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Integrating Water and Land Use Planning Project Phase 1 Summary

Prepared by Babbitt Center for Land and Water Policy and Western Resource Advocates



Prepared for the Great Salt Lake Advisory Council



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Executive Summary

The State of Utah is simultaneously one of the most arid and fastest-growing states in the country. In 2021, with precipitation only 56 percent of average, almost 70 percent of the state is in the “Exceptional Drought” (most severe) category. Meanwhile, the 2020 U.S. Census identified Utah as the fastest-growing state in the country. There is broad consensus that optimizing and reducing demand for municipal, institutional, and industrial (M&I) water use is critical to ensuring that Utah’s limited water supply can equitably meet the needs of people, agriculture, business, and nature. Over the years, the Great Salt Lake Advisory Council has commissioned influential studies and reports that highlight the importance of reducing demand and optimizing M&I water use. Changing the dynamic of M&I water demand, particularly in the face of increasing population and economic growth, is seen as an important step that can indirectly preserve water flows for the Great Salt Lake.

The Babbitt Center for Land and Water Policy (Babbitt Center), a center of the Lincoln Institute of Land Policy, and Western Resource Advocates (WRA) were selected by the Utah Division of Forestry, Fire, and State Lands to complete Phase 1 of a water and land planning integration project. Funding for Phase 1 was provided by the Great Salt Lake Advisory Council and expires June 30, 2021, with all work being completed by this date. This phase was designed to establish the foundational materials for later phases of a “Water and Land Use Planning Integration Project” that is intended to jumpstart municipality and county efforts better incorporate water as part of their land planning and economic development planning processes.

This document summarizes the work completed during Phase 1 and makes recommendations for future phases of a Water and Land Use Planning Integration Project. Included within this document are a summary and takeaways from the stakeholder interviews, a Framework for Community Action, recommendations for next steps, and related materials.

The consultant team interviewed 12 organizations consisting of local governments and water providers. The interviews provided valuable feedback on the Framework for Community Action and insight about the water- and growth-related challenges that communities are facing. Feedback from these interviews was used to refine the Framework for Community Action and begin to inform the recommendations for further work that can aid communities in integrating water and land use planning.

A Framework for Community Action produced by the consultant team illustrates the process communities should undertake to integrate water and land use planning. It includes four stages and resources to aid in implementation. Two components--a Stakeholder Checklist and the Community Self-Assessment--provide tangible guidance for communities to form a team for integrating water and land use and to identify their progress to-date on integration activities.

Looking forward, the consultant team proposes a total of four phases of a Water and Land Use Planning Integration Project whereby this deliverable completes Phase 1. For subsequent phases, we propose the adaptation, development, implementation, and evaluation of a multi-stakeholder workshop, building on the work done in Phase 1, by further developing the relationships initiated through the interviews, refining the documents created for this phase, and adapting and creating the process that will help Utah communities change the dynamic of M&I water demand.

Table of Contents

Introduction	3
Approach	3
Framework for Community Action and Associated Materials	4
Framework for Community Action	4
Stakeholder Checklist	5
Community Self-Assessment	5
Stakeholder Outreach	6
Summary of Interviews	6
Interview Key Themes	7
Water and Growth Related Issues and Challenges	7
Feedback on the Framework for Community Action	8
Recommendations and Next Steps	8
Recommendations	8
Next Steps	9
Related Resources & Materials	10

Introduction

The State of Utah is simultaneously one of the most arid and fastest-growing states in the country. As of 2021, with precipitation only 56 percent of average, almost 70 percent of the state is in the “Exceptional Drought” (most severe) category. Meanwhile, the 2020 U.S. Census identified Utah as the fastest-growing state in the country. There is broad consensus that optimizing and reducing demand for municipal, institutional, and industrial (M&I) water use is critical to ensuring that Utah’s limited water supply can equitably meet the needs of people, agriculture, business, and nature.

In response to a 2015 legislative audit and 2017 follow-up and third-party review, the State of Utah in 2019 adopted [Regional M&I Water Conservation Goals](#). These goals vary across the state by region but aim to achieve at least a statewide water use reduction of 16 percent by 2030 (a range of 11-20 percent depending on region). The 2065 projections aim to achieve a statewide water use reduction of 26 percent (a range of 19-32 percent). The pathway for achieving greater M&I water conservation includes many opportunities and challenges, one of which is the integration of water and land use planning.

The consultant team, a collaboration between the Babbitt Center for Land and Water Policy (Babbitt Center), a center of the Lincoln Institute of Land Policy, and Western Resource Advocates (WRA), was selected by the Utah Department of Natural Resources - Division of Forestry, Fire, and State Lands to complete Phase 1 of a water and land use planning integration project, beginning to create a program that will help communities improve M&I water conservation.

The consultant team used their collective experience in adapting a “Growing Water Smart” workshop in Colorado, Arizona, and California to explore and identify how Growing Water Smart (GWS) might be tailored to the needs of Utah communities. GWS helps communities address the tension between growth and development with drought and water scarcity. Communities in other states participate in this program to improve the water efficiency of their land use plans, policies, regulations, and programs. Communities leave the workshop with an action plan and many communities remain engaged in the integration of water and land use planning.

Approach

The primary outcomes of Phase 1 are a Utah Assessment Framework for Integrating Water and Land Use Planning, which is summarized herein. The consultant team prepared the following materials, as specified in the [Scope of Work](#) (SOW).

- **Develop and Provide a Project Plan** – the [Project Plan](#) describes the approach and key milestones for completing Phase 1 work described in the SOW, with a work completion date of June 30, 2021.
- **Develop a Utah-Tailored Assessment Framework, with Stakeholder Input, for Integrating Water and Land Use Planning, and Related Supporting Materials** – the consultant team developed a Utah-tailored assessment framework and related materials for use by, and with, municipalities, counties, planners, and others that can serve as a tool to: (i) evaluate the status of a local community/government’s approach to incorporating water with land planning processes and codes; (ii) identify opportunities and practices that communities/local governments can consider to improve the way in

which water issues, water supplies, water conservation/optimization are incorporated into a local jurisdiction's planning, development, processes, and codes; (iii) identify barriers, including knowledge or resource gaps, that limit a local jurisdiction's ability to incorporate water into land planning and development processes; and (iv) identify policies and laws that support and improve communities/local governments incorporation of water issues, water supplies, water conservation/optimization into their planning, development, processes, and codes. The [Framework for Community Action](#) and related materials and resources linked therein make up this Utah-Tailored Assessment Framework.

- **Stakeholder Outreach** – the consultant team conducted interviews to gather information from interested stakeholders. A high-level summary of these interviews is provided within this document. Feedback received from the stakeholder interviews was used to refine the [Framework for Community Action](#).
- **Expressions of Interest from Municipalities, Water Providers, or Other Organizations** – As part of the outreach process, stakeholders were asked about their interest in a future multi-stakeholder workshop about integrating water and land use planning. Universal enthusiasm was expressed. More information on this is included in the sections below.

This document summarizes the work conducted during Phase 1 and makes recommendations for future phases of work of a Water and Land Use Planning Integration Project. Included within this document are a summary and takeaways from the stakeholder interviews, a Framework for Community Action, and recommendations for next steps.

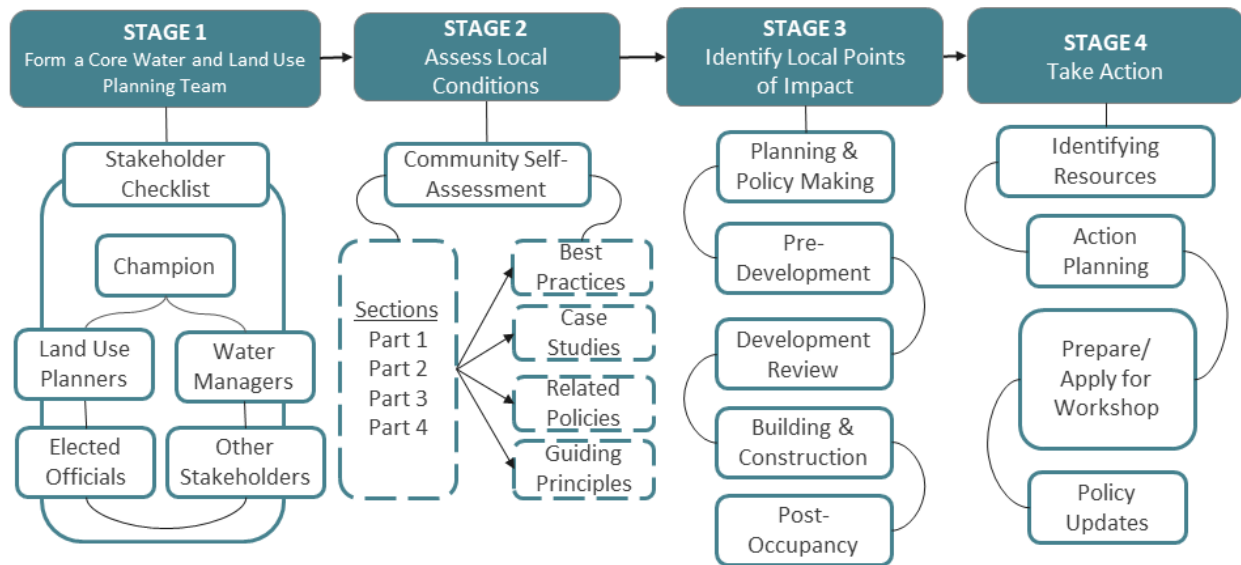
Framework for Community Action and Associated Materials

Framework for Community Action

Integrating water and land use planning can be a difficult and intimidating process, as it involves collaboration across agencies, departments, and organizations that have not traditionally worked together, as well as new organizational, procedural, planning, and policy changes that may result from such an integrated effort. To this end, the consultant team prepared a [Framework for Community Action](#) to outline the stages of an integration process.

This document presents a framework to help communities break down silos and act to integrate water and land use planning. This framework is applicable to all towns, cities, and counties that are preparing to integrate water and land use planning. It contextualizes two supporting documents, the [Stakeholder Checklist](#) and the [Community Self-Assessment](#), that are invaluable to the integration process. The Framework for Community Action includes additional resources, from technical guidebooks to funding and networking sources, to help initiate and implement local integration efforts. The Framework presents four stages, illustrated below.

Figure 1: Phase 1 Framework for Community Action Flow Chart.



Stakeholder Checklist

The [Stakeholder Checklist](#) is used in Stage 1 of the Framework for Community Action and helps communities identify and prioritize the departments, agencies, organizations, and groups that should be involved in integrating water and land use planning. The Stakeholder Checklist aids communities in forming their Core Team that will drive the integration process and includes a checklist for considering additional stakeholders to involve as the integration process evolves. The Stakeholder Checklist document provides instructions for how best to fill out and use the checklist.

Community Self-Assessment

The [Community Self-Assessment](#) in Stage 2 creates a strong foundation for Stages 3 and 4 of the Framework for Community Action. The Community Self-Assessment helps communities gauge the current state of land and water integration in their community. The included links to best practices, guidebooks, reports, and case studies provide communities the opportunity to continually learn as they walk through the self-assessment process. The Self-Assessment is designed to be completed by the core water and land use planning team identified in Stage 1. The introduction to the self-assessment outlines the most appropriate department and position to complete each part of the assessment (e.g., public works director, land use planner, etc.). The self-assessment is a working document, to which resources and best practices can continually be added to keep it as up to date as possible for the communities filling it out.

Stakeholder Outreach

Summary of Interviews

The consultant team conducted interviews with representatives from twelve communities or organizations to solicit feedback on the Framework for Community Action and potential expressions of interest to participate in a future multi-stakeholder workshop. The stakeholders interviewed included water providers, land use planners, city attorneys, and other related staff from the twelve communities or organizations, and were identified through the consultant’s team existing networks, as well as recommendations from the Project Team (Laura Vernon, Rachel Shilton, Candice Hasenyager, and Marcelle Shoop). Phase 1 targeted Northern Utah (Wasatch Front and Back), although one community was in Southern Utah. In each interview, the consultant team asked a series of questions to gain an understanding of water and growth challenges faced by the communities and solicited feedback on the draft Framework for Community Action after walking through it with each interviewee.

Table 1: List of Interviewees. Representatives from the following communities/organizations were interviewed. This table also includes each interviewees expression of interest¹ in a multi-stakeholder workshop:

Community /Organization	Interviewee (Water, Planner, Other)	Expression of interest in multi-stakeholder workshop
Sandy	Water	Very interested, especially if other JWCD member agencies were to attend. Would be helpful for educating elected officials.
Park City	Water	Open to the idea, but not anytime soon because of the drought and current projects. After the fall of 2021, could have more capacity to attend.
Jordan Valley Water Conservancy District (JWCD)	Water	Interested in potentially partnering/facilitating/hosting a workshop. Keep in the loop and follow-up as the workshop idea progresses.
Salt Lake County	Planner	Interested, but would need to check with higher-ups first; would be helpful to do it with JWCD.
Salt Lake City Public Utilities	Water	Very interested and it probably would not be hard to convince the city to attend. A champion would be helpful (e.g., Mayor).
Spanish Fork	Water	Yes, interested in potentially participating, as it would be good for “cross pollination” within the community.
Moab	Planner	Yes, very interested.
Bear River Association of Governments	Planner	Generally interested in the idea.

¹ It is important to note these were specifically expressions of interest only, and the responses here do not commit any community or organization to future participation in a workshop.

Ogden	Water	Yes, very interested. A workshop would help keep momentum when new things are proposed, especially because it would include staff from multiple agencies.
Utah League of Cities and Towns (ULCT)	Other	ULCT would consider getting involved with a workshop through outreach and/or facilitation. Potential avenues could include offering a workshop at ULCT's Annual Conference and/or Land Use Academy of UT.
Morgan County	Planner	It could be useful but would be challenging to get a group from Morgan County. Very small county with limited staff resources makes things like that difficult
Oakley	Planner & Water Advisor	Yes, very interested. Could bring a group of planners, water staff and commissioners together. One interviewee may be interested in helping facilitate the workshop.

Interview Key Themes

Several key themes emerged from the interviews. The following high-level summaries of those key themes are divided into two sections: water and growth-related issues and challenges within the communities/organizations; and feedback on the Framework for Community Action.

Water and Growth-Related Issues and Challenges

As noted above in the introduction, Utah communities are growing fast and water supplies are limited in many regions, and the interviewees confirmed this to be the case. Only one community interviewed suggested they could continue to grow with existing supplies without many constraints in the coming decades. Some communities anticipate most of their growth will be in redevelopment or infill, while other communities are preparing for new development, but in most cases, there was widespread concern about having enough water to serve both current and future demands. Several interviewees noted this is compounded by climate change.

While interviewees all seemed to agree that better integration of water and land use planning is important for helping with current and future challenges, they also identify some key barriers to begin that integration process. For example, some communities experience a capacity issue where staff do not have the time, resources, or expertise to take on a new process. One interviewee noted it can be a chicken and egg issue—the community knows it needs to integrate water and land use planning, but staff are so busy keeping up with existing growth, they do not have time to make sure that growth is water efficient and will not exacerbate water supply challenges. Other communities presented evidence of limited water and land use planning integration, but often at relatively basic levels. In one such community, staff from public works and the planning department regularly meet, but it is typically the field staff discussing technical challenges (e.g., water supply lines), as opposed to long-range planners and water conservation staff discussing higher level planning.

Despite the limited occurrence of robust integrated water and land use planning, there was widespread interest in learning more about specific opportunities, best practices, case studies, guidebooks, etc. that could potentially be implemented in these communities. The interviewees

largely understood the value and importance of integrating water and land use planning and were interested in identifying ways to begin (or further) integration efforts.

Feedback on the Framework for Community Action

Broadly speaking, the stakeholders interviewed found the Framework to be interesting and potentially useful for their community or organization, although to varying degrees. For example, one interviewee described the Framework as “very cool” and thought it does a great job of getting into the nuts and bolts of water and development, and it would help their community prioritize certain types of development based on water needs. Another interviewee thought the framework would allow their community to embrace water as a key sustainability opportunity. Finally, one interviewee noted their community’s current efforts to update their water conservation plan, saying this Framework would help them think through all components to include.

The most common concern with the utility of the Framework was around staff capacity and motivation. Many of the interviewees noted their staff capacity is limited and it would take serious motivation for them to utilize the Framework in full (one interviewee said many Utah communities are experiencing five times the usual growth but do not have five times the planning staff). In some cases, this meant folks might only use part of the Framework (e.g., Community Self-Assessment) or none of it unless they had that motivation. Specific ideas for motivation included funding attached for completing the Framework, external support to complete the Framework (e.g., expert facilitation), connection of the Framework to something like a workshop/training, or a specific champion in the community (e.g., a Mayor making this a priority). Without these types of motivation, one interviewee said there would be “low to medium success utilizing this Framework as a standalone resource”.

Several interviewees suggested that the Framework should be disseminated to communities through multiple sources rather than coming from one agency. Potential organizations that interviewees thought would be beneficial for dissemination include:

- Utah League of Cities and Towns (including Land Use Academy of Utah)
- Utah Division of Water Resources
- Rural Water Association of Utah
- Utah Chapter of the American Planning Association
- Utah Water Users Association
- Jordan Valley Water Conservancy District, Weber Basin Water Conservancy District, Central Utah Water Conservancy District, and Washington County Water Conservancy District

Recommendations and Next Steps

Recommendations

Based on the interviews, the consultant team recommends additional outreach with Utah communities to further refine the Framework through an ongoing, iterative process. Since much of the feedback has been incorporated into the Framework to-date, it would be worthwhile to understand if the latest version is better suited to support communities’ water and land use integration. Further, it would be beneficial to begin identifying external resources (i.e., funding, training, and facilitation opportunities) that help motivate communities to utilize the Framework

in a comprehensive manner. Continued feedback from communities on the most helpful types of external resources would increase the efficacy of the Framework. Finally, per discussions with the Project Team, this Framework was designed to be a living document that is often refined and populated as new resources and materials are identified. The stakeholders interviewed all seem to suggest that any additional materials would be welcome.

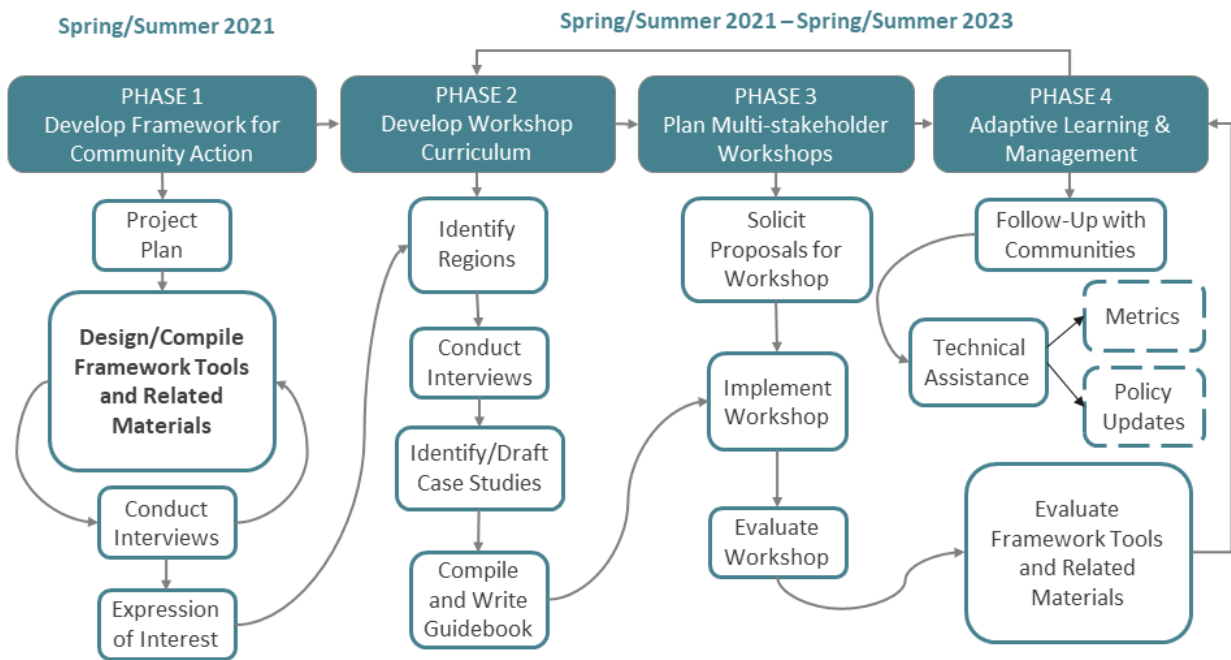
In addition to ongoing refinement of the Framework and related materials, the consultant team recommends identifying additional avenues for general education and outreach related to water and land use planning information. As noted above, there was strong interest in learning more on these topics, and as future phases on this project evolve, concurrent education and outreach could prove beneficial in garnering and sustaining interest in the project. Learning opportunities could include webinars, presentations (e.g., ULCT semi-annual conference), emails, listservs, etc., utilizing many of the materials identified during this Phase 1. For example, additional webinars building upon the October 2020 [webinars](#) conducted by WRA in partnership with the Babbitt Center, Utah Chapter of the American Planning Association, and Utah State University would further these education and outreach efforts.

Related, and in accordance with the Request for Qualifications, March 31, 2021, the deliverables for the Phase 1 scope of work are part of a larger water and land use planning integration project. The intention is that this phase lays out the foundational materials for subsequent phases, which are intended to jumpstart municipality and county efforts to better incorporate water as part of land planning and economic development processes. The feedback from the interviews conducted on the Framework for Community Action points toward subsequent phases that include multi-stakeholder workshops to further advance integration of water and land use planning at the local government level.

Next Steps

Looking forward, the consultant team proposes a total of four phases: Phase 1 is complete with this deliverable and Phases 2, 3, and 4, which include the adaptation, development, implementation, and evaluation of a multi-stakeholder workshop will be implemented over a period of two years (Summer 2021 to Summer 2023). Phase 2 focuses on developing curriculum, which entails identifying regions, conducting interviews, identifying and drafting case studies and best practices, and compiling and writing an accompanying guidebook that reflects the target regions of the workshop. Phase 3 focuses on conducting outreach and soliciting applications from communities interested in participating in a workshop, as well as scheduling, organizing, implementing, and evaluating the workshop. Phase 4 is dedicated to adaptive learning and management, where the implementation team follows up with communities, presents communities with additional resources and technical assistance opportunities, and conducts an overall evaluation of the framework, program, and all related materials to improve for the next round. This is an iterative process that continually improves and becomes more refined with increased experience and knowledge about communities' needs, challenges, and goals. The model upon which these workshops is based holds at least two workshops per year, with five to seven community teams per workshop.

Figure 2: Integrating Water and Land Use Planning Project. This is a two-year program flow chart for a multi-stakeholder workshop. As proposed, there are four phases, one of which is complete with this deliverable. Three more phases comprised of multiple workshops with five to seven communities per workshop would take place over a period of two years.



Related Resources and Materials

The consultant team identified numerous related materials and resources from a broad geographic range (primarily Colorado River Basin States) and a diversity of water and land use themes, including water supply and demand, water conservation and efficiency, and the nexus between land use and water, which focuses on the impact of development on both indoor and outdoor water use. Resources and related materials are embedded in the Framework for Community Action, the Stakeholder Checklist, and the Assessment and are tied directly to specific guiding questions based on these and more targeted themes.

Two types of resources are included within the Framework for Community Action: Technical Resources and Implementation Resources. Technical Resources are tools and guidance about how to use the tools that will help integrate water and land use planning, organized by geography. Many of the Technical Resources are also included in Table 2 and the Community Self-Assessment. Implementation Resources are organized into four categories: 1) funding sources; 2) technical assistance with grant applications; 3) direct assistance; and 4) networking. These resources will help communities reach the short-, mid-, and long-term goals they have set.

Table 2 provides a list of 49 related materials meant to help inform and educate municipalities and counties about the larger Integrating Water and Land Use Planning Project. These materials include guiding principles, examples of best practices, considerations for exploring and addressing social and equity considerations, technological or design advancements, approaches for incentivization, actual incentives, as well as related laws and policies.

Table 2: List of related materials that are also included in the Assessment.

Title	Theme	Source	Type of resource
Salt Lake City Climate Plan	Climate	Salt Lake City	Web page - Plan and video
UT DWR Climate Change, Water Resources, and Potential Adaptation Strategies in Utah	Climate	State of Utah	Report
A Guide to Low Impact Development within Utah	Land Use-Water Nexus	Utah Department of Environmental Quality, Division of Water Quality	Guidebook
Assured Water Supplies in Western States	Land Use-Water Nexus	Colorado. Natural Resources, Energy & Environmental Review	Legal research
Ch. 13.04.260 Waste Prohibited	Land Use-Water Nexus	South Jordan City	Web page - Code
City of Bluffdale Floodplain Management Plan	Land Use-Water Nexus	City of Bluffdale	Plan
Growing Water Smart Water-Land Use Nexus: Arizona and Colorado	Land Use-Water Nexus	Sonoran Institute and Babbitt Center for Land and Water Policy	Workbook
Guiding Principles for Equitable Management in Coordinated Planning	Land Use-Water Nexus	Local Government Commission	Guiding Principles
Incorporating Water into Comprehensive Planning	Land Use-Water Nexus	Lincoln Institute of Land Policy	Manual
Incorporating Water into Comprehensive Plans in UT	Land Use-Water Nexus	Western Resource Advocates	Web page - Webinars
Landscaping Standards	Land Use-Water Nexus	Sandy City	Web page - Code
Model Landscape Ordinance	Land Use-Water Nexus	South Metro Water Supply Authority, Colorado	Web page - Model code
Model Water Efficient Landscape Ordinance	Land Use-Water Nexus	California Department of Water Resources	Web page - Model code
Rule R317-401-Graywater Systems	Land Use-Water Nexus	State of Utah	Web page - Code

Salt Lake City Sustainability Plan	Land Use-Water Nexus	Salt Lake City	Plan
Strengthening Collaboration*	Land Use-Water Nexus	Sonoran Institute	Video
Water Efficiency Standards	Land Use-Water Nexus	Herriman City	Web page - Code
Water Efficient Landscape Design and Development Standards	Land Use-Water Nexus	Salt Lake County, UT	Web page - Code
Water-Wise Plants for Utah Landscapes	Land Use-Water Nexus	Utah State University Extension - Center for Water-Efficient Landscaping	Web page - Lists
Qualified Water Efficient Landscaper (QWEL)	Landscaping	Utah State University Extension - Center for Water-Efficient Landscaping	Web page - Training and certification
WATER CHECK PROGRAM	Landscaping	Utah State University Extension - Center for Water-Efficient Landscaping	Web page - Monitoring and evaluation
A Guide to Municipal Water Conservation Pricing in Utah	Water Conservation	Utah State University Extension	Guidebook
Conserve Water	Water Conservation	Utah DWR	Web page
Drought Management Toolkit for Public Water Suppliers	Water Conservation	Utah DNR	Toolkit
Flip Your Strip	Water Conservation	Jordan Valley Water Conservancy District	Incentive Program
H2OATH	Water Conservation	Utah DWR	Pledge
Localscapes	Water Conservation	Localscapes	Web page - Classes, designs, videos
Preparing for Drought in the Home	Water Conservation	Utah State University Extension	Web page - Guide
Rain Barrels in Utah	Water Conservation	Utah State University Extension	Factsheet
Reports and Resources	Water Conservation	Alliance for Water	Reports

		Efficiency	
Slow the Flow	Water Conservation	Utah DWR	Web page - Guide, rebates, and monitoring
Smart Controller Project	Water Conservation	Spanish Fork	Web page
South Jordan City Water Conservation Plan	Water Conservation	South Jordan City	Plan
Tap Into Resilience	Water Conservation	Spanish Fork in partnership with Water Now Alliance	Web page - Case studies
UT Water Savers Localscapes Rewards	Water Conservation	Localscapes Rewards	Incentive Program
Utah Water Savers	Water Conservation	UT DWR	Web page - Programs and rebates
Water & Energy Efficiency Grants and Small-Scale Water Efficiency Grants	Water Conservation	Bureau of Reclamation	Federal Grant Program
Water Amendments	Water Conservation	State of Utah	Web page - Law
Water Rate Structures in Utah	Water Conservation	Western Resource Advocates	Guidebook
Weekly Lawn Watering Guide	Water Conservation	Utah DNR	Web page - Guide
Great Salt Lake Advisory Council Conservation Impacts Assessment	Water Conservation, Land Use-Water Nexus	Northern Utah	Study
Integrating Water Efficiency into Land Use Planning in the Interior West: A Guidebook for Local Planners	Water Conservation, Land Use-Water Nexus	Western Resource Advocates	Guidebook
City of Logan Drinking Water System Master Plan 2016	Water Supply and Demand	City of Logan	Plan
City of Orem Water Master Plan 2017	Water Supply and Demand	City of Orem	Plan
Public Water Supplier 40 Year Water Requirement Plan Standards	Water Supply and Demand	State of Utah, Water Rights	Policy Document
Utah's Regional M&I Conservation Goals	Water Supply and Demand	Utah DNR	Report

WRA Water System Development Charge Guidebook	Water Supply and Demand	Western Resource Advocates	Guidebook
Conservation Plan Resources	Water Supply and Demand, Water Conservation	State of Utah	Web page
Great Salt Lake Advisory Council, 2019 Great Salt Lake Integrated Model	Water Supply and Demand, Water Conservation	Northern Utah	Report

* This resource is listed in the Stakeholder Checklist.