Arizona Growing Water Smart:

**Community Self-Assessment**

# Introduction

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 team’s work sessions during the Growing Water Smart Workshop.

**Keep responses high level and brief enough to guide your discussions and provide weblink or document and page citations so that you can quickly dive deeper, if necessary. In cases where you do not have information, simply acknowledge what you do not know**. The capacity of your community and history of planning will influence the depth and breadth of the data available.

**Each of the four Growing Water Smart Self-Assessment sections** **will likely be completed by representatives from different departments.** If you are gathering data from multiple entities, such as multiple water providers or community planning departments, please ask each agency/organization to complete their Self-Assessment sections in a new document. A spreadsheet format is available upon request. **When using multiple copies of this document, please list the agency’s name filling out the report in each document’s header.**

**Part 1** gathers data related to trends that influence your community’s water supply and demand, such as growth rates and drought. This information is likely to be found in current plans such as the general plan, climate adaptation plan, or emergency preparedness plan. Sources of data will likely be from within the planning department. If you have no local data, you can find data on trends at the Arizona Office of Economic Opportunity (azcommerce.com/oeo/population) or the Arizona Department of Water Resources (new.azwater.gov/drought).

**Part 2** gathers information typically found in water planning documents or water budgets about your water supply and demand. Depending upon the capacity of your community, you may not have all this information available. Sources of data will likely be 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. Data sources will likely be the planning department, water utilities, or water resource managers.

**Part 4** gathers information regarding your community’s current policies that are most likely to link water and land use beyond traditional water conservation and efficiency standards, including connecting water demand to growth patterns, water quality, and watershed health. The planning department or planning commission are the likely sources for this section.

**Please enter your responses into the green highlighted boxes. Please review your completed self-assessment(s) with your team before the workshop to accelerate your team's progress during the Growing Water Smart Workshop.**

Questions? Suggestions? Contact Sonoran Institute at growingwatersmart@sonoraninstitute.org.

# Part 1: Trends that Influence Water Supply & Demand

Data will likely come from the planning department. If you have no local data, you can find data on trends at the Arizona Office of Economic Opportunity or the Arizona Department of Water Resources.

|  |  |  |
| --- | --- | --- |
| AREA OF INFLUENCEEconomic | RESPONSE | NOTES/SPECIFIC NUMBERS |
| 1. **In general, is our economy growing, steady, or declining?**
 | Growing | Steady | Declining | Notes/specific numbers |
|  |  |  |  |
| 1. **Property tax base change from 2000 to current period**
 |  |  |  |  |
| 1. **Sales tax change from 2000 to current**
 |  |  |  |  |
| 1. Trends in specific sectors:
 |  |
| * Agricultural
 |  |  |  |  |
| * Commercial
 |  |  |  |  |
| * Industrial
 |  |  |  |  |
| * Other
 |  |  |  |  |
| * Which is the most significant economic sector; is it changing?
 |  |  |
| AREA OF INFLUENCEPopulation & Development | **RESPONSE** | **NOTES/SPECIFIC NUMBERS** |
| 1. **Total Population?**
 |  |  |
| 1. **What is our projected population growth rate?**
 |  |  |
| 1. **Number of building permits issued annually**
 | Growing | Steady | Declining |  |
|  |  |  |  |
| 1. **Projected build-out date?**
 |  |  |
| 1. **Where is the new development located?** Write in a percentage for each category, if known.
 | Urban Core (infill) | Inner-suburbs | Outer-suburbs (exurban) | Fringe (greenfield) | Rural |
|  |  |  |  |  |
| 1. **What is the most frequent type of development application?** (i.e., major subdivisions, minor subdivisions, multi-family, etc.)
 |  |  |  |  |  |
| AREA OF INFLUENCEClimate | **RESPONSE** | **NOTES/SPECIFIC NUMBERS** |
| 1. **How have the following climatic factors changed in our community in the last ten years?**
 | Growing | Steady | Declining |  |
| * Temperature
 |  |  |  |  |
| * Drought
 |  |  |  |  |
| * Wildfire frequency and/or intensity
 |  |  |  |  |
| * Flooding frequency and/or intensity
 |  |  |  |  |
| 1. Does our community have specific environmental concerns or priorities? (e.g., low stream/lake levels, water temperature, water quality, salinity, erosion, subsidence, etc.)
 |  |
| *Section Impressions: What were your key takeaways from this section? What is your community doing well? What are your community’s challenges?* |  |
| *Have you identified any needs or next steps that would further integrate water and land use planning?*  |  |

**Congratulations! You have completed section 1 of 4!**

# Part 2: Water Supply & Demand

Data sources will likely be from the water utility or the water resources/public works department(s).

*If you have multiple water providers,* please have each of them complete this section. To use a spreadsheet version instead of a document to compile and compare responses across providers, please contact growingwatersmart@sonoraninstitute.org.

|  |  |
| --- | --- |
| WATER SUPPLY AND DEMAND QUESTIONS | RESPONSE |
| 1. What is our total current and projected supply and demand in acre feet?
 |  |  |
| * Current Supply (dry year average):
 |  |  |
| * Projected Supply (to what year):
 |  |  |
| * Current Demand:
 |  |  |
| * Projected Demand (to what year):
 |  |  |
| 1. Is our water supply and demand balanced? *Please mark most accurate with an X. Add any additional information here.*
 |  | We have not calculated our current water supply and demand balance. |
|  | Our water budget is currently balanced, but a shortage is projected for the future if trends continue. |
|  | Our water budget is currently balanced and is projected to remain balanced. |
| 1. Do we have a study or plan that summarizes our water supply and/or demand? *If yes,* *please provide a link to the report or study.*
 |  |
| 1. What is the composition of our water supply?
 | **Current** | **Projected** |
| * Surface water (AF)
 |  |  |
| * Tributary Groundwater (AF)
 |  |  |
| * Non-tributary Groundwater (AF)
 |  |  |
| * Reuse (AF)
 |  |  |
| * Individual household wells (number)
 |  |  |
| 1. What is the sector breakdown of our current water demand? (in AF)
 |  |
| * Agriculture
 |  |
| * Industrial
 |  |
| * Residential Single-Family
 |  |
| * Residential Multi-Family
 |  |
| * Municipal
 |  |
| * Commercial
 |  |
| 1. If current gallons per capita water demand (e.g., GPCD) is known, please provide. *If you use other criteria to measure demand, include that instead.*
 |  |
| 1. Do we have a gallons per capita water demand goal or other targets for conservation? *Please provide.*
 |  |
| 1. Are additional water supply storage projects being considered to meet future demand? *Yes/no, and add an explanation if necessary.*
 |  |
| 1. Has an assessment of the impacts of water conservation been conducted? (e.g., revenue, water infrastructure, etc.) *Yes/no, and add an explanation if necessary.*
 |  |
| 1. If within an Active Management Area (AMA), do you have an assured water supply designation or certification from ADWR?
 |  |
| 1. If outside an AMA, do you have mandatory adequacy programs or other means of assuring water supply for development?
 |  |
| 1. Which population and growth projections methodologies are used to determine future water demand?
	1. If yes, which methods:
 |  |
| * A linear population growth model is used
 |  |
| * Low, medium, and high population projections are used
 |  |
| * Growth scenario modeling is used
 |  |
| * Demand projections are tied to land use. If so, are demands are linked to zoning (C-1, C-2, etc.), or are demands are tied to specific development types within zones (restaurants, dry cleaners, etc.)?
 |  |
| * Other
 |  |
| 1. Have projected land use changes been connected to water demand projections in calculating future demand?
	1. If yes, which methods:
 |  |
| * Based on population projection
 |  |
| * Based on the total number of households/taps based on growth projections
 |  |
| * Based on density or historical land use type per acre
 |  |
| * Other
 |  |
| 1. What is the source of the population data?
 |  |
| * Arizona Office of Economic Opportunity
 |  |
| * Consultant
 |  |
| * Other
 |  |
| 1. Have we included climate vulnerability and variability as part of our future water supply assessment? If yes, how did we assess vulnerability? What is our firm yield?
 |  |
| *Section Impressions: What were your key takeaways from this section? What is your community doing well? What are your community’s challenges?* |  |
| *Have you identified any needs or next steps that would further integrate water and land use planning?*  |  |

**Congratulations! You have completed section 2 of 4!**

# Part 3: Water Conservation and Efficiency Programs

Data sources will likely be from the water provider, water utility, or the water resources/public works department(s).

*If you have multiple water providers,* please have each of them complete this section. To use a spreadsheet version instead of a document to compile and compare responses across providers, please contact growingwatersmart@sonoraninstitute.org.

|  |  |  |
| --- | --- | --- |
| WATER CONSERVATION QUESTIONS | RESPONSE | LINK TO POLICY |
| 1. Do we, as a water utility or provider, utilize any of the following plans to guide water efficiency?
 | **Yes** | **No** | Link to policy |
| * Water Supply Plan
 |  |  |  |
| * Water Conservation Plan
 |  |  |  |
| * Drought Preparedness Plan
 |  |  |  |
| * Other:
 |  |  |  |
| 1. Do we, as a water utility or provider, conduct any of the following water conservation programs?
 | **Yes** | **No** | Link to policy |
| * Cash for grass/turf replacement
 |  |  |  |
| * Rebates for indoor fixtures and appliances
 |  |  |  |
| * Water efficient product giveaways
 |  |  |  |
| * Conservation education for consumers
 |  |  |  |
| * Landscaping education for property owners
 |  |  |  |
| * Landscaping education for landscaping professionals
 |  |  |  |
| * Water efficiency rebates
 |  |  |  |
| * Rainwater harvesting education and/or incentives
 |  |  |  |
| * Water audits
 |  |  |  |
| * Secondary water metering
 |  |  |  |
| * Conservation rate structuring
 |  |  |  |
| * Effluent Reuse
 |  |  |  |
| * Other:
 |  |  |  |
| 1. If we have a utility that uses rate structuring to promote water conservation, which of the following does the utility use? *Please mark the structure used with an X.*
 |
| * Drought Demand Pricing: *Rates are higher during drought periods*
 |  |
| * Excess Use: *Rates are higher for above average water use*
 |  |
| * Inclining Block: *Rate per block increases as water use increases*
 |  |
| * Indoor/Outdoor: *With separate meters, rates for indoor use are lower rates for outdoor use*
 |  |
| * Penalties: *Customers are charged for exceeding allowable limits of water*
 |  |
| * Scarcity Pricing: *The costs of developing new supplies is added to bills*
 |  |
| * Seasonal Pricing: *Water rates are higher during the season with the most demand*
 |  |
| * Sliding Scale: *The unit price increases based on an average consumption*
 |  |
| * Spatial Pricing: *Water rates are determined by the actual costs to supply water to specific locations*
 |  |
| * Time-of-Use: *Water rates are higher during peak days or specific hours of the week*
 |  |
| * Water Budget: *Block rates are defined for each customer based on an efficient level for that customer*
 |  |
| * Other:
 |  |
| 1. Do you use water restrictions?
 | **Yes** | **No** |
| * Seasonally, required
 |  |  |
| * Seasonally, voluntary
 |  |  |
| * Only under drought restrictions, required
 |  |  |
| *Section Impressions: What were your key takeaways from this section? What is your community doing well? What are your community’s challenges?* |  |
| *Have you identified any needs or next steps that would further integrate water and land use planning?*  |  |

 **Congratulations! You have completed section 3 of 4!**

# Part 4: Local Government Land Use Plans, Policies, and Processes

Sources of data will likely be from the planning and development services department.

|  |  |  |
| --- | --- | --- |
| GENERAL/COMPREHENSIVE PLAN QUESTIONS | RESPONSE | LINK TO POLICY |
| 1. How does our comprehensive/general plan address water demand?
 | **Yes** | **No** | *Please link to the plan* |
| * It does not address water
 |  |  |  |
| * We have a discrete water element or subsection of a chapter
 |  |  |  |
| * Water considerations are deliberately integrated throughout relevant sections
 |  |  |  |
| * Other
 |  |  |  |
| 1. Does our comprehensive/general plan reference our water conservation targets or goals?
 |  |  |  |
| 1. Does our comprehensive/general plan include recommended goals and/or strategies for the following topics?
 | **Yes** | **No** | *Please link to the plan and cite location or excerpt language here.* |
| * Sustainable water supply and/or demand management
 |  |  |  |
| * Water quality protection and/or water source protection
 |  |  |  |
| * Watershed health
 |  |  |  |
| * Water conservation and efficiency
 |  |  |  |
| * Designated growth areas connected to water infrastructure
 |  |  |  |
| * Promotion of compact development patterns
 |  |  |  |
| * Climate change (mitigation and adaptation)
 |  |  |  |
| * Drought management
 |  |  |  |
| * Wastewater management
 |  |  |  |
| * Floodplain and stormwater management
 |  |  |  |
| * Groundwater management and protection
 |  |  |  |
| * Social equity regarding water service, quality, and cost
 |  |  |  |
| 1. Does your general plan include forecasted water demand?
 |  |  |  |
| 1. Are your general plan population and water demand projections consistent with your water supply plan?
 |  |  |  |
| 1. Does our general/comprehensive plan contain strategies to address the following considerations?
 | **Yes** | **No** | *Please link to the plan and cite location or excerpt language here.* |
| * Re-zonings, development approvals, and permits demonstrate adequate water supply and do not adversely affect water supplies and infrastructural capacity
 |  |  |  |
| * Water efficient land use and urban form (e.g., urban growth boundary, cluster development, approaches to increase density, and volume/demand-based tap fees)
 |  |  |  |
| * Requirements that future land use code amendments are consistent with the general/comprehensive plan
 |  |  |  |
| * Water efficient landscaping (e.g., soil quality improvements, low-water use plant lists, turf limitations, irrigation system efficiency requirements, etc.)
 |  |  |  |
| * Watershed health, floodplain management, and water supply source protection
 |  |  |  |
| 1. Does our community have any supporting plans that include elements of water resource management?
 | **Yes** | **No** | *Please link to the plan* |
| * A climate action plan, adaptation plan, or resiliency plan
 |  |  |  |
| * A sustainability plan
 |  |  |  |
| * A hazard mitigation plan
 |  |  |  |
| * A floodplain management or watercourse plan
 |  |  |  |
| * An integrated water resources plan, water supply plan, or One Water plan
 |  |  |  |
| * Other?
 |  |  |  |
| DEVELOPMENT REVIEW QUESTIONS | RESPONSE | LINK TO POLICY |
| 1. When are water resources staff/utilities engaged during the development review process?
 | **Yes** | **No** | *Please link any references* |
| * Pre-application meetings
 |  |  |  |
| * Preliminary plat review
 |  |  |  |
| * Site design
 |  |  |  |
| * Site inspection
 |  |  |  |
| * Other
 |  |  |  |
| 1. Who conducts the water adequacy review for development proposals?
 | **Yes** | **No** | *Please link any references* |
| * Review by the State (for well permits)
 |  |  |  |
| * Planning Commission
 |  |  |  |
| * Water Resource Department or Engineer
 |  |  |  |
| * Utility Department
 |  |  |  |
| 1. Are planning commissioners and elected officials trained or educated about community water management goals?
 |  |  |  |
| 1. Do you ever use your development agreements to require compliances with water efficiency or watershed protection efforts?
 |  |  |  |
| 1. Do we use design review incentives, such as expedited review, to encourage water efficiency?
 |  |  |  |
| 1. Are new economic development projects required to engage with water planners/providers to assess water availability?
 |  |  |  |
| DEVELOPMENT CODE QUESTIONSWater Supply Requirements | RESPONSE | LINK TO POLICY |
| 1. What are our water supply requirements for new development?
 | **Yes** | **No** | *Please link any references* |
| * (Within AMA) Certificate of Assured Supply from ADWR or written commitment of service from a designated provider.
 |  |  |  |
| * (Outside AMA) An Adequacy Determination from ADWR or written commitment of service from a designated provider.
 |  |  |  |
| * We have additional requirements.*Please Explain or Link*
 |  |  |  |
| 1. Who conducts the water supply review for development proposals?
 | **Yes** | **No** | *Please link any references* |
| * Review by ADWR
 |  |  |  |
| * Water Resource/Utility Department
 |  |  |  |
| * The water provider
 |  |  |  |
| * Planning Staff and/or Engineer
 |  |  |  |
| * Planning Commission and elected officials
 |  |  |  |
| 1. How do we manage different water sources? Do we:
 | **Yes** | **No** | *Please link any references* |
| * require all development to connect to a certified water provider?
 |  |  |  |
| * require development within a designated number of feet of a provider to connect?
 |  |  |  |
| * allow development on individual wells and septic?
 |  |  |  |
| * + If yes, do we have regulations that restrict the location or density of development on wells in our zoning districts?
 |  |  |  |
| * allow transported water as a water source?
 |  |  |  |
| * + If yes, are there conditions that apply?
 |  |  |  |
| 1. How do we evaluate the water demand of individual developments?
 |  |  |  |
| * We rely on the water reports submitted to ADWR
 |  |  |  |
| * We rely on the will serve letter and the water provider’s methodology
 |  |  |  |
| * We require all developments to submit an estimate of a development’s water demand at build out in our development application
 |  |  |  |
| * + If yes, do we use an established methodology for calculating that demand?
 |  |  |  |
| * We require economic development projects to engage with water planners/providers to assess water availability? (e.g., water allocation policy, etc.)
 |  |  |  |
| 1. At what point is the proof of water required in the development approval process?
 | **Yes** | **No** | *Please link any references* |
| * Initial or preliminary plat submittal
 |  |  |  |
| * At final development approval
 |  |  |  |
| * By development phase(s)
 |  |  |  |
| * At building permit
 |  |  |  |
| * Other
 |  |  |  |
| 1. If outside of an AMA, have we adopted a *Mandatory Water Adequacy Program* to allow for denial of a subdivision application that has received a finding of inadequate water by ADWR?
 |  |  |  |
| 1. Do we use design review incentives, such as expedited review, to incentivize water efficiency?
 |  |  |  |
| 1. Do we use your development agreements to require compliance with water resource goals (e.g., water efficiency, watershed protection, etc.?)
 |  |  |  |
| 1. Are planning commissioners and elected officials trained or educated about community water management goals?
 |  |  |  |
| DEVELOPMENT CODE QUESTIONSSite Development Standards for Water Quality | **RESPONSE** | **LINK TO POLICY** |
| 1. Does our Development Code include zoning or development standards for water quality protection?
 | Yes | No | *Please link to the code section.* |
| * Development standards for sensitive areas such as limits to site disturbances
 |  |  |  |
| * Development standards for stream buffers and setbacks to protect water quality
 |  |  |  |
| * Vegetation protection standards that minimize disturbance to vegetation within the riparian corridor
 |  |  |  |
| * Other
 |  |  |  |
| 1. Does our Development Code include zoning or development standards for water quality protection?
 | **Yes** | **No** | *Please link the code section* |
| * Zoning districts that require lower densities and/or cluster development to protect sensitive areas
 |  |  |  |
| * Designated surface and/or groundwater districts with standards to minimize contamination of streams and shallow aquifers that will protect existing and potential sources of drinking water supplies. (e.g., watershed overlay zone, groundwater protection zone, aquifer recharge zones)
 |  |  |  |
| * Other
 |  |  |  |
| DEVELOPMENT CODE QUESTIONSWater Efficient Land Use Patterns | **RESPONSE** | **LINK TO POLICY** |
| 1. Does our Development Code include policies that promote and/or support compact form?
 | **Yes** | **No** | *Please link the code section* |
|  |  |
| * Higher density and smaller lot sizes by right
 |  |  |  |
| * Mixed use by right
 |  |  |  |
| * Housing types by right other than single-family (e.g., MF, townhomes, ADUs, condos, etc.)
 |  |  |  |
| * Rural land conservation/cluster subdivisions
 |  |  |  |
| * Development incentives for water efficient development (e.g., density bonus, reduced fees)
 |  |  |  |
| * Designated future growth and/or infill areas or boundaries with infrastructure available for higher density development
 |  |  |  |
| 1. Does our Development Code have a provision requiring water conservation and efficiency in our:
 | **Yes** | **No** | *Please link the code section* |
| * Planned Development Policy
 |  |  |  |
| * Annexation Policy
 |  |  |  |
| * Other
 |  |  |  |
| DEVELOPMENT CODE QUESTIONSEfficient Outdoor Water Use | **RESPONSE** | **LINK TO POLICY** |
| 1. Does our Development Code include landscaping standards to reduce outdoor water use?
 | **Yes** | **No** | *Please link the code section* |
| * Landscape plan requirement
 |  |  |  |
| * Turf species limitation (type of turf)
 |  |  |  |
| * Turf area limitation (square footage maximums)
 |  |  |  |
| * Total landscaped area maximums
 |  |  |  |
| * Plant density standards
 |  |  |  |
| * Plant type requirements (e.g., native/xeric plants)
 |  |  |  |
| * Soil enhancements and organic mulching requirements
 |  |  |  |
| * Irrigation system efficiency practices (e.g., drip, bubblers, low flow sprinklers, rain and/or ET sensors)
 |  |  |  |
| * Watering schedules (e.g., time of day, day of the week, seasonal)
 |  |  |  |
| * Water budgets for outdoor water use (limitations on allowable water supply in a landscape area, e.g., 15”/sq ft or maximum acre feet/gallons)
 |  |  |  |
| * Rainwater harvesting standards
 |  |  |  |
| * Low Impact Development standards (swales, rain gardens, curb cuts, detention, etc.)
 |  |  |  |
| * Water waste/water run-off limitations
 |  |  |  |
| * Alternative water source requirements (greywater standards or nonpotable water)
 |  |  |  |
| * Site inspection verification of landscape plan
 |  |  |  |
| * Code enforcement and fines for violations of standards
 |  |  |  |
| * Other
 |  |  |  |
| 1. Does our development code include any regulations, restrictions, or requirements for homeowners associations managing their public landscapes for greater water efficiency?
 |  |  |  |
| BUILDING & PLUMBING QUESTIONSEfficient Indoor Water Use | **RESPONSE** | **LINK TO POLICY** |
| 1. Do we have plumbing efficiency standards that promote water conservation for *Residential* uses?
 | **Yes** | **No** | *Please link the code section* |
| * Water efficient plumbing fixture requirement (e.g., WaterSense, Energy Star, etc.)
 |  |  |  |
| * Water efficient appliance requirement (e.g., WaterSense, Energy Star, etc.)
 |  |  |  |
| * Gray water plumbing systems
 |  |  |  |
| * Other
 |  |  |  |
| 1. Do we have plumbing efficiency standards that promote water conservation for *Commercial, Industrial, and Institutional* uses?
 | **Yes** | **No** |  |
| * Water efficient plumbing fixture requirement (e.g., WaterSense, Energy Star, etc.)
 |  |  |  |
| * Water efficient appliance requirement (e.g., WaterSense, Energy Star, etc.)
 |  |  |  |
| * Additional commercial standards for high water consumption uses (e.g., car washes, golf courses, hotels, restaurants, laundromats, etc.) including:
 |  |  |  |
| * Pre-rinse spray valves
 |  |  |  |
| * Water Recycling Systems
 |  |  |  |
| * Graywater Systems
 |  |  |  |
| * Decorative Water Features
 |  |  |  |
| * Water Saving Signage
 |  |  |  |
| * Other
 |  |  |  |
| 1. Does our code include any plumbing and building water saving standards?
 | **Yes** | **No** | *Please link the code section* |
| * Metering for commercial and single-family units for new development connections
 |  |  |  |
| * Submetering for multifamily units for new development connections
 |  |  |  |
| * Fee incentive for new development to incorporate additional water efficient fixtures, appliances, plumbing above the required standard
 |  |  |  |
| * Requirement for plumbing fixture retrofit on resale or for rehabilitation of property to receive C.O. or as a fee incentive for new development
 |  |  |  |
| * Tap availability limitations
 |  |  |  |
| * Tap fee incentives for water conservation measures
 |  |  |  |
| *Section Impressions: What were your key takeaways from this section? What is your community doing well? What are your community’s challenges?* |  |
| *Have you identified any needs or next steps that would further integrate water and land use planning?*  |  |
| Final Question | **RESPONSE** | **LINK TO POLICY** |
| 1. Are we doing anything else to conserve water that is not already mentioned in this assessment?
 | **Yes** | **No** |  |
|  |  |
| * 1. If Yes, please describe:
 |  |

**Congratulations! You have completed section 4 of 4!**Please let your workshop coordinator and your team know once all four sections are completed.