Salt Lake County

West General Plan

Prepared by Regional Development Planning and Transportation

DRAFT 03.18.2022

SALT LAKE COUNTY

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Figure 0.1 Butterfield Field Canyon/Source: stock photo

Contents

Chapter 1

Introduction

DRAFT 03.18.2022

SALT LAKE COUNTY

Vision

Salt Lake County envisions safe and beautiful places for current and future generations to live, work, and recreate. The County's vision for the diverse areas within the West General Plan is to plan for:

- enduring communities
- vibrant town and village centers
- employment opportunities
- preserving open spaces

Communities will be integrated with a multi-modal transportation system and are driven by a commitment to respect the landscape, conserve natural ecosystems, and develop public resources. These future communities include a variety of recreation opportunities, town and village centers, and neighborhoods.

Figure 1.1 Salt Lake County/Source: stock photos

Figure 1.2 View of the Oquirrhs and Salt Lake Valley

Executive Summary

Introduction

From the shores of the Great Salt Lake to the peaks of the Oquirrh Mountains, this part of Salt Lake County contains immense beauty. The diversity of the landscape is broad, from an inland salty lake and wetlands to coniferous forests, and wide-open mines.

The West General Plan has come together during four years of research, listening to the public, and working with stakeholders.

This Executive Summary includes vision statements, goals, and strategies. Below is a list of the elements of this document. For a more in-depth review, see each specific chapter.

Elements included in the West General Plan:

- Land Use
- Housing
- Transportation
- Environment and Conservation
- Water Conservation
- Parks, Trails, and Recreation
- Economy
- Utilities and Public Safety

Figure 1.3 Map of Plan Area

What is a General Plan?

A general plan is a long-range plan for the physical development of a community. General plans in Utah are authorized and required by the Land Use Development and Management Act (LUDMA) located in Utah State Code, Titles 10 and 17. Section 17-27a-401 of the Utah Code requires that all counties adopt a comprehensive general plan to address the present and future needs of the County regarding "growth and development of the land within the county or any part of the county." The general plan should be flexible to account for potential unforeseen circumstances. A general plan intends to make the planning process simple, fair, efficient, and predictable.

The General Plan is an advisory, non-binding document, and the vision, strategies, and goals outlined are not commitments or obligations of Salt Lake County. This plan is to be used by the Salt Lake County Council, Planning Commission, community councils, the Greater Salt Lake Municipal Services District (MSD), land developers, property owners, and the staff of various County departments as a policy guide for making planning-related decisions. In addition, this General Plan assists adjacent municipalities, the Utah Department of Transportation (UDOT), Wasatch Front Regional Council (WFRC), and other regional governments as they plan for the Greater Salt Lake area and Wasatch Front.

This General Plan describes the future desired conditions for land use, community design, transportation, housing, the natural environment, business and economics, recreation, and community services. Its policies apply to both public and private properties, and the General Plan is to be consulted when considering zoning changes, site plan review for specific developments, and other major efforts regarding housing, land use, and transportation.

The MSD provides services to Unincorporated Salt Lake County for planning, processing applications, code enforcement, and other services. As the County works toward the implementation of the General Plan, it is anticipated that services from the MSD will be involved. As authorized by contracts and agreements between the County and MSD, the MSD represents the County in assisting in fulfilling the General Plan.

Figure 1.4 Oquirrhs in early spring

Land Use Vision

Residents benefit from thoughtful planning, which guides the preservation of open spaces, sustainable land uses, and quality communities. Town and village centers create cohesive communities through connectivity to transportation systems, outdoor recreation, neighborhoods, and local economic opportunities. Collaboration between residents, municipalities, regional agencies, landowners, and stakeholders achieves successful land use coordination.

Goals (abbreviated)	**A. Conserve critical lands, water, and open space.**	**B. Facilitate and participate in regular planning coordination.**	**C. Review and update County ordinances to further implement General Plan.**	**D. Promote fiscally sustainable and efficient land development.**
Strategies (abbreviated)	• Use conservation tools • Develop conservation and recreation plans • Develop recreation facilities • Protect the Great Salt Lake ecosystem • Separate incompatible uses • Conserve water resources	• Collaborate with local and regional partners • Utilize County Resource Management Plan • Coordinate and forecast large developments 5-10 years ahead • Coordinate with adjacent municipalities and landowners on potential annexations	• Regularly update ordinances relating to the General Plan • Review overpressure zones	• When practical, promote infill (avoid leapfrog development) • Incentivize fiscally sustainable development • Focus housing and jobs around centers • Build efficient multi-modal transportation and avoid transit deserts

Goals (abbreviated)	**E. Promote best practice standards for Planned Communities (PC).**	**F. Plan neighborhoods, community life, and transportation systems around centers.**	**G. Integrate water resource planning and land use decisions.**	**H. Promote water-efficient land uses.**
Strategies (abbreviated)	• Use scenario planning • Include transportation studies • Review and update PC ordinances and standards	• New development within walking/biking distances of a center • Centers should include outdoor gathering places • Centers located in conjunction with transportation nodes • Economic development within centers • Stacked housing should only be in centers	• Coordinate between water providers and land planning and development • Support Great Salt Lake education conservation • Developers should work with wholesale water providers	• Review lot standards • Adopt water-efficiency ordinances and rate structures • Provide incentives to existing development to conserve water • Collaborate with state, landowners, and agencies on water-efficient development

See Chapter 2 for complete information

Figure 1.5 Housing South Jordan

Housing Vision

People live in walkable and bikeable neighborhoods and town/village centers. Residents benefit from nearby parks, trails, and access to mountains and foothills. A wide range of housing options, from affordable to high-end, are available within each community. Housing design harmonizes with the natural environment.

Goals (abbreviated)	**A. Communities should be designed in harmony with the natural environment and as part of a network of trails and parks to encourage walking and biking.**	**B. A wide variety of housing choices should be available within each community.**	**C. Create livable mixed-use centers.**	**D. Preserve current Moderate-Income Housing (MIH) units.**
Strategies (abbreviated)	• Preserve critical and sensitive lands • Develop best practices for the environment • Update water conservation ordinances • Locate residential buildings within 1/4-1/2 mile of trailhead, park, and active transportation. • Plan neighborhoods around centers and connect to destinations.	• Development agreements/ordinances should consider various building sizes and types • Include large to small lots • Encourage Missing Middle Housing • Accessory Dwelling Units (ADUs) • Include a portion of affordable housing within each community • Mix affordable housing throughout communities and/or developments • Prioritize placing affordable housing near transit and centers	• Attached or stacked housing should be located within centers • Development agreements should consider placing middle housing, condominiums, and apartments within centers • Consider additional center uses (retail, jobs, entertainment, gathering spaces, etc)	• Encourage MIH owners to apply for assistance • County pursues grants to assist MIH programs • Assist MIH homeowners in learning about programs

See Chapter 3 for complete information

Figure 1.6 Mountain View Corridor

Transportation Vision

Residents have access to an affordable, efficient, and reliable transportation system to reach their desired destinations within a reasonable amount of time, that allows access to opportunities, jobs, and education. The transportation system is well integrated with roadway, transit, and active transportation connections. Transportation mode options contribute to the quality of life and minimize negative impacts on air quality.

Goals (abbreviated)	**A. Design and construct a multi-modal transportation system that works for all people of all ages and abilities.**	**B. Improve east-west mobility for all modes of travel.**	**C. Design and construct active transportation infrastructure for bicycles and pedestrians.**	**D. Partner to enhance the multi-modal transportation system to increase access to opportunities.**
Strategies (abbreviated)	• Evaluate street context to design comfortable and equitable transportation facilities • Complete street policies • Integrate land use and transportation	• Coordinate with local and regional partners • Roadway design accommodates active transportation and transit • Explore feasibility to access Mountain View Corridor, Bangerter, U-111, I-80, I-215, and others	• Construct networks for commuters and key destinations • Integrate bicycle and pedestrian infrastructure into entire the transportation system • Emphasize safe and convenient • Incorporate access to recreation destinations • Encourage wayfinding • Include active transportation in mobility hub design • Promote grid network and bicycle connectivity	• Develop master plan for Butterfield Canyon • Participate with UDOT in planning U-111/Bacchus • Collaborate with Wasatch Front Regional Council (WFRC) in Regional Transit Plan (RTP) • Partner with Utah Transit Authority (UTA) and WFRC for transit and service infrastructure

See Chapter 4 for complete information

Figure 1.7 Hidden Valley, Oquirrhs

Environment and Conservation Vision

Preservation of lands and functioning ecosystems in the Oquirrh Mountains, Traverse Mountains, and the Great Salt Lake and its wetlands are prioritized. Community and industrial development respect the character and features of the natural landscapes. The County, landowners, and developers work together to minimize impacts on water quality, air quality, and natural habitats.

Goals (abbreviated)	**A. Protect water quality and quantity in the watersheds of the Oquirrh and Traverse Mountains and the Great Salt Lake.**	**B. Protect and conserve agriculture and habitat lands in the Shoreline Area.**	**C. Protect and conserve critical lands in the Oquirrh and Traverse Mountains.**	**D. Mitigate and minimize impacts between incompatible land uses.**
Strategies (abbreviated)	• Support implementation of SLCo Integrated Watershed Plan • Implement watershed best practices • Seek funding to restore water-bodies • Review ordinances • Support groundwater conservation • Maintain needed water levels in the Great Salt Lake	• Review and update zoning for conservation • Involve stakeholders in conservation (easements, bonds) • Conserve habitats and agricultural lands for return water flow • Develop programs and funding sources for mutually beneficial agricultural protection • Support programs to manage invasive weeds	• Develop a conservation plan for the Oquirrhs • Collaborate with adjacent municipalities, landowners, & stakeholders • Manage invasive weeds • Support protection of cultural sites	• Establish vegetation buffers • Use appropriate zoning and setbacks • Consider impacts of mining on roads • Communicate with mining companies on reclamation • Use dust-suppression techniques

See Chapter 5 for complete information

Environment and Conservation (continued)				
Goals (abbreviated)	**E. Future developments should minimize light pollution and promote dark skies.**	**F. Support reclamation of post-mining sites to healthy and vegetated landscapes.**	**G. Prioritize practices that sustain water levels in the Great Salt Lake ecosystem and watershed.**	**H. Promote public awareness and stewardship of environmental and recreational values and practices.**
Strategies (abbreviated)	• Adopt dark sky ordinances for new development • Use lighting only where needed • Minimize artificial light • Seek funding for programs	• Collaborate with landowners, Department of Environmental Quality, Division Oil Gas and Mining, Environmental Protection Agency, and County Health • Review progress of reclamation before entitlements • Support efforts for clean ground and surface water, clean air, clean soils, groundwater monitoring, and re-vegetated soils • When possible, restore native plants and habitat	• Adopt policies to conserve water flow for sustainable levels • Coordinate with State Water and Natural Resources for conservation • Understand planning decisions in connection with water flows, GSL, and wetlands	• Promote educational opportunities w/ schools • Coordinate with academic institutions to promote research & data collection • Explore opportunities for public education and awareness programs for GSL watershed and the Oquirrh Mountains

Goals (abbreviated)	**I. Preserve, establish, and connect native wildlife habitats.**	**J. Promote energy-efficient and resilient buildings.**	**K. Reduce urban heat island effect.**
Strategies (abbreviated)	• Support research for high-value wildlife areas • Develop reclamation areas into future wildlife habitat • Establish full ecosystems • Collaborate with Division of Natural Resources • Use wildlife protection devices	• Promote design and construction of sustainable buildings • Encourage passive solar techniques • Promote strategies that produce zero to low emissions for buildings	• Encourage use of materials with high solar reflectivity to reduce heat • Establish tree canopies • Promote engineering and site design best practices

See Chapter 5 for complete information

Figure 1.8The Great Salt Lake and Antelope Island (higher water year)/Source: GettyImages

Water Conservation Vision

Water has innate value and is a shared natural resource. Water is managed in an integrated, inclusive, and sustainable manner to ensure a prosperous future for our current and future communities. Planning considers the environmental, economic, and social needs and benefits of water.

Guiding Principles	**A. Watershed Protection**	**B. Water Conservation**	**C. Integrated Water Resource Management**
Strategies (abbreviated)	• Consider watershed protection in the planning and design of properties of all sizes. • Protect the watersheds of the Traverse and Oquirrh Mountains and the Great Salt Lake to maintain their water quality. • Maintain water levels in water bodies and waterways, including the Great Salt Lake.	• Prioritize water conservation. • Conserve existing water sources. • Maximize-water efficiency for both indoor and outdoor uses.	• Integrate water resources and land use planning. • Develop reliable and resilient municipal water, stormwater, and wastewater. • Plan and prepare for potential drought and changes in water storage and supply.

See Chapter 6 for complete information

Figure 1.9 Lodestone Park/ Source: SLCo Parks & Recreation

Parks, Trails, and Recreation Vision				
Visitors and residents enjoy a system of neighborhood, community, and regional parks. Recreational facilities are distributed throughout developed areas and are integrated within natural lands, ecosystems, and communities. Active and passive recreational opportunities are available for diverse public needs in all seasons. Communities connect through regional trails and park systems.				
Goals (abbreviated)	**A. Increase outdoor recreation opportunities in the Oquirrh and Traverse Mountains.**	**B. Plan and develop a robust park system for current and future generations.**	**C. Plan and develop robust trail systems for current and future generations.**	**D. Conserve water within parks, trails, and open spaces.**
Strategies (abbreviated)	• Work with landowners to create opportunities • Partner with Camp Williams • Research future options for public land access • Develop scenarios for future public recreation • Support landowners to prevent trespassing	• Plan park system before land development begins • Develop financial mechanisms to pay for needed projects and maintenance • Follow County parks master plan • Make parks accessible from the transportation system • Plan parks in conjunction with centers • Parks should be within walking distance of residential dwellings	• Plan trails in conjunction with development and conservation • Developers participate in costs • Funding for capital improvements and maintenance • Consider trails for all recreation levels and uses • Develop a master trails plan, with amenities and safe routes and crossings. Integrate trails with community life and neighborhoods.	• Use native plantings • Manage parks, trails, and open spaces for conservation • Track water usage • Separate grass and trees on irrigation • Only use turfgrass where needed and useful

See Chapter 7 for complete information

Figure 1.10 Business

Economy Vision				
Community growth is developed around employment and town centers. Residents and employees benefit from a diversity of jobs located in proximity to transportation nodes and town/employment centers. Education and training facilities are locally accessible and focus on evolving workforce opportunities. Economic development is guided through appropriately timed facilities and built infrastructure.				
Goals (abbreviated)	**A. Promote and develop diverse business opportunities for west side residents and communities.**	**B. Economically connect west-side businesses and employment centers with regionally significant assets.**	**C. Encourage development installation of high-speed internet infrastructure.**	**D. Integrate businesses and jobs into town and village centers.**
Strategies (abbreviated)	• Promote flexible building types • Encourage centers on the west side of County • Collaborate with municipalities, Governor's Office of Economic Opportunity, Economic Development Corporation of Utah • Support existing businesses • Encourage education and training	• Promote efficient transportation connections to key employment areas • Consider supporting jobs for regional key industries • Plan high-value parcels for highest and best use	• Collaborate with telecommunication companies to include internet in infrastructure • Consider aesthetics of infrastructure • Include internet with other infrastructure systems when planning	• Incorporate jobs with mixed-use developments • Centers should be located near transportation nodes • Plan programs and events to attract residents and visitors • Develop gathering places

See Chapter 8 for complete information

Utilities and Public Safety Vision

Residents and visitors enjoy a safe community to live, work, and recreate. Utility infrastructure minimizes impacts on water, land, and ecosystems. Utilities and municipal services are provided in a reliable, cost-effective, and environmentally sustainable manner. Communities are prepared for natural and human-caused hazards.

Goals (abbreviated)	**A. Properly plan utility infrastructure to accommodate anticipated growth.**	**B. Provide efficient and sustainable waste management.**	**C. Facilitate and encourage renewable energy opportunities.**	**D. Develop green infrastructure for stormwater management/quality and environmental benefits.**
Strategies (abbreviated)	• Plan infrastructure before development • Minimize visual and environmental impact of electrical lines • Maximize water efficiency • Include internet in utility planning • Collaborate on infrastructure planning	• Implement green waste management • Sewer systems for waste management	• Energy programs • Support incentives for energy programs • Collaborate with utility providers in planning	• Develop green infrastructure plans • Prioritize best practices • Post-development should match pre-development stormwater runoff

Goals (abbreviated)	**E. Incorporate water-efficient landscapes into new development.**	**F. Prepare current and future communities for natural and human-caused hazards and disasters.**	**G. Promote the preparation of buildings and properties to mitigate natural and human-caused hazards and disasters.**
Strategies (abbreviated)	• Review and update ordinances • Meter secondary water • Prioritize water-efficient landscaping • Promote the Localscapes program • Reduce turfgrass • Water irrigation • Limit fertilizers • Use native plants	• Work with landowners and organizations to prepare for natural hazards • Support County emergency plans • Work with biologists in the case of forests impacted by disease and or insects • Minimum of two access roads to communities/ development • Adequate fire protection • Assess water supply capacity • Promote firebreaks and trails • Plan fire mitigation infrastructure • Adopt State Wildland Urban Interface code • Work with utility providers to minimize risk • Work with partner agencies on recovery • Consider snow storage needs	• Update ordinances for wildfire protection (firewise, defensible space, sprinklers, apparatus, vegetation, and maintenance) • Encourage essential businesses and organizations to have on-site disaster preparation resources

See Chapter 9 for complete information

Planning Process

The West General Plan process began in 2018 with a year-long research phase, resulting in the Oquirrh View report on existing conditions. The Oquirrh View study area covered land west from Bangerter Highway to the Tooele County boundary and from Interstate 80 to the Utah County boundary. Research topics included: demographics, land use, transportation, utilities, housing, economy, parks and trails, and environment. The Oquirrh View report was completed near the end of 2019[1].

The General Plan process continued with community engagement and two comprehensive public surveys. The first survey in 2019 focused on major issues, with four topics rising to the top of concerns among residents who responded:

- Traffic and transportation
- Housing and cost of living
- Air quality
- Water

Draft vision statements and guiding principles were created through a review of public comments and working with the Planning Commission and community stakeholders. The resulting draft vision statements were shared with the public in 2020 via a survey requesting feedback. Important insights were gained from the survey to help direct the plan and refine the vision[2].

A series of five stakeholder and community meetings were held in the spring of 2021 to share the vision and significant concepts of the plan. The public and stakeholders from adjacent municipalities provided input through verbal comments, emails, and multiple question and answer sessions. The General Plan was then revised and further developed based on input from the public and community stakeholders.

Following the release of the General Plan, draft input was provided by the Planning Commission, County Council, steering committee, stakeholders, and the public. Extensive efforts were made to engage the general public, landowners, adjacent municipalities, utility providers, transportation agencies, and government entities throughout the process.

Project Area Background

The area addressed in the West General Plan covers approximately 123,091 acres of western Salt Lake County. The geography is diverse, with steep mountains, rolling foothills, salt deserts, wetland ecosystems, saline lake, and more. Approximately 18 linear miles of the study area is situated along the Oquirrh Mountains. At 9,359 feet above sea level, Nelson Peak is the highest point in the planning area. To the north of the Oquirrh Mountains, the study area abuts the Great Salt Lake and large swaths of wetlands. The Jordan River is one of three primary tributaries of the Great Salt Lake and enters the lake from the south.

The General Plan area includes three major geographies: the Shoreline Area in the north, Oquirrh Mountains in the center, and Traverse Mountains in the south.

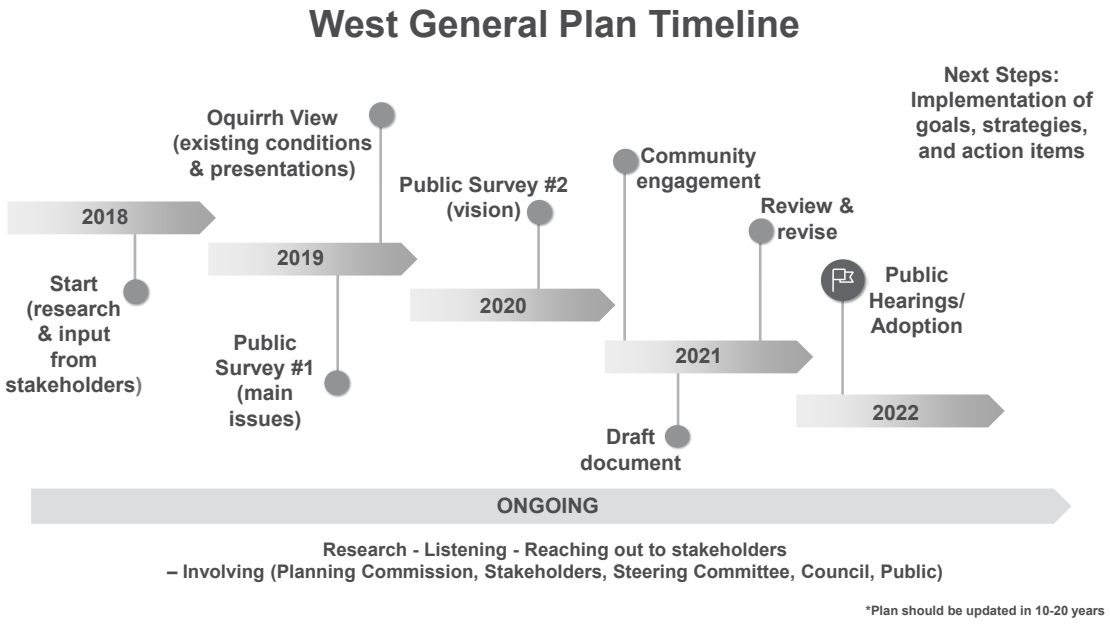


Figure 1.11 Timeline of Planning Process

Visual Timeline

Pre- 1800s - 1905

Pre-1800s
Goshutes and other native tribes live in the West Bench area.

1847
Mormon settlers arrive in the Salt Lake Valley.

1848
Bingham Canyon used for ranching and timber.

1849
Town of Butterfield established. *(currently Herriman).*

1851
Settlement of the area of modern-day Magna.

1859
Settlement of the area of modern-day West and South Jordan.

1863
Gold was discovered in Bingham Canyon by Patrick Connor, bringing a rush of prospectors.

1866
Town of Lark established to support mining and timber operations.

1868
Pleasant Green established. *(Name changed to Magna in 1915).*

1870
Establishment of multiple resorts on the Great Salt Lake.

1873
Rail-line extended to Bingham Canyon, increasing mining capability.

1883
Establishment of the Pleasant Green Cemetery.

1893
Saltair Resort was built by the LDS Church.

1894
Utah Territorial Legislature established the Utah National Guard.

1898
Duck clubs start in Salt Lake County and led to a south shore land rush.

1903
Incorporation of the Utah Copper Corporation.

1905
Utah Copper Co. purchased land known as Garfield *(west of Magna).*

KEY

Shoreline Area | Oquirrh Mountains Area | Traverse Mountains Area

Visual Timeline

1906 - 1979

1906
Steam shovels began working in Bingham Canyon.

1912
Establishment of the Great Salt Lake Audubon.

1914
18,700 acres designated for the Utah National Guard.

1915
Incorporation of Kennecott Copper.

1920s
Bingham has a peak population of 15,000.

1925-1926
Saltair Fire and rebuilding.

1926
Annual summer training began on National Guard land.

1928
Camp W.G. Williams officially established.

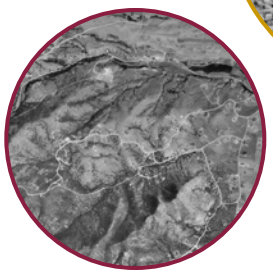
1935
Incorporation of South Jordan.

1936
Kennecott Copper Corporation purchased Utah Copper Co.

1941
Incorporation of West Jordan.

1944
Kennecott Copper began installing coal-fired power plants.

1955-1957
Town of Garfield dissolved.



1960-1972
Bingham Mine expands and the Town of Bingham closes.

1972
Hi-Country Estates HOA incorporates.

1973-1979
Population of West Jordan increases by 500%.

1977-1978
Town of Lark dissolved.

KEY

Shoreline Area | Oquirrh Mountains Area | Traverse Mountains Area

Visual Timeline

1978 - 2021

1978
Incorporation of Bluffdale.

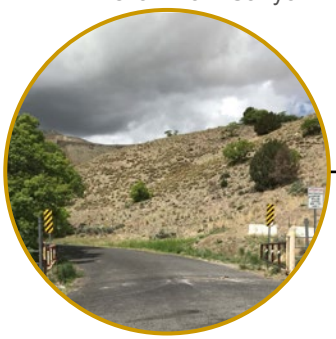
1980
Incorporation of West Valley City.

1981
Standard Oil Co. of Ohio/ British Petroleum purchases Kennecott Corp.

1983
Wet cycle raises the Great Salt Lake by 12 feet.

1984
Salt Lake County purchases Yellow Fork Canyon.

1989
Rio Tinto Zinc Corporation purchases Kennecott mine.



1989
Butterfield Canyon Road paved.

1996
Kennecott's Inland Sea Shorebird Reserve (ISSR) is created.

1999
Incorporation of Herriman.

2004
Kennecott Land begins construction of Daybreak.

2007
Salt Lake County purchases Rose Canyon.

2010
Machine Gun Fire burns 4,351 acres and 3 homes.

2012
Rosecrest Fire in Rose Canyon burns 690 acres and six homes.

2015
Rio-Tinto Kennecott Alternative View Project to improve aesthetics and stormwater begins.

2016 - 2019
Kennecott retires coal-fired power plants, focusing on cleaner and more efficient sources.

2020-21
Olympia Hills Rezone and petition to incorporate into Herriman.

2021
Kennecott donates water rights to Great Salt Lake Audubon to benefit the Great Salt Lake.

KEY

Shoreline Area | Oquirrh Mountains Area | Traverse Mountains Area

Overview of Shoreline Area

During the last ice age, 25,000 years ago, Lake Bonneville began filling, rising from 4,400 feet to 4,600 feet above sea level. Today, we refer to this as the "Stansbury" shoreline level, one of three lake elevations marked by "benches" along with mountain faces. Some 5,000 years later, Lake Bonneville covered much of northwest Utah and the southern edge of Idaho. Lake Bonneville was a deep, freshwater lake – about 1,000 feet deeper than the Great Salt Lake is today. It was marked by a shoreline at 5,340 feet above sea level, called the Bonneville shoreline. A natural dam at the northernmost part of Lake Bonneville (Red Rock Pass) failed 8,000 years ago, dropping the lake level by more than 300 feet. The new outlet stabilized the lake at a lower elevation, around 4,800 ft. (Provo shoreline). As the climate began warming and drying, less water entered the lake; in the last 2,000 years, water has dropped to current-era lake levels[3]. Lake Bonneville shoreline elevations can be seen in Figure 1.11.

European pioneer settlers entering the valley in the mid-1880s experienced much larger wetlands areas than exist today, with marshes, playas, and smaller lakes extending roughly from today's 2700 South to Hot Spring Lake at Beck Street, several miles to the north[4]. Settlers recognized the uses of the shoreline areas, being agriculture and grazing, waterfowl hunting, recreational resorts, and conservation.

In recent decades, the wetlands of the shoreline area have played a part in limiting development, but ongoing preservation is needed. Current public and private land ownership focus on land conservation, habitat preservation, and agricultural uses. Major landowners within the shoreline area include the State and Federal governments, conservation groups and land trusts, various duck clubs, and a small number of families.

The shoreline area consists of the Great Salt Lake and wetlands, agricultural lands, shoreline and waterfowl habitat, and agrarian residential. Other uses on the southern shore of the Great Salt Lake are recreational, including; limited-use beaches, Great Saltair recreational venue, and the Great Salt Lake State Park.

Great Salt Lake

The Great Salt Lake is the largest saline lake in the western hemisphere, with a watershed that covers over 21,000 square miles[5]. Without any outlets to the ocean, the salts and minerals from incoming fresh water cannot leave. This creates a water body that increases in salinity as water levels decline. The lake has shrunk considerably and hit a new record low level in 2021, due to a hotter climate, prolonged drought, and water use diversions[6].

The lake and its surrounding inlets, wetlands (including marshes, mudflats and playas), provide essential ecosystem services that retain and recharge groundwater and provide critical habitat for migratory birds. The lake contributes to Utah's economy through tourism, mineral extraction, brine shrimp farming, and it also plays a meteorological role in producing the dry powdery snow (for Utah's ski industry[7]).

Continued lowering of lake levels due to drought and increased water diversions has caused environmental concerns in relation to loss of habitat, faster snow melt, and air pollution.

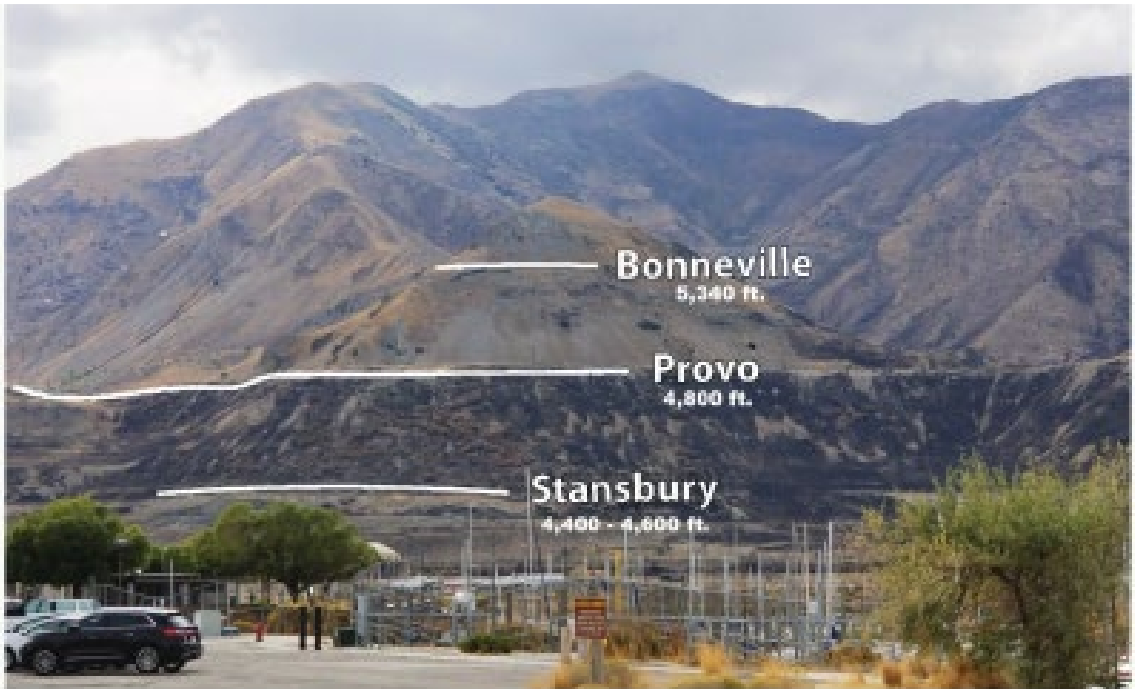


Figure 1.12 Lake Bonneville Elevations/Source: Utah DNR

Federal and State Ownership

- The Utah Reclamation Mitigation and Conservation Commission (URMCC), a branch of the federal government, owns land within the South Shore Ecological Preserve, which was formed in partnership with the National Audubon Society[8]. The entire 8,000-acre South Shore Ecological Preserve includes:
- Kennecott's Inland Sea Shorebird Reserve (ISSR)
- Salt Lake City International Airport Authority
- private duck clubs
- Audubon's Lee Creek property.

URMCC transferred 1,297 acres of federally owned property in the South Shore Preserve to the National Audubon Society for conservation in 2021[9].

All land below the Great Salt Lake's low-water meander line (4,202-4,212 feet above sea level) is managed by the Utah Division of Forestry, Fire, and State Lands (FFSL). The State also manages Great Salt Lake State Park on the south shoreline, including a marina, a visitor center, beach, picnic areas, and a few camping sites.

National Audubon Society's Gillmor Sanctuary

Gillmor Sanctuary includes a 3,597-acre habitat. Adjacent land is owned by the URMCC, known as the South Shore Preserve. Gillmor Sanctuary, which started with a 107-acre land donation in 1992, was the National Audubon's first land-based conservation involvement at the Great Salt Lake. In 1994, the URMCC funded a study to consider establishing a wetland preserve on the Jordan River delta on an additional 1,319 acres of land donated to the National Audubon by Florence Gillmor[11]. On May 25, 2010, Gillmor Sanctuary became one of the first GSL wetland areas designated as a Migratory Bird Production Area (MBPA). Legislation in 2021 created an opportunity to establish more land as MBPAs, along with adding protections to existing MBPAs from some eminent domain[12].

Seventeen additional acquisitions since 1996 have brought the sanctuary to its present size[13]. In December 2020, a donation of a 413-acre property, including an extension of the North Point Canal, was finalized[14]. The canal will deliver water to the entire sanctuary. The Lee Creek area is a 305-acre portion of the South Shore Preserve, located just west of I-80. It is also owned and managed by National Audubon and is the only public access to the preserve[15].

Figure 1.13 GSL Watershed/Source: SLCo Watershed

Inland Sea Shorebird Reserve
The Inland Sea Shorebird Reserve (ISSR) is located along the southern shore of the Great Salt Lake and was created through a partnership between Rio Tinto Kennecott and the U.S. Army Corps of Engineers in 1996. The ISSR is closed to the public and covers 3,670 acres. Previously, the land was over-grazed by cattle, used for salt evaporation ponds, and experienced illegal dumping. Shortly after its creation, the ISSR was designated as an Outstanding Environmental and Engineering Geologic Project by the Association of Engineering Geologists. Because of the Reserve's success, it has become part of BirdLife International's Important Bird Area (IBA) Program. IBAs monitor and protect global networks of birds while conserving birds and biodiversity[16].

The diversity of bird species found at the ISSR and other sanctuaries has increased from 50 in 1995 to more than 200 today. The most common birds sighted include[17]:

- Snowy Plovers
- American Avocets
- Black-Neck Stilt
- Willet
- Long-Billed Curlew
- Tundra Swan
- Burrowing Owl
- Loggerhead Shrike
- Long-Billed Dowitchers
- puddle ducks
- herons
- egrets
- migratory shorebirds
- geese
- sage thrasher
- gulls
- harrier
- Prairie Falcon (limited)
- Northern Mockingbird (limited)

Waterfowl Groups
The first duck clubs in Utah were established in the 1880s. Initially, property owners near the Great Salt Lake charged an access fee for hunters to use their property. Hunters began buying or leasing their land. Sportspeople promoted cleaner water and protection of marshland to maintain bird populations and areas for hunting. Hunting groups developed various dikes and canals to control water depth and mitigate high spring runoffs.

Today, waterfowl and hunting clubs own a significant part of the south shores of the Great Salt Lake. These groups partner with national and local conservation organizations and state and federal agencies to restore and protect GSL wetlands and ponds.

Figure 1.14 GSL White-Faced Ibis - Source: Audubon - Dotson

Grazing and Agriculture
Agricultural uses in the shoreline area have existed since the late 1800s. Many families today are fifth-and sixth-generation farmers of the land. The land is used for grazing and growing crops[18]. Less than 5% of land in the shoreline area is used for agricultural uses. Pastureland is the primary agricultural use, followed by alfalfa and hay.

Overview of Oquirrh Mountains Area

The Oquirrh Mountains are located along the west side of the Salt Lake Valley, running approximately 30 miles north to south. The mountain range extends west into Tooele County and south into Utah County. The name Oquirrh (pronounced OH-ker) comes from the Goshute word for referencing "wooded mountain"[19].

Indigenous Peoples and Settlers
The Oquirrhs were the territory of the Goshute people prior to the arrival of white settlers. The Goshutes did not settle in one place, and their name for themselves — Kattuhsippeh — translates to "people of the dry earth" or "desert people"[20]. The Goshutes were highly resourceful and well-adapted to the harsh desert conditions of the Great Basin. In 1847, settlers, government agents, and travel routes began to encroach on Goshute territory. Ranching, farming, and other settlements took over the Goshutes' best lands and limited the scarce resource of water. Goshutes attacked and killed settlers and livestock. Later, local militias and the U.S. Army, attacked and killed the Goshutes. Surviving Goshutes were forced to sign a treaty in 1863[21].

By 1869, most Goshutes gave up their traditional nomadic ways of life for farming. As settlers increased, the government made several unsuccessful attempts to move the Goshutes. In the first decades of the 20th century, the federal government established two reservations for the Goshute tribe; one in Skull Valley and the other in the Deep Creek Mountains on the Utah-Nevada border[21].

Mining in the Oquirrhs
Valuable ores in the Oquirrh Mountains were known to the area's indigenous people. Some worked near the past mining town of Ophir to make silver and gold trinkets, and lead bullets. In 1848, European settlers Thomas and Sanford Bingham found valuable ore at the mouth of Bingham Canyon. However, Mormon leader Brigham Young advised the Bingham brothers not to mine for minerals, and the ore deposits were forgotten by many until 1863, when ore was rediscovered by settlers logging[22].

From 1880 to 1896, lead and silver were the main minerals mined from the Oquirrhs. Copper became an important metal during the electrical age in the early 1900s. Daniel C. Jackling formed the Utah Copper Company in 1903 to work the Bingham Canyon copper resource. The company later became known as Kennecott Copper Corporation. Since 1989, Kennecott has been owned and managed by the international mining corporation Rio Tinto[23].

Figure 1.15 Oquirrhs looking north

Mining Towns
Several mining towns popped up in the Oquirrh Mountains as the pursuit of valuable ore increased. The town of Bingham, located in Bingham Canyon, became one of the largest, with a peak population of 15,000 people[24]. Mine expansion overtook the town and the last buildings were demolished in 1972. Nearby Garfield, another town developed by Utah Copper Company, hit a peak population of 2,000 people in the 1940s, but was shuttered by 1957. The town of Lark, located west of present-day Herriman and south of the Bingham Canyon Mine, was abandoned by 1978 to make way for mining activities.

The Utah Copper Company established the town of Copperton for its employees in 1926[25]. When Kennecott Copper purchased the town of Lark, some residents of Lark moved to Copperton. Ophir and Mercur were other mining towns at the southern end of the Oquirrh range in Tooele County. Present-day Magna was not built as a mining town, but gradually transformed into an industrial community to accommodate ore-processing facilities. See Appendix E map with historic mining towns.

Rio Tinto Kennecott & Bingham Copper Mine
Today, the Bingham Copper Mine is one of the largest open-pit mines in the world, measuring almost one mile deep and 2.5 miles wide. The mine covers approximately 1,900 acres of land within the Oquirrh Mountains. Aside from the mine, large portions of Rio Tinto Kennecott (RTK) land have had no public access, and much of the land remains in its natural state.

The Kennecott Bingham Copper Mine has provided substantial economic benefits to surrounding communities and the State of Utah for over a century. Currently, the mine focuses on producing copper, gold, silver, molybdenum, and sulfuric acid. RTK drills and blasts around 500,000 tons of ore a day. The minerals are used in defense, technology, renewable energy, and manufacturing industries. Due to its efficient mining operation, RTK is one Utah's largest private economic drivers. According to the Rio Tinto's website, the company employed 2,066 people in 2019, provided an economic contribution of $1.6 billion, paid $70 million in taxes and royalties, and invested $2.7 million in the community. At the end of 2019, RTK announced an investment of $1.5 billion into the mine, allowing it to continue operation until 2032. It is expected the mine will continue to operate well into the future.

Hi Country Estates
Hi Country Estates Phases 1 and 2 are separate residential developments located south of the mine in the southwest foothills of Salt Lake County. The large-lot development ranges from an elevation of 5,300 feet above sea level to 6,200 feet, hence the Hi Country name.

At present, there are approximately 300 homes and 123 undeveloped lots. The two phases of the project total approximately 2,452 acres.

Figure 1.16 Oquirrhs/Barneys Mine

Overview of Traverse Mountains

The Traverse Mountains mark the boundary between Salt Lake and Utah Counties. In Salt Lake County, the range spans from Draper on the east to Butterfield Canyon and Hi Country Estates on the west. In Utah County, the range extends from Alpine/Highland on the east to Saratoga Springs/Eagle Mountain in the west. The typical elevation range is from 5,000 to 6,500 feet above sea level. Within the study area, much of the Traverse Mountains are state and federal land, managed by Camp Williams. The transition area, where the Traverse and Oquirrh ranges meet includes privately owned land (Hi Country Estates and Rio Tinto Kennecott), federal land managed by the Bureau of Land Management (BLM), and land owned by Salt Lake County.

Camp Williams
Camp Williams is located in southwest Salt Lake County and northern Utah County. The base covers 24,076 acres of land used by the Utah National Guard and the 140th Regimental Regional Training Institute.

In 1914, President Woodrow Wilson designated 18,700 acres of remote land for military purposes. The land was situated between developed communities in Salt Lake and Utah counties, yet far enough away for military training purposes. The terrain offers a suitable environment for mountain and desert military training operations[26]. For most of the 20th century, minimal development occurred on neighboring lands. Residential and commercial development began to pick up in the 1990s. Significant development near Camp Williams has occurred since 2000. The population growth has been rapid in the neighboring communities of Herriman, Bluffdale, Saratoga Springs, and Eagle Mountain.

Traverse Mountains
"Imagine a mountain range, virtually unknown to the hundreds of thousands of people who live within its shadow and to the countless tens of thousands who commute through it twice daily... Perhaps you know of Jordan Narrows, which divides the range in two and now serves as a major transportation and utility corridor; Pony Express riders used to traverse the Narrows, often faster than we are able to today in commuter gridlock... Traverse Mountains, an east-west-trending range of low hills that separate Salt Lake and Utah Valleys. While the Traverse Mountains lack the grandeur of the adjacent Wasatch Range, geologically speaking they are far more interesting than their sage- and oak-brush-covered slopes suggest. They are also at the forefront of explosive suburban growth." [27]

Figure 1.17 Camp Williams/Traverse Mountains

Definitions

Active Transportation is a human-powered mode of transportation (walking or bicycling).

Accessory Dwelling Unit (ADU) is a smaller, secondary living unit located on the same lot as a primary dwelling. Can be internal (within the primary dwelling unit) or external (separate structure).

Action Items are near and/or midterm tasks suggested to accomplished.

Affordable Housing is when the occupant pays no more than 30 percent of gross income for housing costs (including utilities).

Annexation is a legal process by which land transfers jurisdictional responsibility, typically from unincorporated to a municipality.

Aquifer is a body of permeable rock which can contain or transmit groundwater.

Attainable Housing is market rate and does not make a household "cost burdened" (roughly 45% or higher of the income spent on housing and transportation).

Bikeable is when an area is convenient and safe for cycling.

Bioswale is a depressed channel or trench that receives stormwater runoff and has vegetation, the purpose is to percolate water and filter pollutants.

Buildable or Developable Areas are lands that are lawful for buildings and construction.

Buffer is a separation of different land uses, buffers can be vegetated and vary in distances.

Bus Rapid Transit (BRT) is a bus systems that provide faster and more efficient service. An exclusive-lane BRT system operates similarly to light rail transit.

Census Tract is a geographic region created by the US Census Bureau that falls completely within a county (generally contains 1,500-8,000 people, with an optimum size of 4,000).

Centers-based development is when surrounding development is well connected to a higher intensity center. Centers provide varying levels of services, activities, and transportation options.

*__Neighborhood Centers__ are designed to serve a fairly small area and typically contain some sort of civic-use, open space, and housing that is slightly higher in intensity than the surrounding neighborhoods.

*__Village Centers__ are larger than a neighborhood center, with a diverse mix of uses including retail, restaurants, small businesses, and offices.

*__Town Centers__ supports a larger area than Village Centers and contains a higher concentration of office and residential buildings.

*__Employment Centers__ have a concentration of uses for employment and training.

Child Poverty Rate is the ratio of the number of people 0-17 years old who live below the poverty line.

Core Bus provides higher levels of transit service. Core routes typically achieve higher riders per mile. Once defined, core routes are typically not subject to service cuts.

Core Route is a bus route that utilizes the street grid in both directions, on blocks spaced one mile apart, with frequent stops.

Core Service is a bus service that operates at high-frequency (i.e. every 15 minutes or less, early in the morning until late in the evening, seven days a week)

Critical Facilities are essential facilities, and lifelines such as major utility, transportation, and communication facilities.

Critical Lands are essential to the health, safety, and welfare of residents and wildlife.

Culinary Water is suitable for human consumption (as opposed to lesser or non treated water for irrigation or industrial).

Community Wildfire Protection Plan (CWPP) is a plan for communities to identify and prioritize areas for hazardous fuel reduction treatments, recommend methods of treatment, and recommend safety measures.

Debris Flow is a fast downward moving mass, which could include loose mud, sand, soil, organic matter, rock, and/or water.

Developed Areas are lands presently built (typically residential, commercial, or institutional uses).

Developed Recreation requires specific facilities and spatial requirements. Facilities typically include campgrounds, picnic areas, parks, trailheads, trails, cultural/historical sites, cross country skiing tracks, sight-seeing, and others.

Development - is a broad term including but not limited to residential dwellings (attached and detached), commercial and industrial buildings, infrastructure and utilities, roads, and parks.

Definitions Continued

Ecosystem Services provide direct and indirect benefits that natural ecosystems generate for human and wildlife well-being. Ecosystem Services are grouped into four categories.
1. Provisioning (food and water). 2. Regulating (flood and disease control). 3. Cultural (social, knowledge, religious). 4. Supporting (nutrient cycling, biomass production, habitat).

Essential Facility is a building or other structure that is intended to remain operational in the event of an extreme hazard such as heavy snow, earthquake, or other events.

Evapo-transpiration is the process by which water is transferred from the land to the atmosphere by evaporation from the soil and other surfaces and by transpiration from plants.

Forest Degradation a reduction in forest health and capacity to produce ecosystem services.

Geographic Information System (GIS) is a framework for gathering, managing, and analyzing data.

Geologic Hazard is a surface fault rupture, liquefaction, landslide, debris flow, rockfall, avalanche, and/or other geologic processes that may present a risk to life and property.

Greenway is a corridor that is maintained for conservation, recreation, and/or non-motorized transportation, which connects people and places.

Guiding Principles are fundamental value statements or guidelines that are used to establish a framework to lead decision-making by stakeholders.

Goal is an aspirational statement or desired intention of the plan.

Helicopter Wells, or Heliwells (Helicopter dip tank, heli-hydrant) is a wide, large capacity, water tank that can accommodate the dip bucket of helicopters that are fighting wildfires, providing a water source in areas that are at risk of wildfire.

Housing + Transportation Affordability Index considers the costs of both housing and transportation to one's employment in determining how affordable a place is to live.

Incorporated Boundary is the perimeter of land that is located within city/township limits that is governed by its own political body.

Infrastructure is a broad term for facilities that support developed communities, which often includes utility networks and transportation systems.

Inland Port is a logistics and distribution hub that is located inland from coastal seaports and meant to alleviate some of the pressure on coastal ports.

Land Use is the human use of land. Permitted land uses vary according to laws and ordinances as determined by local, state, and federal governments.

(Future) Land Use is a general guide or vision of how the land may be used in the future according to the desires of a community (usually visualized with a map).

(Current) Land Use defines how land is currently being use or allowed to be used.

Landslide is a general term for the downslope movement of a mass of soil, surface deposits or bedrock, including a continuum of processes between landslides, earth flows, mud flows, debris flows and debris avalanches, and rockfall.

Liquefaction is a process by which certain water-saturated soils lose bearing strength because of earthquake-related ground shaking and subsequent increase of groundwater pore pressure.

Master Planned Communities are planned large-scale developments that incorporates a variety of residential, civic, recreational, and commercial uses.

Meander Line is drawn by surveyors for mapping and surveying a body of water. It is irregular and dynamic according to the outline of a body of water.

Metro Township is a municipality similar to a city or town who's governing board, the Metro Township Council, is comprised of five members who are elected to serve. Located in proximity to the West General Plan area are three Metro Townships: Magna, Kearns, and Copperton.

Missing Middle Housing is described as house-scale attached units. These types of housing are considered "missing" because a lesser number have been built in recent decades.

Mountain Communities are smaller mixed developments in mountainous areas which consider impacts of the mountain environment (e.g., fire, slope, wildlife) in planning and development.

Moderate Income Housing is occupied or reserved for occupancy by households with a gross household income equal to or less than 80 percent of the median gross income for households of the same size.

Definitions Continued

Multi-modal transportation that utilizes various modes (walking, cycling, automobile, public transit, etc.).

Non-Buildable Area is land hat cannot lawfully accommodate development of buildings.

Overpressure Zones is an area at risk by pressure caused from a shock wave over and above normal atmospheric pressure, which is caused by a blast/explosion. Overpressure zones are created as a buffer to ensure structures and people are not affected by overpressure forces and debris caused by blasts.

Passive recreation relates to activities that do not require prepared facilities like sports fields or pavilions. As minimal stress is placed on a site's resources, these activities can provide ecosystem service benefits and are highly compatible with natural resource protection.

Perpetuity in continual existence, forever, or for an indefinitely long period of time.

Planned Communities are large carefully planned developments, which include residential, commercial, recreational and other uses (e.g. Daybreak).

Planning Commission is body of citizens that serve within local government as an advisory group to the legislative body for planning, land use regulation, and community development, and as the final decision maker on administrative applications relating to the same.

PM2.5 is a solid or liquid particulate matter (particle pollution) in the air that is two- and one-half micrometers or less in width. They can contain hundreds of different chemicals and their small size allows them to get deep into lungs and bloodstream causing health risks.

PM10 is a solid or liquid particulate matter that is ten micrometers and smaller.

Population Density is the number of residents in a given area and is calculated according to the average household size and the number of households per area.

Poverty Rate is the ratio of the number of people whose incomes fall below the poverty line to the total population.

Residential Density is the number of housing units in a specific area of land, measured by dwelling units per acre (du/ac). Regulations on density is typical determined by zoning codes.

*Low – Fewer units per acre (typically single-family homes, semi-detached homes, and duplexes)
*Medium – Mid-level amount of units per acre (typically townhomes and low-rise apartments)
*High – Highest amount of units per acre (typically mid-to-high rise attached units)>

Riparian areas are landscapes directly adjacent to and influenced by watercourses and water bodies.

Riverine refers to areas that are related to, formed by, or resemble a river. Within wetland classification, riverine includes all wetlands and water habitats within a channel with the exception of those dominated by vegetation or with salt content over a certain threshold.

Roadway Corridor/Right of Way is an area (often linear) defined by vehicular transportation. Depending on the design and function, roadway corridors can also include elements of active transportation and transit service.

Sentinel Landscapes Partnership is a coalition of federal agencies, state and local governments, and non-governmental organizations founded in 2013 that works with private landowners to advance sustainable land management practices around military installations and ranges.

Shared-use is path or lane that is used by multiple modes of transportation (e.g. cycling, walking).

Snotel is an automated system of remote snowpack and related climate sensors operated by the Natural Resources Conservation Service (NRCS) of the United States Department of Agriculture in the Western United States.

Steering Committee is an advisory board made up of stakeholders or experts that provide guidance on different issues that may come up in the planning process.

Subdivision is a tract of land which have been divided into individual building lots and are officially approved and recognized as such.

Subsidized housing is when the cost is subsidized by the government for low-income households, the elderly, and disabled to ensure that low-income households do not pay more than 30% of their monthly income toward housing costs.

Strategy is a potential method used to accomplish a goal.

Tailings the uneconomic waste product of mining operations.

Definitions Continued

Tax Credit Units are residential housing units that qualify for the Low-Income Housing Tax Credit. This is a dollar-for-dollar tax credit for affordable housing investments. It gives incentives for using private equity in the development of affordable housing for low-income Americans.

Tax Increment Financing is a public financing method used as a subsidy for redevelopment, infrastructure, and other community-improvement projects. Municipalities typically divert future property tax revenue increases from a defined area or district toward an economic development project or public improvement project in the community (Wikipedia).

Traffic Analysis Zone (TAZ) is the unit of geography most commonly used in conventional transportation planning models.

Transfer of Development Rights works as a land preservation tool where a landowner can take the right to develop on a piece of property (sending area) and transfer the development units to another piece of property (receiving area).

Transit is the conveyance of persons or goods from one place to another by means of a local, public transportation system.

Trust for Public Lands Park Score is a national measure and comparison of park systems based on five categories: access, investment, amenities, acreage, and equity.

Street Typology is a functional classification of streets based on their cross section and use, such as local, collector, arterial, etc.

Unincorporated Area is land that is not within the boundaries of a city/town and is the responsibility of the county.

Un-programmed park space are areas of a park that facilitate a variety of active recreation opportunities that are unscheduled.

Utilities include useful services for homes and businesses such as electricity, gas, water, cable, telephone, and internet.

Vision Statement describes the desired long-term goals of an entity.

Wasatch Front Regional Council (WFRC) is an Association of Governments (AOG) and Metropolitan Planning Organization (MPO) comprised of elected officials from Box Elder, Davis, Morgan, Salt Lake, Tooele, and Weber counties.

Walkability measures of how friendly a place is to walk and includes factors such as accessibility, comfort, and safety.

Watershed is the entire area that contributes water to a drainage or stream.

Wetlands are areas adjacent to water features characterized by hydrologic soil groups. They are classified in to different types depending on water, plant, and soil qualities.

Wildland Urban Interface (WUI) are land areas that transition from urban/development to natural lands and are inherently at higher wildfire risk.

Acronyms

AARC Average Annual Rate of Change
AASHTO American Association of State Highway and Transportation Officials
ACS American Community Survey
ADA Americans with Disabilities Act
ADU Accessory Dwelling Unit
AMI Area Median Income
ATIP Active Transportation Implementation Plan
BACT Best Available Control Technology (Environmental Protection Agency)
BLM Bureau of Land Management
BMP Best Management Practices
BRT Bus Rapid Transit
BST Bonneville Shoreline Trail
CDA Community Redevelopment Area
CEMP Salt Lake County Comprehensive Emergency Management Plan
CRA Community Reinvestment Area
CRMP County Resource Management Plan
CWPP Community Wildfire Protection Plan
DEQ Utah Department of Environmental Quality
DOGM Division of Oil, Gas, and Mining
DNR Division of Natural Resources
DWR Division of Wildlife Resources
EDA Economic Development Area
EDC Economic Development Corporation of Utah
EIS Environmental Impact Statement
EOP Salt Lake County Emergency Operation Plan
EPA United States Environmental Protection Agency
ESRI Environmental Systems Research Institute
FCOZ Foothills and Canyons Overlay Zone
FHWA Federal Highway Administration
GHID Granger-Hunter Improvement District
GIS Geographic Information System
GOEO Utah Governor's Office of Economic Opportunity
GSL Great Salt Lake
HCR10 Great Salt Lake House Resolution 10
HCD Salt Lake County Housing and Community Development
HMP Salt Lake County Hazard Mitigation Plan
IBA Important Bird Area
ISSR Inland Sea Shorebird Reserve
JVWCD Jordan Valley Water Conservancy District
JLUS Joint Land Use Study (Military)
KID Kearns Improvement District
LUDMA Land Use Development and Management Act
M&I Municipal and Industrial
MBPA Migratory Bird Protection Area
MC Mountain Communities
MHI Median Household Income
MIH Moderate Income Housing
MIHP Moderate Income Housing Plan
MPC Master Planned Communities
MSD Municipal Services District
NAICS North American Industry Classification System
NFS National Forest System
NGO Non-governmental Organization
OV Oquirrh View
PC Planned Communities
PI Pressurized Irrigation
PUD Planned Unit Development
ROW Right-of-Way
RTP Regional Transportation Plan
SLC Salt Lake City
SLCIA Salt Lake City International Airport
SLCo Salt Lake County
SMB Small & Medium Business
STIP Statewide Transportation Improvement Plan
SVSD South Valley Sewer District
SVWRF South Valley Water Reclamation Facility
TAZ Traffic Analysis Zone
TBID Taylorsville-Bennion Improvement District
TIF Tax Increment Financing
TDR Transfer of Development Rights
TIP Transportation Improvement Program
UDOT Utah Department of Transportation
UFA Utah Fire Authority
UIPA Utah Inland Port Authority
URA Urban Renewal Area
URMCC Utah Reclamation and Mitigation Conservation Commission
USDA United States Department of Agriculture
USFS United States Forest Service
UTA Utah Transit Authority
WFRC Wasatch Front Regional Council
WGP West General Plan
WTP Water Treatment Plant
WUI Wildland-Urban Interface

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Visual History Timeline References

Year	Title
Pre 1800s	Native tribes such as the Goshutes called the West Bench home.
1847	Mormon Pioneers arrived in the Salt Lake Valley.
1848	Bingham Canyon settled and used for ranching & timber.
1849	Town of Butterfield (current Herriman) established by Thomas Jefferson Butterfield.
1851	Modern Settlement of Magna area began.
1859	First settlements in what is now West Jordan and South Jordan.
1863	Gold was discovered in Bingham Canyon and brought a rush of prospectors.
1866	Town of Lark established to support mining and timber efforts.
1868	Pleasant Green (Magna) established.
1870	First resorts constructed on the south shore of the Great Salt Lake.
1873	Rail line extended to Bingham Canyon increasing production/capability of mining.
1883	Establishment of the Pleasant Green Cemetery.
1893	Saltair resort built by the LDS church.
1894	Utah Territorial Legislature established the Utah National Guard.
1898	Duck Clubs start in SLCo and lead to a south shore land rush. *(Image Courtesy: Jack Ray)*
1906	Steam shovels began working in Bingham Canyon.
1912	Establishment of the Great Salt Lake Audubon.
1914	18,700 acres designated for use of the Utah National Guard.
1920's	Bingham has a peak population of 15,000 people.
1925 - 1926	Saltair Fire and rebuilding.
1926	Annual summer training began on National Guard land.
1928	Camp W.G. Williams officially established.
1936	Kennecott Copper Corporation purchased 100% of Utah Copper Co.
1941	Incorporation of West Jordan.
1944	Kennecott Copper began installing coal-fired power plants.
1955-1957	The town of Garfield is dissolved.
1960-1972	Bingham Mine expands and the Town of Bingham is closed.
1972	Hi-Country Estates HOA incorporated. *(Image created using Google Earth historic satellite images.)*
1983	Wet cycle raises the Great Salt Lake by 12 feet.
1984	Salt Lake County purchased Yellow Fork Canyon.
1989	Butterfield Canyon Road Paved.
1996	Kennecott's Inland Sea Shorebird Reserved (ISSR) created.
2004	Kennecott Land begins construction of the Daybreak master planned community. *(Image credit: RelajateconAna on Flickr. Creative Commons Attribution-NonCommercial-NoDerivs 2.0 Generic (CC BY-NC-ND 2.0).)*
2007	Salt Lake County purchased Rose Canyon.
2010	Machine Gun Fire burns 4,351 acres and three homes.
2012	Wildfire in Rose Canyon burning 670 acres and six homes (Rosecrest Fire).
2015	Rio-Tinto Kennecott Alternative View Project to improve aesthetics and stormwater begins.
2016-2019	Kennecott retires coal-fired power plants, focusing on cleaner and more efficient sources.
2021	Kennecott donates water rights to Audubon Society to benefit the Great Salt Lake

Chapter 2

Land Use



DRAFT 03.18.2022

SALT LAKE COUNTY

Vision

Land Use Vision: Residents benefit from thoughtful planning, which guides the preservation of open spaces, sustainable land uses, and quality communities. Town and village centers create cohesive communities through connectivity to transportation systems, outdoor recreation, neighborhoods, local economic opportunities, and daily needs. Coordination of land uses is achieved through collaboration between residents, municipalities, regional agencies, landowners, and stakeholders.

Guiding Principles

A. Public Benefit

I. Consider the health, safety, and welfare of residents and visitors.
II. Foster access to opportunities for all people.
III. When feasible separate or buffer incompatible land uses.

B. Land Use Clarity:

I. Work toward consistent land uses between regional plans, local general plans, and zoning ordinances.
II. Involve private landowners in planning.
III. Consider public needs and private property rights.

C. Center-based Land Uses:

I. Plan for a variety of centers including commercial, employment, town, village, and neighborhood.
II. Plan for clustered destinations and public gathering spaces.
III. Plan local streets, sidewalks, and trails to encourage walking and biking.
IV. Co-locate complementary land uses within centers.
V. Strategically link centers with transportation systems.

D. Regional Coordination:

I. Coordinate with municipalities, regional agencies, and stakeholders in planning efforts.
II. Each community should holistically integrate housing, job centers, and transportation.

E. Design Quality:

I. Housing should be built in harmony with the natural topography.
II. Design energy-efficient buildings to improve air quality and reduce power use.
III. Encourage aesthetically pleasing buildings and landscapes.
IV. Plan for lasting and durable quality sites and buildings.
V. Assure water conservation practices.

Background

Current Land Uses

"Land use is the term used to describe the human use of land. It represents the economic and cultural activities (e.g., agricultural, business, residential, industrial, mining, and recreational uses) that are practiced at a given place. Public and private lands frequently represent very different uses" according to the Environmental Protection Agency (EPA).

Shoreline Area Current Land Uses
The Great Salt Lake shoreline area accounts for nearly 34,000 acres of the study area and is used for agriculture, ranching, habitat conservation, and waterfowl management. Farmers and ranchers who work in the area describe the relationship between these land uses as symbiotic. Most landowners and land managers in the area oppose development and hope to maintain current uses in the future.

North and Central Oquirrhs Current Land Uses
The north and the central Oquirrh Mountains are used for mining and industrial purposes. Large land areas of are undeveloped and in a relatively natural state due to decades of limited public access. The northern foothills are the site of facilities used to process ores extracted from the mine. Rio Tinto Kennecott owns most of the mountain range within Salt Lake County. In southwest land is owned by Salt Lake County and The Bureau of Land Management (BLM),which is used for recreation.

Southwest Oquirrhs Current Land Uses
The southwest foothills of the Oquirrhs contain large areas of recreational land. Salt Lake County park land includes 809 acres in Yellow Fork Canyon and 1,692 acres in Rose Canyon. The BLM owns 1,507 acres of adjacent open space. These lands provide valuable natural public open space in an area surrounded by less-accessible or inaccessible private and military lands. These are important recreational lands to the residents of the southwest area of the County.

Traverse Mountains Current Land Uses
Camp Williams land ownership is divided between the State of Utah and the U.S. Government. The State manages the facility and has land use jurisdiction and authority for the site.

The federal government owns 19,927 acres of Camp Williams land, while the Utah State Armory Board owns 3,146 acres, and 991 acres belong to SITLA (School and Institutional Trust Land Administration). Camp Williams straddles the Salt Lake County/ Utah County boundary, with 7,482 acres in Salt Lake County (31% of total) and 16,593 acres in Utah County (69% of total). Approximately 6,420 acres are within the West General Plan study area.

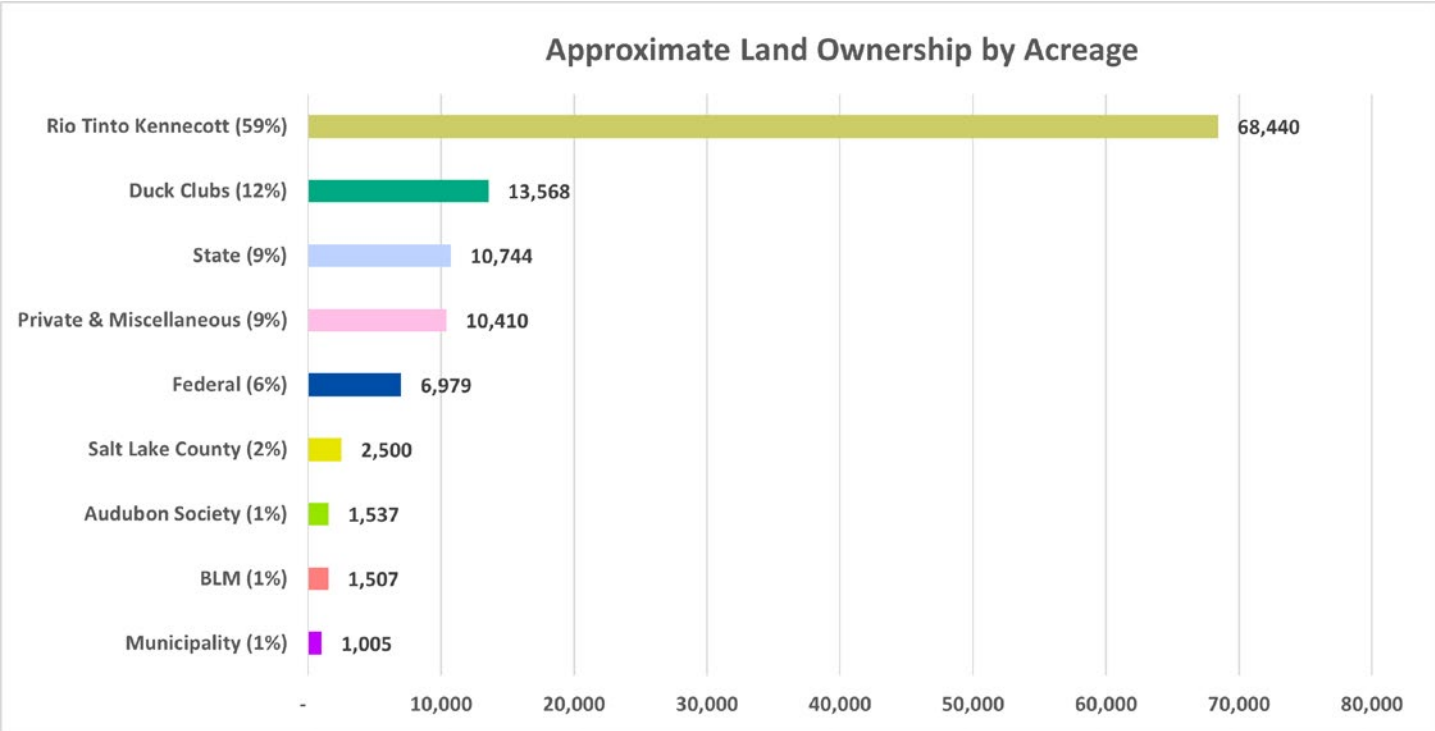

Figure 2.1 Land Ownership

"Camp Williams is the primary training site for Utah National Guard troops, and is used as supplemental training space for Fort Bragg (California) troops. These activities are vital to continuing the military mission in Utah, and the land used for the activities must be protected. Landowners with property near Camp Williams, and residents and business owners on property surrounding Camp Williams must also be protected from adverse impacts that could occur due to training activities associated with Camp Williams"[1].

Land Ownership
Most of the land in the study area is privately owned, with Rio Tinto owning the greatest share. The "duck clubs" are jointly owned by multiple individuals or organizations and are not single entities. The State owns the most for public land ownership, followed by the Federal Government, Salt Lake County, and then the BLM. See Land Ownership Map on page 40.

Current Zoning
A map of current zoning in 2021 can be found in the appendices. In general, during the preparation of this document, major zoning is as follows:

- shoreline area (agriculture zones)
- north/central Oquirrh Mountains (industrial in mining areas and agricultural in forests and foothills)
- southwest Oquirrh Mountains (mixture of agricultural and forestry)
- Camp Williams is zoned Forestry Recreation.

Adjacent Land Uses

Salt Lake County does not have land use jurisdiction or authority for several large areas directly next to the West General Plan study area. This information is provided to add context.

SLC Airport
The Salt Lake City International Airport (SLCIA) was established in 1911 and is now the 23rd busiest airport in North America. The first terminal was built in 1933, and flights connected Salt Lake City to New York and San Francisco. The airport is now a central hub for the western United States and offers several international direct flights.

The airport is undergoing a $4 billion redevelopment to meet demand. The new facility will allow for the efficient travel of 34 million people per year, up from about 20 million per year today. Phase one of the redevelopment was completed in the fall of 2020 and included a new parking garage, passenger terminal, and portions of concourses A and B. Phase two of the redevelopment is set to be completed in 2024. The airport has a master plan that guides future development based on demand[2].

Figure 2.2 Oquirrhs looking northwest

Figure 2.3 Oquirrhs looking west

Inland Port
The Inland Port is an inter-modal shipping hub planned for the northwest quadrant of Salt Lake County. The dry port will allow goods to be processed and distributed without clearing customs at a coastal port. This enable international markets to ship products to Utah and throughout the Intermountain West, providing economic benefits. The location provides close access to the SLC International Airport and many warehouses and distribution facilities. The port has come under scrutiny by community groups for potential negative impacts to air and water quality, habitat loss/degradation, and light pollution.

Created by state legislation, the Utah Inland Port Authority (UIPA) is the government agency responsible for developing the port and making policy, program, and financial decisions. UIPA is funded by a portion of increased property taxes from development in the port area (see Figure 2.7). UIPA's five-year strategic business plan is to[3]:
1. Position Utah as a leading trade logistics hub.
2. Advance sustainable and smart supply chains.
3. Be a responsible steward of the environment and local communities.
4. Effectively manage UIPA resources.

New Utah State Correctional Facility
A new Utah State Correctional Facility is under construction in the northwest of Salt Lake County, near the Inland Port, and is expected to be completed in 2022. The location of the original prison site in Draper, and combined with the need for repairs and more program space, led to the selection of a new prison site. Cost savings are expected over time with the new, more efficient site. There are concerns by some in the community that the facility lighting will negatively impact bird habitats.

Overpressure Zones
Northrop Grumman is one of Utah's largest private employers. The company's aerospace manufacturing facility in West Valley City specializes in ground-based mid-course defense, propulsion for submarine-launched missiles, boosters to help launch satellites, international space station deliveries, and a launch-abort motor to protect astronauts. The risks associated with the company's activities cause development restrictions and recommendations. Some areas within the West General Plan boundary fall within the "overpressure zones" that dictate restrictions[4]. See Figure 2.4.

Before any zoning ordinances or adjacent development is approved in the overpressure zones, it is recommended that a review of SLCo ordinances Section 19.76.270, 18.20.060, and Chapter 15.14 be conducted. As necessary these ordinances should be reviewed and updated.

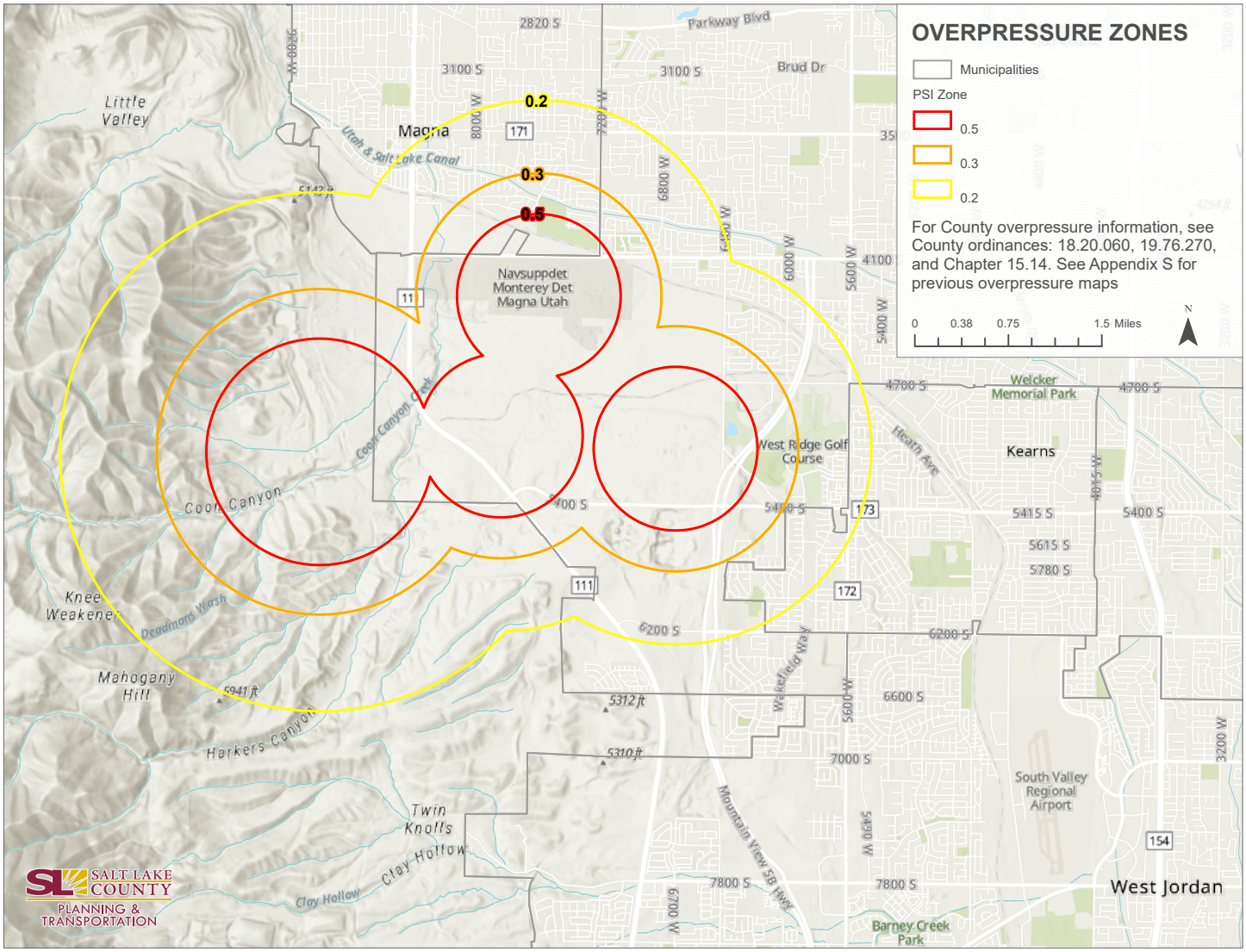

Figure 2.4 Over Pressure Zone Areas

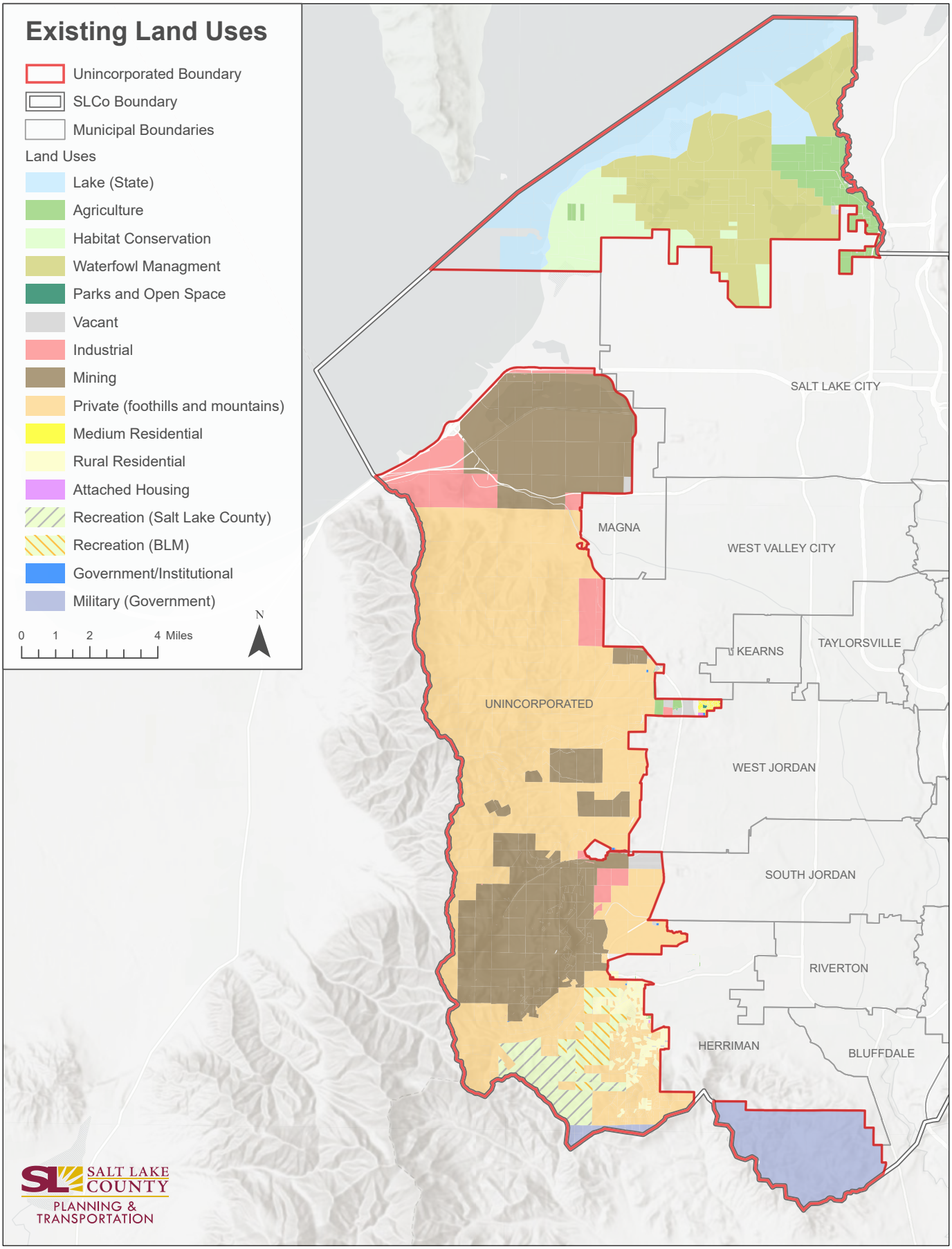

Figure 2.5 Existing Land Uses

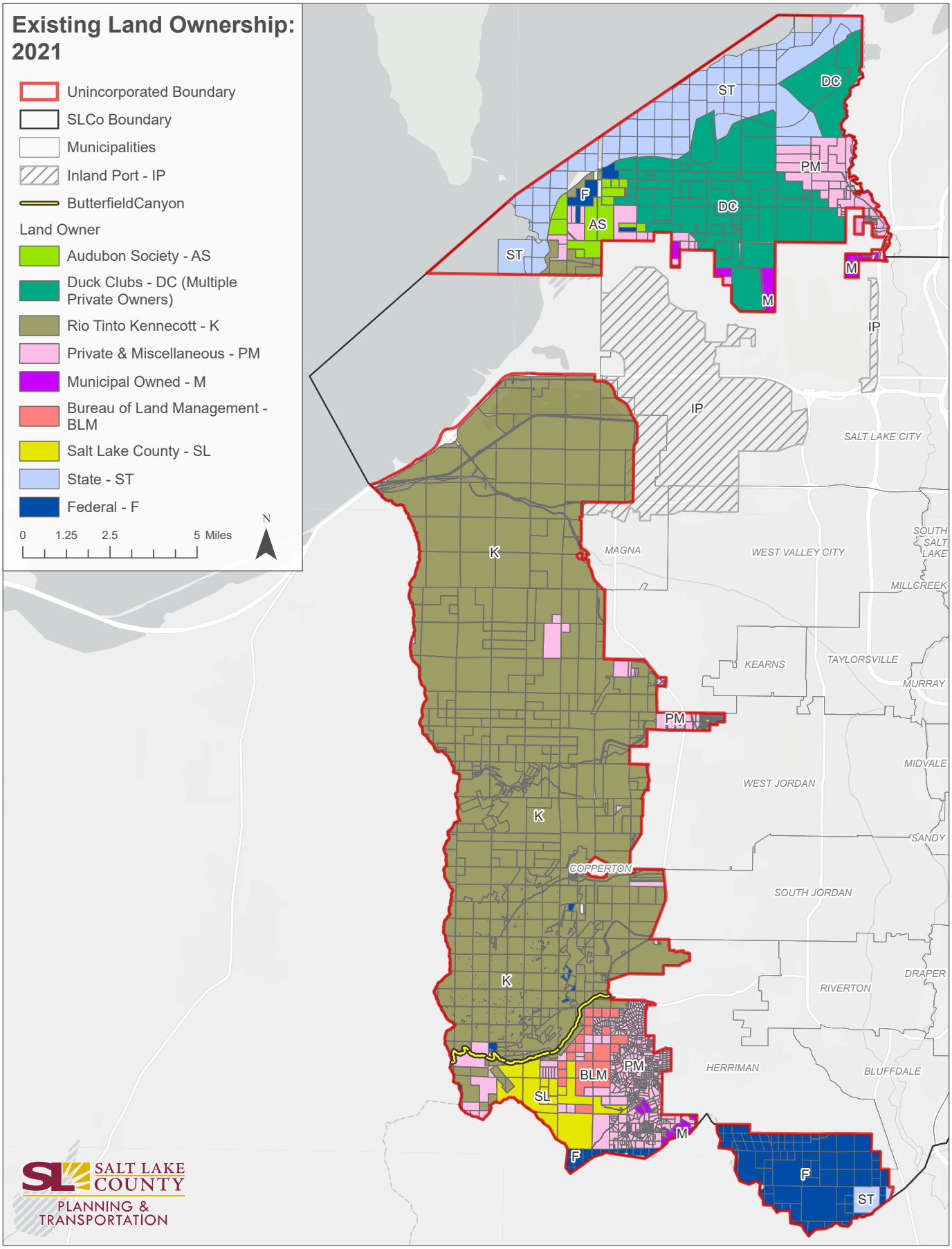

Figure 2.6 Existing Land Ownership

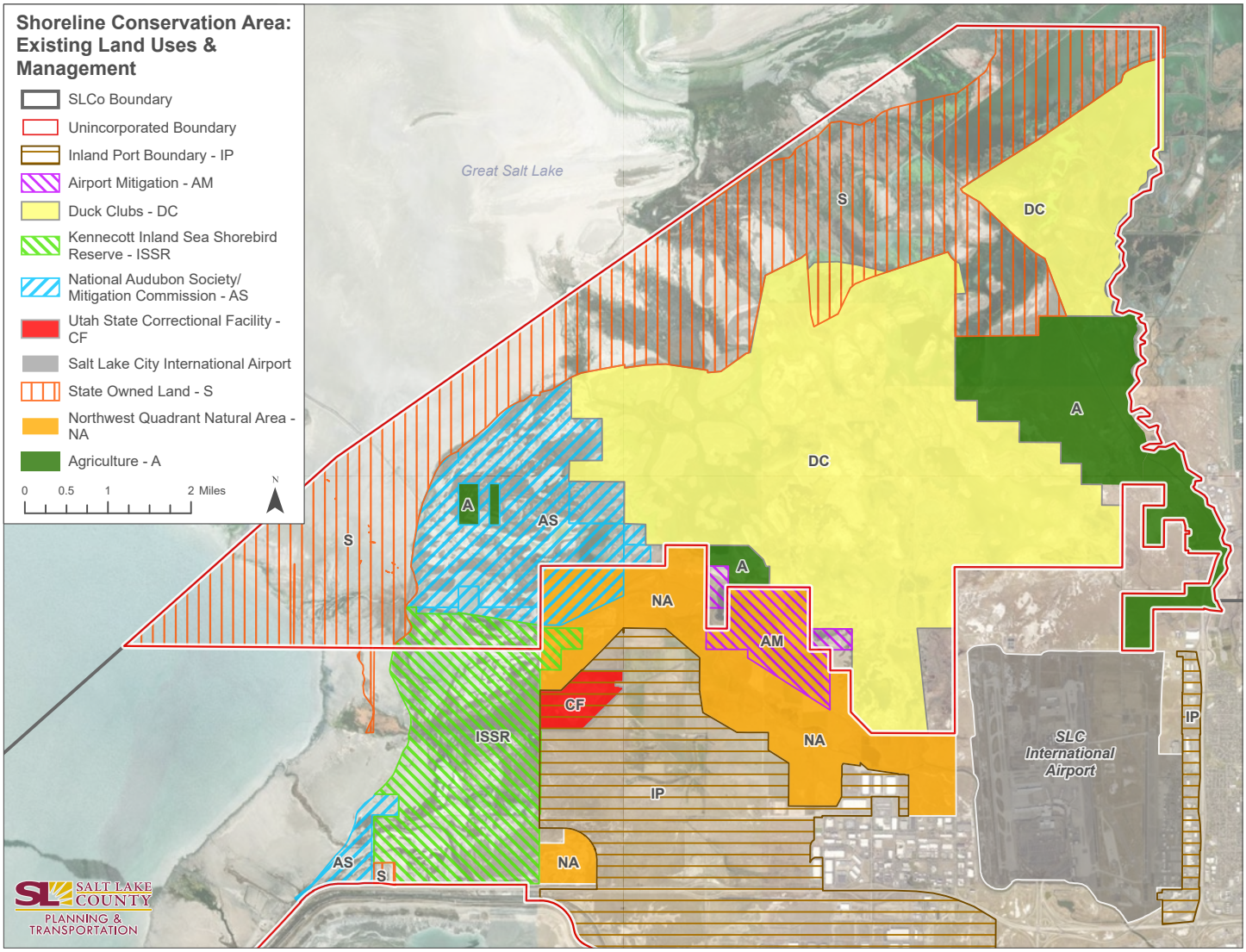

Figure 2.7 Shoreline Conservation Area

Adjacent Municipalities

Municipalities near the West General Plan study boundary adopted land use plans for areas within their jurisdictions. These include:

Salt Lake City
The Northpoint Small Area Plan
The Northpoint Plan was approved in 2000 and is being revised, with estimated completion in 2022. The Northpoint area is in the northwest section of Salt Lake City between 1900 North and 3500 North and between Interstate 215 and 3200 West. Proximity to the airport discourages incompatible land uses, especially residential, to protect people from high noise levels and prevent potential conflicts with airport activity. Most of the land's future use is designated as business park, while preserving and enhancing agricultural uses along 2200 West. The Northpoint Plan recommends zoning be amended to allow agricultural uses to continue and expand on land identified as and zoned as business park. The future land use in the Northpoint area will consist of 63% business park and 37% agricultural[5].

Northwest Quadrant Master Plan
The Northwest Quadrant includes 28,000 acres of land between SR-201 on the south, the Davis County border on the north, 8200 West on the west, and Interstate 215 on the east. The plan area accounts for 40% of Salt Lake City's total land area. It is one of the largest undeveloped areas along the Wasatch Front and is the site of essential wildlife resources and wetlands. The new state correctional facility is located within the Inland Port area[6].

Magna Metro Township
Portions of the south shore of the Great Salt Lake are within Magna's boundaries. This includes the Great Salt Lake Marina, Saltair, the Inland Sea Shorebird Preserve, the South Shore Preserve, and part of the Inland Port. The west side of Magna has areas of residential and industrial uses.

The Magna General Plan identified the Southwest Neighborhoods as having large areas of developable land and is expected to have significant growth. One area of importance is the recently annexed Little Valley Gateway development, a 145-acre mixed-use community near the new Cyprus High School.

8400 West is a major transportation corridor with significant areas of developable land along with it. Magna's 2018 Annexation Declaration includes other lands with development potential in the foothills of the Oquirrh Mountains[7].

West Valley City
Much of the adjacent land in West Valley is within the Northrop Grumman overpressure zones. West Valley City has identified some land along U-111/8400 West and 4100 South for future development as part of their 4100 South Opportunity Area. West Valley's Annexation Declaration includes land between 2400 South and 6600 South, running west from the current city border to the ridge top of the Oquirrh Mountains. This area overlaps Magna Township's borders and areas that Magna has identified for future annexation[8]. (Appendix A).

West Jordan
The City has future land use plans for the area west of U-111, including a significant amount of residential development (with varying densities). Several large master-planned communities are currently in the development process. Portions of the southwest are designated as a research park, light industrial, and small community commercial. Land with steep

Figure 2.8 Oquirrhs and Magna looking east

terrain and riparian corridors are planned to remain as open space. West Jordan's annexation plans include a small area on its border between its current city boundaries and West Valley (Appendix A). West Jordan is concerned about infrastructure capacity, especially wastewater.

Copperton Township
Land on the northwest area of Copperton is the largest area designated for future development within the Township. Most undeveloped land is planned to be maintained as open space and preserved as mining buffers. Areas along U-111 are designated for residential use and some mixed-use development. The 2020 Copperton General Plan mentions annexation for the surrounding land, but does not have an annexation declaration designating specific areas[10].

South Jordan
Land west of the Mountain View Corridor includes residential, commercial, and open space uses. Most growth west of Bangerter Highway is within the Daybreak development, which consists of the addition of more than 14,000 residential units and additional commercial space in the future. The west side of Daybreak's future land use includes mixed-use, business, and commercial areas around the Mountain View Corridor. South Jordan's annexation plans include areas west of the current city boundaries with South Jordan, West Jordan, and Herriman[11] (Appendix A).

Herriman
Future land uses along Herriman's western edge are planned to be mostly residential, are areas in the foothills and canyons of the Oquirrhs designated as mountain/canyon residential, with large, rural lots that allow for keeping horses and other large animals. These serve as a buffer for open space, recreation, and environmentally-sensitive areas. In collaboration with Camp Williams, Herriman City has open space and trails development in progress. The City's plan shows potential annexation areas to the south, west, and northwest (Appendix A). In fall 2021, Herriman annexed the 933-acre Olympia Hills project (Last Holdout property). The development, renamed "Olympia," will include 6,330 residential units[12]. Herriman's General Plan includes a recommendation that land in between Olympia development and 118th south be designated as industrial/business park uses (see Herriman's general plan).

Bluffdale
Bluffdale's western border is next to Herriman and borders Camp Williams on the south end. Land that borders Herriman is expected to continue as large-lot residential, with some areas along Redwood Road designated as mixed-use and commercial.
While part of Camp Williams is within Bluffdale's borders, the base is a state facility with its own land use authority. Camp Williams is establishing a conservation buffer around the facility to preserve open space and provide recreational uses. Bluffdale City plans currently do not show annexation areas, most likely due to minimal developable land[13].

Annexation
Most of the cities and townships on the west side of Salt Lake County have prepared annexation declarations and/or annexation maps. Annexation maps developed by the cities and townships have been combined into a single annexation map (see Appendix A). The combined annexation map shows which adjacent municipalities have an interest in annexing. Note that in many areas more than one city or metro township shows interest in annexing the same area. Land annexation petitions need the approval of landowners, per State Code 10-2-403. Annexations should not result in islands or peninsulas of unincorporated land, according to State Code 10-2-402.

Figure 2.9 Traverse Mountains/Bluffdale/Herriman looking southwest

Future Land Uses

The Future Land Uses map and table in this chapter provide direction for changing zoning and ordinances. The map supports consideration of when and where investments should be made. There is no specific timeline for when future land uses should take effect. Changes occur with rezoning and development, conservation easements, and transitions in land ownership.

The Future Land Use Map in this chapter identifies land uses consistent with the vision statements from this plan. Land uses are divided into categories that are identified on the map. The future land uses are advisory and general. They do not strictly follow property lines. A large part of the future land uses in the Oquirrhs are not expected to change until the mine closes (beyond 2040).

Planned Communities
Planned communities are large and designed to create quality neighborhoods, centers, and recreational spaces. Communities are designed to attain physical, social, environmental, and economic advantages because of their mixture of land resources and uses. A combination of land uses for a variety of housing and employment options, ample open spaces, and a pedestrian-friendly environment. Commercial centers of varying scales are integrated throughout planned communities. The transportation system throughout the community focuses on connecting centers.

Two subsets of Planned Communities are Master Planned Communities and Mountain Communities. Master Planned Communities (MPC) are intended for suitable areas in the foothills of the Oquirrhs. MPCs are more extensive and comprehensive than Mountain Communities. MPCs should include a variety of land uses, including residential, commercial, centers, employment, parks, trails, and preserved natural lands. MPCs should consist of town centers, village centers, and employment/commercial centers where appropriate.

Potential development Planned Communities higher in the mountains are referred to as Mountain Communities (MC). The MCs should be planned with particular consideration for their unique context, including remoteness, terrain, environmental impacts, infrastructure, potential hazards, and emergency services. With the support of a willing landowner the conservation tools listed in the Environment and Conservation chapter should be considered for these areas.

Mixed-Use
A mixed-use development may include street level retail spaces, with offices and/or housing units above. Mixed-use development may also co-locate residential with business and commercial uses within the same area or building footprint.

Mixed-use development offers many benefits to a city, including efficient use of infrastructure, increased sales tax revenues, higher property values, regular use of public open spaces, and less need for personal vehicle use thanks to ample pedestrian and bicycle paths.

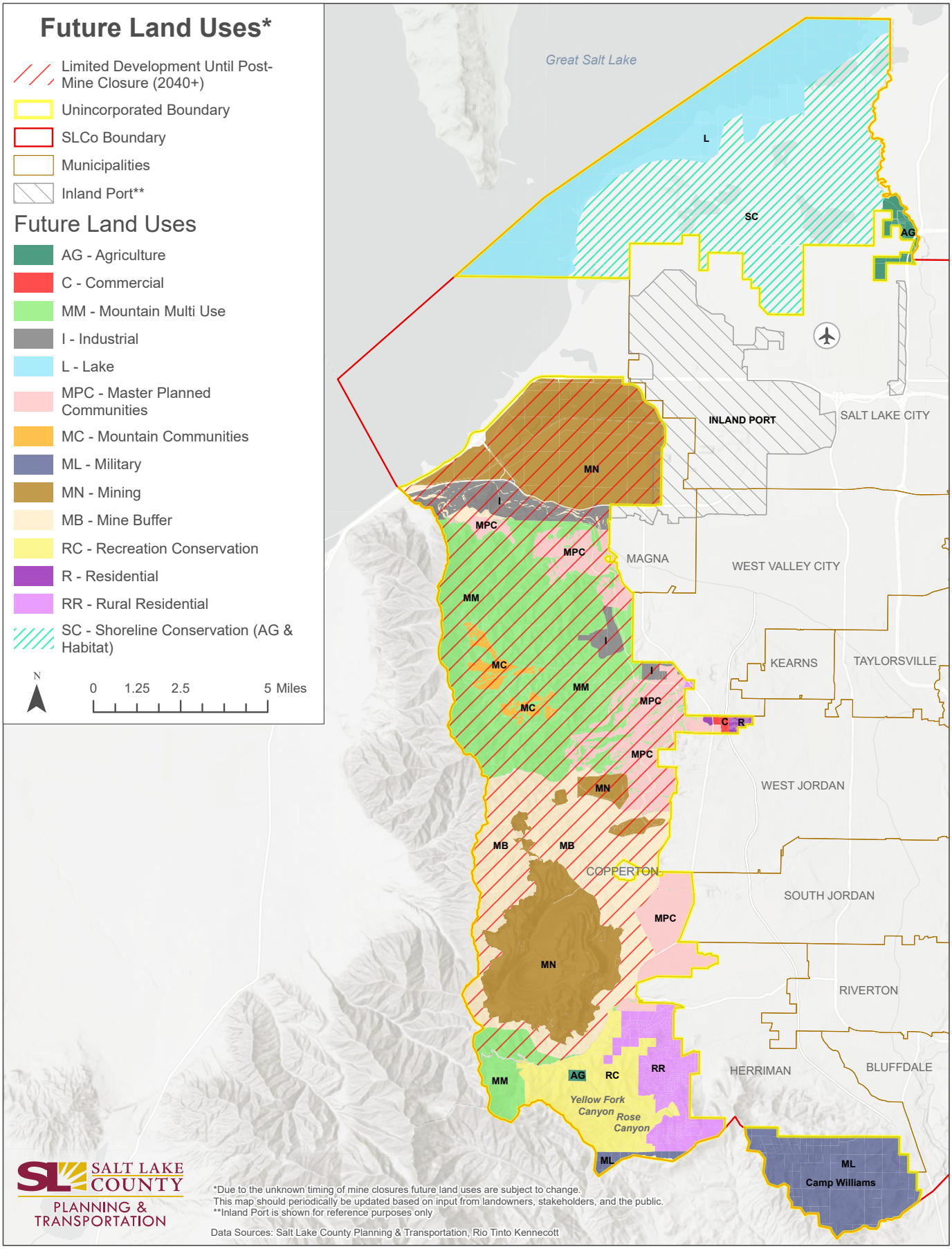

Figure 2.10 Future Land Use Map

Future Land Use Table (see Future Land Use Map)

Land Use Types	Future Land Uses	Residential Range	Key Characteristics
Agriculture	Ranching, grazing, farming, and other types of agricultural uses.	Large lots	Agricultural uses. Combination of large working farms and 2–5 acre or greater. Area suggested to continue as agriculture.
Commercial	Retail, office, business park, light industrial, and medical.	Limited residential	Intended for commercial activities, excluding heavy industrial, mining, and gravel. Not intended for significant residential.
Industrial	Manufacturing, gravel, warehouse, and mining.	No residential	Some of these areas have been previously impacted by mining activities. It's recommended to have minimum distance/ buffers between mining/gravel and residential.
Lake	Conservation of lake and shoreline.	No residential	Primarily state-owned land and historically covered by the Great Salt Lake.
Master Planned Communities	Master Planned Communities (MPC) should be holistic and have a variety of districts, including commercial/office, town center, village center, residential neighborhood, civic, institutional, and others. Uses include conservation, recreation, residential, commercial, and educational.	Density range 4-6 gross units per acre. This is not a recommendation of final density but a range for planning purposes. Final density to be determined per ordinance and development agreement. Residential density should pertain only to residential lands and supporting uses such as parks, schools, civic, and mixed-use centers.	Approved density is subject to availability of water, adequate infrastructure, transportation system capacity, and safe environmental conditions. Conserved open space within MPCs is recommended to be 30%, due to challenging topography and public desire for open space. Industrial uses such as mining, gravel, and manufacturing are generally not allowed.
Mountain Communities	Mountain Communities (MC) should have districts including town/ village center, potential resort base, and residential neighborhood. Land uses include conservation, recreation, residential, commercial, and hospitality.	Density up to 2 gross units per acre. This is not a recommendation of final density but a range for planning purposes. Final density to be determined per ordinance and/or development agreement. Residential density should pertain only to residential lands and supporting uses such as parks, schools, civic, and mixed-use centers. Conservation tools should be considered with the support of the landowner in areas where MCs are being planned (see Environment and Conservation Chapter 5 for conservation tools).	Approved density is subject to availability of water, adequate infrastructure, transportation system capacity, and safe environmental conditions. MCs have a recommended lower density due to their remoteness, concern for the environment, higher fire risk, steep slopes, and potentially limited ingress and egress options. Conserved open space within the MCs is recommended to be 40% due to challenging topography and desire for open space and habitat.

Mountain Multi-use	Uses include conservation of habitats and ecosystems, outdoor recreation (multi-trail use), winter recreation (skiing and potential resort), agricultural, hunting, infrastructure, mining, and industrial. Mining, industrial and reclamation uses are subject to State and Federal regulations.	Not intended for residential as a major use	Long-range (post-mine closure), these areas are intended for many uses and the preservation of natural resources and development of (non-motorized) recreation should be prioritized. Much of the land has steep slopes, and future uses should be compatible with the terrain. Both northern and southern Oquirrhs (Mountain Multi-use) have current mining-related, industrial, and infrastructure uses. These uses are expected to continue in a similar manner. These areas have not been heavily impacted by industrial/mining uses (e.g., Bingham Canyon mine). In 2021 mining is allowed in the M2 zone as a conditional use and should only be considered in this zone.
Military	Military, office, and conservation	Residential per Camp Williams requirements	Camp Williams has its own land use authority per Federal regulations.
Mining	Mining area	No residential	Mining areas including current and future reclamation areas. Mining to follow State, EPA, and County regulations. Reclamation activities are overseen by county, state, and federal agencies, including Utah Department of Environmental Quality; Division of Oil, Gas and Mining (DOGM); U.S. Environmental Protection Agency (EPA); and Salt Lake County Health Department. Land may continue to have restricted public access due to safety concerns.
Mining/ Industrial Buffer	Mining	No residential	Upon post-mine closure many mining areas are expected to have on going risks due to steep slopes, open mines, and other potential hazards. The purpose of the buffer is to provide for separation and public safety.
Recreation and Conservation	Outdoor recreation including trails, open space, habitat, and recreation activities.	No residential on public lands and limited residential on private.	This land is a mixture of reclaimed mining land, private land, BLM, and County land.
Residential	Residential including multifamily, townhomes, and single-family.	This area currently has two residential zoning districts of multi-family and small-medium single-family; similar densities should be continued	This neighborhood (7000 South and 6700 West) consists of single-family homes and condos/apartments; future annexation into an adjacent municipality is likely.
Rural Residential	Residential, Agriculture	Large lots (typically 2-5+ acres)	This area is primarily composed of the Hi Country Estates development with large lots on the foothills. Large lots should be continued.
Shoreline Conservation	Bird Refuges, Habitat Conservation, Waterfowl Habitat, Agriculture	No residential on preservation and habitat lands. Limited large acreage residential on agricultural lands.	This area is on the south shore of the Great Salt Lake and is composed of wetlands, playas, canals, the Jordan River, and large-scale agriculture (mostly zoned A-20). This area is key to the preservation of the Great Salt Lake ecosystem and bird habitat.

Figure 2.11 Butterfield Canyon

Goals and Strategies

A. Goal: Conserve critical lands, water, and open space.
Strategies:

I. Work with willing landowners to implement land conservation tools. Conservation tools could include: conservation easements, purchase of lands (through grants or bonds), transfer of development rights, updating zoning uses, and others.
II. Develop conservation plans (see Environment Chapter).
III. Develop recreation facilities (see Parks, Trails, and Recreation Chapter).
IV. Protect the Great Salt Lake ecosystem (see Environment and Conservation Chapter).
V. Assist Camp Williams, Rio Tinto Kennecott (RTK), and Northrop Grumman in the development of buffers to reduce the impacts of incompatible land uses.
VI. Conserve water resources (see Environmental and Conservation, Water Conservation, and Utilities and Public Safety Chapters).

B. Goal: Facilitate and participate in regular planning coordination.

Strategies:

I. Collaboratively plan with partner agencies including the Wasatch Front Regional Council (WFRC), Camp Williams, Utah Department of Transportation (UDOT), state of Utah, Great Salt Lake (GSL), local municipalities, Utah Transit Authority (UTA), and others to accomplish the goals of the General Plan and other plans set forth by the County.
II. Implement the inter-agency coordination measures identified in the Salt Lake County (SLCo) Resource Management Plan (CRMP). Some include GSL management, forest management, riparian areas, and wetlands, recreation management, as well as other resources in the CRMP.
III. The County, landowners, transportation agencies, and adjacent municipalities should regularly coordinate any potential large-scale land development occurring within a 5-10 year forecast period.
IV. The County, adjacent municipalities, and landowners are encouraged to collaborate on potential annexations and or incorporations regarding lands and future development.
V. Nearby municipalities should consider planning for potential annexation areas and conduct regular coordination with landowners and the County.

C. Goal: Review and update County ordinances to further implement the vision and goals of the General Plan.

Strategy:

I. The County should regularly update ordinances relating to this Plan to ensure that community needs, health, and safety requirements are being met.
   a. Review, research, and consider updating overpressure zones related ordinances and maps.

D. Goal: Promote fiscally sustainable and efficient land development.

Strategies:

I. When practical, direct new growth and development should be directed towards infill or existing development.
II. Avoid new land development separated from existing development by substantial vacant land and developable land. This planning recommendation is subject to topographical and infrastructure constraints. Economic incentives should support land development that is fiscally

sustainable (see Economy Chapter).

III. Plan housing and jobs around centers with infrastructure capacity and adequate transportation systems. Fiscally efficient land use patterns are typically based on the development of town or mixed-use centers supporting adjacent residential development and connecting centers with transportation systems.

IV. Land uses should promote efficient multi-modal transportation systems, to avoid transit deserts.

E. Goal: Promote best practice standards for Planned Communities

Strategies:

I. Encourage early schematic and scenario planning, which could include location of development, neighborhoods, housing, centers, recreation, schools, streets, trails, parks, transit, and all other necessary components of a planned community.

II. Include regional traffic and transportation studies to anticipate transportation needs by the proposed development and its impacts on regional roadways, active transportation, and transit.

III. The County should review and update related ordinances and standards. The following recommendations should be considered for the PC ordinance update.

a. Ordinances should include design standards for land uses, buildings, landscaping, signs, open space, parks, trails, centers, and transportation.
b. An open space and conservation plan for areas such as riparian corridors, critical habitat, ridge lines, steep slopes, and sensitive areas.
c. A plan for parks, recreation amenities, trails, and active transportation.
d. A detailed regional traffic and transportation study.
e. Corridor preservation plans identifying proposed dedication of rights of way.
f. A detailed regional study for utilities including water, electricity, sewer, natural gas, and internet. The study should anticipate transportation needs by the proposed development and the impacts on the regional utility systems.
g. A housing plan with all types of housing, including affordable and workforce housing (see Housing Chapter).
h. Proposed development agreements to be negotiated with the County.
i. Based on economic research, Planned Communities should have a minimum amount of land dedicated to employment centers. This research should be thoroughly vetted and implemented through ordinances and development agreements.

F. Goal: Plan neighborhoods, community life, and transportation systems around centers.

Strategies:

I. The majority of new development should be within walking or biking distance of centers. Centers range in size from a potential neighborhood center to a town center (see Centers under definitions in Chapter 1).

II. Center planning and design should consider community gathering elements such as plazas, squares, parks, civic or community buildings, outdoor dining, and common areas.

III. Centers should be located near transportation nodes (transit stops), key intersections for major thoroughfares, and corresponding active transportation routes.

IV. Locate office, retail, grocery stores, restaurants, entertainment, and other types of commercial activity within centers.

V. Stacked housing such as condos, apartments, hotels, and mixed-use residential should be located within centers, or next to centers offering a transition to residential neighborhoods.

Figure 2.12 Oquirrhs/Daybreak

G. Goal: Integrate water resource planning and land use decisions.
Strategies:

I. Coordinate between water providers, water agencies, land developers, and planners.
II. Support the State and water districts in the development of a "Great Salt Lake education campaign that connects the public and decision-makers to their direct and indirect impacts to Great Salt Lake and its surrounding wetlands. This campaign should prioritize the State and local decision-makers."[15]
III. Developers should work with wholesale and retail water providers to ensure adequate water supplies for new development before land entitlement.
IV. Adopt water availability requirements for new development.
V. Work together with water providers to create and promote best management practices for residential, government, commercial/industrial operations, and institutional facilities to conserve water.

H. Goal: Promote water-efficient land uses.
Strategies:

I. Review and update subdivision lot size, configuration, and landscaping standards for various housing types to increase water conservation.
II. Adopt ordinances to require efficiency for new development and re-development of existing lots.
III. Address water efficiency for new and existing development by looking for opportunities or incentives to modify landscaping, replace inefficient water fixtures, and promote water efficient economic development activities.
IV. Review and adopt new rate structures to discourage excessive water use.
V. Collaborate with the State and water agencies to develop a "standard for certification of water-efficient development which could then be used by a developer or others in advertising or promotional materials."[16]
VI. Work with willing landowners to find new or re-purposed water resources for development.

Figure 2.13 Waterwise Landscaping/ Source: stock photo

Action Items

Action	Action Type	Timing	Participating Entities	Resources	Goals and Strategies
Coordination to review growth and planning with adjacent municipalities, landowners, transportation agencies, and others	Coordination	Yearly	SLCo, landowners, adjacent municipalities, transportation agencies, utilities, water providers, stakeholders	$	B, D, E
Review and update ordinances pertaining to the General Plan	Planning	As needed	SLCo, stakeholders	$	C
Develop an integrated water conservation and land use detailed action plan	Planning	0-5 years	SLCo, utilities, water providers, stakeholders	$-$$	G, H
Work with willing landowners, stakeholders, adjacent municipalities, and others to develop a conservation plan	Planning	0-10 years	SLCo, landowners, adjacent municipalities, stakeholders, public	$$	A
Review and update zoning and standards for Planned Communities	Planning	0-10 years	SLCo, landowners, stakeholders	$	E, F

Action Items presented on this page represent items that may be of priority at Plan adoption. This list does not represent all Action items related to the Plan. Actions Items are described as potential efforts related to coordination, projects, and/or specific plans.

Resources: Anticipated implementation costs are generally categorized as follows $, lower-cost Action Items that could be implemented by allocating or re-allocating resources in typical general fund budgets; $$, moderate cost Action Items that would require the creation of a new budget line item and/or development of new resources/funding; or $$$, higher cost Action Items that would require additional resources/funding (i.e. bonding, grants, etc.).

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Chapter 3

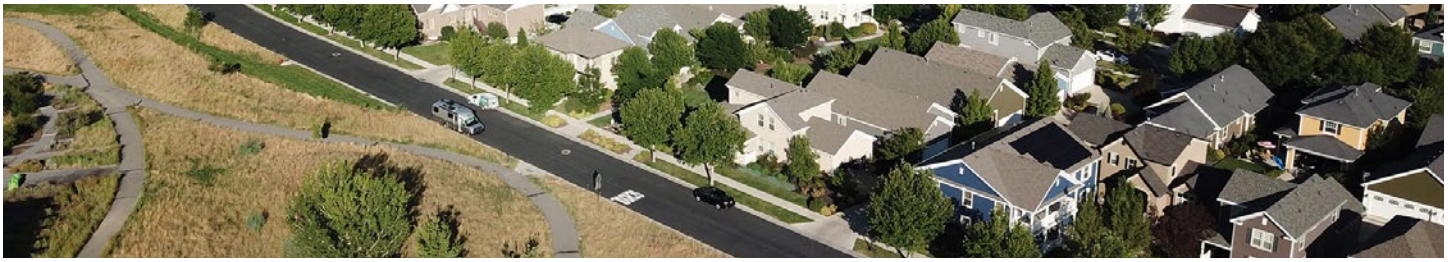
Housing

DRAFT 03.18.2022

SALT LAKE COUNTY

Vision

Housing Vision: People live in walkable and bikeable neighborhoods and town/village centers. Residents benefit from nearby parks, trails, and access to mountains and foothills. A wide range of housing options, from affordable to high-end, are available within each community. Housing design harmonizes with the natural environment.



Guiding Principles

A. Walkable/Bikeable Neighborhoods and Centers:

I. All residents benefit from access to nearby preserved open spaces.
II. Each community has a network of connected streets and trails.
III. Housing intensity primarily located within town/village centers.
IV. Housing located to improve access to opportunities.
V. Consider locating housing to improve access to opportunities.

B. Housing Affordability for All Incomes:

I. Implement the SLCo Moderate Income Housing Plan.
II. Integrate a variety of housing choices throughout each community.
III. Consider inclusionary housing policies.
IV. Facilitate public-private partnerships.

C. Market Affordable Housing:

I. Encourage individual home ownership.
II. Support a wide variety of building types.
III. Guide higher intensity housing primarily to centers.
IV. Forecast housing demands for land use planning.

D. Regional Coordination:

I. Coordinate with municipalities, regional agencies, and stakeholders in planning efforts.
II. Integrate housing, job centers, and transportation within each community.

E. Design Quality:

I. Build housing in harmony with natural topography.
II. Require energy-efficient buildings to improve air quality.
III. Design buildings to be aesthetically pleasing and of high quality.
IV. Encourage durable construction.
V. Promote water conserving fixtures and practices.

Background

Regional Housing Demand
Housing is needed by everyone, no matter their gender, age, race, or income. In recent years, the cost of housing in Utah, and especially in Salt Lake County (SLCo), has increased faster than income growth. This makes it even more difficult for SLCo residents to afford housing. This trend of housing costs outpacing incomes is present in rental and for-sale housing markets.

According to The State of the State's Housing Market study prepared in 2021 by University of Utah's Kem C. Gardner Policy Institute, Utah is experiencing a significant housing shortage. In 2021, Utah has a shortage of about 45,000 housing units, with the largest gap in the Salt Lake Valley. "The shortage has created record low rental vacancy rates, the smallest supply of unsold vacant new homes, and the smallest supply of vacant for-sale existing homes. In other words, the shortage has removed vacant units from the housing market, an unhealthy condition leading to higher housing prices and rental rates"[1].

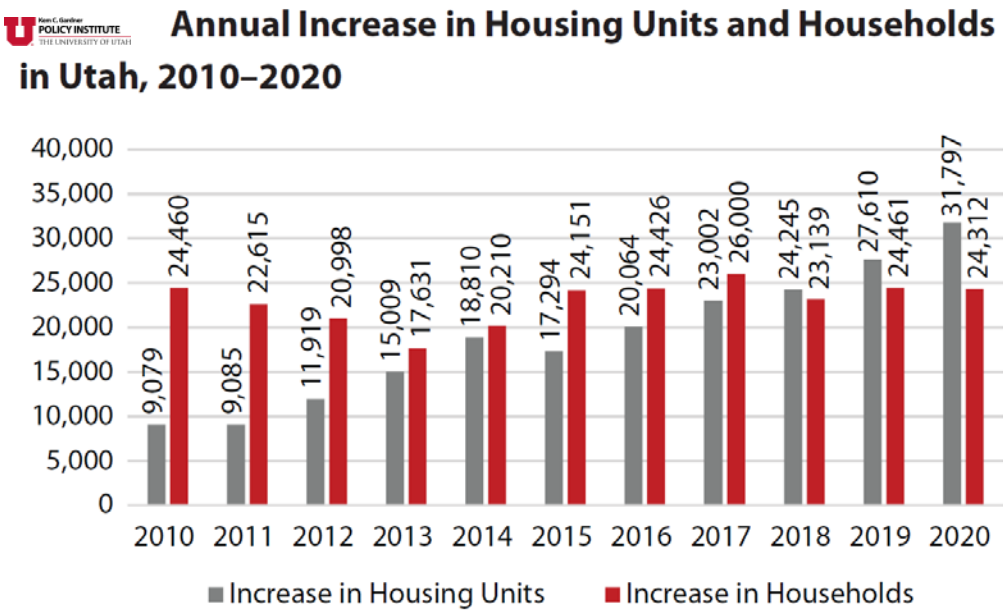


Figure 3.1 Increase in Utah Housing Units/Source: Kem C. Gardner Policy Institute [1]

Average Rental Rate for Wasatch Front Counties, 2006–2021

Year	Davis	Salt Lake	Utah	Weber
2006	$630	$652	$660	$596
2007	$670	$728	$705	$623
2008	$715	$793	$719	$651
2009	$701	$740	$701	$639
2010	$711	$720	$716	$640
2011	$701	$754	$753	$655
2012	$720	$814	$788	$684
2013	$756	$850	$807	$678
2014	$796	$865	$868	$698
2015	$839	$907	$924	$754
2016	$933	$949	$1,041	$810
2017	$1,005	$1,011	$1,097	$864
2018	$1,060	$1,072	$1,138	$937
2019	$1,102	$1,145	$1,181	$995
2020	$1,136	$1,182	$1,196	$1,040
2021[1]	$1,272	$1,301	$1,395	$1,206
2020–2021 Change[2]	12.0%	10.0%	16.6%	16.0%

Figure 3.2 Average Increase in Rental Rates for Wasatch Front / Source: Kem C. Gardner Policy Institute [1]

Existing Housing Stock
There are approximately 1,100 residential dwelling units in the plan area. Most of the units are single-family residences, with some condominiums.

Most housing units are located in an unincorporated area between West Valley, City and West Jordan named Oquirrh Highlands. This area consists of mainly single-family homes, condominiums, a park, and a religious building. If the land west of this area is annexed in the future, it is recommended that this area be included to prevent it from becoming an unincorporated island.

Figure 3.3 Housing in Unincorporated Salt Lake County

The largest land area of residential units is located within the developments called Hi Country Estates I and II. Hi Country Estates I and II are separate developments and managed by separate homeowners associations (HOAs). Most of the lots range in size from 2.5 acres to 5 acres or larger.

The Shoreline Area has approximately 25 single family homes, mostly located on ranches and farms that are 1 acre or larger in size.

Figure 3.4 Hi Country Estates and Bingham Mine

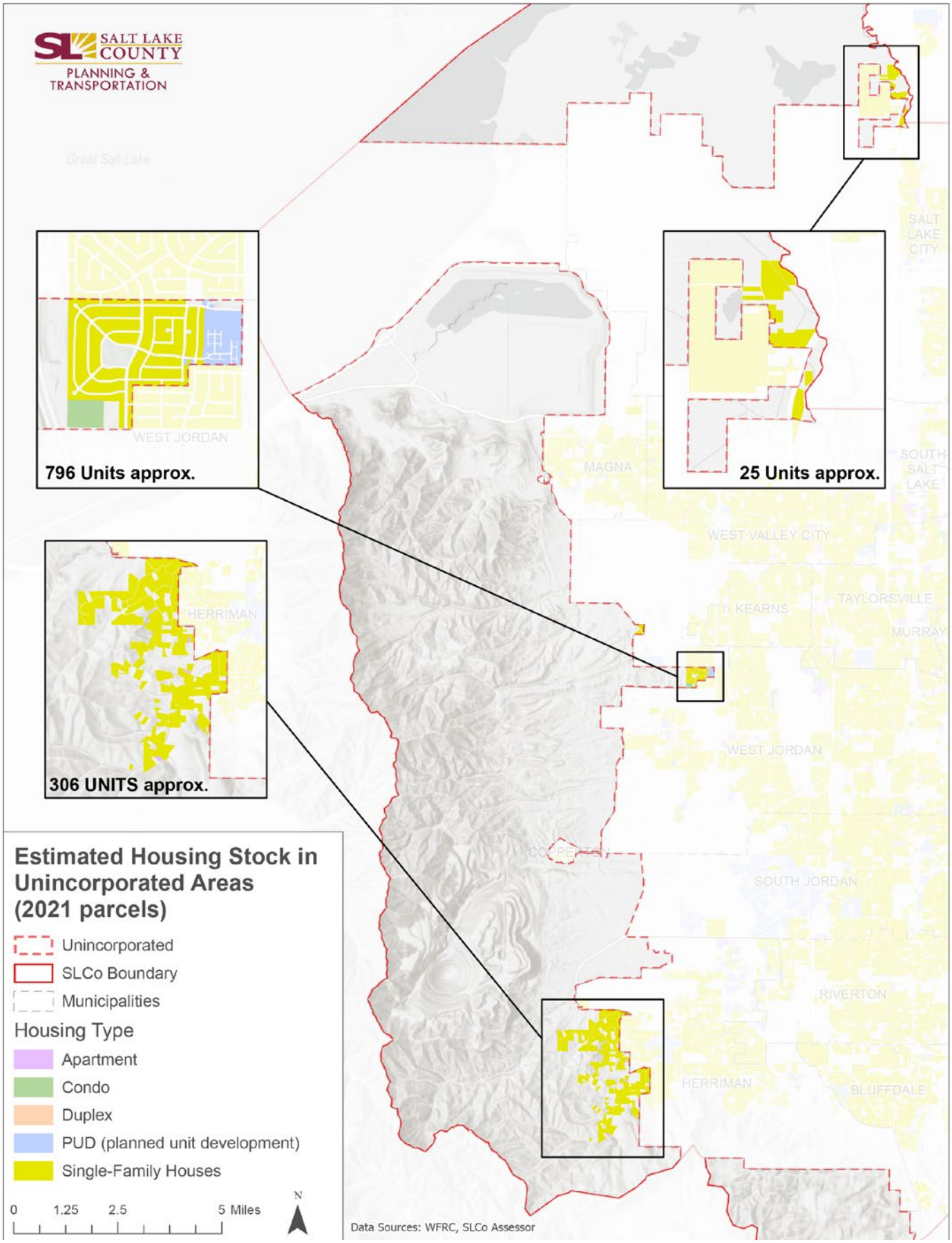


Figure 3.5 Existing Unincorporated SLCo Housing

Housing Trends
SLCo conducted a study of housing development trends over the past 80 years (see Appendix F). The map and trends show how development originated in Salt Lake City and then moved southward on both sides of Interstate 15. Typically, each city experienced significant growth and development over the last 20-30 years. In recent decades, most development has occurred in the far west and southwest parts of the County.

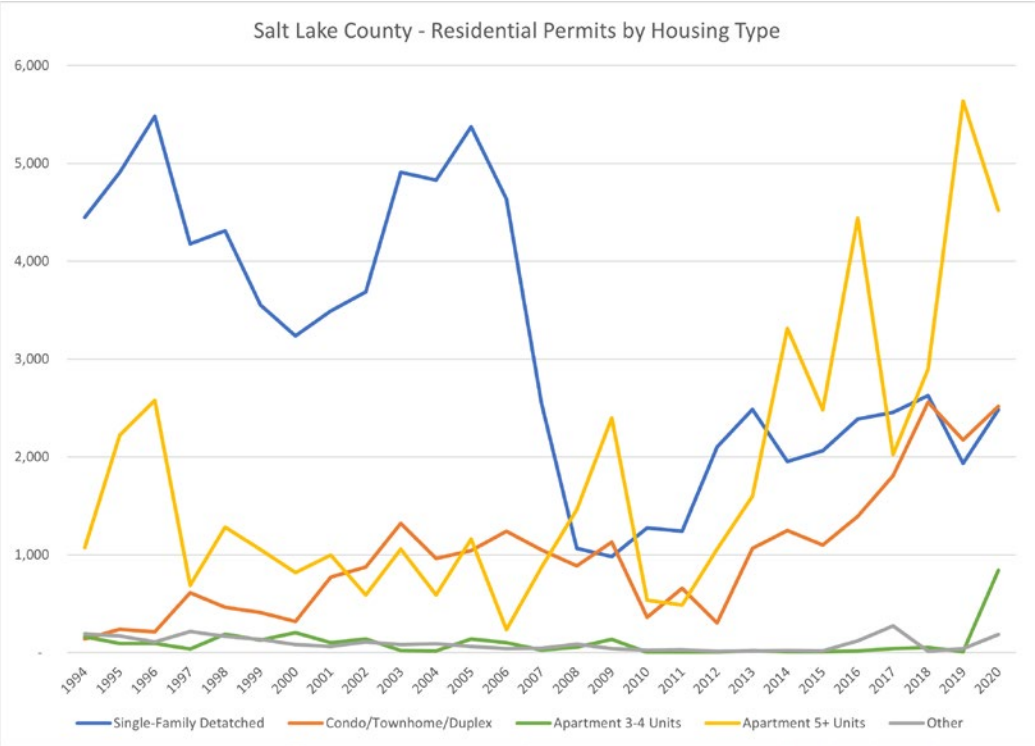


Figure 3.6 SLCo Building Permits Data. Ivory-Boyer Construction Report and Database, 2021[2].

Housing trends in Salt Lake County have changed over time. Data from the Ivory-Boyer Construction Database shows trends in residential permits from 1994 to 2020. The 26 years of data show the proportion of single-family housing permits declining, and multi-unit structure permits increasing. As the amount of available land decreases and the population grows, this trend will likely continue.

Salt Lake County Moderate Income Housing Plan
In 2019, Salt Lake County adopted a Moderate Income Housing Plan (MIHP) for the County's unincorporated areas. The MIHP is part of the housing element of the County's General Plan. In addition, the MIHP identifies housing goals and strategies, which are referenced in this plan.

The MIHP includes the following recommendations:

- "Create or allow for, and reduce regulations related to, accessory dwelling units in residential zones.
- Allow for higher density or moderate-income residential development in commercial and mixed-use zones, commercial centers, or employment centers.
- Implement zoning incentives for low to moderate-income units in new developments.
- Allow for single room occupancy developments (only for ski resort areas).
- Preserve existing moderate income housing (MIH).
- Apply for or partner with an entity that applies for state or federal funds or tax incentives to promote the construction of MIH"[3].

In 2021, the Utah State Legislature passed House Bill 82, making Internal Accessory Dwelling Units (ADU) a permitted use throughout the State. SLCo passed an ADU ordinance for unincorporated areas. It's anticipated the use of ADUs for housing will increase in SLCo.

Housing Affordability
Affordable housing is a term used in many ways. In casual discussion, it refers to the ability of a person to pay for housing. In government and legal terms, it refers to housing that is available or not available to persons making less than 80% of the Area Median Income (AMI). The AMI varies according to household size and annual household income. The AMI for SLCo in 2021 is $92,900 (per four person family), based on Federal Income Guidelines[4].

AMI is categorized into three levels, according to income limit category. These levels are based on the SLCo AMI[4].

The three levels are:
- Extremely Low – less than 30% AMI ($27,650)[4]
- Very Low – 30-50% AMI ($46,100)[4]
- Low Income 50-80% AMI ($73,750)[4]

According to the 2019 Unincorporated Salt Lake County MIHP, the supply of affordable housing is limited, with no units available in the 0-30% AMI and 30-50% AMI ranges, and 115 units in the 50-80% AMI range. The total number of housing units in western unincorporated Salt Lake County is 1,103, with approximately 115 considered affordable (10%)[5].

The demand in 2019 for affordable housing in the unincorporated areas of Salt Lake County was 598 units, of which approximately one-third, or 197 units, is in the West General Plan area. The forecasted affordable housing demand for 2025 is 712 units for unincorporated Salt Lake County, of which approximately 235 should be within this plan area. Recommendations for achieving the affordable housing demands can be seen in the Goals and Strategies section at the end of the chapter.

Attainable housing is commonly discussed as housing for middle income households, including incomes from 80% AMI to 120% AMI. With the recent increases in housing prices on the Wasatch Front, attainable housing for middle income households has become challenging to achieve.

Households by AMI	<30% AMI	30-50% AMI	50-80% AMI	Cumulative Total
All Unincorporated	276	319	117	712
Source: SLCo Assessor (October 2019) and Esri estimates from ACS 2012-2016				

Table 3.1 Five Year Affordable Housing Needs for unincorporated
Source: SLCo 2019 Moderate Income Housing Plan [5]

Figure 3.7 Oquirrh Mountains looking southwest

Missing Middle Housing
Additional methods for achieving attainable and/or affordable housing include missing middle housing and accessory dwelling units.
"Missing Middle Housing" is used to describe house-scale, multi-unit buildings, ideally located within a walkable community. This type of housing sits in the middle of the spectrum between detached single-family homes and mid- or high-rise apartment buildings.

Middle housing types include:
- Duplexes
- Tri- and Fourplexes
- Cottage courts
- Townhouses
- Courtyard buildings
- Live/work units

Their scale and form should be designed to fit within the scale and context of a residential neighborhood. This type of housing can be more affordable or attainable than detached houses. It also, it creates opportunities for more people to live within walkable neighborhoods[6].

Building a diverse range of these types of housing units has declined in the past several decades, creating a gap in housing choices. The lack of these types of housing units within neighborhoods is why they are referred to as "missing." SLCo researched the availability of existing "missing middle" units and potential based on zoning ordinances (see Appendix L).

To create more balanced housing opportunities, future MPCs and MCs should include "missing middle" housing types. These housing types would assist in meeting the goals of the MIHP. Ordinances and design standards should address how to plan, design, and build "missing middle" housing.



Figure 3.8 Utah Missing Middle Housing Examples

Goals and Strategies

A. Goal: Homes and communities should be designed and built in harmony with the natural environment. Active transportation, trails, and parks should be located near neighborhoods to encourage walking and biking.
Strategies:

I. When planning neighborhoods and centers, critical and sensitive lands should be preserved.
II. Develop and update design standards and ordinances, focusing on best practices for environmentally sensitive design and construction.
III. Review and update water-conserving landscape ordinances and standards that promote native and or waterwise planting styles, designs, and plants to blend into the existing natural landscapes.
IV. Future residential buildings should be located within ¼ - ½ mile of open space (parks) and/or active transportation (trails and pathways).
V. Neighborhoods and centers should be planned with well-connected active transportation networks to key destinations (schools, retail, transit, jobs, recreation, etc.).
VI. See Parks, Recreation, and Trails Chapter 7 for recommendations relating to parks, trails, and open space.

B. Goal: A wide variety of housing choices should be available within each community.
Strategies:

I. Development agreements and ordinances should consider methods of allowing and encouraging different building sizes and types within each community.
II. Consider a sequence of larger estates to smaller lots and attached housing, from the perimeter of a community towards its center.
III. Include a variety of lot sizes within neighborhoods.
IV. Use strategies that encourage “Missing Middle Housing” within developments.
V. Review and update ADU ordinances as needed for a safe and complimentary housing option (See SLCO MIHP).
VI. Ordinances and development agreements should consider designating affordable housing within each proposed community. (see SLCo MIH[5]).
VII. Affordable housing options should be mixed throughout communities and or developments. When possible, avoid concentrating affordable housing into a single development.
    a. Elementary school boundaries can be helpful to ensure a mixture of incomes and housing types within each community
VIII. Focus on placing affordable housing near transit and town/village centers.

C. Goal: Create livable mixed-use centers.
Strategies:

I. Attached or stacked housing choices should be located within or near centers and not at the perimeter of the development.
II. Development agreements and ordinances should consider placing middle housing, condominiums, and apartments within centers.
III. Mixed-use centers should consider retail, restaurants, entertainment, recreation access, businesses and jobs, and public gathering places, in addition to residential uses.

D. Goal: Preserve current MIH units (see MIH Plan).
Strategies:

I. Encourage residents and owners of existing MIH housing to apply for low-cost financing to assist with ownership, rents, home upgrades, and maintenance.
II. SLCo continues to pursue grants to assist homeowners with home issues such as lead-based paint hazards, radon gas hazards, trip and fall hazards, energy efficiency, and asthma triggers.
III. Assist residents and homeowners in learning more about SLCo Green & Healthy Homes programs (https://slco.org/green-healthy-homes/).

Action Items

Action	Action Type	Timing	Participating Entities	Resources	Applicable Goals and Strategies
Review and update County's Moderate Income Housing Plan	Planning	As needed	SLCo, stakeholders, public	$	B, C
Prepare a Moderate Income Housing Plan report	Planning	Yearly	SLCo, stakeholders	$	D
Review and update zoning and standards for Planned Communities including housing standards	Planning	0-10 years	SLCo, landowners, stakeholders, public	$	A, B, C

Action Items presented on this page represent items that may be of priority at Plan adoption. This list does not represent all Action items related to the Plan. Actions Items are described as potential efforts related to coordination, projects, and/or specific plans.

Resources: Anticipated implementation costs are generally categorized as follows $, lower-cost Action Items that could be implemented by allocating or re-allocating resources in typical general fund budgets; $$, moderate cost Action Items that would require the creation of a new budget line item and/or development of new resources/funding; or $$$, higher cost Action Items that would require additional resources/funding (i.e. bonding, grants, etc.).

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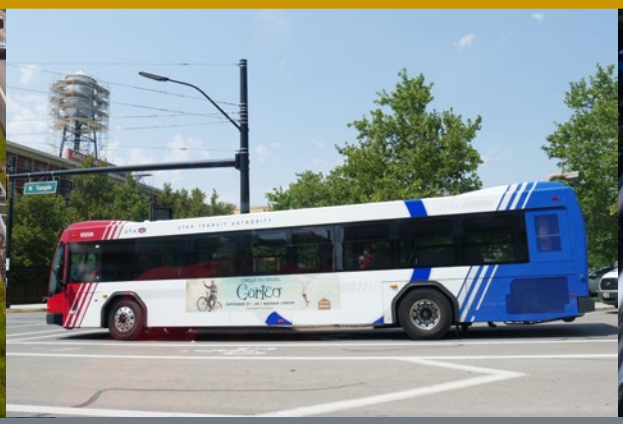
Chapter 4

Transportation



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SALT LAKE COUNTY

Vision

Transportation Vision: Residents have access to an affordable, efficient, and reliable transportation system to reach their desired destinations within a reasonable amount of time, that allows access to opportunities, jobs, and education. The transportation system is well integrated with roadway, transit, and active transportation connections. Transportation mode options contribute to the quality of life and minimize negative impacts on air quality.

Daybreak/ Source: Avenue Consultants

Guiding Principles

A. System Integration & Coordination:

I. Improve integration of land use and transportation planning.
II. Regional transportation planning involves local jurisdictions, major landowners, UTA, UDOT, and WFRC.
III. The transportation system enhances access to employment, housing, economic opportunities, and other services.

B. Connectivity:

I. The transportation system is well-connected, reducing the distance traveled to destinations.
II. Cul-de-sacs and dead-end streets are not encouraged due to poor connectivity with surrounding land uses.
III. Town/village centers have high connectivity with surrounding neighborhoods.

C. Multi-Modal System:

I. Work to shift the use of private vehicles to public transit, bicycling, and walking by planning for the following:
   a. Bike and pedestrian infrastructures is safe and comfortable for all ages and abilities.
   b. Recreational trail network is well-integrated into the transportation system.
II. Encourage carpool incentive programs, including rideshare matching and or preferred parking for individuals who carpool.

D. Design Considerations:

I. Street design focuses on safety, bicycle/pedestrian comfort, and access for all ages and abilities.
II. Encourage placemaking elements, including street trees, landscaping, wayfinding, and amenities.
III. Promote and anticipate public transit opportunities.
IV. Plan for curb management for ridesharing options.
V. Design streets to be enjoyable public spaces.

Background

Introduction

Unincorporated areas in western Salt Lake County (SLCo) are adjacent to some of the fastest growing cities in the Wasatch Front and Utah. This population growth has created a focus on transportation needs in this area. SLCo roads are becoming more congested and there are limited transportation options on the west side. Many of the existing roadways that provide access to the west area are state routes under the jurisdiction of the Utah Department of Transportation (UDOT). The County has no direct control over how these roadways are used, developed, or maintained.

The County works closely with UDOT to coordinate future improvements. Similarly, transit improvements cannot be made solely by the County, and need collaboration with Utah Transit Authority (UTA) and UDOT. These ongoing transportation issues and constraints emphasize the importance of working toward regional transportation solutions.

To address the existing transportation challenges and future needs, the Wasatch Front Regional Council (WFRC), the metropolitan planning organization (MPO) for the area, plans for regional transportation improvements. These improvements are outlined in its long-range Regional Transportation Plan (RTP). The RTP is a guiding document for long-term transportation investments in much of the Salt Lake metro region. It identifies and evaluates needs and creates a framework to prioritize transportation projects. It also addresses the anticipated growth and future transportation needs for the western parts of Salt Lake County. WFRC updates the RTP every four years to address new growth and project priorities. The most recent RTP was updated in 2019 and identifies transportation projects through the year 2050[1].

The RTP includes active transportation (AT) projects that are identified as high priority (see Figure 4.4). AT projects create essential connections for pedestrians and cyclists throughout communities. The Active Transportation Map (Figure 4.5) shows the projects as existing, or planned for the future, in phases I, II, and III. These new trails, shared-use paths, and bike lanes will guide the development of future street and trail connections that facilitate walking and cycling.

Key AT projects for the West General Plan area include:

- SR 201
- 4100 South
- 4700 South
- 6200 South
- 7800 South
- 9000 South
- Old Bingham Highway
- South Jordan Parkway
- 11800 South
- Herriman Highway
- Bonneville Shoreline Trail West
- SR-111 Shared Use Path
- Bacchus Highway Bike Lanes
- East/West AT Connections

WFRC has planned roadway facilities that help reduce congestion and provide transportation options to accommodate for future growth. These roadway improvements will create new regional capacity as well as provide important connections to the western region of the County.

These new projects are shown in the Roadway Improvement Map (see Figure 4.4) and include:

- Oquirrh Boulevard New Construction
- SR-111 Widening
- Herriman Parkway Extension
- Butterfield Canyon Road (Oquirrh Connection)

Figure 4.1 Utah Road

Connections to east/west roadways are crucial for the development of a well-integrated regional transportation system. Key regional east/west roadway improvements that provide connections to the west area will be prioritized. These are illustrated in the Roadway Improvement Map and include:

- SR 201
- 4100 South
- 4700 South
- 5400 South
- 6200 South
- 7000 South
- 7400 South
- 7800 South
- 8600 South
- 9000 South
- 11800 South
- Herriman Highway
- New Bingham Highway
- South Jordan Parkway

An integrated multi-modal transportation system will serve the west areas. The transit network will be developed cooperatively by UTA and the County. While specific transit improvements for the west area have not yet been identified by UTA, WFRC's RTP includes transit corridors that serve as priority connections to the regional transit network. The corridors shown in the Regional Transit Improvement map (Figure 4.6) will provide more multi-modal transportation options across the valley and make the transportation system more equitable. These key transit corridors include:

- 3300 South / 3500 South Corridor - Core Route (operate every day of the week and, on most days, will run every 15 minutes or better from early morning to late evening)
- 3300 South / 3500 South Corridor - Bus Rapid Transit
- 3900 South / 4100 South Corridor - Core Service
- 11800 South to Olympia - Core Service
- East/West Transit Connections
  - 3500 South
  - 4100 South
  - 11800 South

Definitions of Core Routes, Bus Rapid Transit, and Core Service are in Chapter 1.

In 2021, WFRC completed the Southwest Salt Lake County Transportation Analysis and Solutions Development. The study published the preferred transportation scenario to address existing and future mobility issues in Southwest Salt Lake County (see https://wfrc.org/studies/sw-slco-transportation-analysis-and-solutions-development/). This study looked at transportation infrastructure and strategies that will improve connectivity, travel times, and transit options. Identifying solutions that will improve east/west mobility in the southwest Salt Lake Valley was a top priority. The recommendations in the preferred scenario build upon the RTP and include more multi-modal projects. These project recommendations will be considered for adoption into the existing RTP or evaluated for inclusion into the next RTP update in 2023.

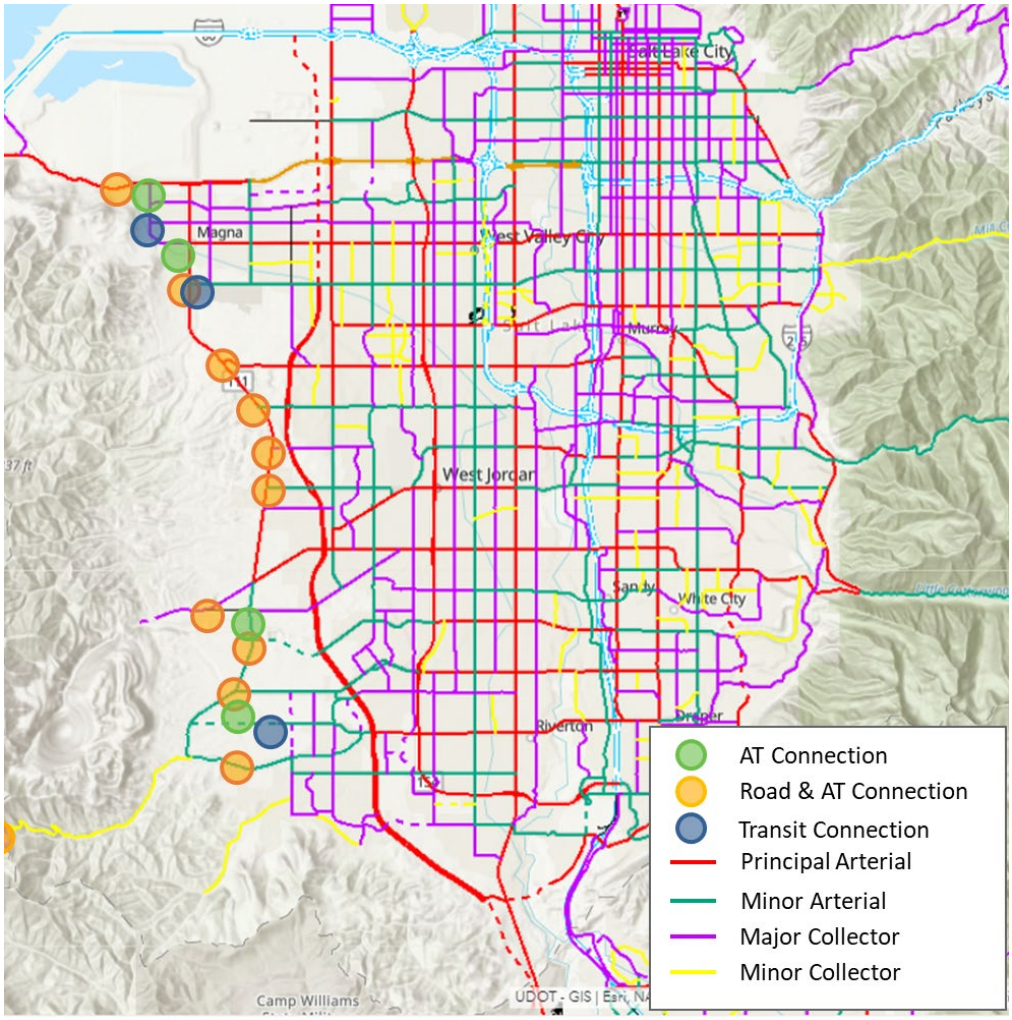

Figure 4.2 Future Connection Opportunities Diagram

Future Transportation

The development of the transportation network in western areas of Salt Lake County should follow the Plan's vision and guiding principles. This will emphasize both local and regional transportation networks that fit best within the context of the countywide transportation system. Many new connections will be made to multi-modal transportation networks in neighboring communities. These transportation networks will be determined by collaborative planning efforts that include neighboring municipalities, UDOT, UTA, and WFRC.

The locations highlighted in the Regional Connectivity map (Figure 4.4) will focus on access for all travel modes and transportation choices for all users. This includes access to private vehicles, transit, bicycling, and walking. This network will connect local centers and regional destinations. These connections will focus on east/west mobility and transit. The multi-modal connections will enhance accessibility to jobs and other destinations within the west and the rest of the Wasatch Front Region.

A safe and comfortable trail and street network should be integrated within the community context to enhance employment, housing, and economic development opportunities. This street network should include various street types for all transportation modes and for ages and abilities.

The trail and street circulation system should be designed to create a walkable, human-scale network. This includes a dense network of streets and intersections that are attractive and convenient. These streets will be aligned and connected, with cul-de-sacs discouraged. The Conceptual Street Network (Figure 4.2) illustrates a local street network for the West General Plan area. The local circulation system should integrate with the regional network, providing multi-modal transportation options for all users. This system will enhance east/west connectivity and improve regional connections.

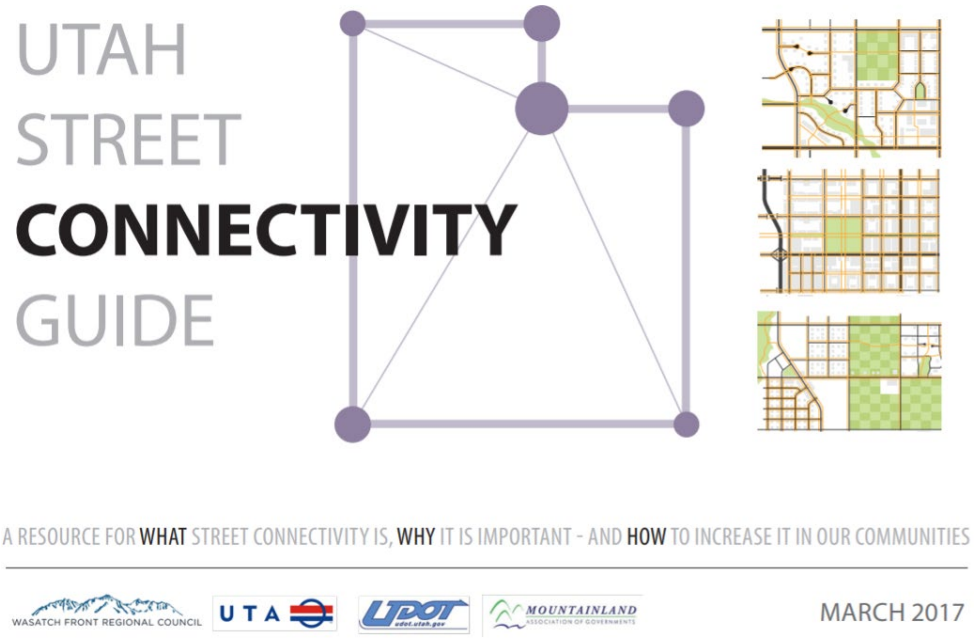

Figure 4.3 Utah Street Connectivity Guide
This is a useful guide for planning street networks and improving connectivity.

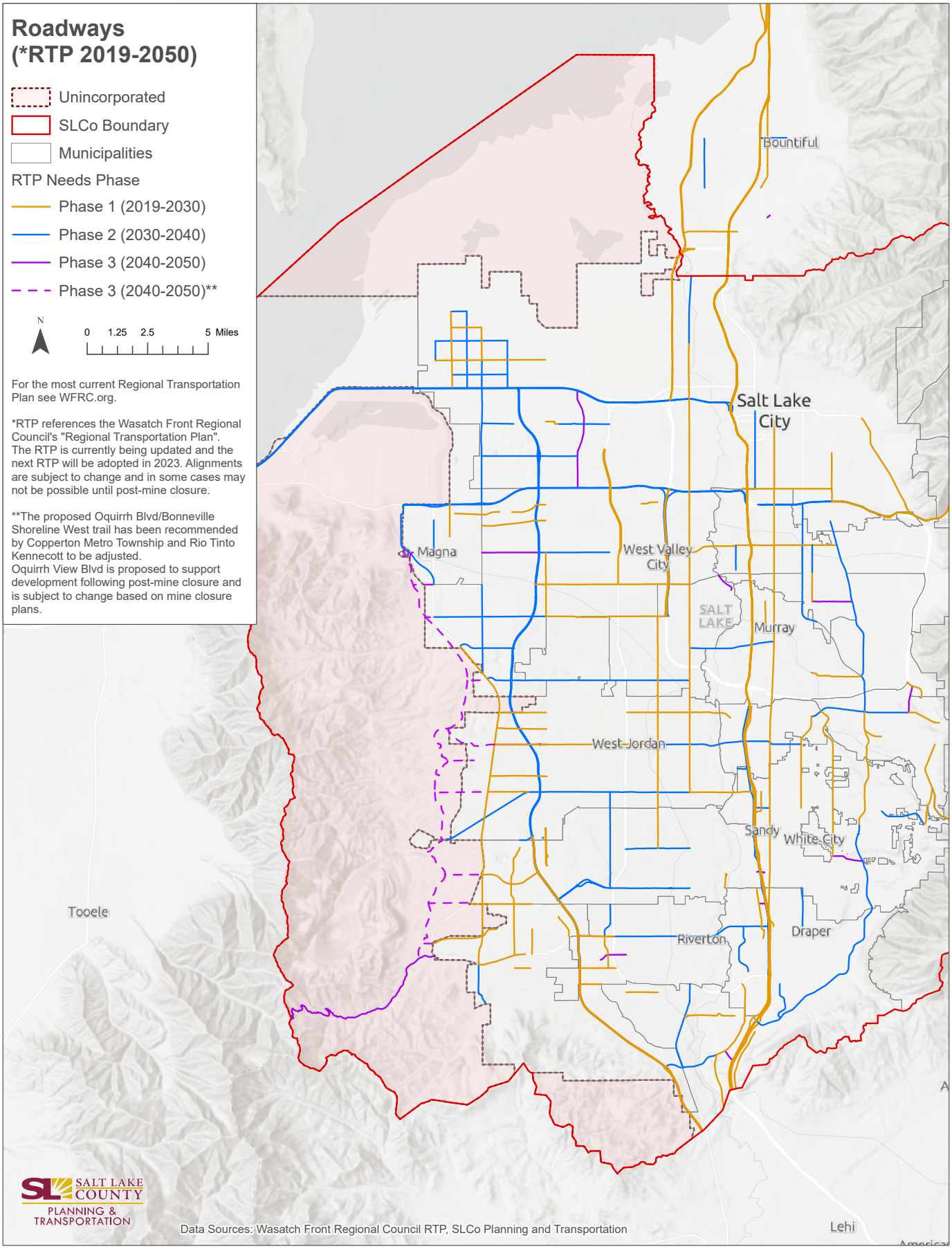

Figure 4.4 Regional Transportation Plan Roadways Map

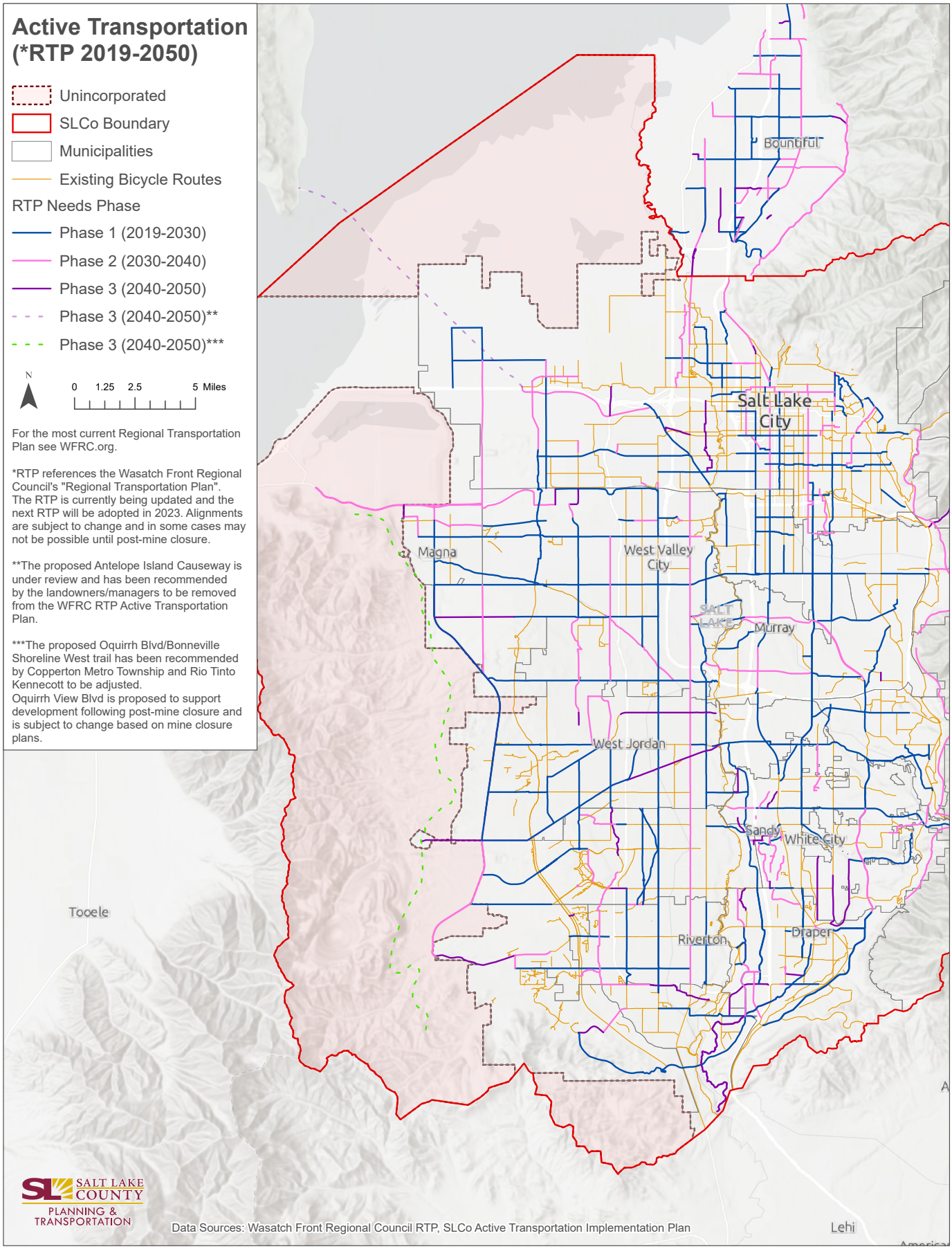

Figure 4.5 Regional Transportation Plan Active Transportation Map

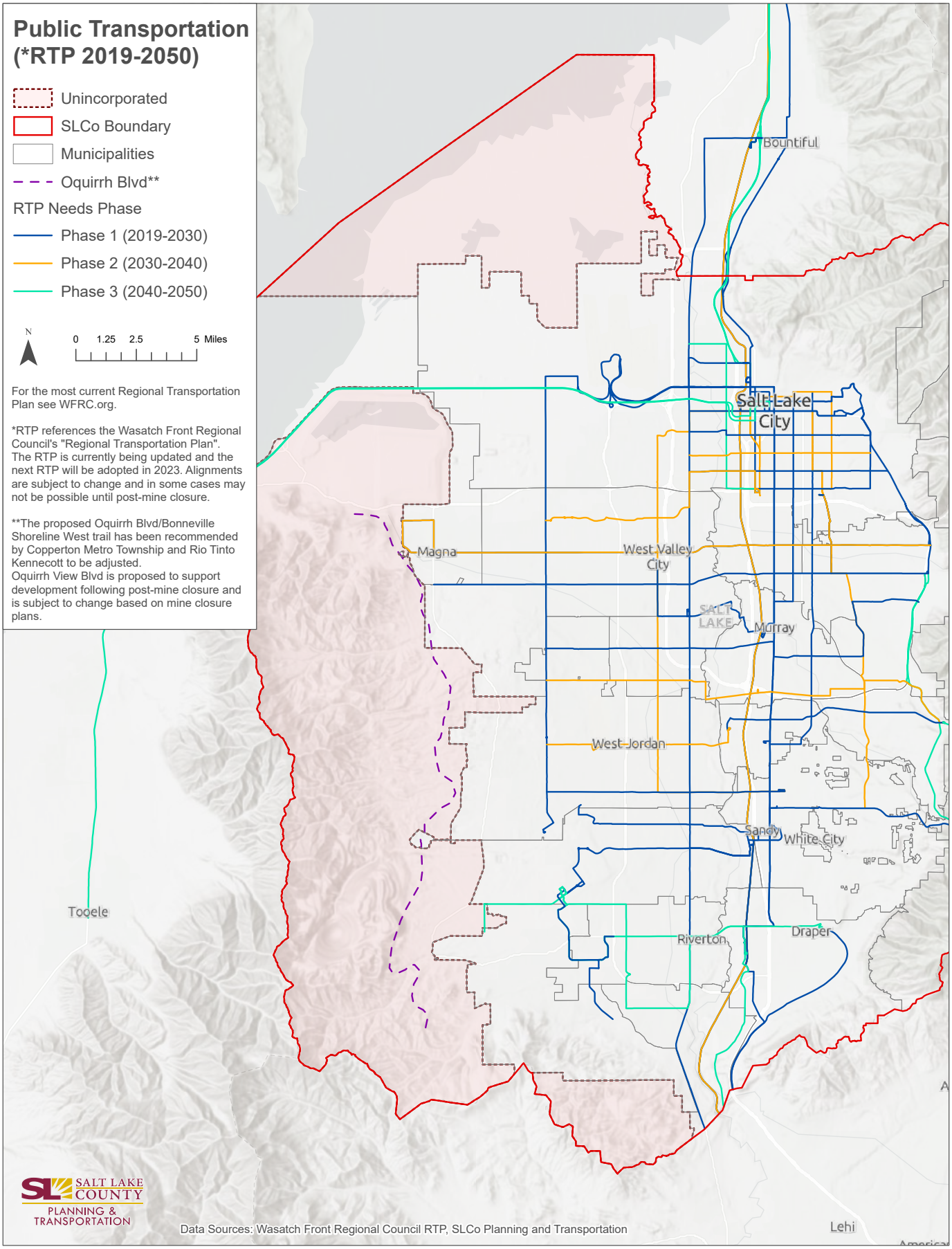

Figure 4.6 Regional Transportation Plan Public Transportation Map

Goals and Strategies

A. Goal: Design and construct a multi-modal transportation system that works for people of all ages and abilities.
Strategies:

I. Evaluate the context of the street and the roadway classification when designing and implementing comfortable and equitable active transportation facilities that enhance air quality.
II. Consult Salt Lake County-Wide Policy on Complete Streets (Policy 1600) and WFRC's 2019-2050 Regional Transportation Plan (RTP) for design guidance.
III. Plan a transportation system that provides for a variety of mode choices and connectivity between choices. It is important that there is efficient integration of modes at various locations, including mobility hubs, which include place-making strategies to create activity centers that maximize first/last mile connectivity.
IV. Policy makers should adopt a Complete Streets Policy that systematically considers all people who use the street, early in the design process, to help wise investments in public infrastructure.
V. Integrate land use and transportation planning efforts to balance investment in infrastructure that provides access to employment opportunities, housing, and retail/commercial development.

B. Goal: Improve east-west mobility for all modes of travel.
Strategies:

I. Coordinate between regional and local partners Greater Salt Lake MSD, adjoining local jurisdictions, and their transportation plans.
II. Support planning with UDOT, UTA, and WFRC for increased capacity of east-west corridors as needed.
III. Roadway design should accommodate bicyclists, pedestrians, and transit to create a robust multi-modal transportation system that considers commuting patterns and air quality.
IV. Explore the feasibility of limited access east-west roadway connections to Mountain View Corridor (State Route-85), Bangerter Highway (SR-154), Bacchus Highway (U-111), Interstate 80, Interstate 215, Interstate 15, and other limited access high-speed roadways.

C. Goal: Design and construct active transportation infrastructure for bicycles and pedestrians.
Strategies:

I. Regional and local active transportation plans should be constructed to create a circulation network with supporting routes, providing mobility for commuters and access to local destinations such as libraries, retail centers, medical facilities, recreation, etc.
II. Bicycle and pedestrian infrastructure should be integrated into the transportation system to improve efficiency and avoid safety conflicts with motorized and non-motorized travel. This should also include newer modes, such as electric scooters.
III. Pedestrian and bicycle facilities should be safe, convenient, and designed to meet all engineering design standards and guidelines from publications of the National Association of City Transportation Officials (NACTO); Guide for the Development of Bicycle Facilities[2], American Association of State Highway and Transportation Officials (AASHTO); the Manual on Uniform Traffic Control Devices (MUTCD)[3], and the Federal Highway Administration (FHWA)[4].
IV. Incorporate access to recreation destinations into the design and placement of active transportation facilities.
V. Encourage high-quality bicycle wayfinding, parking, bike and car share locations, carpool parking facilities, pedestrian benches, street trees, and lights.
VI. Active transportation (bicycle and pedestrian) amenities should be considered in the design and location of transportation facilities and mobility hubs.
VII. Provide for a high number of intersections in the street layout. Create a grid network that promotes connectivity and supports walkability/ transit.

D. Goal: Partner to enhance the multi-modal transportation system to increase access to opportunities.
Strategies:

I. Develop a corridor transportation master plan for Butterfield Canyon Road in the Oquirrh Mountains in collaboration with Tooele County, landowners, and Salt Lake County Parks & Recreation.
II. Participate with UDOT and landowners on planning efforts for roadways such as Bacchus Highway (U-111). Collaborate with WFRC and local jurisdictions on the development of the RTP that will identify regional transportation facilities to ensure connectivity and integration of multi-modal transportation infrastructure between jurisdictions.
III. Partner with UTA and WFRC, along with other regional planning organizations, to anticipate and plan for transit service and mobility as a service infrastructure. As Master Development Agreements are negotiated, UTA capital and service plans should be consulted to accommodate transit operational plans and investments along with the needs of mobility as a service (e.g., pick-up/drop-off locations for transit on demand, ridesharing, etc.).

Figure 4.7 Two cars passing in Butterfield Canyon

Action Items

Action	Action Type	Timing	Participating Entities	Resources	Goals and Strategies
Coordinate with adjacent municipalities and transportation agencies for future streets, trails, and transit. SLCo will collaborate with adjacent municipalities to encourage east/west connectivity	Coordination	Yearly	SLCo, landowners, adjacent municipalities, transportation agencies, stakeholders	$	A, B, C, D
Butterfield Canyon Master Plan	Planning	0-10 years	SLCo, landowners, Tooele County, adjacent municipalities, transportation agencies, stakeholders	$$	D
Review and update the Active Transportation Implementation Plan, the SLCo East West Trails Plan, and the Rose Canyon and Yellow Fork Canyon Master Plan.	Planning	0-10 years	SLCo, landowners, adjacent municipalities, transportation agencies, stakeholders	$-$$	A, B, C, D
Draft and adopt street to connectivity standards.	Planning	0-10 years	SLCo, stakeholders	$	A, B, C, D
Update street standards to create street typologies that focus on livability, comfort, connectivity, and safety for all users	Planning	0-10 years	SLCo, landowners, stakeholders, transportation agencies	$-$	A, B, C, D

Action Items presented on this page represent items that may be of priority at Plan adoption. This list does not represent all Action items related to the Plan. Actions Items are described as potential efforts related to coordination, projects, and/or specific plans.

Resources: Anticipated implementation costs are generally categorized as follows $, lower-cost Action Items that could be implemented by allocating or re-allocating resources in typical general fund budgets; $$, moderate cost Action Items that would require the creation of a new budget line item and/or development of new resources/funding; or $$$, higher cost Action Items that would require additional resources/funding (i.e. bonding, grants, etc.).

References

[1] Wasatch Front Regional Council, “Regional Transportation Plan,” Wasatch Front Regional Council, 2050 2019, https://wfrc.org/vision-plans/regional-transportation-plan/.
[2] “Urban Bikeway Design Guide,” National Association of City Transportation Officials, June 27, 2012, https://nacto.org/publication/urban-bikeway-design-guide/.
[3] Federal Highway Administration, “Manual on Uniform Traffic Control Devices for Streets and Highways,” May 14, 2012, https://mutcd.fhwa.dot.gov/.
[4] Federal Highway Administration, “American Association of Highway and Transportation Officials Guidance,” accessed December 17, 2021, https://safety.fhwa.dot.gov/roadway_dept/countermeasures/reduce_crash_severity/aashto_guidancecfm.cfm.

Chapter 5

Environment and Conservation



DRAFT 03.18.2022

SALT LAKE COUNTY

Vision

Environment and Conservation Vision: Preservation of lands and functioning ecosystems in the Oquirrh Mountains, Traverse Mountains, and the Great Salt Lake and its wetlands are prioritized. Community and industrial development respect the character and features of the natural landscapes. The County, landowners, and developers work together to minimize impacts on water quality, air quality, and natural habitats.

Guiding Principles

A. Water:

I. Prioritize water conservation.
II. Manage water quality through watershed and ecosystem best practices.
III. Develop community resilience for decreasing water availability.
IV. Integrate water resources with land use planning.

B. Air Quality and Emissions:

I. Prioritize air quality.
II. Minimize the impacts of housing, land use, and transportation on local airsheds.
III. Reduce air pollutants and carbon emissions.

C. Land Preservation:

I. Preserve critical lands, including riparian corridors, wetlands, ridgelines, steep slopes, and wildlife habitats.
II. Collaborate with State agencies, municipalities, landowners, and others to protect wildlife and associated habitat.
III. Facilitate policies and programs for the preservation of natural lands.

D. Environmental Quality:

I. Coordinate with landowners; the Department of Environmental Quality (DEQ); EPA; DOGM; and Salt Lake County Health Department for the safe reclamation of formerly mined lands for preservation and development.
II. Collaborate with Camp Williams and Rio Tinto Kennecott
III. Prioritize renewable energy production.

Background

Great Salt Lake and Watershed

Great Salt Lake (GSL) is the source of many ecosystem services for the region, nation, and world. The lake system includes 400,000 acres of wetlands[1].

The shoreline area has over 15,000 acres of three different types of wetlands:

- freshwater emergent
- freshwater forested
- freshwater pond.

The majority of these are managed by public or private entities. The GSL ecosystem is used by 10 million birds from 338 different species for breeding, nesting, and as a food source[2].

The GSL covers 1,700 square miles and its watershed is 21,000 square miles. The water level of the lake has varied over recorded history, reaching a depth of 33 feet, but averages at 14 feet deep[3]. The water level is currently at a historic low due to drought and increasing upstream water diversions. Currently, 60 percent of the water that is diverted from the GSL goes to agricultural uses[4].

The lake contains high levels of heavy metals, such as mercury and arsenic. There are also excess nutrients from agriculture, industry, and sewage treatment, which promote harmful algae growth[5].

The Great Salt Lake Comprehensive Management Plan details that low and high-water levels can have adverse effects on wetlands, biology, recreation, and economics; low lake levels carry a high cost to the economy and public health[6].

As lake levels decline, increasing amounts of lakebeds are exposed. As of October 2021, 800 square miles are exposed. The drying lake produces more dust during wind events. Long-term exposure to dust, which contains heavy metals can negatively affect people over a period of years or decades, including increased rates of asthma, respiratory diseases, and lung cancer. In winter months, the dust deposited in the mountains causes darker snow that melts faster and earlier in the season, decreasing water supplies[7]. Low water levels and exposed lakebed also create more opportunities for invasive plants and weeds to thrive.

Phragmites is an invasive weed that is hard to control, increases fire risk, decreases natural habitat, and requires greater land management resources. Landowners and conservation groups in the area cite phragmites as a major environmental concern[8].

Wildlife is affected by low water levels. Land bridges have linked islands to the shore, allowing predators to reach nesting birds, scaring them off their nests, and leaving their eggs and young vulnerable to gulls[9]. As the water levels decline, the salinity of the water increases and affects populations of brine shrimp and brine flies, which serve as a food source for many species of wildlife[10].

Rio Tinto Kennecott has addressed issues of historical groundwater contamination with selenium and arsenic in shoreline wetlands by diverting contaminated water, removing soil and sludge, and conducting annual testing of water, soil, and wetland insects[11].

Figure 5.1 Great Salt Lake dust

Watershed

In 2017, Salt Lake County's Watershed Management Division updated the County's Integrated Watershed Management Plan (Watershed Plan). This plan looks at all the watersheds within the County and includes the Oquirrh Mountains[12].

The 2017 plan focuses on the four main functions of watersheds:
- Water quality
- Habitat (terrestrial and aquatic)
- Hydrology (flood conveyance and stream stability)
- Social and recreational services

All eight streams that originate in the Oquirrh Mountains flow seasonally and not year-round. Five of the eight streams are listed as impaired, according to the Watershed Plan. Most of the Wasatch and Oquirrh Mountains streams flow into an impaired Jordan River. Common pollutants found in the impaired streams are E. coli and dissolved metals.

The table below lists the streams and impairment status.

The Watershed Plan analyzes the following data from each stream:
- Total maximum daily load
- Macroinvertebrates (small aquatic organisms/bugs)
- E. coli bacteria
- Monthly water temperatures
- Dissolved oxygen
- Potential hydrogen
- Total dissolved solids (minerals).

The Watershed Plan includes a list of Management Practices on the topics of water quality, hydrology, habitat, and social/recreation. These are resources for improving various aspects of watershed management.

Water conservation is a critical component of the environment and community life. The West General Plan includes goals and strategies for water conservation on land uses and landscaping. This information can be found in the Land Use and Utilities and Public Safety chapters.

Stream Name	Stream Type	Status
Barneys Creek	Intermittent	Impaired
Bingham Creek	Intermittent	Impaired
Coon Creek	Intermittent	Meeting standards
Midas and Butterfield Creeks	Intermittent	Impaired
Rose Creek	Intermittent	Impaired
Wood Hollow and Beef Hollow Creeks	Intermittent	Meeting standards

Table 5.1 West SLCo Stream Conditions per Watershed Plan

Figure 5.2 Soldier Flats Oquirrhs

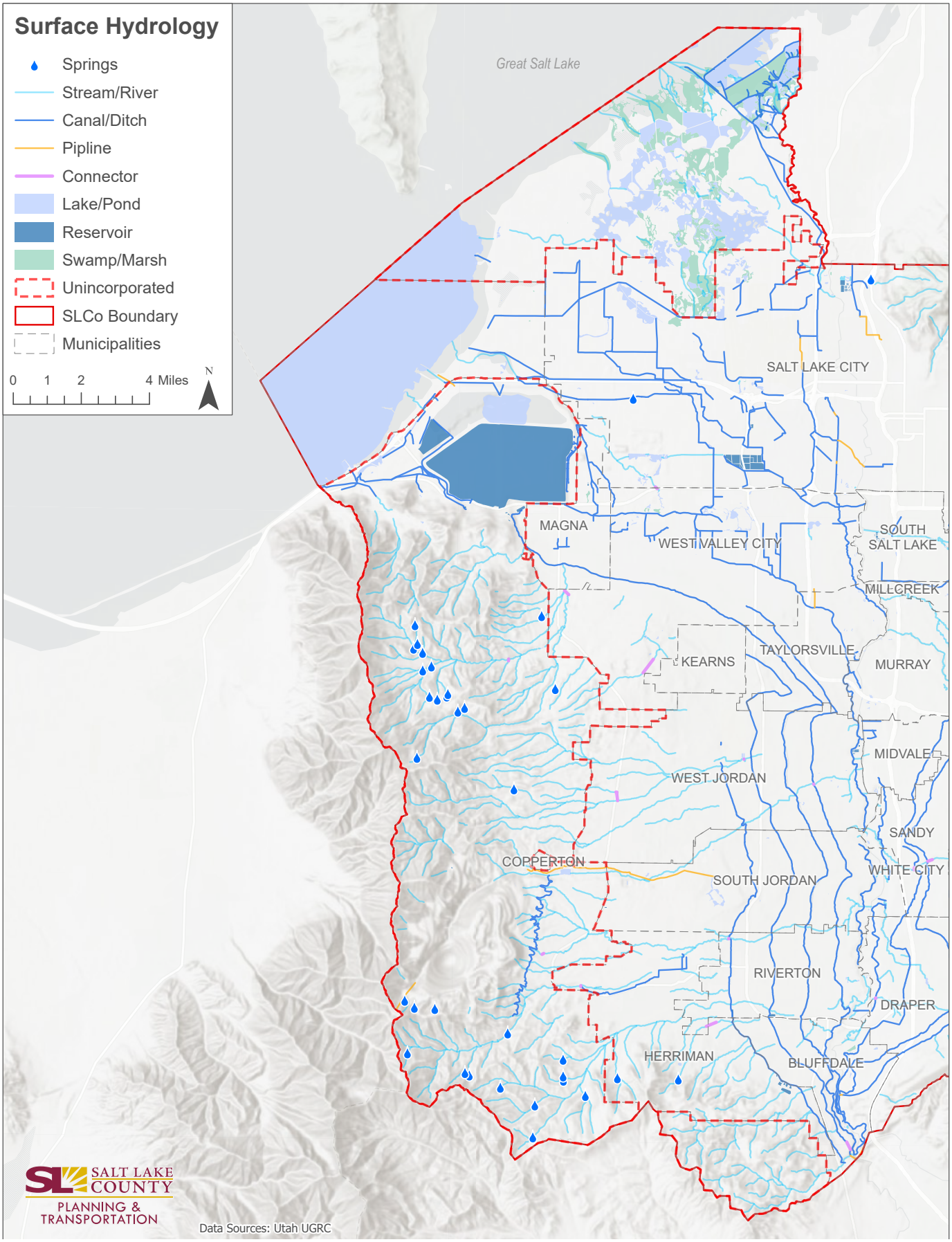

Figure 5.3 Surface Hydrology Map

Land Conservation and Conservation Planning

Land Conservation is a critical component of the vision of this Plan. The goals and strategies of the Plan include the conservation of lands and natural resources. This Plan identifies areas and methods for conserving land. For a conservation plan to be effective, it requires the involvement of government agencies, landowners, nonprofit organizations, and others.

Conservation Tools

It is recommended that the County consider and use multiple conservation methods to achieve the goals of this Plan. All conservation efforts should be done with willing and participating landowners.

Below are several commonly used conservation tools.

I. A Conservation Easement is a voluntary legal agreement. The landowner donates development rights to an organization that protects land resources in exchange for tax credits or money. An easement is established in perpetuity, and the landowner maintains some of the rights to the land[13].
II. Land Acquisition consists of a property sale by a willing landowner to a public agency or conservation organization. The public agency/ conservation organization conserves the land. Funds may come from different sources, such as open space bonds, grants, a part of sales tax, donations, or other public funds.
    a. This could include purchase or donation of lands from a willing landowner to develop State or County Parks.
III. Purchase of Development Rights (PDR) is a program that allows a public agency or nonprofit organization to get a property's development rights. The program places a conservation easement on the land that ensures its ongoing use as farmland, forestland, open space, and/or for recreation.
IV. Transfer of Development Rights (TDR) is a program that protects natural or farm areas by transferring potential development from a conservation area to the desired development location. Local governments established with an ordinance, two zones: a conservation zone and a targeted development zone. The landowner(s) of the conservation, or sending, the area is compensated by receiving development-right credits from the local government. These credits can be sold or used in a different target, or receiving, development area[14].
V. A Conservation Development is a program that uses zoning ordinances and development agreements. Part of the development is consolidated or clustered on a portion of a large property, conserving the rest of the property through conservation easements.
VI. Zoning is a less-permanent method of conserving land but can be helpful in the short-term. Long-term zoning can assist with conservation but has limitations. Land can be preserved by limiting development or restricting uses on the desired conservation area. Zoning is changed through ordinances and requires a public hearing, Planning Commission recommendation, and City or County Council vote.

Camp Williams

Camp Williams takes part in a federal program called the Sentinel Landscapes Partnership, which "is a coalition of federal agencies, state and local governments, and non-governmental organizations that works with private landowners to advance sustainable land management practices around military installations and ranges. Founded in 2013 by the U.S. Department of Defense, the Department of Agriculture, and Department of the Interior, the partnership's mission is to strengthen military readiness, conserve natural resources, bolster agricultural and forestry economies, and increase climate change resilience."[15].

As of 2021, approximately 3,400 acres of land bordering Camp Williams have been preserved through federal and state funding, private landowner contributions. Camp Williams is working towards conserving an extra 3,000-plus acres of land surrounding the base.

Figure 5.4 Yellow Fork and Rose Canyon
SLCo purchase Yellow Fork property in 1984
and Rose Canyon in 2007

Wildlife

The Oquirrh Mountain provides habitat for elk, mule deer, mountain lions, and the American Badger. The pronghorn habitat differs from elk and mule deer; they live in the sagebrush plains, deserts, and foothills. Pronghorn habitat does not include the Oquirrh Mountains. In the winter months, mule deer come down into the foothills of the Oquirrhs to avoid deep snow. During the summer and fall months, mule deer move into the higher elevations of the Oquirrhs. Elk tend to migrate towards the foothills and valleys during the winter and are found at higher elevations during the summer and fall. Crucial habitat areas for both species are found in the Oquirrh Mountains. Mule deer migrate to the Traverse Mountains (Camp Williams).

Birds in the Oquirrh Mountains are upland game birds belonging to the Phasianidae family, which include:

- Utah chukar
- dusky grouse
- ruffed grouse
- ring-necked pheasant
- wild turkey
- Hungarian (gray) partridge

Owls are also present in the Oquirrh Mountains. In the State of North America's Birds 2016 report, these birds were not classified as at risk of endangerment or extinction.

Figure 5.5 Dark Sky Planning guide
Resource for planning dark skies and lighting
https://www.darksky.org/wp-content/uploads/bsk-pdf-manager/2020/08/Dark-Skies-Issue-Guide-7-27-2020.pdf

Light Pollution and Dark Skies

Light pollution is the result of the industrialization of modern society. Today the artificial lights of cities negatively impact humans, animals, and plants. Exposure to artificial light at night can increase the risk of a variety of diseases in humans, cause safety problems, and result in unnecessary costs of energy. Natural ecosystems are also negatively affected by light pollution. Nocturnal animals, migratory birds, and insects are crucial to the food chain and are all being affected.

Dark skies can be achieved by adopting standards that reduce light pollution. Techniques such as limiting lights to essential areas, implementing timers, dimmers, motion detectors, and using proper light fixtures can all reduce light pollution. Many communities in Utah recognize the importance of dark skies and have or are adopting ordinances to promote dark skies[16].

Figure 5.6 Antelope Island State Park looking south
In 1969 the State purchased 2,000 acres
In 1981 the State purchased 26,000 acres
The State Park open in 1993
Historical source: https://stateparks.utah.gov/parks/antelope-island/antelope-island-history/

Weather and Drought

Utah's climate is classified as semiarid, with hot, dry summers and cold winters. Salt Lake Valley receives an average of 15-20 inches of precipitation annually. The Oquirrh Mountain range receives a lower amount of precipitation than the Cottonwood Canyons and is similar to precipitation along the Wasatch Back near Park City[17]. The Oquirrh Mountain receives 41.2 inches of precipitation at 8,704 ft.

Climate records show a 2-degree Fahrenheit increase in average temperatures in Utah over the last century, with more extremely hot days[18]. There has been a dramatic increase in the number of very warm nights and a decrease in the number of very cold nights, which affects snowpack, water storage, and availability[19].

Temperature changes will continue to contribute to warmer and drier conditions, decreasing low-elevation snowpack and overall water supply. More extreme weather conditions, including heat waves and droughts, flash flooding, and forest fires, are expected to continue. Transitions in weather and climate also affect air quality, with increasing ozone levels and small particulate matter. Weather and climate-driven changes within the physical environment contribute to numerous health and economic impacts[20].

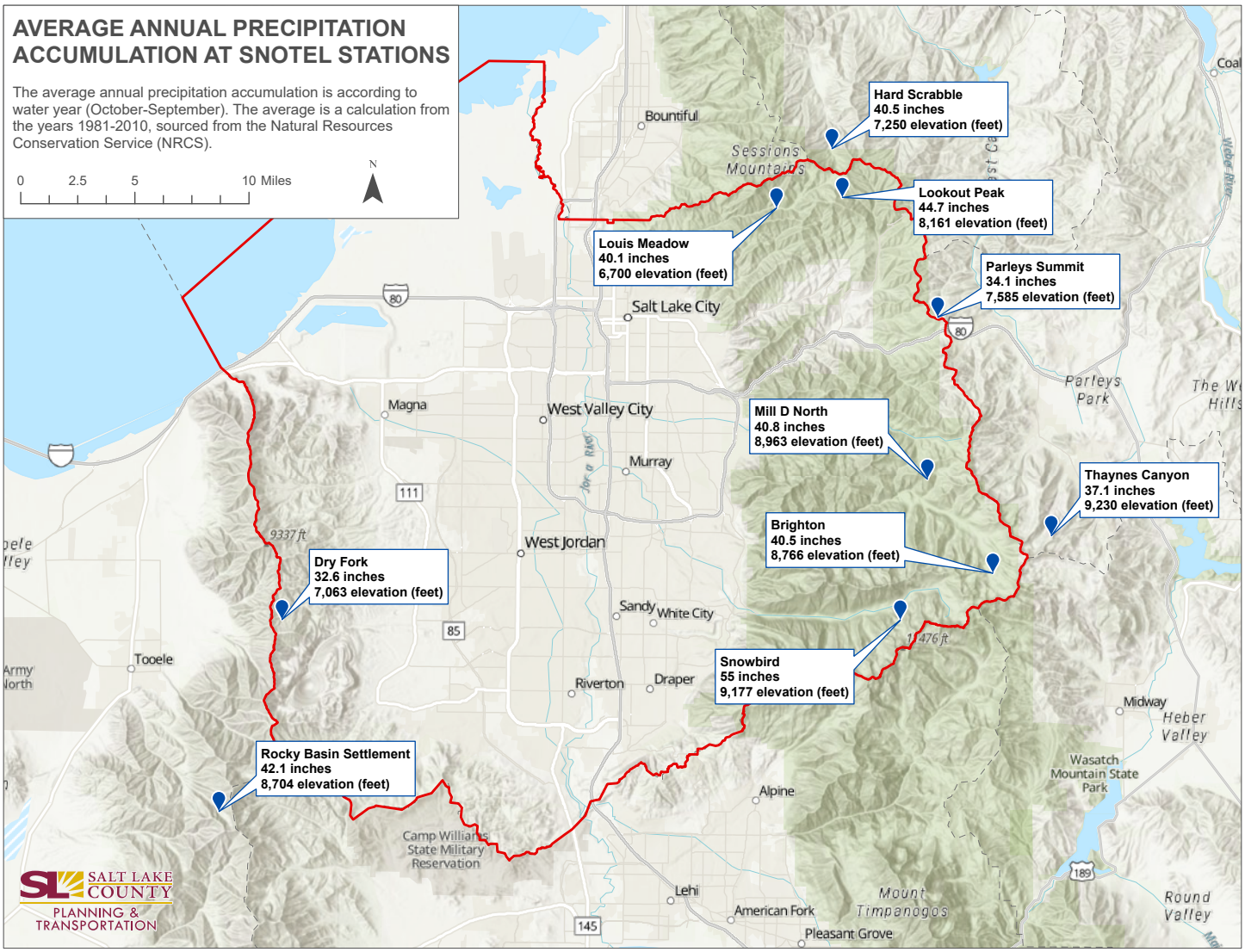

Figure 5.7 Precipitation Map

Environment

Air Quality

Poor air quality is caused by the emissions from vehicles, homes, buildings and industrial process. These emissions combine to create PM 2.5, PM 10, and ozone which can lead to respiratory health issues for residents of the county 25% of the PM2.5 in winter inversions is emitted from a source (e.g., burning wood). Most PM2.5 comes from vehicle exhaust, water heaters, furnaces, and industrial processes. These types of small particles are created in the atmosphere through chemical reactions of a combination of gases. Summer ozone is also formed through gases combining in the atmosphere from many of the same sources that create PM2.5 in the winter[21].

Climate and geography make Utah more susceptible to year-round poor air quality, with temperature inversions in the winter and ozone in the summer. Wildfire smoke increases the number of poor-quality air days in the summer months. Dust from dry parts of the Great Salt Lake's lakebed is a source of PM10 and is the source of 90% of the dust in the Wasatch Front[22]. Gains made in reducing emissions from vehicles and buildings over the past couple of decades have the potential to be offset by increased population growth.

Air quality has been rated by the public as a top concern and negative attribute of living in Utah in recent years. Poor air quality can impact residents' health and be a disincentive for businesses and employees to locate or remain in Utah[23].

Environmental Contamination and Reclamation

Hard-rock mining has occurred in the Oquirrh Mountains for more than a century. The open-pit mining style, and refinery and smelter, have caused contamination in the Oquirrh Mountains and surrounding areas. Materials leftover (waste rock) may have elevated levels of concentration of metals, and these metals, like pyrite can generate acid rock drainage. Engineering controls are now in place to prevent these contaminants from leaving Kennecott property both above and below ground surface. Impacts from past operations at the Kennecott mine and other mining operations previously located in the area have contaminated the soil and groundwater. This includes a groundwater plume from the mine, which at one point covered about 72 square miles at the south end of the valley, according to the EPA[23]. The ore refinement process contributes to particulate pollution, impacting air quality as well as soil and water quality. All current mining activities are permitted and monitored through state and federal agencies to ensure compliance with all regulations.

Groundwater contamination was identified at the north end of the Oquirrhs where refinery and smelter facilities are located. High concentrations of selenium and arsenic have been found in the northern Oquirrhs. Selenium is especially toxic to birds, fish, and amphibians. The proximity of contamination is of concern for significant migratory bird habitats.

Figure 5.8 Barneys Canyon Mine Reclamation (2019)

Rio Tinto purchased the Kennecott Copper Mine in 1989. In the 1990s the EPA proposed to designate some Kennecott properties on the Superfund National Priorities List. To avoid properties being put on the Superfund List, Kennecott signed a Memorandum of Understanding (MOU) with EPA and the Utah Department of Environmental Quality (UDEQ). Under the MOU, a scope outlined the cleanup work needed to be done. Much of the work outlined in the MOU has been completed. The South Zone has been withdrawn from EPA's list of proposed Superfund sites. The refinement process was improved, and a new smelter has reduced sulfur dioxide and particulate emissions. As mining operations continue, efforts to mitigate contamination and remediate contaminated sites will continue[25].

The post-mining, or historic mine reclamation, the process is extensive. Some necessary steps include re-grading slopes to safer, more stable grades. Reclamation includes placing rock material to stabilize the slopes and adding topsoil for future seeding of vegetation. To date, Rio Tinto Kennecott has reclaimed more than 11,000 acres of land at the cost of more than $700 million[27] (source https://riotintokennecott.com/environment/land-management/historic-cleanup).

Just east of the unincorporated boundary in West Valley City is the ATK Launch Systems Bacchus Facility. The facility is used to manufacture solid propellants, rocket motors, and composite products, and to store and treat hazardous waste. A variety of contaminants have been documented at the Bacchus facility. State regulators have identified the facility as a significant source of perchlorate contamination. The open-air burning of hazardous waste is especially controversial and has been noted to negatively impact air quality, groundwater, soils, and wetlands. Corrective action for contamination began in 1985 with the requirement to investigate the facility Solid Waste Management Units (SWMUs) and Groundwater Management Unit (GWMU).

In 1999 assessments by UDEQ of SWMU and GWMU determined groundwater and human exposures to contamination are currently under control. In 2020, a hazardous waste permit was approved, allowing the continued open-air burning of hazardous munitions waste. This drew criticism from the Utah Physicians for a Healthy Environment (UPHE) and other citizen groups.

Invasive Weeds

Invasive weeds are a significant problem in all areas of the Plan. One of the most difficult weeds in the Shoreline Area is Common Reed or Phragmities australis. The plant grows in wet areas and creates tall, dense thickets. This plant out-competes native wetland species, reduces bird habitat, and sucks up precious water. The plant can also pose a major fire threat. Common treatments include herbicides, mowing, and cattle-grazing[28].

More than 12 invasive weeds are a significant problem in the Shoreline Area, Oquirrhs, and Traverse Mountains. A list of the invasive weeds is found in Appendix O. Also included are descriptions of weed-control methods.

Figure 5.9 Phragmites/ Source: Sage Fitch

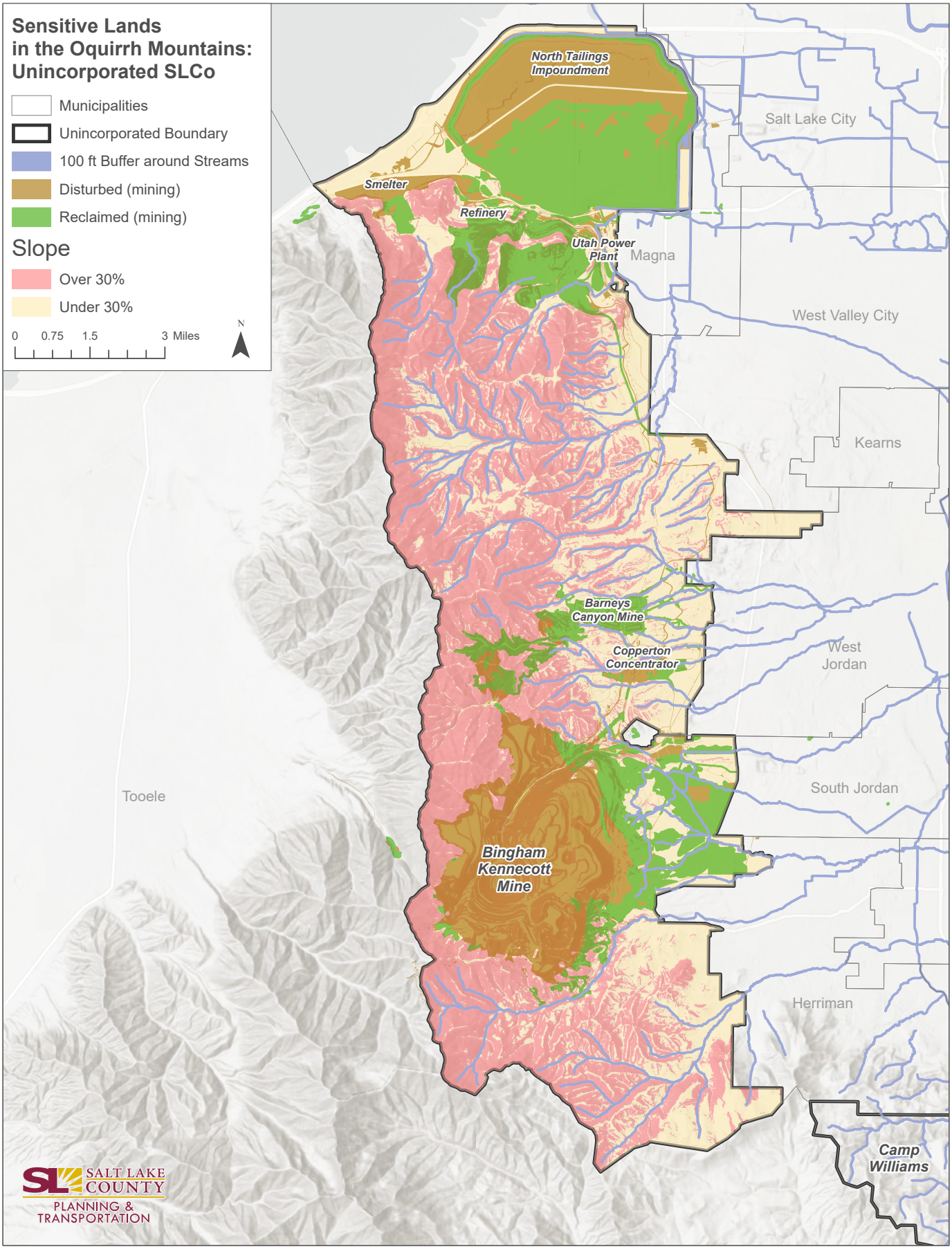

Figure 5.10 Map of Sensitive Lands

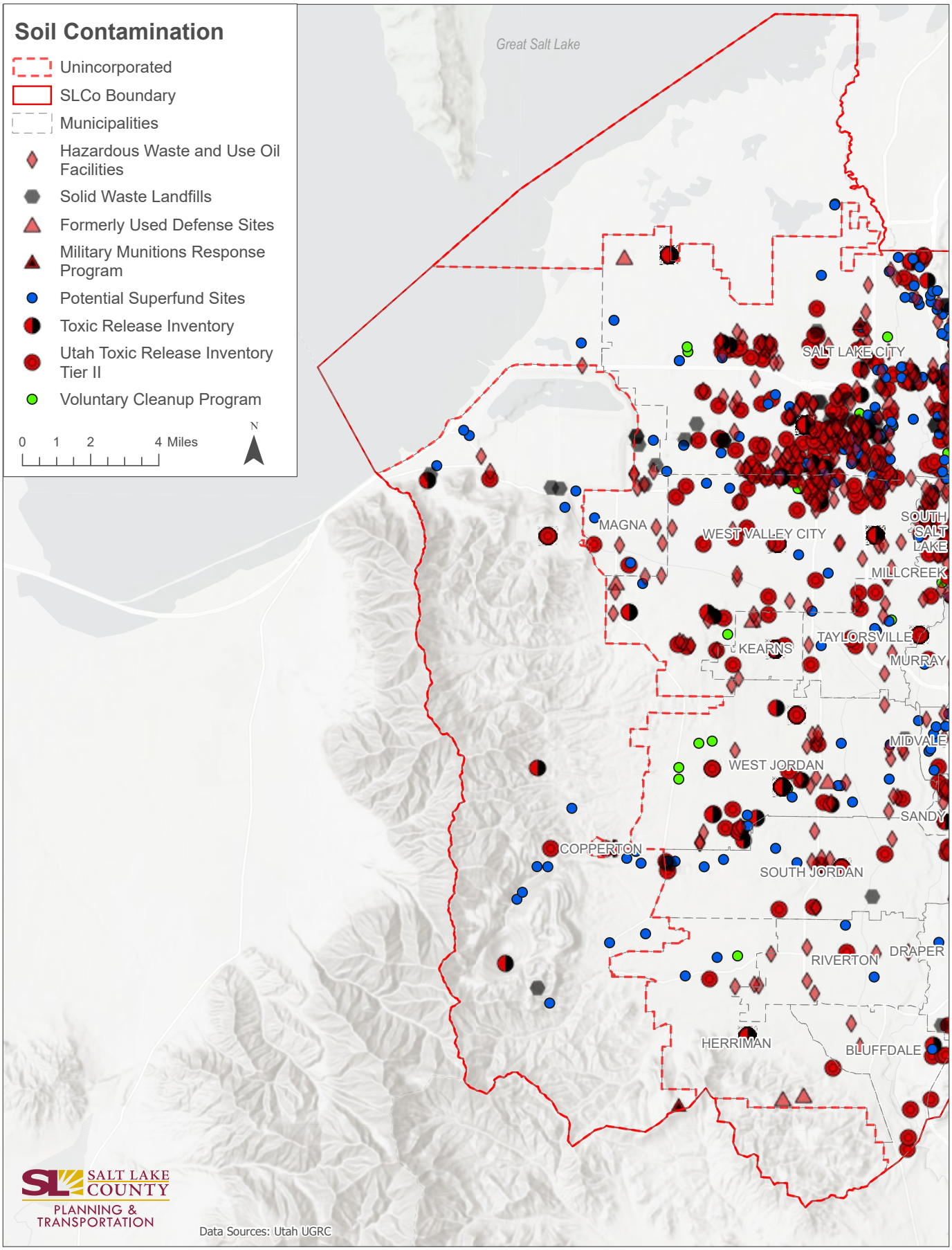

Figure 5.11 Map of Soil Contamination

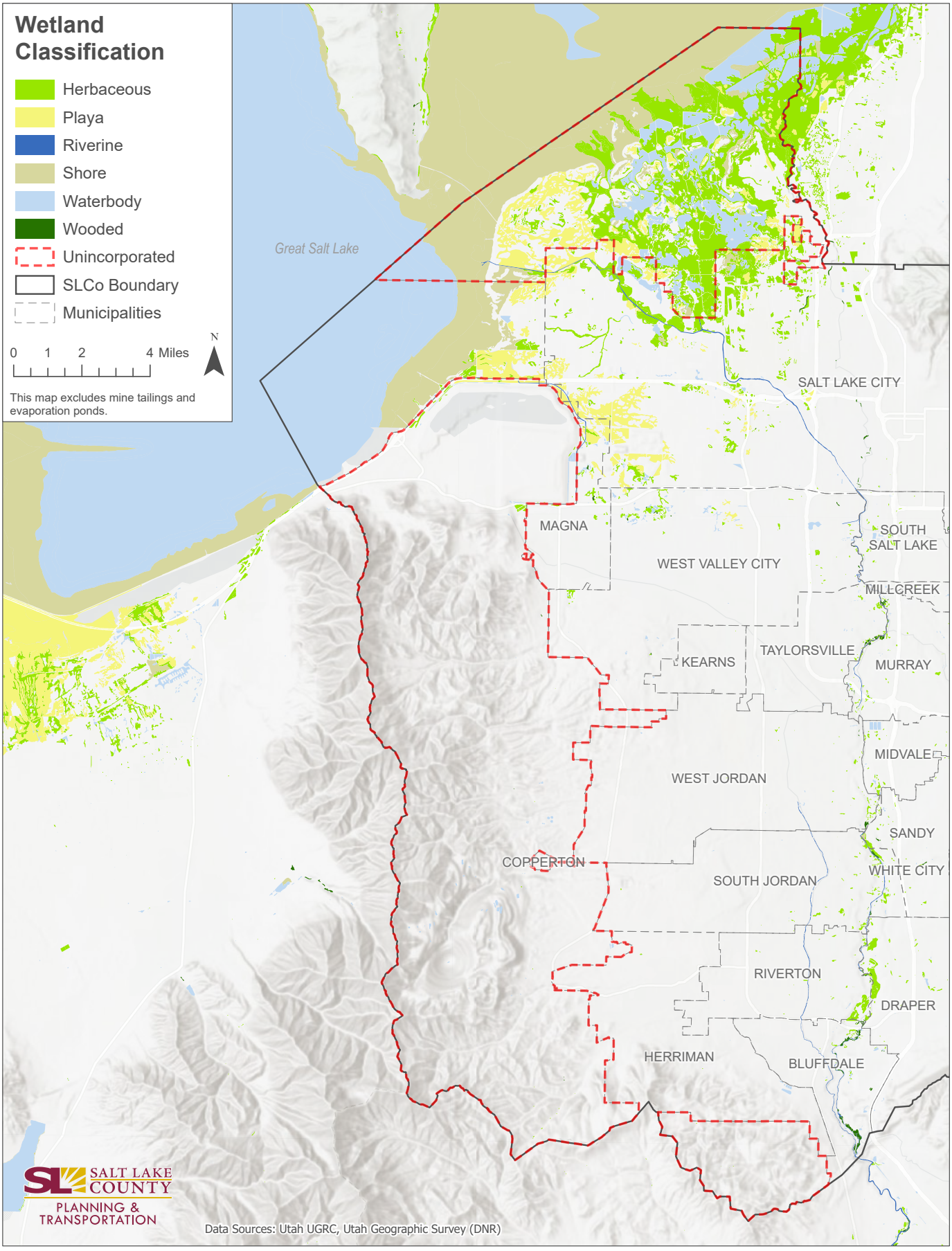

Figure 5.12 Map of Wetland Classification

Goals and Strategies

A. Goal: Protect water quality and quantity in the watersheds of the Oquirrh and Traverse Mountains and the Great Salt Lake.
Strategies:

I. Support the implementation of the current Salt Lake County Integrated Watershed Plan and Stormwater Management Plan.
II. Work with landowners and government agencies to implement anti-degradation standards, stream setbacks, environment zones, monitoring programs, code enforcement, and stormwater Best Management Practices (BMP).
III. Collaborate with state and federal agencies to identify and fund the restoration of impaired streams, rivers, wetlands, and lakes.
IV. Work to ensure new development, industrial, and recreation facilities are constructed and operated to minimize point and non-point sources of water pollution.
V. Review and update development ordinances for appropriate stream setbacks, vegetation protection, and stormwater BMPs.
VI. Support County watershed plans and policies to protect ground-water resources and aquifers.
VII. Work with willing landowners to dedicate more water and/or water rights to the Great Salt Lake as beneficial use.

B. Goal: Protect and conserve agriculture and habitat lands in the Shoreline Area.
Strategies:

I. Review zoning and update ordinances for conservation purposes.
II. Prioritize conservation practices for agriculture, bird and wildlife habitat, the Great Salt Lake ecosystem, waterfowl areas, and open space. Strategies could include maintaining and/or increasing the size of large agricultural lots for residential with the support of landowners.
III. Involve relevant stakeholders.
   a. Work with willing landowners to implement land conservation. Consider conservation methods, including easements, government bonding and purchase of lands, Transfer of Development Rights, Agricultural Protection Areas, updating zoning uses, and others.
   b. Work with transportation and utility agencies to conserve and protect wildlife habitats from road and utility expansion.
IV. Promote the preservation of agricultural lands and conservation habitats linked to the Great Salt Lake ecosystem to preserve return flows[29].
V. "Further develop programs, funding sources, and explore options for maintaining agricultural lands, particularly where they benefit the Great Salt Lake from return flows, surrogate habitat (migratory birds such as white-faced ibis feed in fields near the Great Salt Lake), and so forth" (GSL HCR10 pg. 15).
VI. Support programs to manage invasive weeds.

C. Goal: Protect and conserve critical lands in the Oquirrh and Traverse Mountains.
Strategies:

I. Support and collaborate with Camp Williams, Rio Tinto Kennecott, and other landowners in the preservation of buffer open space and development of safe recreational opportunities.
II. Support the development of conservation and recreation plans for the Oquirrhs and Traverse Mountains.
   a. SLCo, working with willing landowners, and other stakeholders, should prepare a long-range plan identifying the critical lands and whole ecosystems within the Oquirrh Mountains to be conserved. The conservation plan should study and consider habitats for mammals, birds, and critical lands. The conservation plan should consider potential public access points, developable lands, historic cultural sites, and recreational opportunities.
   b. The plan should consider increasing temperatures, reduced precipitation, water availability, and impacts on wildlife, vegetation, and local ecosystems.
   c. The conservation plan should identify stakeholders, potential management agencies, funding sources, and other conservation methods.
III. Support programs to manage invasive weeds.
IV. Support protection of historic cultural sites and artifacts. Discourage recreation in sensitive areas.

D. Goal: Mitigate and minimize impacts between mining and gravel operations and adjacent incompatible land uses.
Strategies:

I. Create vegetated buffers at appropriate distances and other best practices to reduce the impact of fugitive dust on surrounding land uses and populations.
II. Appropriate zoning and land use plans should prevent close proximity between mining areas and residential populations.
  a. Zoning and land use maps should identify areas where gravel pits are appropriate or not appropriate based on future uses.
III. Use transitional zoning strategies. For surrounding land uses to decrease the number of people living near industrial, mining, sand, and gravel pits.
  a. Consider setbacks for nearby land uses by tailings and mining operations to mitigate impacts from natural hazards.
IV. Consider the impacts of mining operations on roads and infrastructure in planning.
V. Communicate and work with mining companies to plan for reclamation plans and progress.
VI. Future residential developments and mining prospects should consider current and future residential developments. In addition, future residential development should consider current and ongoing mining activity.
VII. Incorporate the use of dust suppression water systems.
VIII. Reclamation should start based on federal and state regulations and approved business plans.

E. Goal: Future developments should minimize light pollution and promote dark skies.
Strategies:

I. Dark skies ordinances should be adopted in all new developments.
II. Lighting should only be used where it is needed.
III. Motion detectors, timers, and dimmers should be used to cut the amount of artificial light used at night.
IV. Light fixtures in new developments should have shields that minimize glare and light trespass and help better vision at night.
V. Light fixtures should be energy efficient and emit warmer colors (not cooler).

F. Goal: Support reclamation of post-mining sites to a healthy and vegetated landscapes.
Strategies:

I. Support and collaborate with landowners, DEQ, DOGM, EPA, and County Health Department for post-mining reclamation.
II. Review conditions and progress of affected sites before land use planning entitlements are approved.
III. Support efforts for clean ground and surface water, clean air, clean soils, and re-vegetated affected sites.
IV. Support monitoring of groundwater in impacted areas.
V. Where practical, mining areas should be restored to native vegetation patterns.
  a. When feasible reintroduce native wildlife to reclaim and restore habitats.

G. Goal: Prioritize practices that sustain water levels in the Great Salt Lake ecosystem and watershed.
Strategies:

I. Adopt policies and strategies that conserve water flow to ensure sustainable water levels for the Great Salt Lake and associated wetlands.
II. Coordinate regularly with State Water and Natural Resource divisions, water providers, landowners and managers, and nonprofit organizations on conservation progress.
III. "Work with water and state agencies to understand planning or decision-making to meaningfully consider whether a decision, combination of decisions, planning effort(s) or other actions will adversely affect water flows or water levels for the Great Salt Lake or its wetlands. Where appropriate, ways in which impacts can be avoided, minimized, or mitigated should be considered and incorporated into decisions, planning, or action(s)."[30].

H. Goal: Promote public awareness and stewardship of environmental and recreational values and practices.
Strategies:

I. Promote educational opportunities for K-12 grade students to learn about the Great Salt Lake, Traverse Mountains, and Oquirrh Mountains ecosystems and environments.
II. Coordinate landowners and academic institutions to promote research of the Oquirrh Mountains, Traverse Mountains, Great Salt Lake, and associated watersheds.
III. Explore more opportunities for public education programs and facilities for the Great Salt Lake watershed, Oquirrhs, and Traverse Mountains. Topics such as minerals, geology, wildlife, hydrology, and land stewardship could be considered.

I. Goal: Preserve, establish, and connect native wildlife habitats.
Strategies:

I. Support research, catalog, and map, existing species, preservation areas, and habitats. Establish preservation areas for high-value wildlife areas.
   a. Habitats should be connected with viable corridors.
II. Consider reclamation areas for future wildlife habitats.
III. Establish full ecosystems and reintroduce native species.
IV. Collaborate with the Division of Natural Resources and other government agencies.
V. Use appropriate wildlife protection devices such as signage, cattle-guard crossing, fencing, bridges, and tunnels.
VI. Work with willing landowners.

J. Goal: Promote energy-efficient and resilient buildings.
Strategies:

I. Promote the design and construction of sustainable buildings through the following:
   a. Encourage the use of energy-efficient building materials and heating/cooling insulation.
   b. Encourage building materials that are local, sustainable and durable.
   c. Work towards net neutral for on-site emissions (natural gas). The focus should be on new development buildings. Encourage adoption of national uniform building code standards.
   d. Promote the adoption zero-emission technology standards for indoor heating and water heating.
   e. Industrial emissions should adhere to EPA Best Available Control Technology (BACT) standards.
II. Encourage passive solar design techniques for building energy efficiency.
III. See power resiliency strategies in Public Services and Utilities chapter.
IV. Promote strategies that produce zero to low emissions for buildings.

K. Goal: Reduce urban heat island effect.
Strategies:

I. Encourage materials for roofs, streets, parking areas, driveways with high solar reflectivity.
II. New development should establish a tree canopy for asphalt areas, including streets park strips, sidewalks, parking lots, and trails.
III. Promote engineering best practices to size minimum widths and areas of streets and parking lots.

Figure 5.13 Wildlife within the Inland Port area

Action Items

Action	Action Type	Timing	Participating Entities	Resources	Goals and Strategies
Review and update zoning ordinances in the Shoreline area	Planning	0-10 years	SLCo, landowners, stakeholders	$	B, G, I
Review and update applicable zoning ordinances with buffers between incompatible land uses	Planning	0-10 years	SLCo, landowners, adjacent municipalities, transportation agencies, stakeholders	$	D
Review and update applicable lighting ordinances/standards to encourage dark skies	Planning	0-10 years	SLCo, landowners, stakeholders	$	E
Work with willing landowners, stakeholders, adjacent municipalities, and others to develop a conservation and recreation plan	Planning	0-10 years	SLCo, stakeholders	$-$$	A, C, H, I

Action Items presented on this page represent items that may be of priority at Plan adoption. This list does not represent all Action items related to the Plan. Actions Items are described as potential efforts related to coordination, projects, and/or specific plans.

Resources: Anticipated implementation costs are generally categorized as follows $, lower-cost Action Items that could be implemented by allocating or re-allocating resources in typical general fund budgets; $$, moderate cost Action Items that would require the creation of a new budget line item and/or development of new resources/funding; or $$$, higher cost Action Items that would require additional resources/funding (i.e. bonding, grants, etc.).

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Chapter 6

Water Conservation

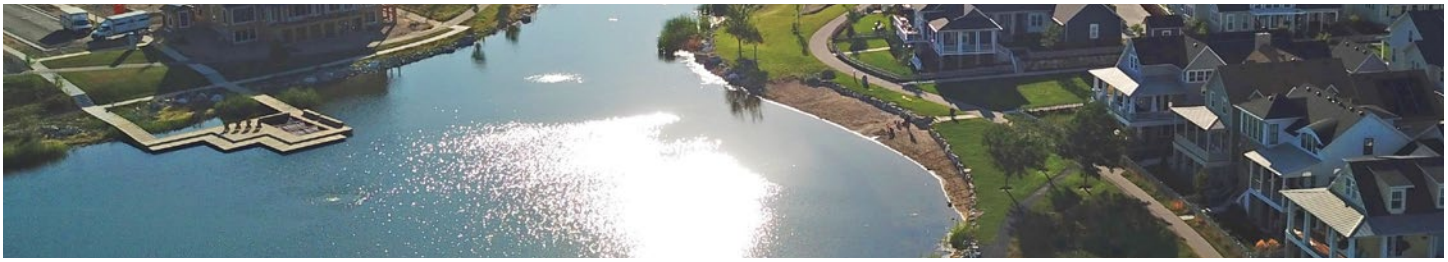


DRAFT 03.18.2022

SALT LAKE COUNTY

Vision

Water Conservation Vision: All water has innate value and is a shared natural resource. Water should be managed in an integrated, inclusive, and sustainable manner to ensure a prosperous future for our current and future communities. All levels of planning should include thoughtful consideration of water's environmental, economic, and social needs and benefits.



Guiding Principles

A. Watershed Protection:

I. Planning and design should include consideration of issues at the site and watershed scale.
II. The watersheds of the Traverse and Oquirrh Mountains and the Great Salt Lake should be protected to maintain water quality.
III. Waterbodies and waterways should maintain sufficient water levels, including the Great Salt Lake.

B. Water Conservation:

I. Prioritize water conservation.
II. Conserve existing water sources.
III. Maximize water efficiency for both indoor and outdoor uses.

C. Integrated Water Resource Management:

I. Integrate water resources and land use planning.
II. Develop reliable and resilient water systems, i.e., municipal water, stormwater, and wastewater.
III. Plan and prepare for potential drought and changes in water storage and supply.

Background

Water conservation has become a central focus in Utah. The importance of managing a limited and changing water supply has become more apparent as the State continues to grow. The 2021 drought had a significant impact on Utah communities, the environment, and the economy. Droughts have been part of Utah's history and will continue to affect Utah. The changing climate increases temperatures and reduces water availability. As the population grows, water conservation is critical to ensure that water needs are met.

Salt Lake County (SLCo), the State of Utah (legislative body and agencies), water districts and other agencies have made water conservation a priority. Government organizations have created legislation, policies, and water planning documents that are in line with conservation goals.

In July of 2021, Governor Spencer J. Cox outlined measures needed to plan for Utah's water future, highlighting four focus areas as seen in Figure 6.2. The Utah Division of Water Resources (DWR) worked with Utah's water agencies to publish a comprehensive state water plan in December of 2021.

Water conservation requires man strategies that can be employed by the government, water providers, businesses, and residents. Continued collaboration among SLCo, the State of Utah, DWR, water districts, the Great Salt Lake Advisory Council, landowners, and stakeholders to increase education, incentives, and regulations are essential to ensuring a sustainable water future for Utah.

Figure 6.1 Utah Waterwise Garden

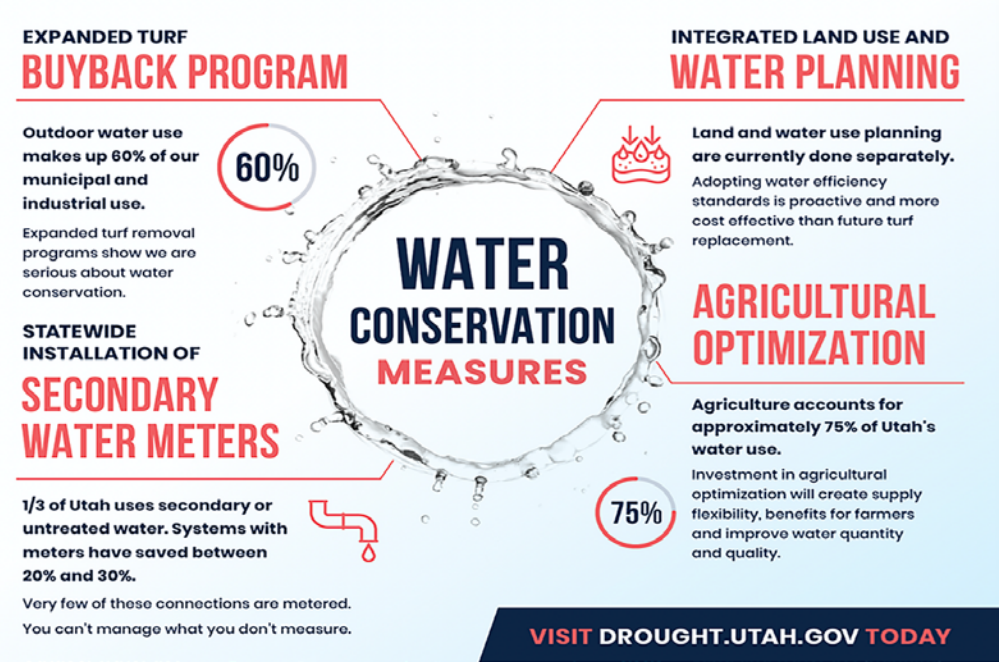


Figure 6.2 Utah 2021 Four Focus Areas for Water Conservation

In addition to the December 2021 State Water Plan, the Utah Division of Water Resources address regional water conservation goals in the 2019 "Regional M&I Water Conservation Goals" document. Municipal and industrial water use includes residential, commercial, institutional, and industrial water uses.

A Salt Lake County water conservation goal as determined by DWR and adopted by JVWCD is to reduce water usage to 187 GPCD by 2030. This is a 6% reduction from JVWCD's 2018 199 gallons per person per day.

To improve water conservation, the County should continue to review and revise water conservation policies and plans.

The following are recommended practices for water conservation by both DWR and JVWCD.

General Practices
- Water conservation education
- Conservation pricing

Indoor Practices
- Fixture conversion
- Leak repair
- Changing indoor water use habits

Outdoor Practices
- Secondary meters
- Increases in irrigation efficiency
- Water-wise landscaping (construction of new properties and conversion of existing properties)

Detailed water efficiency standards are included in JVWCD's Conservation Plan and should be used to meet the 2030 Regional Water Conservation Goal.

Water Conservation Throughout the Plan
Within the West General Plan, the following chapters can be referred to for further information on background, goals, strategies, and action items related to water conservation.

- Chapter 1 Land Use
- Chapter 2 Housing
- Chapter 5 Environment and Conservation
- Chapter 6 Parks, Trails, and Recreation
- Chapter 9 Utilities and Public Safety

Land Use Goals that address water conservation:

A. Conserve critical lands, water, and open space.
B. Facilitate and participate in regular planning coordination.
C. Review and update County ordinances to further implement the vision and goals of the General Plan.
G. Integrate water resource planning and land use decisions.
H. Promote water-efficient land uses.

Housing Goals that address water conservation:

A. Communities should be designed in harmony with the natural environment and as part of a network of trails and parks to encourage walking and biking.

Environment and Conservation Goals that address water conservation:

A. Protect water quality and quantity in the watersheds of the Oquirrh and Traverse Mountains and the Great Salt Lake.
G. Prioritize practices that sustain water levels in the Great Salt Lake ecosystem and watershed.
K. Reduce urban heat island effect.

Parks, Trails, and Recreation Goals that address water conservation:

D. Conserve water within parks, trails, and open spaces.

Utilities and Public Safety Goals that address water conservation:

A. Property plan utility infrastructure to accommodate anticipated growth.
B. Provide efficient and sustainable waste management.
D. Develop green infrastructure for stormwater management/quality and environmental benefits.
E. Incorporate water-efficient landscapes into new development.

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Chapter 7

Parks, Trails, and Recreation



DRAFT 03.18.2022

SALT LAKE COUNTY

Vision

Parks, Trails, and Recreation Vision: Visitors and residents enjoy a system of neighborhood, community, and regional parks. Recreational facilities are distributed throughout developed areas and are integrated within natural lands, ecosystems, and communities. Active and passive recreational opportunities are available for diverse public needs in all seasons. Communities connect through regional trails and park systems.

Guiding Principles

A. Design with Nature:

I. Recreational facilities and natural environments are managed cohesively.
II. Plan for year-round recreational opportunities.
III. Consider adaptations for drought and climate change.
IV. Encourage sustainable development through the preservation of nature and open spaces.

B. Access for All:

I. Facilitate accessible recreation to people of all incomes, ages, and abilities.
II. Connect recreational facilities to transportation networks.
III. Plan recreation opportunities within walking/biking distance of residences and jobs.

C. Park and Trail Systems:

I. Focus on creating interconnected systems and not individual trails or parks.
II. Establish a regional trail system.
III. Connect the west Bonneville Shoreline Trail north to south with a regional network of trails.
IV. Develop adequate park systems/facilities for current and future generations.

D. Coordinate Plans Between Private and Public Stakeholders:

I. Connect unincorporated trail systems to adjacent municipalities and counties.
II. Dedicate long-term funding for recreational resources and maintenance.
III. Coordinate with stakeholders for the funding and development of recreational opportunities.

Background

Parks, Trails, and Recreation Planning

Convenient access to parks, natural lands, trails, and recreation is essential for a healthy population. Active recreation is an essential component of the quality of life for Utah residents.

"As the County continues to grow and change, new demands for recreation and leisure services are constantly being created. What doesn't change, however, is people's desire for places to maintain an active healthy lifestyle: a park to walk through, a golf course to unwind on, a pool to exercise in during their lunch hour, an after-school program to inspire youth." This statement comes from the Salt Lake County (SLCo) 2015 Parks & Recreation Facilities Master Plan and applies to future growth along the western slopes of Salt Lake Valley[1].

The Parks and Recreation Master Plan was developed by SLCo Parks and Recreation through a detailed needs assessment and public outreach. The latest version of this document should be reviewed and used when planning for parks and recreation facilities. It provides specific guidelines, standards, and benchmarks for:

- Acres of parkland needed per unit of population
- Regional open space (parks, trails, and natural lands)
- Park development standards
- Regional trails
- Golf courses
- Recreation facilities
- Swimming pools
- Ice centers
- Athletic fields
- Racquet sports

SLCo Parks and Recreation is interested in developing and managing larger parks and regional trails that meet county-wide needs. Smaller community, neighborhood, pocket parks, and neighborhood trails should generally be managed by local municipalities, HOAs, or private groups. It is anticipated that, as the western part of SLCo grows, there will be a significant need for parks and trails of different sizes and types.

The public survey conducted for the SLCo 2015 Parks and Recreation Master Plan found that the following parks and recreation amenities were "most important to households":

- Trails for walking, running, and biking
- Natural open space areas
- Large, open lawn areas
- Children's playgrounds
- Group pavilion/picnic areas
- Indoor swimming pools

Figure 7.1 Wardle Fields Regional Park/ Source: SLCo Parks & Rec.

Trail Systems

In recent decades, trails have become one of the most desirable public recreational amenities. Trails are best planned as systems, starting with trailheads near arterial or collector roads and/or transit stops. Trailheads should have adequate parking, restrooms, potable water, wayfinding signs, and other facilities, as needed. Trails should be planned as networks, with options for many distances and routes. Trail systems should also provide for a wide range of ages and abilities. In some cases, that could include a paved trail for strollers and young bikers. Other opportunities could include a one-way, single-track mountain bike trail loop for enthusiasts. Trails should connect to local neighborhoods and have destinations such as parks, viewpoints, peaks, ridges, centers, neighborhoods, and transportation nodes. This chapter includes specific goals and strategies for trails.

Currently, most of the trail opportunities in the Plan area are in Yellow Fork and Rose Canyons. These trails are used for hiking, running, biking, and horseback riding. It's anticipated that new trails will be available in Butterfield Canyon on the Rio Tinto Kennecott and Bureau of Land Management (BLM) properties through agreements.

One of the major goals for the west side of Salt Lake County is to plan and build the west Bonneville Shoreline Trail (BST). The West BST is a major backbone system to connect the entire foothills of the Oquirrhs via a trail system. Some parts of the West BST could be built in the near term, while other parts will have to wait for post-mine closure and approval from Rio Tinto Kennecott.

More trail corridors should be considered following post-mine closure.

Figure 7.2 Yellow Fork/ Rose Canyons/
Source: Mackenzie Bennett

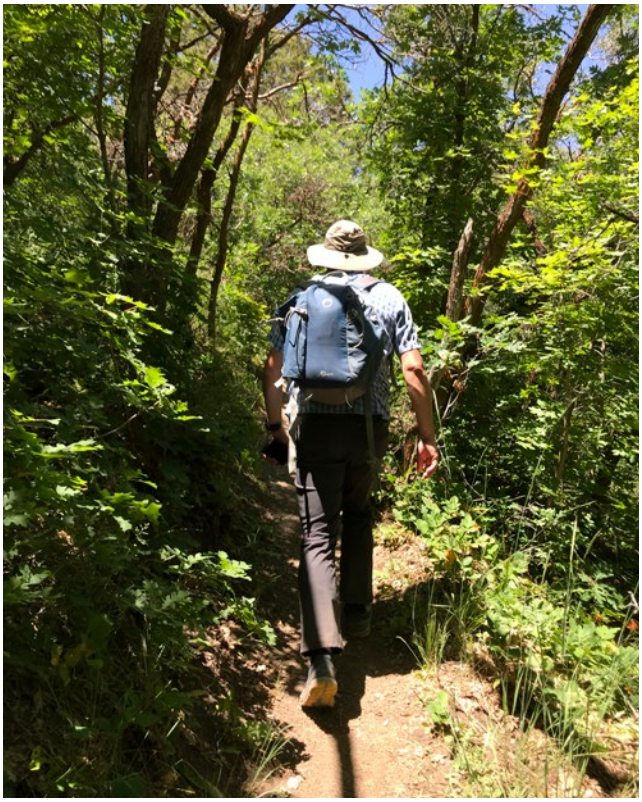

Figure 7.3 Yellow Fork/ Rose Canyons
Source: Mackenzie Bennett

Park Systems

Parks and trails should be planned as complete systems. Parks of different sizes, types, and purposes are needed to sustain a healthy and active population.

The 2015 SLCo Parks and Recreation Master Plan identifies the following categories of parks[2]:

- **Class One Regional Parks** have a service radius of about three miles. These are large regional parks with many amenities, trails, sports facilities, and other opportunities. Examples include Bingham Creek, Dimple Dell, Wardle Fields, and Sugarhouse Parks.
- **Class Two Regional Parks** "cover a large spectrum of park types and sizes. They are smaller and have fewer amenities than Class One Regional Parks, but they are larger and serve more people than Neighborhood Parks. The parks contain amenities that are rented (such as group pavilions), or they have space that is formally programmed for activities (such as multipurpose fields or a swimming pool). Class Two Regional Parks are used by more than one jurisdiction." Class Two Regional Parks often include city or community parks. Examples include Copperton Park, Oquirrh Park, and West Jordan Dog Park.
- **Special Use Regional Parks** are unique and sometimes need a fee for entry. Examples include This Is The Place Heritage Park, Wheeler Farm, Yellow Fork, and Rose Canyon, and Hogle Zoo.
- **Neighborhood Parks** are the smallest park unit in the County system, serving small neighborhood areas. These parks generally provide limited amenities such as picnic tables, small picnic pavilions, basketball courts, children's playground equipment, open lawn areas, and trees. Neighborhood parks should be managed by municipalities, HOAs and other groups. Other names for these spaces include "pocket park" and "community park." The Oquirrh Highland Park is an example and is the only neighborhood park located in the Plan area.

Access to Parks, Trails, and Recreation
All members of a community should live within a 10-minute walking distance of high-quality parks. Ideal distances to parks should be planned based on the needs and capabilities of citizens of all ages and abilities. Busy roads or highways, railroad tracks, and expansive areas of open space can create barriers to park access. Ensuring safe access to parks for children and seniors, and focusing on equity, should be key considerations in planning for parks. Trails and greenways should create connections between neighborhood parks and larger regional parks[3].

Access to parks and natural lands increases quality of life by providing public health, and environmental, economic, social, emotional, and spiritual benefits to communities. Research on park access shows that being outdoors and having access to parks has many benefits, including higher rates of physical activity and reduced rates of obesity, cardiovascular disease, and diabetes[4]. Parks can also benefit mental health issues like depression, anxiety, and stress[5]. Parks create space for communities to connect on a social level and build relationships. Other research shows that regions with lower park access have higher poverty rates. Those who live further from parks are often disconnected from economic opportunity[6].

Outdoor Recreation in the Oquirrhs
Much of the Oquirrh Mountain range is owned by a single landowner, Rio Tinto Kennecott (RTK). Due to mining operations and public safety, the central and northern parts of the Oquirrhs have limited recreation opportunities. The RTK lands are private and are not accessible by the public.

In the southwest Oquirrhs, the Butterfield Canyon area is growing in opportunities. The SLCo Yellow Fork and Rose Canyon, and BLM properties provide miles of trail opportunities for hiking, trail running, and mountain biking. Additional trail opportunities are expected in the lower portion of the canyon.

The aspect map (Figure 7.6) shows that the Oquirrh Mountains have many north-facing slopes, making them suitable for winter sports. Aspect maps show the direction of the slope and the gradient.

The slopes of the Oquirrh foothills are more gradual than the Wasatch Mountain foothills. The Oquirrhs get steeper towards the peaks and ridges. This topography in the foothills offers ideal conditions for mountain biking, trail running, and horseback riding.

Recreation Opportunities Near Camp Williams
In 2016, Camp Williams received help from the Conservation Fund to organize and conserve buffer land identified in the 2011 Joint Land Use Study and the 2015 Army Compatible Use Buffer. The purpose of the conservation effort is to provide a buffer between incompatible uses such as an active army training base and residential. The conservation area buffer will not be an expansion of the base but will be used as wildlife habitats and for limited recreation activities. It's anticipated that there will be trails in the buffer area for hiking, biking, and running. The trails in the buffer area should be planned and built to connect to trails in nearby municipalities and unincorporated areas. The buffer area trails should connect to the West BST.

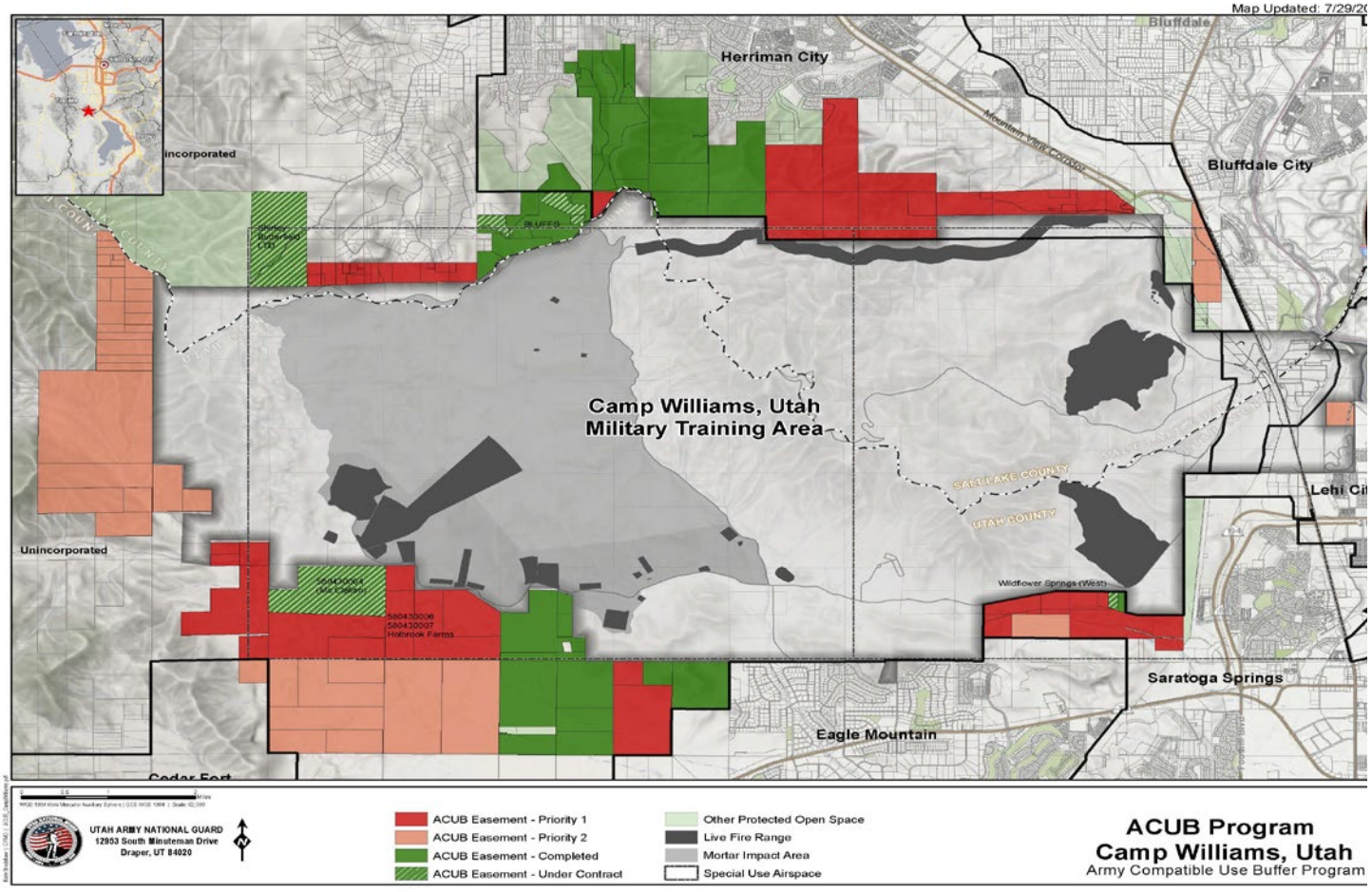

Figure 7.4 ACUB Program
Source: Camp Williams

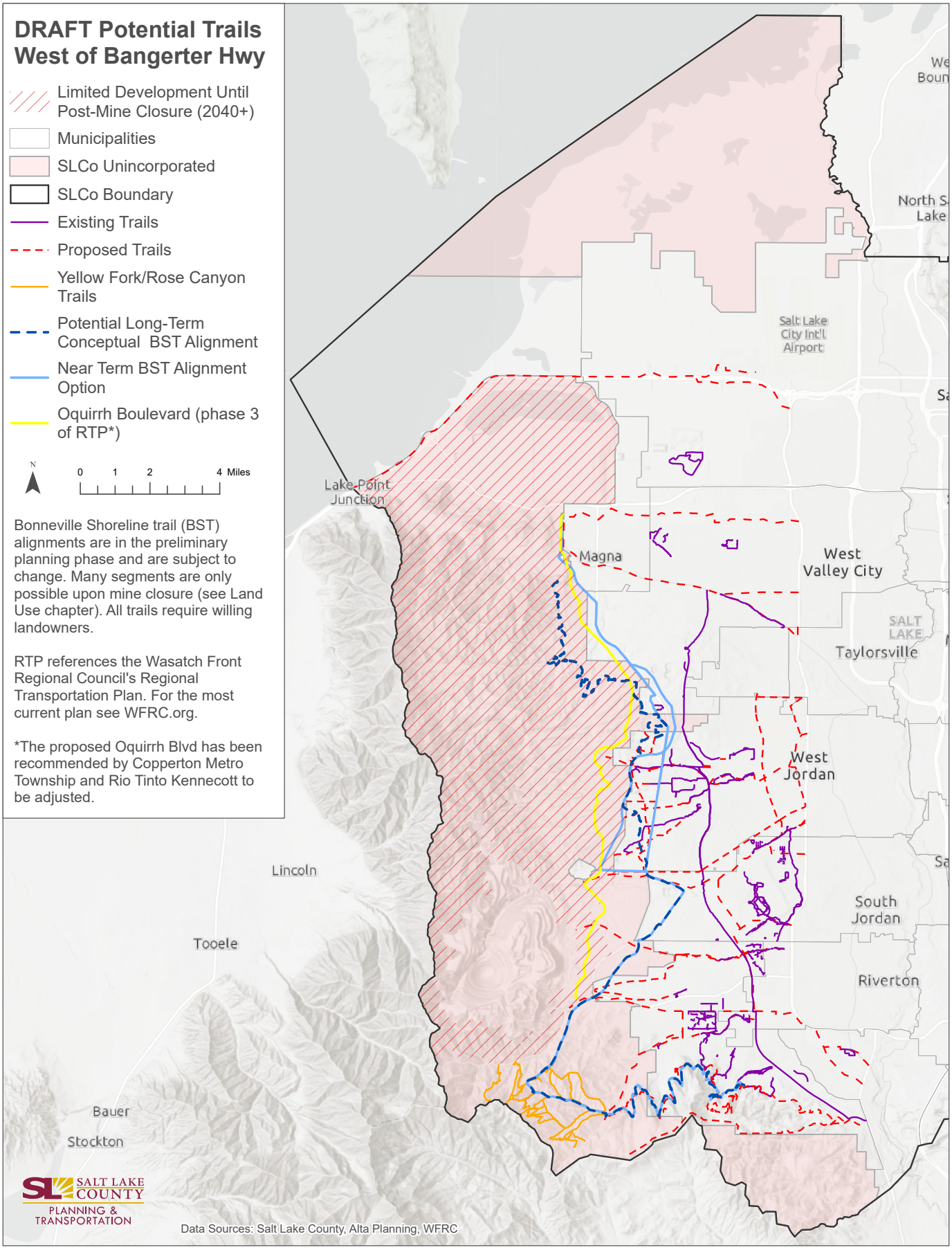

Figure 7.5 Trails Map

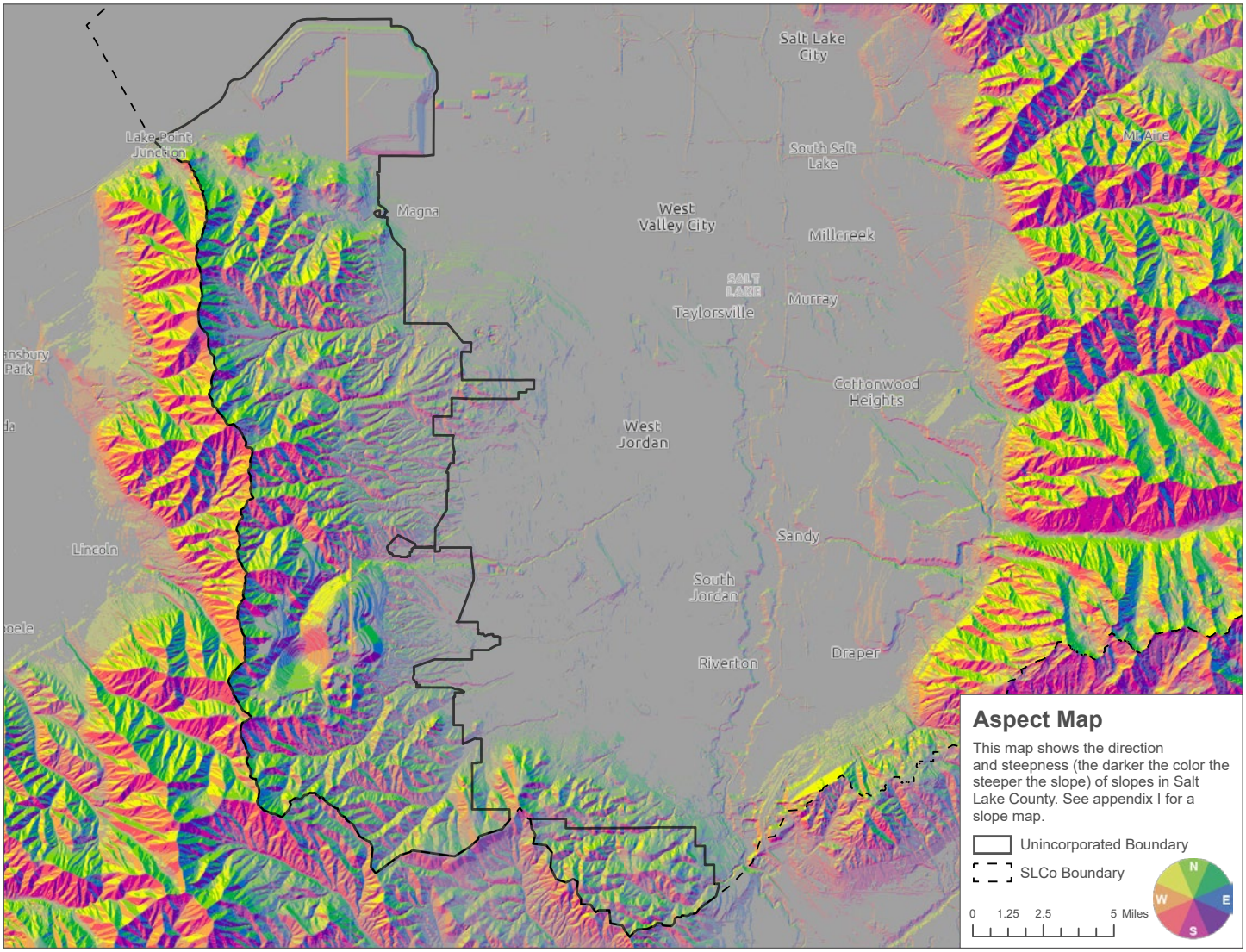

Figure 7.6 Aspect Map

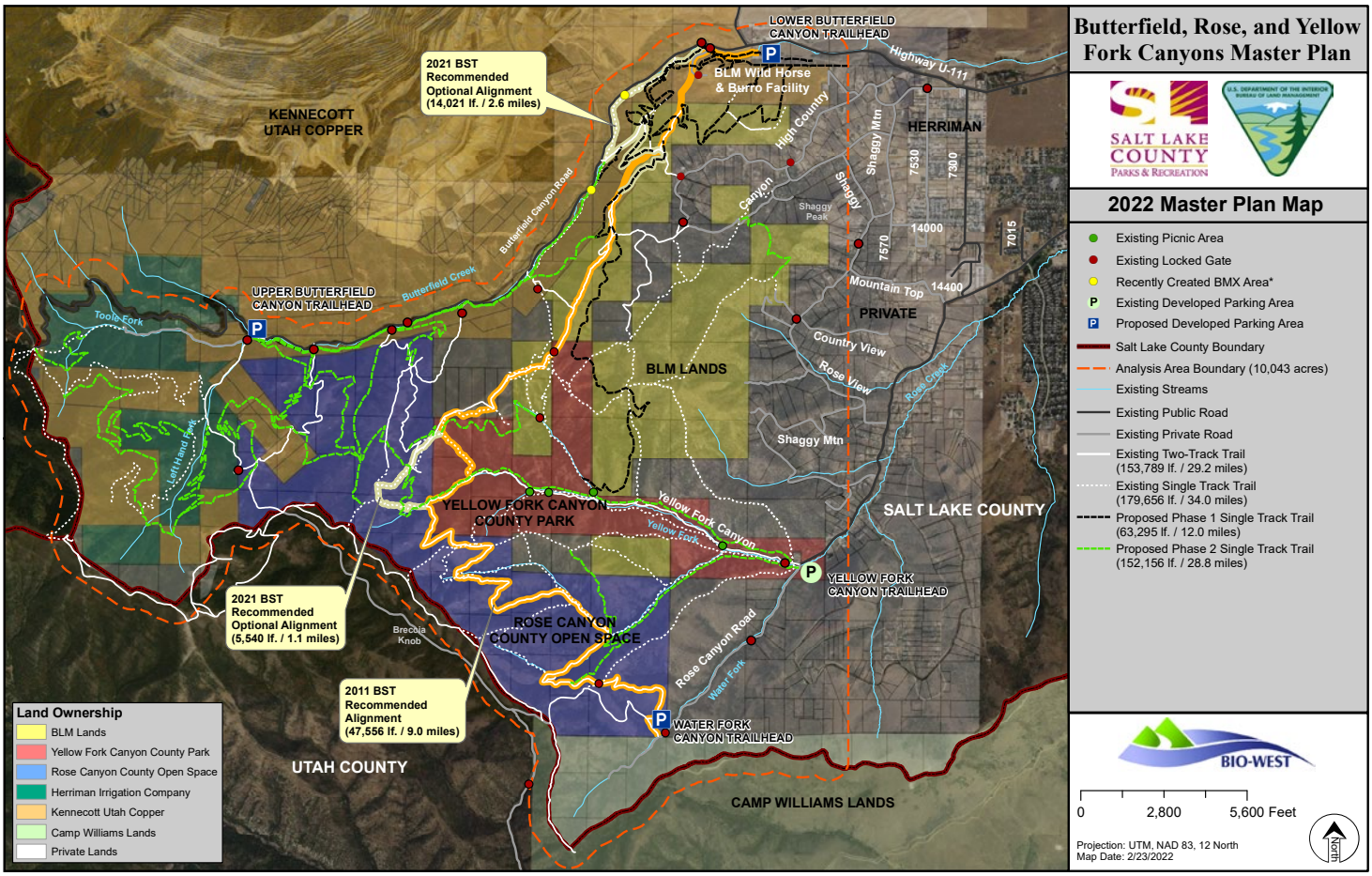

Figure 7.7 Draft Trails Plan Rose Canyon and Yellow Fork
Source: SLCo Parks & Recreation

Goals and Strategies

A. Goal: Increase outdoor recreation opportunities in the Oquirrh and Traverse Mountains.
Strategies:

I. Coordinate with landowners to create safe and legal access to recreation in the Oquirrh Mountains.
   a. Focus on near-term opportunities in Butterfield Canyon.
   b. Consider long-term opportunities on private land post-mine closure.

II. Partner with Camp Williams to create opportunities for recreational access in the Traverse Mountains buffer land. Encourage current and future buffer land to be available for recreation access.

III. Research more future options for public land access opportunities in the Oquirrh Mountains.

IV. Develop scenarios and alternatives for potential public ownership, access, land management, and acquisition methods.

V. Involve County, BLM, State Parks, nearby municipalities, landowners, and stakeholders in discussions and research.

VI. Support private landowners' efforts to avoid trespassing.

B. Goal: Plan and develop a robust park system for current and future generations.
Strategies:

I. Park land should be planned and dedicated as part of the development process (and not after).
   a. Parks should be located in desirable locations (not an afterthought).

II. Developers should take part in paying for at least part of the costs of parks.

III. Develop financial mechanisms to pay for needed capital improvements and ongoing maintenance.

IV. Park planning should meet the current SLCo Parks and Recreation Master Plan standards[7].
   a. The current standard is 5 or more acres of usable park land per 1,000 residents.
   b. Usable park land is specific to public parks and doesn't include golf courses, trails outside of parks, regional stormwater facilities (unless specifically designed and programmed as a park), and recreation buildings.
   c. Open Space land should be approximately 3-6 acres per 1,000 residents and does not include state parks, private, or federal lands. Open Natural lands, wetlands, steep slopes, civic open spaces, and habitat reserves should be preserved, but are not considered usable parks.

V. Regional parks and facilities should be accessible from transit, arterial, minor, or collector streets. Community and neighborhood parks should be accessible from local streets.

VI. Parks and trails should be planned with the development of neighborhoods, town/village centers, schools, civic buildings, street networks, and other key community elements.

VII. Parks should be located within a ¼ - ½ mile walking or biking distance from residential dwellings.

C. Goal: Plan and develop robust trail systems for current and future generations.
Strategies:

I. Trail routes, easements, and land dedication should be planned in conjunction with conservation and development planning/ construction.
   a. Trails should have public access (easements, agreements, or ownership).
II. Developers should take part in paying for at least part of the costs of trails.
III. Develop financial mechanisms to pay for needed capital improvements and ongoing maintenance.
IV. Trails of all types and recreational levels should be considered in community and trail system planning. Trail types could include paved, natural, gravel, multi-use pathways, and corresponding active transportation (bike lanes, separated/protected bike paths).
V. Trail planning should consider a variety of uses, including but not limited to commuting (to work/ school), hiking, running, walking, mountain biking, road/pathway biking, horseback riding, skating/skateboarding, dog-walking, and strollers.
   a. Consider key destinations schools, parks, centers, and others.
   b. In the future, consider more trail corridors.
   c. The west Bonneville Shoreline Trail should be the main spine of the trail systems. Other corridors should be considered upon post-mine closure or additional opportunities.
   d. Expand current plans and trail opportunities in Yellow Fork and Rose Canyons to include nearby Butterfield Canyon, BLM lands, and areas buffering Camp Williams.
   e. The County should collaborate with Camp Williams in the Traverse Mountains for trail planning and recreational opportunities in the buffer area surrounding the military base.
   f. Trails should include a comprehensive wayfinding system, including signs.
VI. Trail systems should connect with nearby counties, municipalities, and parks.
VII. When and where appropriate, develop key destination trailheads with parking, restrooms, and other facilities to accommodate public use. Trailheads should be accessible from arterial and collector streets.
VIII. Trails should be located within a ½ mile walking or biking distance from residential dwellings.
IX. Routes and street crossings should be safe for people of all ages and abilities.

D. Goal: Conserve water within parks, trails, and open spaces.
Strategies:

I. Use native and water-wise plantings.
II. Manage water and landscapes in parks, trails, and open spaces following water conservation best practices.
III. Track water use in parks and improve water conservation when workable.
IV. Trees and shrubs should have irrigation zones that are separate from grass areas.
V. Use irrigation technologies to manage and reduce water usage.
VI. Turfgrass should only be in high use areas. Non turfgrass areas could include small areas, park strips, odd spaces, and hills. Waterwise and native plantings should be used in non turfgrass landscaped areas

Figures 7.8 Hiking in Utah

Action Items

Action	Action Type	Timing	Participating Entities	Resources	Goals and Strategies
Update the west Bonneville Shoreline Plan	Planning	0-10 years	SLCo, landowners, stakeholders, municipalities	$	A, C
Where possible, assist in the implementation of the West BST and other trails.	Project	0-10+ years	SLCo, landowners, municipalities, transportation agencies, stakeholders	$$-$$$	A, C
Butterfield Canyon Master Plan	Planning	0-10 years	SLCo, landowners, stakeholders, transportation agencies, nearby municipalities	$$	A, B, C

Action Items presented on this page represent items that may be of priority at Plan adoption. This list does not represent all Action items related to the Plan. Actions Items are described as potential efforts related to coordination, projects, and/or specific plans.

Resources: Anticipated implementation costs are generally categorized as follows $, lower-cost Action Items that could be implemented by allocating or re-allocating resources in typical general fund budgets; $$, moderate cost Action Items that would require the creation of a new budget line item and/or development of new resources/funding; or $$$, higher cost Action Items that would require additional resources/funding (i.e. bonding, grants, etc.).

References

[1] “Salt Lake County Parks and Recreation Facilities Master Plan” (Salt Lake County, September 1, 2015), https://slco.org/globalassets/2-parks--rec/facilities/umbrella/planning/parks-rec-master-plan.pdf.

[2] “Salt Lake County Parks and Recreation Facilities Master Plan.”

[3] Peter Harnik, Jeff Simms, and Mary Eysenbach, “Parks: How Far Is Too Far?,” Planning Magazine, 2004.

[4] Andrew T. Kaczynski, Luke R. Potwarka, and Brian E. Saelens, “Association of Park Size, Distance, and Features With Physical Activity in Neighborhood Parks,” American Journal of Public Health 98, no. 8 (August 2008): 1451–56, https://doi.org/10.2105/AJPH.2007.129064; Gregory S Macfarlane et al., “Modeling the Impacts of Park Access on Health Outcomes: A Utility-Based Accessibility Approach,” Environment and Planning B: Urban Analytics and City Science 48, no. 8 (October 1, 2021): 2289–2306, https://doi.org/10.1177/2399808320974027.

[5] Genevive R. Meredith et al., “Minimum Time Dose in Nature to Positively Impact the Mental Health of College-Aged Students, and How to Measure It: A Scoping Review,” Frontiers in Psychology 10 (2020): 2942, https://doi.org/10.3389/fpsyg.2019.02942; Peter A. Coventry et al., “Nature-Based Outdoor Activities for Mental and Physical Health: Systematic Review and Meta-Analysis,” SSM - Population Health 16 (December 1, 2021): 100934, https://doi.org/10.1016/j.ssmph.2021.100934.

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[7] “Salt Lake County Parks and Recreation Facilities Master Plan.”

Chapter 8

Economy



DRAFT 03.18.2022

SALT LAKE COUNTY

Vision

Economy Vision: Community growth is developed around employment and town centers. Residents and employees benefit from a diversity of jobs located in proximity to transportation nodes and town/employment centers. Education and training facilities are locally accessible and focus on evolving workforce opportunities. Economic development is guided through appropriately timed facilities and built infrastructure.

Guiding Principles

A. Employment and Town/Village Centers:

I. Mix business types within centers and leverage mixed-use to attract high-value retail.
II. Facilitate flexible workspaces to grow small businesses.
III. Plan centers in locations that increase access to the local workforce.
IV. Create a network of town/employment centers connected with regional assets.
V. Use long-term infrastructure plans to identify high-value opportunities for commercial centers.

B. Education and Training:

I. Match educational training with job opportunities.
II. Prepare for shifting workforce and technology trends.
III. Promote public/private partnerships for educational opportunities.
IV. Create easy access to lifelong learning, up-skilling, and re-skilling.

C. Infrastructure Resources:

I. Coordinate and plan infrastructure improvements.
II. Connect infrastructure to key transportation facilities (such as airport, Inland Port, highway corridors, hubs, urban downtowns, etc.).
III. Leverage public financing tools.
IV. Partner to develop robust and resilient telecommunications infrastructure.

D. Economically Sustainable Communities::

I. Foster job sector diversity.
II. Plan energy and resource efficiency.
III. Consider industry cluster needs based on the changing economy.
IV. Encourage off-peak (hour) businesses.
V. Diversify assets throughout geography while facilitating clustering around assets.
VI. Support existing businesses.
VII. Promote local jobs to reduce commuting.

Background

Jobs and Industries

The economy provides for a community's way of life. This chapter provides goals and strategies for building a resilient and robust economy in the future.

The Plan area has approximately 27 businesses and 270 employees, according to an Environmental Systems Research Institute (ESRI) report, but, this doesn't include Rio Tinto Kennecott, as the company's offices are in South Jordan, outside the Plan area.

SLCo Regional West Side Jobs
The Oquirrh View research report included an in-depth study of jobs and industries located west of Bangerter Highway[1]. SLCo has more jobs than any other County in Utah; however, most of the jobs are located on the east side of the County. The study shows that a majority of the jobs in SLCo are near the main transportation corridors of I-15, I-215, Redwood Road, and regional centers (e.g., downtown SLC). The concentration of jobs on the east side correlates with historical growth patterns and the development of major transportation networks. For residents of the west and southwest portions of the County, this makes for longer commutes, increased air pollution from emissions, and more traffic congestion. Figure 8.1 shows that, on a typical workday for the area west of Bangerter Highway, 62,432 people travel there for a job, 26,047 stays in the area, and 112,239 residents leave the area for work outside the area. This graphic highlights the long-term need for significant additional job growth on the west side of SLCo.

Figure 8.1 In-migration and out-migration from the Oquirrh View Study Area

The Oquirrh View report looked at current industries and associated percentages of jobs. Below is a breakdown of the largest seven categories of industries per job numbers; the remaining categories were smaller percentages. To increase the number of west side jobs, it would be useful to look for opportunities to grow currently operating industries. For additional details, see the Economy Chapter of the Oquirrh View Report.

Industry	Percentage of total jobs
Retail Trade	17%
Manufacturing	14%
Educational	10%
Wholesale Trade	8%
Accommodation & Food Service	7%
Construction	7%
Health Care & Social Assistance	7%

Shoreline/Agriculture
The shoreline area includes several large farms/ranches, totaling approximately 3,186 acres in size. These ranches grow crops, manage to graze, and support nearby habitat conservation. The approximate economic value the Great Salt Lake brings to Utah is estimated to be over a billion dollars per year. Some of the major industries the lake supports include brine shrimp farming, salt and mineral mining, tourism, as well as enhanced snowfall that benefits the ski industry. The surrounding wetlands also create economic value from waterfowl hunting.

Defense Industry (Camp Williams & Northrup Grumman)

The defense industry in Utah greatly contributes to the State's economy. In 2019, nearly 11% ($19.3 billion) of the state's gross domestic product (GDP) came from the defense industry. Utah's National Guard employed 7,831 full- and part-time personnel and paid $309 million in wages and salaries[2]. Most National Guard employees live in the Wasatch Front communities. Camp Williams plays a critical role due to its proximity to urban centers. While Camp Williams doesn't have many full-time employees, it does provide year-round training for thousands of National Guard members, other military agencies, and members of local police forces. Northrup Grumman is Utah's largest defense contractor, with $1.6 billion worth of contracts in 2019. Most of this work is managed by the company's Innovation Systems office in Magna. Northrup Grumman has continually been awarded contracts, and future projects are expected to create thousands of high-paying federal jobs in Utah for years to come.

Mining (Rio Tinto Kennecott)

Due to its mass production and efficient mining operation, Rio Tinto Kennecott is considered by some to be the most significant private economic driver in Utah. According to the Rio Tinto Kennecott's website, the company employed 2,066 in 2019, provided an economic contribution of $1.6, billion paid $70 million in taxes and royalties, and invested $2.7 million in the community. Thousands more are employed as sub-contractors.

In a December 2019 press release, Rio Tinto Kennecott announced plans to invest $1.5 billion into the mine, which will allow it to continue operating through the year 2032. Rio Tinto Kennecott anticipates continuing operations beyond 2032.

RTK owns and operates one of two American copper smelters, which is critical to domestic manufacturing independence. The mine is advancing technologies to produce critical minerals that will be used for solar panels, and other green infrastructure.

Regional Economic Opportunities (SLC International Airport & Inland Port)

The Salt Lake City International Airport and the Utah Inland Port are large economic assets in Salt Lake County. These economic drivers play a large role in today's economy and will continue to play a substantial in the future. In 2020, the airport supported an estimated 124,407 jobs, with an annual payroll of approximately $4.3 billion. The airport's total annual economic activity is estimated at approximately $11.5 billion[3].

The Utah Inland Port's goal is to maximize long-term economic benefits for northwest Salt Lake County and the state. By coordinating market demand in logistics-dependent industries, the Inland Port expects to provide significant job opportunities with high wages and encourage additional inbound trade. Warehousing, distribution jobs, local trucking, and freight jobs will all see growth with the further development of the Inland Port.

Figure 8.2 New SLC International Airport

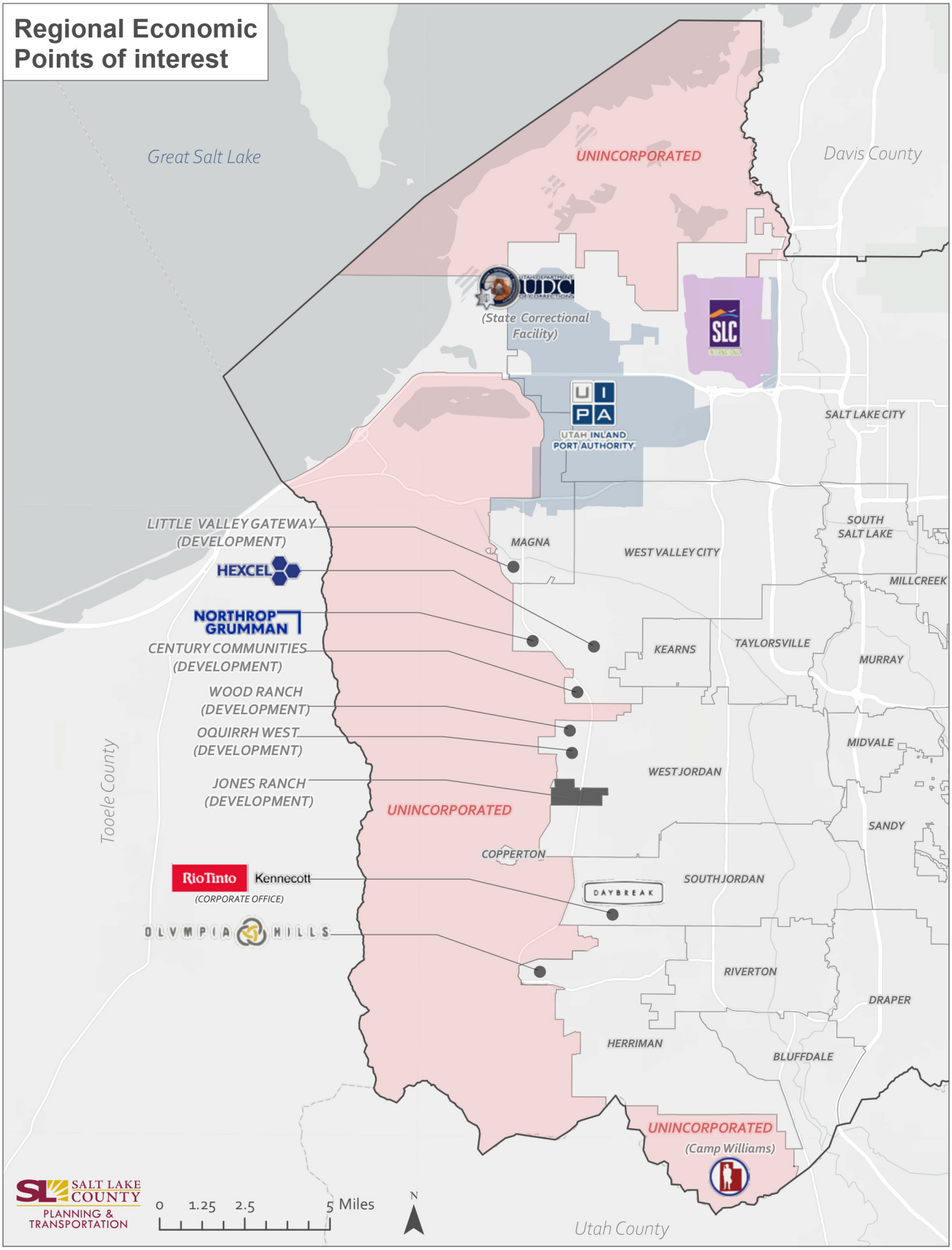


Figure 8.3 Regional Economic Points of Interest

Goals and Strategies

A. Goal: Promote and develop diverse business opportunities for west side residents and communities
Strategies:

I. Promote flexible space building types. This could include a variety of building sizes providing opportunities to grow businesses.
II. Encourage business development centers on the west side of Salt Lake County.
III. Foster collaboration between cities, County, Utah Governor's Office of Economic Opportunity (GOEO), and Economic Development Corporation of Utah (EDC Utah) to identify and attract the highest value commercial activities into potential sites.
IV. Support existing businesses to continue and grow.
V. Encourage the development of educational and training facilities located within centers.

B. Goal: Economically connect west side businesses and employment centers with regionally significant assets.
Strategies:

I. Promote efficient transportation connections to regional destinations (e.g., downtown Salt Lake City, "Silicon Slopes", Salt Lake City International Airport).
II. North Oquirrh areas should consider Inland Port-supporting jobs and businesses. South Oquirrh areas should consider "Silicon Slopes" and manufacturing jobs and businesses. This could include co-working spaces and light manufacturing.
III. Plan for high-value parcels or areas to facilitate the highest and best use development. As necessary, preserve high-value commercial lands for intended future uses.

C. Goal: Encourage the development installation of high-speed internet infrastructure.
Strategies:

I. Developers, municipalities, County, and others should collaborate with telecommunication companies to integrate facilities into master planning and infrastructure.
II. Consider design aesthetics of infrastructure and locations early in the planning process.
III. Include internet infrastructure when planning other utilities.

D. Goal: Integrate businesses and jobs into town and village centers.
Strategies:

I. Work with local businesses to incorporate mixed-use opportunities, jobs, and businesses within centers.
II. Town, employment, and commercial centers should be nodes of transportation, jobs, retail, businesses, and civic uses.
III. Plan programs and events to attract residents and visitors to town and village centers.
IV. Develop spaces (e.g., squares, plazas) that provide opportunities for gatherings, festivals, and informal activities.

Figures 8.4 Building (in Utah) with waterwise landscaping

Action Items

Action	Action Type	Timing	Participating Entities	Resources	Goals and Strategies
Coordinate with existing and new west side businesses to provide support.	Planning	Yearly	SLCo, landowners, stakeholders, businesses, State economic agencies (EDC, GOEO)	$	A, B

Action Items presented on this page represent items that may be of priority at Plan adoption. This list does not represent all Action items related to the Plan. Actions Items are described as potential efforts related to coordination, projects, and/or specific plans.

Resources: Anticipated implementation costs are generally categorized as follows $, lower-cost Action Items that could be implemented by allocating or re-allocating resources in typical general fund budgets; $$, moderate cost Action Items that would require the creation of a new budget line item and/or development of new resources/funding; or $$$, higher cost Action Items that would require additional resources/funding (i.e. bonding, grants, etc.).

References

[1] Salt Lake County Office of Regional Development, “Oquirrh View Report - Economy,” accessed December 10, 2021, https://slco.maps.arcgis.com/apps/MapSeries/index.html?appid=d0503b638f2f4b13b64dc173f84032e1.

[2] Joshua Spolsdoff, “Utah’s Defense Economy: Economic Impacts and Industry Trends” (Kem C Gardner Policy Institute, August 2021), https://gardner.utah.edu/wp-content/uploads/Utah-Defense-Economy-August2021.pdf?x71849.

[3] “Economic Impact of Salt Lake City International Airport” (Jviation, Inc., July 2020), https://slcairport.com/assets/pdfDocuments/Economic-Impact-Study/Economic-Impact-of-Salt-Lake-City-International-Airport.pdf.

Chapter 9

Utilities and Public Safety



DRAFT 03.18.2022

SALT LAKE COUNTY

Vision

Utilities and Public Safety Vision: Residents and visitors enjoy a safe community to live, work, and recreate. Utility infrastructure minimizes impacts on water, land, and ecosystems. Utilities and municipal services are provided in a reliable, cost-effective, and environmentally sustainable manner. Communities are prepared for natural and human-caused hazards.

Guiding Principles

A. Infrastructure Planning:

I. Plan efficient and resilient infrastructure.
II. Avoid scattered (leapfrog) development to minimize inefficiencies and stresses in infrastructure systems.
III. Partner with utility and infrastructure agencies in community planning.

B. Municipal Services:

I. Provide viable police, fire, sanitation, and other municipal services.
II. Work with utility providers (water, sewer, power, internet, gas).
III. Ensure ability to maintain infrastructure for effective delivery of municipal services.
IV. Include municipal services facilities during community planning.
V. Include regulatory requirements in community planning.

C. Hazard Management:

I. Prepare for and mitigate impacts of natural and human-caused hazards, including fire, earthquakes, flooding, landslides, avalanches, and others.
II. To the extent practicable, establish buffers between development and high-risk areas.
III. Minimize community flooding by detaining stormwater runoff.

D. Education and Civic:

I. Work with the landowners/developers to reserve land for educational/institutional uses.
II. Schools and institutions should be planned in optimal locations to promote walking, biking, and community activities.
III. Residents should have access to health care resources in their communities.

Background

Utilities and Infrastructure

Introduction

Utilities are essential to sustaining community life. Utility and infrastructure planning is critical in preparing for growth. Infrastructure planning happens at all levels, from preserving regional corridors to properly sizing pipes in the suitable locations. Efforts such as building a robust broadband internet system or designing electrical grids to withstand power outages are needed to keep our community healthy. Through the Oquirrh View planning process, each major utility was engaged and provided information regarding their infrastructure planning. “All of the utility providers within the Oquirrh View Study Area (west of Bangerter Highway) are actively planning and forecasting to improve, prepare for, and increase their service areas in response to the continued and projected growth within SLCo. The utility providers were forthcoming with information and were interested in remaining involved and working in conjunction with the County and the other utility providers.” This chapter includes a brief summary of utilities (see Oquirrh View report for additional information)[1].

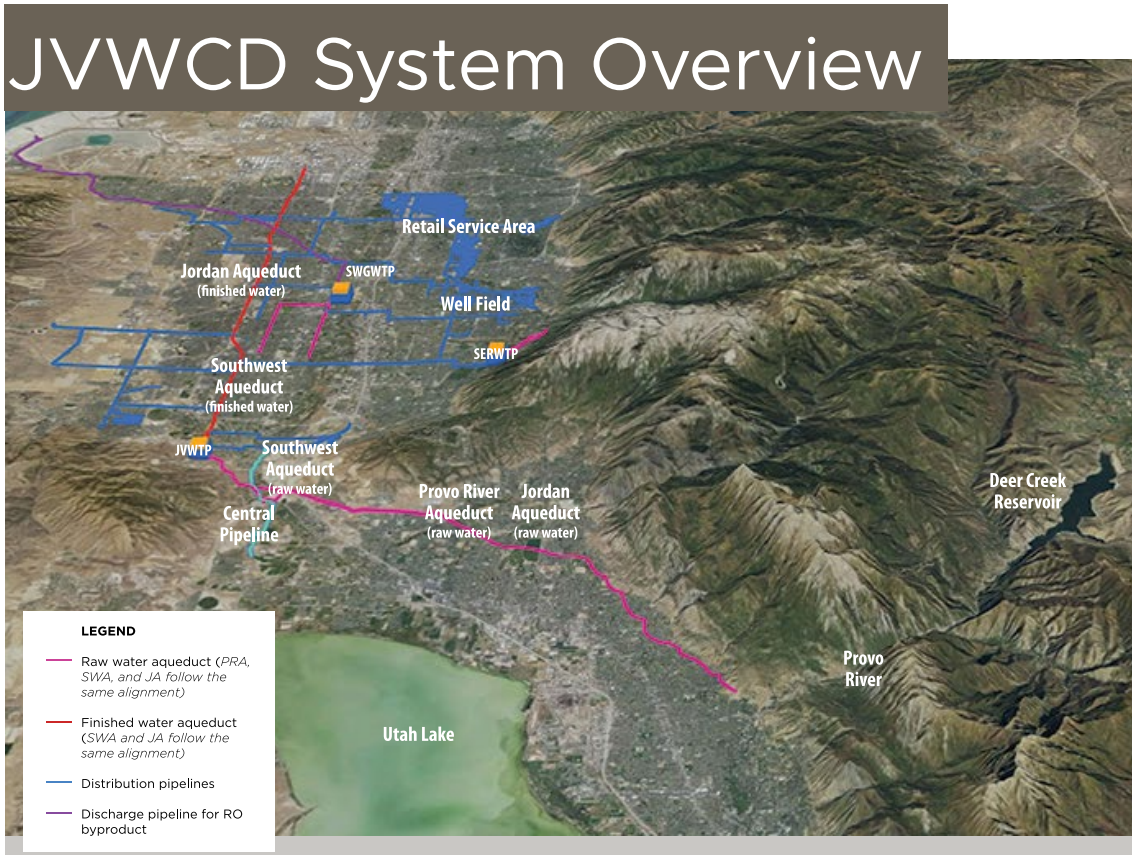
Water

For communities on the west side of SLCo, the primary wholesale water provider is Jordan Valley Water Conservancy District (JVWCD)[2]. Wholesale water providers transport and treat water to municipal public works from surface sources (rivers, lakes, reservoirs, and canals) and ground sources (wells and aquifers).

The majority of JVWCD water comes from surface sources. JVWCD’s major potable water sources include:

- The Provo River System, includes Jordanelle and Deer Creek Reservoirs. Water is transferred via a system of large pipes called the Provo River Aqueduct, the Southwest Aqueduct, and the Jordan Aqueduct.
- Over 40 wells in the JVWCD service area provide approximately 20% of the water supply.
- The Diamond Fork System primarily consists of Strawberry, Currant Creek, and Upper Stillwater reservoirs on the Rock Creek Drainage. These sources provide water to JVWCD through the Utah Lake System (ULS) pipeline.

Many residents have expressed concerns over water supplies meeting growth demands. Water conservation districts and wholesale water providers regularly conduct long-term studies on water demands and available water sources. Figure 9.1 provided by JVWCD shows the current water sources, projected demand (with and without conservation), and future supplies. JVWCD long-range plans include acquiring additional water rights and potentially building future water projects. JVWCD plans show the availability of water to accommodate growth based on the development of new sources and conservation.



Figures 9.1 Overview of water system and sources for JVWCD/ Source: JVWCD

Development of future water supplies will come at high costs, increases in water rates, and impacts to the Great Salt Lake ecosystem. Water conservation is the best method for making additional water supplies available to future residents of Salt Lake County. Water districts develop and carry out water conservation plans. Water conservation is integrated throughout this Plan (see Water Conservation chapter).

Stormwater

Stormwater systems capture runoff from storm events and channel the water through infrastructure to waterways. Stormwater can contain heavy metals, nutrients, petroleum products, sediments, and other debris. Stormwater is untreated and is a major source of pollution in waterways. Stormwater is a concern because of the negative impacts on waterways and receiving water bodies.

Municipal stormwater systems are regulated under the General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). The purpose of the permit and regulations is to allow discharge into waterways in compliance with the Utah Water Quality Act and the Federal Water Pollution Control Act.

As impervious surfaces increase due to the development of land, more stormwater runoff enters the systems, requiring increased infrastructure capacity. To address this issue, the DEQ implemented a new stormwater program in July of 2020. This program requires new and redevelopment projects to incorporate specific Low Impact Development (LID) strategies to manage rainfall on-site[3].

Low Impact Development and Green Infrastructure

"Low Impact Development (LID) consists of designed systems that use or mimic natural processes to promote infiltration, evapotranspiration, and/or reuse of stormwater as close to its source as possible to protect water quality and aquatic habitat."[4].

Green infrastructure is a broader form of LID and includes additional ecological services and benefits. Components of green infrastructure can include parks, greenways, landscaping, natural lands,

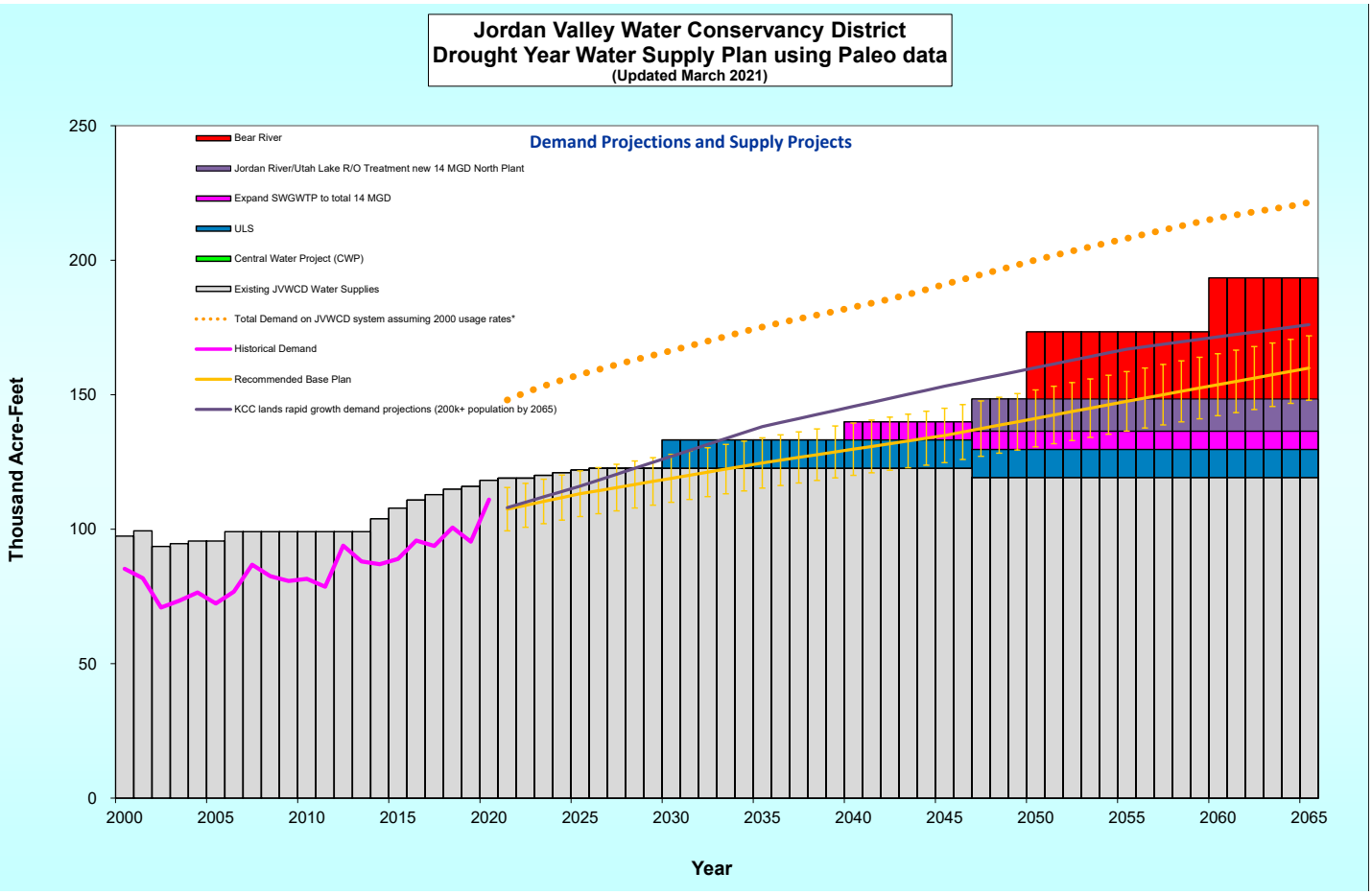


Figure 9.2 Water Supply and Water Sources for JVWCD/Source: JVWCD

bioswales, rain gardens, riparian corridors, and other vegetated landscapes. Green infrastructure should be incorporated with other larger systems and part of the urban fabric. Benefits of green infrastructure systems include corridor preservation, wildlife habitat, trail systems, reducing urban heat island effect, enhancing property values, filtering air pollutants, and reducing energy demands.

Wastewater
Wastewater or sewage treatment is a key component of infrastructure systems.

Several districts provide wastewater treatment to communities on the west side of SLCo. They include:

- South Valley Sewer District
- South Valley Water Reclamation District
- Central Valley Water Reclamation District
- Magna Water District

Each district operates a Wastewater Treatment Plant that cleans wastewater before properly discharging the cleaned water according to federal and local regulations. Wastewater is discharged near treatment facilities into nearby waterways (see Figure 9.4 Wastewater map). As noted in the Oquirrh View report, "Adequate infrastructure and facilities for wastewater exist or are planned for the population growth up to the borders of Rio Tinto-owned lands. Westward expansion into undeveloped areas of Rio Tinto land will require relatively significant upgrades to the current/planned infrastructure and facilities. Depending on the rate of growth, wastewater service for new development may require significant public and developer investment." The Oquirrh View report includes additional information regarding the capacity and planning being done by each district.

Natural Gas
Natural gas is used for heating homes and buildings, heating water, powering vehicles, and for commercial and industrial operations. The largest natural gas provider within Salt Lake County is Dominion Energy. The following information is provided from the Oquirrh View report.

"Dominion Energy has installed main transmission lines as part of long-range planning to serve undeveloped areas of the Oquirrh View Study Area (west of Bangerter Highway). The main transmission lines have been sized to accommodate projected population growth. Dominion Energy will install smaller transmission lines and distribution lines in conjunction with development needs.

Dominion Energy owns and operates wells that supply the majority of the natural gas to the study area and continues to develop new fields, wells, and sources. Dominion Energy also operates two large natural gas storage fields in Wyoming and Utah. Natural gas is transported to the SLCo area through main transmission lines that are owned and operated by Dominion Energy. Dominion Energy also has interconnection points, and purchases supply from producers on the Kern River gas pipeline and Ruby pipeline to supplement supplies/demand as needed."[5]

Information provided by Dominion Energy indicates the company will be able to provide for the expected growth in Salt Lake County.

Electricity
Rocky Mountain Power (RMP) is the largest provider of electricity within Salt Lake County. The following information was provided from the Oquirrh View report regarding current and future power supplies[6]. The County should encourage RMP to work with planners to prioritize the construction and delivery of affordable renewable energy as part of future land development

"RMP has installed several main transmission lines as part of its long-range plan to supply power to the undeveloped areas of the study area. Rocky Mountain Power's long-range plans include additional substations, and low voltage distribution lines as power is needed throughout the Study Area (west of Bangerter Highway). In general, RMP will bring power to newly developed areas in conjunction with developers' needs. Rocky Mountain Power has analyzed the upcoming needs and has committed to having power available to meet the needs of SLCo as the population expands into the undeveloped areas of the County.

"Rocky Mountain Power produces power from a multitude of sources, with additional generation to be brought online as needed. The primary generation sources in Rocky Mountain Power's portfolio include gas, coal-fired generation plants, wind generation, solar generation, and hydro generation. In addition to generation that is owned and operated by RMP, the utility has access to the Western Grid suppliers and can purchase supply as, or if, needed."

Information supplied by RMP indicates the company will be able to provide for the expected growth in Salt Lake County.

Internet/Telecommunication Systems
Internet or telecommunication systems are not considered a public utility; however, they should be included within utility infrastructure planning. Internet systems often include broadband, fiber cables, towers, and other elements of the systems. Telecommunication systems should be available in all communities, especially lower-income areas, to provide access to learning and online work opportunities.

"Data and telecommunication services are provided by several large private companies within the Oquirrh View Study Area. Providers of these services are consistently upgrading and developing new systems and systems of delivery.

"Major suppliers include AT&T, Beehive Broadband, Comcast, Centracom, Century Link, First Digital, Google Fiber, and Verizon. These companies are privately held and were not willing to share expansion plans (for the Oquirrh View report)."[7]

Public Safety
Public safety for this area is provided by the Salt Lake County Sherriff's Office, Unified Fire Authority (UFA), and Unified Police Department (UPD). It is expected that these agencies will continue to provide services in the near-term future, especially for unincorporated areas. As the west side of Salt Lake County grows, it is important that public safety agencies are involved in the planning process.

If land is annexed into adjacent cities, it is expected that the local jurisdiction would provide public safety services including police, fire, public works, and emergency services.

Wildfire in the Oquirrh and Traverse Mountains
The Wildland-Urban Interface, or WUI, is the area where human development meets undeveloped wildland. The Oquirrh and Traverse Mountains are at risk when it comes to wildfires. Developers, home/landowners, and government agencies can work together to make the WUI a safer environment[8]. Much of the development that will occur in unincorporated Salt Lake County will be in the WUI zone. In 2017, the Utah legislature adopted a new wildland fire policy that establishes a proactive risk reduction strategy[9]. The legislation enacts a policy between the Division of Forestry, Fire and State Lands (FFSL) and counties, municipalities, and special service fire districts in Utah that choose to opt in. Entities that opt into the policy are required to create a Community Wildfire Preparedness Plan (CWPP). This help communities prioritize risk reduction and initiate strategies when wildfires occur.

Hi-Country Estates and the Town of Copperton are both communities currently at risk. Future developments in the Oquirrh Mountains are also expected to be at high risk for wildfires. Nearly 50,000 acres of the Oquirrh Mountains in Salt Lake County alone are at moderately high to extreme risk of wildfire. That acreage accounts for just over 60% of unincorporated Salt Lake County land on the west bench. In the lands identified as potentially suitable for community development, over 8,000 acres, or 56% of that land, is at moderately high to extreme fire risk[10].

Future development will require strong coordination between developers, government agencies, fire districts, and community members to prevent loss of property and life. Firebreak roads, heliwells (places for helicopters to land), multiple access roads, and establishment of other emergency services infrastructure during the development process will reduce fire risk. Communities can defend themselves from wildfire by using fire-resistant building materials and maintaining defensible buffers around all properties and structures. Creating CWPPs and adopting the WUI state code is critical for wildfire preparation.

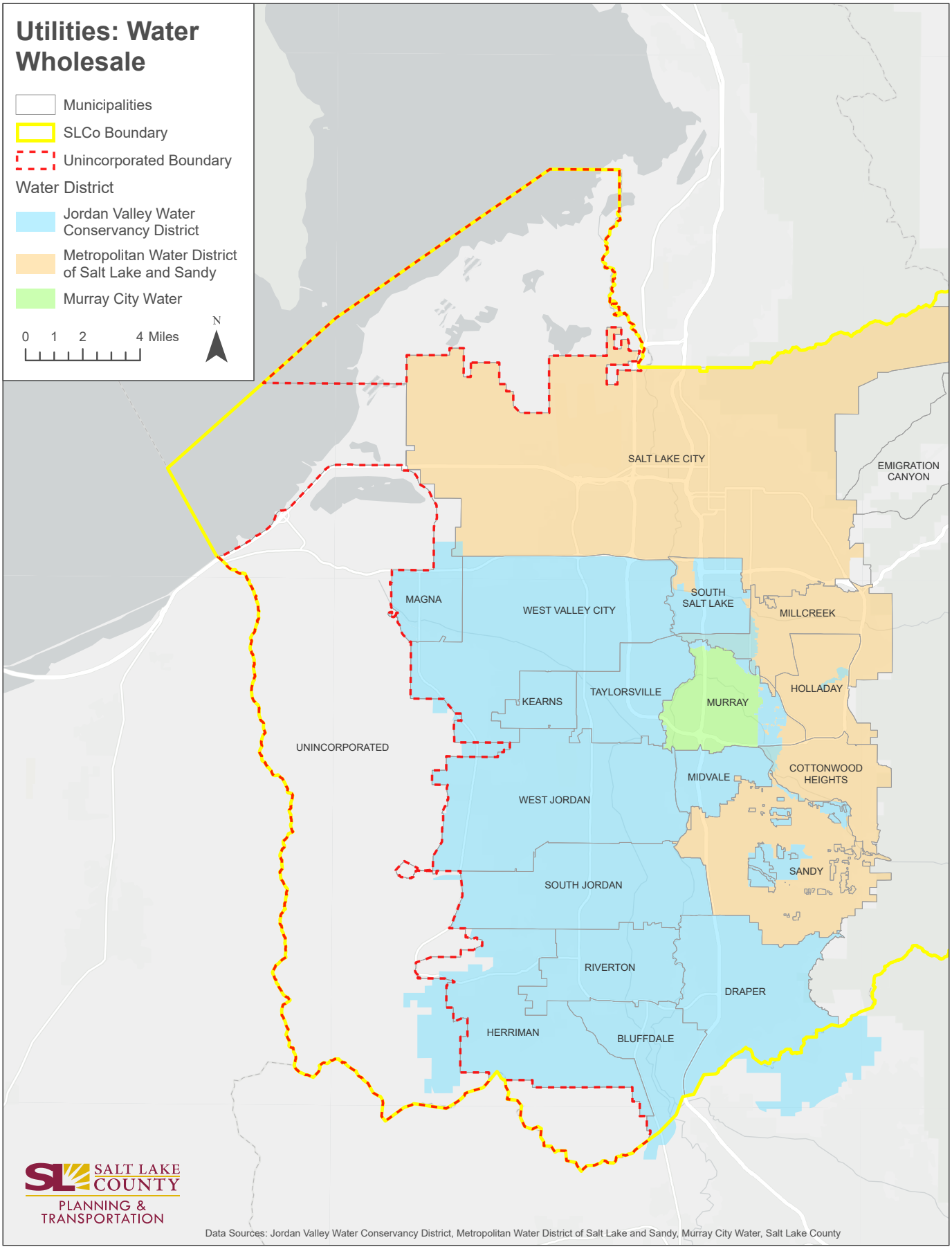


Figure 9.3 Water Wholesale Map

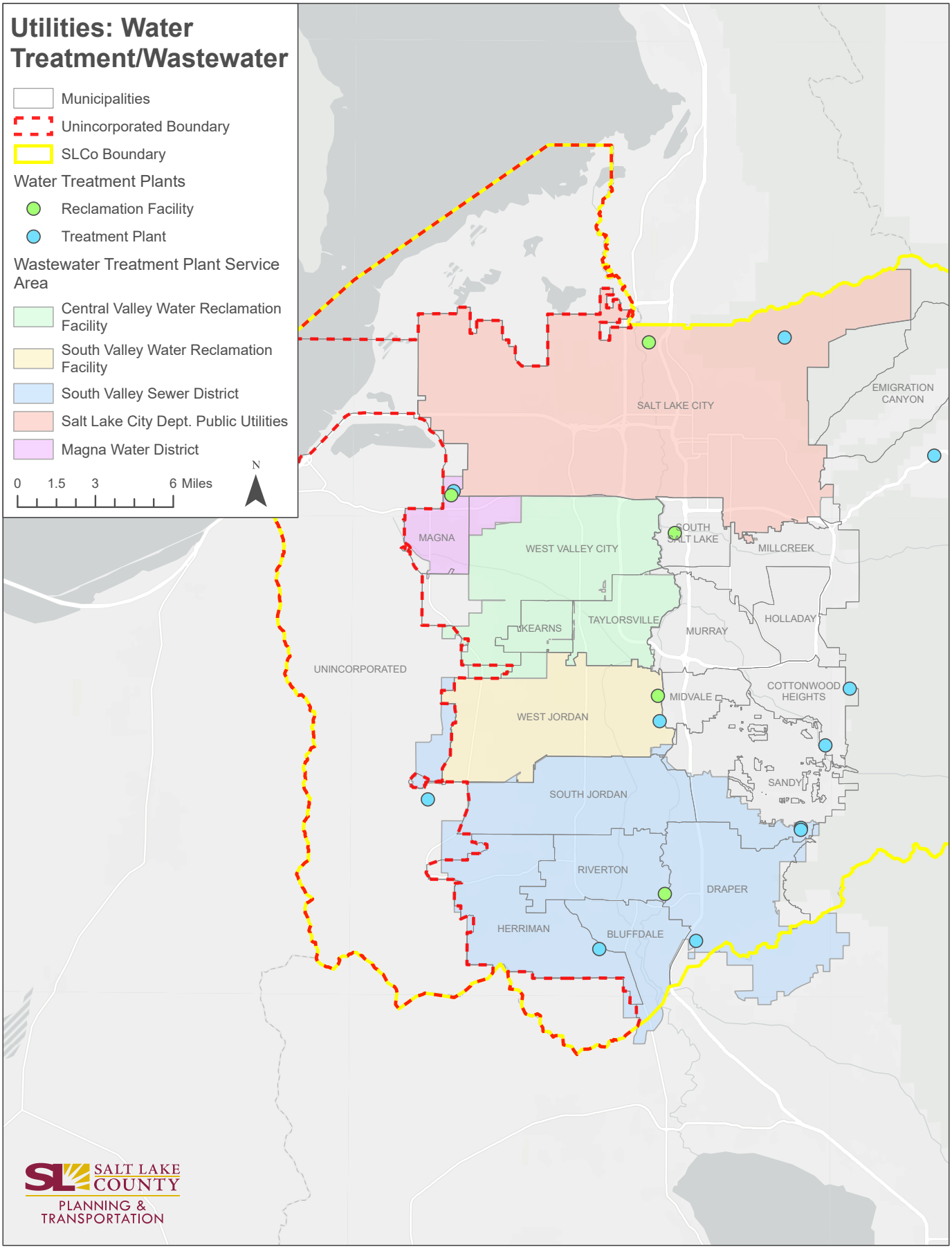


Figure 9.4 Wastewater Map

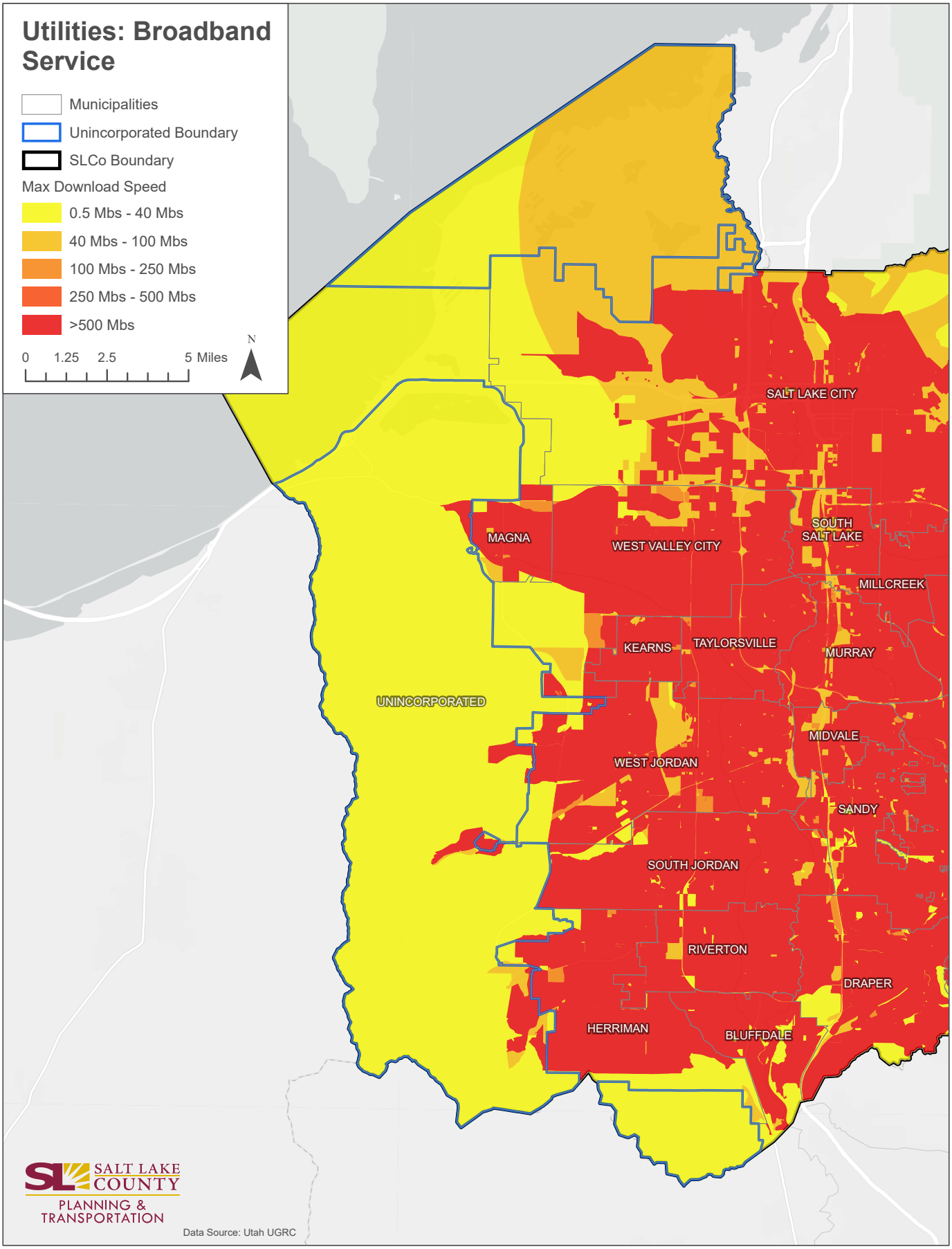


Figure 9.5 Broadband Map

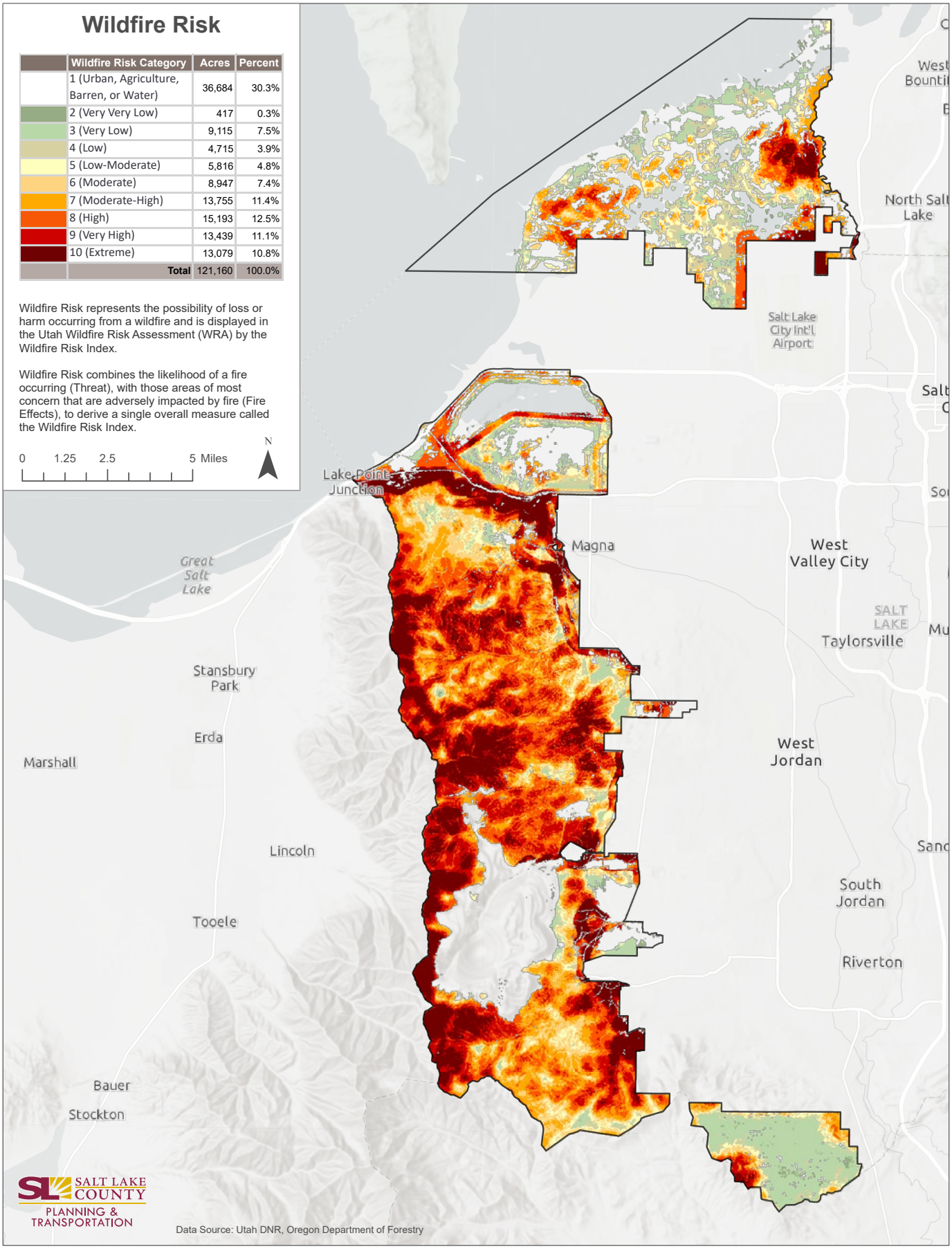


Figure 9.6 Wildfire Risk Map

Goals and Strategies

A. Goal: Plan utility infrastructure to accommodate anticipated growth.
Strategies:

I. Before any development is approved, the infrastructure should be well planned to meet the demands of full build-out.
II. Electricity infrastructure, including power lines, substations, and other important components, should have a minimal visual and environmental impact on the natural landscapes and community.
   a. Power lines should be located underground where practical to minimize impacts on viewsheds, birds, and wildfire risks.
III. Maximize efficient usage of water.
   a. All new developments should be waterwise.
   b. New development should set per capita per day goals of water usage.
   c. Encourage the use of indoor fixtures that are water efficient.
IV. Internet fiber and broadband should be incorporated into utility corridors when feasible.
V. Collaborate with municipalities, stakeholders, utility companies, and landowners on infrastructure planning, including wastewater, water systems, and other systems.

B. Goal: Provide efficient and sustainable waste management.
Strategies:

I. Improve and/or implement green waste programs. This includes yard waste for water conservation.
II. Use sewer systems for wastewater management and not septic systems.

C. Goal: Facilitate and encourage renewable energy opportunities.
Strategies:

I. Participate in community renewable energy programs.
II. Encourage residents to participate in utility-provided renewable energy programs.
III. Support incentive-based programs for renewable energy.
IV. Collaborate with utility providers and developers in community planning to consider renewable energy production, energy efficiencies, and smart grid technologies.

D. Goal: Develop green infrastructure for stormwater management/quality and environmental benefits.
Strategies:

I. Develop green infrastructure master plans for stormwater to complement parks and trails master plans for new development.
II. Prioritize best practices and utilize green infrastructure to accommodate current stormwater regulations.
III. Ensure post-development stormwater runoff matches pre-development stormwater runoff conditions to accommodate current adopted regional hydrology studies.

E. Goal: Incorporate water-efficient landscapes into new development and existing development where possible.
Strategies:

I. Review and update ordinances and policies as needed that codify water conservation improvements for buildings and landscapes.
II. Promote metering of secondary water.
III. Promote water-efficient landscaping.
IV. For residential landscapes, promote the JVWCD Localscapes program and similar water conservation programs.
V. Promote reduction of the amount of turfgrass in landscapes. Turfgrass should be limited to functional purposes and not be the default land cover.
VI. Promote waterwise irrigation systems and water management. Drip irrigation and other water conservation irrigation systems should be prioritized.
VII. Limit the use of fertilizers and pesticides to improve water quality.
VIII. Encourage the use of native plants.
IX. Promote the preservation of existing trees and growth of tree canopies.

F. Goal: Prepare current and future communities for natural and human-caused hazards and disasters.
Strategies:

I. Work with landowners, communities, and appropriate agencies to prepare for wildland fires, earthquakes, landslides, avalanches, flooding, droughts, and other natural disasters.
II. Support the following emergency plans: The Salt Lake County Emergency Operation Plan (EOP)[11], Salt Lake County Multi-Hazard Multi-Jurisdiction Mitigation Plan (HMP)[12], Comprehensive Emergency Management Plan for Salt Lake County, and Community Wildfire Protection Plans (CWPPs). The County will assist as it deems appropriate in the preparation of county-wide emergency plans through collaboration with local fire departments, County Emergency Management, and other government agencies. Such plans consider hazard mitigation, shelter, food, water, medical care, communication, transportation, post-incident mitigation, and other essential items needed for emergencies.
III. In the event of severe impacts on the health of the forests, work with biologists to understand and prepare for the potential damage caused by insects and diseases that may severely impact the forest ecosystems.
IV. Support the various CWPPs which address wildfire issues, including fuels reduction strategies. The County and others should participate in regular coordination with UFA and other state, local, and federal agencies in reviewing CWPPs.
  a. Each master-planned community or large development should have its own CWPP.
V. New developments should have a minimum of two open and maintained access roads for daily ingress and egress.
  a. The roads should be separate and continuously connected to adjacent municipalities.
  b. If one road is closed due to construction, maintenance, or natural/human-caused disasters, the other road should be open.
  c. All new roads should be designed for a proper slope for fire trucks, ambulances, snowplows, and other emergency service vehicles.
  d. All development plans and engineering standards should be reviewed to ensure adequate fire protection facilities.
VI. The County supports the local fire department in assessing water supply capacity for fire protection.
VII. Whenever practical, fire break roads should be located to separate neighborhoods from potential wildfire areas.
VIII. Planning and construction should include public safety and fire mitigation infrastructure; this could include but is not limited to fire stations, sheriff/police stations, and firefighting resources (heliwells (helicopter wells), helicopter pads, base stations, and warning systems).
IX. Identify specific areas in the unincorporated Oquirrhs which would apply to the Utah Wildland-Urban Interface (WUI) state code. The County could adopt by ordinance specified areas to follow the State WUI Code.
X. Work with utility providers to minimize fire risks for transmission and distribution power lines.
XI. In case of wildfire incidents, the County should work with partner agencies to assist in pursuing grant monies as needed for post-fire recovery, including watershed recovery issues.
XII. Consider updating ordinances to require snow storage locations in residential subdivisions and site plans for development. Work with County Public Works-Engineering to update subdivision ordinances for adequate turnarounds for public and emergency vehicles on roadways.

G. Goal: Promote the preparation of residential, commercial, and community buildings and properties to mitigate natural and human-caused hazards and disasters.
Strategies:

I. Review and update ordinances to encourage best practices in minimizing wildfire hazards.
  a. Ordinance updates should consider firewise landscapes, defensible spaces, fire-resistant maintenance practices (buildings and landscapes), automatic fire sprinklers, fire-rated building materials, fire apparatuses, and proper maintenance of vegetation surrounding utility lines. As land is proposed to be developed, consider the Foothills Canyon Overlay Zone (FCOZ) applicability.

II. Encourage and assist essential businesses and organizations such as schools, hospitals, public safety buildings, grocery stores, gas stations, and others on-site disaster-ready resources. These could include power generators, water tanks, communication devices, and emergency essentials.

Action Items

Action	Action Type	Timing	Participating Entities	Resources	Goals and Strategies
Work with JVWCD to update landscaping ordinances for sustainable landscaping including reducing water use, reducing or limiting lawn/turf, decreasing stormwater and irrigation water runoff, preserving existing trees, reducing yard waste, and increasing irrigation efficiency.	Planning	0-5 years	SLCo, landowners, stakeholders, JVWCD	$	E
Support on-going related Emergency Management and Community Wildfire Plans	Project	Yearly	SLCo, landowners, public safety government organizations, stakeholders	$	F, G
Review and update land uses/ zoning related to WUI	Planning	0-10 years	SLCo, landowners, public safety government organizations, stakeholders	$	F, G

Action Items presented on this page represent items that may be of priority at Plan adoption. This list does not represent all Action items related to the Plan. Actions Items are described as potential efforts related to coordination, projects, and/or specific plans.

Resources: Anticipated implementation costs are generally categorized as follows $, lower-cost Action Items that could be implemented by allocating or re-allocating resources in typical general fund budgets; $$, moderate cost Action Items that would require the creation of a new budget line item and/or development of new resources/funding; or $$$, higher cost Action Items that would require additional resources/funding (i.e. bonding, grants, etc.).

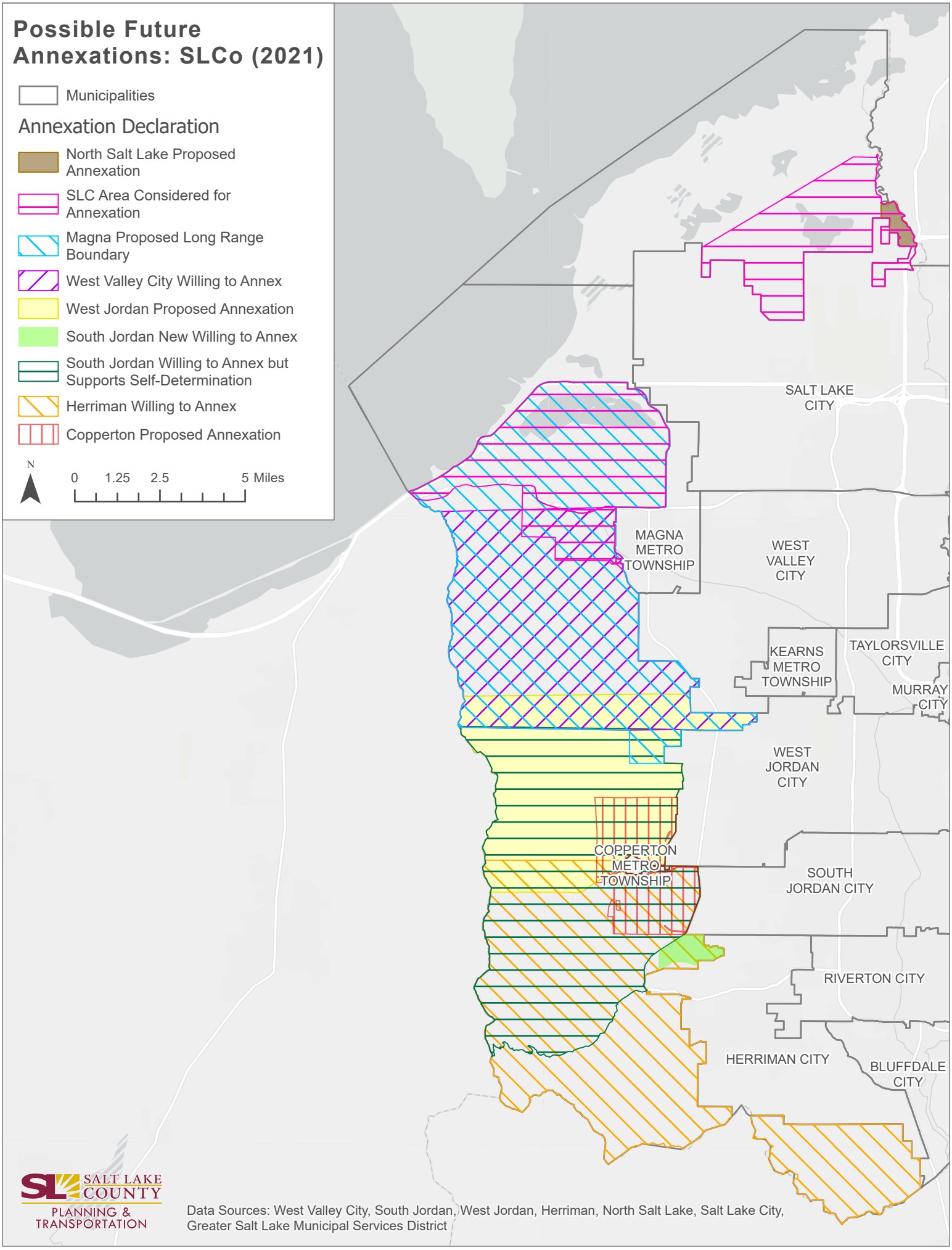
References

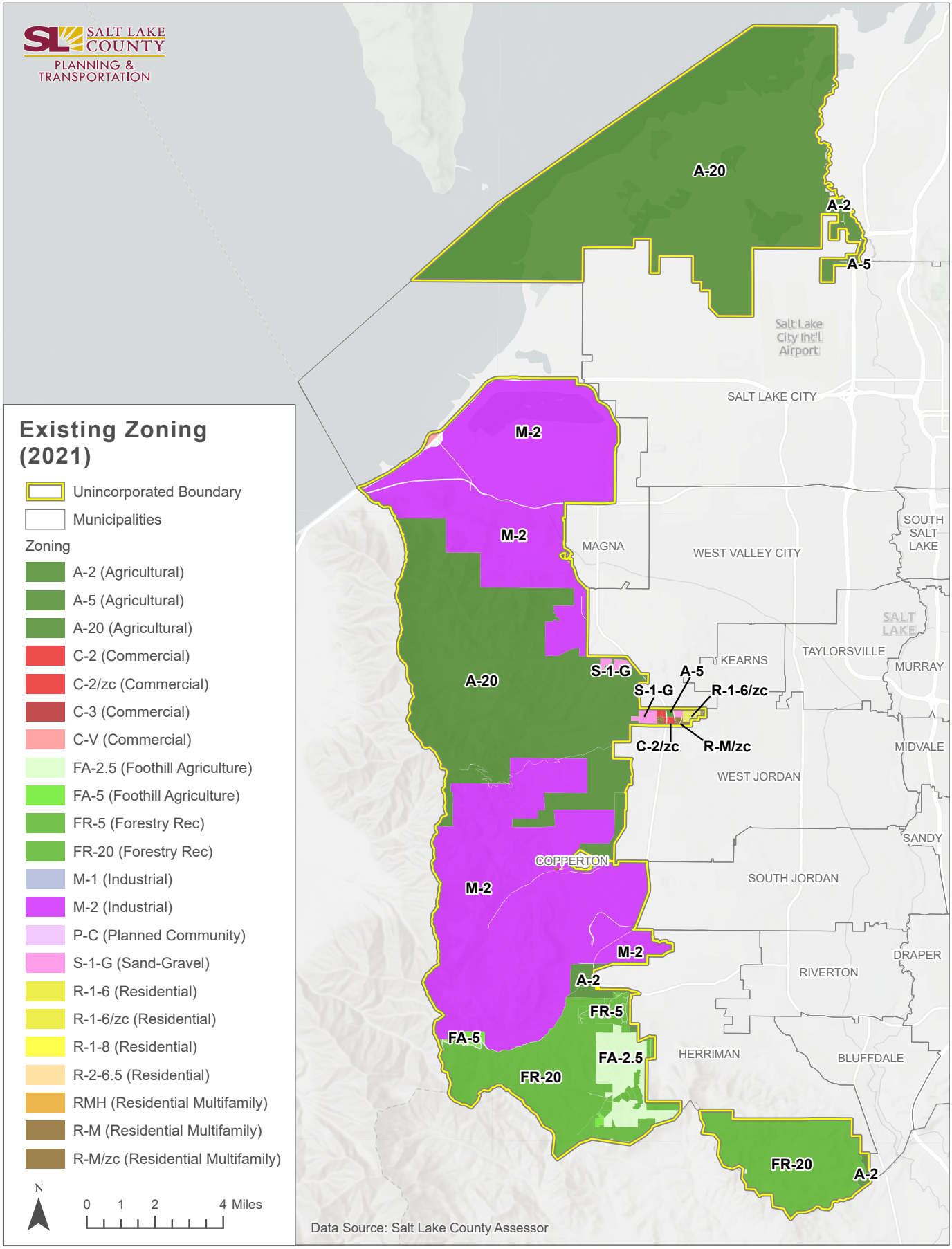
[1] Salt Lake County Office of Regional Development, “Oquirrh View Existing Conditions Report,” 2019, https://slco.org/globalassets/1-site-files/planning--transportation/files/oquirrh-view-existing-conditions-report-final-fall-2019_optimized_js.pdf.
[2] Salt Lake County Office of Regional Development, “Oquirrh View Report - Economy.”
[3] “Low Impact Development,” Utah Department of Environmental Quality, February 7, 2019, https://deq.utah.gov/water-quality/low-impact-development.
[4] “A Guide to Low Impact Development within Utah” (Utah Department of Environmental Quality Water Quality, August 2020), https://documents.deq.utah.gov/water-quality/stormwater/updes/DWQ-2019-000161.pdf.
[5] Salt Lake County Office of Regional Development, “Oquirrh View Existing Conditions Report.”
[6] Salt Lake County Office of Regional Development.
[7] Salt Lake County Office of Regional Development.
[8] “2006 Utah Wildland-Urban Interface Code” (International Code Council, July 2006), https://ffsl.utah.gov/wp-content/uploads/06_Utah_Wildland_5thdnd.pdf.
[9] Jennifer Hansen, “Utah’s New Wildfire Policy: Engaging Municipalities and Distributing Risk,” Fire Adapted Communities Learning Network, January 19, 2017, https://fireadaptednetwork.org/key-principles-behind-utahs-new-wildfire-policy-municipalities-risk-distribution/.
[10] Utah Wildfire Risk Assessment Portal Map (Utah: Utah DNR), accessed December 17, 2021, https://utahwildfirerisk.utah.gov/Map/Public/.
[11] Salt Lake County, “Salt Lake County Emergency Operations Plan,” 2018, https://slco.org/globalassets/1-site-files/planning--transportation/wasatch-canyons/slcountyemergopplan.pdf.
[12] “Salt Lake County Hazard Mitigation Plan” (Salt Lake County Emergency Managment, 2019), https://hazards.utah.gov/wp-content/uploads/Salt-Lake-County-Hazard-Mitigation-Plan-2021.pdf.

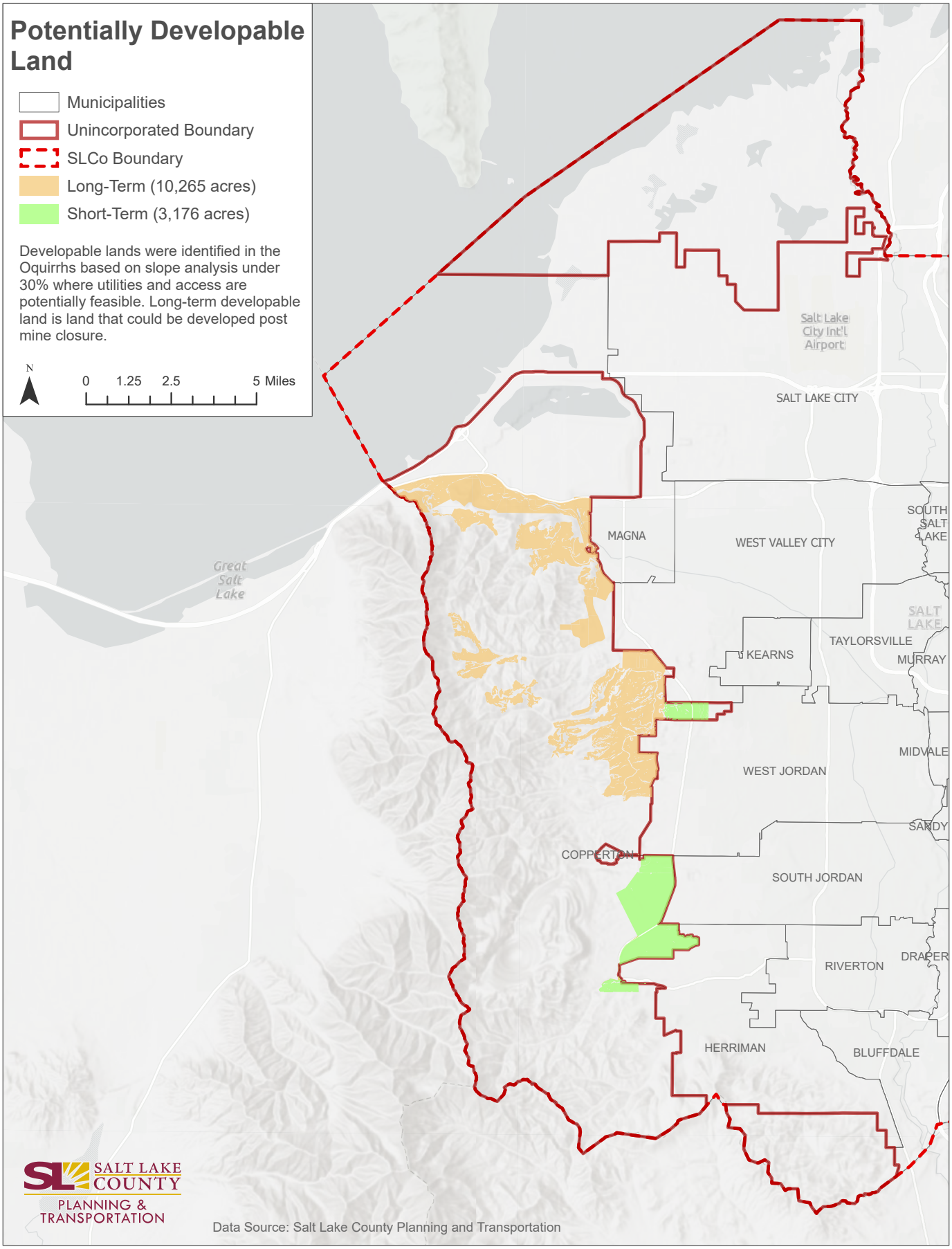
Appendices

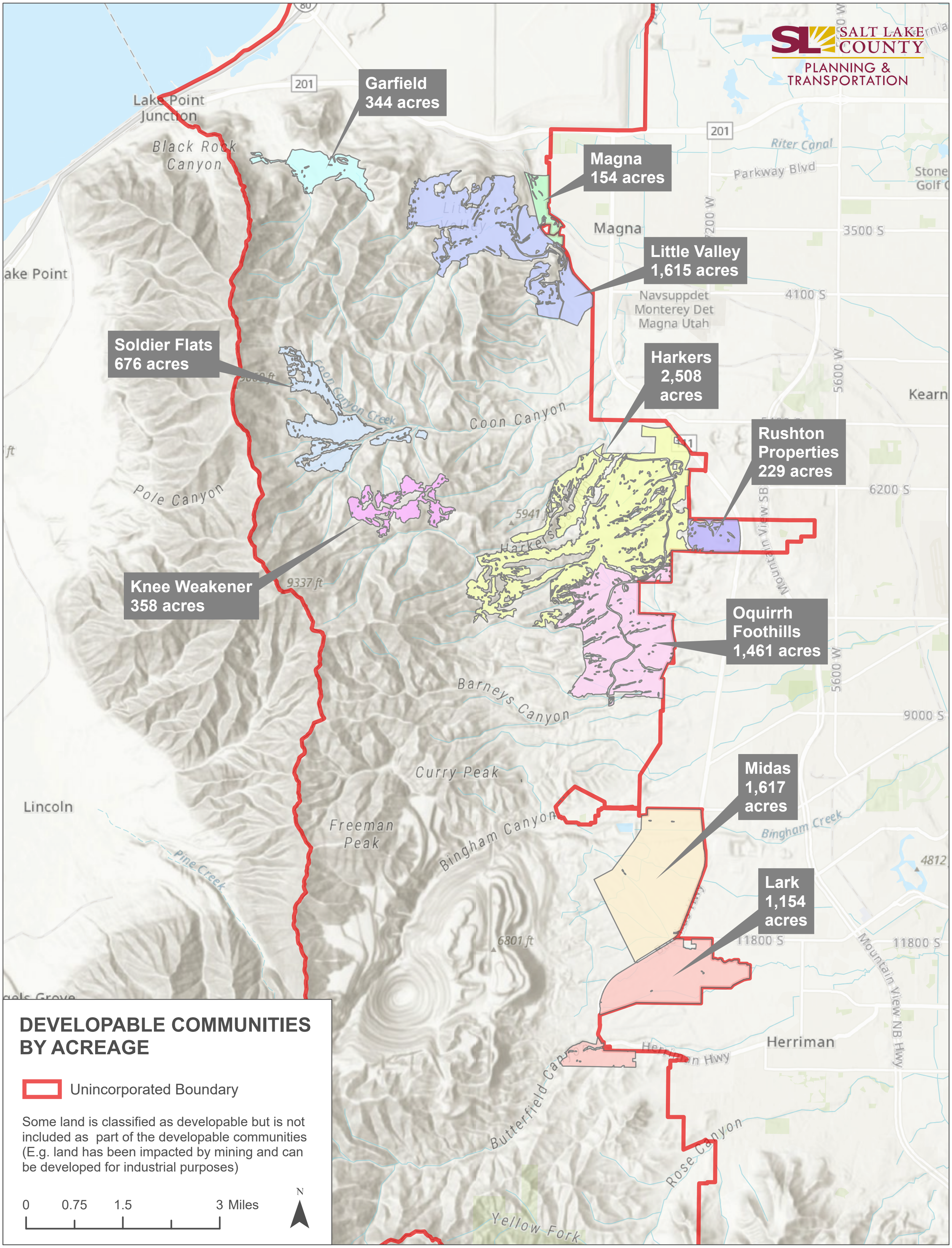
DRAFT 03.18.2022

SALT LAKE COUNTY

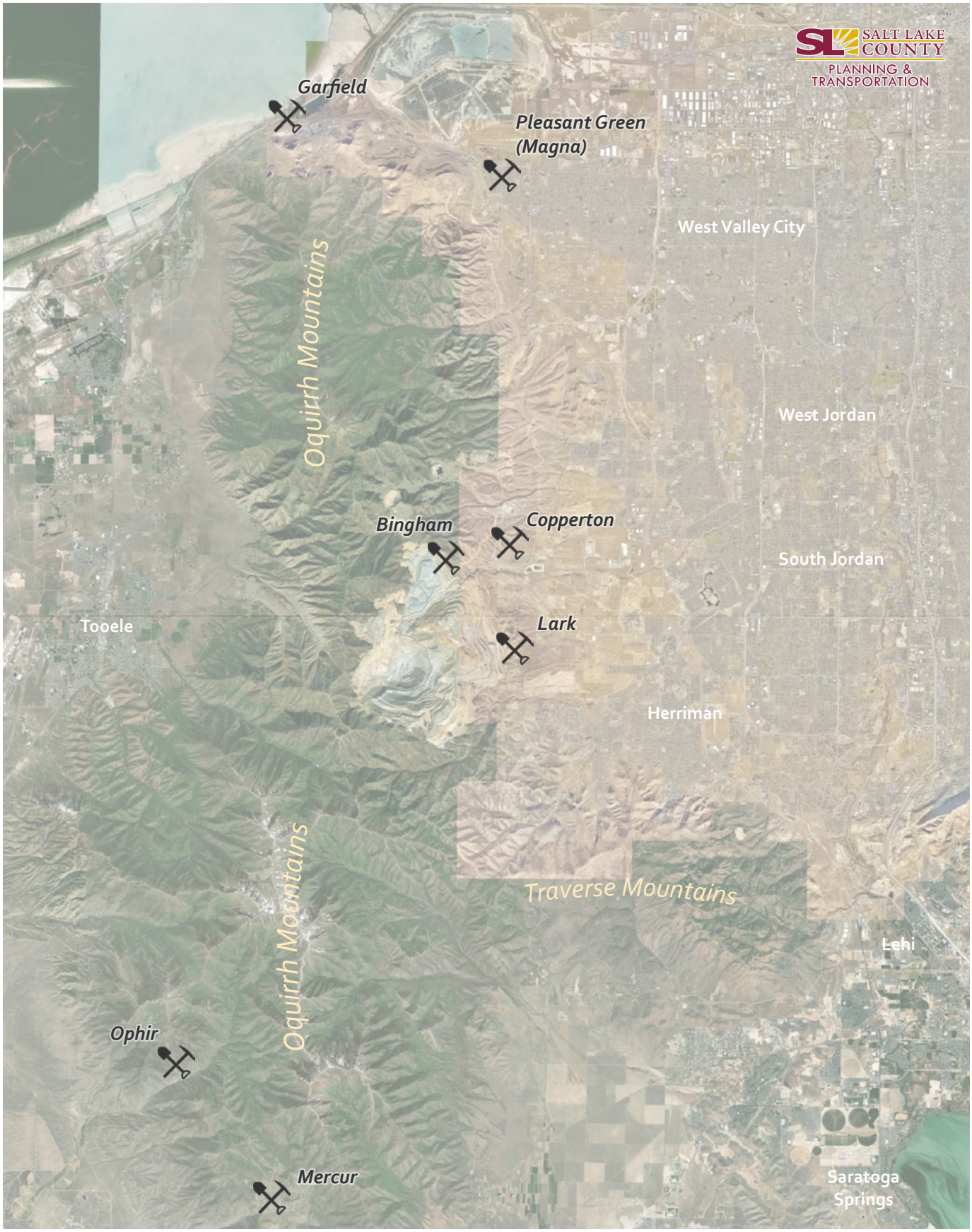

Possible Future Annexations: SLCo (2021)
Municipalities
Annexation Declaration
North Salt Lake Proposed Annexation
SLC Area Considered for Annexation
Magna Proposed Long Range Boundary
West Valley City Willing to Annex
West Jordan Proposed Annexation
South Jordan New Willing to Annex
South Jordan Willing to Annex but Supports Self-Determination
Herriman Willing to Annex
Copperton Proposed Annexation
N
0 1.25 2.5 5 Miles
SALT LAKE CITY
MAGNA METRO TOWNSHIP
WEST VALLEY CITY
KEARNS METRO TOWNSHIP
TAYLORSVILLE CITY
MURRAY CITY
WEST JORDAN CITY
COPPERTON METRO TOWNSHIP
SOUTH JORDAN CITY
RIVERTON CITY
HERRIMAN CITY
BLUFFDALE CITY
SALT LAKE COUNTY
PLANNING & TRANSPORTATION
Data Sources: West Valley City, South Jordan, West Jordan, Herriman, North Salt Lake, Salt Lake City, Greater Salt Lake Municipal Services District

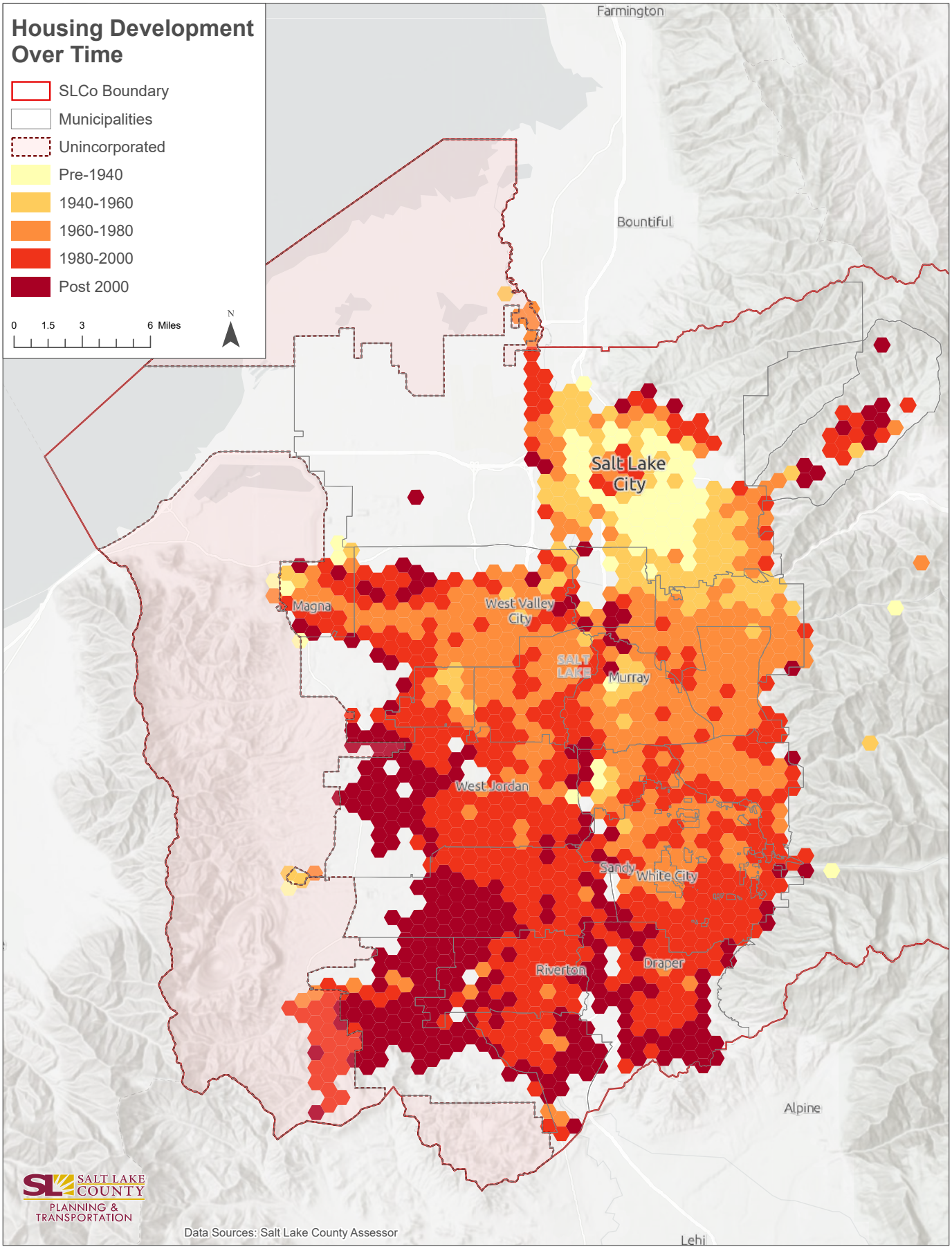

SALT LAKE COUNTY
PLANNING & TRANSPORTATION
Existing Zoning (2021)
Unincorporated Boundary
Municipalities
Zoning
A-2 (Agricultural)
A-5 (Agricultural)
A-20 (Agricultural)
C-2 (Commercial)
C-2/zc (Commercial)
C-3 (Commercial)
C-V (Commercial)
FA-2.5 (Foothill Agriculture)
FA-5 (Foothill Agriculture)
FR-5 (Forestry Rec)
FR-20 (Forestry Rec)
M-1 (Industrial)
M-2 (Industrial)
P-C (Planned Community)
S-1-G (Sand-Gravel)
R-1-6 (Residential)
R-1-6/zc (Residential)
R-1-8 (Residential)
R-2-6.5 (Residential)
RMH (Residential Multifamily)
R-M (Residential Multifamily)
R-M/zc (Residential Multifamily)
N
0 1 2 4 Miles
A-20
A-2
A-5
M-2
M-2
A-20
S-1-G
A-5
S-1-G
R-1-6/zc
C-2/zc
R-M/zc
M-2
M-2
A-2
FR-5
FA-5
FA-2.5
FR-20
FR-20
A-2
Salt Lake City Int'l Airport
SALT LAKE CITY
MAGNA
WEST VALLEY CITY
SOUTH SALT LAKE
SALT LAKE
KEARNS
TAYLORSVILLE
MURRAY
MIDVALE
WEST JORDAN
SANDY
COPPERTON
SOUTH JORDAN
DRAPER
RIVERTON
HERRIMAN
BLUFFDALE
Data Source: Salt Lake County Assessor

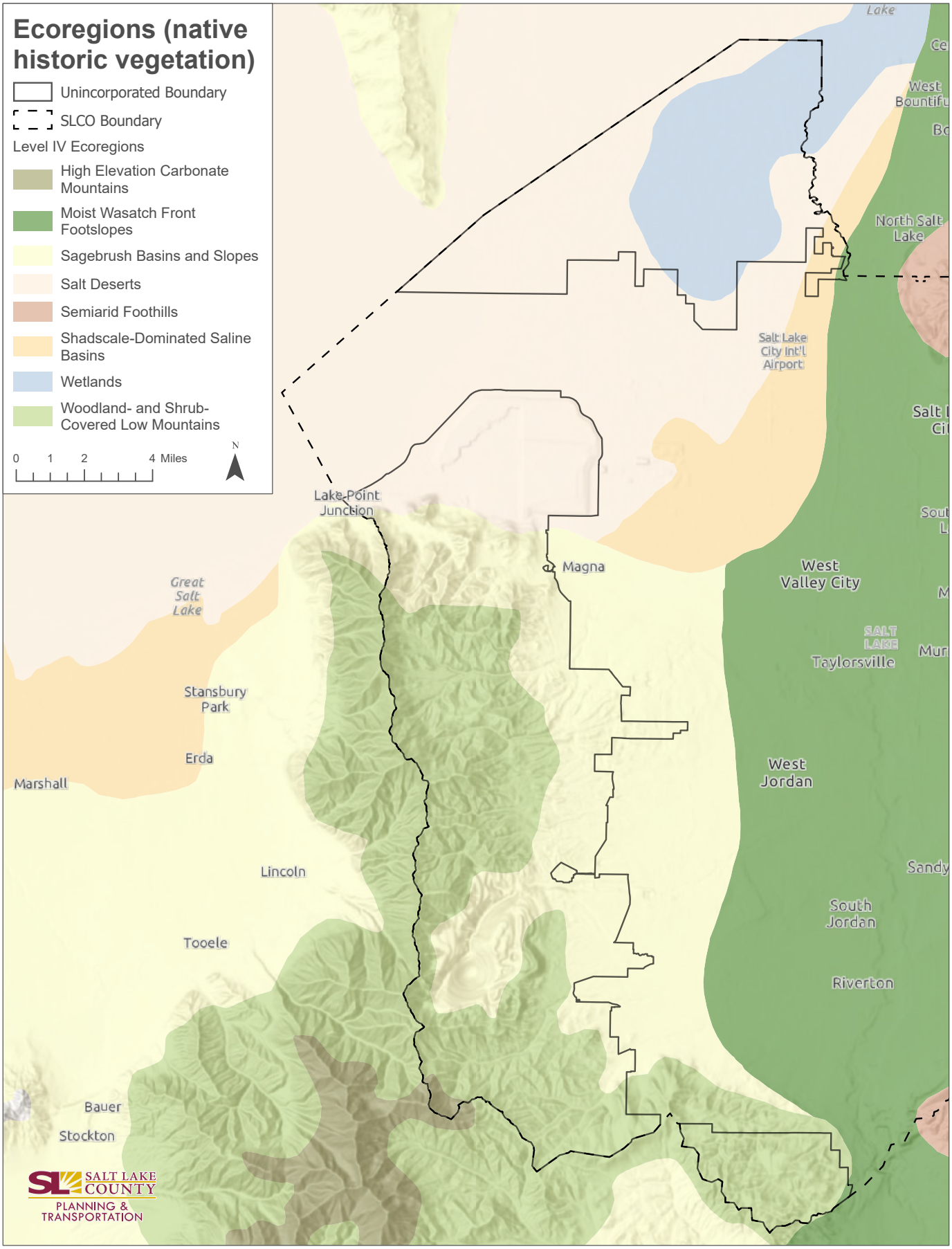

Potentially Developable Land
Municipalities
Unincorporated Boundary
SLCo Boundary
Long-Term (10,265 acres)
Short-Term (3,176 acres)
Developable lands were identified in the Oquirrhs based on slope analysis under 30% where utilities and access are potentially feasible. Long-term developable land is land that could be developed post mine closure.
N
0 1.25 2.5 5 Miles
Salt Lake City Int'l Airport
SALT LAKE CITY
MAGNA
WEST VALLEY CITY
SOUTH SALT LAKE
Great Salt Lake
SALT LAKE
TAYLORSVILLE
KEARNS
MURRAY
MIDVALE
WEST JORDAN
SANDY
COPPERTON
SOUTH JORDAN
RIVERTON
DRAPER
HERRIMAN
BLUFFDALE
SALT LAKE COUNTY
PLANNING & TRANSPORTATION
Data Source: Salt Lake County Planning and Transportation

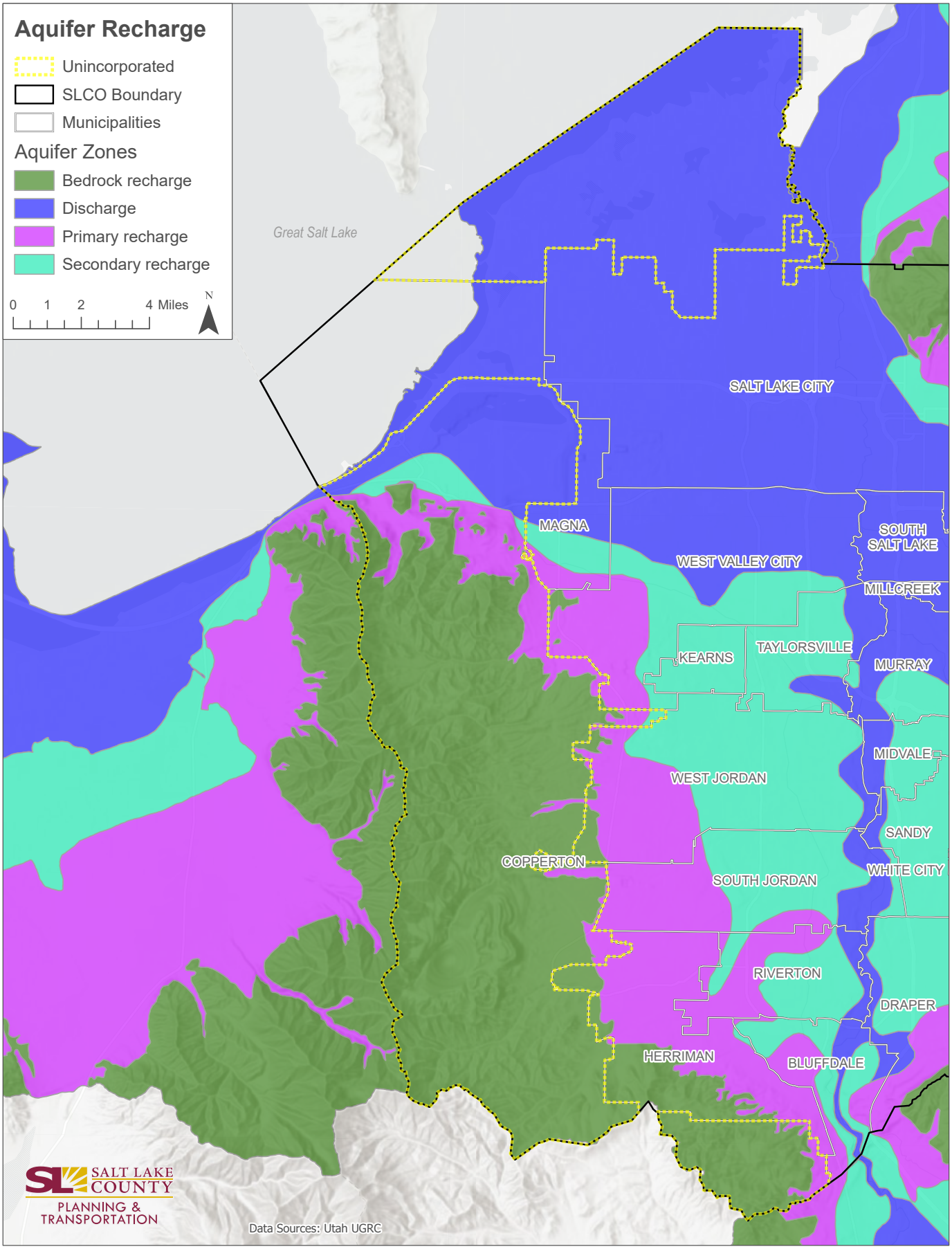

SALT LAKE COUNTY
PLANNING & TRANSPORTATION
Garfield
344 acres
Magna
154 acres
Little Valley
1,615 acres
Soldier Flats
676 acres
Harkers
2,508
acres
Rushton
Properties
229 acres
Knee Weakener
358 acres
Oquirrh
Foothills
1,461 acres
Midas
1,617
acres
Lark
1,154
acres
Lake Point
Junction
Black Rock
Canyon
Magna
Navsuppdet
Monterey Det
Magna Utah
Coon Canyon
Pole Canyon
Barneys Canyon
Curry Peak
Freeman
Peak
Bingham Canyon
Lincoln
Pine Creek
Butterfield Canyon
Rose Canyon
Yellow Fork
Herriman
Herriman Hwy
Parkway Blvd
Riter Canal
Bingham Creek
3500 S
4100 S
6200 S
9000 S
11800 S
5600 W
7200 W
Mountain View NB Hwy
Kearn
DEVELOPABLE COMMUNITIES
BY ACREAGE
Unincorporated Boundary
Some land is classified as developable but is not included as part of the developable communities (E.g. land has been impacted by mining and can be developed for industrial purposes)
0
0.75
1.5
3 Miles
N

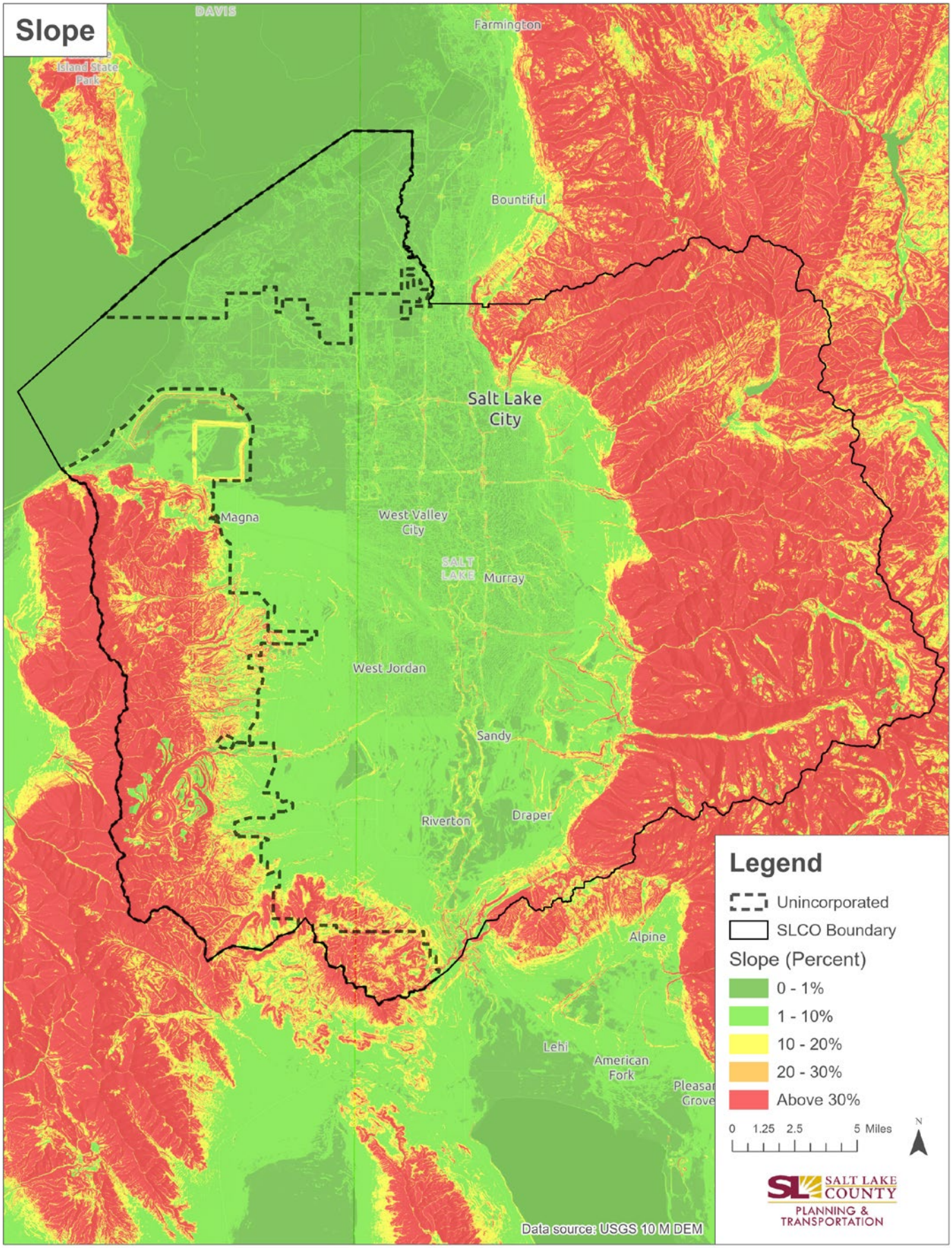
Historic Mining Towns Near the Oquirrh Mountains

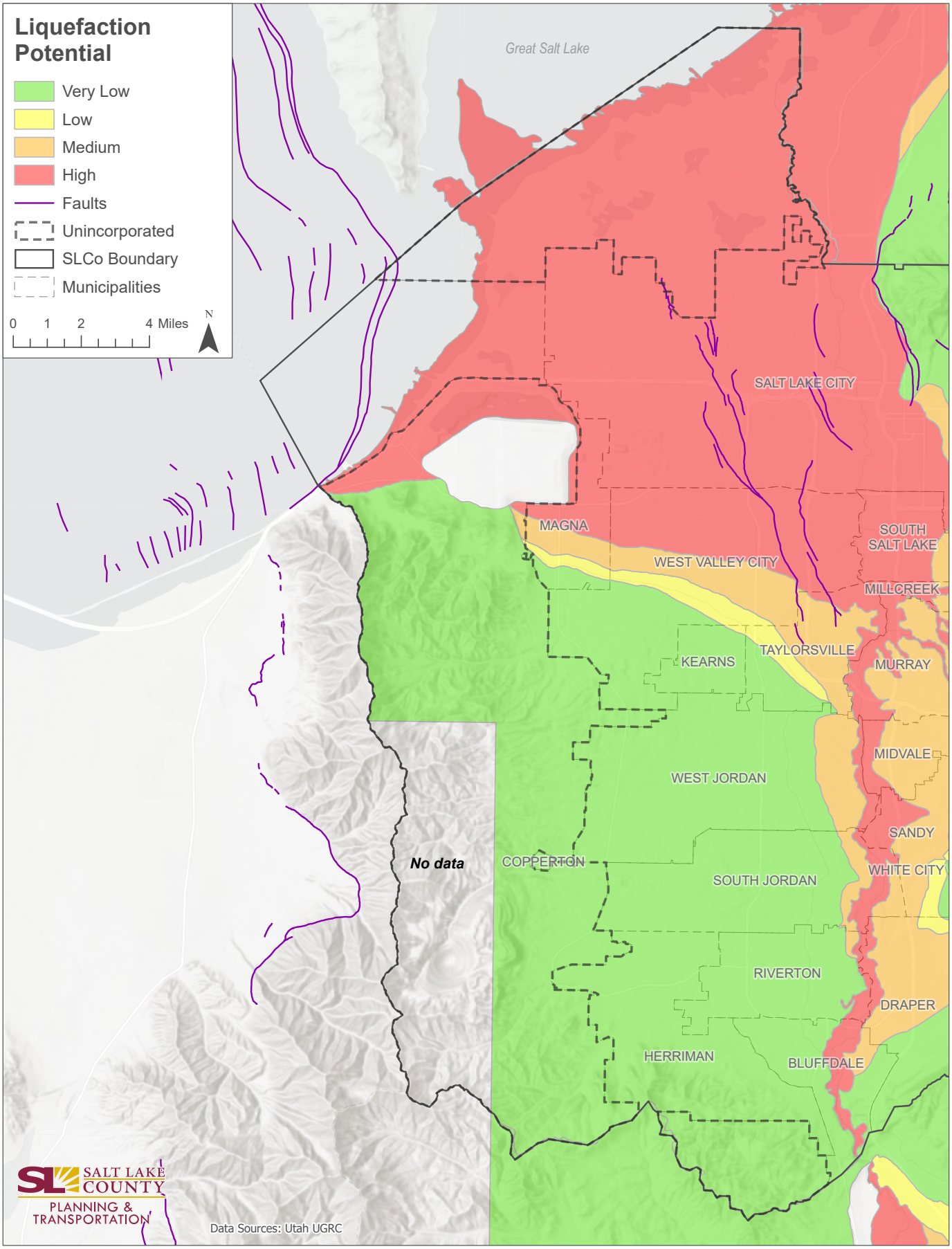


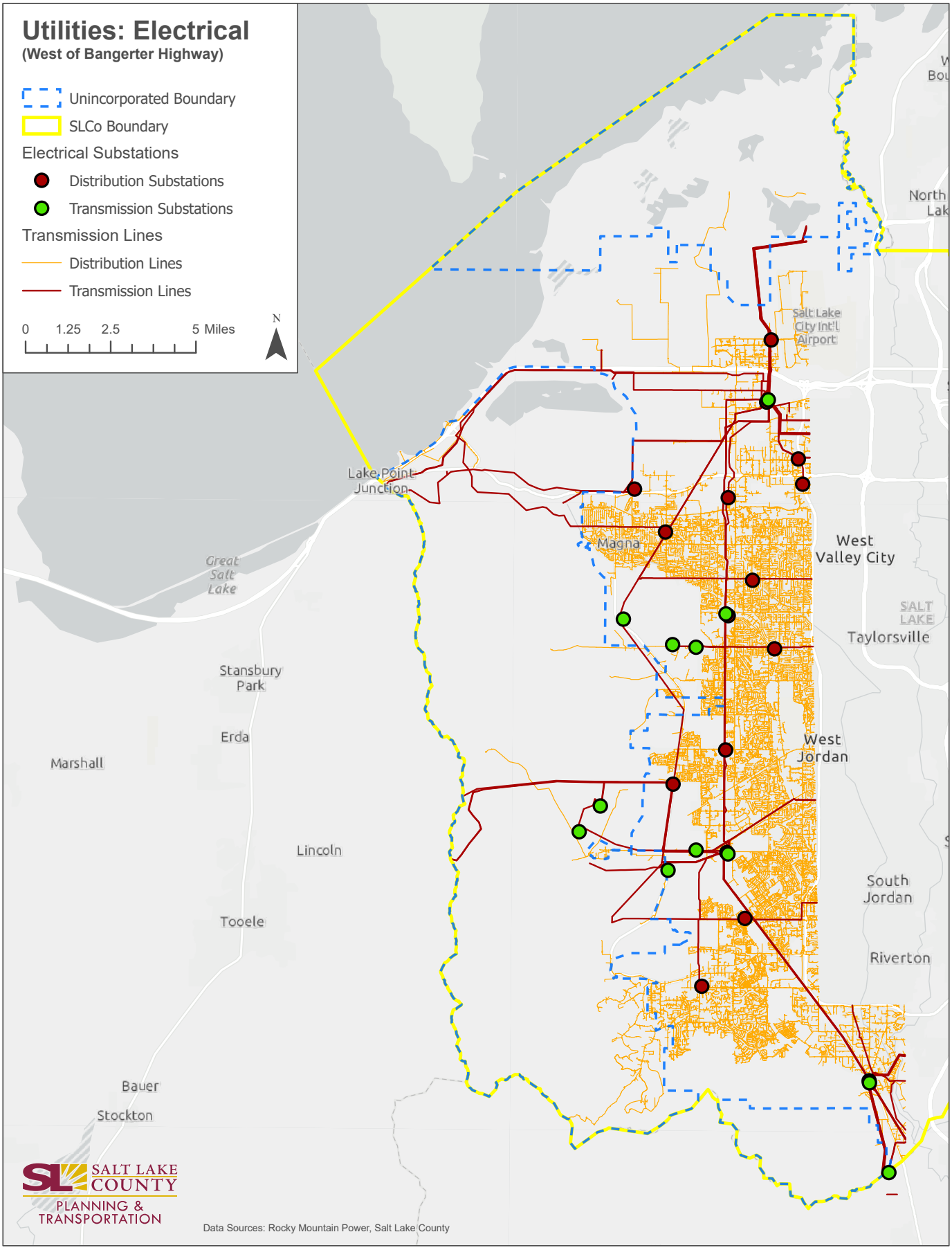

Housing Development Over Time
SLCo Boundary
Municipalities
Unincorporated
Pre-1940
1940-1960
1960-1980
1980-2000
Post 2000
0 1.5 3 6 Miles
N
Farmington
Bountiful
Salt Lake City
Magna
West Valley City
SALT LAKE
Murray
West Jordan
Sandy
White City
Riverton
Draper
Alpine
Lehi
SALT LAKE COUNTY
PLANNING & TRANSPORTATION
Data Sources: Salt Lake County Assessor

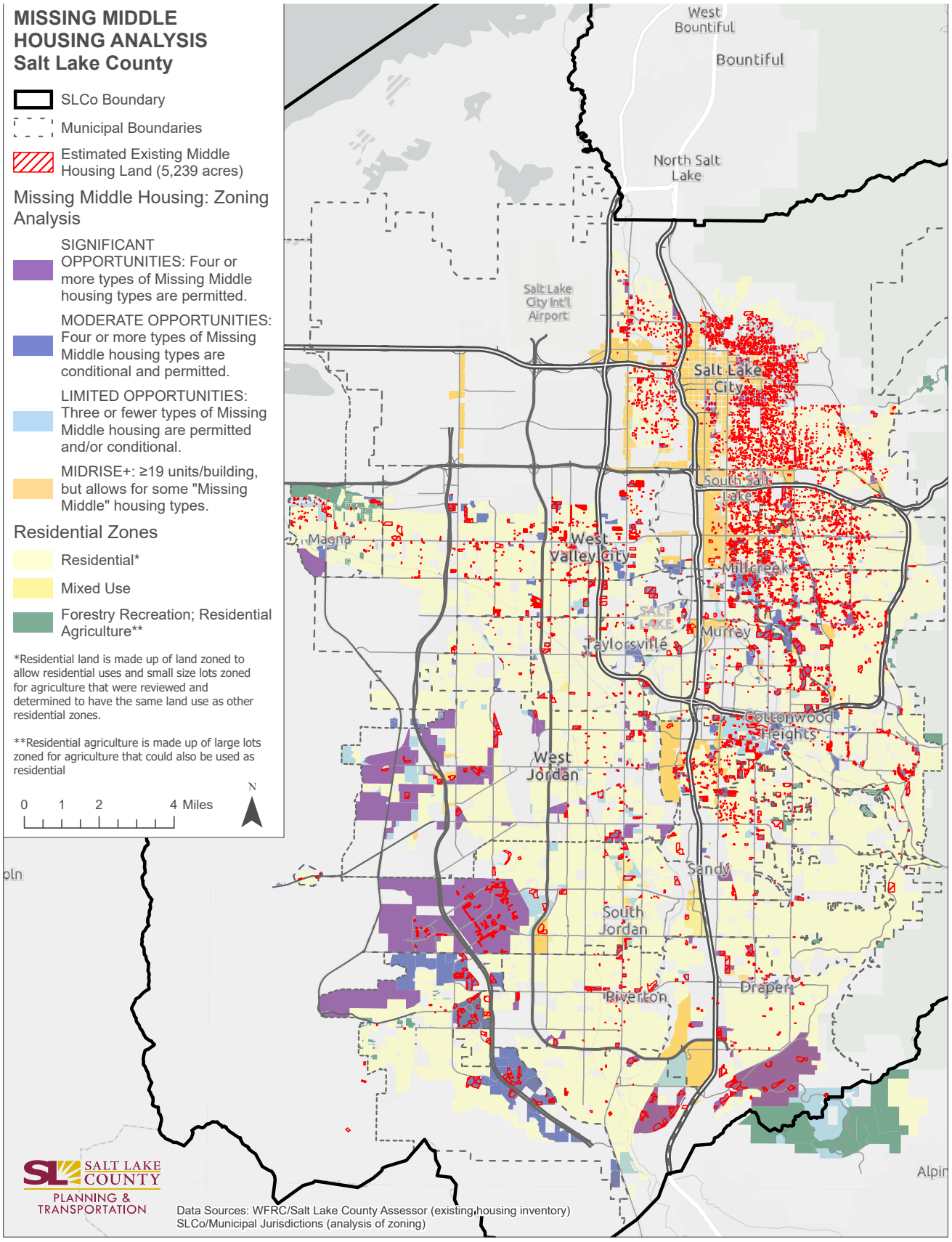

Ecoregions (native historic vegetation)
Unincorporated Boundary
SLCO Boundary
Level IV Ecoregions
High Elevation Carbonate Mountains
Moist Wasatch Front Footslopes
Sagebrush Basins and Slopes
Salt Deserts
Semiarid Foothills
Shadscale-Dominated Saline Basins
Wetlands
Woodland- and Shrub-Covered Low Mountains
0 1 2 4 Miles
N
Great Salt Lake
North Salt Lake
Salt Lake City Int'l Airport
Lake Point Junction
Magna
West Valley City
Taylorsville
Stansbury Park
Erda
Marshall
West Jordan
Lincoln
Sandy
South Jordan
Tooele
Riverton
Bauer
Stockton
SALT LAKE COUNTY
PLANNING & TRANSPORTATION


Aquifer Recharge
Unincorporated
SLCO Boundary
Municipalities
Aquifer Zones
Bedrock recharge
Discharge
Primary recharge
Secondary recharge
0 1 2 4 Miles
N
Great Salt Lake
SALT LAKE CITY
MAGNA
WEST VALLEY CITY
SOUTH SALT LAKE
MILLCREEK
TAYLORSVILLE
KEARNS
MURRAY
MIDVALE
WEST JORDAN
SANDY
COPPERTON
SOUTH JORDAN
WHITE CITY
RIVERTON
DRAPER
HERRIMAN
BLUFFDALE
SALT LAKE COUNTY
PLANNING & TRANSPORTATION
Data Sources: Utah UGRC


Slope
DAVIS
Farmington
Island State Park
Bountiful
Salt Lake City
Magna
West Valley City
SALT LAKE
Murray
West Jordan
Sandy
Riverton
Draper
Alpine
Lehi
American Fork
Pleasant Grove
Legend
Unincorporated
SLCO Boundary
Slope (Percent)
0 - 1%
1 - 10%
10 - 20%
20 - 30%
Above 30%
0 1.25 2.5 5 Miles
N
SALT LAKE COUNTY
PLANNING & TRANSPORTATION
Data source: USGS 10 M DEM


Liquefaction Potential
Very Low
Low
Medium
High
Faults
Unincorporated
SLCo Boundary
Municipalities
0 1 2 4 Miles
N
Great Salt Lake
SALT LAKE CITY
MAGNA
WEST VALLEY CITY
SOUTH SALT LAKE
MILLCREEK
TAYLORSVILLE
KEARNS
MURRAY
MIDVALE
WEST JORDAN
SANDY
No data
COPPERTON
SOUTH JORDAN
WHITE CITY
RIVERTON
DRAPER
HERRIMAN
BLUFFDALE
SALT LAKE COUNTY
PLANNING & TRANSPORTATION
Data Sources: Utah UGRC


Utilities: Electrical
(West of Bangerter Highway)
Unincorporated Boundary
SLCo Boundary
Electrical Substations
Distribution Substations
Transmission Substations
Transmission Lines
Distribution Lines
Transmission Lines
0 1.25 2.5 5 Miles
N
Lake Point Junction
Great Salt Lake
Magna
West Valley City
Salt Lake City Int'l Airport
SALT LAKE
Taylorsville
Stansbury Park
Erda
Marshall
West Jordan
Lincoln
South Jordan
Tooele
Riverton
Bauer
Stockton
SALT LAKE COUNTY
PLANNING & TRANSPORTATION
Data Sources: Rocky Mountain Power, Salt Lake County


MISSING MIDDLE HOUSING ANALYSIS
Salt Lake County
SLCo Boundary
Municipal Boundaries
Estimated Existing Middle Housing Land (5,239 acres)
Missing Middle Housing: Zoning Analysis
SIGNIFICANT OPPORTUNITIES: Four or more types of Missing Middle housing types are permitted.
MODERATE OPPORTUNITIES: Four or more types of Missing Middle housing types are conditional and permitted.
LIMITED OPPORTUNITIES: Three or fewer types of Missing Middle housing are permitted and/or conditional.
MIDRISE+: ≥19 units/building, but allows for some "Missing Middle" housing types.
Residential Zones
Residential*
Mixed Use
Forestry Recreation; Residential Agriculture**
*Residential land is made up of land zoned to allow residential uses and small size lots zoned for agriculture that were reviewed and determined to have the same land use as other residential zones.
**Residential agriculture is made up of large lots zoned for agriculture that could also be used as residential
0 1 2 4 Miles
N
West Bountiful
Bountiful
North Salt Lake
Salt Lake City Int'l Airport
Salt Lake City
South Salt Lake
Magna
West Valley City
Millcreek
Murray
Taylorsville
Cottonwood Heights
West Jordan
Sandy
South Jordan
Riverton
Draper
SALT LAKE COUNTY
PLANNING & TRANSPORTATION
Data Sources: WFRC/Salt Lake County Assessor (existing housing inventory)
SLCo/Municipal Jurisdictions (analysis of zoning)

Related Plans

The West General Plan covers an extensive land area and interacts with a wide variety of land uses on state, regional, and local levels. In researching and preparing the West General Plan, planning documents and principles across all scales were used to ensure consistency and encourage collaboration.

Regional Plans

- Federal and State Regional Plans
- Regional Growth Principles
- Utah Department of Transportation Plans
- Utah Transit Authority Plans
- WFRC Long Range Transportation Plan (2019-2050)
- Utah Unified Transportation Plan (2019-2050)
- WFRC Green Infrastructure Plan (2012)
- WFRC Transportation Improvement Program (TIP)
- Great Salt Lake Comprehensive Management Plan and Decision Document (2000)
- Wasatch Choice Vision Plan
- Wasatch Front Comprehensive Economic Development Strategy
- Utah State Water Resources Plan (2021)
- Great Salt Lake Resolution HCR-10 (2020)
- Utah DWR: Utah's Regional M&I Water Conservation Goals (Nov 2019)
- Great Salt Lake Wetland Habitats Needs Report (Nov 2020)
- Great Salt Lake Comprehensive Management Plan and Record of Decision (Utah DNR, 2013)
- Jordan River Comprehensive Management Plan

Salt Lake County

- Moderate Income Housing Plan (2019)
- Rose Canyon and Yellow Fork Canyon Master Plan (2011)
- Salt Lake County Parks and Recreation Facilities Master Plan (2015)
- Natural Areas Land Management Plan
- East West Recreational Trails Master Plan
- Right of Way Preservation Plan
- Storm Drainage Master Plan
- Water Quality Stewardship Plan
- Jordan Valley Water Conservancy District Water Conservation Plan
- Salt Lake County Resource Management Plan (2017)
- Salt Lake County Integrated Watershed Plan (2015; revised 2017)
- Oquirrh View Research and Planning
- Wasatch Canyons
- Salt Lake County Active Transportation Implementation Plan
- Transportation Master Plan
- Southwest Community General Plan (1996) – SLCo Public Works Dept.

Related General Plans

- Bluffdale City General Plan (2014)
- Copperton General Plan (2020)
- Herriman City General Plan (2021 draft)
- Magna General Plan (2021)
- Salt Lake City General Plan (2015)
- South Jordan General Plan (2020)
- West Jordan General Plan (2012)
- West Valley City General Plan (2015)

Related General

- Tooele County General Plan (2016)
- Davis County Shorelands Land Use Master Plan (2001)

Historical Timeline

Pre 1800's	Indigenous peoples such as the Goshutes called the West Bench home.
1847	Mormon Pioneers arrived in the Salt Lake Valley.
1848	Bingham Canyon settled by pioeers and used for ranching & timber.
1849	Town of Butterfield (currently Herriman) established by Thomas Jefferson Butterfield.
1851	Modern settlement of Magna area began.
1859	First settlements in what is now West Jordan and South Jordan.
1863	Gold was discovered in Bingham Canyon and brought a rush of prospectors.
1866	Town of Lark established to support mining and timber efforts.
1868	Pleasant Green (Magna) established.
1870	Two resorts constructed on the south shore of the Great Salt Lake.
1883	Establishment of the Pleasant Green Cemetery.
1893	Saltair resort built by the LDS church.
1894	Utah Territorial Legislature established the Utah National Guard.
1898	New State Gun Club incorporated and acquired 1,200 acres of land.
1903	Incorporation of the Utah Copper Company.
1905	Utah Copper Co. purchased land known as Garfield (west of Magna).
1905	Spring duck shooting ended by the state legislature.
1906	Steam shovels began working in Bingham Canyon.
1907	State implements duck limits.
1912	Establishment of the Great Salt Lake Audubon Society.
1914	18,700 acres designated for use of the Utah National Guard.
1915	Incorporation of Kennecott Copper.
1915	Pleasant Green changes its name to Magna.
1925 - 1926	Saltair Fire and rebuilding, but faces declining popularity and receding lake levels.
1926	Annual summer training began on National Guard land.
1928	Camp W.G. Williams officially established.
1935	Incorporation of South Jordan.
1936	Kennecott Copper Corporation purchased 100% of Utah Copper Co.
WWII (1939-1945)	Saltair closes.
1941	Incorporation of West Jordan.
1944	Kennecott Copper began installing coal-fired power plants.
1945	Saltair reopens.
1955-1957	Kennecott dissolved the town of Garfield.
1958	Saltair closes permanently.
1970	Abandoned Saltair destroyed by arson.
1972	Hi-Country Estates HOA incorporated.
1973-1979	Population of West Jordan increased by 500%.
1977-1978	Kennecott Copper dissolves town of Lark.
1978	Incorporation of Bluffdale.
1980	Incorporation of West Valley City.
1981	Standard Oil Company of Ohio (Sohio)/British Petroleum took over Kennecott Corporation.
1982	New Saltair constructed one mile west of the former Saltair Resort.
1983	Wet cycle raises the Great Salt Lake by 12 ft.
1984	Salt Lake County purchased Yellow Fork Canyon.
1984- late 80s	High lake levels from 1983 keeps Saltair flooded, causing $250 million in damage.
1989	British Petroleum sold the Kennecott mine to Rio Tinto Zinc Corporation.
1989	Butterfield Canyon Road Paved.
1993	Saltair reopens as a concert and festival venue.
1996	Kennecott's Inland Sea Shorebird Reserve (ISSR) created.
1999	Incorporation of Herriman.
2004	Creation of Daybreak Community.
2007	Salt Lake County purchases Rose Canyon.
2010	Machine Gun Fire burns 4,351 acres and three homes.
2012	Wildfire in Rose Canyon (Rosecrest Fire) burns 670 acres and six homes.
2013	Manefay slide in Bingham Mine.
2016	Kennecott retires three coal-fired power plants and converted the fourth to natural gas.
2016	Alternative View Project.
2017	Magna operates as a Metro Township.
2019	Kennecott retired its last coal-fired power plant.
2020	Approval of Olympia Hills Rezone.
2021	Petition to incorporate Olympia Hills in to Herriman.
2021	Kennecott donates water rights to Audubon.

Invasive Weed List

Invasive weed	Location Found				
Common Name (Botanical name)	Shoreline area	North Oquirrh	Southern/Butterfield	Traverse mountains	Impact & Management Information
Common reed (*Phragmites australis ssp.*)	x	x	x	x	Non -native phragmites populations form large, dense stands along the Great Salt Lake shoreline and the Jordan River Riparian corridor. Phragmites out compete native plants, reducing migratory bird habitat and altering the entire wetland and riparian ecosystem(s). Management techniques including specifically timed mowing and herbicide applications
Dalmatian toadflax (*Linaria dalmatica*)		x	x	x	Dalmatian toadflax is an escaped ornamental plant species that outcompetes native plants and can form large monocultures. Best Management Practices (BMP's) include biological control, manual control and herbicide applications.
Hoary Cress *(Cardaria spp.*)	x	x	x	x	Hoary cress is a highly adaptable invasive plant that invades both agricultural and natural areas, outcompeting native plant species. It's ability to spread rapidly by both seed and rhizomes, and it's toxic and allelopathic properties, make it an aggressive weed difficult to manage and a significant threat to both human and animals. Management techniques include specifically times herbicide applications for multiple years.
Medusahead (*Taeniatherum caput-medusae*)		x		x	Medusahead is an invasive grass species which reduces plant biodiversity, increases wildland fire intensity and frequency, and decreases wildlife habitat and livestock forage. Controlling medusahead includes a combination of control methods including herbicide applications and the establishment of a desirable, competitive plant community.
Musk Thistle (*Carduus nutans*)	x	x	x	x	Musk thistle is unpalatable to wildlife and livestock, invades natural areas, and outcompetes native plant species. BMP's include manual and herbicide applications.
Myrtle spurge *(Euphorbia myrsinites*)		x	x	x	Myrtle spurge is an escaped ornamental plant that poses a threat to both public health and the environment, due to it's caustic sap and its ability to outcompete native plants. BMP's include manual removal and herbicide applications.
Poison hemlock (*Conium maculatum*)	x		x		Poison hemlock is a toxic invasive species which outcompetes native plants in wetland and riparian habitats. Management techniques include manual removal and herbicide applications.
Puncturevine (*Tribulus terrestris*)		x	x	x	Puncturevine, also called goatheads, is a toxic invasive plant which can cause injury to both humans and animals because of its' sharp seed casing. Primarily an impact to recreationists, puncturevine can grow in a wide range of conditions where plant competition is limited. Management techniques include manual removal and herbicide applications, combined with the establishment of a desirable, competitive plant community.
Russian knapweed (*Acroptilon repens*)	x				Russian knapweed is a toxic invasive plant which forms large monocultures along the Great Salt lake shoreline, and is a threat to agriculture, primarily horses. Management techniques include herbicide applications.
Russian olive(*Elaeagnus angustifolia*)	x	x	x	x	Russian olive is an invasive tree that impacts riparian and agricultural communities, by displacing native vegetation. Growing in dense thickets, it can alter natural flooding regime, and it's sharp thorns make management difficult. BMP's include mechanical and chemical control.
Saltcedar (*Tamarix ramosissima*)	x		x		Saltcedar is an invasive shrub that increases fire frequency, changes soil salinity, and outcompetes native vegetation along riparian corridors displacing wildlife. Management techniques include the use of biological, mechanical, and chemical control.
Scotch Thistle (*Onopordum acanthium*)	x	x	x	x	Scotch thistle forms large, dense populations that can crowd out native plants. Management tecniuqes include manual removal and herbicide applications.
Spotted knapweed (*Centaurea stoebe*)		x	x	x	Spotted knapweed is an aggressive invader that displaces rangeland and forest plants by releasing chemicals that inhibit root growth. Management techniques include the use of biological and chemical control.

Unincorporated Demographics (2019)

West SLCo General Plan Area Demographics

KEY FACTS

4,487
Population

26.8
Median Age

3.5
Average Household Size

$90,641
Median Household Income

MEDIAN AGE

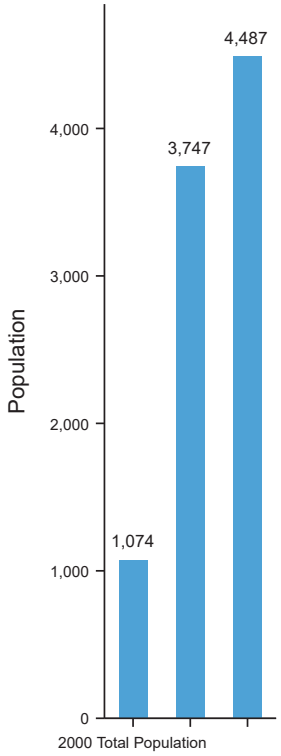
25.9
2010 Median Age (U.S. Census)

26.8
2019 Median Age (Esri)

2019 DAYTIME POPULATION

3,533
Workers/Residents Only

POPULATION TRENDS

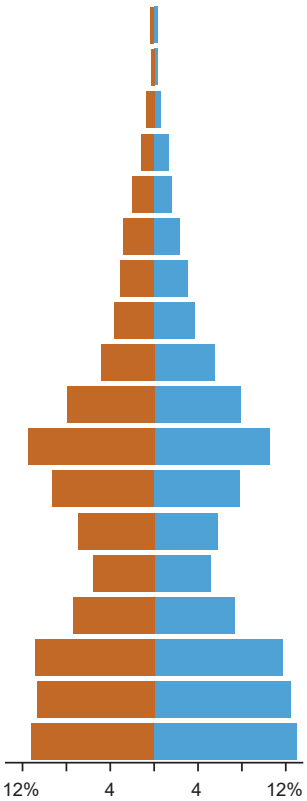


2010 AGE PYRAMID

The largest group:
2010 Males Age 0-4

The smallest group:
2010 Males Age 80-84

2019 AGE PYRIMID



The largest group:
2020 Males Age 0-4

The smallest group:
2020 Males Age 85+

Unincorporated Demographics (2019)

Race and Ethnicity

The largest group: White Alone (80.25)

The smallest group: American Indian/Alaska Native Alone (0.65)

Indicator	Value	Difference
White Alone	80.25	-8.12
Black Alone	1.09	-0.20
American Indian/Alaska Native Alone	0.65	+0.07
Asian Alone	3.59	+1.61
Pacific Islander Alone	1.45	+0.71
Other Race	8.74	+4.94
Two or More Races	4.23	+0.99
Hispanic Origin (Any Race)	19.17	+9.35

Bars show deviation from Davis County

EDUCATION

6% No High School Diploma

28% High School Graduate

37% Some College

29% Bachelor's/Grad/ Prof Degree

AVERAGE HOUSEHOLD SIZE (2010-2019)

3.49 2010 Average Household Size (U.S. Census)

3.38 2019 Average Household Size (Esri)

EMPLOYMENT

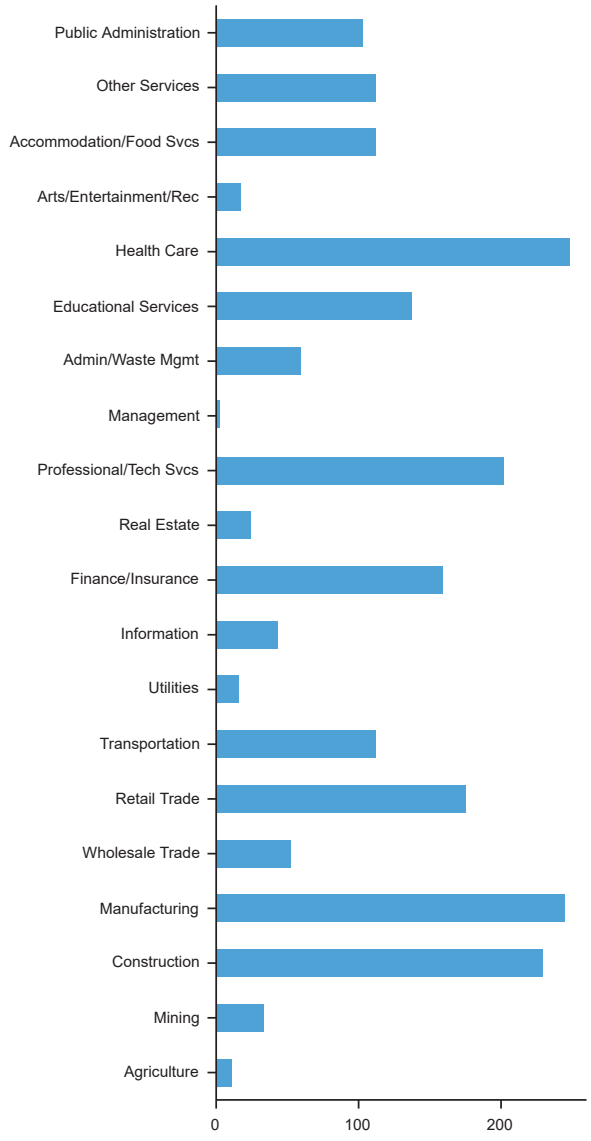
69% White Collar

23% Blue Collar

8% Services

6.7% Unemployment Rate

2019 LABOR FORCE BY INDUSTRY (Esri)



Unincorporated Demographics (2019)

INCOME

90,641

2019 Median Household Income (Esri)

26,037

2019 Per Capita Income (Esri)

MEDIAN HOME VALUE

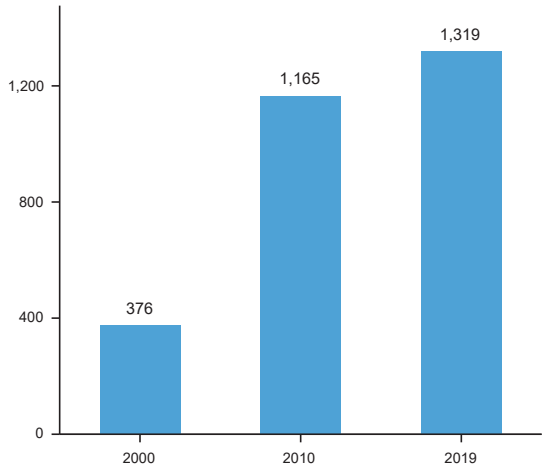
331,224

2019 Median Home Value (Esri)

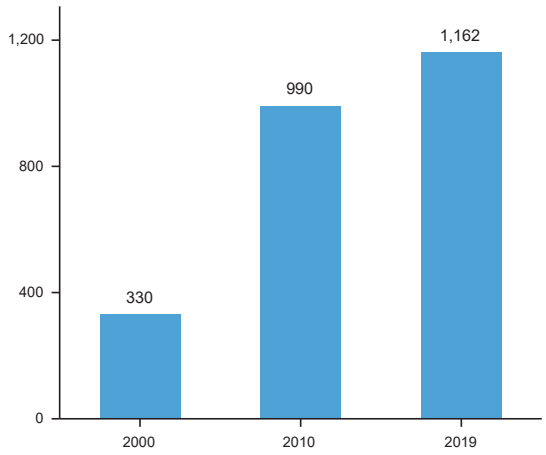
HOUSING UNIT SUMMARY (2000-2019)

1,319	1,162	123
2019 Total Housing	2019 Owner Occupied	2019 Renter Occupied
1,165	990	118
2010 Total Housing	2010 Owner-occupied	2010 Renter-occupied
376	330	26
2000 Total Housing	2000 Owner Occupied	2000 Renter Occupied

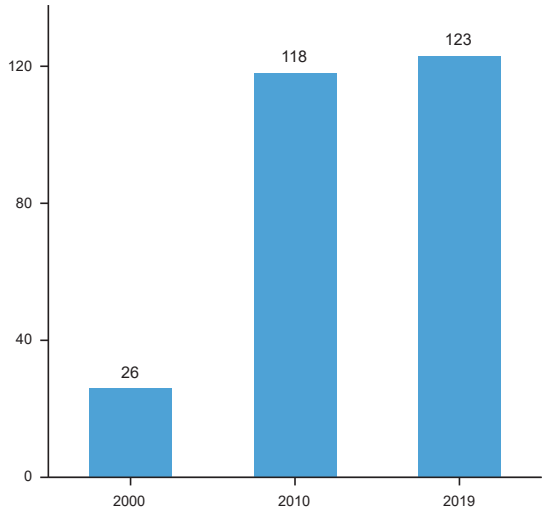
HOUSING UNIT TRENDS (2000-2019)



OWNER OCCUPIED HOUSEHOLD TRENDS (2000-



RENTER OCCUPIED HOUSEHOLD TRENDS (2000



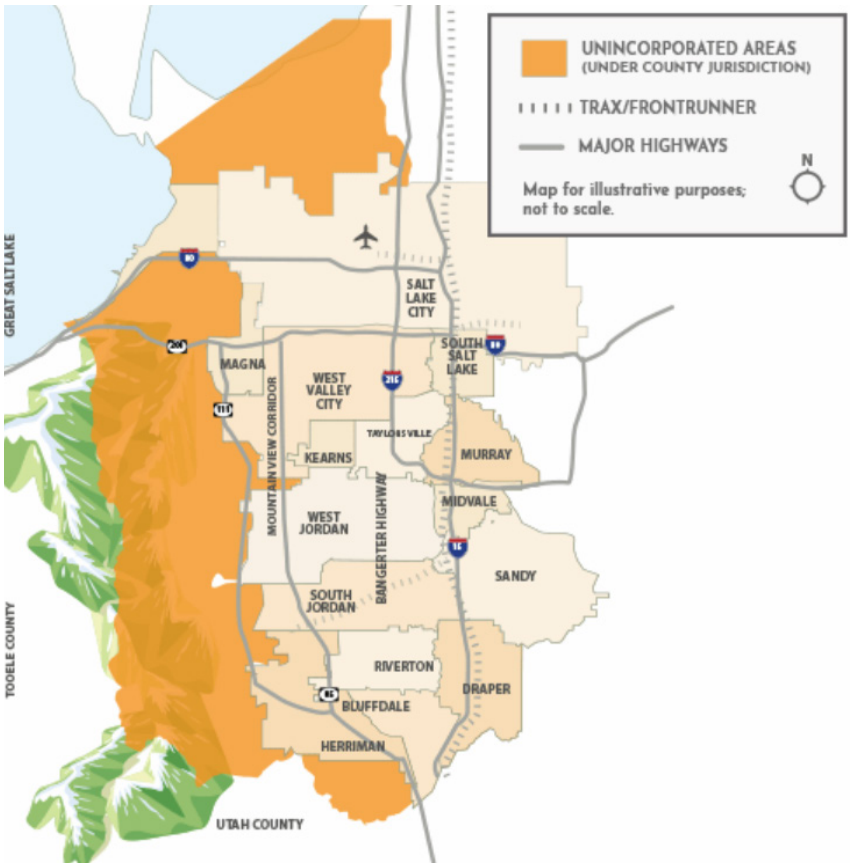
Planning for the West Bench Oquirrh View Opinion Survey #1 Summary

1/10/2020

SALT LAKE COUNTY
PLANNING & TRANSPORTATION

Oquirrh View Survey #1 Summary

Salt Lake County (SLCo) is Growing. How we plan for it matters and public input is critical.



More than 1.2 million people call the Salt Lake Valley home. By 2065, Salt Lake County will add 600,000 more residents, many of whom will settle along the West Bench. Salt Lake County is preparing the General Plan for the unincorporated West Bench (areas outside city boundaries) as required by State law.

In an effort to facilitate public input, SLCo provided and online survey to residents of the County. The survey participants were asked a series of ten questions regarding developmental priorities. 2,524 residents responded to the survey. This document is a summary of the survey responses.

Oquirrh View Survey #1 Summary

Question 1

As the west bench develops over time, how concerned are you about the following issues?

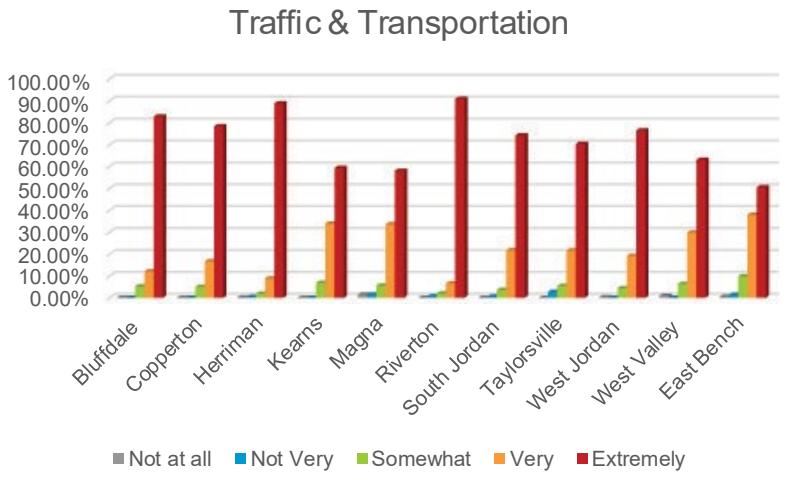
Survey recipients were asked to rate their level of concern for a variety of topics related to growth and development along the West Bench in Salt Lake County.

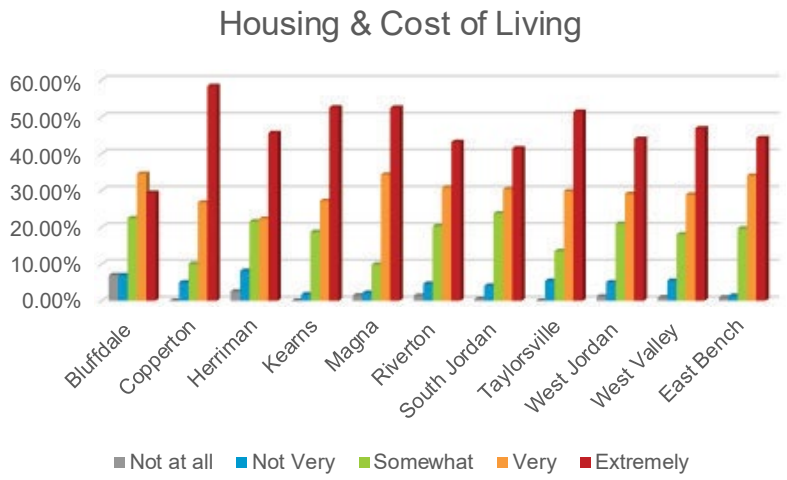
The level of concern was based on a scale from one to five. One being “not at all concerned” followed by, “not very concerned”, “somewhat concerned”, “very concerned”, and “extremely concerned”.

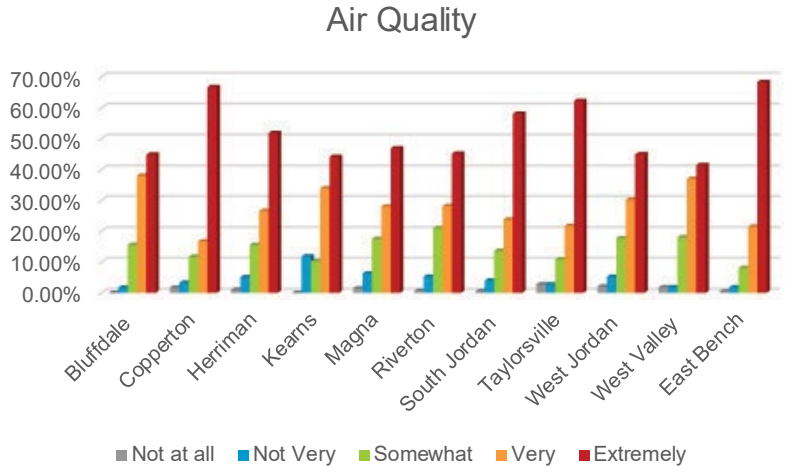
The topics were: jobs & the economy, water, air quality, education, energy, parks & trails, housing & cost of living, disaster resilience, traffic & transportation, quality communities, and natural recreation areas (11 Total).

The top three topics on average were air quality, housing & cost of living, and traffic & transportation (see graphs).

Each of the graphs exemplify a topic and participant selection percentage by city/township.







Oquirrh View Survey #1 Summary

Question 2

Over the next 10 years, what do you think are the TOP three issues facing the Salt Lake Valley?

Options:
Jobs & the Economy, Water, Air Quality, Education, Energy, Parks & Trails, Housing & Cost of Living, Disaster Resilience, Traffic &Transportation, Quality Communities, Natural Recreation Areas (11 Total)

Survey Response by City/Metro Township

Bluffdale		
Traffic & Transportation	Air Quality	Housing & Cost of Living

Copperton		
Traffic & Transportation	Housing & Cost of Living	Water

Herriman		
Traffic & Transportation	Air Quality	Housing & Cost of Living

Kearns		
Traffic & Transportation	Housing & Cost of Living	Air Quality

Magna		
Housing & Cost of Living	Traffic & Transportation	Air Quality

Riverton		
Traffic & Transportation	Housing & Cost of Living	Air Quality

South Jordan		
Traffic & Transportation	Housing & Cost of Living	Air Quality

Taylorsville		
Air Quality	Housing & Cost of Living	Traffic & Transportation

West Jordan		
Traffic & Transportation	Housing & Cost of Living	Air Quality

West Valley		
Traffic & Transportation	Housing & Cost of Living	Air Quality

East Bench		
Air Quality	Housing & Cost of Living	Traffic & Transportation

Total Survey		
Traffic & Transportation	Housing & Cost of Living	Air Quality

*Highest ranking left to right

Top Four Responses

Traffic & Transportation	Housing & Cost of Living	Air Quality	Water




Oquirrh View Survey #1 Summary

Question 3

Thinking about future development along the valley's West Bench, how important are each of the following to you?

	Bluffdale	Copperton	Herriman	Kearns	Magna	Riverton
Participating Population	58	60	961	59	143	153
Development patterns that are suburban in nature (single family lots) and separated from commercial business						
Not at all	2%	5%	1%	5%	5%	1%
Not Very	10%	2%	4%	12%	6%	5%
Somewhat	22%	22%	10%	29%	13%	20%
Very	29%	38%	27%	37%	42%	28%
Extremely	36%	33%	58%	17%	35%	46%
Development that incorporates a mix or variety of residential, retail, commercial, and recreation areas together						
Not at all	7%	7%	10%	0%	9%	6%
Not Very	19%	10%	17%	17%	12%	19%
Somewhat	28%	43%	29%	37%	36%	39%
Very	36%	22%	27%	29%	27%	22%
Extremely	10%	18%	16%	17%	15%	14%
Access to transportation options other than a personal vehicle for travel (bus, light rail, bike lanes, etc.)						
Not at all	3%	3%	6%	0%	6%	7%
Not Very	12%	2%	12%	2%	12%	10%
Somewhat	29%	23%	24%	34%	33%	27%
Very	28%	35%	29%	27%	29%	31%
Extremely	28%	37%	29%	37%	20%	24%
Jobs within 15 minutes or less from your place of residence						
Not at all	7%	8%	9%	0%	8%	9%
Not Very	19%	12%	24%	12%	14%	18%
Somewhat	33%	47%	35%	44%	38%	44%
Very	38%	22%	20%	25%	30%	18%
Extremely	3%	12%	12%	19%	10%	11%
Neighborhoods that appeal to a variety of household sizes, ages, and incomes						
Not at all	16%	7%	10%	2%	4%	7%
Not Very	17%	5%	19%	8%	12%	14%
Somewhat	22%	25%	37%	24%	21%	35%
Very	33%	37%	22%	47%	39%	35%
Extremely	12%	27%	13%	19%	24%	10%
Development of a western Bonneville Shoreline Trail (BST) for recreation along Oquirrh Mountains						
Not at all	3%	5%	6%	0%	8%	8%
Not Very	16%	12%	15%	8%	10%	17%
Somewhat	34%	33%	37%	42%	31%	41%
Very	22%	20%	23%	42%	30%	23%
Extremely	24%	30%	19%	7%	21%	11%

Oquirrh View Survey #1 Summary

Question 3

Thinking about future development along the valley's West Bench, how important are each of the following to you?

	South Jordan	Taylorsville	West Jordan	West Valley	East Bench	Total
Participating Population	198	37	441	111	224	2,524
Development patterns that are suburban in nature (single family lots) and separated from commercial business						
Not at all	8%	5%	2%	4%	21%	4%
Not Very	12%	11%	7%	15%	25%	8%
Somewhat	19%	30%	20%	32%	22%	17%
Very	34%	35%	40%	31%	19%	31%
Extremely	27%	19%	31%	19%	13%	40%
Development that incorporates a mix or variety of residential, retail, commercial, and recreation areas together						
Not at all	8%	3%	7%	3%	5%	8%
Not Very	13%	5%	10%	13%	8%	14%
Somewhat	24%	32%	32%	35%	25%	31%
Very	37%	41%	34%	34%	34%	30%
Extremely	19%	19%	17%	15%	28%	17%
Access to transportation options other than a personal vehicle for travel (bus, light rail, bike lanes, etc.)						
Not at all	3%	0%	2%	4%	1%	4%
Not Very	7%	8%	11%	7%	2%	10%
Somewhat	21%	24%	28%	18%	14%	24%
Very	33%	35%	35%	45%	26%	31%
Extremely	36%	32%	24%	26%	57%	31%
Jobs within 15 minutes or less from your place of residence						
Not at all	3%	0%	4%	3%	4%	7%
Not Very	13%	22%	18%	13%	8%	18%
Somewhat	37%	41%	39%	39%	29%	37%
Very	28%	16%	29%	32%	34%	25%
Extremely	19%	22%	10%	14%	25%	13%
Neighborhoods that appeal to a variety of household sizes, ages, and incomes						
Not at all	5%	0%	3%	4%	2%	6%
Not Very	11%	3%	14%	5%	6%	14%
Somewhat	31%	19%	37%	29%	21%	32%
Very	40%	57%	31%	46%	38%	31%
Extremely	14%	22%	15%	16%	33%	16%
Development of a western Bonneville Shoreline Trail (BST) for recreation along Oquirrh Mountains						
Not at all	4%	8%	5%	3%	3%	5%
Not Very	14%	14%	19%	9%	8%	14%
Somewhat	38%	43%	35%	42%	36%	36%
Very	30%	24%	26%	32%	33%	26%
Extremely	14%	11%	16%	14%	21%	18%

Oquirrh View Survey #1 Summary

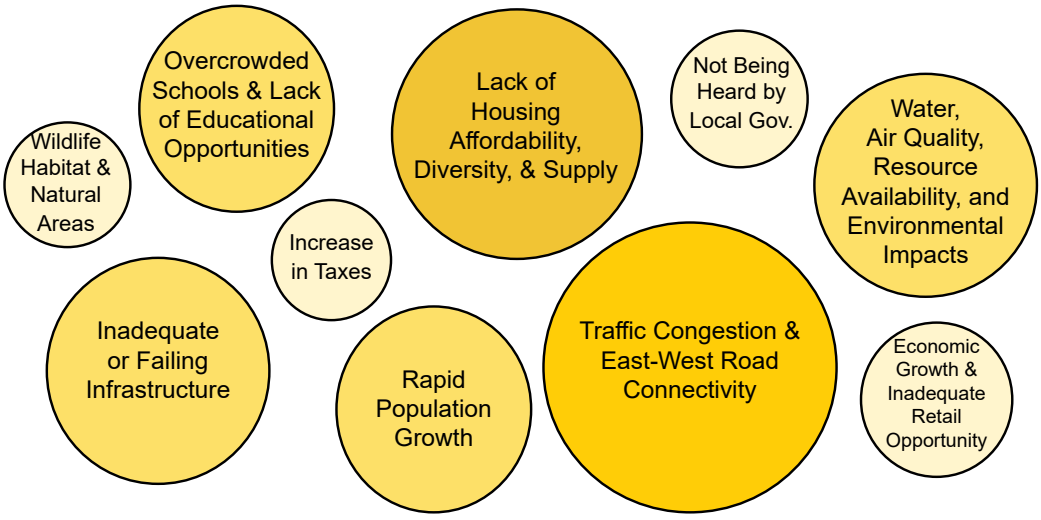
Question 4 What other priorities or factors do you think Salt Lake County should consider when planning for future development along the west bench?

What We Heard

Question 4 allowed survey participants to express their concerns, ideas, and priorities in regards to future development along the west bench in an open response format. Of the 2,524 survey participants, 1,268 responded to Question 4.

The responses were examined to quantify the amount of times certain concerns were referenced in survey comments. The results are shown below.

Concerns - Survey Participant Responses



*The size of the circle reflects the number of people with a similar concern.

Topic Reference Count	
529	Traffic Congestion & East-West Road Connectivity
264	Lack of Housing Affordability, Diversity, & Supply
172	Inadequate or Failing Infrastructure
168	Water, Air Quality, Resource Availability, and Environmental Impacts
133	Rapid Population Growth
133	Overcrowded Schools & Lack of Educational Opportunity
32	Economic Growth & Inadequate Retail Opportunity
29	Not Being Heard by Local Gov.
19	Wildlife Habitat & Natural Areas
15	Increase in Taxes

Oquirrh View Survey #1 Summary

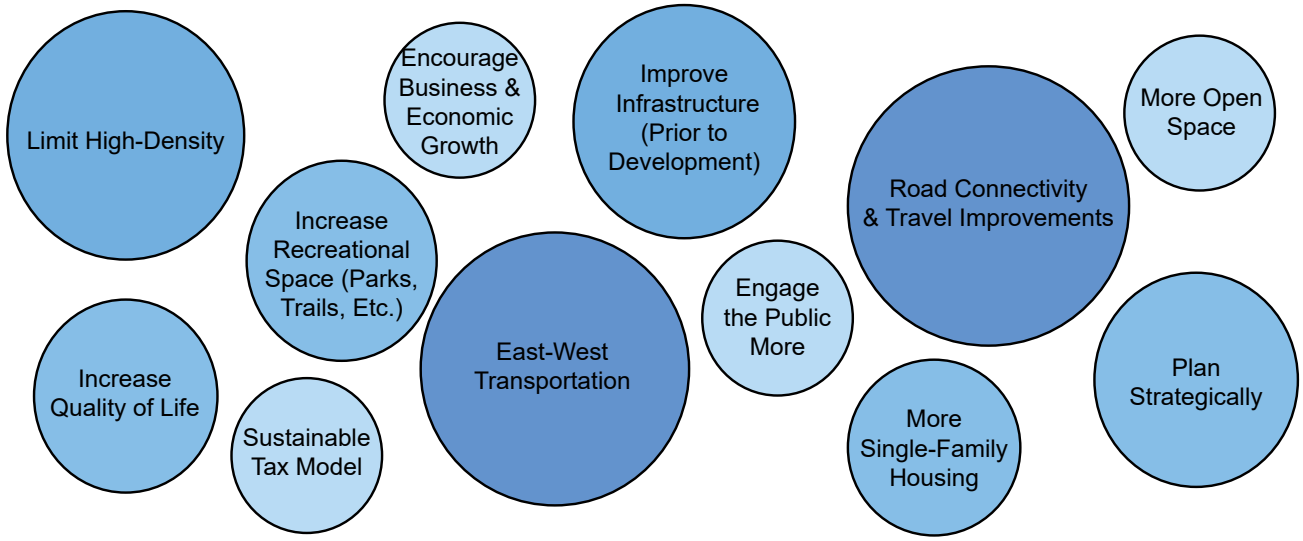
Question 4 What other priorities or factors do you think Salt Lake County should consider when planning for future development along the west bench?

What We Heard

Question 4 allowed survey participants to express their concerns, ideas, and priorities in regards to future development along the west bench in an open response format. Of the 2,524 survey participants, 1,268 responded to Question 4.

The responses were examined to quantify the amount of times certain suggestions were referenced in survey comments. The results are shown below.

Suggestions for Planning and Development



*The size of the circle reflects the number of people with a similar want/goal for development.

Topic Reference Count	
286	Road Connectivity & Travel Improvements
240	East-West Transportation
195	Limit High-Density Housing
172	Improve Infrastructure (Prior to Development)
97	Plan Strategically
80	Increase Recreational Space (Parks, Trails, Etc.)
72	Increased Quality of Life
59	More Single-Family Housing
34	More Open Space
32	Encourage Business & Economic Growth
32	Engage the Public More
30	Sustainable Tax Model

Oquirrh View Survey #1 Summary

Question 5

Would you prefer to live in a community where jobs, homes, and shopping are [further away from one another or closer together and connected]?

Survey Image Options

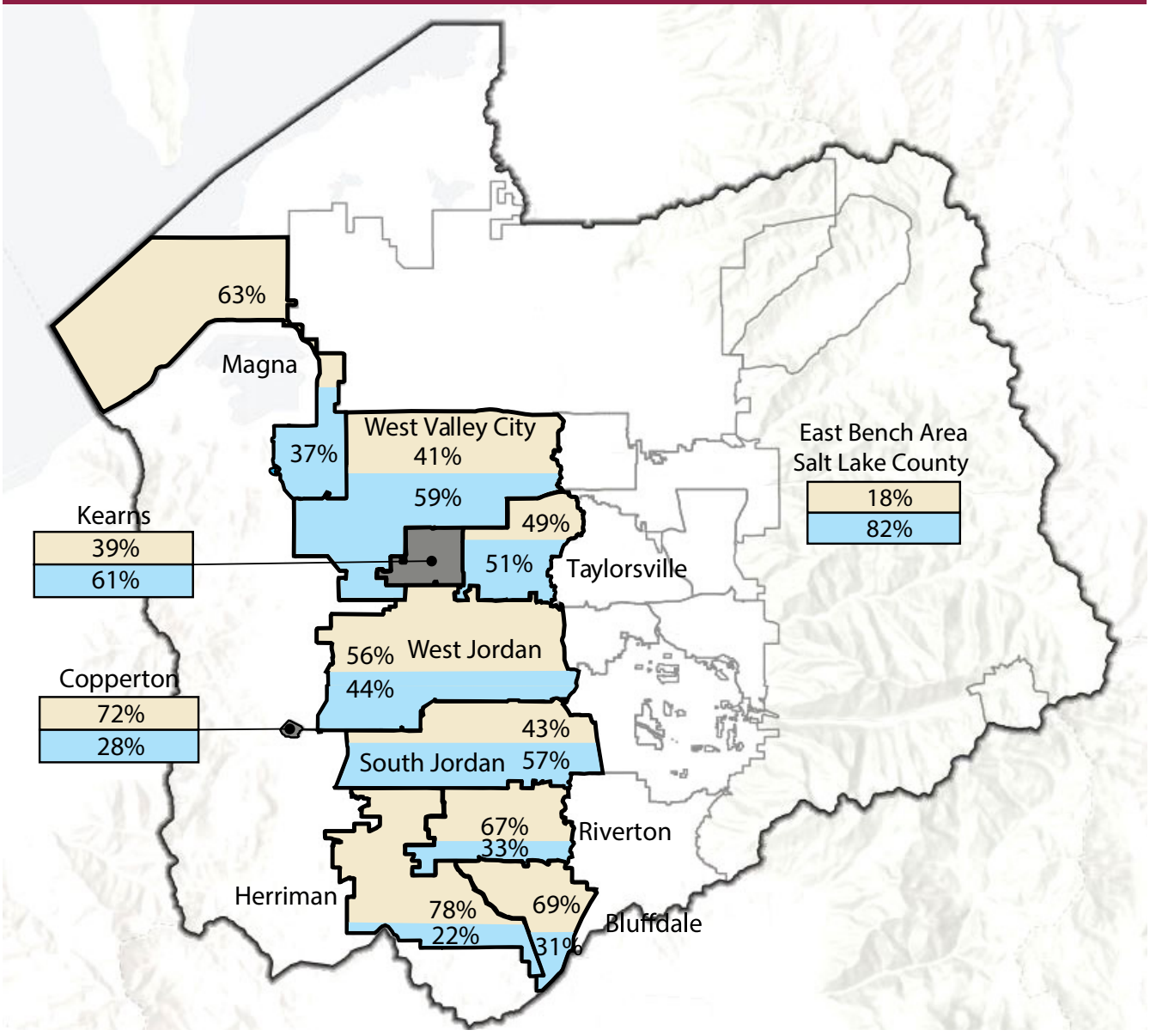
Further Away

Closer Together

Survey Participant Response Key:

- Prefer further away from one another
- Prefer closer together and connected

Map of Salt Lake County

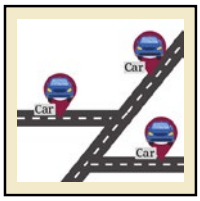


Oquirrh View Survey #1 Summary

Question 6

Would you prefer to live in a community where transportation systems are designed primarily for [use of a personal vehicle or a variety of options (bike, bus, car)]?

Survey Image Options



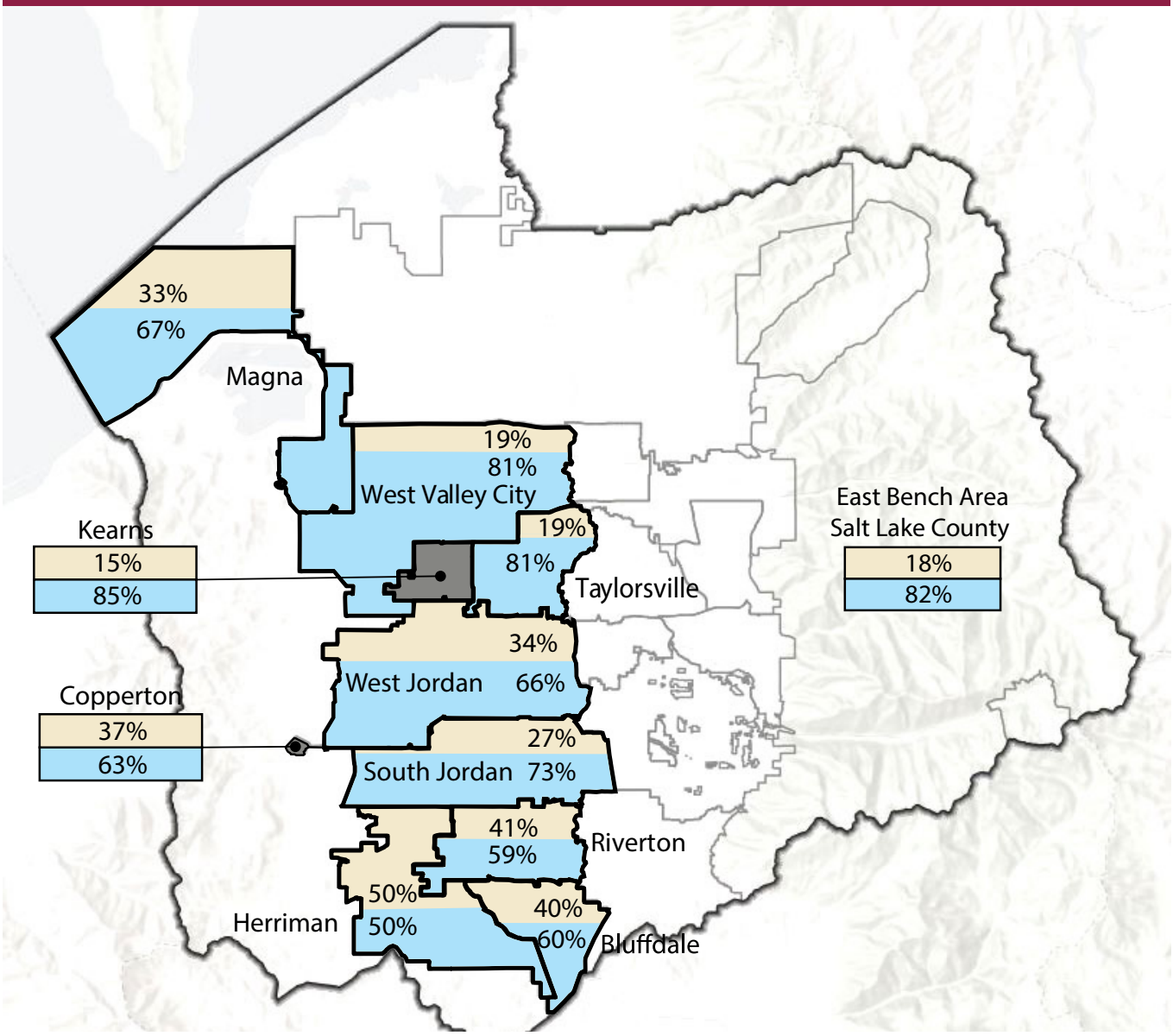
Personal Vehicle

Variety of Options

Survey Participant Response Key:

- Prefer use of a personal vehicle
- Prefer a variety of options

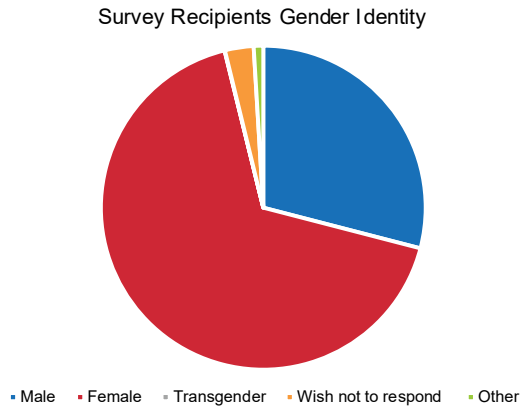
Map of Salt Lake County



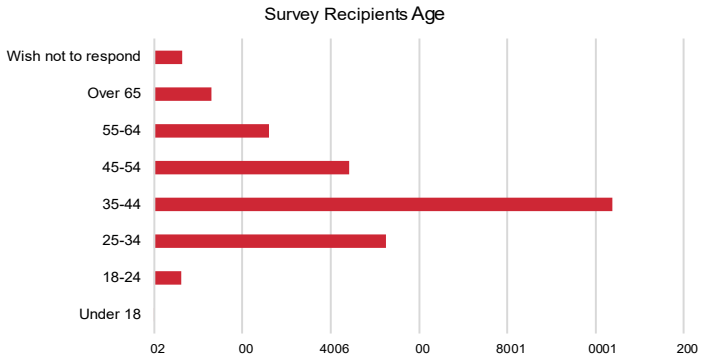
Oquirrh View Survey #1 Summary

Survey Demographics

Question 7: Do you identify as:	
Male	733
Female	1,694
Transgender	1
Wish not to respond	72
Other	24



Question 8: What is your current age?	
Under 18	2
18-24	62
25-34	526
35-44	1,038
45-54	441
55-64	261
Over 65	130
Wish not to respond	64



Question 9: Where do you live?			
Alta	0	Murray	14
Bluffdale	58	Riverton	153
Brighton	2	Salt Lake City	90
Copperton	60	Sandy	29
Cottonwood Heights	17	South Jordan	198
Draper	13	South Salt Lake	6
Emigration	3	Taylorsville	37
Herriman	**961**	**West Jordan**	**441**
Holladay	6	West Valley	111
Kearns	59	White City	2
Magna	143	Outside SLCo	44
Midvale	16	Wish not to respond	35
Millcreek	26		

January 2021

West General Plan Update

68% of Survey Respondents Support the West General Plan's Vision for Sustainable Growth

SALT LAKE COUNTY REGIONAL DEVELOPMENT

Survey respondents were asked whether they agree, are neutral or disagree with draft vision statements.

"Salt Lake County's vision is that the West Bench provides **enduring communities, employment centers,** and **open spaces.** Communities are integrated with a **multi-modal transportation system**, and driven by a commitment to **respect the landscape, conserve natural systems,** and **develop public resources.** These future communities consist of a variety of districts, centers, and neighborhoods, each creating **safe and beautiful places** for our children, current and future generations, to live and work."

68%

7%

25%

Purpose of the West General Plan

The West General Plan is a Big Picture guide to help officials and residents prepare for growth and conservation in western unincorporated Salt Lake County over the next 50 years.

The second of two public online surveys conducted as part of the West General Plan process is now complete. Respondents signaled support for the plan's overall draft vision and offered many suggestions for improvement. This document highlights findings of the 2,066 responses to the survey. In addition, just under 4,000 individual comments were provided by respondents. County planners have reviewed all survey results, comments, and suggestions, to help refine the West General Plan. Thank you to all who took the survey.

Significant population growth

- By 2065, Salt Lake County will add 600,000 more residents to its current population of 1.2 million.
- Many of the future residents will end up living in this plan area.

Preparing for tomorrow and beyond

- General Plans, including this one, seek to identify answers to key planning questions to address future growth, such as:
- Where will thousands of future residents live, work, shop, learn and play?
- What's the source of drinking water?
- How will people get from place to place?
- Will housing be affordable for people of all incomes?

Salt Lake County's role

- By State Law, County government is responsible for land use planning in unincorporated areas, such as areas of the Wasatch Canyons or west of U-111 Highway.
- Much of western Salt Lake County is privately owned and not within incorporated cities and townships. This includes the face of the Oquirrh Mountains. The Inland Port is primarily located within municipalities (not unincorporated).
- In the future, some of these lands may be annexed by an existing city, be incorporated into a new jurisdiction, or remain unincorporated.
- The West General Plan provides a compatible foundation for future changes in land uses and jurisdictions.

Public support for specific West General Plan draft vision statements

Many respondents showed support for proposed approaches to specific Plan elements – with at least half of respondents "highly" or "somewhat" agreeing with each statement.

Land Use
68% 8% 25%

Residents benefit from West Bench plans that emphasize well-defined land uses, preserved open spaces, and cohesive communities and commercial development built around centers. The County will lead regional coordination by working with residents, adjacent municipalities, agencies, and landowners.

Environment
78% 7% 15%

Lands in the Oquirrh Mountains and Great Salt Lake wetlands are preserved for public recreation and ecosystem benefits. Community development respects the character and features of the natural landscape. County, landowners, and developers work to minimize impacts on water quality, air quality, and natural habitats.

Recreation
79% 7% 14%

Visitors and residents enjoy a system of neighborhood, community, and regional parks. Recreational facilities are distributed throughout the West Bench and are integrated with natural lands, ecosystems and communities. Active and passive recreational opportunities are available for diverse public needs in all seasons. Communities connect with recreational facilities and the west Bonneville Shoreline Trail through regional trail and park systems.

Economy
67% 11% 22%

Community growth is fostered through vibrant economic centers. Residents and employees benefit from a diversity of jobs located in proximity to housing and transportation nodes. Communities prepare for the evolution of the workforce and technology trends. Economic development is guided through appropriately timed facilities and built infrastructure.

Transportation
69% 7% 24%

Residents have access to affordable and convenient transportation systems to their desired destinations within a reasonable amount of time. The West Bench transportation systems are well integrated with regional roadway, transit, and active transportation connections. Transportation options contribute to improved air and quality of life.

Housing
56% 7% 38%

People live in walkable neighborhoods and/or centers. Residents benefit from clustered development which preserves open space. Affordable housing is integrated throughout communities. Housing design harmonizes with the natural environment.

Utilities & Public Safety
68% 10% 22%

Residents enjoy a safe community for people to live, work, and recreate. Infrastructure minimizes impacts on natural resources. Utilities and municipal services are provided in a reliable, cost-effective, and environmentally sustainable manner.

More Information & Upcoming Public Engagement Opportunities

Learn more about the West General Plan and share your ideas and opinions!
For more information, to submit a written comment, and to keep tabs on upcoming public information opportunities, please visit:

slco.org/west-plan

West General Plan Survey #2 Summary

West General Plan Visioning Survey Report

Public Survey #2

Survey period August-September 2020
Released January 2021

SALT LAKE COUNTY
PLANNING & TRANSPORTATION

Salt Lake County's West General Plan Survey #2 Summary

West General Plan Survey #2 Summary

Salt Lake County (SLCo) is Growing. How we plan for it matters and public input is critical.

More than 1.2 million people call the Salt Lake Valley home. By 2065, Salt Lake County will add 600,000 more residents, many of whom will settle along the West Bench.

Salt Lake County is preparing the General Plan for the unincorporated west areas (outside city boundaries) as required by State law.

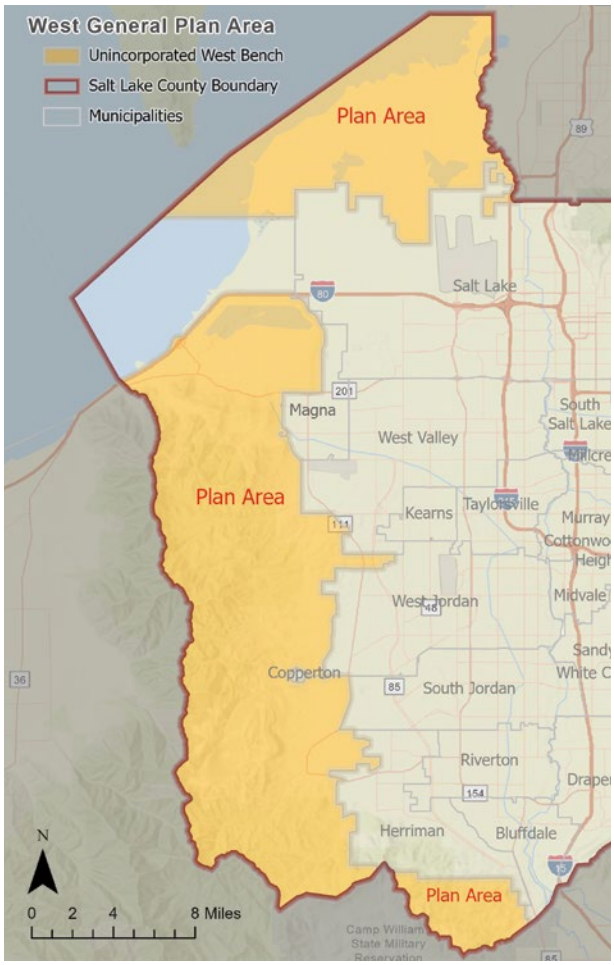
The geography of the area is diverse with the Great Salt Lake, wetlands, farms, Oquirrh Mountains, foothills, mines, military, residential, and more. The General Plan will serve and important role guiding conservation and development for decades to come.

A diverse group of County staff, public officials and stakeholders drafted 7 vision statements and supporting guiding principles for the West Bench General Plan.

Vision Topics Include:
1. Land Use
2. Housing
3. Transportation
4. Environment and Conservation
5. Recreation
6. Economy
7. Utilities and Public Safety

In an effort to facilitate public input, SLCo provided an on-line survey to residents of the County.

The survey participants were asked to scale their support (highly agree to highly disagree) for drafted vision statements and guiding principles. Questions about age, gender, and place of residence and work were also asked at the end of the survey.



2,066
Complete Responses

2,049
English Responses

17
Spanish Responses

3,876
Total Comments

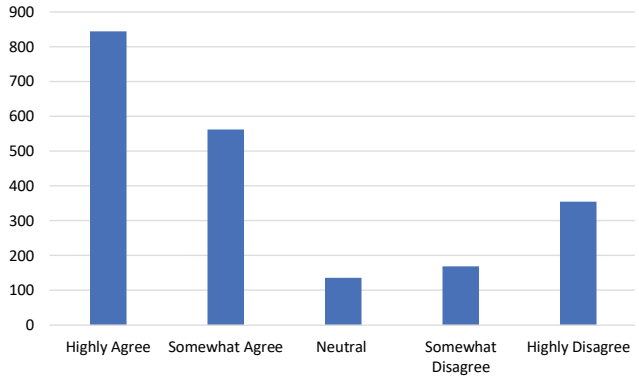
Salt Lake County's West General Plan Survey #2 Summary

The following pages include a summary of the survey results.

1. Salt Lake County's Vision Summary of the West General Plan area

Survey participants were asked their opinion on the following DRAFT statement "Our Salt Lake County vision is that the West Bench provides future enduring communities, employment centers, and open spaces. Communities are integrated within a multi-modal transportation system, and driven by a commitment to respect the landscape, conserve natural systems, and develop public resources. These future communities consist of a variety of districts, centers, and neighborhoods, each creating safe and beautiful places for our children, current and future generations, to live and work."

Survey Responses:



	Total	%
Highly Agree	**844**	**41%**
Somewhat Agree	**562**	**27%**
Neutral	**136**	**7%**
Somewhat Disagree	**169**	**8%**
Highly Disagree	**355**	**17%**

Comments Received & Reviewed: 618

Most Common Topics:

- Traffic and transportation
- Request for more information
- Residential density
- Growth
- Conservation of natural lands

Key Takeaways from Comments:

- Need to emphasize different areas in plan regarding different issues and opportunities, water/land types
- Emphasize preservation and restoration opportunities
- Need to share perspective development will happen in future and over many decades
- Clarify plan or study area is not the same developable area(s)

Salt Lake County's West General Plan Survey #2 Summary

2. Land Use

Survey participants were asked their opinion on the following DRAFT statement "Land Use Vision: Residents benefit from West Bench plans that guide and emphasize well-defined land uses, preserved open spaces, and cohesive communities and commercial development built around centers. The County will lead regional coordination by working with residents, adjacent municipalities, agencies, and landowners." Also included were the DRAFT guiding principles seen below.

Land Use Guiding Principles:
Lead Regional Coordination:
- Coordinate with municipalities, WFRC and others for regional planning efforts
- Integrate locations of housing, job centers, and transportation
- Holistic, long term planning

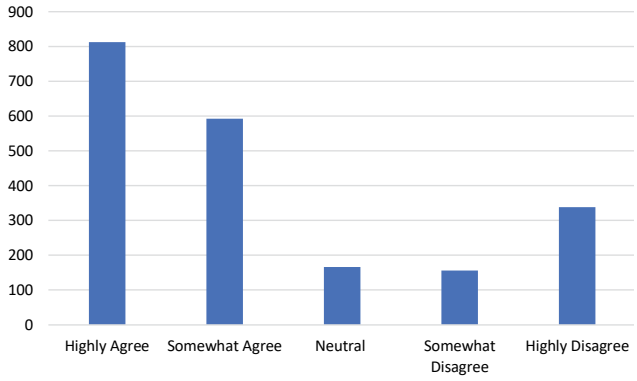
Center Based Land Use:
- Co-locate complementary land uses within centers
- Strategically link centers with transportation systems
- Provide various center types including neighborhood, community, and regional
- Cluster destinations and public gathering spaces within walkable centers

Land Use Clarity:
- Ensure consistent land uses between regional plans, general plan, and zoning
- Involve private landowners in planning

Consider public needs and private property rights

Public Benefit:
- Consider the health, safety, and welfare of residents and visitors
- Foster access to opportunities for all

Survey Responses



	Total	%
Highly Agree	**812**	**39%**
Somewhat Agree	**593**	**29%**
Neutral	**167**	**8%**
Somewhat Disagree	**156**	**8%**
Highly Disagree	**338**	**16%**

Comments Received & Reviewed: 466
Most Common Topics:
- Natural lands preservation
- High density residential
- Resistance to growth
- Need for more transit
- More public involvement

Key Takeaways from Comments:
- Define Centers (town, neighborhood, village, commercial)
- Clarify Kennecott as landowners may pursue development (not local governments pursing development)
- Clarify incorporated vs unincorporated
- Requests to list public benefits first
- Discuss walkable communities gradations & transportation
- Clarify land uses authorities of cities, towns & County

Salt Lake County's West General Plan Survey #2 Summary

3. Housing

Survey participants were asked their opinion on the following DRAFT statement "Housing Vision: People live in walkable neighborhoods and/or centers. Residents benefit from clustered development which preserves open space. Affordable housing is integrated throughout communities. Housing design harmonizes with the natural environment." Also included were the DRAFT guiding principles seen below.

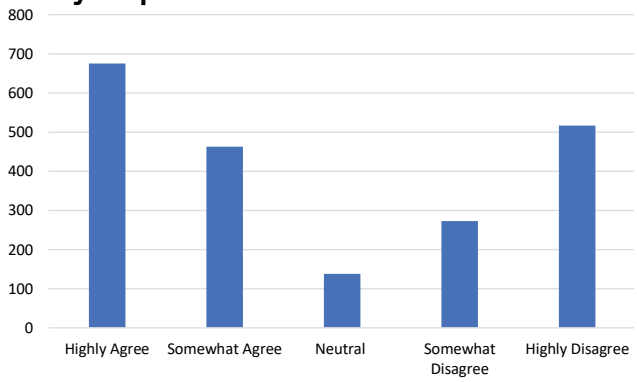
Housing Guiding Principles:
Walkable Neighborhoods and Centers:
- Cluster development to preserve continuous larger open spaces
- Allow housing built in and around centers
- Allow housing intensity within centers
- Consider location of housing to improve access to opportunities

Affordable Housing for all Incomes:
- Implement the SL County Moderate Income Housing Plan
- Integrate affordable housing within each community
- Adopt Inclusionary housing policies
- Facilitate public private partnerships

Market Affordable Housing:
- Encourage individual home ownership
- Promote a wide variety of building types
- Allow housing intensity within centers
- Forecast housing demands for land use planning

Design Quality:
- Housing built in harmony with natural topography
- Energy efficient buildings to improve air quality
- Aesthetically pleasing
- Lasting and durable quality

Survey Responses



	Total	%
Highly Agree	**675**	**33%**
Somewhat Agree	**463**	**22%**
Neutral	**138**	**7%**
Somewhat Disagree	**273**	**13%**
Highly Disagree	**517**	**25%**

Comments Received & Reviewed: 680
Most Common Topics:
- High density residential
- Affordable housing
- Cost of ownership
- More open space with housing
- Mixture of housing types

Key Takeaways from Comments:
- Remove the word "cluster" change to housing options (low to high end)
- Housing affordable (not AH)
- Density only in centers
- Mention DEQ/EPA clean up process
- Discuss walkable communities gradations & transportation
- Include a focus on middle class housing
- When talking walkable, including bikeable or biking
- Consider lower heights in neighborhood and not too tall in centers
- Many residents wanting higher design standards

Salt Lake County's West General Plan Survey #2 Summary

4. Transportation

Survey participants were asked their opinion on the following DRAFT statement "Transportation Vision: Residents have access to affordable and convenient transportation systems to their desired destinations within a reasonable amount of time. The West Bench transportation systems are well integrated with regional roadway, transit, and active transportation connections. Transportation options contribute to improved air and quality of life." Also included were the DRAFT guiding principles seen below.

Transportation Guiding Principles:
System Integration & Coordination:
- Integration of land use(s) and transportation planning
- Collaborative regional planning with municipalities, UTA, WFRC, and UDOT
- Transportation system enhances employment, housing, and economic development opportunities
- New development works within the context of countywide transportation systems, including east west connectivity

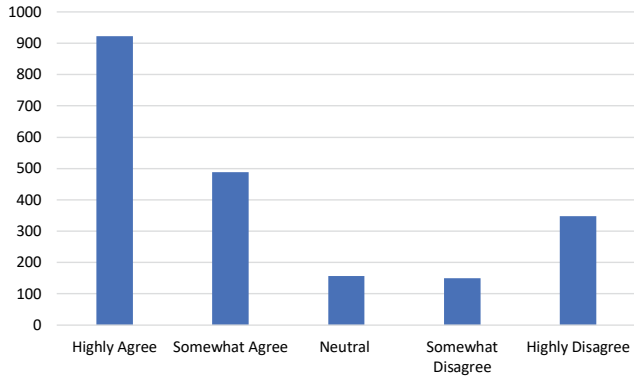
Connectivity:
- Integration with the regional transportation system
- Multiple local street and trail connections to facilitate walkability and other benefits
- Linkage of transportation systems among neighboring communities

Multi-Modal System:
- Prioritize equal access of all travel modes to provide choices (personal vehicles, transit, bicycling, and walking)
- Safe and family-friendly bike and pedestrian circulation system connecting centers
- Connect trail network to transportation system

Environmentally Sustainable:
- Enhance air quality
- Encourage alternative fuel infrastructure
- Design that respects natural topography

Design Considerations:
- Street design that focuses on livability, comfort, and safety for all
- Encourage street trees and native, drought tolerant landscaping
- Plan for anticipated public transit and ridesharing options
- Streets should be enjoyable public spaces

Survey Responses



	Total	%
Highly Agree	**922**	**45%**
Somewhat Agree	**489**	**24%**
Neutral	**157**	**7%**
Somewhat Disagree	**150**	**7%**
Highly Disagree	**348**	**17%**

Comments Received & Reviewed: 612

Most Common Topics:
- Traffic
- East-West roads and traffic
- Prioritize public transit
- Build new freeways
- Active transportation

Key Takeaways from Comments:
- Emphasize East-West connectivity (both current efforts & need for additional)
- Explain multi-modal
- Explain Regional Transportation Plan
- Discuss housing in centers and corridors working with transit
- Accessibility to jobs and destinations

Salt Lake County's West General Plan Survey #2 Summary

5. Environment and Conservation

Survey participants were asked their opinion on the following DRAFT statement "Environment and Conservation Vision: Lands in the Oquirrh Mountains and the Great Salt Lake wetlands are preserved for public recreation and ecosystem benefits. Community development respects the character and features of the natural landscape. County, landowners, and developers work to minimize impacts on water quality, air quality, and natural habitats." Also included were the DRAFT guiding principles seen below.

Environment and Conservation Guiding Principles:

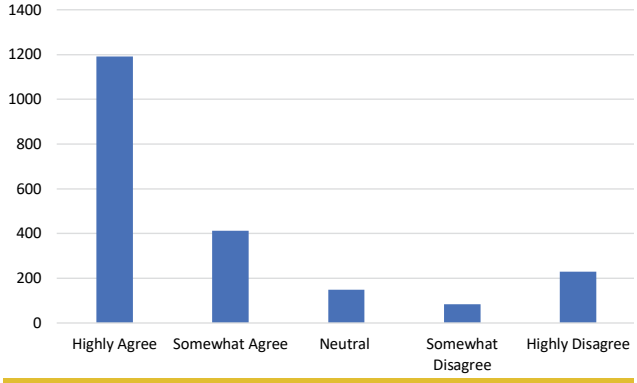
Water:
- Prioritize water conservation
- Water quality through watershed and ecosystem management
- Establish climate resiliency through wise water use Include water availability in planning

Air Quality and Emissions:
- Consider air quality and climate impacts of housing, land use, and transportation
- Reduce local air pollutants and carbon emissions

Land Preservation:
- Preserve critical lands including riparian corridors, wetlands, ridge lines, steep slopes, and wildlife habitats
- Collaborate with State agencies and others to protect wildlife
- Facilitate policies and programs for preservation of natural lands

Environmental Quality:
- Coordinate with landowners, state, and federal agencies for safe reclamation of formerly mined lands for land use planning

Survey Responses



	Total	%
Highly Agree	**1,192**	**58%**
Somewhat Agree	**412**	**20%**
Neutral	**149**	**7%**
Somewhat Disagree	**83**	**4%**
Highly Disagree	**230**	**11%**

Comments Received & Reviewed: 405

Most Common Topics:
- Water Conservation
- Natural Lands Conservation
- Growth
- Habitat Preservation
- Air Quality

Key Takeaways from Comments:
- Need to clarify mining cleanup roles (EPA, State DEQ, State DOGM, County Health)
- Importance of renewable energy production
- Plan should mention grid resiliency
- Involve utility agencies
- Mention Camp Williams preservation and collaboration efforts

Salt Lake County's West General Plan Survey #2 Summary

6. Recreation

Survey participants were asked their opinion on the following DRAFT statement "Recreation Vision: Visitors and residents enjoy a system of neighborhood, community, and regional parks. Recreational facilities are distributed throughout the West Bench and integrated with natural lands, ecosystems and communities. Active and passive recreational opportunities are available for diverse public needs in all seasons. Communities connect with recreational facilities and the west Bonneville Shoreline Trail through regional trail and park systems." Also included were the DRAFT guiding principles seen below.

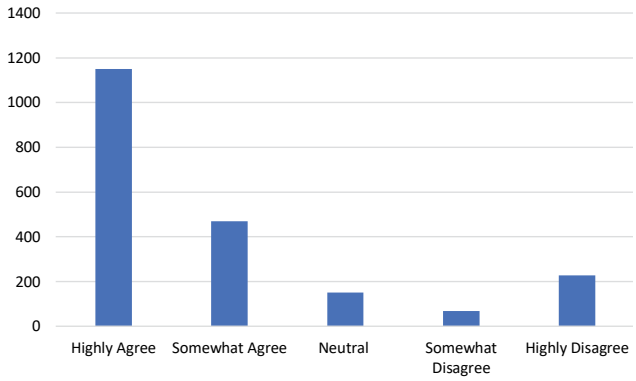
Recreation Guiding Principles:
Design with Nature:
- Recreation facilities and natural environments are managed cohesively
- Plan year-round recreational opportunities
- Consider adaptations for climate change
- Encourage sustainable development through preservation of nature and open spaces

Access for all:
- Recreation accessible to people of all incomes, ages, and abilities
- Connect recreation facilities to transportation networks
- Recreation opportunities within walking distance of residences and jobs

Park and Trail Systems:
- Establish a regional trail system
- Connect west Bonneville Shoreline Trail north to south with regional network
- Develop adequate park systems/ facilities for current and future generations

Coordination among partners and plans:
- Coordinate among partners for the funding and development of recreational opportunities
- Connect unincorporated trail systems to adjacent municipalities
- Dedicate long term funding for recreation resources

Survey Responses



	Total	%
Highly Agree	**1,150**	**56%**
Somewhat Agree	**470**	**23%**
Neutral	**151**	**7%**
Somewhat Disagree	**68**	**3%**
Highly Disagree	**227**	**11%**

Comments Received & Reviewed: 392
Most Common Topics:
- Trails
- Parks
- Land Preservation
- Additional access to Oquirrh Mountains

Key Takeaways from Comments:
- Request for variety of trail types for different uses
- Parks of all types (amenities, sports, nature)
- Water conservation in parks
- Developer participate more in planning & funding recreation opportunities & open space
- Butterfield canyon is a significant opportunity
- Camping opportunities requests
- Future access to the Oquirrh Mountains is important

Salt Lake County's West General Plan Survey #2 Summary

7. Economy

Survey participants were asked their opinion on the following DRAFT statement "Economy Vision: Community growth is fostered through vibrant economic centers. Residents and employees benefit from a diversity of jobs located in proximity to housing and transportation nodes. Communities prepare for the evolution of the workforce and technology trends. Economic development is guided through appropriately timed facilities and built infrastructure." Also included were the DRAFT guiding principles seen below.

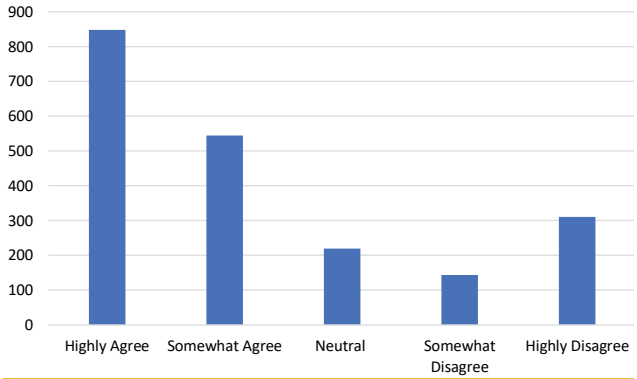
Economy Guiding Principles:
Employment and Neighborhood Centers:
- Mix business types within centers
- Flexible workspaces to grow small business
- Plan centers in locations that increase access to workforce

Education and Training:
- Match educational training with job opportunities
- Prepare for shifting workforce and technology trends
- Promote public/private partnerships for educational opportunities

Infrastructure Resources:
- Well planned infrastructure
- Connect infrastructure to key transportation facilities (such as airport, inland port)
- Leverage public financing tools effectively
- Partner to develop robust telecommunications infrastructure

Sustainable Community:
- Create and follow an economic development plan
- Foster job sector diversity
- Plan energy and resource efficiency
- Consider industry cluster needs based on the changing economy

Survey Responses



	Total	%
Highly Agree	**848**	**41%**
Somewhat Agree	**545**	**26%**
Neutral	**219**	**11%**
Somewhat Disagree	**143**	**7%**
Highly Disagree	**311**	**15%**

Comments Received & Reviewed: 389
Most Common Topics:
- Transportation/infrastructure
- Jobs, including west side focus
- Work from home
- Inland Port

Key Takeaways from Comments:
- Address inland port and land use authorities
- Transportation infrastructure is strongly connected to economy
- Discuss "meeting needs" vs "thriving"
- Enhance small business opportunities
- Explain mixed use benefits for non mixed-use residents/businesses
- Consider implications for work from home opportunities and needs
- Significant demands for high speed internet

Salt Lake County's West General Plan Survey #2 Summary

8. Utilities and Public Safety

Survey participants were asked their opinion on the following DRAFT statement "Utilities and Public Safety Vision: Residents enjoy a safe community for people to live, work, and recreate. Infrastructure minimizes impacts on natural resources. Utilities and municipal services are provided in a reliable, cost-effective, and environmentally sustainable manner." Also included were the DRAFT guiding principles seen below.

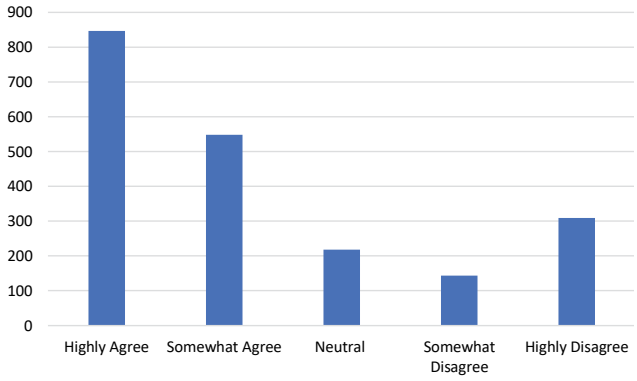
Utilities and Public Safety Guiding Principles:

Infrastructure Planning:
- Plan efficient infrastructure
- Avoid leap-frog development to minimize stress on infrastructure systems
- Partner with utility and infrastructure agencies

Municipal Services:
- Viable police, fire, sanitation, and other municipal services
- Work with utility providers (water, sewer, power, internet, gas)
- Ability to maintain infrastructure for effective delivery of municipal services

Hazard management:
- Prepare for and mitigate impacts of natural and human-caused hazards, including fire, earthquakes, flooding, and others
- Establish buffers between development and high-risk areas
- Minimize community flooding by detaining stormwater runoff

Survey Responses



	Total	%
Highly Agree	**847**	**41%**
Somewhat Agree	**548**	**27%**
Neutral	**218**	**10%**
Somewhat Disagree	**144**	**7%**
Highly Disagree	**309**	**15%**

Comments Received & Reviewed: 314

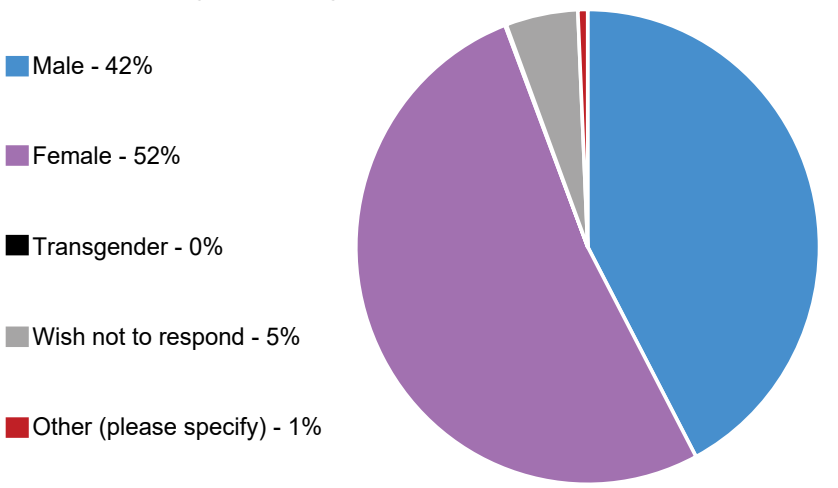
Most Common Topics:
- Emergency & hazard management
- Sustainable energy generation
- Infrastructure
- Transportation planning

Key Takeaways from Comments:
- Further explanation needed of long range plan of Oquirrhs/Kennecott and future steps
- Consider snow impacted for road maintenance in Oquirrh Mountains
- Consider how to work towards more renewable resources
- Explain leapfrog development
- Requests for more involvement with school districts & higher education in planning
- Plan needs to cover water availability & conservation

Salt Lake County's West General Plan Survey #2 Summary

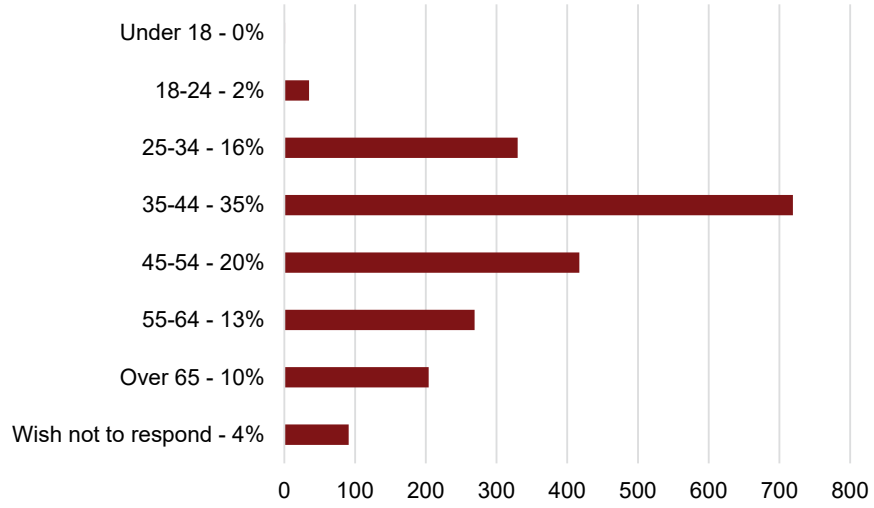
Demographics

Question 9: Do you identify as:



Male - 873
Female - 1,073
Transgender - 2
Wish not to respond - 104
Other - 14

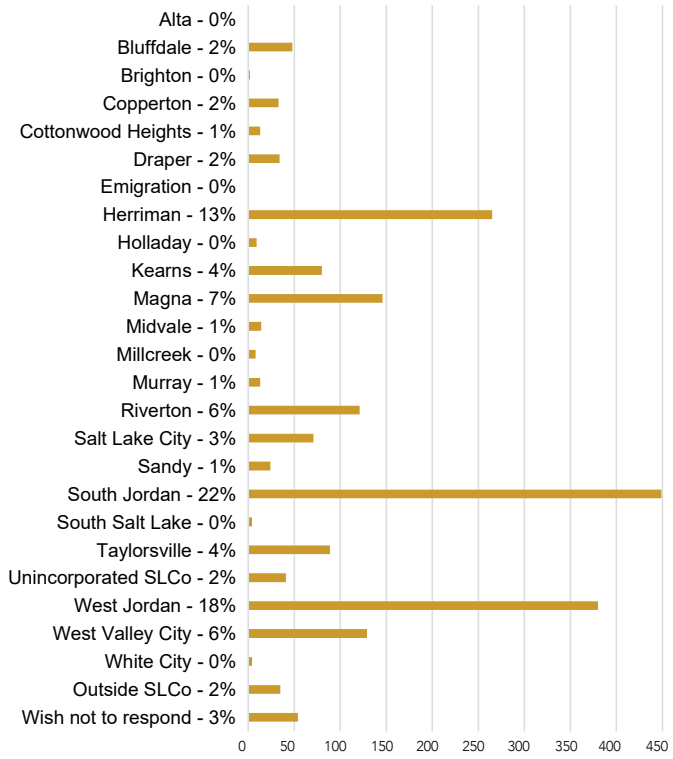
Question 10: What is your current age?



Under 18 - 1
18-24 - 35
25-34 - 330
35-44 - 719
45-54 - 417
55-64 - 269
Over 65 - 204
Wish not to respond - 91

Salt Lake County's West General Plan Survey #2 Summary

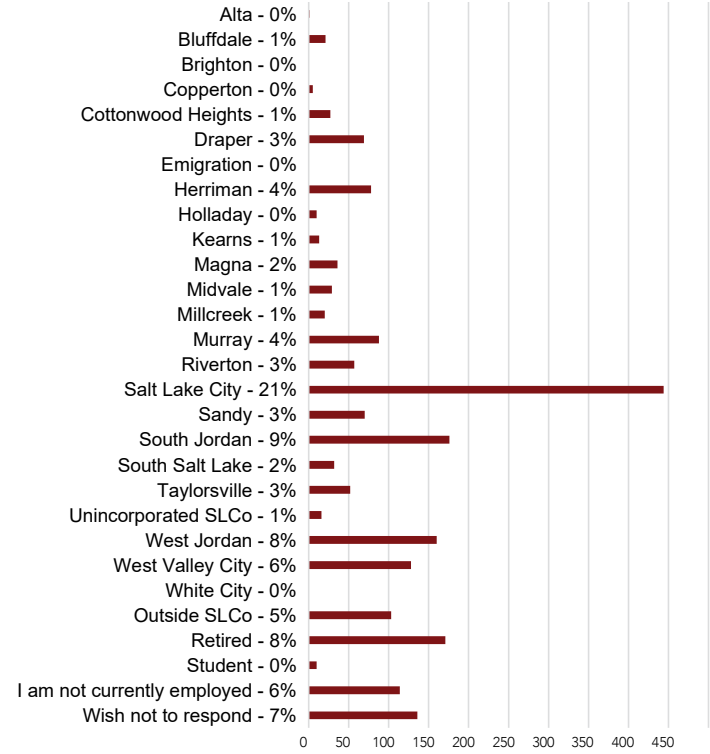
Question 11: Where do you live?



Top five cities/places where survey participants reside:

1. South Jordan - 449 Responses
2. West Jordan - 380 Responses
3. Herriman - 265 Responses
4. Magna - 146 Responses
5. West Valley City - 129 Responses

Question 12: Where do you work?



Top five cities/places where survey participants work:

1. Salt Lake City - 440 Responses
2. South Jordan - 176 Responses
3. Retired - 171 Responses
4. West Jordan - 160 Responses
5. Wish not to respond - 136 Responses

Historic maps for overpressure references