

City of Prescott
**Mayor's Commission on Water Policy
Review & Monitoring**



November 21, 2023 | 11:00 AM
201 N. Montezuma Street
Council Chambers, 3rd Floor
Prescott, AZ 86301

AGENDA

The following Agenda will be considered by the **Mayor's Commission on Water Policy Review & Monitoring** at their meeting to be held **November 21, 2023**. Notice of this meeting is given pursuant to Arizona Revised Statutes, Section 38-431.02.

1. **CALL TO ORDER**
2. **ROLL CALL**
3. **DISCUSSION & ACTION ITEMS**
 - A. Approval of Minutes from the October 17, 2023 Mayor's Commission on Water Policy Review & Monitoring Meeting.
Recommended Action: MOVE to approve minutes as presented
 - B. Presentation, Discussion, and Possible Action Regarding the Proposed 2024 Water Management Policy.
Recommended Action: MOVE to recommend the 2024 Water Management Policy to City Council
 - C. Discussion and Possible Action Regarding a City Long-Term Water Management Plan, Water Resource Management Model, and 75% Return Flow.
Recommended Action: MOVE to recommend the development of a City Long-Term Water Management Plan, Water Resource Management Model procedures, and investigate requirements to monitor 75% return flow rates as documents independent of the 2024 Water Management Policy
4. **GENERAL ANNOUNCEMENTS**
5. **ADJOURNMENT**

Upon a public majority vote of a quorum of the Board, the Board may hold an executive session, which will not be open to the public, regarding any item listed on the agenda but only for the following purposes:

- (1) Discussion or consideration of personnel matters (A.R.S. §38-431.03(A)(1));
- (2) Discussion or consideration of records exempt by law (A.R.S. §38-431.03(A)(2));
- (3) Discussion or consultation for legal advice with the city's attorneys (A.R.S. §38-431.03(A)(3));
- (4) Discussion or consultation with the city's attorneys regarding the city's position regarding

contracts that are the subject of negotiations, in pending or contemplated litigation, or in settlement discussions conducted in order to avoid litigation (A.R.S. § 38-431.03(A)(4));

(5) Discussion or consultation with designated representatives of the city to consider its position and instruct its representatives regarding negotiations with employee organizations (A.R.S. §38-431.03(A)(5));

(6) Discussion, consultation or consideration for negotiations by the city or its designated representatives with members of a tribal council, or its designated representatives, of an Indian reservation located within or adjacent to the city (A.R.S. §38-431.03(A)(6));

(7) Discussion or consultation with designated representatives of the city to consider its position and instruct its representatives regarding negotiations for the purchase, sale or lease of real property (A.R.S. §38-431.03(A)(7)).

CERTIFICATION OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Prescott City Hall on 11/17/23 at 10:30 a.m. in accordance with the statement filed by the Prescott City Council with the City Clerk.

Sarah M. Siep

Sarah M. Siep, City Clerk



TO: MAYOR AND CITY COUNCIL
AGENDA: Nov 21 Mayor's Commission on Water Policy Review & Monitoring
DATE: November 21, 2023
DEPT: Public Works
ITEM #: 3.A
SUBJECT: Approval of Minutes from the October 17, 2023 Mayor's Commission on Water Policy Review & Monitoring Meeting.

ITEM SUMMARY

Attached for approval are the Mayor's Commission on Water Policy Review and Monitoring minutes for the October 17, 2023 meeting.

BACKGROUND

None.

FINANCIAL IMPACT

None.

RECOMMENDED ACTION

MOVE to approve minutes as presented

ATTACHMENTS

1. October 17, 2023 Minutes

City of Prescott
**Mayor's Commission on Water Policy
Review & Monitoring**



October 17, 2023 | 11:00 AM
201 N. Montezuma Street
Council Chambers, 3rd Floor
Prescott, AZ 86301

MINUTES

1. CALL TO ORDER

Chairman Lamerson called the meeting to order at: 11:00 a.m.

2. ROLL CALL

James (Jim) Lamerson – Chairman
Robert (Bob) Roecker – Vice Chair
Gary Beverly – Member
Gillian Haley-Meierbachtol – Member
Peter Kroopnick – Member
Michael Taylor – Member

3. DISCUSSION & ACTION ITEMS

A. Approval of Minutes from the July 18, 2023 Mayor's Commission on Water Policy Review & Monitoring Meeting.

MOTION BY MEMBER TAYLOR TO APPROVE THE OCTOBER 17, 2023 MEETING MINUTES; MOTION SECONDED BY HALEY-MEIERBACHTOL; PASSED (6-0)

B. Presentation, Discussion and Possible Action Regarding the Proposed 2024 Water Management Policy.

Staff liaison, Leslie Graser, introduced the item for review and discussion, and reminded the Commission that at the Council Study Session on August 8, 2023, staff reviewed the timeline for the development of an amended Water Management Policy, including review by the commission at its October 17, 2024 meeting. The purpose of today's meeting is to finalize the proposed 2024 Water Management Policy draft.

Ms. Graser inquired of the commission how the members would prefer to proceed today with the draft version of the proposed 2024 Water Management Policy. The commission was given the option to start by reviewing Policies 1-22, or start at the beginning of the document, moving quickly through the changes in each section, with discussion on the Policies to follow. The commission opted for the latter.

Each section was reviewed, and a brief update on each was provided by Ms. Graser. She explained that Council was vested in this policy, there would be limited changes, however, the changes would help with the bridging of the policy.

- Section 1: Introduction
No changes from the 2022 Policy.
- Section 2: State and City Water Management
The last sentence was removed.
- Section 2a: State Water Management Requirements
No significant changes, however, the reference to the ADWR Fifth Management Plan was updated and language about safe-yield was removed.
- Section 2b: City Water Management Requirements
No changes.
- Section 3 (and all subsections): Physical Water Supplies
No changes.
- Section 4: Water Management – Integrating Supplies within the Framework of State Law and other Legal Obligations
No changes.
- Section 4a: Water Management and the City of Prescott General Plan
The language was removed regarding the Water Resource Management Model (WRMM) and a new section, Section 4b: Water Resource Management Model, was added.
- Section 4c: Water Management and Conservation Planning
No changes.
- Section 4c1: Integrity of the City Water System
No changes.
- Figure 4: Water System Losses
Updated with 2021 data.
- Section 4c2: Conservation Tools
Updated with the information on the new conservation website.
- Figure 5: Rebate Program-Water Savings
Updated with 2021 and 2022 data.
- Section 4c3: Water Usage
No changes.
- Figure 6: Groundwater Pumping and Population Served
No changes.
- Section 4c4: Gallons Per Capita per Day (GPCD)
No changes.
- Figure 7: Gallons Per Capita per Day
Updated with 2021 data.
- Section 4c5: Safe-Yield
Minor updates.
- Section 4d: Water Management and Drought Planning
No changes.

- Section 4e: Assured Water Supply and Infrastructure Planning
No changes.
- Section 4f: ADWR regulations and City's Ongoing Efforts
This section is new.
- Figure 8: Water Resource Management Model Demands
No updates, however, this figure will need to be updated with revisions underway to the City's DAWS application.
- Section 5: Available Water Supplies and City Policies
No changes.

Ms. Graser provided a recap of the commission Policy recommendations, and a discussion took place regarding Policies 1-10.

Member Michael Taylor commented on "architect" in the language for Policy 4, about civil engineers possibly being more appropriate. Vice Chairman Roecker also inquired about the language.

Per Mr. Ruiz, the permit center recommended the "architect" language addition based on current standards. In the event an architect was already on board it may prove to be beneficial.

MOTION BY CHAIRMAN LAMERSON TO LEAVE THE POLICY 4 LANGUAGE AS PRESENTED AS-IS; MOTION SECONDED BY VICE CHAIRMAN ROECKER; PASSED (6-0)

Member Taylor inquired about Policy 6, and the specifics as the process could take more than a year. He added that a blanket one-year WSA to building permit potentially hampers large projects. Chairman Lamerson, in response to Member Taylor's comment, inquired about language being added to eliminate larger projects.

Per Mr. Ruiz, the language portion referring to "as long as moving forward" covers that issue. He added that as the D&O modification gets approved, we will have new allocation set.

In the meantime, long term and general plans are being worked on, and being included as part of a driving force within the water policy moving forward. The Water Resource Management Model (WRMM) data will also be beneficial in the process.

Member Beverly commented on Policy 10 in relation to tracking commercial wastewater, and opposes removing the language. He added that the larger concern is no current reference to a long term management plan within the document. Member Beverly suggested that a provision should be added to indicate a commitment to proceed with a plan in a specific way.

Ms. Graser commented that the question is whether or not to keep that language in policy now, or move it into a long term management plan. The hesitation is to have it written in when it has not been tracked thus far. Mr. Ruiz added that to even get close to understanding as far as 75% return, meters for wastewater would need to be installed. Without the infrastructure in place, the thought process is why keep that in the policy at this time.

Member Beverly inquired about a recharge-credit balance, as an effective way to reduce landscape water use. He commented that there is little reference within the policy, and could have used a more direct approach.

Member Taylor commented on submetering for landscape, in comparison to submetering sewer lines. The sewer lines option is often far more expensive. Chairman Lamerson agreed with Member Taylor's comments.

Mr. Ruiz explained to the commission that detailed language for a long term management plan being added to the policy includes too many variables that need to be further defined. He added that today's discussion included valid points that will be taken into consideration to make recommendations to implement.

Mayor Goode commented that not being able to measure expectations is not reasonable in a policy. A good policy needs to be based on good data. He added that when technology is available, the policy could reference such, so that in the future when technology is available and able to be implemented it can be referenced back to this policy.

Vice Chairman Roecker commented that it may be misleading to leave the 75% in the policy language. He also inquired about a long term management plan in general, as it is confusing having the topic discussed then tabled. Ms. Graser provided clarification, and referenced the matrix presentation. The goal is not to connect the General Plan and a long term management plan today, but rather to address the inquiry of a member.

Chairman Lamerson inquired of the commission, if there was a motion regarding the proposed 2024 Water Management Policy.

MOTION BY VICE CHAIRMAN ROECKER TO TABLE THE RECOMENDATION OF THE PROPOSED 2024 WATER MANAGEMENT POLICY ; MOTION SECONDED BY MEMBER TAYLOR; PASSED (6-0)

4. GENERAL ANNOUNCEMENTS

Ms. Graser referenced the schedule in the General Announcements presentation, and commented that it appears the commission is requesting a November meeting and possibly a December meeting. She noted that this would result in pushing back the schedule for a 2024 Water Management Policy review by Council.

Mayor Goode commented that it would have been nice to conclude before the new Councilmembers take their seats, however, having an agreed upon and refined water management policy for Council is more important.

5. ADJOURNMENT

There being no further business to discuss, Chairman Lamerson adjourned the meeting at 12:06 p.m.

JIM LAMERSON, Chairman

ATTEST:

MARIKAY WHISENAND, Administrative Specialist

Date



TO: MAYOR AND CITY COUNCIL
AGENDA: Nov 21 Mayor's Commission on Water Policy Review & Monitoring
DATE: November 21, 2023
DEPT: Public Works
ITEM #: 3.B
SUBJECT: Presentation, Discussion, and Possible Action Regarding the Proposed 2024 Water Management Policy.

ITEM SUMMARY

Staff will continue review and discussion regarding the proposed 2024 Water Management Policy.

BACKGROUND

On October 17, 2023, the Commission reconvened after a two-month break while staff compiled the 2024 Water Management Policy document to bridge the City from its 2022 Water Management Policy until the time when the Arizona Department of Water Resources confers an updated City of Prescott Designation of Assured Water Supplies. The proposed 2024 Water Management Policy was provided to the Commission one-week ahead of the meeting to allow time to review and prepare for the October meeting. In the October meeting, the Commission was provided a quick overview of changes to the document's text (text prior to the policies). There were few changes. Then, focus was placed on policies 1-22. Note that during the development of the 2024 Water Management Policy, its policies were reduced to 1-17.

The 2024 Water Management Policy is updated to reflect the changes the Commission sought on October 17, 2023. Those include minor changes to text, changes to Policy 10 due to concern to keep in the policy a requirement for a 75% return flow, and changes to Policy 6 to add language addressing expiration of WSA if the project building permit expires prior to completing construction. The Commission will resume the review of policies starting with policy 11.

FINANCIAL IMPACT

None.

RECOMMENDED ACTION

MOVE to recommend the 2024 Water Management Policy to City Council

ATTACHMENTS

1. 2024 Water Management Policy_Final

Section 1: Introduction

The City manages its water resources to ensure sufficiency for current and planned future demands. A team of professionals operates infrastructure (wells, pipes, storage tanks), manages physical resources (groundwater, surface water, and reclaimed water), and integrates supplies with State and City water management requirements (e.g., Decision and Orders of Assured Water Supply, and City codes).

Although this Policy addresses resources and touches upon infrastructure, it is intended to serve primarily as a water resource management guide, promulgating policies and procedures to promote water supply protection, provide basic physical supply information, and how the foregoing are integrated to ensure sufficient and stable water supplies for the community.

The Policy is a guiding document for development requests seeking water resources from the City of Prescott. It is intended to support responsible growth and development, particularly infill development where feasible, in accordance with the adopted General Plan and to support ADWR's goals and management strategies to work towards safe-yield.

Section 2: State and City Water Management

The City is located within the Prescott Active Management Area (PrAMA) (**Figure 1**), as defined in Arizona law (Title 45 of Arizona Revised Statutes), and must adhere to the requirements therein. Since 1999, the City has held a State of Arizona Designation of Assured Water Supply (DAWS), Decision and Order (D&O) recognizing the City's commitment to provide a secure water supply, now and into the future.

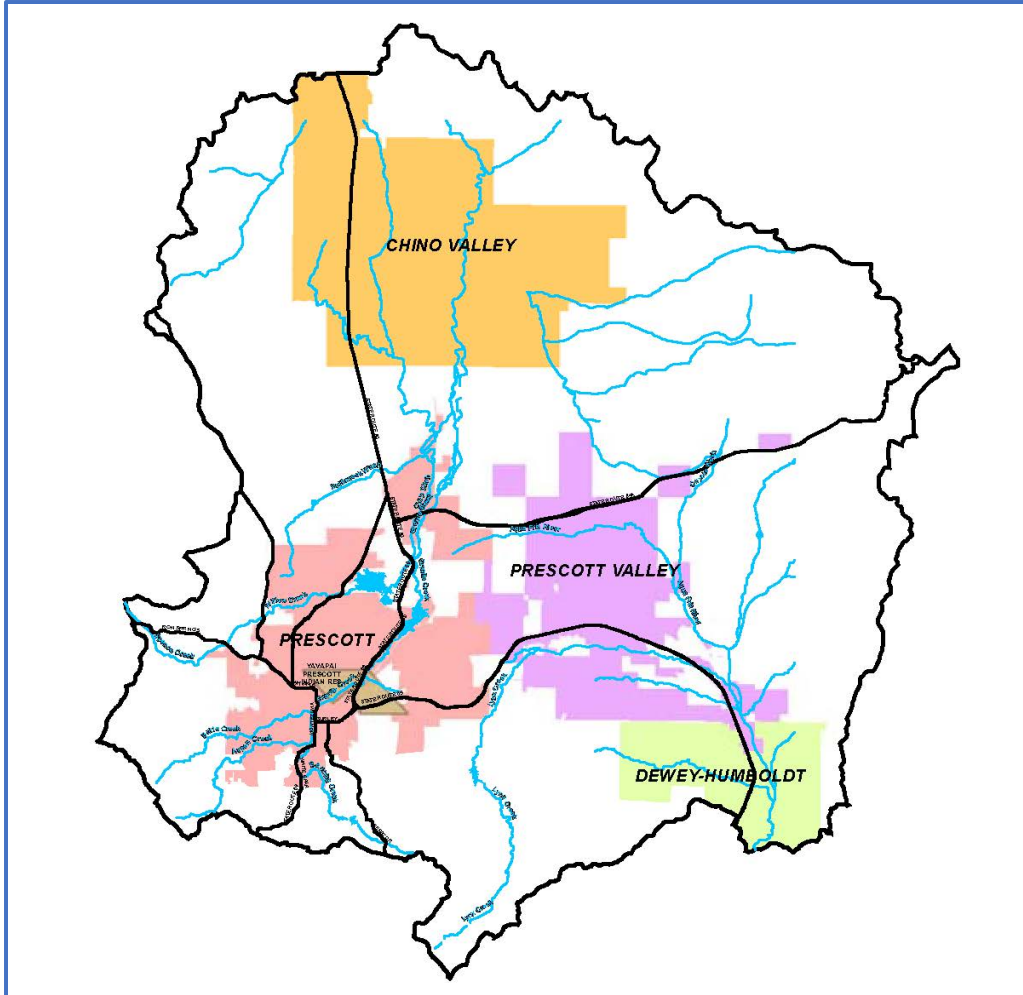


Figure 1: Prescott Active Management Area

Section 2.a: State Water Management Requirements

The City of Prescott water service area is located within the PrAMA, established under the Arizona Groundwater Management Act (GMA) of 1980. Prescott Valley, Chino Valley, Dewey-Humboldt, the Yavapai Prescott Indian Tribe Reservation, and certain surrounding areas of unincorporated Yavapai County comprise the remainder of the PrAMA. The City is only one entity within the PrAMA, not the regulating authority, therefore the Policy is not intended to resolve the Prescott Active Management Area (PrAMA) overdraft declaration, but rather to be a tool to work toward reducing overdraft. The City's water service area comprises approximately 12.86% of the PrAMA land area.

Through a series of management plans administered by the Arizona Department of Water Resources (ADWR), the 1980 Groundwater Code established water management strategies that emphasize conservation, replacement of existing groundwater use with renewable supplies, recharge, and water quality management by all users within the AMA's. The 5th Management Plan will go into effect in January 2025.

The PrAMA is also subject to the requirements of the ADWR Assured Water Supply (AWS) program. The City has held a Designation of Assured Water Supply since 1999, and this designation is updated periodically to reflect water resource availability. A Designation of Assured Water Supply requires demonstration that the provider, and its water supply, will meet seven criteria: physical availability, legal availability, and continuous availability of water for 100 years, financial capability, water quality, consistency with the management goal, and consistency with the management plan. The D&O quantifies the physical supplies available to the City (**Figure 2**) which have increased over time.

The City is currently operating under the 2009 D&O of Assured Water Supply (ADWR AWS No. 86-401501.0001), (**Figure 2**). The City’s next Designation of Assured Water Supply was filed in December 2021 and is currently under review.

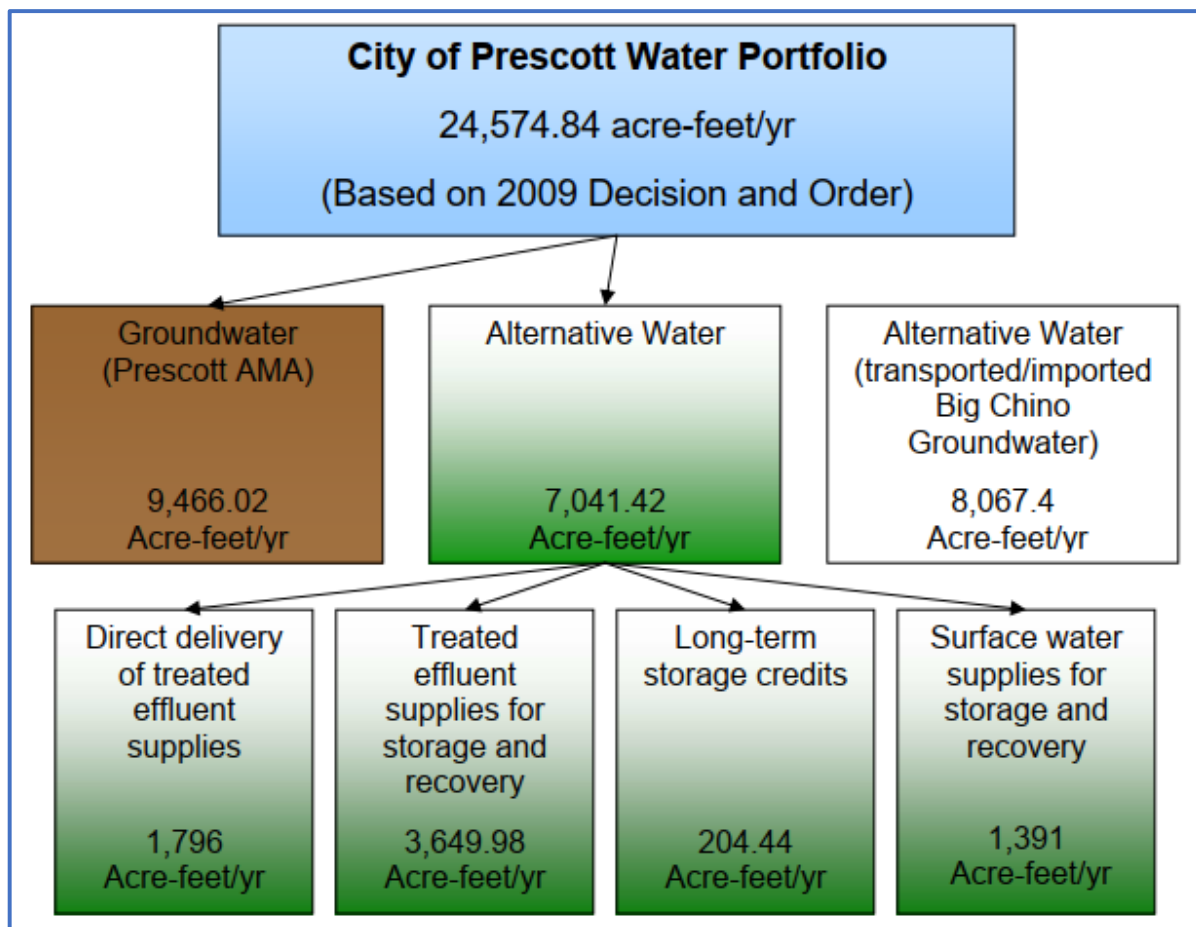


Figure 2: City’s Decision and Order No. 86-401501.0001 (“2009 D&O”)

Water management has a crucial role in implementation of the City’s development policies, goals and objectives. The City deploys management tools, policies, and strategies to meet State conservation requirements in the following ways:

- Public education programs and tiered water rates promote conservation
- Conservation Incentive program encourages use of water saving fixtures and appliances

- Reclaimed water (effluent) and surface water from Watson and Willow Reservoirs provide renewable water supplies
- Operation of the City's recharge facility (since 1987), provides an average return flow to the groundwater aquifer of 65% citywide.
- The City meets ADEQ water quality standards

The status of each block of water relative to this policy is as follows:

Groundwater: The indicated quantity, 9,466.02 acre-feet per year (AFY), is an amount recognized by the State in accordance with Arizona Revised Statutes. This component, supporting the majority of water needs within the City limits that were recognized circa 1998, is referred to as "current and committed demand."

Alternative Water: This renewable component of the City Water Portfolio, as distinct from groundwater, presently consists primarily of recharged/recovered surface water stored in Watson and Willow Reservoirs, and treated effluent from the water reclamation (wastewater treatment) plants. The City previously placed alternative water into contracts or reservations for future use from 1998-2019. While Contracts are no longer used to supply water within the City limits, the remaining quantity of "Alternative Water" is made available ("budgeted" by the City) in annual increments to support new development, in accordance with Section 5 of this Policy.

Alternative Water (transported/imported): This category of the portfolio relates to the volumes and authorities the City has with respect to the Big Chino Sub-basin.

The Big Chino Water Ranch (BCWR) is comprised of 4,582.1 acres of deeded lands and 1,948.6 acres of Arizona State Land within Yavapai County. The ranch is within the Big Chino Sub-basin of the Verde River Watershed. The City of Prescott is a 54.1% partner and the Town of Prescott Valley a 45.9% partner in water from the BCWR. Arizona Revised Statutes, Section 45-555, allows for the transportation of groundwater by PrAMA municipalities from the Big Chino Sub-basin for use inside the PrAMA.

In the future, imported water may be used in a manner similar to other alternative water supplies. Since infrastructure does not exist to import this water, it is not available to specific development projects. More information regarding BCWR project activities and timeframes can be found on the City website.

Section 2.b: City Water Management Requirements

City plans, policies, and codes, including refinements to water management, are updated when necessary for consistency with water supply conditions. Notably, for annexations of 250 acres or more, Article I, Section 4 (Boundaries) of the City of Prescott Charter, adopted November 8, 2005, prescribes that "...all effluent generated by new development in the annexed area be used for permanent recharge."

Compliance with this provision requires measuring wastewater flows from "Proposition 400 Annexation Area(s)," treating the wastewater, recharging the effluent, and leaving it in aquifer storage.

Section 3: Physical Water Supplies

The processes of the natural hydrologic cycle—condensation, precipitation, transpiration, and evaporation - operate on a global scale, continuously moving water around the planet. Locally, the

natural water cycle is altered by man-made systems designed to provide water to homes and businesses and recreational opportunities, prevent flooding, store the water for later use, and achieve other benefits. Just as water circulates continuously in the global water cycle, water in Prescott also circulates continuously in the Prescott Urban Water Cycle (**Figure 3**), a unique and efficient water routing designed to maintain a sufficient water supply for our community now and into the future.

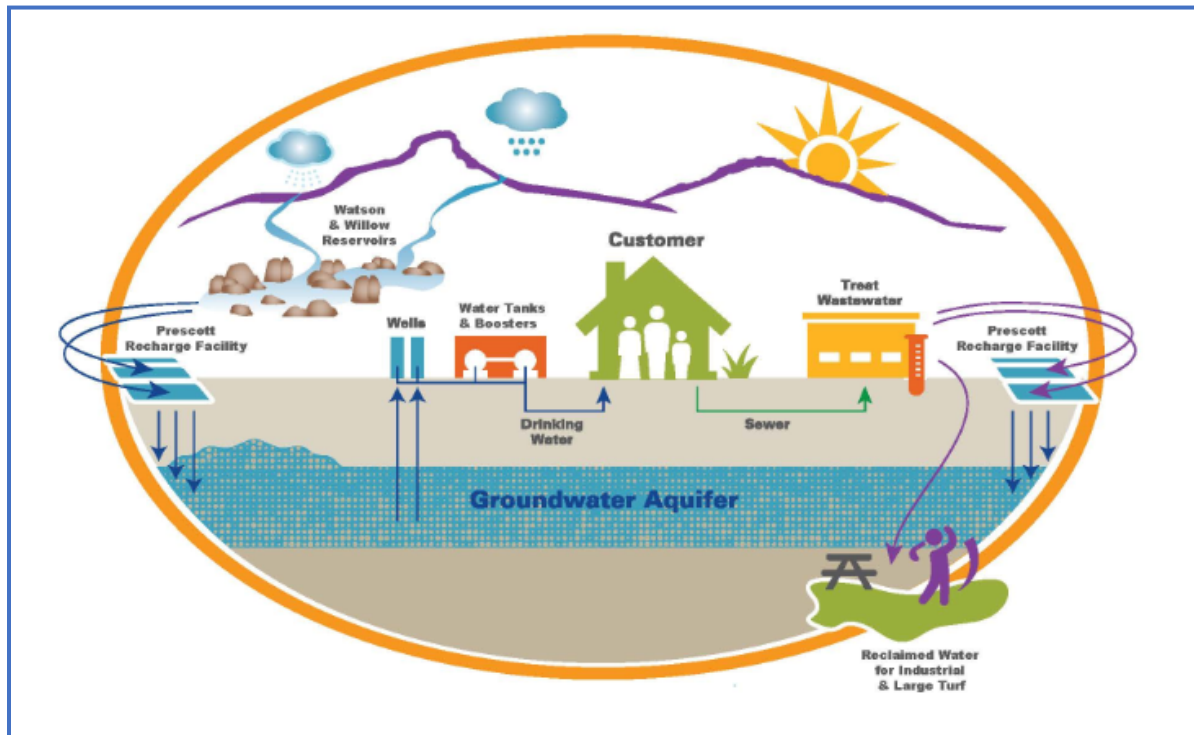


Figure 3: Prescott Urban Water Cycle

Section 3a: Sources

The City relies upon "grandfathered" groundwater for much of its present water supply and augments the groundwater with surface water from Watson and Willow Reservoirs, and reclaimed supplies (treated effluent), for aquifer recharge, storage, and recovery (**Figure 3**). As previously mentioned, the City has also secured Big Chino groundwater for future use.

Section 3b: Water Production and Distribution

City potable water is pumped from two well fields, one in the Town of Chino Valley and one in the Prescott Regional Airport area. As the City is fortunate to draw from high quality aquifers, Water Operations provides only two treatment processes to reduce the contaminants found in our groundwater. These two processes are disinfection with the use of chlorine and water blending for arsenic removal. The City's water quality is excellent and is monitored daily to ensure it complies with stringent drinking water quality standards (**Figure 3 – Wells**). The City remains vigilant to assess and respond to emerging contaminants.

For more information about Water Services, including how to report a Water Emergency, Water Quality (Consumer Confidence Reports) and Backflow Prevention go to:

<https://www.prescott-az.gov/water-sewer/water-operations/>

Section 3c: Wastewater Collection and Treatment

The City's Wastewater Collection System (public sewer) is designed to convey the wastewater that is discharged from residential and non-residential customers private sewer service pipes to the Wastewater Treatment Plant or Water Reclamation Facility, where it undergoes processes necessary for reuse and recharge. The treated water, called effluent or reclaimed water, is sold for direct use on golf courses, and use by industrial customers (**Figure 3 – Treat Wastewater**).

For more information about Wastewater Collection and Wastewater Treatment go to:

www.prescott-az.gov/water-sewer/wastewater/

Section 3d: Recharge

The effluent or reclaimed water not supplied for direct reuse on golf courses or to industrial users, is recharged to the aquifer, along with surface water from the Watson and Willow Reservoirs, and the hydrologic cycle begins anew (**Figure 3 – Prescott Recharge Facility**).

Section 3e: Water Uses

Water customers use the water supplied for various residential and non-residential purposes. Practicing a low-water-use lifestyle is a way everyone can help ensure a long-term, sufficient water supply; and making efforts to reduce pollutants will help preserve water quality (**Figure 3 – Customer**).

Section 4: Water Management – Integrating Supplies within the Framework of State Law and other Legal Obligations

Arizona's water management policy structure, originally adopted in 1980, has extended water supplies for many population centers within the state. Within that structure, the City has actively managed its resources to provide water to support moderate growth. Each subsection below provides a brief explanation of how the physical supplies are aligned with state law, ADWR, decision and orders, and City policy and plans.

Section 4a: Water Management and the City of Prescott General Plan

In 1988, the State initiated the requirement that Arizona cities prepare and periodically update a General Plan as part of the "Growing Smarter/Growing Smarter Plus" legislation.

The City's current General Plan (approved by voters August 25, 2015, and viewable at <https://www.prescott-az.gov/business-development/planning/general-plan/>), continues to integrate water resource availability and future growth. The General Plan contemplates the City's long-term build-out population to approximately double from the current 45,827. Maps of the City limits (Attachment 1), prospective annexation areas (Attachment 2), and water service area (Attachment 3), are appended to this Policy.

Section 4b: Water Resources Management Model

To meet the intent of the adopted 2015 General Plan (Water Resource Element), the City and its Consultant continue to work toward long-term water resource management, updating its efforts to use more current tools and approaches. The first step was the building of a data repository that would better link land and water demands. The approach sought the ability to run various scenarios (e.g. changes in either customer demands or available supplies, policy implications, etc.) to assess various possible futures.

It was also important to incorporate available Geographic Information Systems (GIS) as a tool to manage the large datasets and be able to display them for internal use, as well as, at Council-level community discussions. Near 2019, while long-term water management model was in process it was renamed the Water Resource Management Model (WRMM). From the initial version, based on the City's water service area boundary (Attachment 3), next the 2015 General Plan boundary was incorporated. Last, the City commenced the structures necessary to create a version to handle the data as required by state statute and rules for the updating of the City's DAWS. As this policy is acting as a bridge until the City's 2021 DAWS update is completed and executed by the state, requests for water will be based on the water budgets within Policies 12 and 13 and aided by data derived from the WRMM to advise City Council on how requested usage compares to the WRMM's projected usage for each requested land parcel.

Section 4c: Water Management and Conservation Planning

The City has established a strong foundation for water conservation. As far back as 1924, the Mayor and Council resolved that it had become "necessary to conserve and protect the water supply of the City of Prescott," setting into motion conservation actions. The State of Arizona Groundwater Management Act, adopted in 1980, imposed formal conservation requirements.

Using water more efficiently and effectively to extend supplies, a long-time Prescott goal, is the responsibility of both the City as water provider, and all water customers. The City's role is two-fold: to limit losses from its municipal water system and facilitate achievement of the state-prescribed requirement for the community expressed in gallons per capita per day.

Section 4c1: Integrity of the City Water System

"Lost and unaccounted water" is the difference between the total water pumped and the total water sold. Lost and unaccounted water results from line breaks and leakage, faulty meters, and unlawful connections to the system.

The City has consistently met the ADWR annual requirement of not more than 10 percent lost and unaccounted water and actively works toward reducing the City's lost and unaccounted water even below the 10 percent maximum set by ADWR. The 20- year average system losses (2000 – 2020) is 8.07 percent (**Figure 4**).

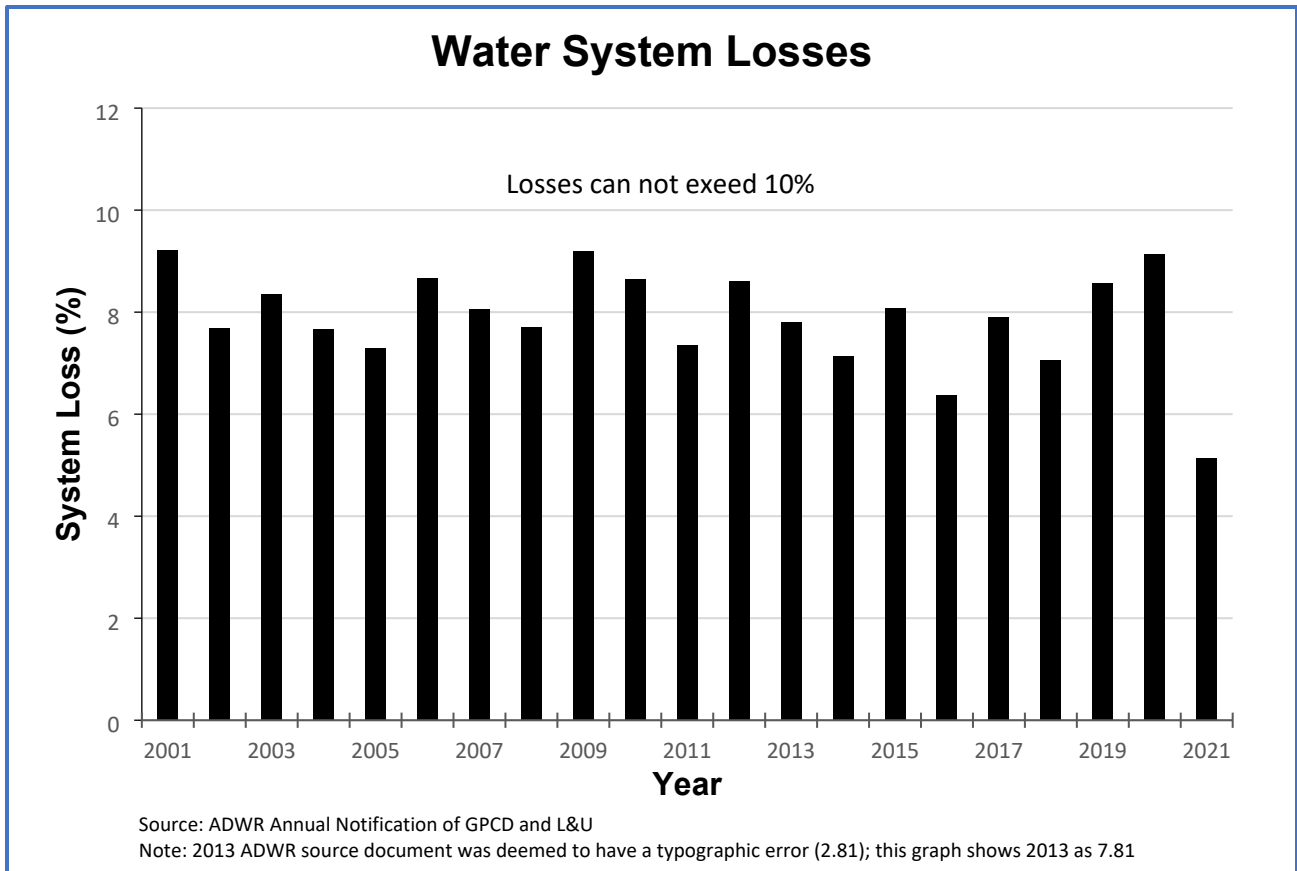


Figure 4: Water System Losses

Section 4c2: Conservation Tools

Conservation awareness within the community, rebates for installation of water saving plumbing fixtures and appliances, website online tools, and public outreach and education are main areas of focus.

Conservation awareness begins with public messaging through various on-line venues, interacting with the general public by participating in public events and sharing conservation tools and information in the school system.

In 1992, the City began offering rebate incentives to create the opportunity to save millions of gallons of potable water by using water saving devices, and the removal of outdoor grass. The adoption of current building codes also contributes to water savings in new construction. Water savings from replacing older high water use fixtures and appliances is realized over the life of the fixture and shows the amount of water saved each year since 2010 (**Figure 5**). The City also provides monetary incentives for installation of rainwater harvesting equipment.

The City’s website was updated in 2023 for new and existing users to include the following information: Outdoor and Indoor Conservation ideas, Drought Prep, Education & Activities, and Rebate & Incentives. The City also provides a Blog on timely topics, and an Event Calendar. More information can be found at www.prescottwater.gov

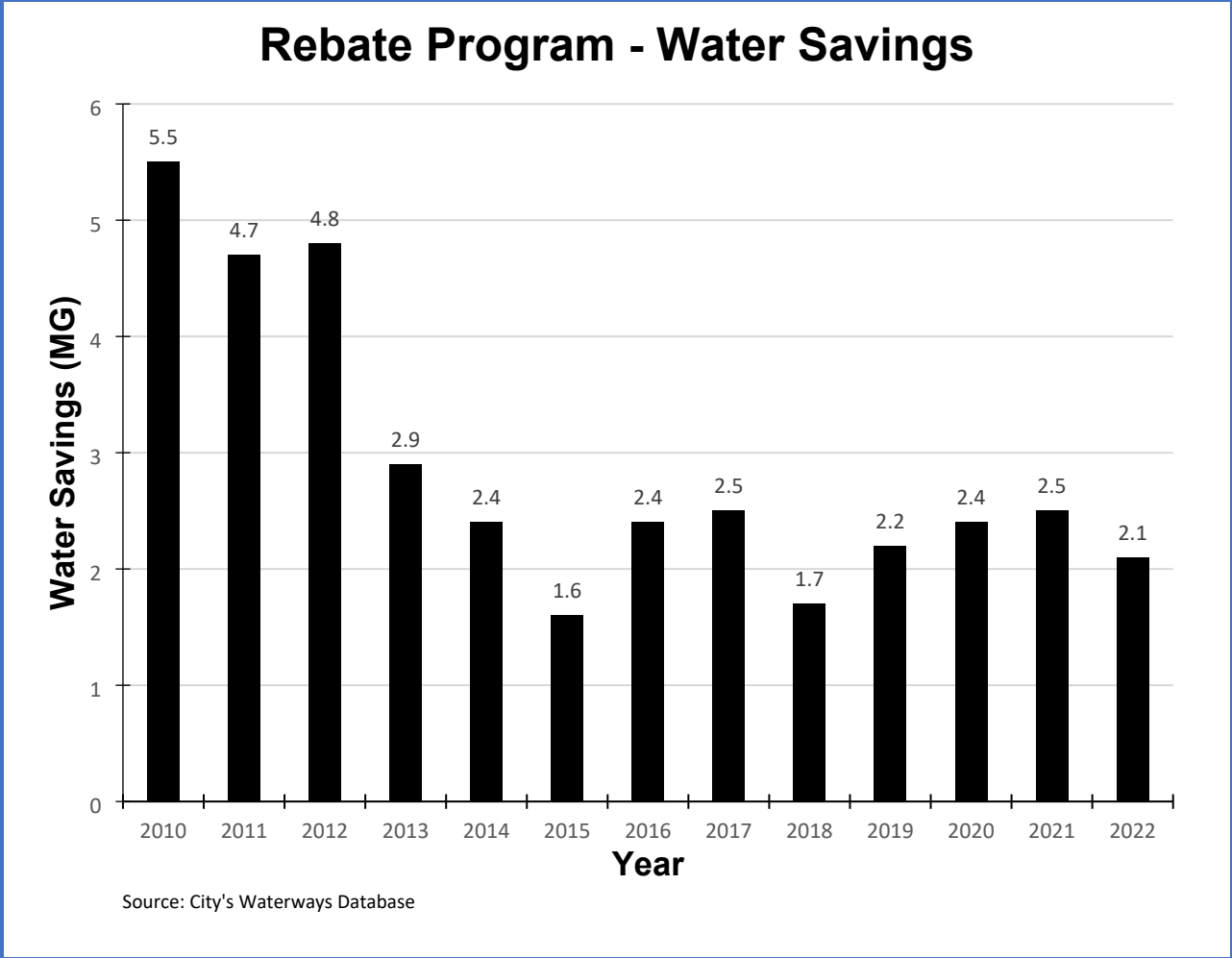


Figure 5: Rebate Program – Water Savings

Section 4c3: Water Usage

Water usage has remained relatively flat for the last ten years, with the exception of 2020, even as population has continued to grow (Figure 6). Higher than normal temperatures in the region were seen in 2020, resulting in continued drought conditions associated with lack of snow pack and monsoon moisture. These conditions resulted in an increase in potable water usage.

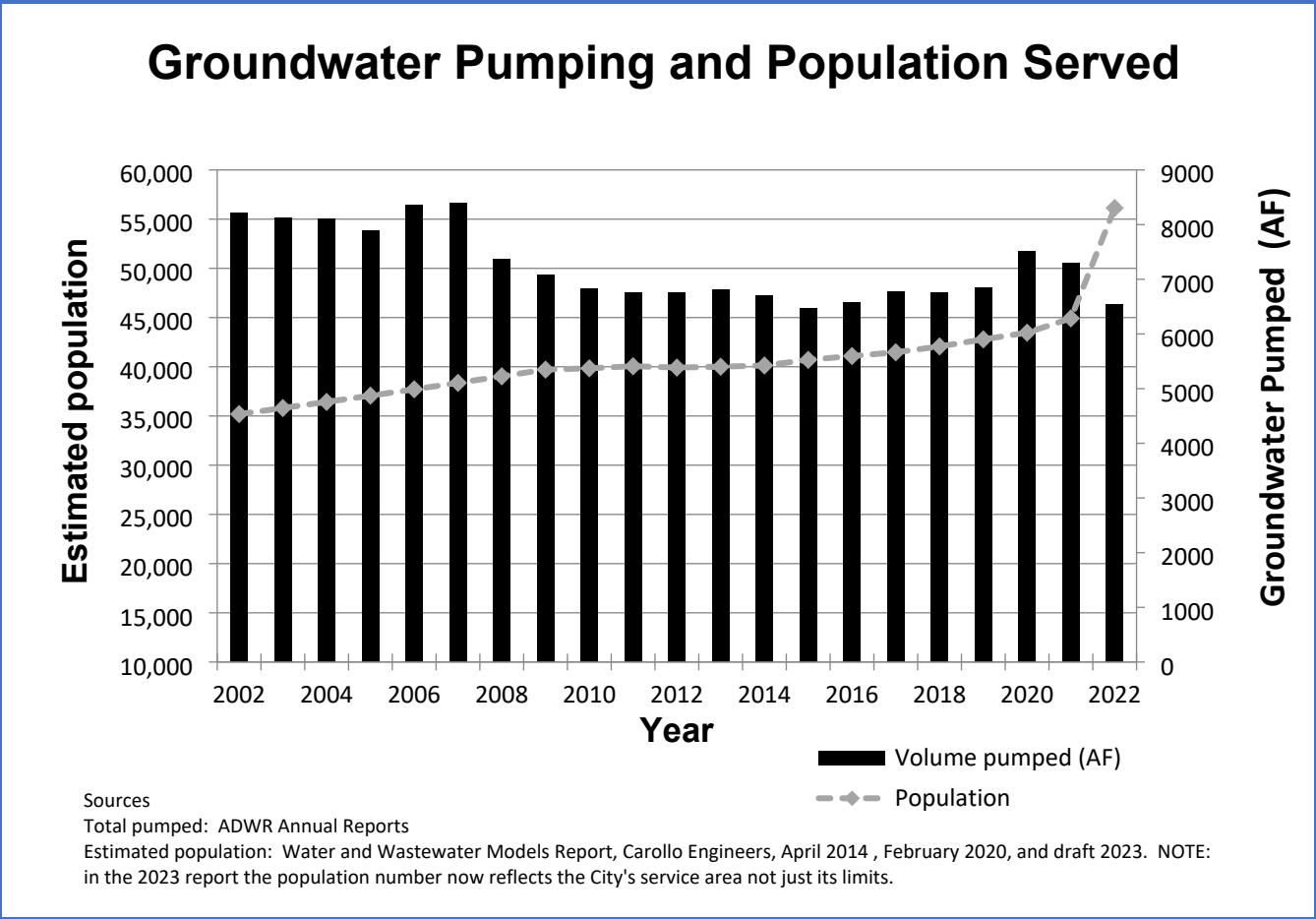


Figure 6: Groundwater Pumping and Population Served

Section 4c4: Gallons Per Capita per Day (GPCD)

Gallons per capita per day (GPCD) is calculated by dividing the total volume of water sold to all users to the number of people being served. From 2002 to 2021, water use within the City’s water service area declined from 178 to 104. **(Figure 7)**. Outreach and education efforts, conservation measures, the conservation incentive program and a tiered rate structure have all contributed to water usage declines.

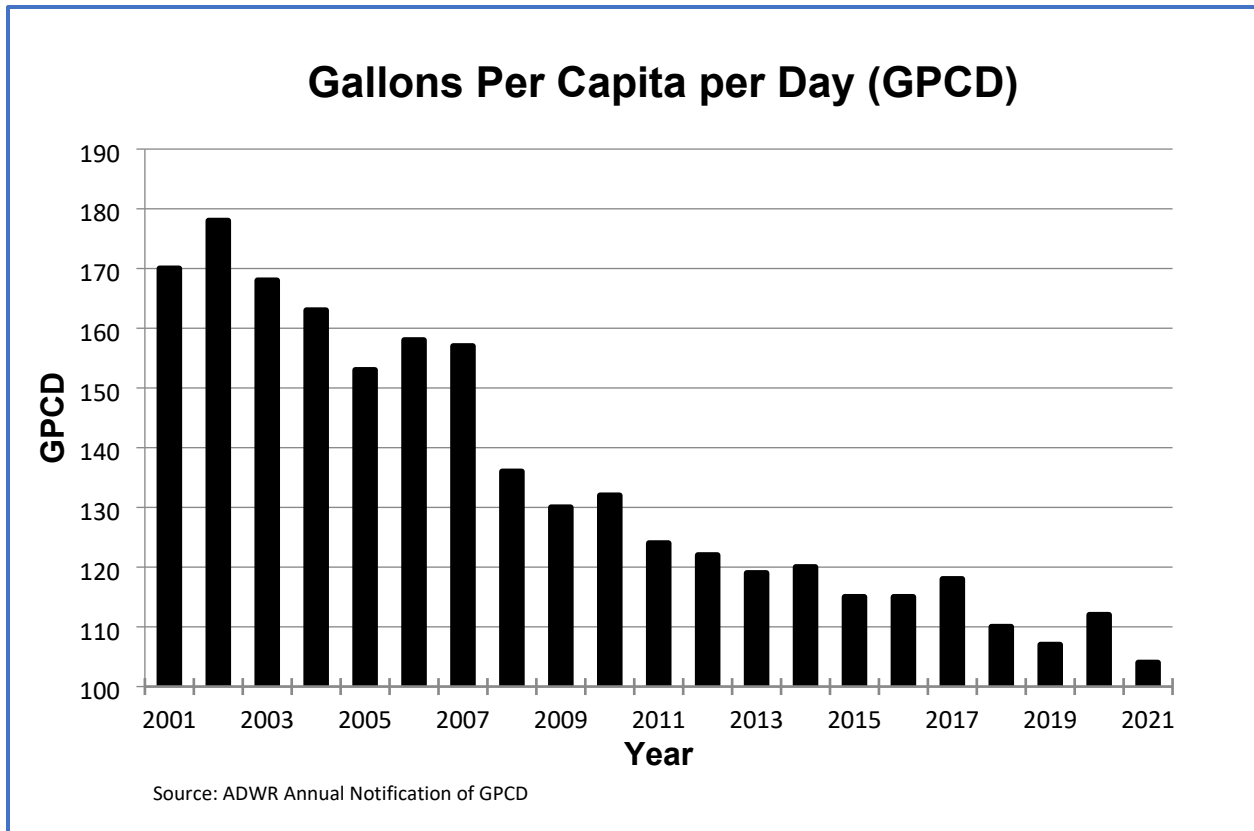


Figure 7: Gallons Per Capita per Day

Section 4c5: Safe-Yield

The efficient use of water by City of Prescott users is helping the Prescott Active Management Area move toward aquifer safe-yield. Safe yield is the long-term balancing of groundwater withdrawals with the amount of water naturally and artificially recharged. ADWR’s Prescott AMA 5th Management Plan provides more details and recommendations for achieving and maintaining a condition of safe-yield.

Section 4d: Water Management and Drought Planning

Prescott is located in the Central Arizona Highlands of Arizona, within the Southwestern United States, where droughts have regularly occurred throughout history. While much of the Southwest is confronting the challenges of an ongoing drought, the City has worked continuously, through State and local laws, to assure resilient water supplies. Recognizing the historical and current drought conditions, the City is committed to drought preparedness.

In 2005, the Arizona Legislature passed HB 2277, requiring all Arizona water providers to develop a drought preparedness and response plan. City codes regarding water resource shortages (including drought conditions) have been in effect since 1992. The City’s first State-required Drought Plan was completed in 2007, and updated thereafter at five-year intervals.

It is important to note that it would take extreme prolonged drought to cause the City to suspend normal water services and mandate water use reduction measures. Nonetheless, deep and prolonged droughts can occur, and the City has a Drought Management Plan in place.

The City of Prescott's Drought Management Plan is founded on five fundamentals:

1. To provide a quantity of adequate water meeting required quality standards to assure the safety, health, and welfare of the public including wildfire prevention.
2. To minimize disruption of economic, business, and residential activities.
3. To maintain public trust through effective communication with residents and businesses in implementing the plan.
4. To provide a balanced and equitable plan, in which all water customers share the impacts and responsibilities in proportion to the amount of water used in accordance with legally established rights, and the magnitude of the water shortage.
5. To provide a comprehensive, logical, and coordinated plan that is effective, practical and flexible.

In addition, the City's Water Conservation Code includes provisions for restrictions during water shortages (Prescott City Code, § 3-10-11), and provides flexibility for use in any foreseeable water supply emergency. The City Manager can declare Water Resource Status Levels based on the relationship between water demand and municipal safe production capability. These Water Resource Status Levels correspond to a mandatory Water Conservation Level that will take effect upon notice of the declaration.

Section 4e: Assured Water Supply and Infrastructure Planning

The City is an Assured Water Provider for over 56,133 people. Hydraulic modeling is applied to ensure existing and future infrastructure meet all applicable engineering and performance standards. Through modeling, existing and future needs can be assessed as the community reaches build-out (see the City's General Plan). The City's Decision and Order for its Designation of Assured Water Supply is integrated with the hydraulic modeling.

Section 4f: ADWR regulations and City's Ongoing Efforts

It has been clear for decades that with the 1980 GMA and then the 1995 AWS requirement becoming effective in the Prescott AMA in 1998, that there remains challenges for the careful use of water supplies, and associated consumer and economic protections. On January 9, 2023, Governor Hobbs set forth the Governor's Water Policy Council through Executive Order 4. This Council was tasked with two focus areas, Assured Water Supply and Rural Groundwater. Outcomes from both these focus areas are important to the City, yet it is important the City institute safe guards in their water planning that may be beyond the State requirements.

State Statutes and Codes that apply to the City are numerous and can't be examined within this short-term bridging document; however, it is important to be aware that the Prescott AMA is also regulated with management plans that focus heavily on conservation efforts. The Fourth Prescott AMA Management Plan is in effect now until the Fifth Prescott AMA Management Plan goes into effect January 1, 2025.

In 2018-2019, the City moved away from its prior policies to allocate water. The 2022 Water Management Policy was structured to implement policies similar to those in place prior to 2019. The volume of water to be used for water allocation was determined by subtracting the 20-year demand as

presented in the City’s DAWS application dated 12/21/2021, in the amount of 14,529 AFY (**Figure 8**) from the 2009 D&O volume consisting of the groundwater (9,466.02

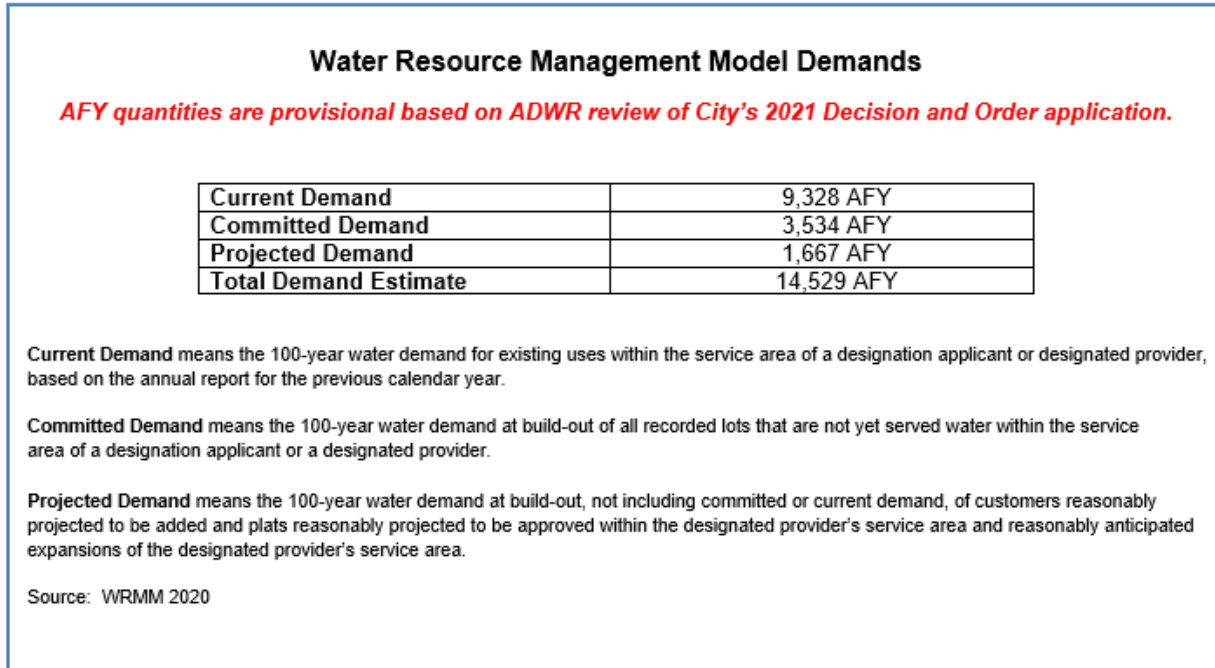


Figure 8: Water Resource Management Model Demands

AFY) and the alternative water (7041.42 AFY), an overall volume totaling 16,507.44 AFY (**Figure 2**). This resulted in a volume of 1,978.44 AFY.

The City set forth a budgeting practice per Policy 12 and Policy 13 for residential and non-residential development requests. City records show that from the adoption of the 2022 policy, during January 2022 to June 2023 timeframe, approximately 130.43 AF was made available and became associated with residential and non-residential projects. 326.2 AF was administratively approved based on existing contract (see 2022 Water Management Policy, Policy 12) obligations. During that time, one appeal occurred in the amount of 29 AF.

Based on water conservation implementation and technological advances in water infrastructure, per capita water usage tends to decline from a year-to-year basis causing the actual remaining water volume to deviate from any static volume. The WRMM is populated with actual billing records on a yearly basis and represents an accurate understanding of total water usage and remaining water volumes at any given time. The WRMM is updated annually to account for existing water usage, planned developments, potential future annexations, and scenario development that anticipate changes in water use. The City’s Water Resources Management Division will provide an annual assessment to City Council based on WRMM data to evaluate water usage for budgeting purposes as discussed in Policy 3.

Section 5: Available Water Supplies and City Policies

Based on the City’s 2009 Decision and Order, the City’s Water Portfolio includes 9,466.02 AFY of groundwater and 7,041.42 AFY of Alternative Water supplies for a total of 16,507.44 AFY. The portfolio also includes the future Big Chino Water Ranch in the amount of 8,067.4 AFY, but this block of water is

not physically available. Because it is not physically available, it will not be considered for the purposes of the Water Budget.

Since 1998, the City's water resource portfolio has accounted for water usage using Contracts and a Water Budget. The City now uses the Water Resource Management Model (WRMM) which calculates water use demands based on actual water usage as billed monthly from a water meter. Water usage in the WRMM is based on current, committed and projected demands.

Section 5a: Water Application Guidelines

This section contains criteria and guidance applicable to consideration of, and approvals for, water service to new projects. Water supplies associated with a reservation, contract, or other previously approved Council actions, are not subject to the Water Budget.

Applying for water service:

- 1 – In order to receive water service from the City, a Water Service Agreement (WSA) application shall be submitted in conjunction with a formal planning project to be reviewed by either the Planning or Zoning Commission, or Board of Adjustment. (*Attachment 5, Water Application Procedure*)

- 2 – The City Manager or designee may: (1) direct any request for water to the City Council for consideration and approval/denial; or (2) administratively approve requests for water service for up to 8 multi-family dwelling units and 4 single-family residential dwelling units, that are not subject to subdivision rules; and non-residential projects with an estimated water usage of 1 AFY or less, such as small office or retail businesses with very limited water usage. Administratively approved projects shall be included in the semi-annual Water Budget(s). *Reference PCC Section 9.1.10*

- 3 – Estimated water usage shall be based on the recent usage by similar project type as determined in the Water Resource Management Model (WRMM) unless a water demand analysis is requested by the City. The WRMM water use estimates are available when there is 60 months or more customer data available. Water use estimates, as projected in the WRMM in acre feet per year (AFY), shall be adjusted annually after the WRMM is updated in January of each year. The City will provide an annual assessment to City Council, within 2-months after the WRMM is updated, to evaluate water usage for budgeting purposes.

- 4 – If a water use estimate cannot be determined by the WRMM or similar usage estimates cannot be provided from a like facility, a water demand analysis shall be required. This analysis will be performed by an architect or civil engineer at the applicant's expense.

- 5 – The City may require a cost benefit analysis for any large project that exceeds the total water budget for any budget period. The requirement for a cost benefit analysis will be reserved for projects with many users/uses or large industrial or commercial use, at the applicant's expense

(Attachment 7). The cost/benefit analysis may be used by the City to help evaluate whether the project is an appropriate use of the City's limited water resources.

6 – WSA applications shall expire 1-year after the application was submitted if the project described in the application is not considered by the Water Issues Subcommittee. Administrative or Council approved WSA applications will expire one year after the approval date if the project is not actively moving through the permitting process. Once a Water Service Agreement Application expires, it will need to be re-submitted for consideration pursuant to the current Water Management Policy and Water Budget. If a project's building permit(s) is voided, withdrawn or expires before completion of construction, then the water allocation shall expire. The applicant will need to re-apply for water pursuant to the current Water Management Policy and Water Budget.

7 – In the event a property applying for water service has an existing entitlement to water from the City in a Contract that entitlement must be fully utilized before the City will consider approving additional water for the property. Any proposal to increase the number of lots or volume of water shall require submission of a new WSA application for the revised project, which will be evaluated according to the current Water Management Policy and Water Budget, if applicable.

8 – Redevelopment of property that will result in less total water use will not require an application. In the event the redevelopment requires more water than its existing use, it may apply for additional water following the current procedures in the Water Management Policy and the current Water Budget. Any request for additional water shall be included in the Water Budget.

9 – Any property that holds a water Contract within the City limits to receive water, will be required to submit a Water Service Application. These requests will be reviewed and tracked administratively. All such requests shall be presented to the Water Issues Subcommittee and the Council semi-annually in January and July as a discussion/information item and shall not be included in the Water Budget.

10 – All new development projects shall connect to and be served by the City sewer system prior to physical delivery of any water service by the City. Per Prescott City Code 2-1-8, potable water will not be provided to any project that will not return to the City's sanitary sewer system at least seventy-five percent (75%) of the water served.

Water Budget:

11 – The Council shall set the Water Budget semi-annually at its last meeting in June and December of each year. Remaining residential and non-residential budgets from the previous six-month period may be rolled into the following six-month budget; however, each must stay in their original classification.

12 – A Water Budget for new residential development shall be created for the period of January to June each year. An additional Water Budget shall be created for the period of July to December each year. This Water Budget quantity is available for projects other than those already entitled to water by an existing Contract. Administratively approved projects (No. 2) shall be included in the residential Water Budget.

13 – A Water Budget for non-residential development shall be created for the period of January to June each year. An additional Water Budget shall be created for the period of July to December each year. All non-residential uses with a water estimate greater than 1 AFY, will be reviewed by the Water Issues Subcommittee and Council for consideration, while taking into account the estimated water use and the benefits to the City offered by the proposed water use. Administratively approved projects (No. 2) shall be included in the Water Budget.

14 – No single Water Service Application will be approved for water usage estimates greater than 50% of the remaining semi-annual Water Budget. Projects that request more than 50% of the remaining semi-annual water budget may:

- a. File a Water Service Application to be considered when the next Water Budget is available.
- b. Appeal the 50% rule. The applicant shall demonstrate the benefits to the City such as job creation, wages, sales tax, economic impacts, or other benefits to the City. All such requests shall be reviewed by the Water Issues Subcommittee and the Council. If City Council grants an appeal, the amount of water granted in the appeal would be included in the annual water assessment to City Council.

15 - Any applicant for development and/or water service may acquire and present for consideration sufficient “extinguishment” credits to support their development. The volume of the credits will be required to meet the calculated 100-year demand for water. The project must connect to a municipal sewer system before water supplies are provided (*Attachment 6*).

Existing Contracts:

16 – Water supplies associated with an existing Contract, shall not be amended to increase the number of lots or volume of water used; any such proposal to increase the number of lots or volume of water shall require submission of a new Water Service Application for the revised project, which will be evaluated according to the current Water Management Policy and Water Budget, if applicable.

Water Outside City Limits:

17 – No new Contracts for water outside of City limits shall be approved except as provided in Prescott City Code 2-1-8 (c) (*Attachment 8*). Commitments to serve water outside City limits within existing Contracts will be met. In addition to PCC 2-1-8(c) contracts for water service

outside City limits shall contain performance criteria appropriate to the project, including a performance completion date.

Section 5b: Prescott City Code Reference

During the 2018-2019 timeframe, not only was the water management policy changed, but also many city codes were removed or changed related to how water would be managed (allocated and tracked). The City's overall guiding water management principles, with the purpose of meeting ADWR regulations to reduce reliance on groundwater supplies, were set aside. Below are City Codes that exist as of June 2023. These help support this bridge policy until a City long-term water management plan is developed, and while the City's DAWS remains under review.

Remaining Prescott City Code references existing in June 2023 as listed to support this policy. Only PCC Section 7.4.8F and G are expanded to support the Council request to continue a "City Water Management Policy", and "Prescott Water Budget" within the 2024 Water Management Policy to bridge the City until its updated Designation of Assured Water Supply is complete or another condition sets forth new water management practices.

Section 7.4 Subdivision and Land Split Design Standards

Sections 7.4.8 Water Supply

F. Assured Water Supply

1. No preliminary subdivision plat shall be approved unless it is in accord with the duly adopted **Prescott Water Budget** and accompanied by :

a. An Assured Water Supply from the City of Prescott or a certificate of Assurance from the Arizona Department of Water Resources; or

b. Providing the City with a volume of water that is calculated by the number of lots in the proposed subdivision times 150 GPCD times the average dwelling occupancy [based upon the latest census]. Said water source shall meet the assured water supply requirements for: a) physical, legal, and continuous availability; and b) water quality; and c) consistency with the City's most current management goals.

G. The City Council may enter into an agreement with a subdivider to afford an alternative water source to meet Assured Water Supply requirements only where Council finds that a proposed project or development is consistent and conforms to, furthers the implementation of, and is not contrary to the:

1. The **City's Water Management Policy**; and

2. The **General Plan** and other applicable plans, including not limited to Specific Area Plans, Circulation Plans, Capital Improvement Plans, Open Space and Trail Plans, Neighborhood Plans, Local Historic District Plans, growth management or growth management plans, and redevelopment plans.

2-1-8 Provisions of water outside of City Limits

2-1-10 Extension of Water Mains (reimbursement district)

2-1-11 Extension of Sewer Mains (reimbursement district)

2-1-12 Water Service Connection and Meter Installation

2-1-18 Water Rates

2-1-24 Water Meters

2-1-76 Sewer Connections for New Construction

3-10 Water Conservation Code

Section 6.5 Landscaping and Screening

Section 9.1.10 Required Public Hearing – Water Service Agreements (4 or more dwellings)

Section 9.10.7 Land Split Review

Section 9.10.9 Subdivision Plat Review

Section 9.15.5 Rezones

Section 9.19.3 Duration of Protected Development Rights

It is not anticipated that any updates to Prescott City Code will be made in conjunction with this policy bridge; however, during a long-term water management planning process it will become more evident what updates to codes should occur to not only manage the allocation of potable supplies, but also the other supply types of reclaimed and surface water.

Section 6: Attachments

Attachment 1: Map of City Limits

Attachment 2: Map of Prospective Major Annexation Areas

Attachment 3: Map of City Water Service Area

Attachment 4: Water Resource Management Model Demands

Attachment 5: Water Application Procedure

Attachment 6: Extinguishment Credits

Attachment 7: Cost Benefit Analysis

Attachment 8: Prescott City Code 2-1-8 Water Outside City Limits

Attachment 9: Definitions



TO: MAYOR AND CITY COUNCIL
AGENDA: Nov 21 Mayor's Commission on Water Policy Review & Monitoring
DATE: November 21, 2023
DEPT: Public Works
ITEM #: 3.C
SUBJECT: Discussion and Possible Action Regarding a City Long-Term Water Management Plan, Water Resource Management Model, and 75% Return Flow.

ITEM SUMMARY

In the Commission's discussions on the 2022 Water Management Plan, it identified the need for a City long-term water management plan. This was presented at the City Council's Study Sessions on May 9, 2023, and on August 8, 2023. At the Commission's October 18, 2023, meeting, they expressed their concern that a long-term water management plan was not identified as part of the 2024 Water Management Policy. Since the long-term water management plan is the guiding document that, once prepared, will lead to policy development, this action item has been created for the purposes of providing the Commission's recommendations to the Council through a separate action. Recommendations by the Commission on procedures for the use of the Water Resource Management Model (WRMM) and investigation into requirements for monitoring 75% return flows have also been included. See Background section, points 2 and 3.

BACKGROUND

The Commission's August 8, 2023 recommendations were as follows:

- 1.) It is recommended the City begin the process to develop a long-term water management plan, incorporating the water resource management model and appropriate legal documents. With the Commission identifying disconnects in the 2022 policy, i.e. recommendations for or concerns with 16 of 22 policies, within the documents text (pages 1-15 and attachments), as well as other comments, it is evident the City is lacking a long-range water management plan to carry the City's water health and safety when there are changes from one elected and leadership bodies to another. The 2022 policy may bridge the City while a long-term plan is developed and aligns with its pending Decision and Order of Assured Water Supply (DAWS) which is currently under review with ADWR. Alignment with the City's 2025 General Plan will also be important. Note that the City's service area extends outside of its General Plan area.
- 2.) It is recommended the City develop procedures for the use of the Water Resources Management Model (WRMM) that are not currently reflected in the policy. The WRMM appears to be a tool that needs to be fully employed as part of the City's long-term planning tools; however, it is evident there is limited understanding and use of it when the 2022 water policy is examined. It may be important for a team within the City to examine it and set forth meaningful and reproducible tasks from it which inform the City elected and leadership, and aid in long-term planning. It is concerning as it appears the 2022 water policy is allocating supplies beyond the WRMM as filed with the City's pending DAWS. That is, it appears policy allocates before those uses are verified in the WRMM.
- 3.) It is recommended that the City investigate the requirements to adequately monitor wastewater return flow in order to determine compliance with 75% return flow requirements within the City Water Policy and Code. Once the City has determined requirements, it should prepare a report to

the Council addressing the findings, requirements for resources and staffing, and cost to implement monitoring procedures.

FINANCIAL IMPACT

N/A

RECOMMENDED ACTION

MOVE to recommend the development of a City Long-Term Water Management Plan, Water Resource Management Model procedures, and investigate requirements to monitor 75% return flow rates as documents independent of the 2024 Water Management Policy

ATTACHMENTS

None