
INTEGRATING WATER AND LAND USE PLANNING: COMMUNITY SELF-ASSESSMENT

Instructions

The first step in becoming water smart is understanding your current conditions. This self-assessment is designed to guide your community through a data gathering process that will help inform your community's integrated water and land use planning efforts/actions.

The capacity of your community and history of planning will influence the thoroughness of the data available. Please collect as much existing data as possible on current conditions. Responses to this self-assessment do not need to be comprehensive status reports. Keep responses high-level and brief enough to guide discussions and provide a link, document, or page citation so additional information is easily accessible, when it is appropriate.

There is no expectation for you to gather data that does not currently exist. In cases where you do not have information, simply acknowledge what you do not know. Communities with more capacity or a longer history of planning are likely to have invested more resources in studies that provide them a more comprehensive understanding of water resources.

The self-assessment is organized into four parts and is designed for several different representatives from your planning department, public works, and/or water utilities to complete:

Part 1 gathers data related to trends that influence your community's water supply and demand, such as population and economic data on growth rates and drought. This information is likely to be found in current planning documents (e.g., general plan, climate adaptation plan, drought plan, or emergency preparedness plan). If you have no local data, you can find data on trends on various regional and state websites such as the Utah Division of Water Resources [Water Reports](#), [Groundwater Management Plans](#), and Kem C. Gardner [Policy Institute](#). *Sources of data for this section will likely be the planning department.*

Part 2 gathers water supply and demand information that is typically found in water planning documents. Several questions reference your community's water provider, which is a broad category that can include retail, wholesale, or other types of public water suppliers. Because each community is different, it will be important to determine if this data comes from one or multiple water providers, and consult each one appropriately. *Sources of data will likely be the water utilities or water resource managers.*

Part 3 gathers information on current water conservation and efficiency efforts included in water and land use policies and plans. *Sources of data will likely be the planning department, water utilities, or water resource managers.*

Part 4 gathers information regarding your community's current regulatory land use policies that are most likely to link water and land use beyond traditional water conservation and efficiency standards. These include connecting water demand to growth patterns, water quality, and watershed health. Sources of data will likely be the *planning department or planning commission.*

Parts 2, 3, and 4 include questions related to identified best practices for integrated water and land use planning. As you fill out this assessment, if the answer to a specific question is not known or a specific item is not currently being done refer to

the entry in the “Related Materials” column for guidance documents and best practices related to that question or topic. Where appropriate, examples from other communities are provided. If available, add links to your community’s similar documents.

Part 1: Understanding Trends that Influence Water Supply and Demand

Please enter your responses into the highlighted boxes.

AREA OF INFLUENCE	TRENDS			
1. What changes or trends has your community experienced that may influence your water supply?				
A. Is your economy growing, declining, or shifting?				
<ul style="list-style-type: none"> Growing, declining, or shifting? 				
<ul style="list-style-type: none"> Largest economic sector changes? 				
B. What changes in business sectors (e.g., agricultural, commercial, industrial) are you seeing? This could include agricultural land transitioning to urban, an increase in industrial development, etc.				
C. What demographic shifts have you seen?				
<ul style="list-style-type: none"> Population growing or declining? 				
<ul style="list-style-type: none"> What is your projected population growth rate? 				
D. How are you growing?				
<ul style="list-style-type: none"> Where is most of the new development located? Write-in a percentage for each category if known. 	Urban Residential Homes		Exurban	Rural
<ul style="list-style-type: none"> What are the most frequent types of development applications (i.e., major subdivisions, multi-family re-development, in-fill)? 				
E. In the past five years, have any of the following extreme events impacted your water supply or demand? (if yes, please provide short description.):				
<ul style="list-style-type: none"> Heat waves 				
<ul style="list-style-type: none"> Droughts 				
<ul style="list-style-type: none"> Fires 				
<ul style="list-style-type: none"> Floods 				
F. Does your community have specific environmental concerns or priorities (e.g., low stream/lake levels, drought conditions, water temperature, water quality, recreation)?				

Part 2: Your Current Water Supply and Demand

Please enter your responses into the highlighted boxes.

WATER SUPPLY AND DEMAND QUESTIONS	RESPONSE	RELATED MATERIALS
1. What is your total current and projected supply and demand in acre feet?		
<ul style="list-style-type: none"> Current Supply (dry year average): 		
<ul style="list-style-type: none"> Projected Supply (for what year): 		
<ul style="list-style-type: none"> Current Demand: 		
<ul style="list-style-type: none"> Projected Demand (for what year): 		

<p>2. Do you have a study or plan that summarizes your water supply and/or demand?</p>	<p>Yes</p>	<p>No</p>	<p>e.g., City of Orem Water Master Plan 2017</p> <p>e.g., City of Logan Drinking Water System Master Plan 2016</p> <p>e.g., South Salt Lake City Water Master Plan</p>
<p><i>If yes, please provide a link to the study or plan.</i></p>			
<p>3. Are any of your water providers (retail, wholesale, or other) required to have a Public Water Supplier 40 Year Water Requirement Plan?</p>	<p>Yes</p>	<p>No</p>	<p>Public Water Supplier 40 Year Water Requirement Plan Standards</p>
<p><i>If yes, please provide a link to the study or plan</i></p>			
<p>4. How would you characterize your water supply? If known, provide a percentage breakdown (e.g., surface water, groundwater, secondary water, wells, reuse, conservation).</p>			
<p>5. What is the sector breakdown of your current water demand (in AF or %)?</p>			
<ul style="list-style-type: none"> ● Agriculture 			
<ul style="list-style-type: none"> ● Industrial/Commercial 			
<ul style="list-style-type: none"> ● Residential 			
<p>6. How does your water provider (retail, wholesale, or other) project future demands (e.g., scenario planning, population projections, local or regional economic development plans)?</p>			<p>Utah DWR Resources</p> <p>Great Salt Lake Advisory Council , 2019 Great Salt Lake Integrated Model</p>
<p>7. Does your water provider (retail, wholesale, or other) engage with land use planners to project future demands (e.g., have projected land use changes been connected to future water demands)?</p>			<p>Lincoln Institute’s Incorporating Water into Comprehensive Planning; pg. 31</p>
<p>8. Does your water provider (retail, wholesale, or other) engage with entities focused on economic development goals or opportunities for your locale or region to project future demands or inform on water supply availability (e.g., economic development planning, including GOED)?</p>			
<p>9. What is the structure of your system development charge/tap fee? Does it incentivize conservation?</p>			<p>WRA Water System Development Charge Guidebook</p>
<p>10. If you know your current gallons per capita per day (GPCD), please provide.</p>			

If you use other criteria to measure demand, include that instead.		
11. Has an assessment of the effects of water conservation and integrated land use planning been conducted (e.g., revenue, water infrastructure needs, water available for the environment)?		Great Salt Lake Advisory Council Conservation Impacts Assessment
12. Do you have a water efficiency, conservation, or optimization target? Please provide.		Utah's Regional M&I Conservation Goals
13. Are additional water supply acquisitions or storage projects being considered to meet future demand?	Yes	No
<ul style="list-style-type: none"> If so, which acquisition or storage projects? 		
<i>Temperature check: How did this water supply and demand section go for you? To learn more, please see resources in the Related Materials column.</i>		

Part 3: Your Water Conservation and Efficiency Programs

Please enter your responses into the highlighted boxes.

WATER CONSERVATION QUESTIONS	RESPONSE		LINK TO POLICY / PROGRAM	RELATED MATERIALS
1. Has your community adopted any of the following plans to promote water conservation?				UT DWR Conserve Water
	Yes	No		
<ul style="list-style-type: none"> Water Conservation Plan 				WRA Guidebook ; Chapter 3, pg. 22 Utah DWR Water Conservation Plan Resources e.g., South Jordan City Water Conservation Plan
<ul style="list-style-type: none"> Drought Management Plan or Preparedness Plan 				Utah DNR Drought Management Toolkit
2. Does your community's water provider (retail, wholesale, or other) conduct any of the following water conservation programs?	Yes	No		AWE Reports and Resources Utah DWR Conserve Water
<ul style="list-style-type: none"> Localscapes incentives (cash for grass/turf replacement) 				UT Water Savers Localscapes Rewards Jordan Valley Water Conservancy District Flip Your Strip Bureau of Reclamation's WaterSMART Water &

				Energy Efficiency Grants and Small-Scale Water Efficiency Grants
<ul style="list-style-type: none"> Rebates for fixtures, appliances, and outdoor irrigation 				UT DWR Utah Water Savers Programs & Rebates
<ul style="list-style-type: none"> Water efficient product giveaways 				e.g., Spanish Fork Smart Controller Project & Tap into Resilience Case Study
<ul style="list-style-type: none"> Conservation education for consumers 				UT DWR Slow the Flow Localscapes Design Utah's Water-Wise Pledge UT DNR Lawn Watering Guide USU Extension In Home Conservation
<ul style="list-style-type: none"> Landscaping education for landscaping professionals 				QWEL Program Overview & Utah State QWEL Program
<ul style="list-style-type: none"> Indoor water audits and/or outdoor irrigation audits 				UT State WaterCheck Program
<ul style="list-style-type: none"> Rainwater harvesting 				USU Extension Rain Barrels in Utah
<ul style="list-style-type: none"> Culinary water metering 				
<ul style="list-style-type: none"> Secondary water metering 				SB199 Water Amendments
<ul style="list-style-type: none"> Conservation-oriented rate structuring 				UT State Extension Guide to Municipal Water Conservation Pricing
<ul style="list-style-type: none"> Industrial, institutional, or commercial water conservation innovations 				
<ul style="list-style-type: none"> Other 				
3. If you have a water provider (retail, wholesale, or other) that uses rate structuring to promote water conservation, which of the following does the utility use? <i>Please place an X in the leftmost column to indicate the structure(s) used.</i>				WRA Water Rate Structures in Utah
Drought Demand Pricing: <i>Rates are higher during drought periods.</i>				
Excess Use: <i>Rates are higher for above average water use.</i>				
Inclining Block: <i>Rate per block increases as water use increases.</i>				
Indoor/Outdoor: <i>With separate meters, rates for indoor use are lower than rates for outdoor use.</i>				
Penalties: <i>Customers are charged for exceeding allowable limits of water.</i>				
Scarcity Pricing: <i>The cost of developing new supplies is added to bills.</i>				
Seasonal Pricing: <i>Water rates are higher during the summer.</i>				

Sliding Scale: <i>The unit price increases based on an average consumption.</i>		
Spatial Pricing: <i>Water rates are determined by the actual costs to supply water to specific locations.</i>		
Time-of-Use: <i>Water rates are higher during peak days or specific hours of the week.</i>		
Water Budget: <i>Block rates are defined for each individual customer based on an efficient level for that customer.</i>		
Other		
<i>Temperature check: How did this water supply and demand section go for you? To learn more, please see resources in the Related Materials column.</i>		

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
1. Does the general plan include recommended goals and/or strategies for the following topics?	Yes	No	<i>Please provide a link to the plan</i>	Lincoln Institute’s Incorporating Water into Comprehensive Planning WRA Webinar 2: Incorporating Water into Comprehensive Plans in UT
• Sustainable water supply and/or demand management				
• Water quality protection or water source protection				
• Water conservation and efficiency				
• Designed growth areas connected to water infrastructure				
• Ensuring adequate water supplies for environmental needs in the watershed				
• Promotion of compact development patterns				
• Climate change (mitigation and adaptation)				
• Drought management				
• Wastewater management				
• Floodplain and stormwater management				
• Groundwater management and protection				
2. Does your general plan contain a discrete water element? (This element may be an entire chapter or a subsection of a chapter.)				Lincoln Institute’s Incorporating Water into Comprehensive Planning ; pg. 19: The Role of a Water Element
3. Is water deliberately integrated as a consideration throughout all relevant components of your general plan?				
4. Are social equity considerations related to water included in the general plan?				Local Government Commission’s Guiding Principles for Equitable Management in Coordinated

				Planning
5. Does your general plan identify water conservation goals and objectives?				Lincoln Institute's Incorporating Water into Comprehensive Planning ; pg. 33: General Water Conservation Programs
<ul style="list-style-type: none"> If yes, is the water conservation plan for your community consistent with these adopted goals and objectives? 				
6. Does your general plan identify water conservation strategies and implementation techniques?				Lincoln Institute's Incorporating Water into Comprehensive Planning
<ul style="list-style-type: none"> If yes, is the water conservation plan for your community consistent with these adopted strategies and implementation techniques? 				
7. Is the water element (or integrated elements) of your general plan consistent with the policies of your water utility/supplier?				
8. Is the land use element of your general plan consistent with the policies of your water utility/supplier?				
9. Does your general plan quantify the water demand that would result from projected population growth (i.e., demand forecasting)?				Lincoln Institute's Incorporating Water into Comprehensive Planning ; pg. 41: Forecasting Water Supply & Demand
<ul style="list-style-type: none"> Is the water element (or integrated water elements) of your general plan consistent with any applicable regional or State water plans (e.g., Regional M&I Water Conservation Goals)? 				Utah's Regional M&I Conservation Goals
10. Does your general plan contain a strategy to ensure that proposed project re-zonings, development approvals, and permits do not adversely affect water supplies and resources?				Lincoln Institute's Incorporating Water into Comprehensive Planning ; pg. 48 - 51: Water in Development Processes & Evaluation
11. Does your general plan include strategies for water efficient land use (e.g., urban growth boundary, cluster development, Accessory Dwelling Units, and volume/demand-based tap fees)?				Lincoln Institute's Incorporating Water into Comprehensive Planning ; pg. 51: Water Efficient

				Urban Form & Zoning Regulations
11. Does the water element (or integrated elements) of your general plan include strategies for water efficient landscaping? For example, soil quality improvements, low-water use plant lists, turf limitations, irrigation system efficiency requirements, public ROW xeriscaping, and open space options that are not water intensive (e.g., natural trail system.)				Lincoln Institute's Incorporating Water into Comprehensive Planning ; pg. 52: Landscaping & Irrigation Policies
12. Are your water conservation regulations consistent with your general plan (i.e., have they been updated to implement the strategies outlined in your general plan)?				
13. Does your community have any supporting plans that include elements on water resource management?	Yes	No	<i>Please provide a link to the plan</i>	
<ul style="list-style-type: none"> Climate action plan, adaptation plan or resiliency plan 				UT DWR Climate Change, Water Resources, and Potential Adaptation Strategies in Utah e.g., SLC's Climate Plan
<ul style="list-style-type: none"> Sustainability plan 				e.g., SLC's Sustainability Plan
<ul style="list-style-type: none"> Emergency preparedness plan 				
<ul style="list-style-type: none"> Floodplain management plan 				e.g., City of Bluffdale Floodplain Management Plan
<ul style="list-style-type: none"> Economic development plan (that takes water supply into account) 				
DEVELOPMENT CODE QUESTIONS	RESPONSE		LINK TO POLICY	RELATED MATERIALS
Adequate Water Supply				
12. Does your development code include a policy for the provision of adequate water supply for new development?	Yes	No	<i>Please provide a link to the code section</i>	Green and Castle, 2017, Assured Water Supplies in Western States Sonoran Institute, GWS Water-Land Use Nexus ; pg. 14 WRA Guidebook , Chapter 9; pg. 176
a. If Yes, what are some of the requirements (e.g., definition of "supply", time period for water availability, legal/physical availability, etc.)?				
b. At what point is the proof of water required in the development approval process (e.g., preliminary plat submittal, final development approval)?				
c. Who conducts the review for adequate water supply for development proposals (e.g., State Engineer's Office, Planning Staff/Commission, Water Provider)?				

d. Are new major economic developments or industries required to provide their own water supply or are they required to engage with water planners/providers to assess water availability?					
DEVELOPMENT CODE QUESTIONS		RESPONSE		LINK TO POLICY	RELATED MATERIALS
Site Development Standards for Water Quality					
13. Does your development code include zoning or development standards for water quality protection? This could include limiting development in sensitive areas (e.g., wetlands), stream buffers/setbacks, riparian corridor standards, soil erosion mitigation standards, etc.	Yes	No	<i>Please provide a link to the code section</i>	WRA Guidebook , throughout	
				Sonoran Institute, GWS Water-Land Use Nexus ; Section 4	
				UT Dept. of Water Quality Low Impact Development Guidebook	
DEVELOPMENT CODE QUESTIONS		RESPONSE		LINK TO POLICY	RELATED MATERIALS
Water Efficient Land Use Pattern					
14. Does your development code include policy that promotes and/or supports compact form? This could include higher density/smaller lot sizes, mixed use, housing types, development incentives for water efficiency, etc.	Yes	No	<i>Please provide a link to the code section</i>	WRA Guidebook ; Chapter 7	
15. Does your development code have a provision requiring water conservation and efficiency in the planned development policy, annexation policy, or any similar policies?	Yes	No	<i>Please provide a link to the code section</i>		
DEVELOPMENT CODE QUESTIONS		RESPONSE		LINK TO POLICY	RELATED MATERIALS
Efficient Outdoor Water Use					
16. Does your development code include landscaping standards to reduce outdoor water use?	Yes	No	<i>Please provide a link to the code section</i>	SMWSA Model Landscape Ordinance	
				WRA Guidebook ; Chapter 11	
				SL County Landscape Regulations	

				CA Model Water Efficient Landscape Ordinance WRA Webinar 2: Water Efficient Landscape Regulations in UT
a. If Yes, does it include any of the following?				
<ul style="list-style-type: none"> Requirement for a landscape plan 				Sandy City Landscape Regulations
<i>Plant Materials Standards</i>				
<ul style="list-style-type: none"> Turf limitation (e.g., type of turf or turf square footage maximum) 				Herriman City Water Efficiency Standards
<ul style="list-style-type: none"> Total landscaped area square footage maximum (e.g., maximum amount of landscaping vs. hardscape) 				
<ul style="list-style-type: none"> Plant selection standards or plant lists (e.g., native shrubs, perennials and trees, xeriscape, suitable plants for hydrozones) 				SL County Landscape Regulations Utah State Center for Water Efficient Landscaping Water Wise Plan Lists & Native Plants for the Intermountain West
<ul style="list-style-type: none"> Soil enhancements and mulching requirements 				Herriman City Water Efficiency Standards
<ul style="list-style-type: none"> Live vegetation requirements (e.g., reducing urban heat island effects or other means of avoiding heat island effect) 				
<i>Water Efficient Irrigation Standards</i>				
<ul style="list-style-type: none"> Irrigation efficiency practices (e.g., drip, bubblers, low flow sprinklers, rain and/or evapotranspiration sensors) 				SMWSA Model Landscape Ordinance CWEL Transitioning Trees from Traditional to Low-Water Landscapes
<ul style="list-style-type: none"> Water schedules for outdoor irrigation to reduce demand and/or evapotranspiration (e.g., time of day, day of week, seasonal) 				
<ul style="list-style-type: none"> Water budgets for outdoor water use (limitations on allowable water consumption in a landscape area) 				

<ul style="list-style-type: none"> Rainwater harvesting 				
<ul style="list-style-type: none"> Graywater reuse 				UT Rule 401: Greywater Systems
<ul style="list-style-type: none"> Site inspections 				
Streetscape/Parking Lot Standards				
<ul style="list-style-type: none"> Xeriscape standards 				
<ul style="list-style-type: none"> Low impact development/rain garden best practices 				UT Dept. of Water Quality Low Impact Development Guidebook
Water Conservation Ordinance				
<ul style="list-style-type: none"> Water waste limitations 				WRA Land Use Guidebook, Ch. 11; pg. 203 e.g., South Jordan City Code. Ch. 13.04.260 Waste Prohibited
<ul style="list-style-type: none"> Code enforcement and fines for violations of standards 				
17. Does your development code include any regulations, restrictions, or requirements for how home owners associations manage landscapes on their property?	Yes	No		
18. Does your development code include any regulations, restrictions, or requirements that might prevent a property owner from installing water efficient landscapes?	Yes	No		
DEVELOPMENT CODE QUESTIONS	RESPONSE		LINK TO POLICY	RELATED MATERIALS
19. Does your development code include zoning or development standards for water quality protection? This could include limiting development in sensitive areas (e.g., wetlands), stream buffers/setbacks, riparian corridor standards, soil erosion mitigation standards, etc.	Yes	No	<i>Please provide a link to the code section</i>	WRA Guidebook , throughout Sonoran Institute, GWS Water-Land Use Nexus ; Section 4 UT Dept. of Water Quality Low Impact Development Guidebook
<i>Temperature check: How did this building and plumbing code section go for you? To learn more, please see resources in the Related Materials column.</i>				

BUILDING & PLUMBING CODE QUESTIONS Efficient Indoor Water Use	RESPONSE		LINK TO POLICY	RELATED MATERIALS
20. What are your current plumbing and building codes (e.g., International Plumbing Code, state plumbing code)				
21. Does your code have additional water efficiency standards that promote water conservation for commercial, industrial, institutional uses?	Yes	No		WRA Land Use Guidebook, Ch.10; pg. 184
<ul style="list-style-type: none"> If yes, are there additional commercial standards for high water consumption uses (e.g., car washes, golf courses, hotels, restaurants, laundromat, etc.), which could include pre-rinse spray valves, water recycling or greywater, cooling systems, or water saving signage? 				
22. Does your code include any of the following plumbing and building water saving standards?	Yes	No		
<ul style="list-style-type: none"> Metering for commercial and single-family units for new development connections 				
<ul style="list-style-type: none"> Submetering for multifamily units for new development connections 				
<ul style="list-style-type: none"> Incentive for new development to incorporate additional water efficient fixtures, appliances, or plumbing above the required standard 				WRA Land Use Guidebook, Ch. 14; pg 237
<ul style="list-style-type: none"> Requirement for plumbing fixture retrofit on resale or for rehabilitation of property to receive Certificate of Occupancy as a fee incentive for new development 				
<ul style="list-style-type: none"> Tap availability limitations 				
<i>Temperature check: How did this building and plumbing code section go for you? To learn more, please see resources in the Related Materials column.</i>				
FINAL QUESTION	RESPONSE			LINK TO POLICY
23. Please describe anything else your community does to conserve water that is not already mentioned in this assessment.				