



APPENDIX A

In this Chapter:

- » H2Oquirrh Plan Review Matrix

	Bluffdale General Plan		Bluffdale Parks, Trails, Recreation & Open Space Master Plan		Bluffdale Pressurized Irrigation Plan		Bluffdale Stormwater Plan		Bluffdale Stormwater Master Plan		Bluffdale Storm Water Management Plan		Bluffdale Water Conservation Plan		Bluffdale Transportation Plan		Copperton General Plan		Herriman General Plan		Herriman Stormwater Plan		Herriman Active Transportation Plan		Herriman Parks, Recreation, Open Space, and Trails Master Plan		Herriman Storm Drain Master Plan		Herriman Stormwater Management Plan	
Date	2022	2015	2016	--	2019	2020	2021	2020	2020	2020	2022	2018	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020		
Citizen Education & Involvement	x	x					x	x	x	x			x	x																
Education Programming							x				x													x						
Public Participation	x	x												x	x															
Community Engagement	x	x								x	x			x	x								x	x						
Recreation	x	x					x			x	x												x							
Parks & Open Space	x	x					x				x			x	x									x						
Equity & Inclusivity	x	x																							x					
Facilities & Amenities	x	x					x																		x					
Connectivity	x	x								x	x			x	x								x	x						
Trails & Active Transportation	x	x								x	x			x	x								x	x						
Greenway Connectivity	x	x																								x				
Multimodal Networks	x									x	x			x	x								x							
Habitat & Riparian Ecology	x	x												x	x									x						
Preservation & Protection	x	x												x	x										x					
Restoration & Improvement																														
Daylighting Stream																														
Water & Resilience	x		x	x	x	x	x							x	x											x	x			
Flood Control & Green Infrastructure					x	x	x	x																			x	x		
Water Quality & BMP	x		x	x	x	x	x								x												x	x		
Water Quantity & Infrastructure Planning			x	x	x	x																					x	x		
Land Use & Development	x	x				x	x	x						x	x												x	x		
Urban Growth & Density	x														x	x														
Development Centers	x																													
Low Impact Development		x				x	x	x																			x	x		
Community, Partnerships, & Funding	x	x						x						x	x															
Partnerships								x						x	x												x			
Funding & Revenue	x	x						x																			x	x		

		Riverton General Plan	Riverton Parks Plan	Butterfield Creek Stormwater Masterplan Study	Riverton Stormwater Restriction Map Plan	Riverton Active Transportation Plan	West Jordan General Plan	West Jordan Parks, Recreation, Trails & Open Space Master Plan	West Jordan Transportation Master Plan	West Jordan Active Transportation Plan	West Jordan Water Mater Plan	West Jordan Sanitary Sewer Master Plan	West Jordan Storm Drainage Master Plan
Date	2020	--	2022	2022	2016	2021	2019	2013	2019	2022	2019	2015	
Citizen Education & Involvement					x	x	x		x				
Education Programming					x								
Public Participation						x							
Community Engagement					x	x	x		x				
Recreation	x	x				x	x		x				
Parks & Open Space	x	x				x	x						
Equity & Inclusivity						x			x				
Facilities & Amenities		x					x						
Connectivity					x	x	x	x	x				
Trails & Active Transportation					x	x	x	x	x				
Greenway Connectivity					x	x							
Multimodal Networks					x	x	x	x	x				
Habitat & Riparian Ecology						x	x						
Preservation & Protection						x	x						
Restoration & Improvement						x	x						
Daylighting Stream													
Water & Resilience			x	x		x				x	x	x	
Flood Control & Green Infrastructure			x	x		x						x	
Water Quality & BMP			x			x						x	
Water Quantity & Infrastructure Planning			x							x	x		
Land Use & Development	x		x			x		x				x	
Urban Growth & Density	x					x		x					
Development Centers	x					x		x					
Low Impact Development			x									x	
Community, Partnerships, & Funding		x			x	x	x	x	x				
Partnerships		x			x		x						
Funding & Revenue						x	x	x	x				

	<div style="display: flex; justify-content: space-between; padding: 0 10px;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SLCo Active Transportation Implementation Plan (2017)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SL County Parks & Recreation Facilities Master Plan</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SLCo West General Plan</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SLCo Stormwater Discharge Plan</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SLCo Stormwater Mangement Plan</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SLCo Water Use Plan</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SL County Stream Care Guide</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SL County East West Recreational Trails Master Plan</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SL County Integrated Watershed Plan</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">WFRG Regional Transportation Plan</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">WFRG: Wasatch Choice 2050</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">WFRG: (Re)Connect</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Southwest Canal and Creek Study (SWCC)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Jordan River Watershed E. coli TMDL</div> </div>													
Date	2019	2015	2022	2015	2020	2015	2015	2015	2015	2023	2023	2012	2020, 2021, 2022	2022
Citizen Education & Involvement			X						X	X	X	X		X
Education Programming										X	X			
Public Participation			X						X	X	X	X		X
Community Engagement			X							X	X			X
Recreation		X	X			X		X			X	X		
Parks & Open Space		X	X					X			X	X		
Equity & Inclusivity											X			
Facilities & Amenities		X									X			
Connectivity	X	X	X					X		X	X	X		
Trails & Active Transportation	X	X	X					X		X	X	X		
Greenway Connectivity										X	X	X		
Multimodal Networks	X		X							X	X			
Habitat & Riparian Ecology		X	X			X	X		X			X	X	X
Preservation & Protection		X	X			X	X		X			X		X
Restoration & Improvement		X	X			X	X		X			X	X	X
Daylighting Stream														
Water & Resilience			X	X	X	X	X		X		X	X	X	X
Flood Control & Green Infrastructure					X		X		X		X	X		X
Water Quality & BMP			X	X	X	X			X		X	X	X	X
Water Quantity & Infrastructure Planning			X	X	X	X					X	X	X	
Land Use & Development	X		X		X	X			X	X	X	X	X	X
Urban Growth & Density	X		X							X	X	X	X	
Development Centers			X							X	X			
Low Impact Development			X		X				X		X	X	X	X
Community, Partnerships, & Funding			X						X	X	X			
Partnerships									X	X	X			
Funding & Revenue			X							X	X			



APPENDIX B

In this Chapter:

- » H2Oquirrh Plan Review Summaries

DESIGNWORKSHOP

Landscape Architecture
Planning
Urban Design
Strategic Services
Environmental Graphic Design

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Related Plan Summary

To: H2Oquirrh Project Management Team
From: Design Workshop
Date: December 1, 2023
Project Name: H2Oquirrh
Subject: Related Plan Summary

Below is a summary of plans that have been completed in recent years within Salt Lake County and are considered to be relevant or related to the H2Oquirrh Vision Plan. Due to the quantity of related plans, comments are confined to a briefly summary (50-100 words) and recommendations that directly and indirectly impact the current planning effort.

Plans Reviewed

- Bluffdale General Plan
- Bluffdale Parks, Trails Recreation & Open Space Master Plan
- Bluffdale Pressurized Irrigation Plan
- Bluffdale Stormwater Plan
- Bluffdale Water Conservation Plan
- Bluffdale Transportation Plan
- Copperton General Plan
- Herriman General Plan
- Herriman Stormwater Plan
- Herriman Active Transportation Plan
- Herriman Parks, Recreation, Open Space, and Trails Master Plan
- Riverton General Plan
- Riverton Parks Plan
- Riverton Stormwater Restriction Map Plan
- Riverton Active Transportation Plan
- West Jordan General Plan
- West Jordan Parks, Recreation, Trails & Open Space Master Plan
- West Jordan Transportation Masterplan
- West Jordan Active Transportation Plan
- SLCO Stormwater Discharge Plan
- SLCO West General Plan
- SLCO Water Use Plan
- SLCO Active Transportation Plan
- Wasatch Choice 2050
- WFRC Regional Transportation Plan
- WFRC (Re) Connect

Plan / Document Name:	Bluffdale General Plan
Department Issuing:	City of Bluffdale
Location:	Bluffdale, UT
Publication Year:	2022
Active Time Period:	
Summary (50 – 100 words):	This plan outlines recommendations for land use, housing, economic development, open space and trails, and resiliency for Bluffdale across SLCo and UTCO. Each section lists goals, policies, and implementation strategies.
Recommendations that directly impact this plan:	<ul style="list-style-type: none"> - Adopt land use ordinances and development agreements that ensure centers are designed to be compact, safe, attractive, and accessible to all travel modes and user abilities - Promote a park and trails system that provides outstanding active and passive community gathering and recreation opportunities. - Create a trails master plan with priorities and update 2015 Parks Master Plan. - Protect and improve existing parks, open space, and trails by creating a long-term comprehensive plan allocating funds for operation and ongoing maintenance costs - Develop a portfolio of recommended resilient design standards, such as such as water-wise landscaping, permeable paving, and other features to encourage developers to incorporate sustainable design elements in future projects. - Support social resiliency by promoting policies that encourage community engagement and public participation. - Support preservation of natural features that contribute to the character of Bluffdale - Urban and neighborhood scale centers - PRIORITIES FOR FUTURE TRAILS AND CONNECTIONS <ul style="list-style-type: none"> » Independence to Day Ranch » Jeff Anderson Memorial Park to Day Ranch (River/Tracks Crossing) » Heritage 76 to Day Ranch (Dog Park) » Independence to Springview Farms (14600 South) » Canal Trails (Welby, South Jordan, East Jordan) » Rose Creek- 2700 West to 2200 West » Rose Creek- 2200 West to Redwood Road » Rose Creek- Redwood Road to Vintage Park » Rose Creek- Vintage Park to the Jordan River Parkway Trail » 4000 West Pedestrian Crossing » Jordan Narrows to Herriman » 14400 South Pedestrian Crossing » Crossing on Redwood Road/ McDougal Property » Wardle Fields to 3600 West - The new Regional Municipal and Industrial 2030 Water Conservation Goal for the Salt Lake region is to reduce consumption by 11% from the year 2015 to 2030, resulting in a reduction goal of 210 to 187 gallons per capita per day (gpcd). Bluffdale City is already below the regional goal, and therefore, has the

	goal to also have an 11% reduction from 2015 to 2030, following the same trajectory as the regional goal. The City was at 171 gpcd in 2015. The City's goal is to be at 152 gpcd by 2030.1
Recommendations that <u>indirectly</u> impact this plan:	- -
Key takeaways:	- Map of 2030 and 2050 projected growth areas
Key metrics:	-
Questions for the Steering Committee:	
Pull quotes:	

Plan / Document Name:	Bluffdale Parks, Trails, Recreation & Open Space Master Plan
Department Issuing:	City of Bluffdale
Location:	Bluffdale, UT
Publication Year:	2015
Active Time Period:	5 years
Summary (50 – 100 words):	
Recommendations that <u>directly</u> impact this plan:	<ul style="list-style-type: none"> - Partner with Jordan School District, SLCo, and nearby cities - Use a short term bond or levy to augment impact fee revenue - Coordinate with neighboring jurisdictions, Salt Lake County and Utah County to provide a regional trail network along and connecting to the Jordan River and coordinated trail alignments that provide continuous walking and biking access between parks and other key destinations. - Provide east-west trail connections across Bluffdale to connect the regional park, City Park and the Jordan River Parkway Trail and extend the Bonneville Shoreline Connector - Incorporate low impact design practices into the design, planning and rehabilitation of new and existing facilities; consider the use of native vegetation for landscaping in parks to minimize maintenance requirements. - Partner with Salt Lake County and other stakeholders to provide regional facilities, such as a recreation center.
Recommendations that <u>indirectly</u> impact this plan:	-
Key takeaways:	<ul style="list-style-type: none"> - Facility inventory including trail surface materials - Detailed descriptions of parks
Key metrics:	<ul style="list-style-type: none"> - Level of Service - Crashes per year -

Questions for the Steering Committee:	
Pull quotes:	The Jordan River defines Bluffdale and helped form the bluffs and dales that are its namesake, yet Bluffdale is not viewed as a river community. Physical access to the waters of the Jordan River and its greenway are limited.

Plan / Document Name:	Bluffdale Pressurized Irrigation Plan
Department Issuing:	City of Bluffdale
Location:	Bluffdale, UT
Publication Year:	2016
Active Time Period:	
Summary (50 – 100 words):	This plan is just a map showing drinking water zones, pressurized irrigation (city), and pressurized irrigation (private).
Recommendations that <u>directly</u> impact this plan:	- None
Recommendations that <u>indirectly</u> impact this plan:	- None
Key takeaways:	-
Key metrics:	-
Questions for the Steering Committee:	
Pull quotes:	--

Plan / Document Name:	Bluffdale Stormwater Plan
Department Issuing:	City of Bluffdale
Location:	Bluffdale, UT
Publication Year:	--
Active Time Period:	
Summary (50 – 100 words):	This plan is 3 maps showing the existing conditions of the stormwater management system in Bluffdale, including the size of pipes, locations of existing pipes, detention ponds, and canals. It also shows future pipe projects and future pond projects.
Recommendations that <u>directly</u> impact this plan:	- None
Recommendations that <u>indirectly</u> impact this plan:	- None

Key takeaways:	-
Key metrics:	-
Questions for the Steering Committee:	Is this plan up to date? When was it released/adopted?
Pull quotes:	--

Plan / Document Name:	Bluffdale Water Conservation Plan
Department Issuing:	City of Bluffdale
Location:	Bluffdale, UT
Publication Year:	2021
Active Time Period:	
Summary (50 – 100 words):	“This report describes the drinking water system, summarizes water consumption, assesses the water conservation alternatives available to the City, sets goals to conserve water, and identifies existing and proposed water conservation measures to be implemented by the City.”
Recommendations that <u>directly</u> impact this plan:	<ul style="list-style-type: none"> - Maintain a water conservation garden - Practice good stormwater management and LID - Create a water efficient landscaping ordinance - Reduce turf areas at city parks -
Recommendations that <u>indirectly</u> impact this plan:	-
Key takeaways:	- Lots of data about water supply, connections, connection types, historic use.
Key metrics:	- gpcd
Questions for the Steering Committee:	Is this a better plan to use than the Bluffdale Stormwater Plan?
Pull quotes:	The City believes that water conservation is an important strategy in its water management portfolio, now and in the future

Plan / Document Name:	Bluffdale Transportation Plan
Department Issuing:	City of Bluffdale
Location:	Bluffdale, UT
Publication Year:	2020
Active Time Period:	
Summary (50 – 100 words):	This plan outlines what must be done to achieve Bluffdale’s transportation goals by 2030 and 2050. They outline a no-build scenario as well to show what would happen if no improvements were completed while traffic demand increases.
Recommendations that <u>directly</u> impact this plan:	<ul style="list-style-type: none"> - 2030 and 2050 transportation project lists - Existing and proposed active transportation and vehicle transportation maps

Recommendations that <u>indirectly</u> impact this plan:	- Transportation habits and preferences
Key takeaways:	-
Key metrics:	- Level of Service - Crashes per year -
Questions for the Steering Committee:	
Pull quotes:	In addition to the above listed active transportation projects, this transportation plan recommends Bluffdale accommodate a diverse range of active transportation users on roadways, bike lanes, and sidewalks throughout the city.

Plan / Document Name:	Copperton General Plan
Department Issuing:	City of Copperton
Location:	Copperton, UT
Publication Year:	2020
Active Time Period:	
Summary (50 – 100 words):	General plan for the city of Copperton, which was only established as its own municipality in 2017. The plan outlines housing, park, zoning, land use, economic development, and cultural resilience goals and includes feedback from the community.
Recommendations that <u>directly</u> impact this plan:	- Rezoning of districts - Rezone the expansion area as primarily park space and open space – passive - Preserve existing open space - Acquire new open space amenities - improve walkability and bike-ability along Old and New Bingham highway
Recommendations that <u>indirectly</u> impact this plan:	-
Key takeaways:	-
Key metrics:	-
Questions for the Steering Committee:	
Pull quotes:	67% of Copperton respondents said inadequate biking and pedestrian infrastructure was an important or very important concern

Plan / Document Name:	Herriman General Plan (Herriman NEXT)
Department Issuing:	City of Herriman
Location:	Herriman, UT
Publication Year:	2022
Active Time Period:	
Summary (50 – 100 words):	This General Plan for Herriman covers a wide range of topics, most of which center around the value of open space to the City and its residents. While the character of Herriman is heavily defined by larger lots and single family homes, there are opportunities to mix the supply of housing and provide different neighborhood types. All of these neighborhoods are to be connected along green spaces and trail networks.
Recommendations that <u>directly</u> impact this plan:	<ul style="list-style-type: none"> - Design standards for new development - Establish a conservation design ordinance/zoning category or overlay - Enact low impact design standards for development/redevelopment - Facilitate connections to the trail system/expand the city trail system - Dual purpose detention/retention basins - Establish a riparian buffer overlay zone - Establish an “urban/rural reserve boundary” - Expand existing city standards to establish trail and other public ROW standards (greenways, trails, linear parks, etc) - Update open space requirements - Maximize views/conservation through public/private partnerships - Encourage agricultural/equestrian presence - Provide safe and convenient access to local and adjacent open spaces and/or green spaces via walking or biking - Locate and build trailheads to support local access to open spaces – allow access without a car - Provide shared parking for trailheads (parks, schools, churches) to minimize street impacts - Establish a trail and sidewalk system that conveniently and efficiently provides a means of alternate transportation between all neighborhoods, serves as a recreational resource, and connects to parks and open spaces - Improve trail street crossings - Consistent wayfinding signage and mapping of the trail system - Build diverse recreation features and facilities - Interactive public art, wayfinding signage, furnishings, and placemaking elements for new developments\ - Expand mountain bike trail system - Enhance and expand bike and ped network - Facilitate connections to the trail system and expand the city trail system
Recommendations that <u>indirectly</u> impact this plan:	-
Key takeaways:	<ul style="list-style-type: none"> - Equity/inclusivity mostly focuses on different ages, some mention of different lifestyle/recreation preferences - Updated land use map is in depth and has residential zones that respond to natural context

	- BIG open space land use designations
Key metrics:	-
Questions for the Steering Committee:	
Pull quotes:	<p>Growing Wisely means proactively planning for what we want – quality open spaces AND a diverse range of high quality, desirable neighborhoods.</p> <p>Optimizing Open Spaces reflects a commitment to context-sensitive growth by planning for a diverse collection of neighborhood types with open space incorporated in varying amounts and approaches most appropriate to the type and context of the neighborhood.</p>

Plan / Document Name:	Herriman Stormwater Plan
Department Issuing:	City of Herriman
Location:	Herriman, UT
Publication Year:	2018
Active Time Period:	
Summary (50 – 100 words):	This is a selection of maps from the 2018 Storm Drain Masterplan showing creek drainages and retention areas in Herriman.
Recommendations that <u>directly</u> impact this plan:	- Maps appear to show existing conditions only
Recommendations that <u>indirectly</u> impact this plan:	-
Key takeaways:	-
Key metrics:	-
Questions for the Steering Committee:	Question for PM GROUP – is Limnotech reviewing the overall storm drain masterplan, or does DW need to complete this?
Pull quotes:	

Plan / Document Name:	Herriman Active Transportation Plan
Department Issuing:	City of Herriman
Location:	Herriman, UT
Publication Year:	2020
Active Time Period:	
Summary (50 – 100 words):	The Herriman Active Transportation Plan identifies gaps in bike and pedestrian infrastructure. It then proposes a toolkit of treatments to fill these gaps. Different bike lane typologies, side walk and paved path treatments, and road cross section treatments are proposed, and mapped out according to funding and priority.
Recommendations that <u>directly</u> impact this plan:	<ul style="list-style-type: none"> - Introduce bike lanes, bike boulevards, buffered bike lanes, or paved paths where appropriate - Introduce bike boxes

	<ul style="list-style-type: none"> - Introduce bulb outs - Consider developing connectivity standards - Require developers to provide active transportation facilities - Create connections across Mountain View Corridor -
Recommendations that indirectly impact this plan:	-
Key takeaways:	-
Key metrics:	- Miles of paths/sidewalks/bike lanes
Questions for the Steering Committee:	
Pull quotes:	There is a proposed 296% increase in bike lanes (12.8 miles to 37.9 miles)

Plan / Document Name:	Herriman Parks, Recreation, Open Space, and Trails Master Plan
Department Issuing:	City of Herriman
Location:	Herriman, UT
Publication Year:	2020
Active Time Period:	2018-2028
Summary (50 – 100 words):	This plan is a robust quantitative and qualitative analysis of the current conditions and needs of the parks, trails, and open spaces system in Herriman. The need for new and enhanced parks, trails, and open spaces is substantiated by Level of Service calculations that ensure equitable access to these amenities for residents of Herriman well into the future. There is also an in depth analysis of the existing system, including a clear classification of park types and references to the Herriman Hills Open Space plan.
Recommendations that directly impact this plan:	<ul style="list-style-type: none"> - Provide a foundation for developing a Capital Improvements Plan, Impact Fee Facilities Plan, and Impact Fee Analysis - Develop the planned 43-acre Northwest Sports Park - Develop the proposed 24.4 acre Hidden Oaks Park - Develop Spring Canyon Trailhead for Herriman Hills Open Space - Develop two 10-acre neighborhood parks east of MVC and a 20-acre community park east of MVC (see map 4) - Local park standards (for each park type) - Proposed to acquire an additional 1860.6 acres of open space (expand Herriman Hills Open Space, others) - Partner with SLCo for rec programs and activities, development of joint facilities - Work with club teams to ensure facility usage is efficient - Look into other partnership opportunities (Jordan School District, other cities, private orgs) - Future Community Center in the works near SLCC campus - Proposes 3 classes of trailheads (from Herriman Hills Open Space Plan)

	<ul style="list-style-type: none"> - Proposes (new) 62.1 miles of paved trails, 1.4 miles of unpaved trails, and 52.2 miles of primitive trails (BST and bike only trails) - Complete BST through Herriman - Partner with Camp Williams to provide a motorized trail to parallel the military facility boundary (also a firebreak) - 14.5 miles of proposed striped bike lanes - 12 proposed trailheads - Update trail design standards - Explore possibilities for specific user groups (ADA, beginner, use specific routes) - Support trailhead standards from Herriman Hills Open Space Master Plan - Partner with UDOT to develop safe crossings - Provide a comprehensive signage and wayfinding system - Promote water conservation and similar practices to help ensure the Herriman City Parks and Recreation System is sustainable and resilient
Recommendations that indirectly impact this plan:	-
Key takeaways:	<ul style="list-style-type: none"> - 191.5 acres of existing parks - 257.7 acres of planned parks - 449.3 acres of parks planned by 2060 (adding the two above numbers) - Open space is called out separately from parks, more about the natural environment up in the foothills (2,417 acres)
Key metrics:	<ul style="list-style-type: none"> - Acres of parks - Level of service (acres/1000 people) - Miles of trails
Questions for the Steering Committee:	
Pull quotes:	When asked how they would allocate \$100 for parks, recreation programs, facilities, trails or art programs, spending on existing open spaces ranked second at \$13, just behind trails at \$18.

Plan / Document Name:	Riverton General Plan
Department Issuing:	City of Riverton
Location:	Riverton, UT
Publication Year:	2020
Active Time Period:	
Summary (50 – 100 words):	This is the land use map from the general plan for Riverton. It shows housing density, commercial and mixed use development centers, historic preservation areas, open space, and other relevant land uses.
Recommendations that directly impact this plan:	<ul style="list-style-type: none"> - Land use requirements

Recommendations that indirectly impact this plan:	-
Key takeaways:	-
Key metrics:	-
Questions for the Steering Committee:	Is there a full document that includes this plan?
Pull quotes:	

Plan / Document Name:	Riverton Parks Plan
Department Issuing:	City of Riverton
Location:	Riverton, UT
Publication Year:	--
Active Time Period:	
Summary (50 – 100 words):	This is the map of the existing parks in Riverton with notes about which amenities are included in each. It also calls out the nearby schools and civic spaces.
Recommendations that directly impact this plan:	-
Recommendations that indirectly impact this plan:	-
Key takeaways:	- Park relationships to educational and civic spaces are important
Key metrics:	-
Questions for the Steering Committee:	Is there a full document that includes this plan?
Pull quotes:	

Plan / Document Name:	Riverton Stormwater Restriction Map Plan
Department Issuing:	City of Riverton
Location:	Riverton, UT
Publication Year:	2022
Active Time Period:	
Summary (50 – 100 words):	This is the map of the existing flood control ponds and their drainages in Riverton. It also shows the different stormwater basins throughout the city. Areas of inadequate conveyance are also highlighted
Recommendations that directly impact this plan:	-
Recommendations that indirectly impact this plan:	-
Key takeaways:	-
Key metrics:	-

Questions for the Steering Committee:	Is there a full document that includes this plan?
Pull quotes:	

Plan / Document Name:	Riverton Active Transportation Plan
Department Issuing:	City of Riverton
Location:	Riverton, UT
Publication Year:	2016
Active Time Period:	
Summary (50 – 100 words):	This plan identifies existing conditions of Riverton’s active transportation system and proposes improvements that can enhance the experience and safety of bikers and pedestrians.
Recommendations that <u>directly</u> impact this plan:	<ul style="list-style-type: none"> - Develop the Riverton Active Transportation Backbone Network through canal trails, neighborhood byway corridors, trails in riparian corridors, and improved bikeways on east-west arterial streets - Develop shared use paths - Retrofit existing streets for on-street bikeways - Canal access improvement (pedestrian links, connect streets across canals) - Grade separated crossings - Improve intersections and beacons - Unified wayfinding system - Enact bicycle parking policy - Adopt a complete streets policy - Educational campaigns - Create educational/wayfinding maps - Safe routes to school
Recommendations that <u>indirectly</u> impact this plan:	-
Key takeaways:	-
Key metrics:	-
Questions for the Steering Committee:	
Pull quotes:	

Plan / Document Name:	West Jordan General Plan
Department Issuing:	City of West Jordan
Location:	West Jordan, UT
Publication Year:	2021?
Active Time Period:	

Summary (50 – 100 words):	This General Plan for West Jordan is a detailed outline of the city’s vision for urban design, land use, transportation, housing, environment, water use and preservation, parks, recreation, and open space, economic development, and historic preservation. The plan references other sub-plans for specific details, and mostly provides vision and goals for each topic rather than metrics for implementation.
Recommendations that <u>directly</u> impact this plan:	<ul style="list-style-type: none"> - Potential annexation to the SLCo border (true for several municipalities) - Impact fees - Emphasize creeks and smaller drainages - Preserve open spaces - Preserve view corridors and vistas - All proposed street cross sections allow for the addition of bicycle lanes - Limit proximity of development to natural washes - Preserve remaining natural wetlands - Encourage water efficient landscaping and other uses of water - Follow West Jordan Water Conservancy and Drought Plan - Efficient use of land for parks spaces - Equitable access (proximity, economic) to parks - 53.5 acres of undeveloped city owned land need to be developed into parks by 2060 - Acquire additional open space (conservation easements, land banking, TDRs, developer dedications and donations, intergovernmental land transfers, open space design standards/clustered development, zoning and development restrictions/sensitive lands overlay, fee simple title, purchase and sell/leaseback) - Community garden policy should be adopted - Increase the jobs to housing ratio
Recommendations that <u>indirectly</u> impact this plan:	-
Key takeaways:	<ul style="list-style-type: none"> - 5 categories of open space (cultural, ecological, developmental, agricultural, recreational) - Overall principle of parks: provide relief from asphalt, concrete, steel, and vehicular environments of a suburban city
Key metrics:	-
Questions for the Steering Committee:	What year is this from? (Data from 2020 Census, looks like there is data from 2021)
Pull quotes:	<p>Smaller drainages and creeks have the same potential as major land forms and should become equally important connections for pedestrian, biking and equestrian access to the Jordan River and the Oquirrh Mountains in the future.</p> <p>The protection and conservation of distinct and valuable resources is everyone’s responsibility.</p> <p>Environmental concerns in the community revolve around two major issues: preserving the natural environment and mitigating environmental impacts from heavy land use.</p>

	West Jordan's natural drainage pathways (washes) provide important travel, cover, nesting, feeding, and resting habitat for a variety of animals. Wildlife tends to concentrate in natural washes and undeveloped outlying areas, particularly along the Jordan River and on the foothills of the Oquirrh Mountains.
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Plan / Document Name:	West Jordan Parks, Recreation, Trails & Open Space Master Plan
Department Issuing:	City of West Jordan
Location:	West Jordan, UT
Publication Year:	2019
Active Time Period:	2018-2028
Summary (50 – 100 words):	This plan outlines goals for the parks, trails, recreation facilities, and open spaces in West Jordan. It addresses the current level of service, what is needed to maintain that level of service for the life of the plan, and the future needs for parks, trails, and open spaces looking to buildout in 2060.
Recommendations that <u>directly</u> impact this plan:	<ul style="list-style-type: none"> - Develop 53.5 acres of park land by 2028 to maintain 2.85 LOS for parks - Acquire 68 acres of park land by buildout - Develop 137 acres of park land by buildout - Parks should be designed or updated to meet the requirements for their park type - Study Teton Estates Park for potential upgrade to community park - Fill amenities deficits - Comprehensive wayfinding plan, lighting study - Add a recreation center to serve the west portion of the community - See 2013 Transportation Master Plan for bike trails proposals - 54.1 miles of multi-use trails and 5.8 miles of unpaved trails - 5 new trailheads on the west side of the city - New trail crossings at, above, and below grade - Complete streets policy - Lighting and safety improvements - Wayfinding signage system - Bike repair stations at formal trailheads - Sidewalk master plan - Secure additional land for open space (752.9 acres proposed) - 70 acre Big Bend restoration project
Recommendations that <u>indirectly</u> impact this plan:	-
Key takeaways:	<ul style="list-style-type: none"> - Clear delineation of park types and characteristics (regional, community, neighborhood, mini) - Clear delineation of trail types (multi-use trails, urban trails, unpaved trails, urban water trail)
Key metrics:	<ul style="list-style-type: none"> - Survey responses - Acres of park/open space/recreation - LOS - Trail mileage

	-
Questions for the Steering Committee:	
Pull quotes:	<p>The top park priority is better maintenance of existing parks, trails and facilities (25.6%), followed by upgrading existing parks and playgrounds (13.0%), and preserving more open space (10.9%).</p> <p>Most residents meet their recreation needs with public parks, trails and open space (38.5%). Most residents visit parks a few times a month or more (40.1%).</p> <p>The most desired improvement to the trail system is more information about the trail network (13.1%), followed by more restrooms (11.1%), lighting (11.1%) and pet waste disposal stations (7.5%).</p> <p>More than 40-percent of survey respondents indicated that they would use trails more if they were more complete or connected.</p> <p>Natural open space serves myriad purposes in the community. It provides relief from the built environment of buildings and pavement; recreation opportunities such as hiking, bicycling, bird watching and water activities; and the chance for residents to connect with nature. Open space also provides a host of ecologic benefits, providing space to purify soil, water and air; absorb noise, wind and visual disturbances; store water and carbon; and reduce the urban heat island effect. When connected to parks and recreation facilities by trails, open space becomes an integral component of the City's comprehensive public lands system.</p> <p>Natural drainages also lend themselves well to trails where space allows, and trails are recommended along many of the natural drainages as shown in Chapter 5.</p>

Plan / Document Name:	West Jordan Transportation Master Plan
Department Issuing:	City of West Jordan
Location:	West Jordan, UT
Publication Year:	2013
Active Time Period:	2040
Summary (50 – 100 words):	The Transportation Master Plan looks at how West Jordan can anticipate and meet future demand for transportation infrastructure through 2040. It identifies priority projects along major city owned and UDOT owned roads ideal for necessary upgrades. The plan primarily focuses on vehicular traffic/transportation with a secondary emphasis on pedestrians and transit.
Recommendations that <u>directly</u> impact this plan:	<ul style="list-style-type: none"> - Upgrade Bangerter Highway - Complete Mountain View Corridor - Upgrade Hwy-111 - Upgrade 7000 S - Upgrade 7800 and 9000 S

	<ul style="list-style-type: none"> - Upgrade 6200 S - Add collector streets west of MVC - Upgrade 10200 S - Upgrade parts of 4000 W, 5600 W, 4800 W - Upgrade intersections and roundabouts - Support UTA/UDOT/WFRC efforts to improve transit - TOD - Guide trails planning with the Parks, Recreation, Trails and Open Space Handbook (PRTOSH) - Traffic calming
Recommendations that indirectly impact this plan:	-
Key takeaways:	<ul style="list-style-type: none"> - Emphasis is on road widening or adding lanes - Some recommendations for trails, TOD, traffic calming to meet demand
Key metrics:	-
Questions for the Steering Committee:	
Pull quotes:	

Plan / Document Name:	West Jordan Active Transportation Plan
Department Issuing:	City of West Jordan, City of South Jordan
Location:	West Jordan, UT
Publication Year:	2019
Active Time Period:	
Summary (50 – 100 words):	This plan is a collaboration between South Jordan and West Jordan to gather community input and analysis for future active transportation projects. Bike and pedestrian projects were evaluated based on connectivity to the overall AT network, community interest, and cost to identify priority projects.
Recommendations that directly impact this plan:	<ul style="list-style-type: none"> - Active transportation priority projects - Complete streets
Recommendations that indirectly impact this plan:	<ul style="list-style-type: none"> - Gov. Herbert 1000 Miles Campaign to build 1000 new miles of bike paths/lanes/trails by 2027 - Striped, buffered, and protected bike lanes - Multi use paths and neighborhood byways
Key takeaways:	-
Key metrics:	- Evaluation scoring index (connectivity to other projects, cost, buffers, community engagement)
Questions for the Steering Committee:	
Pull quotes:	<p>Locations like neighborhoods, schools, parks, and shopping areas are prime locations for active connections.</p> <p>A majority of residents (68%) of respondents stated that bicycle and pedestrian facilities were extremely important or very important while only 9% stated that they were not so important or not important.</p>

Plan / Document Name: SLCo West General Plan	
Department Issuing:	Salt Lake County Regional Development Planning & Transportation
Location:	SLC
Publication Year:	2022
Active Time Period:	
Summary (50 – 100 words):	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.
Recommendations that <u>directly</u> impact this plan:	<ul style="list-style-type: none"> - Land Use Planning Goals - Water Resource Planning - Community Development - Mixed Use & Multimodal - Water Quality Protections - Reclamation
Recommendations that <u>indirectly</u> impact this plan:	<ul style="list-style-type: none"> - Urban Heat Island - Parks & Recreation Considerations - Infrastructure
Key takeaways:	- Community Development and Water protection goals that can guide the H2Oquirrh Vision.
Key metrics:	
Questions for the Steering Committee:	
Pull quotes:	“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.”

Plan / Document Name: SLCo Stormwater Discharge Plan	
Department Issuing:	
Location:	Salt Lake Couty
Publication Year:	2015
Active Time Period:	
Summary (50 – 100 words):	The SLCO Stormwater Discharge Plan identifies Industrial Stormwater Discharge Permits Regulated by Utah Dept of Water Quality. It categorizes zones based off discharge counts.
Recommendations that <u>directly</u> impact this plan:	N/A
Recommendations that <u>indirectly</u> impact this plan:	N/A

Key takeaways:	- Majority of industrial discharge locations occur outside of study area, nearer to the Great Salt Lake. A cluster of locations exists downstream from the Kennicott mine location.
Key metrics:	- Majority of sub watersheds within the project study area contain between 1-25 industrial stormwater discharge locations.
Questions for the Steering Committee:	
Pull quotes:	

Plan / Document Name:	SLCo Water Use Plan
Department Issuing:	
Location:	Salt Lake Couty
Publication Year:	2015
Active Time Period:	
Summary (50 – 100 words):	The SLCO Water Use Plan classifies areas of the county based off Designated Beneficial Use of Water. The majority of waters in the project study area are protected for secondary recreation, agricultural uses, and nongame fish and aquatic life.
Recommendations that directly impact this plan:	N/A
Recommendations that indirectly impact this plan:	N/A
Key takeaways:	- The majority of waters in the project study area are protected for secondary recreation, agricultural uses, and nongame fish and aquatic life.
Key metrics:	
Questions for the Steering Committee:	
Pull quotes:	

Plan / Document Name:	SLCo Active Transportation Plan
Department Issuing:	
Location:	Salt Lake Couty
Publication Year:	2019
Active Time Period:	2019-2050
Summary (50 – 100 words):	The SLCO Active Transportation Plan maps incorporated and unincorporated areas of SLC, as well as the RTP needs and planned projects separated by decade phase between 2019-2050.

Recommendations that <u>directly</u> impact this plan:	
Recommendations that <u>indirectly</u> impact this plan:	- Proposed Oquirrh Blvd/Bonneville Shoreline West Trail has been recommended for adjustment by Copperton and Rio Tinto Kennecott.
Key takeaways:	- The plan is proposed to support development following mine closure, and is subject to change based on mine closure plans.
Key metrics:	
Questions for the Steering Committee:	
Pull quotes:	

Plan / Document Name:	WFRC Regional Transportation Plan
Department Issuing:	WFRC
Location:	Salt Lake Couty
Publication Year:	2023
Active Time Period:	2023-2050
Summary (50 – 100 words):	The 2023-2050 RTP includes improvements that optimize and enhance the transportation system. This includes both policies that guide the way WFRC addresses various issues and regional transportation infrastructure. Policies include principles that guide the 2023-2050 RTP, such as a desire to mitigate growth in travel demand. Policies also address new considerations like emerging transportation technologies such as connected and autonomous vehicles (CAV) and micro-mobility devices. Policies also suggest implementing actions by other entities that would significantly affect mobility, accessibility, and quality of life along the Wasatch Front. Regional infrastructure improvements include enhancements such as building additional roads, transit lines, and trails. Overall, the 2023-2050 RTP seeks to help improve the resiliency of the Region in the face of economic, technological, and environmental uncertainties.
Recommendations that <u>directly</u> impact this plan:	
Recommendations that <u>indirectly</u> impact this plan:	Forward thinking Policy Link Planning with Project Development Mitigate Growth of Travel Demand Maximize the Value of Emerging Technologies
Key takeaways:	The purpose of the 2023-2050 Regional Transportation Plan (RTP) is to address the transportation needs for the Wasatch Front Region and help make the Wasatch Choice Vision a reality. The 2023-2050 RTP planning process produced a list of planned improvements to regional roadway, transit, and active transportation systems designed to meet the travel needs of the Wasatch Front Region for the next 28 years.
Key metrics:	
Questions for the Steering Committee:	

Pull quotes:	"Utah has one of the fastest growing populations of any state - the state's population is an estimated 3.4 million now and, by 2050, it is expected to grow to roughly five million."
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Plan / Document Name:	Wasatch Choice 2050
Department Issuing:	WFRC
Location:	Salt Lake Couty
Publication Year:	2023
Active Time Period:	2023-2050
Summary (50 – 100 words):	The Wasatch Choice Vision coordinates the planning of transportation, land use, economic opportunity, and parks and public spaces to maintain and enhance our quality of life. The Wasatch Choice Vision builds on community values through an expensive public input process from our partners and community leaders to establish a blueprint for growth.
Recommendations that directly impact this plan:	The Wasatch Choice Plan identifies greenways along the full length of several creeks and washes within the study area, and calls out development centers along them.
Recommendations that indirectly impact this plan:	Development and Employment Centers Industrial Districts Planned Bike Trails
Key takeaways:	Wasatch Choice Centers within the project study area include the SW Salt Lake Employment District, Bacchus Hwy Center, Olympia Hills, Herriman Town Center, Daybreak, West Jordan Industrial District, Jordan Landing Employment District.
Key metrics:	
Questions for the Steering Committee:	
Pull quotes:	"Utah has one of the fastest growing populations of any state - the state's population is an estimated 3.4 million now and, by 2050, it is expected to grow to roughly five million."

Plan / Document Name:	(Re) Connect
Department Issuing:	WFRC
Location:	Salt Lake Couty
Publication Year:	2012
Active Time Period:	2012-2040
Summary (50 – 100 words):	The (Re)Connect plan enables stakeholders to make informed, strategic, and collective decisions for the region's green infrastructure networks.

Recommendations that <u>directly</u> impact this plan:	Development Patterns of Green Infrastructure
Recommendations that <u>indirectly</u> impact this plan:	Economic Benefits of Green Infrastructure
Key takeaways:	The plan identifies Ecological Core Centers and Hubs within the project study area including most of the Oquirrh foothills and large acreages outside Herriman and West Jordan. It also includes working lands and recreation assests.
Key metrics:	
Questions for the Steering Committee:	
Pull quotes:	“Some areas illustrated may be identified as priorities for conservation through acquisition or easements. This type of protection would ensure communities are less capable of producing undesirable impacts on the green infrastructure resources in that area. Other areas may be optimal for low impact development or ecological design projects in which community systems are integrated into the natural landscape in a way that does not compromise the integrity of the green infrastructure. Still other areas may be in need of restoration as a result of previous disturbances to green infrastructure.”



APPENDIX C

In this Chapter:

- » H2Oquirrh: Water-Related Plan Review Summaries

DRAFT MEMORANDUM

From: Renn Lambert, Steve Skripnik
Date: December 4, 2023
To: Dylan Bagnasco, Design Workshop
Project: SWWTR
 Click here to enter text.
CC: Click here to enter text.

SUBJECT: H2Oquirrh: Water-Related Plan Review Summaries (Task 2.1)

PURPOSE

This memo is a summary of LimnoTech’s review of Stormwater Plans, Stream Channel and Water Quality Data, and watershed management and riparian corridor plans. This summary is for internal purposes, and the content is intended to be included in the Existing Conditions Summary report as a part of Task 2.5.

DOCUMENTS REVIEWED

The following documents were reviewed and summarized with respect to information that was related to the hydrology, river channel conditions and modifications, water quality, and stormwater in the H2Oquirrh project area.

Document	Description
Butterfield Creek Master Plan Study	This stormwater master plan focuses on the capacity of historic Butterfield Creek from Redwood Rd to the Jordan River in Riverton. The study recommended improvements to allow the stream to convey the 100 year design storm runoff (Bowen Collins & Associates 2022).
Southwest Canal and Creek Study (SWCC) - Phase 1, 2, and 3	Update of the 2002 SWCC which was intended to identify improvements need to manage stormwater runoff in southwest Salt Lake County (Bowen Collins & Associates, 2020, 2021 & 2022).
Bluffdale 2019 Storm Water Master Plan	This Storm Water Master Plan evaluates current system and examines current and potential needs to provide effective and reliable conveyance of runoff to reduce flood risk (The City of Bluffdale Engineering Department 2019).

Document	Description
Storm Drain Master Plan. Herriman City.	Herriman City prepared this stormwater master plan in response to significant development in the city and Salt Lake County implementing more restrictive stormwater discharge requirements to Rose Creek and Midas Creek. The purpose of the plan is to provide recommendations to resolve existing challenges and to project future deficiencies the storm drain system (Bowen Collins & Associates 2020).
The City of West Jordan Storm Drainage Master Plan.	This stormwater master plan recommends improvements needed to manage stormwater runoff caused by development and plans to mitigate flooding and environmental impacts in West Jordan (Hansen, Allen & Luce 2015).
City of Bluffdale, Utah Floodplain Management Plan ¹ .	The purpose of this Floodplain Management Plan is to guide the city in decisions to manage flood risks along the Jordan River and other creeks and canals that flow through the city (Floodplain Management Plan Technical Advisory Group 2018).
City of Bluffdale Storm Water Management Plan 2020-2025 ¹	This Storm Water Management Plan is implemented to limit the discharge of pollutants to the city storm drain system (City of Bluffdale 2020).
Herriman City Storm Water Management Plan 2020-2025 ¹	This Storm Water Management Plan is implemented to limit the discharge of pollutants to the city storm drain system (Herriman City 2020).
Salt Lake County. 2020. Stormwater Management Plan	This Storm Water Management Plan is implemented to limit the discharge of pollutants to the county storm drain system (Salt Lake County 2020).
2015 Salt Lake County Integrated Watershed Plan	This Integrated Watershed Plan is part of the county wide water quality plan. It evaluates progress in water quality improvement from water quality data and projects future issues based on land use and population projections.
Jordan River Watershed <i>E. coli</i> TMDL	The focus of the Jordan River TMDL is to reduce both non-point and municipal stormwater <i>E. coli</i> loading in the Jordan River Watershed.
Bluffdale, Utah Water Master Plan Part II: Pressurized Irrigation ¹	This is a 5-10 year master plan for the city to provide adequate pressurized irrigation to the city service area to accommodate future growth (Hansen, Allen & Luce 2017).
City of West Jordan Water Mater Plan ¹	This is a 10 year master plan for the city's water system. It recommends projects that need to be undertaken to meet current and future culinary water demands (Bowen Collins & Associates 2022).
2019 Sanitary Sewer Master Plan Update ¹	This master plan reviewed the existing sanitary system and recommended needed improvements. It also evaluated a future scenario at build out and concluded with recommendations for a capital improvement projects (JUB Engineers 2020).

1. These reports were reviewed but did not contain information pertinent to the project or were redundant to information contained in other reports.

A summary of the key themes of the documents is presented below.

HYDROLOGY

Watershed

Over the last 20 years the watersheds of southwest Salt Lake County including Bingham Creek, Butterfield Creek, Midas Creek, Barneys Creek, Beef Hollow, Wood Hollow have



experienced substantial urban development, and they are projected to lose 25-50% of their open space in the next 20 years due to population increases (Salt Lake County Watershed Planning & Restoration 2015). This will lead to a need for additional stormwater infrastructure for both flood and water quality control due to the increases in impervious areas.

Flow Regime

In general, the waterways of Southwest Salt Lake County are ephemeral. The creeks only run during spring runoff when substantial snowpack is melting in the mountains, or during major precipitation events if there is enough runoff for them to discharge at all.

There are portions of streams that are exceptions that flow year around examples that were found include:

- Rose Creek is perennial in the upper portion near or in the canyons, the lower portion is Ephemeral (Personal Communication, Sam Taylor, Salt Lake County).
- The lower historic portion of Butterfield Creek in Riverton is perennial and is spring fed. It is no longer connected to the upper portion that flows from the canyon and this perennial portion begins at 13600 S and Redwood Road and ends at 13000 S near the Southeast corner of the Riverbend Golf Course. (Bowen Collins & Associates 2022)

CHANNEL CONDITION/MODIFICATIONS

Butterfield Creek

Prior to the 1940s, large portions of the Butterfield Creek channel in the Salt Lake Valley were filled in by farming activities (Figure 1). Developers and municipalities have worked to restore sections of the channels as areas have urbanized. As mentioned earlier, the upper and lower portions of Butterfield Creek are not connected. The upper part ends at 6000 W and is diverted to Midas Creek via pipelines. The lower portion of the stream begins at Redwood Rd. (1700 W) is spring fed and runs year around (Bowen Collins & Associates 2022, Bowen Collins & Associates 2021).



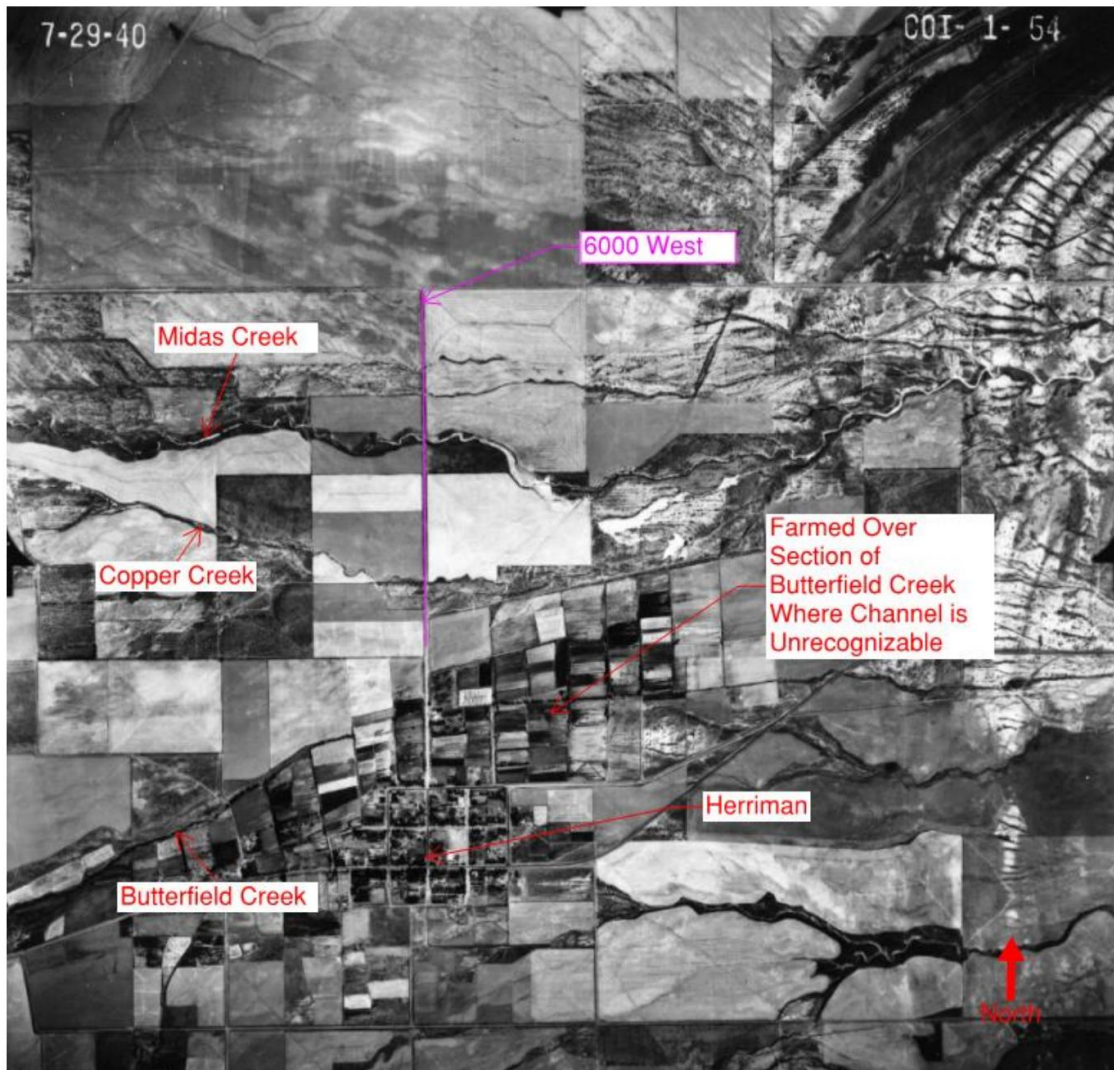


Photo 4-1 - Historic Aerial Photo from 1940

Figure 1 Aerial photo of Midas Creek and Butterfield Creek from 1940 (Bowen Collins & Associates 2021).

Rose Creek

In the lower part of the valley, the Rose Creek channel is also highly modified by development. Like Butterfield Creek, prior to the 1990s the channel was filled by farming or other anthropogenic activities east of the Utah and Salt Lake Canal. When urban development began to increase in the 1990s, the county worked to restore the stream channel for stormwater conveyance. It is restored from the Utah and Salt Lake Canal to the Jordan River (Bowen Collins & Associates 2020).



Midas Creek

Midas Creek has an intact channel from the headwaters at the base of the Oquirrh Mountains near Baccus Highway (U111) to the Jordan River. In the 1990s the upper portion of Butterfield Creek was diverted to Midas Creek via two pipelines. The confluence is at 4800 West. Portions of the streams have poorly defined channels and restoration/modification of the channels would be advantageous for flood control (Bowen Collins & Associates 2021). For example, the channel of Butterfield Creek is encroached upon by farming activities at 8000 W (Figure 2).



Photo 2-4 Butterfield Creek Channel that has been encroached by Farming Activities

Figure 2 An example of channel encroachment in the Butterfield Creek Channel at 8000 W (Bowen Collins & Associates 2021).

Prior to European settlement, Midas Creek drained a larger basin. Before the development of the Bingham Canyon Mine, the eastern portion of the mine site had areas that drained into the creek. As the land surface was modified areas of the Midas Creek watershed area were directed to Bingham Creek (Figure 3, Personal Communication, Sam Taylor, Salt Lake County).

Other Creeks

Both Barney's Creek and Bingham Creek have areas where the channel is poorly defined, and there are undeveloped areas where the channel has been filled. If development takes place, the stream



channels will need to be restored to accommodate stormwater runoff (Bowen Collins & Associates 2022).

Bingham Creek drains a 36.2 square mile basin, in which much of the Bingham Canyon Mine can be found. Similar to Midas Creek, modifications to the watershed have occurred because of substantial open pit mining activities, resulting in little or no water reaching the creek from the mountains (Figure 3). When Bingham Creek reaches the Utah Distributing Canal, which crosses over the creek at approximately 3300 West and 11800 South, some water is introduced into the creek from the Canal. From this point to the Jordan River, canals deliver year-round water to the creek (Personal Communication, Sam Taylor, Salt Lake County).



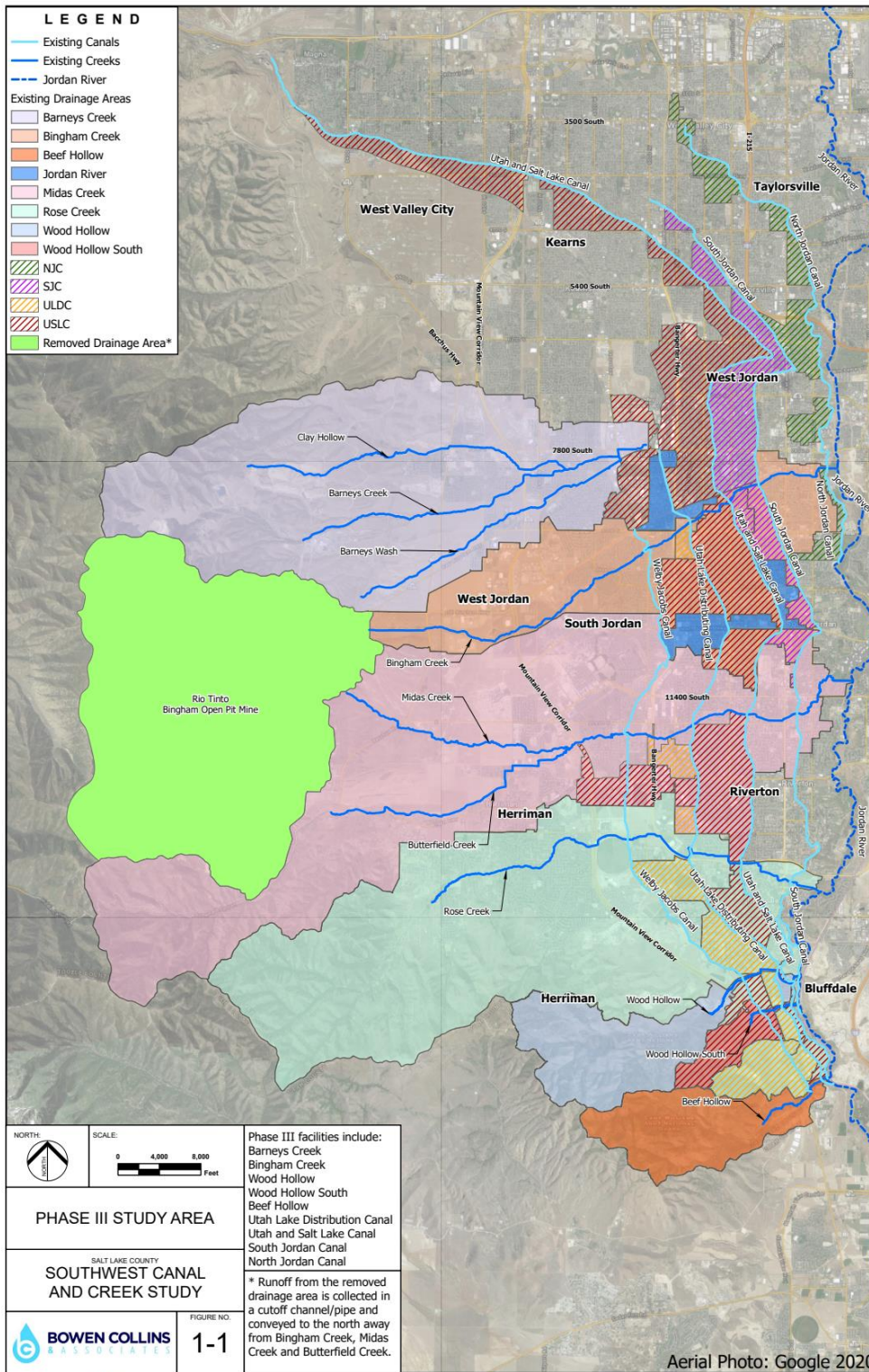


Figure 3 Map depicting areas of Midas, Butterfield, and Bingham Creeks where the drainage area was removed by Bingham Canyon mining activities (Bowen Collins & Associates 2022).



WATER QUALITY

Most of the streams in the study area are ephemeral and are not actively monitored for water quality. The streams listed below are monitored regularly and are considered impaired (Salt Lake County Watershed Planning & Restoration 2015):

- Bingham Creek - Selenium, Total Dissolved Solids (TDS)
- Butterfield Creek - *E. coli*, Selenium, TDS
- Rose Creek - *E. coli*
- Midas Creek – *E. coli*

Rose Creek and Midas Creek watersheds were included in the 2022 Jordan River *E. coli* TMDL (Figure 4). *E. coli* contamination comes from a variety of sources identified by the TMDL including municipal stormwater, construction sites, onsite septic systems, domestic livestock and pets, human recreation along the streams and wildlife (for example waterfowl, and big game including elk, deer and moose). Some of the remaining onsite septic systems in the county are in the Rose Creek watershed. There is a trail system in the Rose Creek watershed where human waste left by recreational activities could contribute to *E. coli* loading as well (Utah Division of Water Quality 2022).

The focus of the Jordan River TMDL is to reduce both non-point and municipal stormwater *E. coli* loading. Watershed restoration and pollution control programs have been in place in Salt Lake County since the 1970s (Salt Lake County 2020, Herriman City 2020, City of Bluffdale 2020, Salt Lake County Watershed Planning & Restoration 2015), and the goals of the TMDL will build on this work.

- The nonpoint source program is voluntary and guided by the interest of stakeholders. The TMDL lists strategies for several non-point producers including onsite septic systems, wildlife, pets, agriculture, and recreation to reduce loads.
- Municipal Stormwater loading will be reduced through MS4 permitting requirements including non-structural (e.g., public education, Illicit discharge elimination) and structural source controls such as Low Impact Development (LID). LID includes practices that keep water on site and infiltrates it into the ground, such as pervious pavement, underground infiltration galleries, or infiltration trenches. Low Impact Development is not currently required for existing development in the MS4 permits. The TMDL suggests permittees explore options, but they are not currently required to implement them, except in new developments (Utah Division of Water Quality 2022).



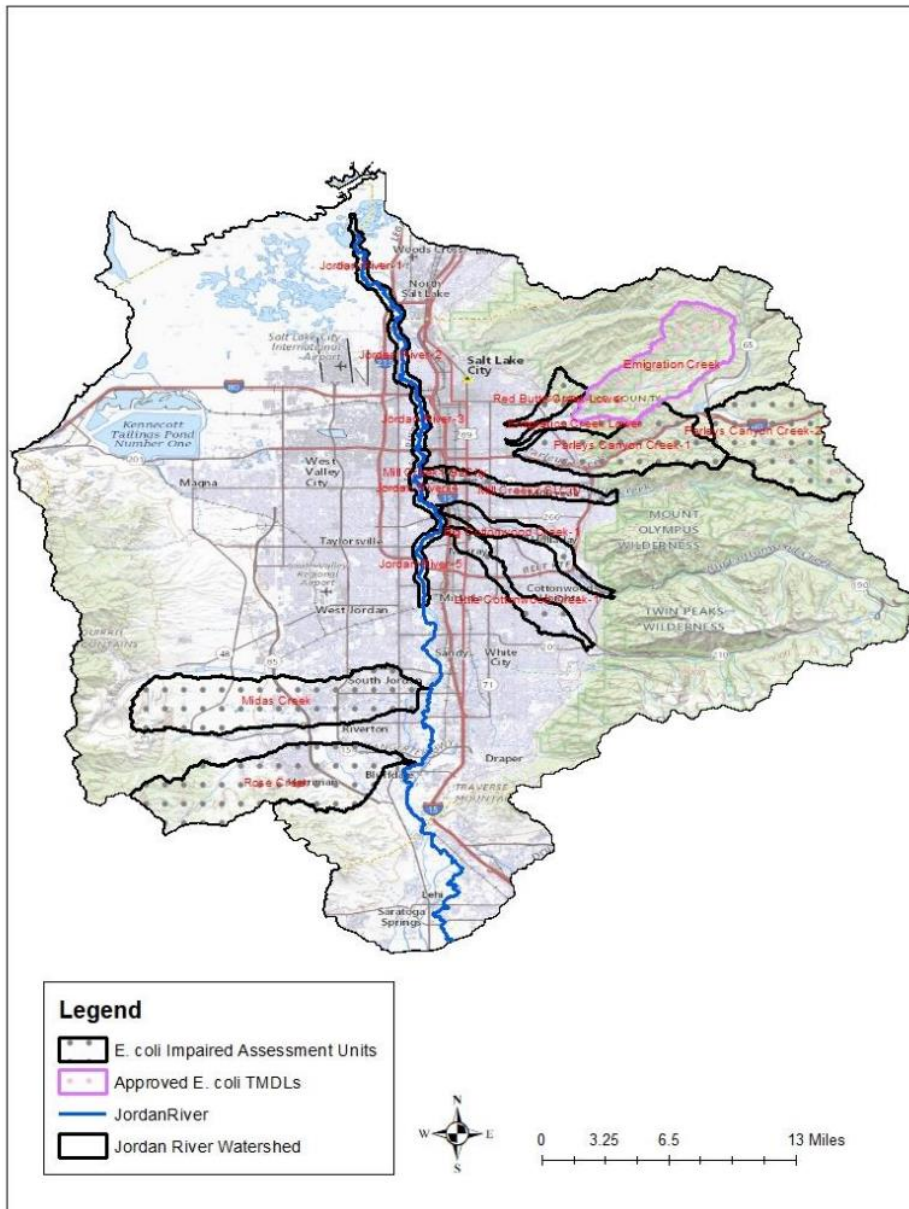


Figure 3. Location of Jordan River watershed E. coli impaired assessment units.

Figure 4. Jordan river E. coli assessment units including Midas Creek and Rose Creek (Utah Division of Water Quality 2022).



STORMWATER

As mentioned previously all the streams in this study have a role in stormwater conveyance from the surrounding cities including Herriman, Riverton, Bluffdale, South Jordan, and West Jordan, portions of the Rose Creek and Butterfield Creek channels were restored to convey stormwater.

In addition, the area canals are utilized to convey stormwater, and have Overflow/Dump-Out structures (Figure 5) that deliver surplus stormwater to the streams so they are not overwhelmed by storm inputs (Hansen, Allen & Luce 2015, Bowen Collins & Associates 2020, Bowen Collins & Associates 2021, Bowen Collins & Associates 2022).



Photo 2-1 Overflow/Dump-Out Structure Where South Jordan Canal Crosses Midas Creek

Figure 5 Example of an overflow/dump-out structure (Bowen Collins & Associates 2021).

Stormwater master plans were reviewed from West Jordan City, Herriman City and Bluffdale City (Hansen, Allen & Luce 2015, Bowen Collins & Associates 2020, The City of Bluffdale Engineering Department 2019). All plans described the cities' challenges with existing infrastructure, including maintenance and upgrades that are needed to conveyance structures and the need for expansion of detention basins to reduce flood risk. The plans also emphasized the need to expand the storm drain systems to accommodate future growth. Some specific needs and costs were included in the plans. Both Bluffdale and West Jordan cities use canals and irrigation ditches that are privately owned for

stormwater conveyance. Both plans recommended building new infrastructure that is on city property and is city owned. This will improve accessibility for maintenance of stormwater facilities.

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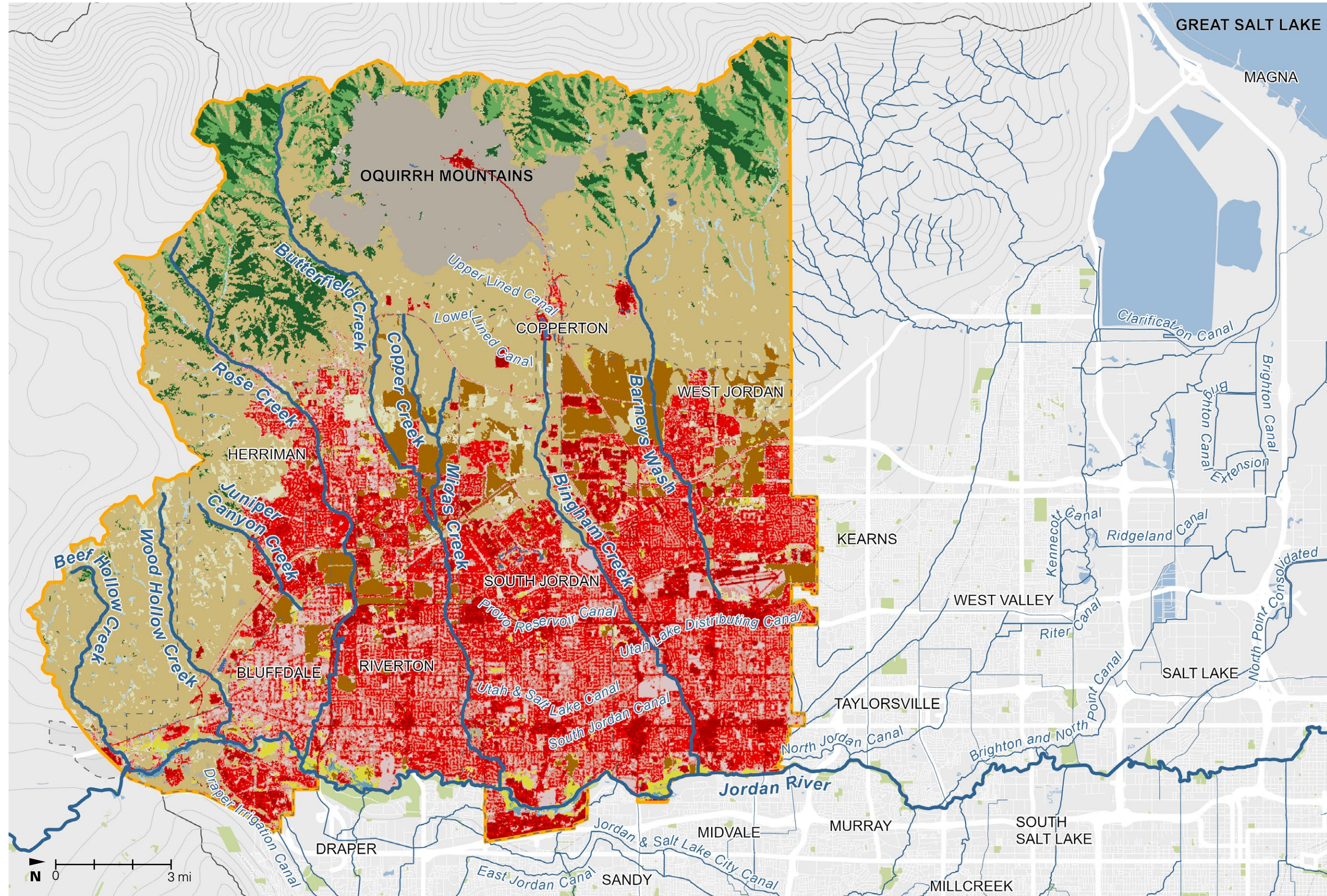


APPENDIX D

In this Chapter:

- » Enlarged Analysis Maps

LAND COVER MAP

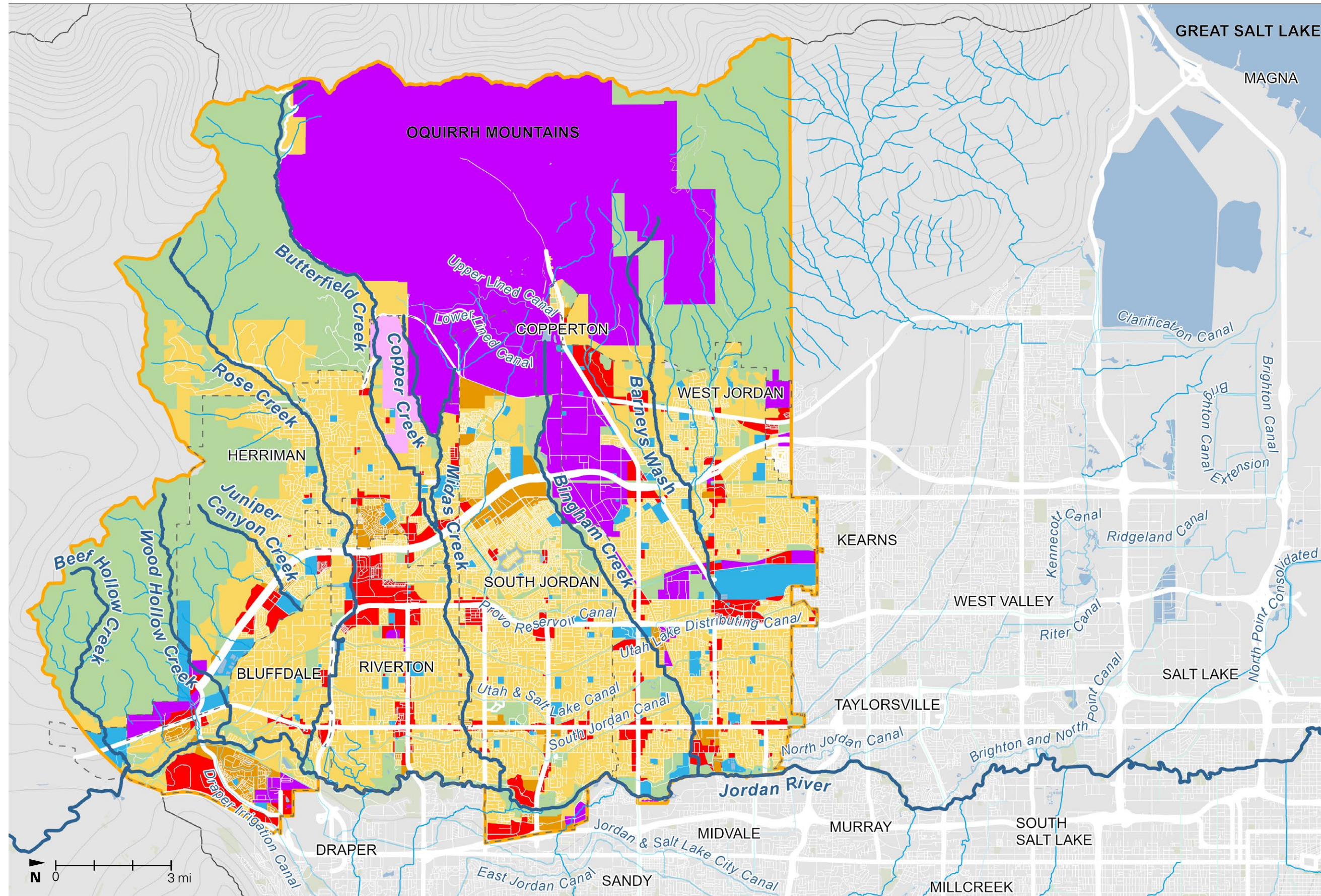


Data Sources: UGRC, Salt Lake County Open Data, Utah Open Data, USGS/MRLC

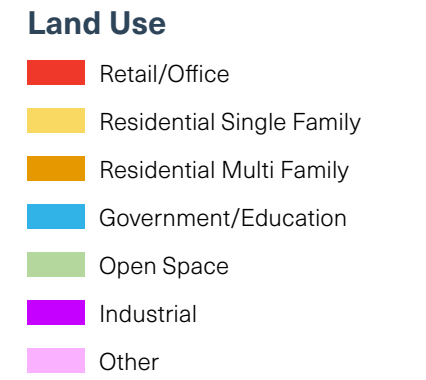
Land Cover

- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Developed, Open Space
- Cultivated Crops
- Hay/Pasture
- Herbaceous
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Woody Wetlands
- Perennial Snow/Ice
- Open Water
- Barren Land

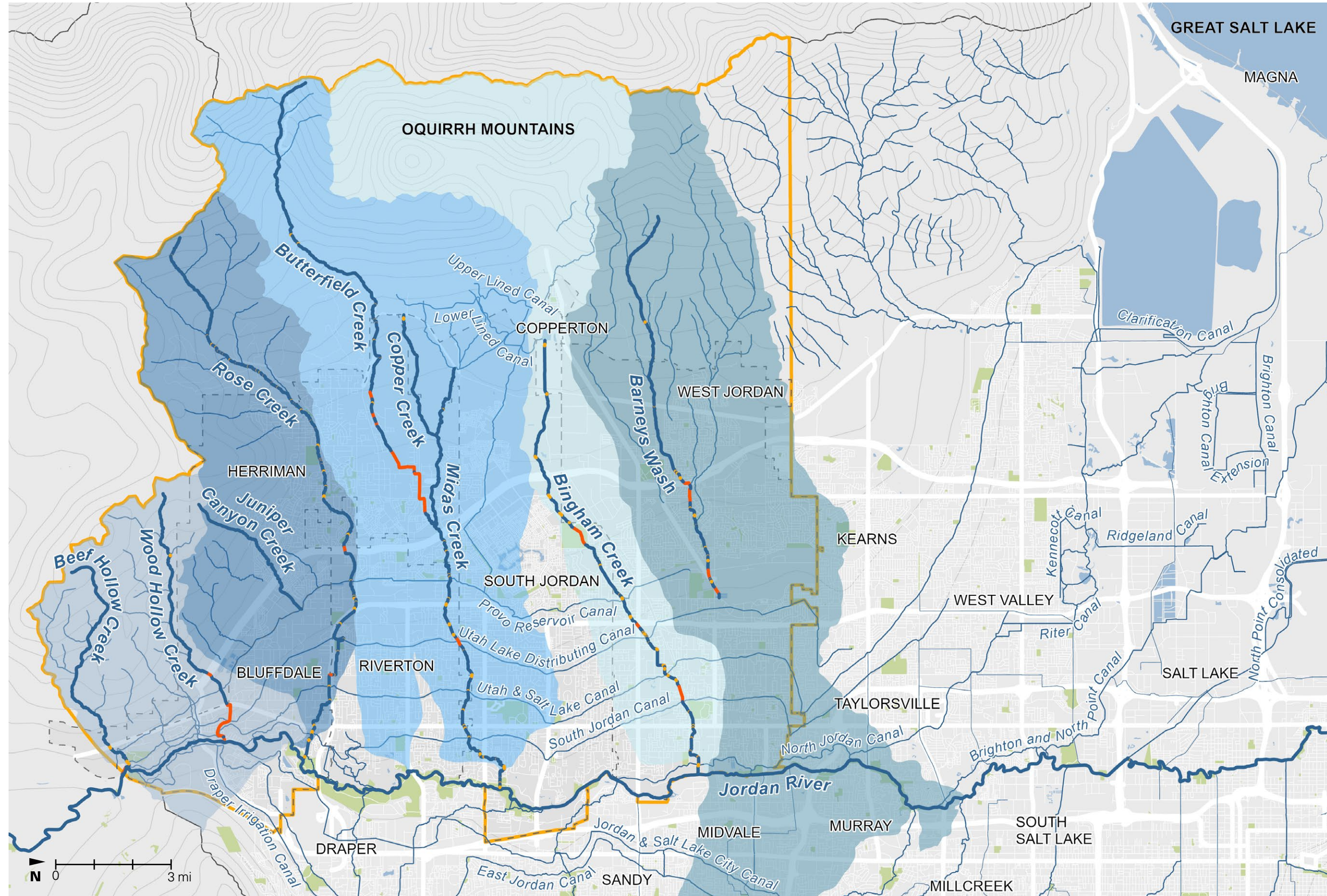
GENERALIZED FUTURE LAND USE MAP



Data Sources: UGRC, Salt Lake County Open Data, Utah Open Data, WFRC



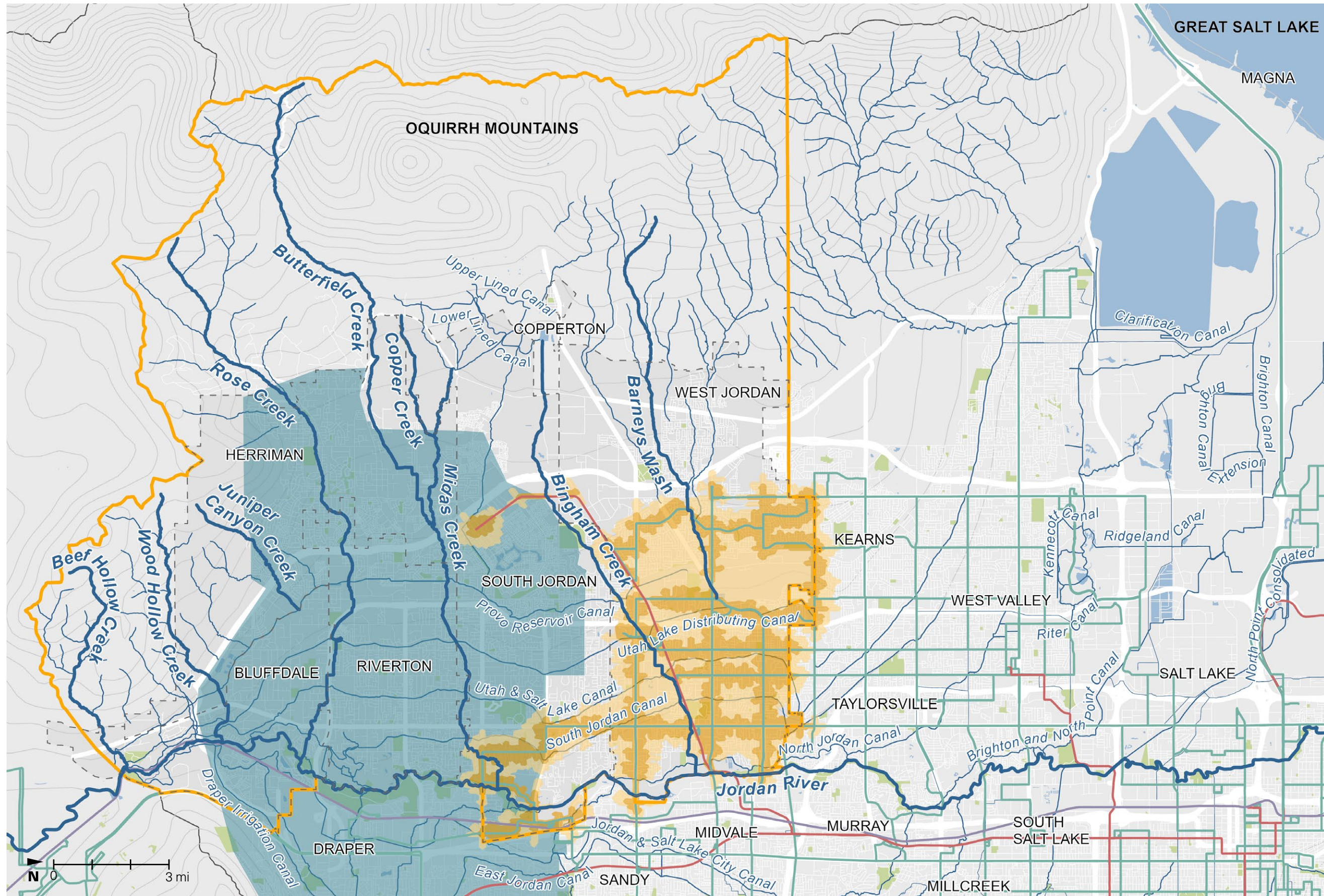
HYDROLOGY MAP



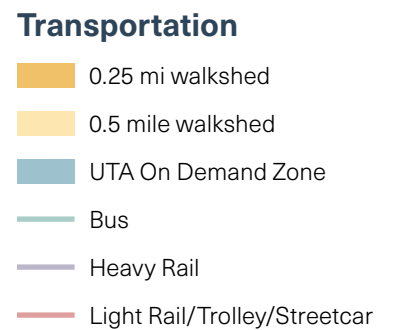
Data Sources: UGRC, Salt Lake County Open Data, Utah Open Data

- Hydrology**
- Barney's Wash-Jordan River Watershed
 - Bingham Creek Watershed
 - Midas-Butterfield Creek Watershed
 - Rose Creek Watershed
 - Wood Hollow-Jordan River Watershed
 - Open Channel
 - Culvert
 - Pipe

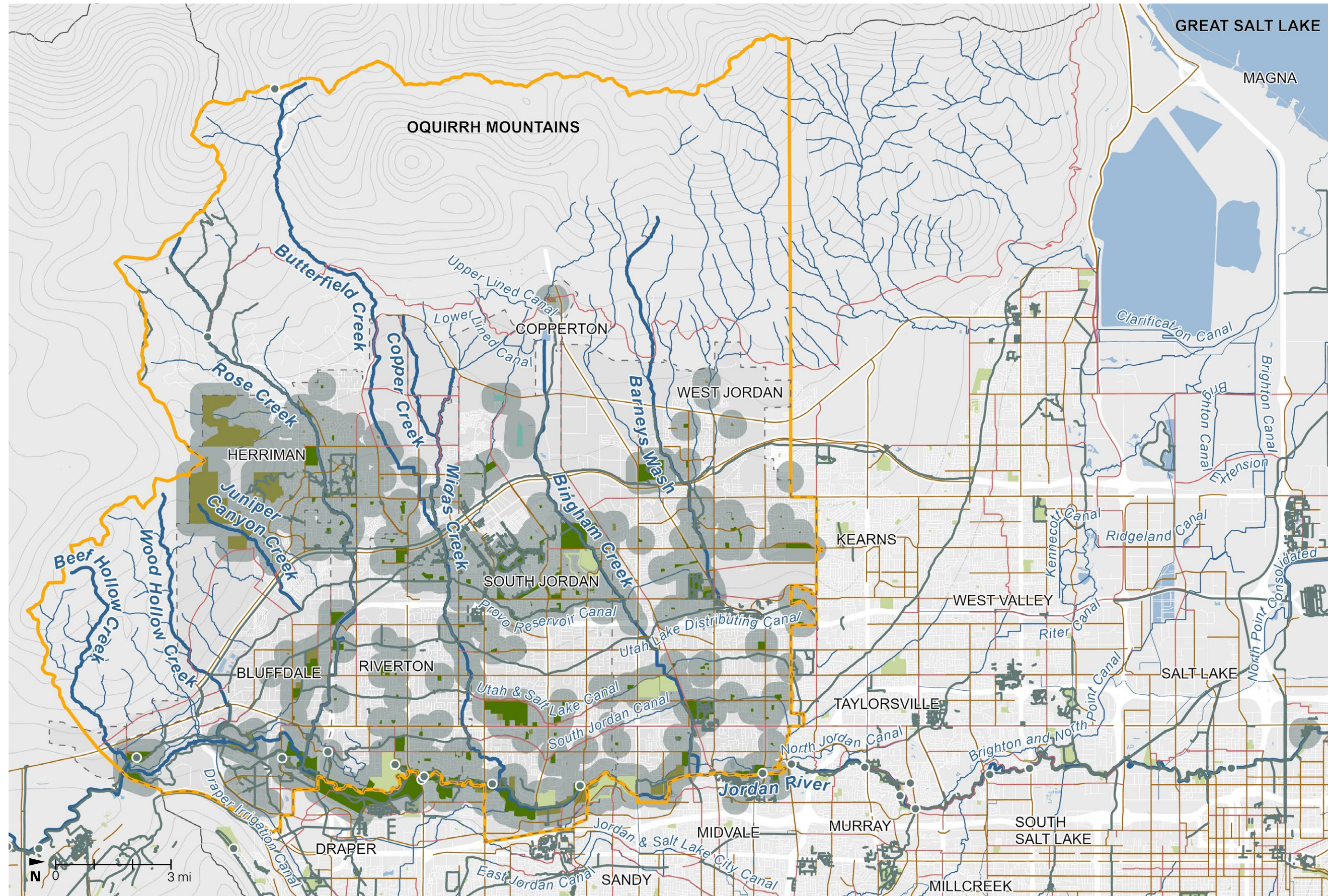
TRANSPORTATION MAP



Data Sources: UGRC, Salt Lake County Open Data, Utah Open Data, UTA



PARKS AND TRAILS MAP

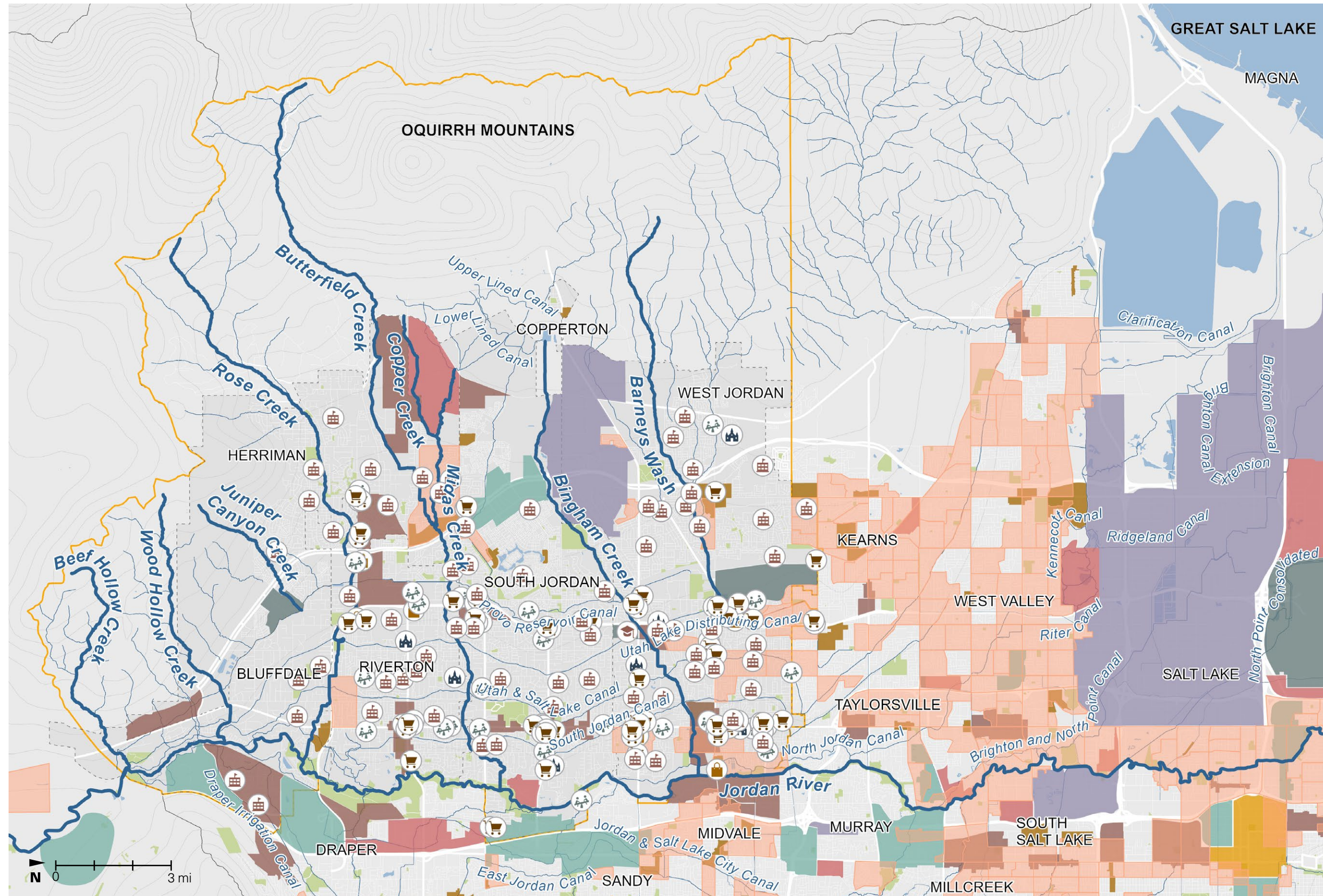


Data Sources: UGRC, Salt Lake County Open Data, Utah Open Data, WFRC

- Parks and Trails**
- 1/4 mile walked
 - City, County, Neighborhood and Regional Parks
 - Federal Parks
 - Golf Courses
 - Planned Parks
 - Existing Trailheads
 - Existing Trails
 - Existing Bike Lanes
 - RTP Proposed Active Transportation Projects

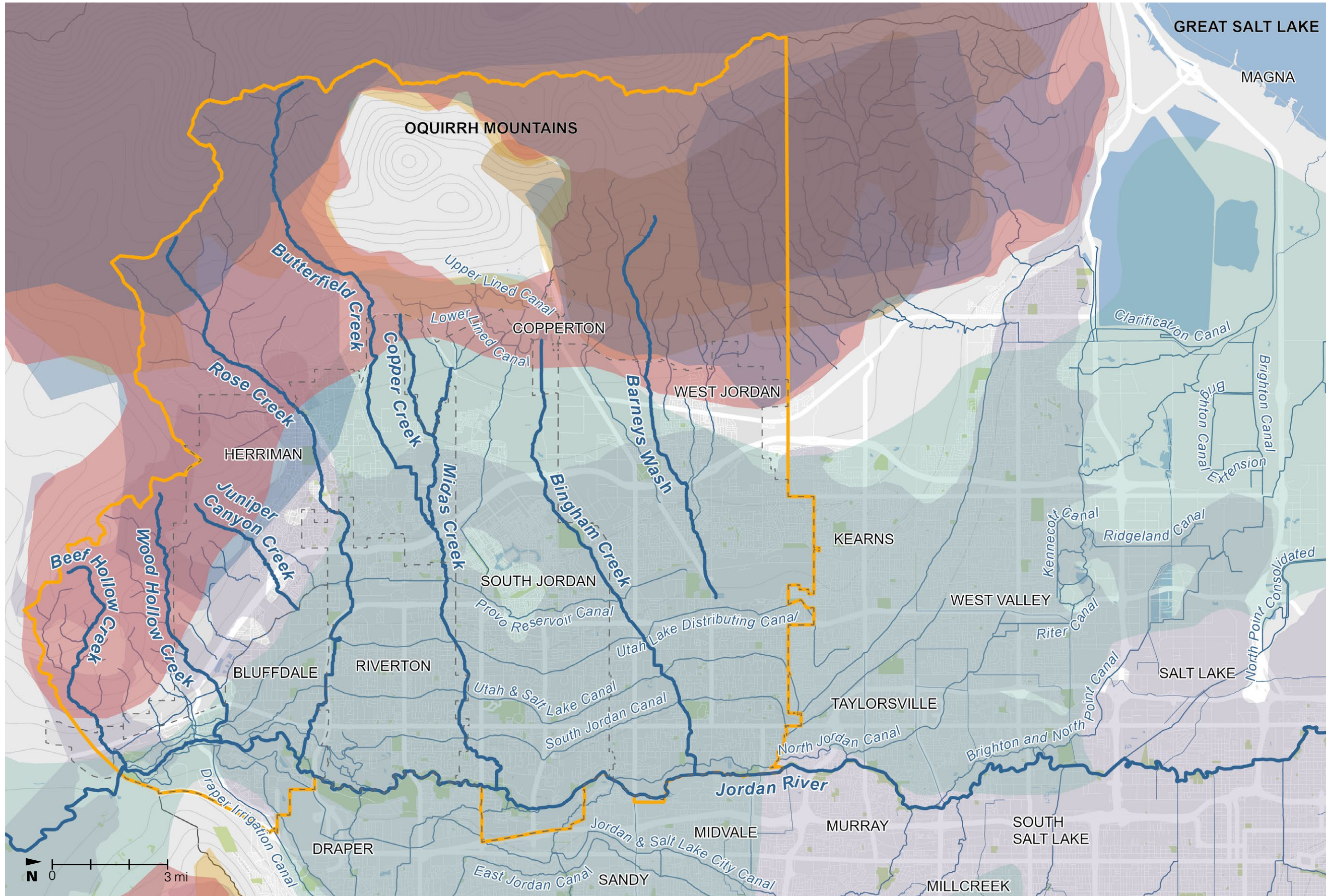
CULTURAL ASSETS MAP

Data Sources: UGRC, Salt Lake County Open Data, Utah Open Data, WFRC



- Cultural Assets**
- Higher Education
 - K-12 Schools
 - Grocery and Food Stores
 - Places of Worship
 - Childcare Centers
 - Retail Centers
 - Equity Focus Areas
 - City Center
 - Educational Center
 - Employment District
 - Industrial District
 - Metropolitan Center
 - Neighborhood Center
 - Special District
 - Urban Center

WILDLIFE MAP

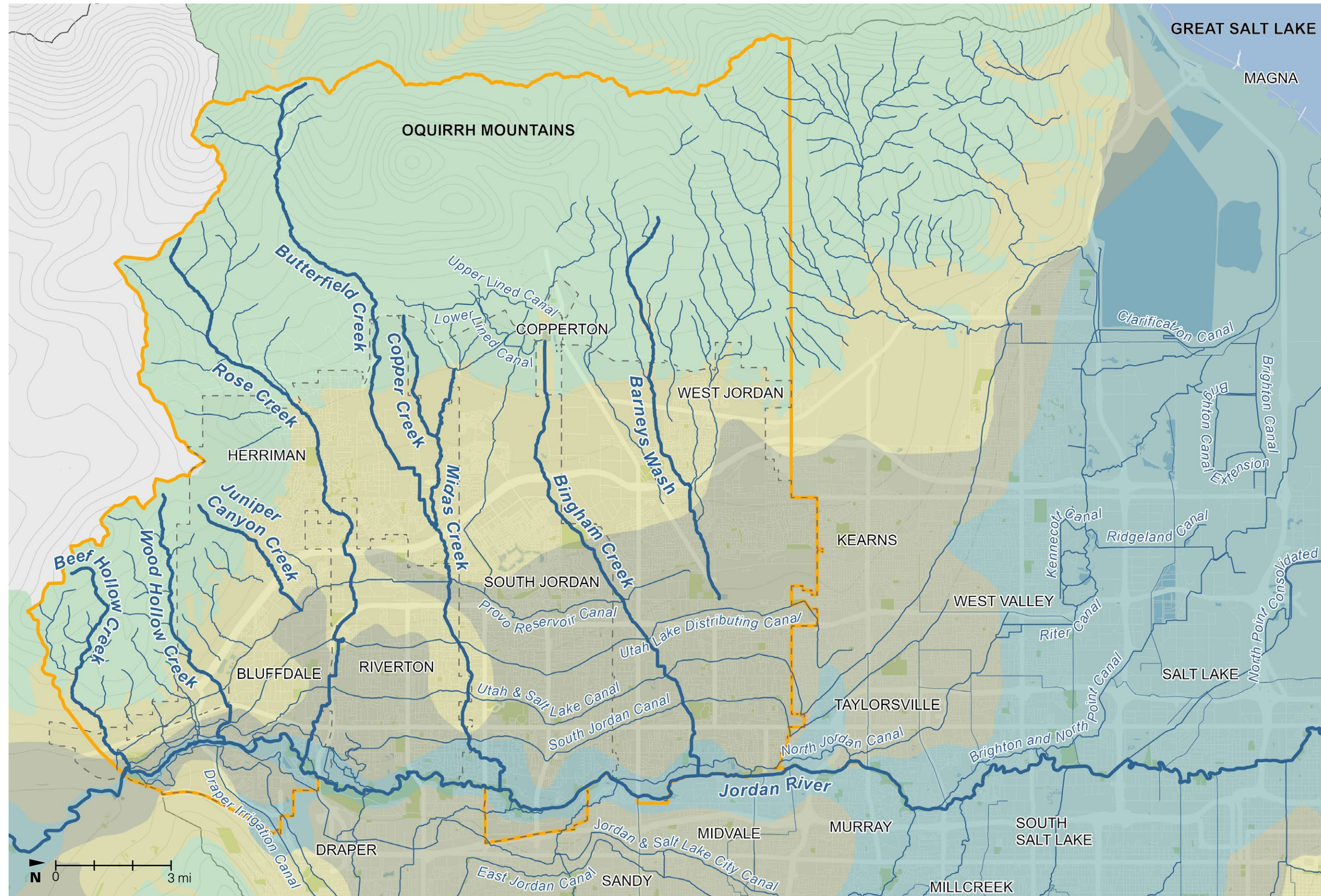


Data Sources: UGRC, Salt Lake County Open Data, Utah Open Data, Utah DWR

Wildlife Habitat

- Elk
- Mule Deer
- Turkey
- Ring Necked Pheasant
- Ruffed Grouse
- Dusky Grouse
- California Quail

GROUNDWATER RECHARGE MAP



Data Sources: UGRC, Salt Lake County Open Data, Utah Open Data

