

# Integrating Water and Land Use Planning in Utah

**Salt Lake County** September 2021

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Do a little. Save a lot.

- April 2021 - Immediate focus on water conservation (parks, golf courses, facilities, & encourage public)
- Time to continue focus on long-term water conservation efforts.



# The drought has our attention.

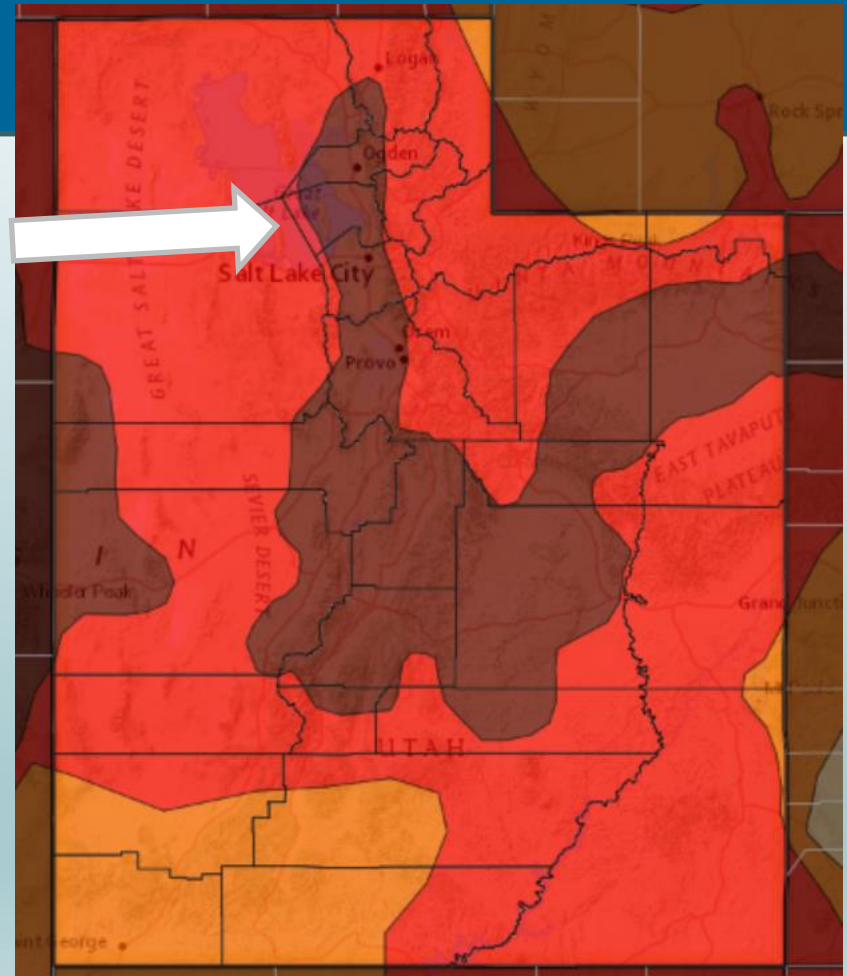
## U.S. Drought Monitor for UT

INCREMENT P



Source(s): NDMC, NOAA, USDA  
Updates Weekly - 08/31/21

[Drought.gov](https://drought.gov)



**2.8 Million**

people in Utah are affected by drought

**29**

counties with USDA disaster designations

**12th**

wettest August was in 2021, over the past 127 years

**23rd**

driest year to date was in 2021, over the past 127 years

# The Great Salt Lake needs long-term water conservation.

## GREAT SALT LAKE ELEVATION



1986

2000

2021

RECORD HIGH

**4211.65 FEET**

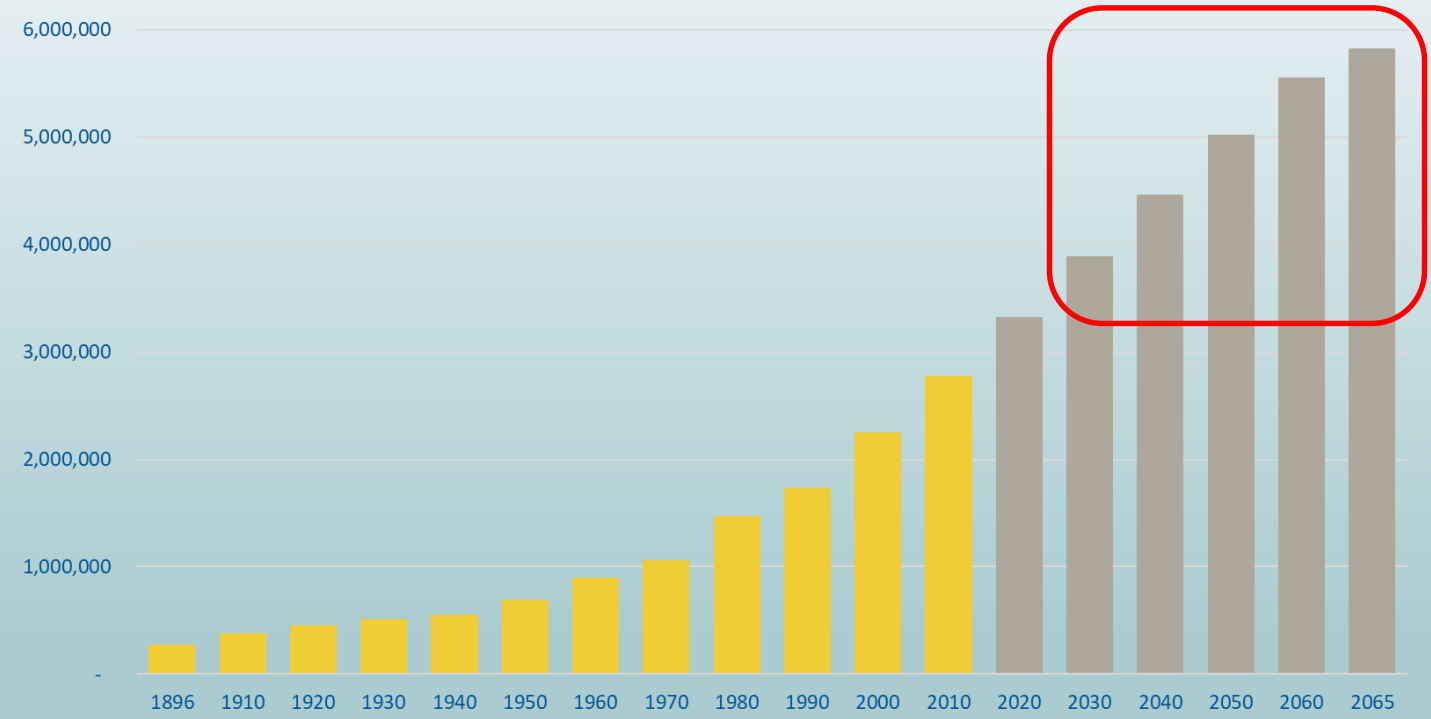
AVERAGE

**4202.2 FEET**

**NEW RECORD LOW** CURRENT

**4191.3 FEET**

# Our future population is going to need lots of water.



Sources: Governor's Office of Management and Budget and Kem C. Gardner Policy Institute

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## Babbitt Center for Land and Water Policy

A center of the Lincoln Institute of Land Policy

4 Focus Areas:

- Research
- Technology Innovation
- Partnerships
- Education & Training





## Outline for today's presentation

1. Overview of Water and Land Use Integration
2. Where Can Communities Start?
3. What Can Elected Officials Do?
4. UT DNR Integrating Water and Land Use Planning Project -  
Phase 1 Overview
5. Looking Forward



# Overview of Water and Land Use Integration



## EXPANDED TURF BUYBACK PROGRAM

Outdoor water use makes up 60% of our municipal and industrial use.

60%

Expanded turf removal programs show we are serious about water conservation.

## STATEWIDE INSTALLATION OF SECONDARY WATER METERS

1/3 of Utah uses secondary or untreated water. Systems with meters have saved between 20% and 30%.

Very few of these connections are metered. You can't manage what you don't measure.



# WATER CONSERVATION MEASURES

## INTEGRATED LAND USE AND WATER PLANNING



Land and water use planning are currently done separately.

Adopting water efficiency standards is proactive and more cost effective than future turf replacement.

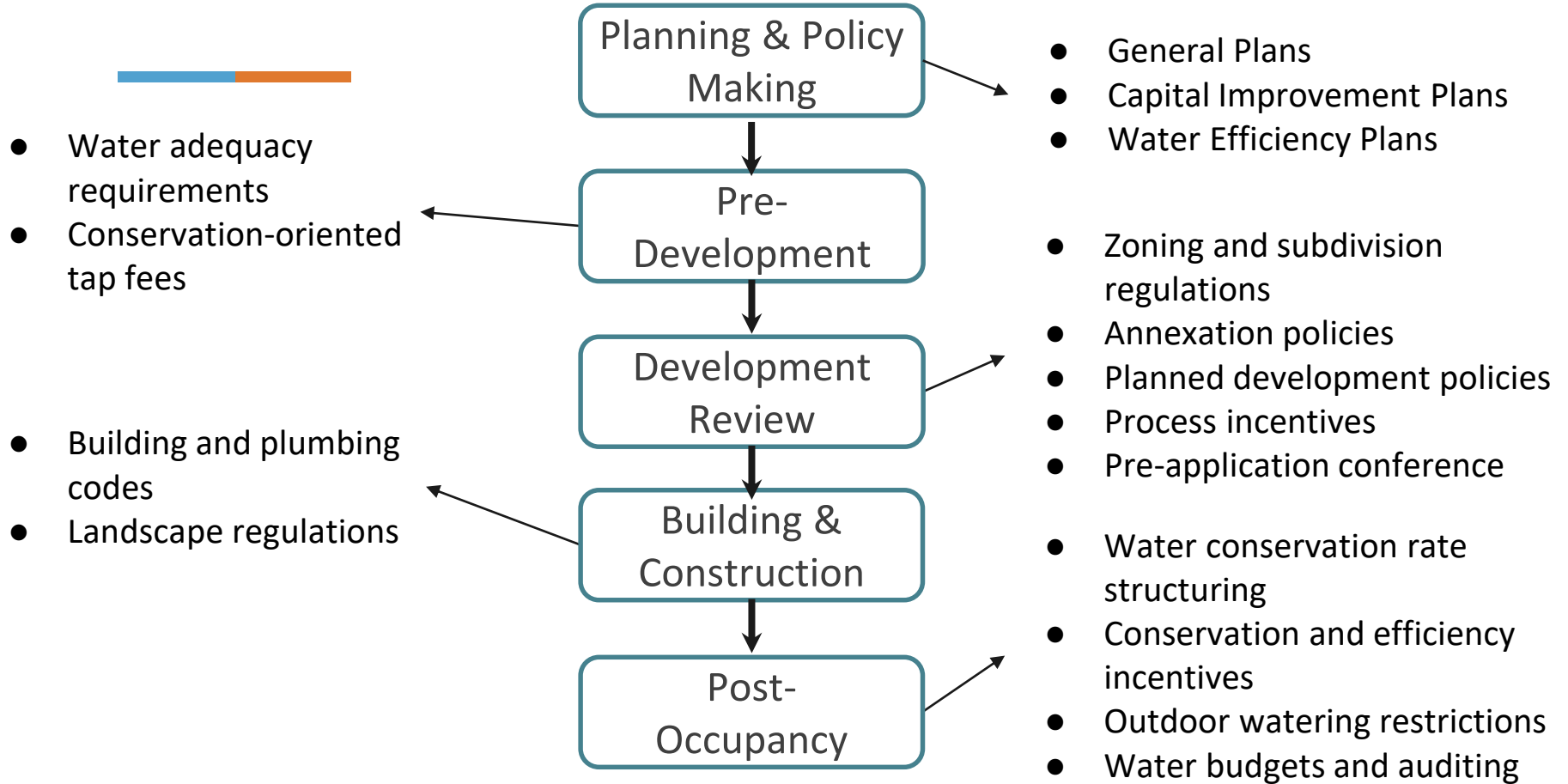
## AGRICULTURAL OPTIMIZATION

Agriculture accounts for approximately 75% of Utah's water use.

Investment in agricultural optimization will create supply flexibility, benefits for farmers and improve water quantity and quality.

75%

**VISIT [DROUGHT.UTAH.GOV](http://DROUGHT.UTAH.GOV) TODAY**



## Water Related Questions to Answer in a Comprehensive Planning Process

### Water Management

Where does our water come from?

How much water do we have?

How much water do various land use sectors use?

How do we pay for water system repairs and improvements?

How is water used or conserved?

Is our water system sufficient, safe, and reliable?

### Future Projections

What is our population, housing, and employment growth?

What are our development expectations?

What water challenges does a changing climate pose?

How much water will we need?

Do current water supplies line up with projected demand?

How can water and land use be equitably managed?

### Water Efficient Land Use

Are we collaborating on water issues?

How does our development process consider water?

How does our urban form impact our water use?

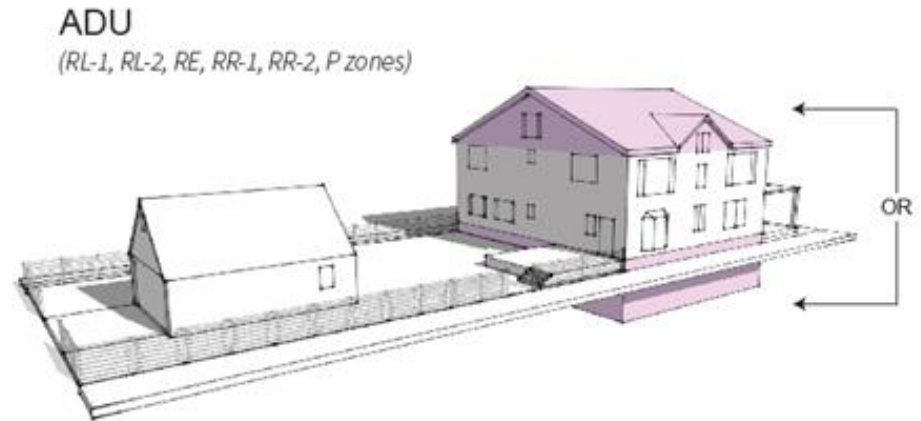
Is water used efficiently outdoors?

Is water used efficiently indoors?

How does land use impact our watersheds?

## Examples - Zoning and subdivision regulations

- Zoning that allows Accessory Dwelling Units (ADUs) can increase density, leading to more water efficient development
- But also need to collaborate with water providers to determine tap fees for ADUs to ensure there isn't a disincentive





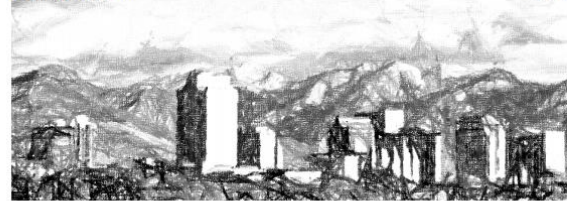
## Examples - Landscape Regulations

### Sandy City - *Sec. 21-25-4. - Water Efficient Landscaping*

For commercial, industrial, and MF, requires:

- Landscape Plan Documentation Package
- Landscape Water Allowance
- Landscape Design Standards
- Irrigation Design Standards
- Post-construction Monitoring

JANUARY 2019



## A Guide to Municipal Water Conservation Pricing in

**Eric C. Edwards**  
Assistant Professor, Department of Applied Economics<sup>1</sup>

**Sara A. Sutherland**  
Assistant Professor, Department of Applied Economics

**The Need for Conservation**  
Utahns recognize water is a precious natural resource, its availability critical to maintaining our health, food supply, and environment. Less well understood is that, as a critical *economic* resource,

consumers in price incentives: wasteful water costs for water environment.

Utah faces a demand for water resources in the next 30 years due to population growth. Salt Lake and Utah Counties are projected to increase their combined populations from 1.55 million to 3.21 million by 2060 and water utilities throughout the state must secure reliable water supplies well ahead of actual



- PUBLIC WORKS
- WATER DIVISION
- DRINKING WATER
- PRESSURIZED IRRIGATION
- QUESTIONS AND REQUESTS

HOME > DEPARTMENTS > PUBLIC WORKS > WATER > WATER CONSERVATION > Smart Controller Project





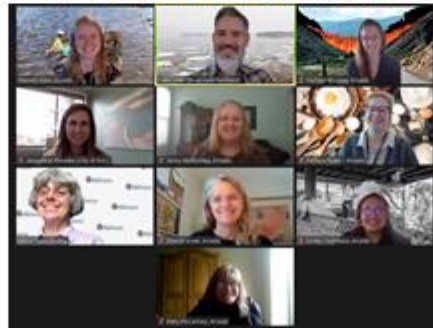
**Day 1: Setting a  
Workshop Intention  
and Rapport Building**



**Day 2: Peer to  
Peer Roundtables  
& Team Breakouts**



**Day 3: Finalizing the  
Action Planning &  
Messaging**

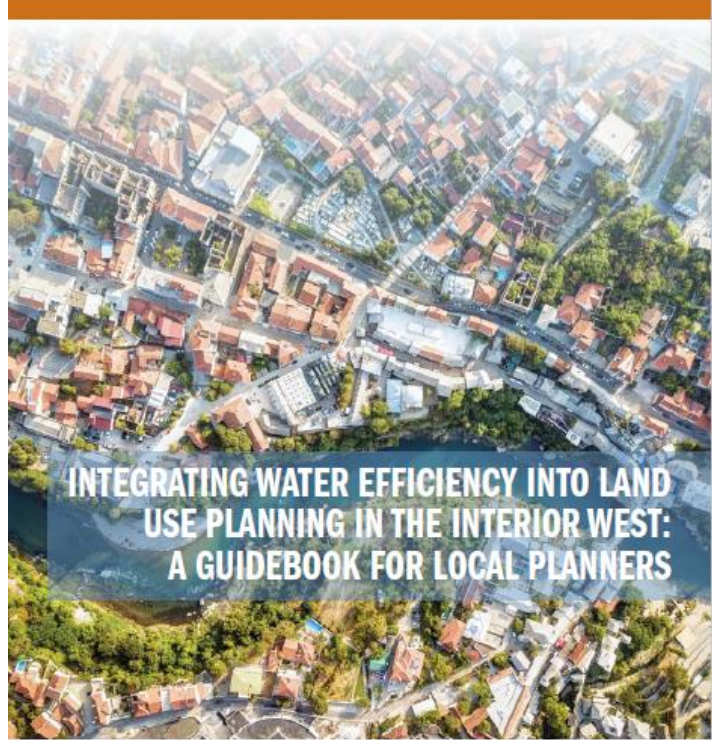


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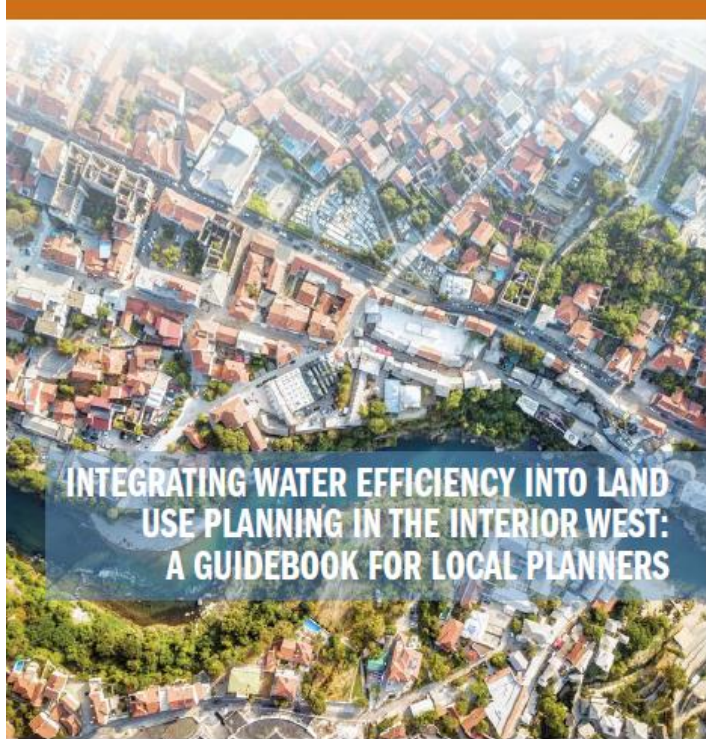
## Where can communities start?

- Review landscape regulations and compare with peer communities
- If updating general plan, think about including water throughout or have a stand alone section
- Coordinate between elected officials, planners, and water staff to determine highest priorities
- Lots of (free) resources available...





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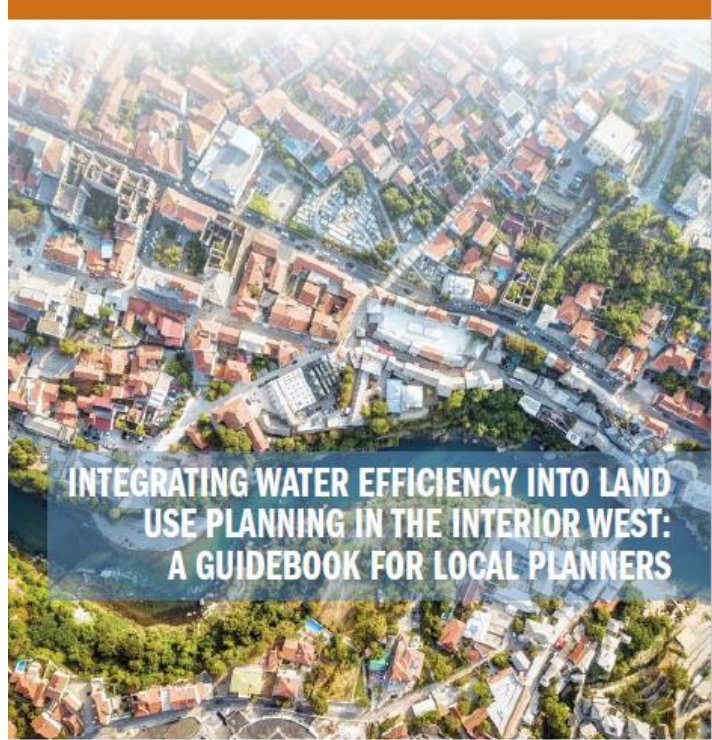


ties start?



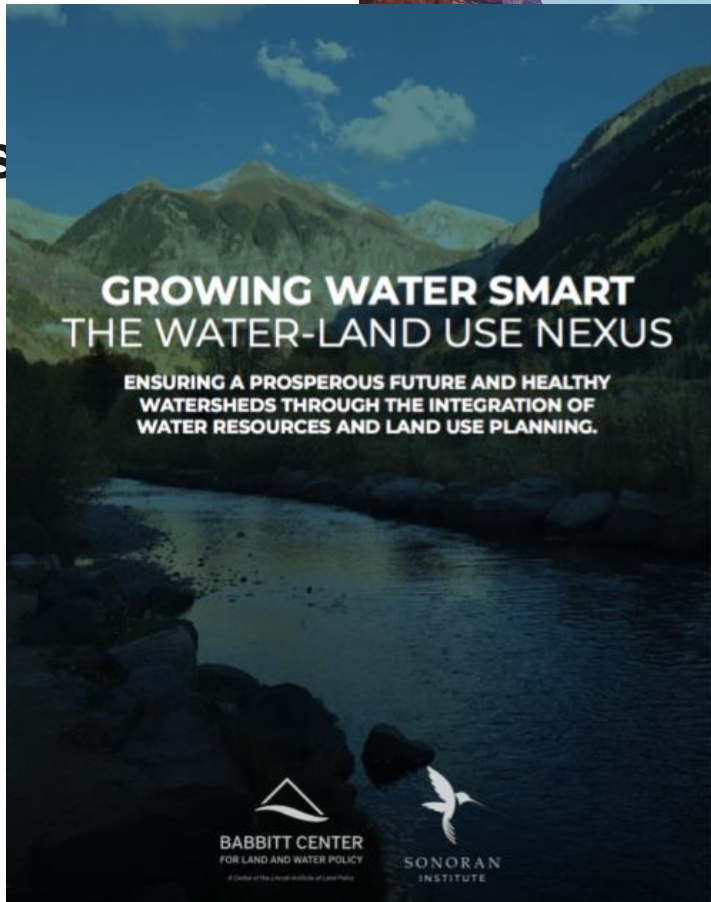
**Incorporating Water into Comprehensive Planning**  
A Manual for Land Use Planners in the Colorado River Basin





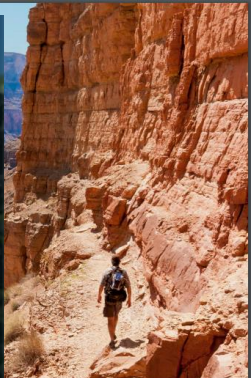
**INTEGRATING WATER EFFICIENCY INTO LAND  
USE PLANNING IN THE INTERIOR WEST:  
A GUIDEBOOK FOR LOCAL PLANNERS**

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**GROWING WATER SMART  
THE WATER-LAND USE NEXUS**

**ENSURING A PROSPEROUS FUTURE AND HEALTHY  
WATERSHEDS THROUGH THE INTEGRATION OF  
WATER RESOURCES AND LAND USE PLANNING.**



Comprehensive Planning  
Colorado River Basin



BABBITT CENTER FOR LAND AND WATER POLICY

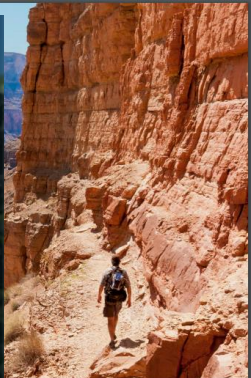


**A GUIDE TO DESIGNING  
CONSERVATION-ORIENTED  
WATER SYSTEM DEVELOPMENT CHARGES**



**GROWING WATER SMART  
THE WATER-LAND USE NEXUS**

**ENSURING A PROSPEROUS FUTURE AND HEALTHY  
WATERSHEDS THROUGH THE INTEGRATION OF  
WATER RESOURCES AND LAND USE PLANNING.**



**Comprehensive Planning**  
Colorado River Basin



BABBITT CENTER FOR LAND AND WATER POLICY

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## What can elected officials do?

- Get up to speed on the benefits of water and land use integration (e.g., reduced demands on agricultural water supplies)
- Prioritize integrating water into land use planning so staff devote the necessary time, meeting with them periodically
- Strongly encourage staff to pursue additional resources for support (e.g., grants, trainings, workshops)
- Encourage water and land use staff to regularly meet, at a minimum

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## In sum, integrating water and land use planning:

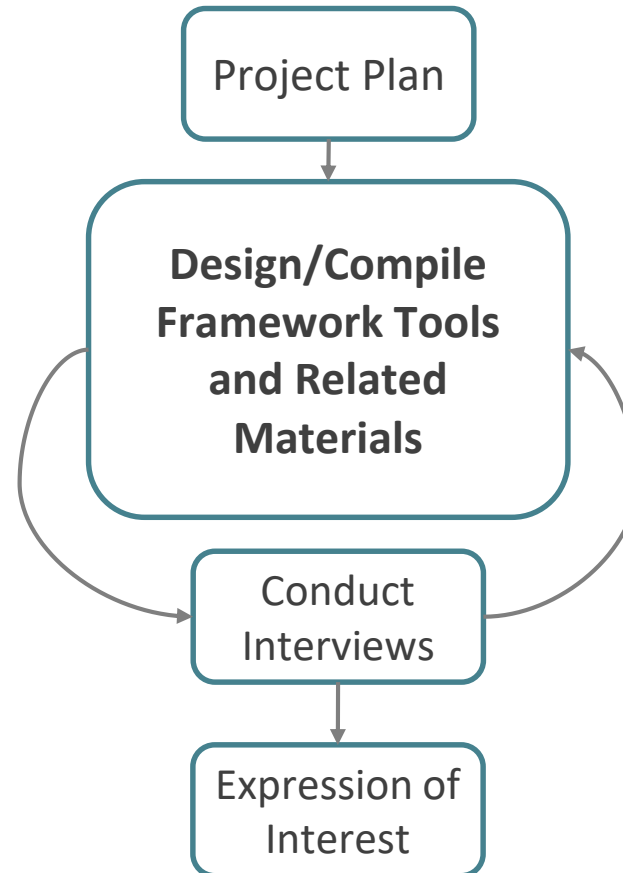
- Empowers communities to improve water efficiency within their own context, including aesthetics, culture, and values (i.e., every community is different)
- Aligns with state goals to improve water conservation efforts
- Increases resiliency to ongoing and future droughts
- More and more resources, support, technical expertise, and efforts are being made available to support interested communities

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# UT DNR Integrating Water and Land Use Planning Project

## *Phase 1 Overview*

PHASE 1  
Develop Framework  
for Community  
Action

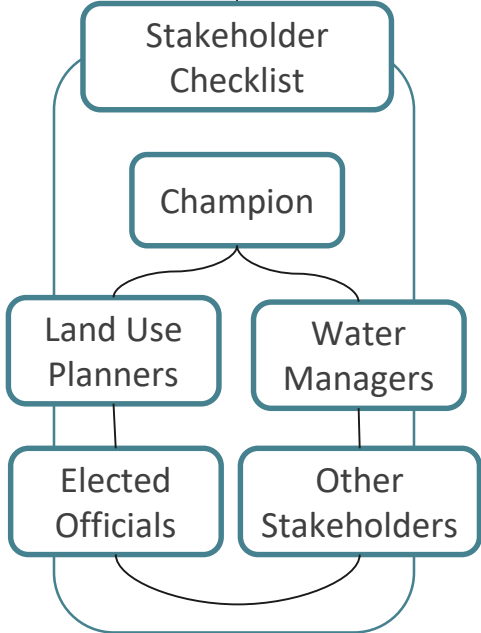




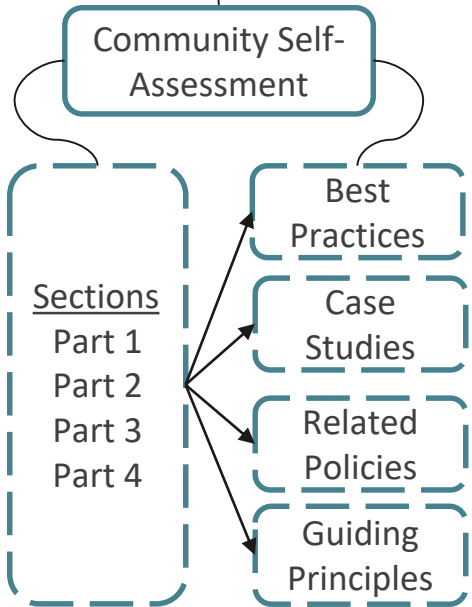


# Overview of Framework for Community Action

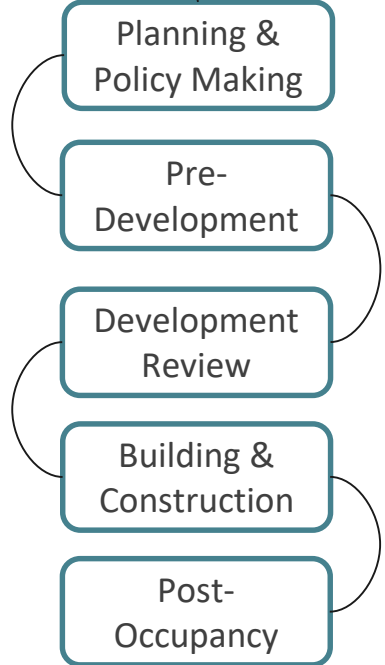
**STAGE 1**  
Form a Core Water and Land Use  
Planning Team



**STAGE 2**  
Assess Local  
Conditions



**STAGE 3**  
Identify Local Points  
of Impact



**STAGE 4**  
Take Action





# Framework for Community Action

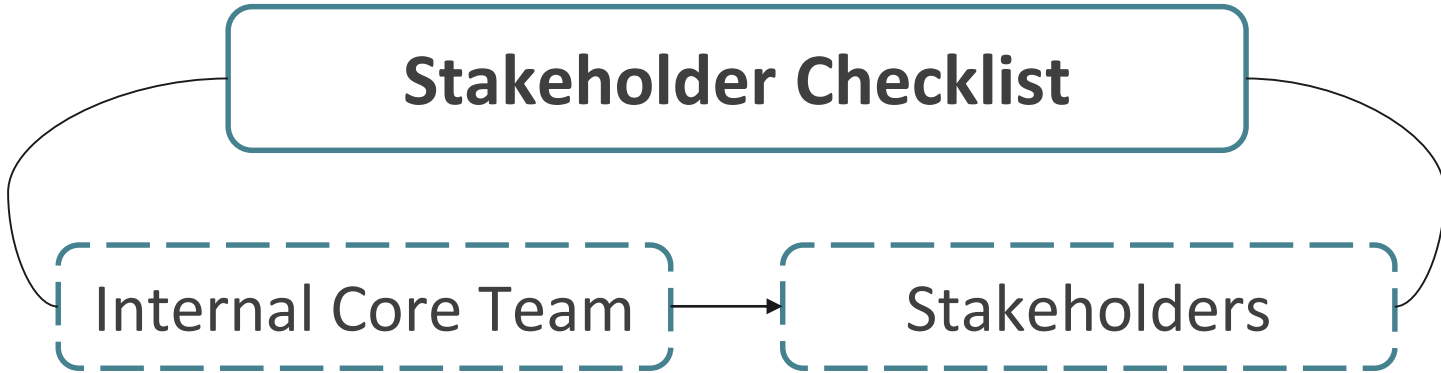
## Stakeholder Checklist



## Stakeholder Checklist

Internal Core Team

Stakeholders



## Participants for the Internal Core Team

Potential Participants	Applicability to Your Context (A - Applicable, N/A - Not Applicable)
Long-Range Land Use Planners	
Development Review Land Use Planners	
Water Conservation Staff	
Water Utility Managers	
Retail Water Provider(s)	
Wholesale Water Provider(s)	
Elected Officials/ Board of Trustees	
Representative from Governing Body of Private Water Utility	
Representative from Planning and Zoning Commission/Board	
Wastewater Utilities	
Flood Control/ Stormwater	

## Stakeholders to Engage Throughout the Process

Stakeholder	Applicability to Your Context (A - Applicable, N/A - Not Applicable)	Priority - Low - Medium - High	Contact Information
Developers and Home Builders		High	
Environmental, Watershed, Land, or Habitat Conservation/Groups		High	
Farmers and Ranchers		High	
Major Institutional, Commercial, or Industrial Water Users (e.g., schools, churches, data centers, manufacturing, golf courses, recreation areas)		High	
Other Local Governments in the Region		High	
Other Land Management or Resource Agencies Relevant for your Region or Watershed (USFS, BLM, BOR, State Lands, Div. of Wildlife, UDOT)		High	
Ski and Snow Park Owners/Managers		Medium	
Community Advocates and Grassroots Organizations		Medium	
Parks and Open Space Managers (including land trusts)		Medium	
Homeowners Associations		Medium	
Citizen Advisory Boards		Medium	
Regional Groups, Regional Associations, COGs, MPOs		Medium	
The Public/ Residents/ Ratepayers		Low	



# Framework for Community Action

## Community Self-Assessment

## Community Self Assessment

### SECTIONS

- Part 1:** Water Supply & Demand Trends
- Part 2:** Current Water Supply & Demand
- Part 3:** Water Conservation and Efficiency Programs
- Part 4:** Land Use-Water Nexus Policy Enabling Environment

Best Practices

Case Studies

Related Policies

Guiding  
Principles

## Part 4: Assessing the Policy Enabling Environment: Land Use – Water Nexus

Please enter your responses into the highlighted boxes.

GENERAL PLAN QUESTIONS	RESPONSE		LINK TO POLICY	RELATED MATERIALS
<p>1. Does the general plan include recommended goals and/or strategies for the following topics?</p> <ul style="list-style-type: none"> <li>● Sustainable water supply and/or demand management</li> <li>● Water quality protection or water source protection</li> <li>● Water conservation and efficiency</li> <li>● Designed growth areas connected to water infrastructure</li> <li>● Ensuring adequate water supplies for environmental needs in the watershed?</li> <li>● Promotion of compact development patterns</li> <li>● Climate change (mitigation and adaptation)</li> <li>● Drought management</li> <li>● Wastewater management</li> <li>● Floodplain and stormwater management</li> <li>● Groundwater management and protection</li> </ul>	Yes	No	<p><i>Please provide a link to the plan</i></p>	<p>Lincoln Institute's <a href="#">Incorporating Water into Comprehensive Planning</a></p> <p>WRA Webinar 2: <a href="#">Incorporating Water into Comprehensive Plans in UT</a></p>
<p>2. Does your general plan contain a discrete water element? (This element may be an entire chapter or a subsection of a chapter.)</p>				<p>Lincoln Institute's <a href="#">Incorporating Water into Comprehensive Planning</a>; pg. 19: <a href="#">The Role of a Water Element</a></p>





# Stakeholder Outreach



## Summary of Outreach

### Representatives from 12 communities/organizations:

- Sandy City
- Park City
- Jordan Valley Water Conservancy District
- Salt Lake County
- Salt Lake City Public Utilities
- City of Moab
- Spanish Fork City
- Bear River Association of Governments
- Ogden City
- UT League of Cities and Towns
- Morgan County
- Oakley City

### Key Findings

- ❑ Limited integrated water and land use planning efforts happening thus far, but strong interest in learning more
- ❑ Positive feedback on framework & self-assessment
- ❑ Some concern over utility of framework without facilitation, external support to drive action
- ❑ Strong interest in multi-stakeholder workshop

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## Acknowledgments

- Great Salt Lake Advisory Council
- Project Team
  - Candice Hasenyager, UT Division of Water Resources
  - Laura Vernon, UT Division of Forestry, Fire, and State Lands
  - Rachel Shilton, UT Division of Water Resources
  - Marcelle Shoop, National Audubon Society
- Water and Land Use Planning Stakeholder Committee
- Phase 1 Project Interviewees

# SLCo West General Plan & Water Conservation

## Public Survey on Issues



## General Plan Process

- JVWCD collaboration
- Water included in draft vision, goals, strategies & actions
- Landowners/managers input on water throughout process

# Connect With Us

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- Michael Shea, Sustainability Director, [mshea@slco.org](mailto:mshea@slco.org), 385-468-7032

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# Looking Forward

- Integrate water & land use planning
- Prepare for current & future droughts
- Prepare for growth
- Conserve our precious water systems and Great Salt Lake