimer County's heritage and economy was established as a foundational concept in the 1997 Master Plan and was affirmed in the 2019 Comprehensive Plan (Logan Simpson et. al., 2019). Like many Front Range communities, Larimer County has experienced a conversion of agricultural lands to municipal development for several decades. The effect has been a net transfer of land and water rights that is often referred to as "buy-and-dry." From 1987 to 2020, Larimer County has experienced a 47% decline in irrigated agricultural lands, from 104,063 acres to 55,206 acres (**Figure 11, 12, 13, 14, 15**) (Colorado Division of Water Resources, 2022b). The competition between growing communities and agricultural land has led to both a scarcity of available water supply and soaring water rights acquisition costs.



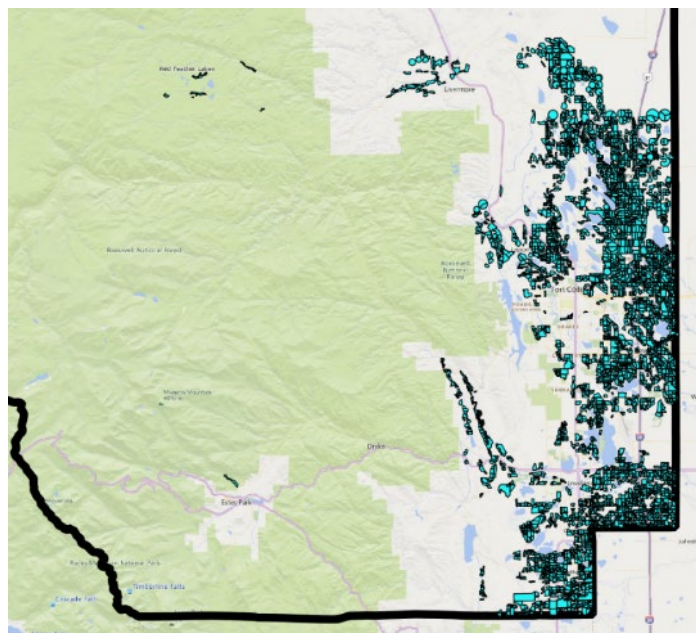


FIGURE 11. IRRIGATED LANDS IN LARIMER COUNTY (1987)

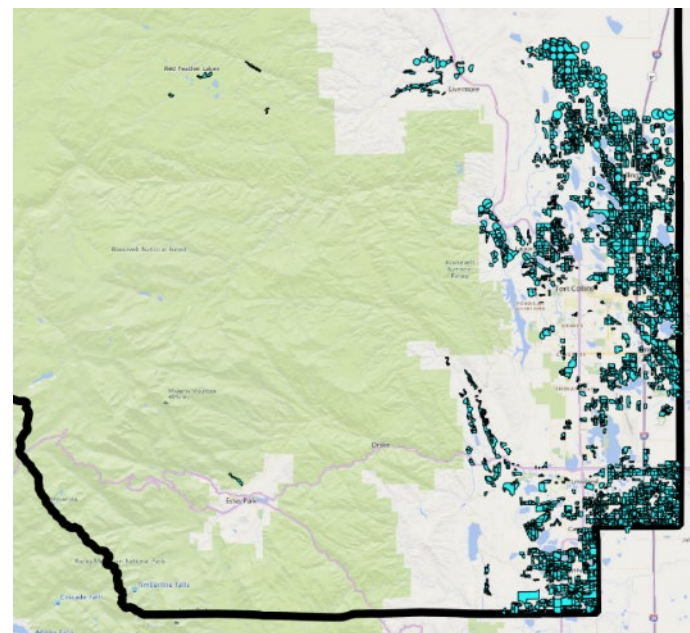


FIGURE 12. IRRIGATED LANDS IN LARIMER COUNTY (2001)

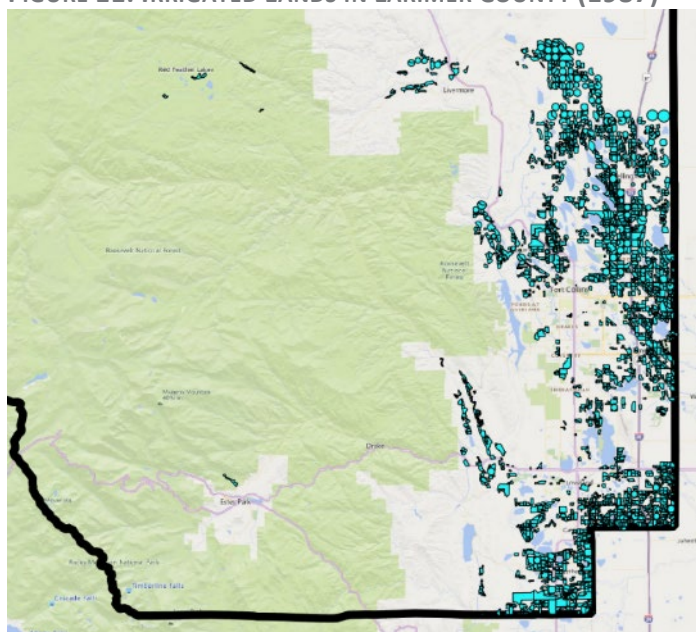


FIGURE 13. IRRIGATED LANDS IN LARIMER COUNTY (2010)

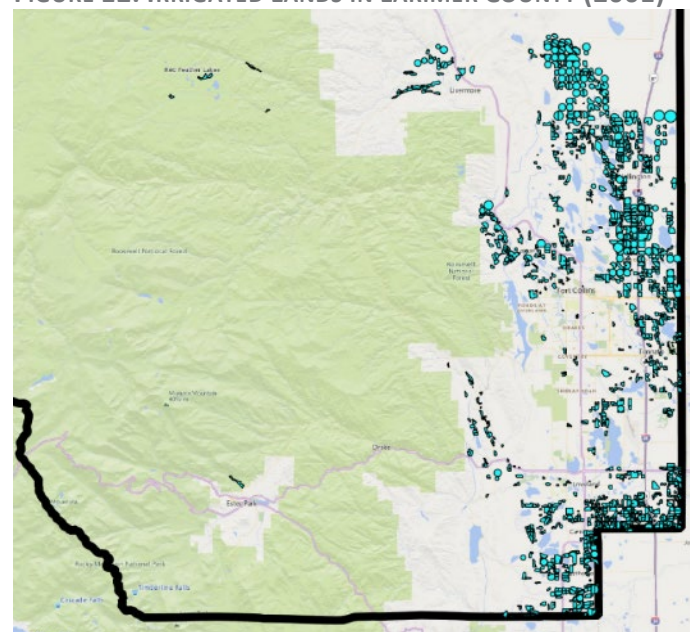


FIGURE 14. IRRIGATED LANDS IN LARIMER COUNTY (2020)

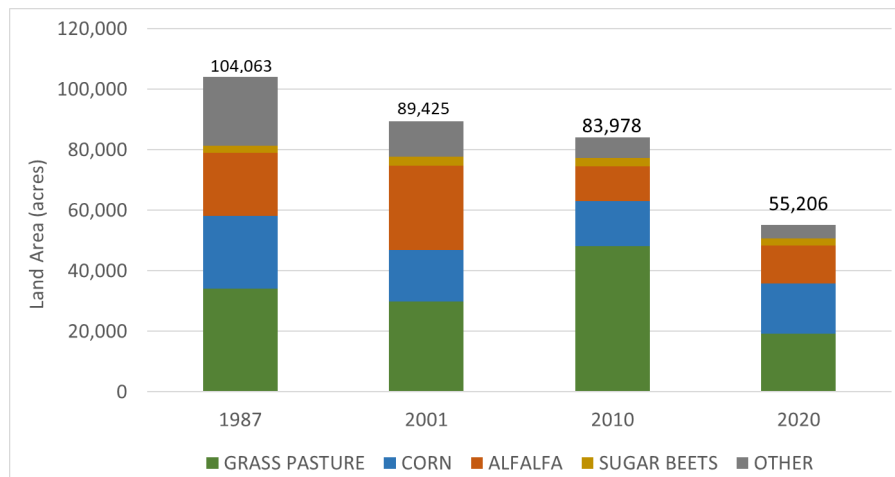


FIGURE 15. IRRIGATED AGRICULTURAL LAND IN LARIMER COUNTY

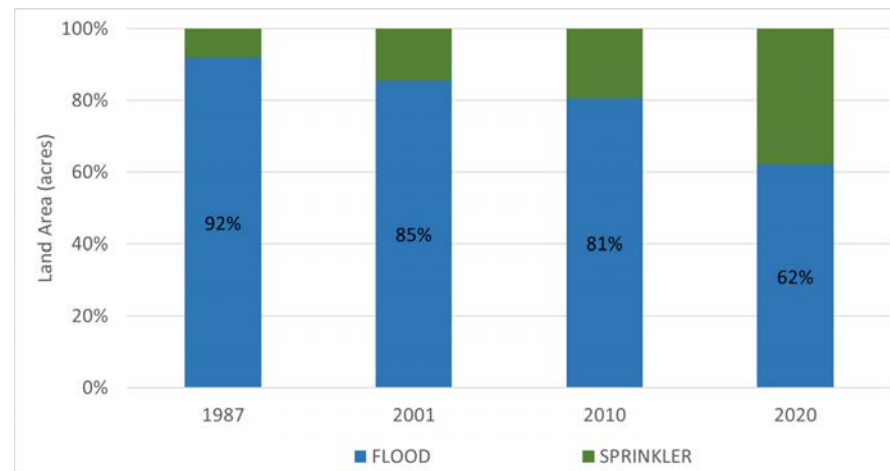


FIGURE 16. IRRIGATION METHODS FOR AGRICULTURAL LANDS IN LARIMER COUNTY

The methods used to irrigate agricultural land in Larimer County have become more efficient in the past 30 years (**Figure 16**) (Colorado Division of Water Resources, 2022b). In 1987, 92% of agricultural land was irrigated using flood irrigation, which is 40-60% efficient. In 2020, that percentage has been reduced to 62%, leaving 38% of agricultural land to be irrigated by sprinkler technology, which is 75% efficient (Food and Agriculture Organization of the United Nations, 1989).

WHO PROVIDES WATER?

Water delivery is a highly distributed service compared to other utility services such as electricity and natural gas. Water in Larimer County is provided by a combination of the following:

- **Public water systems are centralized utilities that deliver potable water** to their customers (typically residents and businesses). Potable water is water that has been treated to drinking water standards under the Safe Drinking Water Act.

- **Self-supplied users are residents and businesses that are not connected to public water systems.** In Larimer County, self-supplied users mostly rely on groundwater wells, though some may also purchase water from private haulers or otherwise truck in water. This water must be treated to the water quality standards associated with the water's beneficial use. For example, households that rely on wells for indoor use often chlorinate the groundwater, at a minimum.
- **Irrigation and ditch companies sell non-potable (raw) water** to their customers (typically public water systems, farmers and ranchers, and large industrial customers). Original shareholders represented the agricultural sector, and the water was used for irrigation and stock water. As development in Northern Colorado has rapidly progressed, more and more of the shareholders represent the municipal sector, where water is commingled with other sources for treatment and distribution.

Appendix A: Water Provider Inventory contains a complete inventory of the public water systems, groundwater wells, and irrigation and ditch companies in Larimer County.

PUBLIC WATER SYSTEMS

The Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Division (WQCD) is a regulatory body responsible for water monitoring, pollution prevention, and safe drinking water. As such, the WQCD maintains a public water system database for the State of Colorado (Colorado Department of Public Health and Environment, 2021a). This database includes 124 public water systems (PWS) in Larimer County. Public water systems are classified into one of three categories:

- **Community systems** supply drinking water to the same population year-round. Community systems represent the largest water utilities in Larimer County, serving an estimated combined population of 356,462 people (**Table 2**). Twenty-eight community systems supply water to a large portion of the County’s population, plus 3 systems located in Weld County serve a small portion of Larimer County (**Figure 17**).
- **Transient, non-community systems** serve at least 25 people or 15 connections, are open at least 60 days a year, but the population is flow-through traffic. There are 90 of these systems in Larimer County that serve temporary populations such as campgrounds and lodging facilities (**Table 2**).
- **Non-transient, non-community systems** serve at least 25 of the same people at least six months each year. There are 6 non-transient, non-community water systems in Larimer County, including entities like Colorado State University’s Foothills and South campuses and Platte River Power Authority (**Table 2**).

TABLE 2. PUBLIC WATER SYSTEMS IN LARIMER COUNTY (COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, 2021A)

PWS Type	Description	Number of PWS	Total Estimated Service Population	Notes / Example Systems
Community	Supplies water to the same population year-round.	31 ¹²	356,462	Includes municipal and Title 32 special district providers
Non-Transient, Non-Community	Regularly serves at least 25 of the same people at least 6 months each year	6	10,183	CSU Foothills & South Campuses, Platte River Power Authority
Transient, Non-Community	Serves at least 25 people or 15 connections, open at least 60 days a year, but the population is characterized as flow-through traffic	90	18,914	Grocery stores, campgrounds, lodging

¹² Includes three community water systems in Weld County that serve a small portion of Larimer County.

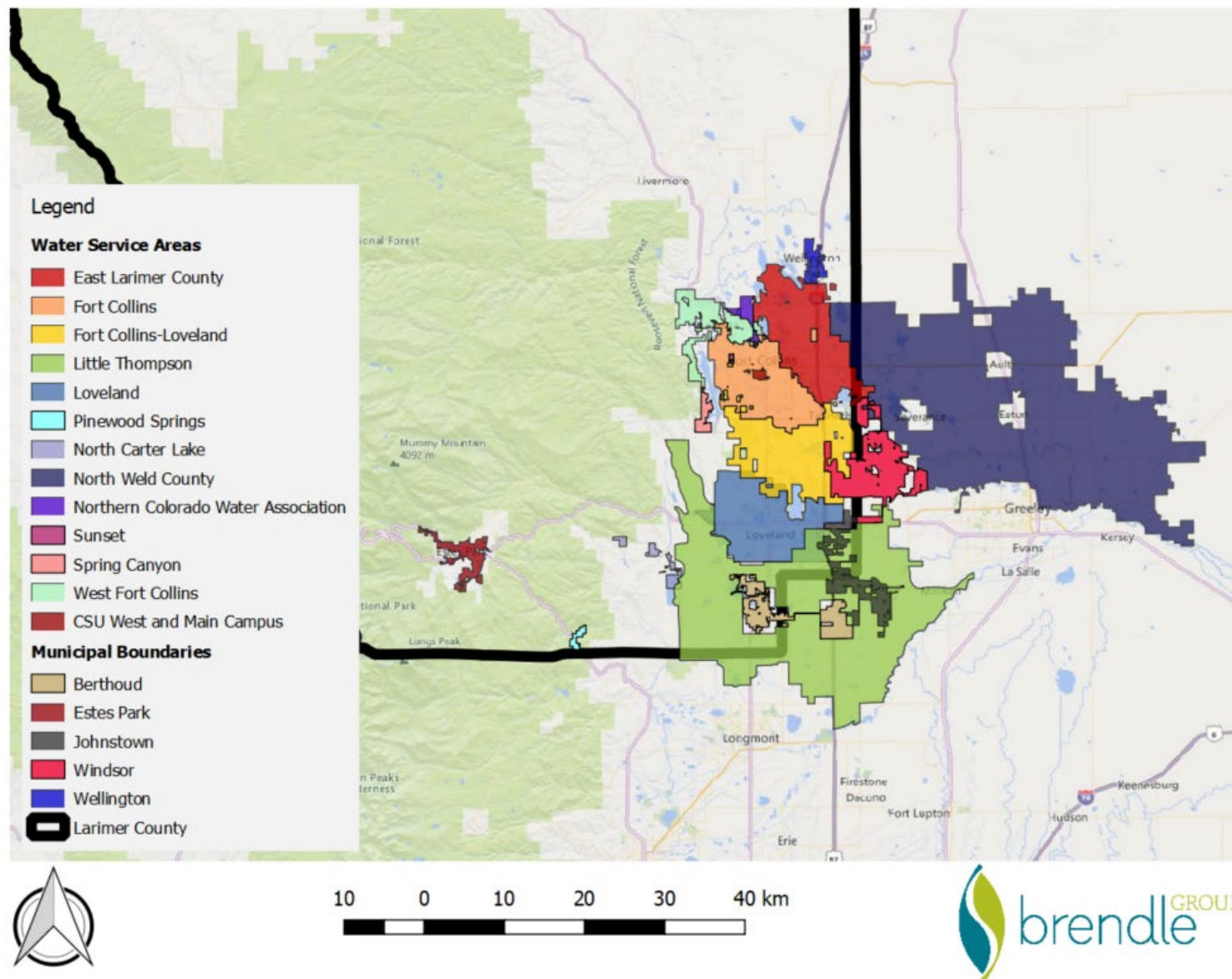


FIGURE 17. COMMUNITY WATER SYSTEMS SERVING LARIMER COUNTY

Public water systems rely on complex systems of raw water supplies and storage, water treatment and distribution infrastructure, and treated water storage to meet water demands (**Figure 18**). Ideally, public water systems hold a diverse portfolio of water rights and avoid overreliance on a single water source. In Colorado, where the runoff season typically lasts from April through September, raw water storage is crucial to satisfy demands at other times of the year. It is common for public water systems to provide water to other systems - under contractual agreements as part of daily business, or for short periods of time in response to emergency situations. Almost all water delivered by public

water systems is treated to drinking water standards; though increasingly, public water systems are constructing dual distribution systems to deliver potable and non-potable (raw or reclaimed) water separately. Water used indoors is collected and treated through the sanitary sewer system and treated effluent is discharged to downstream waterways. A portion of the water used for irrigation infiltrates into the ground and makes its way back to the river system as subsurface flow, though that process is slow. Flows returned to the river are then available for downstream water systems.

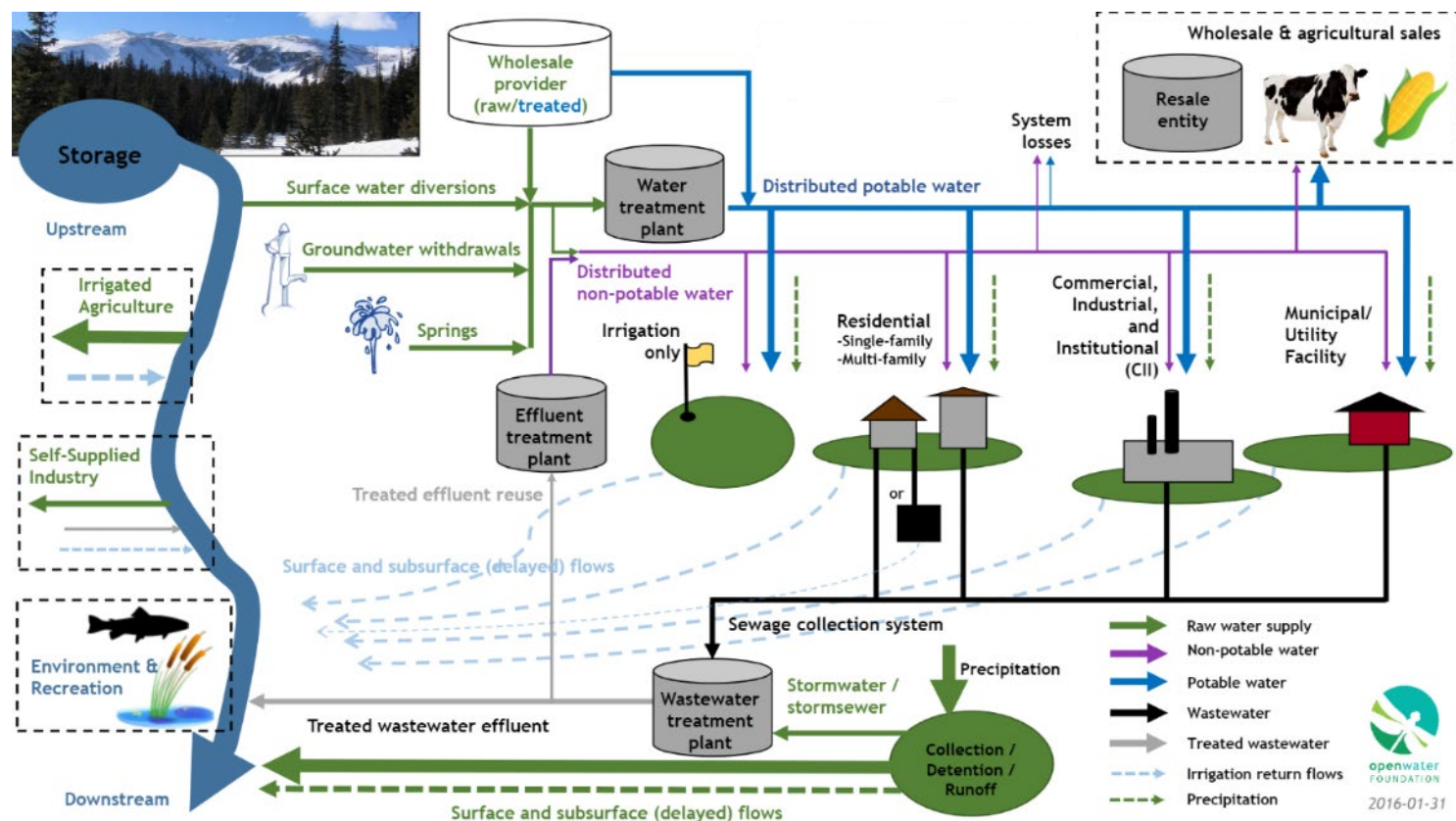


FIGURE 18. PUBLIC WATER SYSTEM SCHEMATIC (OPEN WATER FOUNDATION, 2016)

Though not a frequent occurrence, new public water systems can be created under the Colorado Revised Statutes, Title 32 Special Districts Act (Colorado Revised Statutes, 2016). Special districts are “created to fill the gaps that may exist in the services counties provide and the services the residents may desire” (Colorado Department of Local Affairs, n.d.). Special districts can provide one service (such as water), or if providing multiple services, may be referred to as “metropolitan districts.” Larimer County is currently conducting a feasibility assessment for a new centralized water system for Red Feather Lakes (Colorado Department of Public Health and Environment, 2021b). Some municipalities, including Fort Collins and Loveland, have adopted policies and criteria to inform the creation of new special districts and metropolitan districts within their jurisdictional areas. Special districts and metropolitan districts are legally distinct entities, so the creation of new districts expands the number of organizations that should be collaborating on water and land use issues.

SELF-SUPPLIED USERS

Limited information is available for the 13,090 groundwater wells in Larimer County. Using an assumption of 2.2 people per household, an estimated 23,300 people in Larimer County are self-supplied water users. Almost all groundwater wells are limited to pumping 15 gallons per minute (Hobbs Jr., 2004). Most (95%) of the wells are exempt from administration, which means their use is unaffected by a call on the river.

Self-supplied users can sometimes be connected to centralized service when public water systems expand their service boundaries or new utilities are created.

IRRIGATION AND DITCH COMPANIES

Ditch companies are regulated under Colorado Revised Statutes §7-42-101 (Colorado Revised Statutes, 2022a). In Larimer County, 47 ditch companies purvey raw water for irrigation and other purposes (Larimer County, 2021). These companies operate ditches, canals, and reservoirs to store and distribute water. Many of the ditches and canals originate in the mountainous portions of the County, cross urban areas, and deliver water to municipal and agricultural land within and east of Larimer County (**Figure 19**). As described previously, shares in these companies are increasingly represented by municipal shareholders, who must go through water court to convert their shares from agriculture to municipal use. Depending on the ditch company, water may be limited by season and only available for 6-8 weeks in summer. When municipal shareholders purchase rights for future water security, they sometimes offer water rental programs to agricultural users in the meanwhile.

A review of irrigation and ditch companies was beyond the scope of the current project. However, information about public water systems that own ditch shares and that have water rental programs is included in **Appendix C: Water Provider Summaries**.

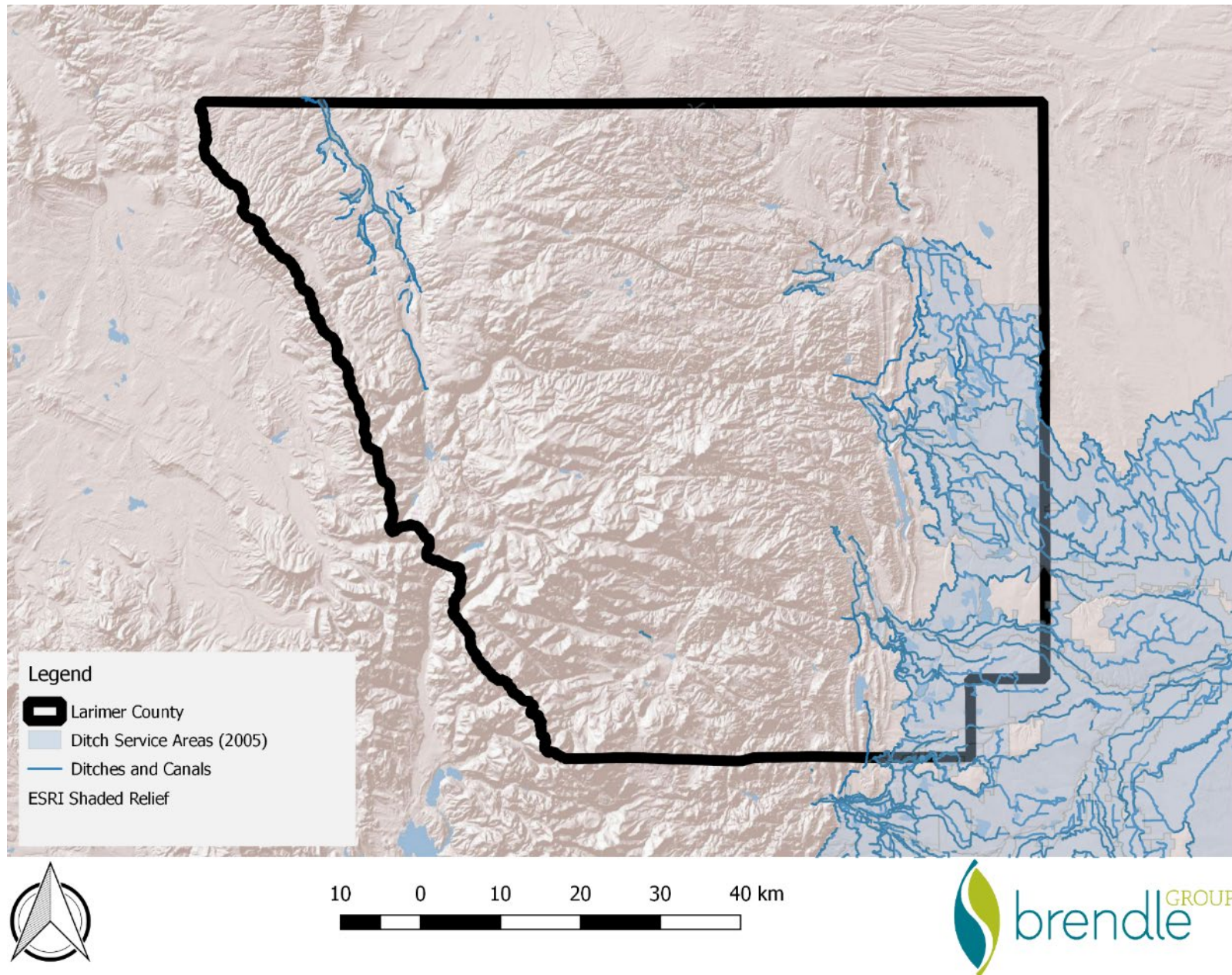


FIGURE 19. DITCHES AND CANALS IN LARIMER COUNTY

ARE OUR WATER SYSTEMS SUFFICIENT AND RELIABLE FOR CURRENT AND FUTURE NEEDS?

The 31 community water systems in and around Larimer County were reviewed to summarize basic utility characteristics, compile annual water use data, and identify risks and vulnerabilities. Twelve (12) systems had at least one publicly available plan to draw from. Basic characteristics for all systems were available from the CDPHE Public Water System database (Colorado Department of Public Health and Environment, 2021a). **Appendix B: Water Provider Overview** contains the provider summary and compiled water data. **Appendix C: Water Provider Summaries** contains 12 water provider profiles based on the publicly available plans. **Table 3** summarizes each community water system, the primary county it serves, total service population, notable system information, and whether a more detailed provider profile is contained in **Appendix C: Water Provider Summaries**.

TABLE 3. SUMMARY OF COMMUNITY WATER SYSTEMS IN LARIMER COUNTY

Community Water System	County	Estimated Service Population ¹³	About this Community Water System and Publicly Available Information	Profile in Appendix D?
Annunciation Heights	Larimer	320	Catholic Youth and Family Camp and Retreat Center located in Estes Park. Limited publicly available information.	N
Berthoud Town of (Berthoud)	Larimer	7,540	Municipal provider. Limited publicly available information.	Y
Big Elk Meadows Water Association	Larimer	351	Community located between Boulder and Estes Park, neighboring Roosevelt National Forest. Limited publicly available information.	N
Carter Lake Filter Plant	Larimer	-	Water treatment plant jointly owned by Little Thompson Water District and North Carter Lake Water District. Carter Lake is second largest reservoir in East Slope distribution system of C-BT water.	N (see LTWD profile)
CSU Main And West Housing Campus	Larimer	27,375	Higher education campus. Purchases water from Fort Collins Utilities. Limited publicly available information.	N (see FCU profile)
East Larimer County Water District (ELCO)	Larimer	18,870	Special district provider. Potential high growth area for unincorporated Larimer County. Working to address the needs of newer/denser development types. Participating in project to quantify water demands by land use type. Has a water efficiency plan (2017).	Y
Eden Valley Institute	Larimer	91	Wellness campus in Loveland area. Limited publicly available information.	N

¹³ Reported values are from a water efficiency plan, water master plan, or website if available; otherwise, data are taken from the CDPHE Public Water System database (Colorado Department of Public Health and Environment, 2021a). Service population for providers represents total service population; service population specifically in Larimer County is unknown. Service population values may overlap where systems are interconnected through wholesale and contractual arrangements.

Community Water System	County	Estimated Service Population ¹³	About this Community Water System and Publicly Available Information	Profile in Appendix D?
Estes Park Town of (Estes Park)	Larimer	12,245 (Permanent) 26,971 (Transient)	Municipal provider. Tourism and seasonal population important to accurately forecast demand. Biggest vulnerability around water treatment is being addressed. Has a water efficiency plan (2012) and a water master plan (2015).	Y
Fort Collins City of (FCU)	Larimer	130,200	Municipal provider. Seeking improved understanding of relationship between land use/zoning and water use and use of raw water in community. Participating in project to quantify water demands by land use type. Has a water efficiency plan (2012) and a water supply and demand management policy (2015).	Y
Ft Collins-Loveland Water District (FCLWD)	Larimer	42,490	Special district provider. Potential high growth area for unincorporated Larimer County. Participating in project to quantify water demands by land use type. Has a water efficiency plan (2015) that is slated for update in 2022.	Y
Glacier View Meadows Water & Sewer Association	Larimer	395	Community in Livermore. Water comes from seven groundwater wells. Limited publicly available information.	N
Johnstown Town of (Johnstown)	Weld	17,322	Municipal provider. Purchases water from Little Thompson Water District, Greeley, Central Weld, and takes water from Johnstown Reservoir. Limited publicly available information.	N
Little Thompson Water District (LTWD)	Larimer	21,000	Special district provider. Potential high growth area for unincorporated Larimer County. Service area is evolving into denser development and retail properties. Needs to add storage and convert rights to meet future demands. Has a water efficiency plan (2019) and a raw water master plan (2018).	Y
Loveland City of (Loveland)	Larimer	77,262	Municipal provider. Water and wastewater treatment plants will need expansion to meet increasing demands. Has a water efficiency plan (2020) and a water master plan (2020).	Y
Newell Warnock Water Association	Larimer	160	Homeowner's association. Limited publicly available information.	N
North Carter Lake Water District (NCLWD)	Larimer	293	Special district provider. Purchases water from LTWD. Limited publicly available information.	N

Community Water System	County	Estimated Service Population ¹³	About this Community Water System and Publicly Available Information	Profile in Appendix D?
North Weld County Water District (NWCWD)	Weld	44,487 (North Weld plus master meter areas)	Special district provider. Potential high growth area but only 3% of service territory is in Larimer County. Need to supply additional water, including ensuring an adequate raw water supply, constructing additional filtration facilities, and providing distribution system that supplies adequate pressures. Has a water efficiency plan (2018).	Y
Northern Colorado Water Association (NCWA)	Larimer	4,550	Special district provider. Current water tap moratorium. Limited publicly available information.	N
Pinewood Springs Water District	Larimer	1,000	Special district provider. Nearly built out. Water hauling and/or restrictions may be necessary in the event of severe drought. System information shared via personal communication.	Y
Riverview Campground	Larimer	450	RV Park and Campground. Water system run by a private company (AWWS). Limited publicly available information.	N
Rocky Mountain National Park (RMNP) Headquarters East	Larimer	900	National Park near Estes Park. Limited publicly available information.	N
Shambhala Mountain Center	Larimer	288	Retreat/spiritual center. Limited publicly available information.	N
Soldier Canyon Filter Plant (SCFP)	Larimer	-	Water treatment facility owned by the Tri-Districts (ELCO, FCLWD & NWCWD).	N (See ELCO, FCLWD & NWCWD profiles)
Spring Canyon Water & Sanitation District (SCWSD)	Larimer	2,120	Special district provider. Many capital improvement projects planned/needed to address aging infrastructure and water quality. Has a 2019-2021 capital improvement plan.	Y
Sunrise Ranch	Larimer	75	Retreat/spiritual center. Limited publicly available information.	N
Sunset Water District	Larimer	425	Special district provider serving northwest of Fort Collins. Limited publicly available information.	N
Wellington Town of (Wellington)	Larimer	11,040	Municipal provider. Potential high growth area; land anticipated to be annexed from county into municipal boundary. Upgrades to water treatment plant and wastewater treatment plants underway. Potential high growth area but building permit cap in place until plant expansions are complete. Has a water efficiency plan (2018).	Y

Community Water System	County	Estimated Service Population ¹³	About this Community Water System and Publicly Available Information	Profile in Appendix D?
West Fort Collins Water District (WFCWD)	Larimer	4,000	Special district provider serving the Laporte and Bellvue areas. Purchases water from FCU. Limited publicly available information.	N (see FCU profile)
Windcliff Property Owners Association	Larimer	337	Homeowner's association that purchases water from Estes Park. Limited publicly available information.	N (See Estes Park profile)
Windsor Town of (Windsor)	Weld	14,883	Municipal provider. Relies on FCLWD, NWCWD, and City of Greeley for water treatment. Potable service area is fully in Weld County. Maintains a separate non-potable system for irrigation. Has a water master plan (2009) and a water efficiency plan (2016).	Y
YMCA Rockies Wind River	Larimer	3,730	Retreat/spiritual center. Limited publicly available information. As of Apr 2022, is transferring C-BT shares to Estes Park in exchange for a perpetual water treatment contract (Smith, 2022).	N

By reviewing information across providers, systemic resiliencies, risks, and vulnerabilities were illuminated. Water resiliency successes include treatment plants with excess capacity, water sharing across providers through system interconnects, and shared infrastructure projects. The following sections summarize risks and vulnerabilities highlighted in the providers' plans.

CURRENT AND IMMINENT SERVICE LIMITATIONS

As Northern Colorado grows and pressures on water supply and infrastructure increase, some of the community water systems are facing current or imminent service limitations (**Table 4**).

TABLE 4. COMMUNITY WATER SYSTEMS: CURRENT OR IMMINENT SERVICE LIMITATIONS

Community Water System	Service Limitation Notes
Estes Park	Neither water treatment plant alone can meet the Town's demand year-round (HDR, 2012).
Little Thompson Water District	Will need to develop Windy Gap and native rights to meet demands beyond 2021. Will need to add storage and convert rights to have firm yields ¹⁴ meet demands beyond 2028 (Little Thompson Water District, 2019; Little Thompson Water District, 2018).
Loveland	The water and wastewater treatment plants will need to be expanded to meet increases in peak day demands and average annual demands (estimated in 2041 and 2044 respectively; subject to actual population growth and efficacy of conservation programs in reducing summer peak demands) (City of Loveland, 2020a).
North Weld County Water District	Moratorium on the sale of new taps and plant investments until at least May 31, 2022 (North Weld County Water District, 2021).
Northern Colorado Water Association	Tap moratorium initiated on July 1, 2020 has been extended indefinitely. Has experienced record high summer peak demands that cannot be met; negotiating with ELCO and NWCWD to purchase additional water (Northern Colorado Water Association, 2021) but NWCWD has its own tap moratorium.
Pinewood Springs Water District	As part of a State of Colorado augmentation plan requirement, each household is strictly restricted to 6,000 gallons or less per month and fines are imposed if the limit is exceeded (Benson, 2021). No outdoor use of treated water is allowed.
Wellington	The Town is working with developers to limit the number of residential building permits to 100 per year until the completion of the water treatment and wastewater treatment expansion projects in 2024 (Coloradoan, 2021).

Service pressures are expected to grow, as profiled providers report that they expect between 25-90% growth in water demand between now and when their service area is fully built out (**Appendix B: Water Provider Overview**).

¹⁴ Firm yield is the amount of water that can be dependably supplied from the raw water sources of a given water supply system (Colorado State University, 2022). Typically, this term is used to describe the amount of water that will be yielded during a drought of record or other drought planning criterion established by the water provider. Different planning criteria are used by different providers.

LACK OF DIVERSITY IN WATER SOURCES

Each community water system is responsible for its own water supply planning. Providers seek to diversify their water supply portfolios to reduce vulnerability in the event of drought, poor water quality, infrastructure failure, or other challenges. All but one of the profiled community water systems holds water rights associated with multiple water sources. Spring Canyon WSD purchases water from FCLWD and is dependent on that provider as its sole water source.

The C-BT system was originally designed as a seasonal irrigation supply to supplement native water rights, but C-BT water is increasingly supporting population growth. FCU and Loveland hold a balanced mixture of senior native rights, C-BT shares, and ditch rights, but many of the special district providers rely heavily on C-BT water and have been working to diversify their water portfolios. Where providers remain heavily reliant on C-BT water alone, they assume the risks of that water supply.

ADDITIONAL STORAGE CAPACITY

Water storage is necessary to capture water during the runoff season and to meet demands at other times of year. Providers that identified additional storage capacity as a need include Estes Park, FCU, FCLWD, Johnstown, LTWD, Loveland, NWCWD, Wellington, and Windsor (**Appendix C: Water Provider Summaries**).

FCLWD, NWCWD, and Windsor specifically identified a need for additional storage capacity on the east slope to store and maximize yield from their C-BT storage supplies. Some providers in Northern Colorado have banded together to support Northern Water's proposed Northern Integrated Supply Project (NISP) which when fully approved would include two new water storage reservoirs – Glade Reservoir (170,000 ac-ft storage capacity) in Larimer County and Galetton Reservoir (45,600 ac-ft storage capacity) in Weld County (Northern Water, 2022b). FCLWD and Windsor are participating in NISP (Northern

Water, 2022a). NWCWD is not a NISP participant but three of its wholesale customers are – Eaton, Severance, and Windsor (Clear Water Solutions, 2018b).

Northern Water's proposed Windy Gap Firming Project would similarly benefit participating providers by adding water storage on the east slope to store additional water when Lake Granby is full and therefore increasing the project's yield (Northern Water, 2022c; Northern Water, 2022d). The proposed storage reservoir is Chimney Hollow (90,000 ac-ft storage capacity), to be located west of Carter Lake in Larimer County. LTWD, for example, will be able to store Windy Gap shares it has acquired through the dedication process for the Brookfield development in Chimney Hollow (Little Thompson Water District, 2019).

FCU's Halligan Water Supply Project, if approved, would enlarge Halligan Reservoir by 8,100 ac-ft to meet future water demands, improve FCU's system reliability during times of drought and emergencies, and restore environmental flows to portions of the North Fork of the Poudre River (City of Fort Collins, 2021c).

Water storage projects are complex projects that cross community and service provider boundaries and take decades to plan, permit, fund, and construct. Larimer County regulations apply to water storage and distribution projects in unincorporated areas; municipal regulations apply in incorporated areas.

HIGHLY INTERCONNECTED SYSTEMS

The provider profiles show that the region's communities and water providers form a highly interconnected system that rely on common water supplies (such as C-BT and Poudre River), shared infrastructure (such as the Soldier Canyon Filtration Plant), and intergovernmental agreements that move water between systems (such as between Spring Canyon WSD and FCLWD, among many others).

This interconnected system leads to a complex web of agreements, system benefits, and system vulnerabilities. As one example, three water providers (ELCO, FCLWD, and NWCWD) jointly own the Soldier Canyon Filtration Plant. The costs to construct the treatment plant were shared among the providers, who also benefit from the operational and maintenance efficiencies of a shared plant. At the same time, if the plant were unable to treat water, water service could be disrupted for a large share of the region's water customers.

This interconnected system makes regional assessment and collaboration necessary to identify and address systemic risks and vulnerabilities.

INFRASTRUCTURE NEEDS

Nearly all of the profiled providers identified aging and/or insufficient infrastructure. Infrastructure improvement needs for Larimer County's providers include:

- Upgrading treatment plants to meet EPA regulations
- Reducing pipeline leaks that result in system losses
- Repairing and replacing storage tanks and pipelines to avoid service disruptions
- Ensuring adequate water pressure for fire protection

Wellington's infrastructure is relatively new compared to other providers in the region, so while aging infrastructure is not a constraint for its water system, it does face water delivery limitations until existing infrastructure is expanded (Clear Water Solutions, 2018a).

WATER QUALITY ISSUES

Wildfire is a major threat to water quality. Ash and contaminants end up in surface water bodies while a fire is burning. Even after wildfires are fully contained, flooding and erosion events create pulses of pollution to waterways for several years following the fire (United States Environmental Protection Agency, 2019). FCLWD, NWCWD, Wellington, and Windsor in particular report system risks from poor water quality from wildfires affecting Lake Granby, an important west slope reservoir where C-BT water is stored (**Appendix C: Water Provider Summaries**). All providers relying on C-BT and Windy Gap water are affected by this risk.

Other water quality issues include algal blooms due to agricultural and municipal stormwater runoff. Wellington's residents complain of taste and odor issues attributable to algal blooms in their terminal supply reservoir (Town of Wellington, 2021). Surface water in Larimer County is at increasing risk for cyanobacteria growth caused by climate change-induced warmer temperatures and increased carbon dioxide absorption (United States Environmental Protection Agency, N.D.).

INFORMATION GAPS

Twelve (12) of the 31 community water systems in Larimer County had at least 1 publicly available plan. The 9 largest providers report historical and forecasted water demands. While this report summarizes available information, there are information gaps:

- 19 providers had no publicly available plans, and 22 providers do not share historical and forecasted water demands.
- 2 providers have outdated water efficiency plans – Estes Park (2012) and FCU (2012). The State of Colorado’s Water Conservation Act of 2004 (HB04-1365) requires all covered entities¹⁵ to have an approved water efficiency plan that is updated at least every seven years on file with the State (Colorado Revised Statutes, 2022b). The planning horizon for a water efficiency plan is typically 7-10 years, so they don’t necessarily provide a long-term forecast of supplies and demands through buildout. Routine updates to water efficiency plans help establish a more complete water planning picture across Larimer County.

- The State of Colorado does not require providers to complete a Water Master Plan, though providers prepare these plans to guide their system growth and investments. Given the rapid growth that is changing development conditions (e.g., locations, densities, and costs) in Larimer County, many of the existing Water Master Plans are outdated or inconsistent with communities’ future development plans.
- Periods of prolonged drought and increasing temperatures are putting pressure on available water supplies. Water Shortage Action Plans (traditionally known as drought management plans) should be developed for all providers to establish drought triggers and responses, including a prioritization of water use.

Each water provider is responsible for its own water supply planning. Unless system projections, risks, and vulnerabilities are considered across the system, the true risks and vulnerabilities of water in Larimer County remain uncertain. Only a limited systemwide analysis can currently be done, due to differing planning horizons and plan update schedules.

¹⁵ Covered entities are retail water providers that sell 2,000 ac-ft/yr or more of water (Colorado Revised Statutes, 2022b).

SUMMARY OF LARIMER COUNTY'S KEY WATER RISKS AND VULNERABILITIES

In summary, while Larimer County has notable water resiliency successes (including excess treatment capacity, water sharing and interconnection agreements among providers, improving irrigation efficiency, and improved consideration of riverine health), this regional water existing conditions report discusses the following water-related risks and vulnerabilities in Larimer County (in no particular order):

- All water supplies are at risk of reduced water availability and poor water quality due to natural hazards such as drought and wildfires.
- Water used in Larimer County that originates from the Colorado River could be curtailed during a compact call.
- Non-tributary groundwater wells are generally not monitored and reported, presenting a gap in water use information.
- Direct flow and storage rights in Larimer County are still being developed, putting additional strain on available water resources.
- Weather trends show warming temperatures and periods of low precipitation, which reduce water availability.
- Based on water source alone, the water in Larimer County has relatively low reuse potential, as C-BT return flows are reserved for downstream agricultural users and native supplies cannot be reused without additional water court actions. Windy Gap and other transmountain water can be reused.
- Agricultural water rights continue to be converted to municipal water rights, diminishing agricultural lands. While water-sharing pilot projects are occurring, water sharing efforts are needed on a larger scale to overcome buy-and-dry.
- Some community water systems are experiencing water delivery limitations. Service pressures are expected to grow since water demands are projected to increase by 25-90% from now through community buildout.
- There is a trend toward water supply diversification, but some providers remain heavily reliant on C-BT water.
- Many community water systems report the need for more raw water storage to increase the yield of their water supplies. Many providers are actively participating in new storage reservoir and reservoir expansion projects, which are expensive and take many years to complete the permitting process.
- Community water systems are more connected than may be apparent given that they are legally distinct entities with their own water rights and service areas. These interconnections (including common water sources, joint infrastructure, and intergovernmental agreements) create the potential for both system resiliencies and cascading risks.
- Nearly all community water systems report aging or insufficient infrastructure, underscoring the need for water system infrastructure investments to ensure future water supply reliability.
- Information and planning gaps remain. These gaps include a lack of publicly available water information and missing (or outdated) long-range plans.

The work that Larimer County is initiating will be an important mechanism to look across individual water providers and better understand regional, systemic risks and vulnerabilities.

FUTURE WORK

This regional water existing conditions report presents a profile of growth and water in Larimer County as a starting point to understanding regional water supplies, demands, and issues. Future work could include a broader look at water in the County that may include watershed, stormwater, and wastewater management as these topics are addressed in other plans and policies and as they relate to supporting integrated water resources management (also known as One Water principles) as well as identification of additional stakeholders and related work. The work that Larimer County is exploring can be valuable to help look across individual water providers and better understand systemic risks and vulnerabilities. As future work ensues, the following questions remain to be answered:

- **Defining Larimer County's role** in engaging in different types of water matters. That role is likely to differ for different situations, such as addressing water supply risks for residents who supply their own water, understanding development costs and water supply reliability for developments serviced by a centralized water utility, and engaging with other stakeholders in regional water conversations.
- **Defining desired outcomes** from the County's involvement in water matters, such as what achieving water supply reliability means in Larimer County and quantifying the relationship between water and other issues, such as water costs, development costs, and housing prices.
- **Filling gaps in the County's planning** and understanding of water issues that could be bolstered by development of a long-range water element. The County has done extensive stormwater master planning but has done less formalized work to date on water and wastewater.
- **Defining the implementation levers** the County has available to address water matters, such as educational and other programming, funding streams for projects and incentives, and policy and regulatory tools.
- **Identifying key stakeholders** the County needs to have ongoing and collaborative relationships with to address regional water issues. For example, working with water providers where appropriate in areas of mutual benefit, such as garnering grant and federal funds to Larimer County, improving collective water system resilience, and promoting water sharing to maintain productive agriculture.

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KEY TERMINOLOGY

Note: Unless otherwise referenced, definitions are taken from the Colorado Water Plan (Colorado Water Conservation Board, 2019).

Augmentation Plan – A water court decree that protects senior water rights while increasing reliability for junior water rights by allowing out-of-priority diversions if the water is replaced. Examples include releasing stored water or using unlined ditches and ponds to recharge groundwater (Hobbs Jr., 2004).

Buy and Dry – The process of buying agricultural water rights and subsequently using the water rights for another purpose (typically for municipal or industrial use). The formerly irrigated agricultural land is “dried up” and no longer irrigated by virtue of the water transfer.

Call – On any given day, a river may not have enough water available to satisfy all water rights. Water users then “call” for their water, and water rights are satisfied in order of priority date from most to least senior. The priority date that distinguishes which rights are fulfilled and which are not varies each day based on water availability and water calls (Hobbs Jr., 2004).

Colorado’s Decision Support Systems (CDSS) – Colorado’s Decisions Support Systems is a water management system developed by the Colorado Water Conservation Board (CWCB) and the Division of Water Resources (DWR) for each of Colorado’s major river basins. The CDSS includes water-focused data sets, models, geographic information system (GIS) layers, and other tools including StateMod, StateCU, HydroBase and others, to assist with surface water and groundwater management in Colorado.

Covered Entities – Covered entities are retail water providers that sell 2,000 ac-ft/yr or more of water (Colorado Revised Statutes, 2022b).

Domestic Use – Some parcels of land in the state that are 35 acres or greater in size may obtain a limited supply of water for residential dwellings, some lawn/garden irrigation, and watering of domestic animals/livestock. Depending on which provisions the well permit is issued under, the well may be able to serve up to three single-family dwellings, irrigate one acre or less of lawn and garden, and provide water for the individual's domestic animals and livestock. (Colorado Division of Water Resources, 2020)

Firm Yield – The amount of water that can be dependably supplied from the raw water sources of a given water supply system (Colorado State University, 2022).

Growth Management Area – The Growth Management Area is the area into which urban development and annexation shall be directed and within which urban level services to support urban development will be needed (City of Loveland and Larimer County, 2004).

Household Use – These types of well permits are issued for ordinary household uses in one single-family dwelling on parcels of land less than 35 acres and do not allow for outside water use (irrigation) or livestock watering. There can only be one exempt well on the parcel. (Colorado Division of Water Resources, 2020)

Municipal Demand – The portion of distributed water attributable to uses typical of municipal systems, including residential, commercial, light industrial, non-agricultural irrigation, firefighting, and non-revenue water. Demands for self-supplied households not connected to a public water supply are also included in the municipal demand category.

M&I Demands – This refers to municipal and industrial water demands inclusive of the self-supplied industrial (SSI) demands.

Municipal Water Efficiency Plans (WEP) – The Water Conservation Act of 2004 (HB04-1365) requires all covered entities (i.e., retail water providers that sell 2,000 acre-feet or more on an annual basis) to have a state-approved water efficiency plan that contains certain required minimum plan elements (Colorado Revised Statutes, 2022b).

Non-Revenue Water – The calculated difference between distributed water and authorized metered water use. Non-revenue water thus represents system water loss.

Non-Tributary Wells – Groundwater wells (usually wells that are very deep and/or far from rivers) that are deemed not to be hydrologically connected to streams and therefore are exempt from administration under the priority system (Hobbs Jr., 2004).

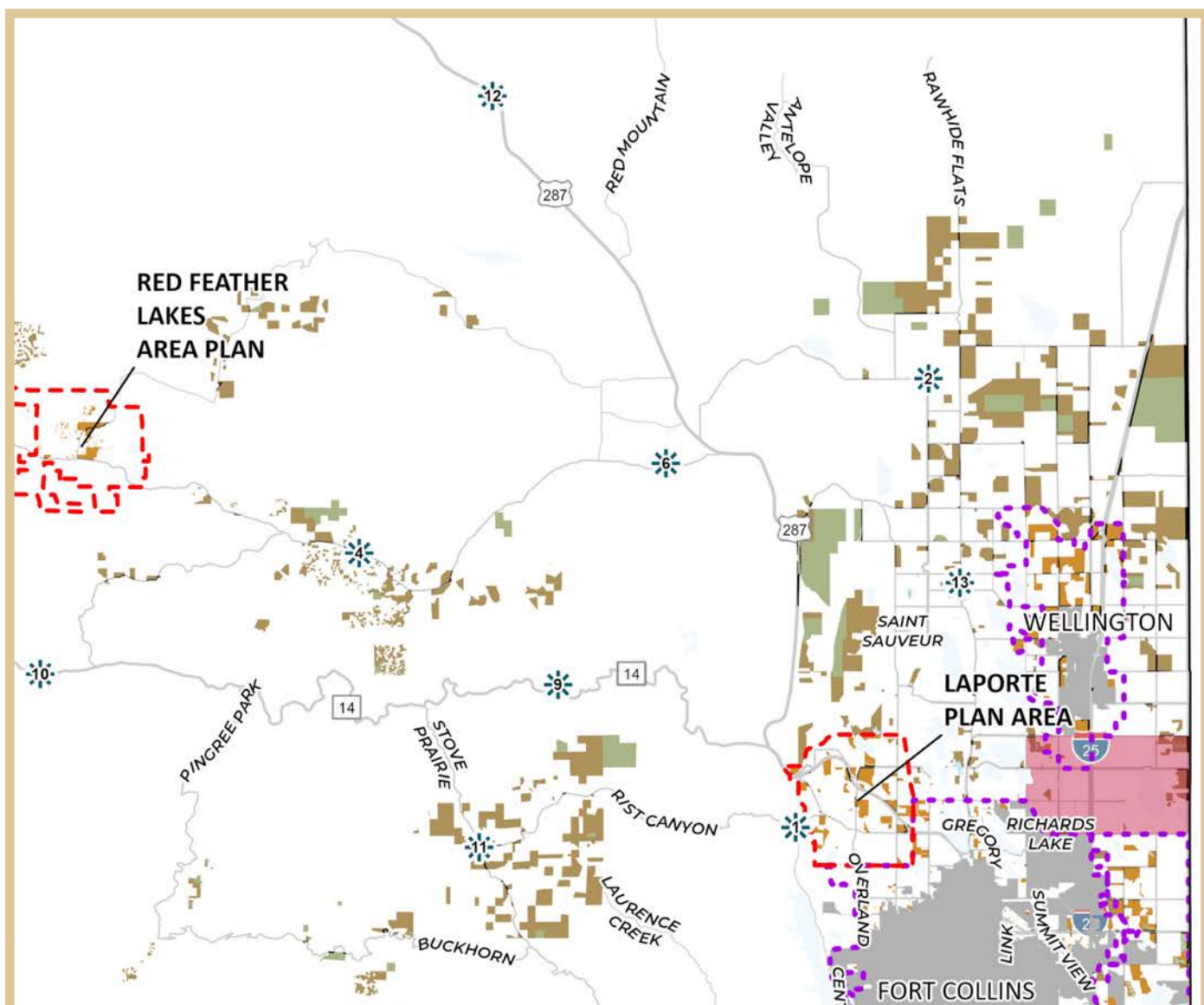
Over-Appropriated Watershed – A watershed is over-appropriated if the water court has approved more water rights than there is water available. In over-appropriated watersheds, new rights may be obtained, but water may be available only for a short period of time during the year, or only during wet years (Hobbs Jr., 2004).

Resiliency – The ability of water systems to adapt and continue providing adequate levels of service in the face of changing circumstances and drivers.

Tributary Wells – Groundwater wells (usually shallow wells proximate to rivers) that are deemed hydrologically connected to streams and are administered under the priority system (Hobbs Jr., 2004).

Urban Expansion Areas – Areas located within Growth Management Areas where municipal development is anticipated (Logan Simpson et. al., 2019).

Urban/Rural Interface – 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).



APPENDIX I: STRATEGIC GROWTH ANALYSIS AND METHODOLOGY



ANALYSIS AND METHODOLOGY

PURPOSE

This appendix documents a six-map series prepared to support the Strategic Growth Element required of Larimer County under Senate Bill 24-174. The maps are intended to be read in order. Together they move from a complete inventory of land in unincorporated Larimer County through an assessment of where development and redevelopment are realistically feasible, to a designation of the sites best suited to accommodate growth and an accounting of the natural and agricultural resources that directing growth inward would protect.

Each entry below states the purpose of the map, what it shows, how it was prepared, and the statutory requirement it addresses.

READING THE SERIES

Maps 1 through 4 establish where growth can be accommodated within and adjacent to existing communities. Maps 5 and 6 establish what is protected by doing accommodating growth within and adjacent to existing communities. The designated sites and the highest ranked conservation lands are the two halves of a transfer of development rights program, and this analysis identifies both.

MAP SERIES

Land Supply Base

PURPOSE:

To establish a complete, non-overlapping inventory of every parcel in unincorporated Larimer County and the development condition of each, forming the base from which every subsequent map is drawn.

WHAT THE MAP SHOWS:

Every parcel in unincorporated Larimer County, sorted into three categories: excluded/developed, vacant, and underutilized. This is the single inventory from which every subsequent map is drawn.

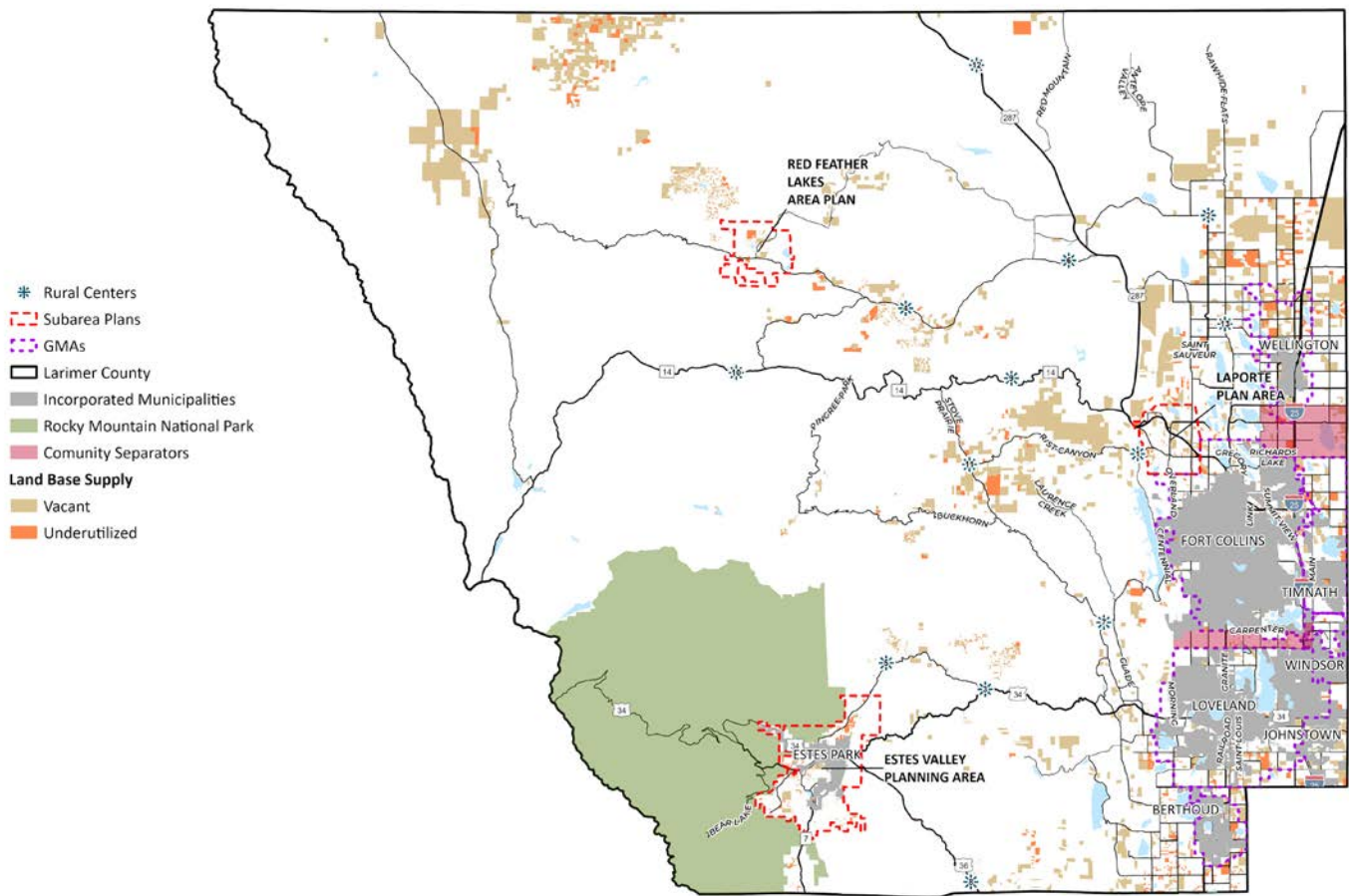
HOW IT WAS PREPARED:

Publicly owned and permanently protected lands were set aside first, as they carry no development potential. Remaining parcels with no meaningful improvement value were identified as vacant from County Assessor records. Parcels with existing buildings were then measured against the minimum lot size of their zoning district, adjusted for whether the property is served by public water and sewer; those large enough to be divided again were classified as underutilized. Of the built parcels that remained, those whose buildings are worth less than the land beneath them were classified as underutilized as well, and all others as developed.

STATUTORY RELEVANCE:

Satisfies the identification requirement of the vacant and underutilized sites analysis under C.R.S. 30-28-106(3)(a.7), which directs counties to identify vacant, partially vacant, and underutilized land that could be used for infill development, redevelopment, and new housing.

Map 1. Land Supply Base



Vacant Land Supply

PURPOSE:

To separate the vacant land supply into parcels positioned to complete existing communities and parcels whose development would extend growth outward.

WHAT THE MAP SHOWS:

The vacant portion of the land supply, sorted into three tiers: priority infill, rural infill, and greenfield.

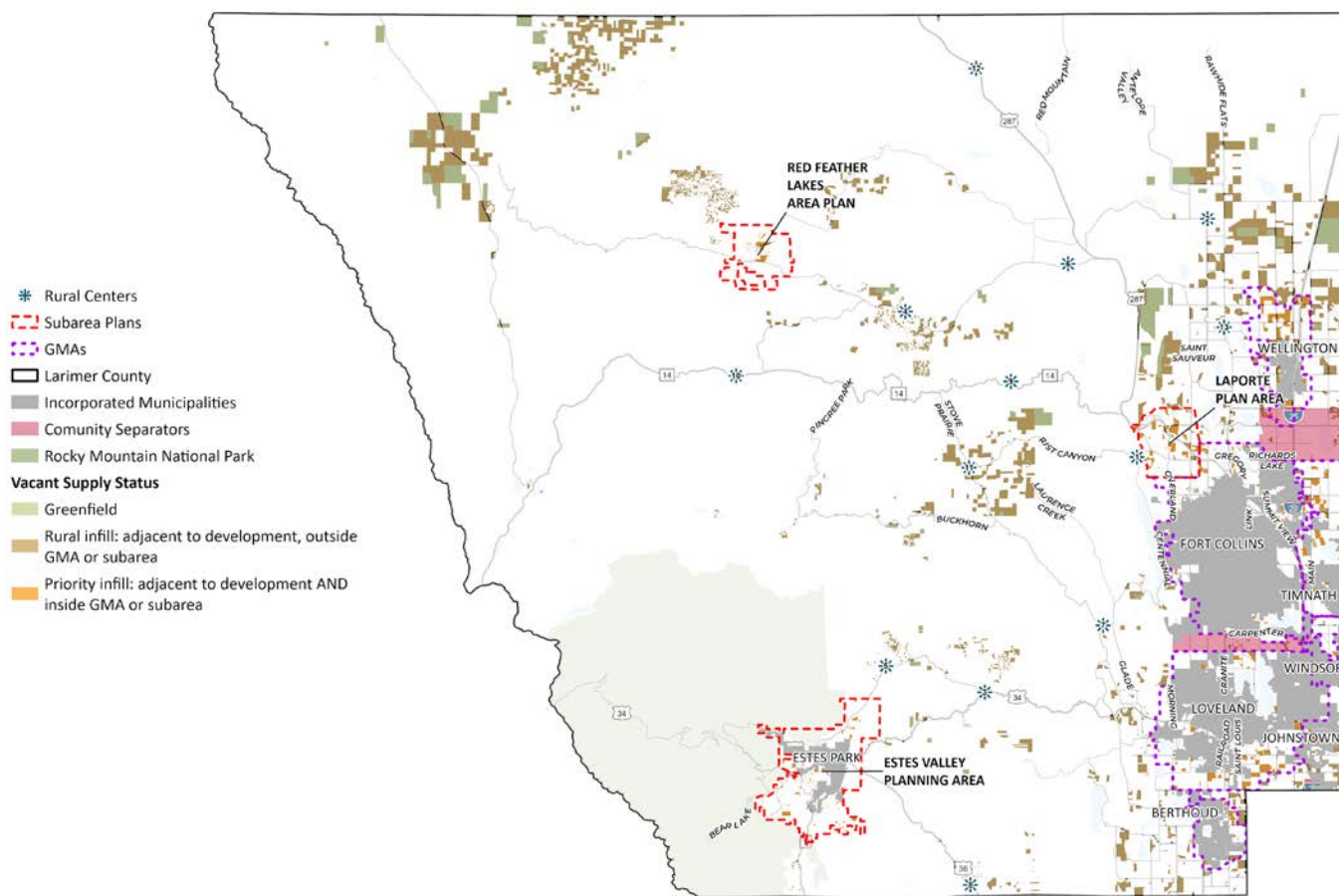
HOW IT WAS PREPARED:

Vacant and partially vacant parcels were tested for closeness to existing development, measured against the combined footprint of built parcels and incorporated municipalities. A short tolerance was applied so that parcels separated from development only by a county road still register as adjacent. Adjacent parcels were then separated by whether they fall inside an adopted Growth Management Area or subarea plan. Parcels inside those boundaries are priority infill; adjacent parcels outside them are rural infill; parcels with no adjacency to existing development are greenfield and are carried forward to Map 6.

STATUTORY RELEVANCE:

Advances the feasibility component of the site analysis, which requires the County to assess the general feasibility of development for residential use based on existing and needed infrastructure, transportation capacity, and the public facilities and services available to serve those sites.

Map 2. Vacant Land Supply



Underutilized and Redevelopment Inventory

PURPOSE:

To identify parcels where existing buildings no longer reflect the value of the land beneath them, and to establish where redevelopment can realistically be served by existing infrastructure.

WHAT THE MAP SHOWS:

Underutilized parcels, sorted into three tiers: priority redevelopment, serviced rural redevelopment, and constrained redevelopment.

HOW IT WAS PREPARED:

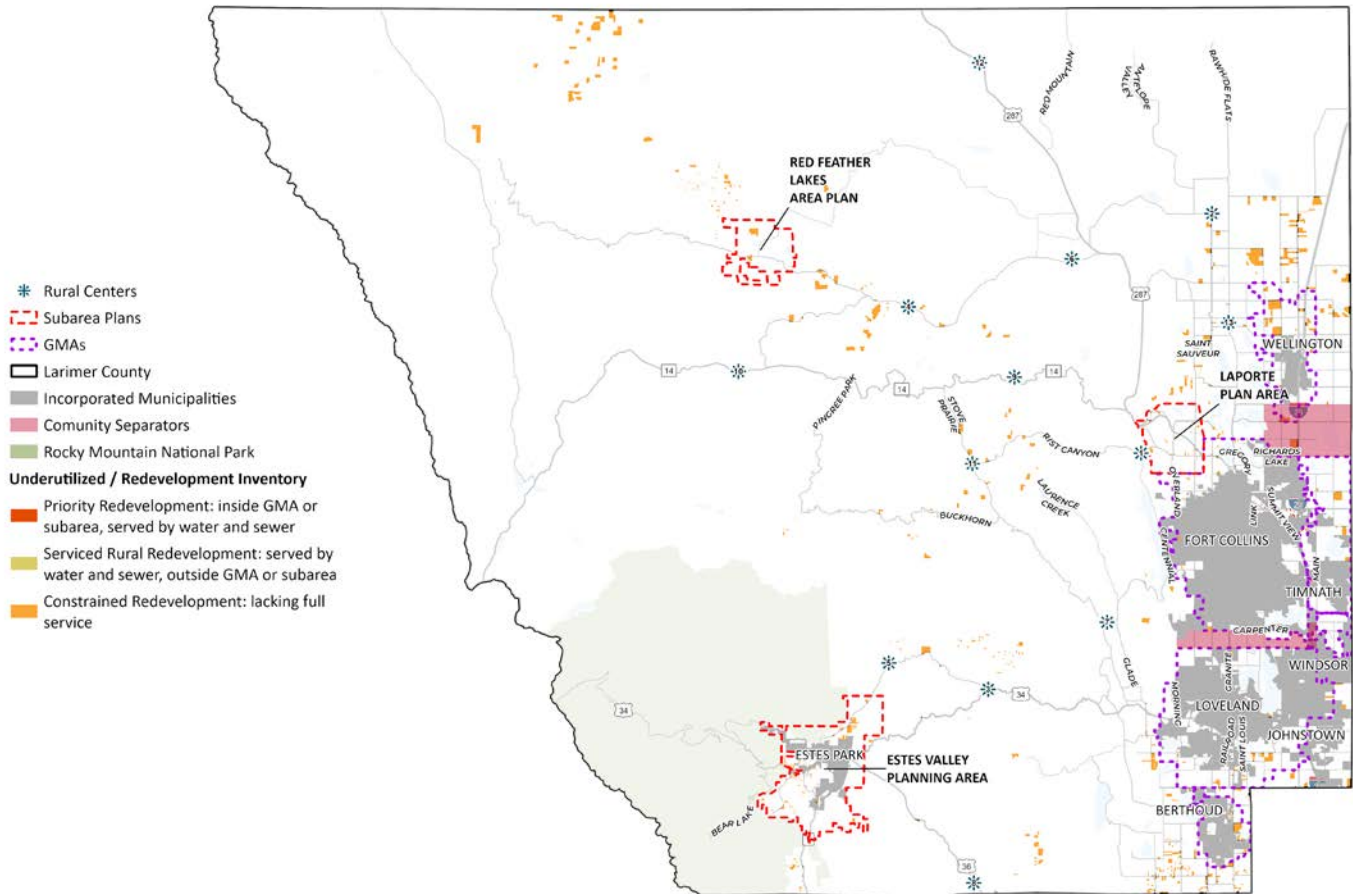
Underutilized parcels were carried forward from the land supply base. Because redevelopment depends on the capacity to support additional density rather than on proximity to existing development, these parcels were tiered on service availability instead of adjacency. Parcels served by both a water district and a sanitation district were separated from those lacking one or both. Served parcels were then divided by whether they fall inside an adopted Growth Management Area or subarea plan.

A fourth consideration was applied after the service and growth boundary tests. Parcels lying within one-half mile of a Regional Transit Corridor identified in the North Front Range Metropolitan Planning Organization 2050 Regional Transportation Plan were flagged as carrying additional long-term redevelopment value. The flag does not change a parcel's tier; it identifies parcels within an established tier that stand to gain capacity as planned transit is implemented. The corridors are described in the supplemental layer section that follows.

STATUTORY RELEVANCE:

Addresses the redevelopment half of the statutory site analysis, applying the same infrastructure and public services feasibility test the statute requires for infill. The transit corridor criterion responds directly to the statute's emphasis on land near existing or planned transit.

Map 3. Underutilized and Redevelopment Inventory



Supplemental Layer. 2050 RTP Regional Transit Corridors

PURPOSE:

To identify the corridors where regional transit investment is planned, so that parcels positioned to benefit from that investment can be recognized in the redevelopment and receiving lands analyses.

WHAT THE LAYER SHOWS:

The Regional Transit Corridors adopted in the North Front Range Metropolitan Planning Organization 2050 Regional Transportation Plan, shown across unincorporated Larimer County, together with the one-half mile band around each corridor within which parcels are flagged.

HOW IT WAS PREPARED:

The corridor alignments were taken directly from the NFRMPO 2050 Regional Transportation Plan. A one-half mile band was applied to the corridors, consistent with the walkable service area typically used in transit planning, and parcels intersecting that band are highlighted.

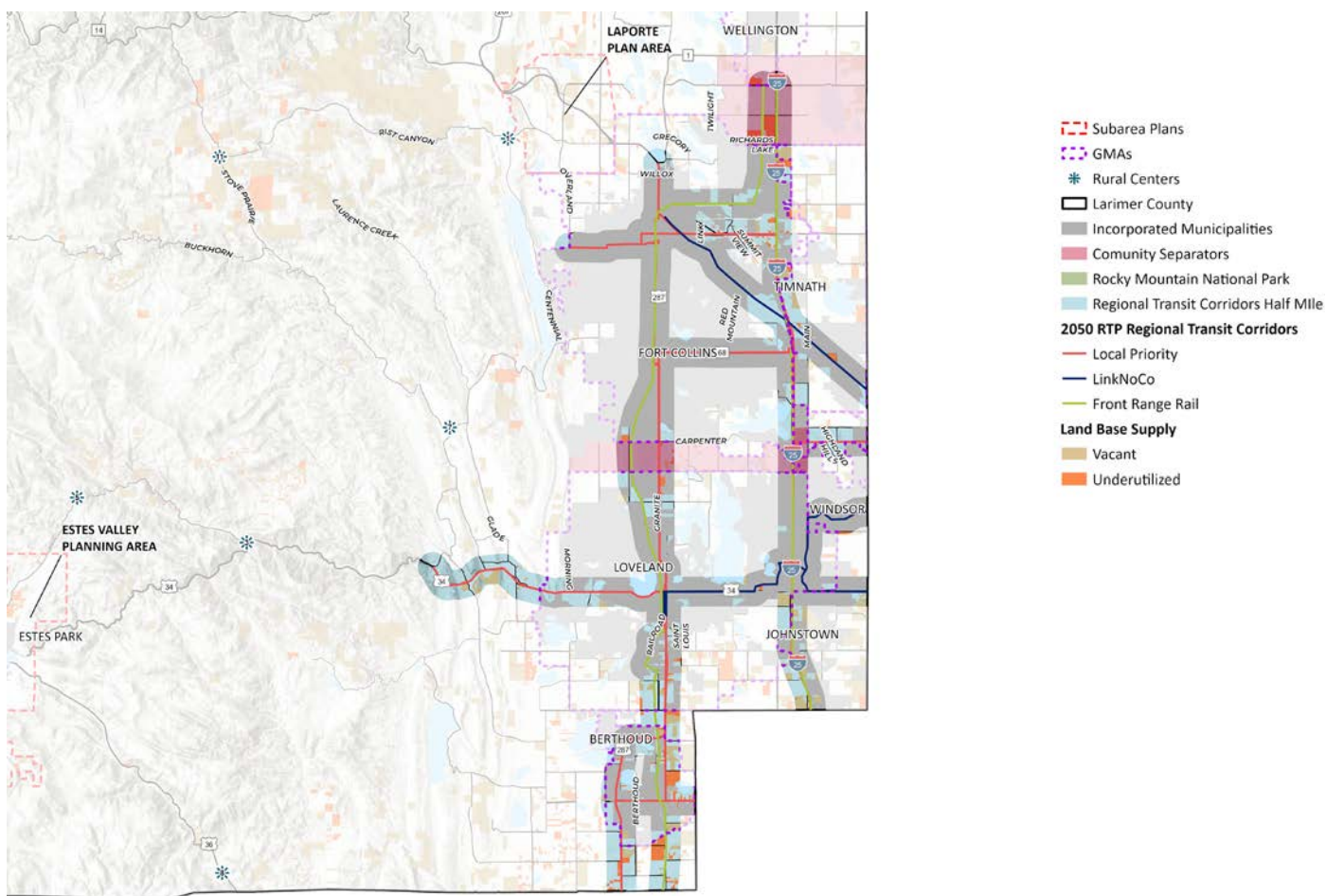
WHY IT MATTERS:

Planned transit changes what a parcel can reasonably support over the life of the Plan. A parcel within a corridor may justify higher density than its current zoning or service condition alone would suggest, because the transportation capacity to support that density is programmed rather than speculative. Recognizing these parcels allows the County to align density decisions with regional transportation investment already committed by its partners, and gives the transfer of development rights program a set of receiving sites whose additional value is grounded in an adopted regional plan.

STATUTORY RELEVANCE:

Responds to the statute's direction that the site analysis account for transportation capacity and for land near existing or planned transit and supports the requirement that designated sites be consistent with adopted plans.

Map 4. 2050 RTP Regional Transit Corridors



Designated Sites for General Development Feasibility

PURPOSE

To designate the sites the County finds generally feasible for development or redevelopment, drawn directly from the two preceding analyses.

WHAT THE MAP SHOWS

The combined set of highest-tier infill and redevelopment sites, concentrated along the Interstate 25 corridor and within the Fort Collins, Loveland, Berthoud, Windsor, Wellington, and LaPorte growth areas.

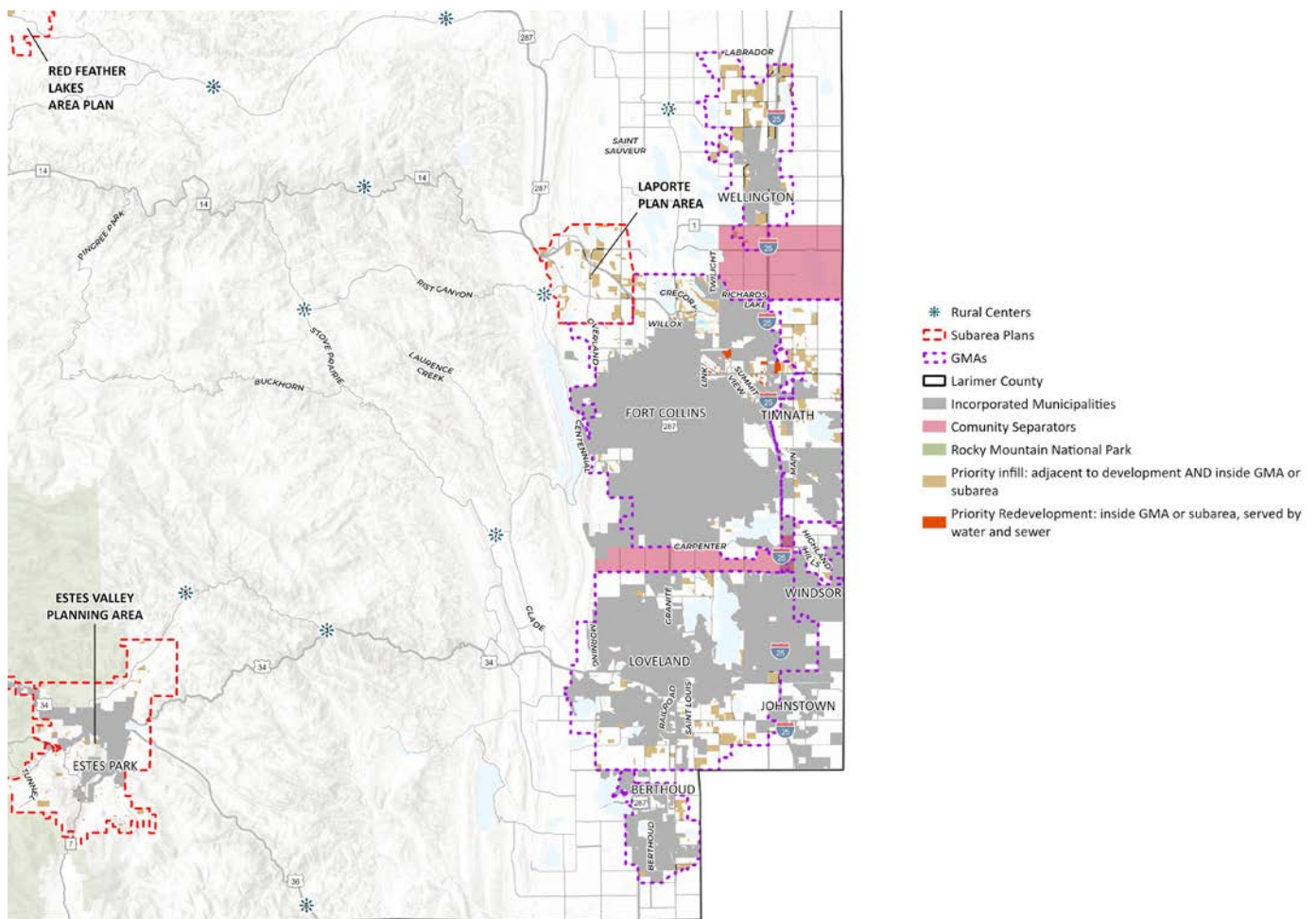
HOW IT WAS PREPARED

The priority infill tier from Map 2 and the priority redevelopment tier from Map 3 were combined into a single designation layer. No additional screening was applied; the designation is the direct product of the two preceding analyses. The map is presented at a larger scale than the others because the designated sites occur almost entirely within the eastern portion of the county.

STATUTORY RELEVANCE:

Fulfills the designation requirement, the operative act of the element, which directs counties to designate, in a manner consistent with the master plan, those sites for which development or redevelopment is deemed to be generally feasible.

Map 5. Designated Sites for General Development Feasibility



Sending Lands Model Output

PURPOSE:

To establish the conservation value of land across unincorporated Larimer County, so that the resources protected by directing growth inward can be identified and measured.

WHAT THE MAP SHOWS:

Every parcel in unincorporated Larimer County ranked by conservation value, from low to high suitability for long-term protection.

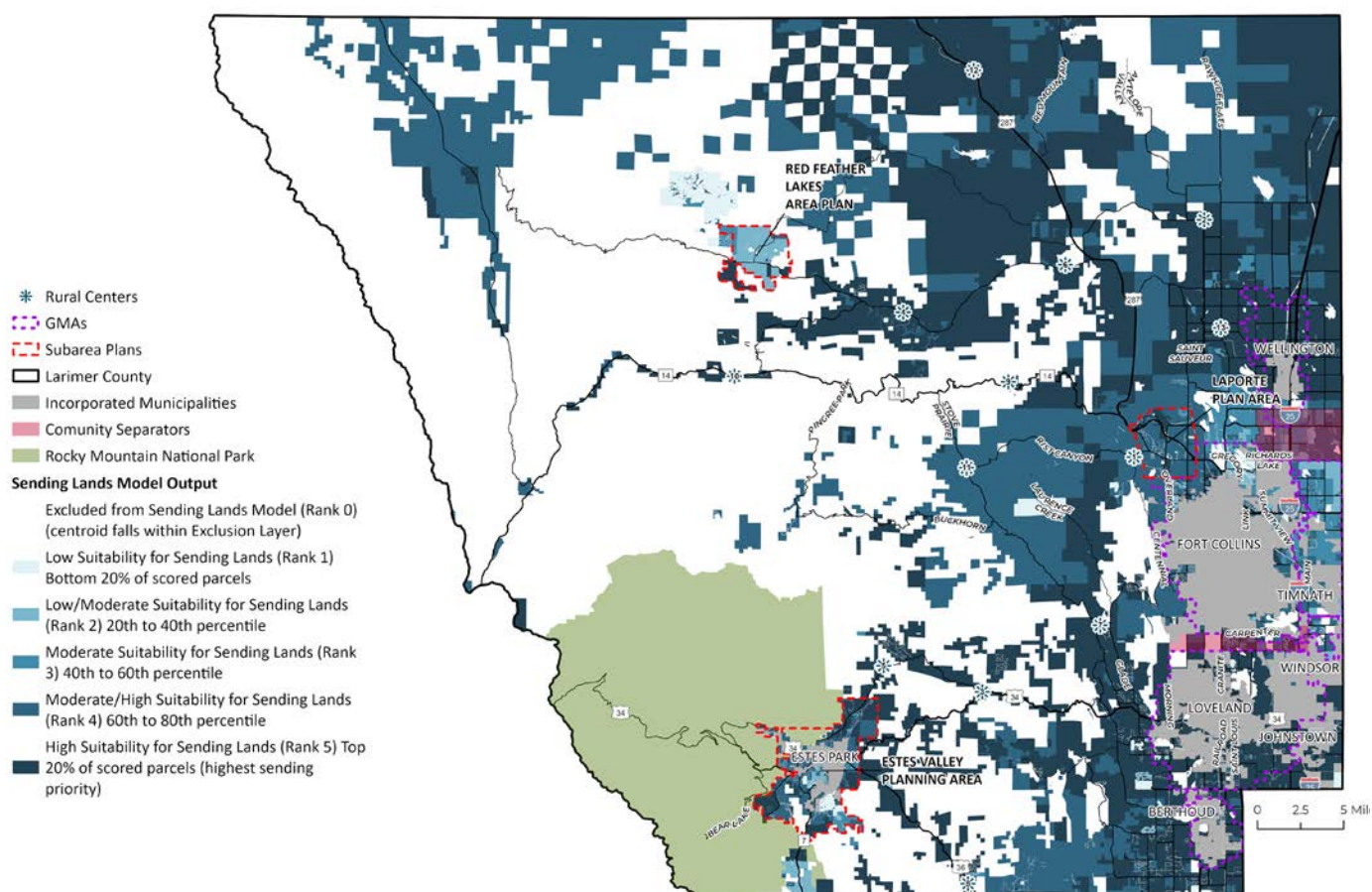
HOW IT WAS PREPARED:

Each parcel was scored against five conservation measures: closeness to already protected lands, overlap with Colorado Natural Heritage Program potential conservation areas, composite conservation value from the NOCO Places dataset, closeness to designated community separators, and the presence of irrigated or prime agricultural soils. Parcels lying within already protected or publicly owned land were removed before scoring. Each measure was scored on a common scale, weighted according to county conservation priorities, and summed. Scored parcels were then sorted into five equal groups, with the top group representing the highest conservation priority.

STATUTORY RELEVANCE:

Supplies the natural and agricultural resource baseline required to describe the public benefits of developing the designated sites as an alternative to the development of previously undeveloped natural or agricultural land.

Map 6. Sending Lands Model Output



Greenfield Development Pressure

PURPOSE:

To show where development would occur if it is not directed to the designated sites, and the conservation value that outcome would consume.

WHAT THE MAP SHOWS:

Greenfield parcels shaded by conservation value, deeper shades indicating higher priority for protection, shown alongside the designated infill and redevelopment sites.

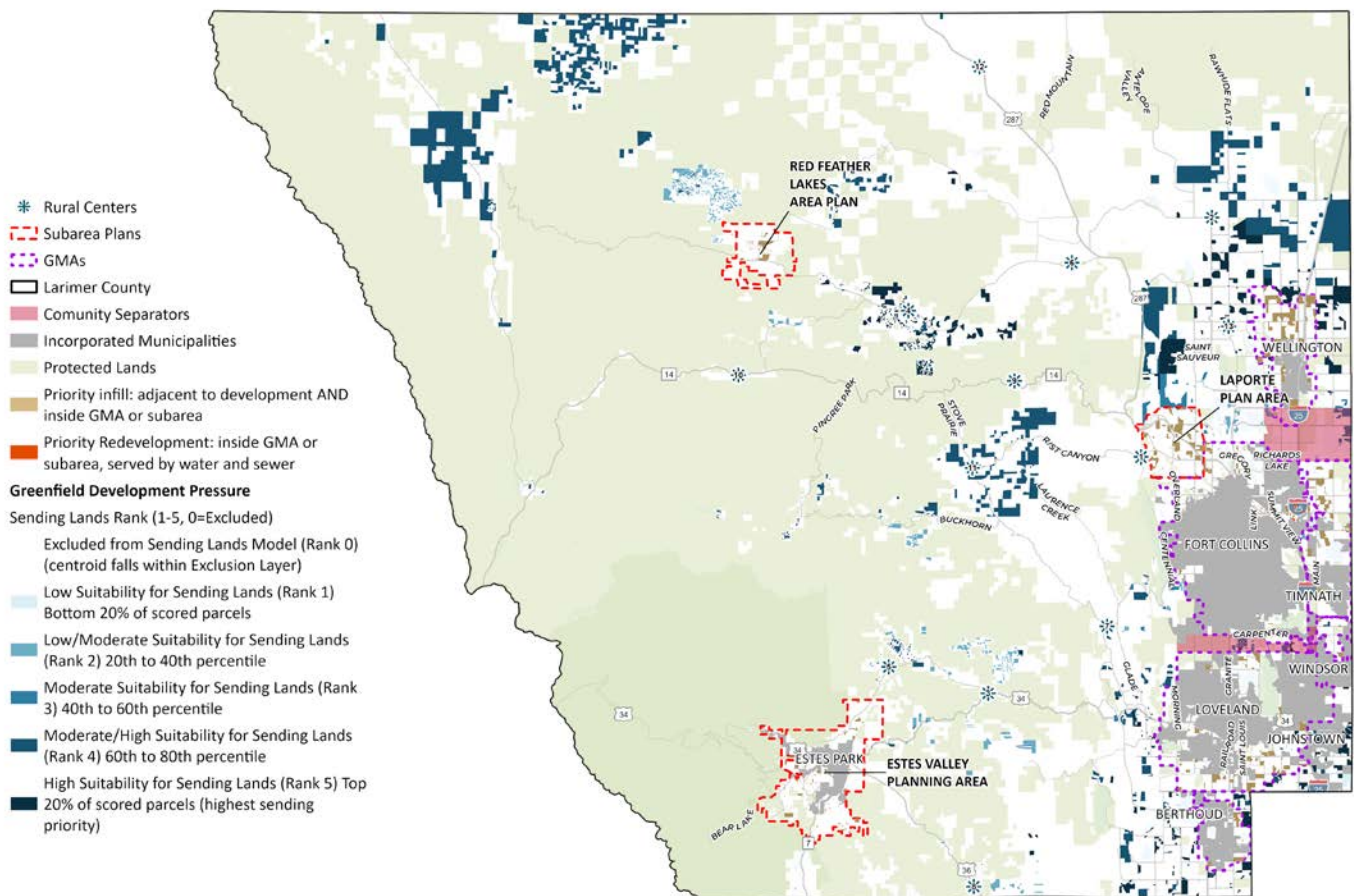
HOW IT WAS PREPARED:

The greenfield tier from Map 2 was carried forward and shaded using the conservation ranking from Map 5, so that a single layer expresses both where development would occur outside existing communities and how much conservation value that development would consume. The designated sites from Map 4 are shown in contrast, placing the outward and inward growth choice in one frame.

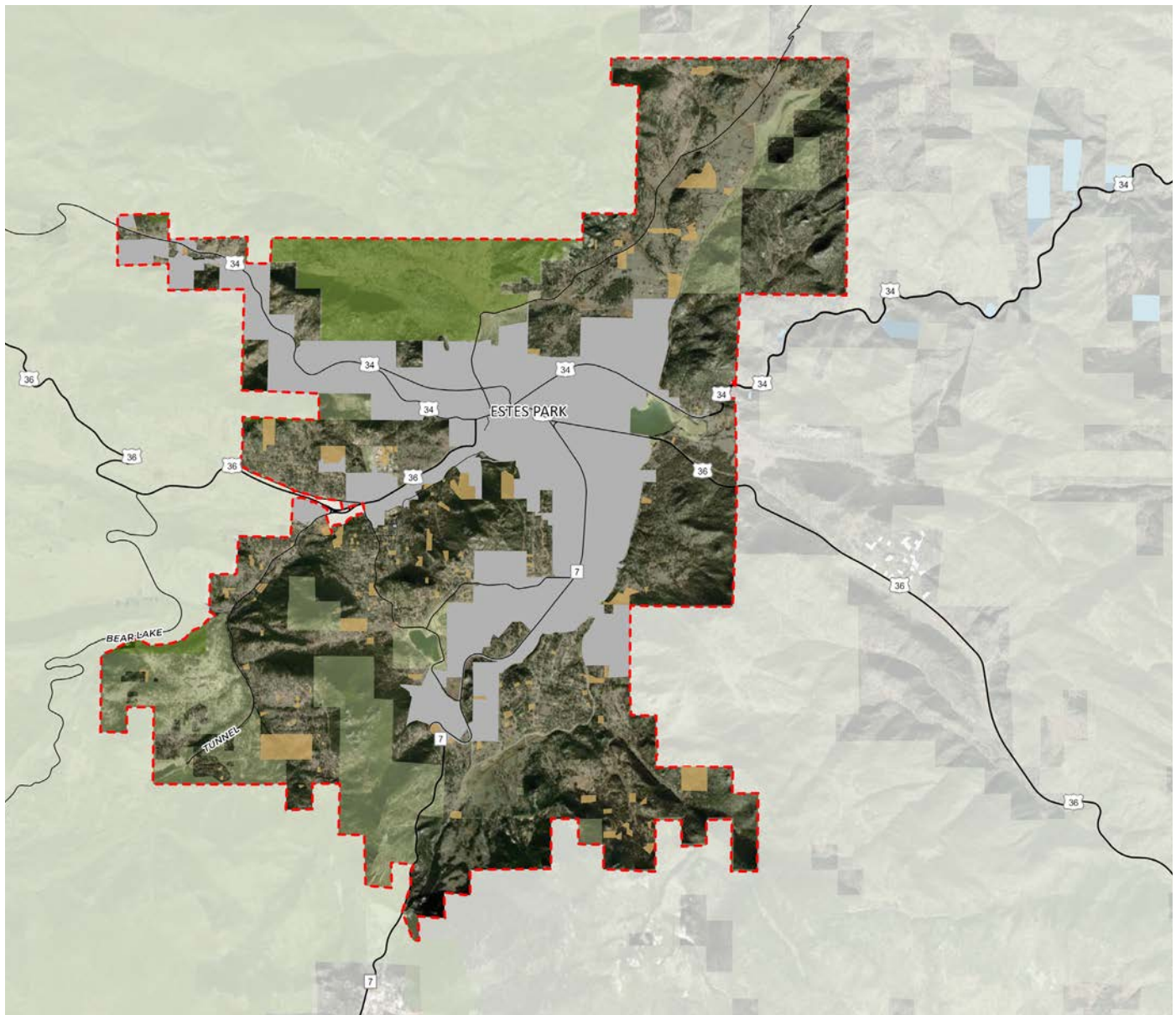
STATUTORY RELEVANCE:

Completes the public benefits component and demonstrates the element's central purpose: discouraging sprawl and mitigating the need to extend infrastructure and public services into natural and agricultural lands.

Map 7. Greenfield Development Pressure



Map 8. Estes Valley Land Supply



* Rural Centers

--- Subarea Plans

--- GMAs

▬ Larimer County

■ Incorporated Municipalities

■ Community Separators

■ Rocky Mountain National Park

■ Protected Lands

■ Priority infill: adjacent to development AND inside GMA or subarea

■ Priority Redevelopment: inside GMA or subarea, served by water and sewer

Greenfield Development Pressure

Sending Lands Rank (1-5, 0=Excluded)

Excluded from Sending Lands Model (Rank 0)
(centroid falls within Exclusion Layer)

Low Suitability for Sending Lands (Rank 1)
Bottom 20% of scored parcels

Low/Moderate Suitability for Sending Lands
(Rank 2) 20th to 40th percentile

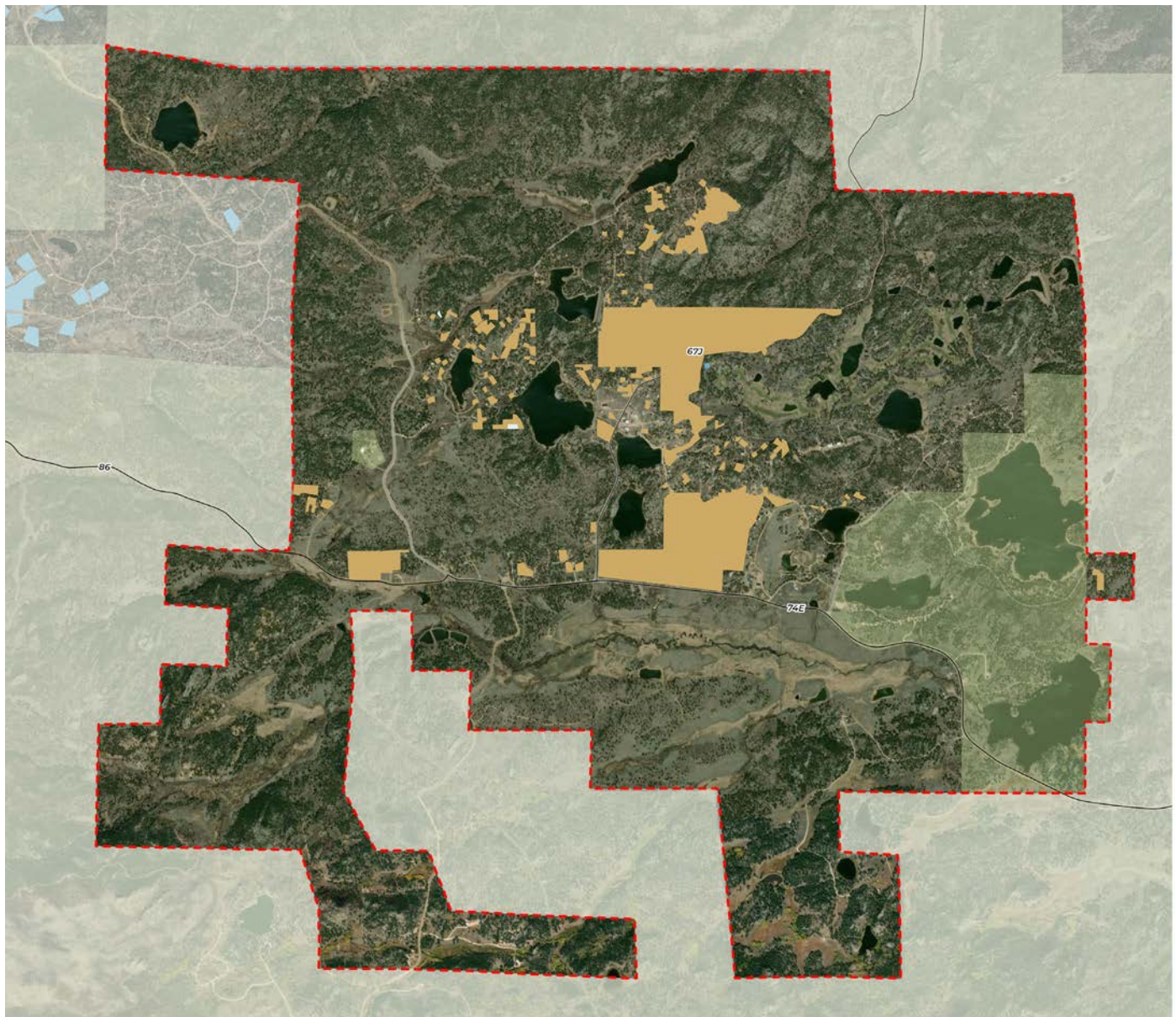
Moderate Suitability for Sending Lands (Rank 3)
40th to 60th percentile

Moderate/High Suitability for Sending Lands
(Rank 4) 60th to 80th percentile

High Suitability for Sending Lands (Rank 5) Top
20% of scored parcels (highest sending
priority)

0 1.5 3 Miles

Map 9. Red Feather Lakes Land Supply



0 0.5 1 Miles



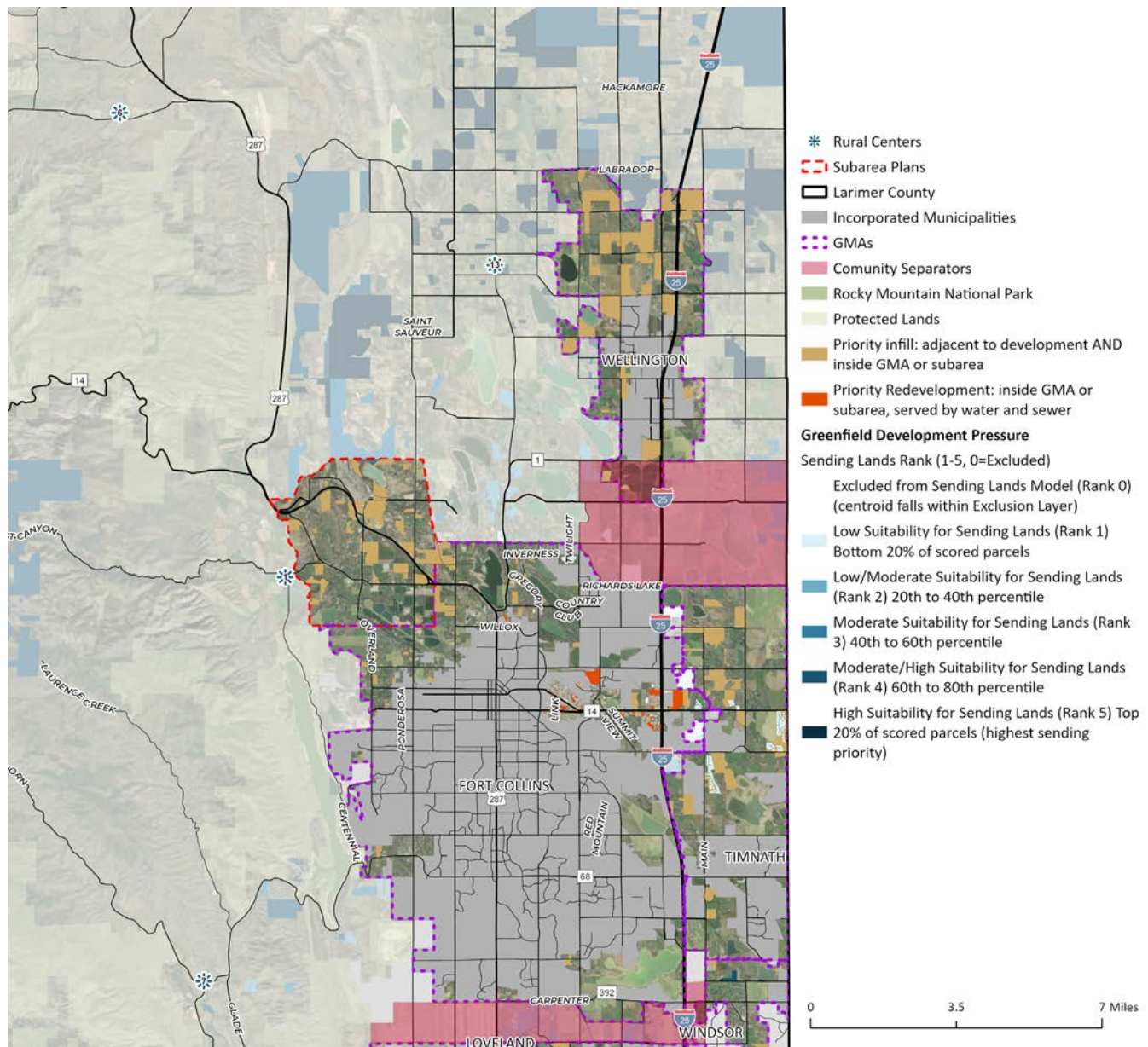
- - - Subarea Plans
- Larimer County
- Incorporated Municipalities
- GMAs
- Community Separators
- Rocky Mountain National Park
- Protected Lands
- Priority infill: adjacent to development AND inside GMA or subarea
- Priority Redevelopment: inside GMA or subarea, served by water and sewer

Greenfield Development Pressure

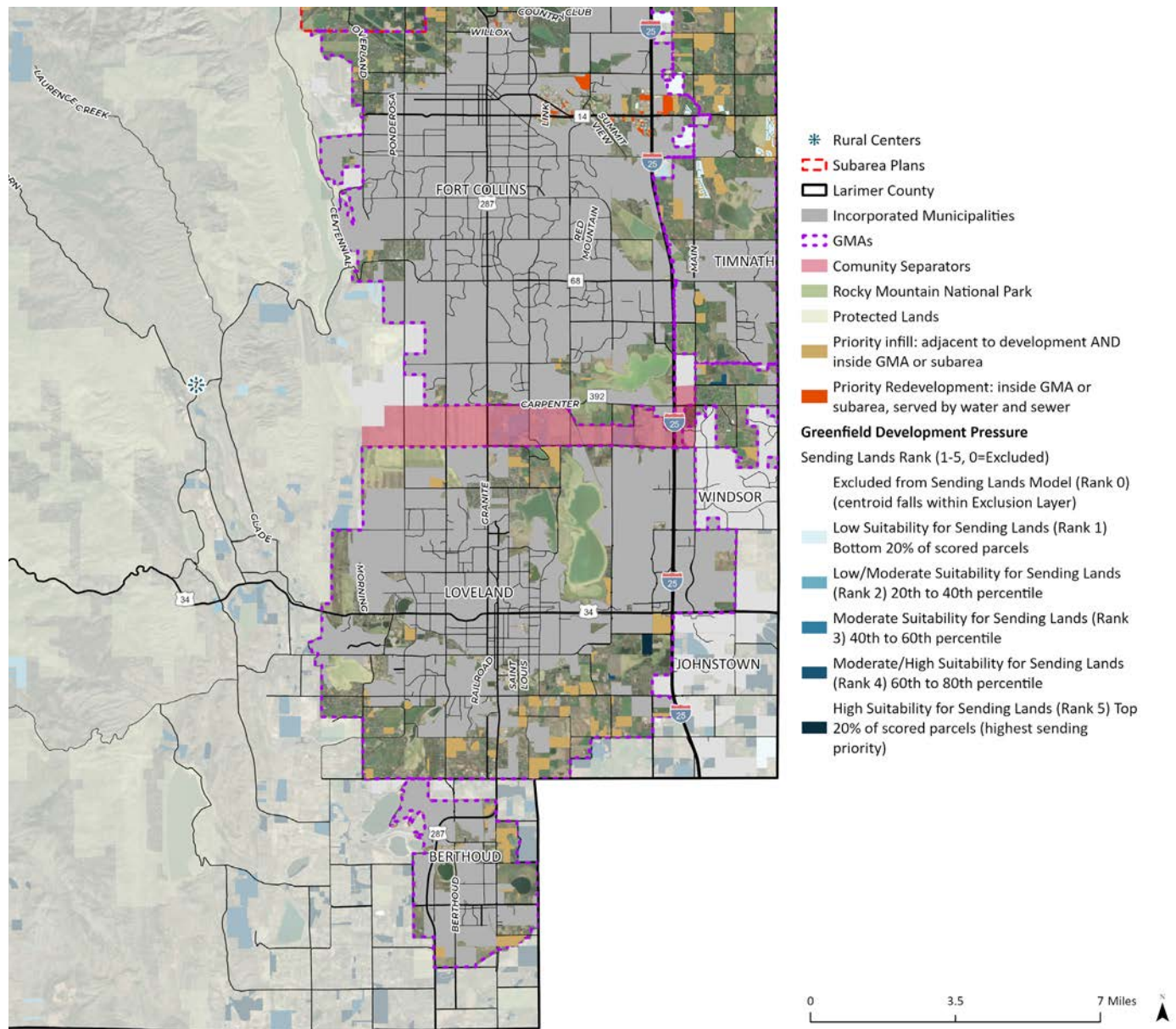
Sending Lands Rank (1-5, 0=Excluded)

- Excluded from Sending Lands Model (Rank 0)
(centroid falls within Exclusion Layer)
- Low Suitability for Sending Lands (Rank 1)
Bottom 20% of scored parcels
- Low/Moderate Suitability for Sending Lands
(Rank 2) 20th to 40th percentile
- Moderate Suitability for Sending Lands (Rank 3)
40th to 60th percentile
- Moderate/High Suitability for Sending Lands
(Rank 4) 60th to 80th percentile
- High Suitability for Sending Lands (Rank 5) Top
20% of scored parcels (highest sending
priority)

Map 10. North County Land Supply



Map 11. South County Land Supply



FISCAL IMPACT ANALYSIS

Growth Pattern and Service Delivery Framework

Larimer County's Comprehensive Plan directs new development toward incorporated municipalities and their designated Growth Management Areas (GMAs) rather than into unincorporated portions of the county. This approach is implemented through a combination of long-standing intergovernmental agreements, joint land use planning with municipal partners, and County land use policies that limit the density, scale, and feasibility of new development outside of GMAs. As a result, the vast majority of anticipated growth in Larimer County over the planning horizon is expected to occur within municipal boundaries or within GMAs as those areas annex and develop to urban standards.

This growth pattern has a direct bearing on where the long-term fiscal burden of new infrastructure and public services will fall:

- **Within municipalities and GMAs:** As land within a GMA develops or annexes, the responsibility for constructing, owning, maintaining, and replacing urban-level infrastructure (water, wastewater, streets built to urban standards, stormwater systems, parks, and related public facilities) and for providing urban-level public services transfers to the annexing municipality and the special districts and service providers operating within that jurisdiction. Larimer County does not fund or construct this infrastructure, and the associated long-term fiscal obligations are borne by the municipalities and service providers, not the County's general fund.
- **Within unincorporated Larimer County (outside GMAs):** Because the Comprehensive Plan's policies and tools make new development in these areas largely infeasible at urban densities, the County does not anticipate material demand for new infrastructure construction, new public facilities, or expanded public services in these areas over the planning horizon. Development that does occur is expected to remain consistent with rural character and existing service levels. Additionally, property owners and developers are required to pay for any associated costs to upgrade, expand, or build new roads that their development requires.

County Fiscal Obligation: Road Maintenance

Given this pattern, the principal—and effectively the only—long-term fiscal obligation the County anticipates in connection with development in unincorporated areas outside of GMAs is the maintenance of the county road network. Unlike urban infrastructure such as water, sewer, and urban-standard streets, road maintenance in unincorporated areas remains a County responsibility regardless of the pace or location of growth, and is funded and delivered through the County's Road and Bridge Department.

Summary

Because the Comprehensive Plan's policies and tools effectively channel new development into municipalities and their Growth Management Areas, Larimer County does not anticipate significant long-term fiscal exposure from the construction, ownership, maintenance, or replacement of urban infrastructure or the provision of urban public services in unincorporated areas. That fiscal responsibility instead falls to municipalities and the special districts and utility providers that serve annexed and developing land. The County's principal ongoing fiscal obligation related to growth in unincorporated areas is road maintenance, which is addressed through the Road and Bridge Department's operating and capital budgets as detailed above.

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