CITY OF PRESCOTT
ARIZONA

2nd Amendment to the 2022 Water Management Policy

Effective Date: May 13 , 2025

Acknowledgements

In June 2022, the Mayor's Commission for Water Policy Review and Monitoring was convened to review the City's 2022 Water Management Policy which was based on City water management practices from the 1999-2017 timeframe. The Commission reviewed the policy providing feedback and recommendations. Some recommendations could be applied herein, and others could be developed as part of a long-term water management plan. Due to this 2024 Water Management Policy being intended to bridge the City until such time their latest Decision and Order of Assured Water Supply (submitted in December 2021) is conferred by the Arizona Department of Water Resources, this policy includes limited updates to the introductory text and is focused on the enumerated guidelines within the document (see Section 5a.). The City of Prescott extends its gratitude for the time and work provided by Commission Members Mayor Phil Goode (Council Liaison), Chairman Jim Lamerson, Vice-Chairman Bob Roecker, Member Gary Beverly, Member Gillian Haley-Meierbachtol, Member Peter Kroopnick, Member Michael Taylor, and Member Gary Worob. The City would also like to extend its gratitude to all the City staff members who provided recommendations and feedback to improve the policy and make its implementation more effective.

Section 1a: Summary of Amendment Revisions

The current Water Management Policy was approved by City Council on April 26, 2022. The Mayor's Commission for Water Policy and Review was subsequently established in May of 2022 with the purpose of reviewal and monitoring of the City's updated Water Policy. The work of the Commission and City staff has resulted in this Amended 2022 Water Management Policy which keeps major policy elements in place while refining parts of the document to provide more clarity to the water user and staff administrating water policy. In the preparation of this amended policy these guiding principles were followed:

- The Commission's recommendations were utilized within the context of current policy.
- Staff recommendations were considered and implemented where they would provide improved permitting and water tracking efforts.
- Additional Commission recommendations outside the scope of this Amended Water Management Policy were collected and provided to City Council for approval of independent investigation and study for future implementation.

The City is currently modifying its Decision and Order (D&O) for Designation of Assured Water Supply (DAWS) through ADWR and also the 2025 General Plan. Both of these items have significant impact on how the City's Water Policy is structured and implemented. As the City moves forward with these important documents, the Amended 2022 Water Management Policy will serve as a bridging document to guide the City on water until new assured water supplies are set within the City's modified D&O and new goals and strategies for future City growth are determined within the updated General Plan. Based on these factors, this policy amendment includes the following revisions:

- Addition of Table of Contents
- Update on status Decision and Order for Designation of Assured Water Supply through ADWR
- Updates to maps, charts and figures
- Weblink updates
- More in depth discussion of Water Resources Management Model (WRMM)
- Update to Water Conservation Section
- Addition of information regarding Governor's Water Policy Council
- Addition of City Code Reference Section
- Update to Definitions
- Update to Water Application Guidelines

Section 1b: 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.

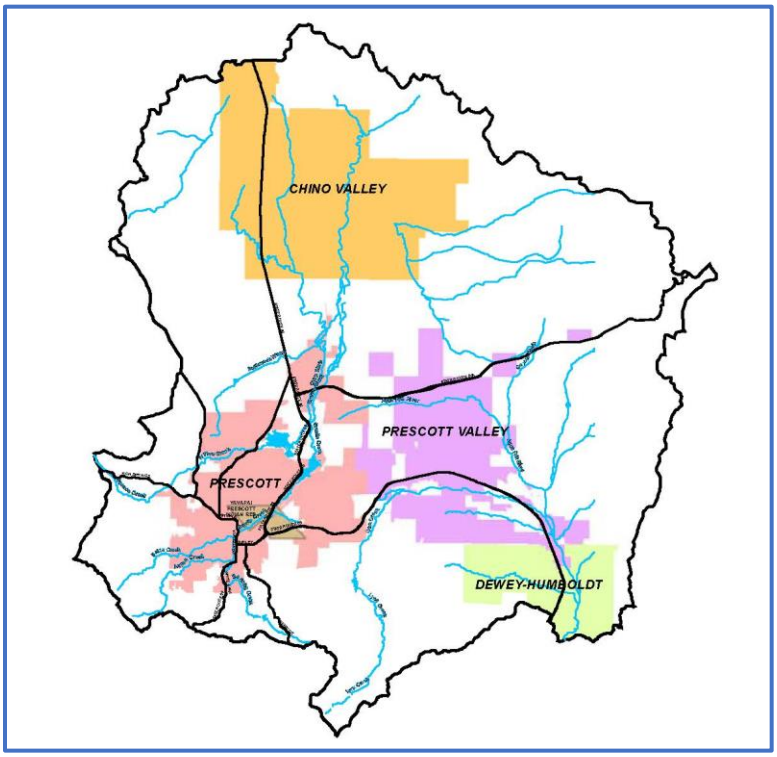


Figure 1: Prescott Active Management Area

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 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 GMA 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 AMAs. 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 (DAWS) since 1999, and this designation is updated periodically to reflect water resource availability. A DAWS 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 DAWS was filed in December 2021 and is currently under review.

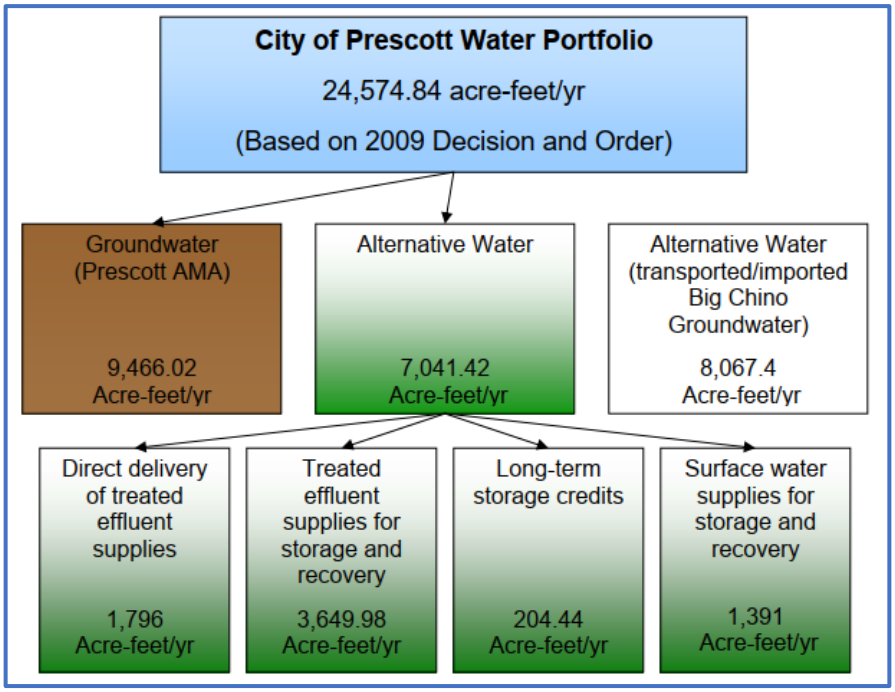


Figure 2: City's Decision and Order No. 86-401501.0001 ("2009 D&O")

Water management has a crucial role in the 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 (PCC 3-10-8)
- 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 (See ***Figure 2***):

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 Statues, 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.

https://prescott-az.gov/water-resource-mgmt/big-chino-project/

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, 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.

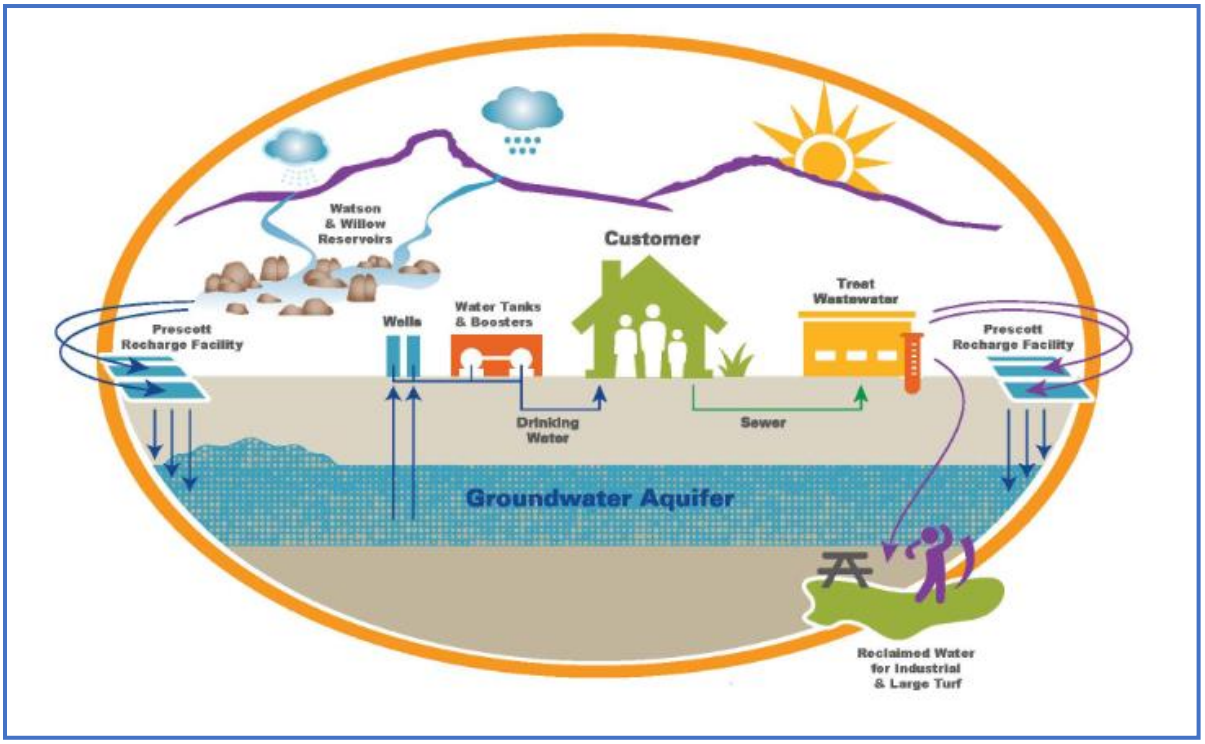


Figure 3: Prescott Urban Water Cycle

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://prescott-az.gov/water-ops/how-tos-faqs/Section

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).

The City has a Pretreatment Program which is designed in accordance with the United States Environmental Protection Agency's General Pretreatment Regulations (Title 40 Code of Federal Regulations (CFR) Part 403). The objective of this program is to:

- Prevent discharge of pollutants that could disrupt wastewater treatment processes, cause operational issues, or result in violations of discharge, into the City's wastewater treatment facilities
- Ensure that harmful substances do not bypass treatment and enter surface waters or the aquifer
- Reduce exposure to toxic substances and ensure the safety of those working in the wastewater treatment facilities

These goals are achieved by permitting, monitoring, and sampling discharge from industrial users, in conjunction with educating industrial, commercial, and residential users about substances that are harmful to the wastewater system and its processes. The Arizona Department of Environmental Quality (ADEQ) issued approval for the City of Prescott Pretreatment Program on October 1, 2013.

For more information about Wastewater Collection and Wastewater Treatment go to:
https://prescott-az.gov/sewer-and-wastewater/wastewater-operations/

Section 3d: Stormwater

The City of Prescott operates a Municipal Separate Storm Sewer System (MS4), which means that the storm sewer and the sanitary sewer are separate systems. The City's storm sewer system consists of municipally owned streets with drainage systems comprised of a combination of catch basins, curbs, gutters, ditches, manmade channels, and storm drains. Rain, snow melt, and other substances dumped into a street, alley, gutter or storm drain enter the storm drainage system and flow into the nearest creek or lake untreated**.**

In Arizona, MS4s are regulated by the Arizona Department of Environmental Quality (ADEQ) through the Arizona Pollutant Discharge Elimination System (AZPDES) permit program. In accordance with the AZPDES Small MS4 General Permit, each MS4 is required to prepare and implement a Stormwater Management Program Plan (SWMP). The SWMP must reduce the discharge of pollutants to the "maximum extent practicable", protect water quality, and satisfy the appropriate water quality requirements of the Arizona Protected Waters Program and the Federal Clean Water Act.

Small MS4s must have six minimum control measures including:

1. Public Education and Outreach
2. Public Participation/Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post-Construction Runoff Control
6. Good Housekeeping for Municipal Facilities

For more information about the MS4 program and permitting requirements go to:

https://azdeq.gov/PhaseIIMS4

Section 3e: 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 3f: 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://prescott-az.gov/planning-and-zoning/planning/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*), City of Prescott and General Plan area (*Attachment 2*), and City 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. Around 2019, while creation of the long-term water management model was nearing completion 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 (See Section 2.a). Annually the WRMM is updated to include the previous year's billing data. 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 continue to be based on the water budgets per Guidelines 12 and 13 of the 2024 Water Policy which are consistent with the methodologies established in the 2022 Water Policy. This will be 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. In the future, when more detailed procedures are developed for uses of the WRMM, it will be become a more useful tool for setting water budgets and meeting the objectives of the General Plan, which is being updated at the time of completion of this document.

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-fold1) to limit losses from its municipal water system and 2) facilitate achievement of the state-prescribed requirement for the community expressed in gallons per capita per day (AMA GPCD Conservation Program per A.R.S S45-563(A)).

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 (2001 – 2021) is 7.88 percent (***Figure 4***).

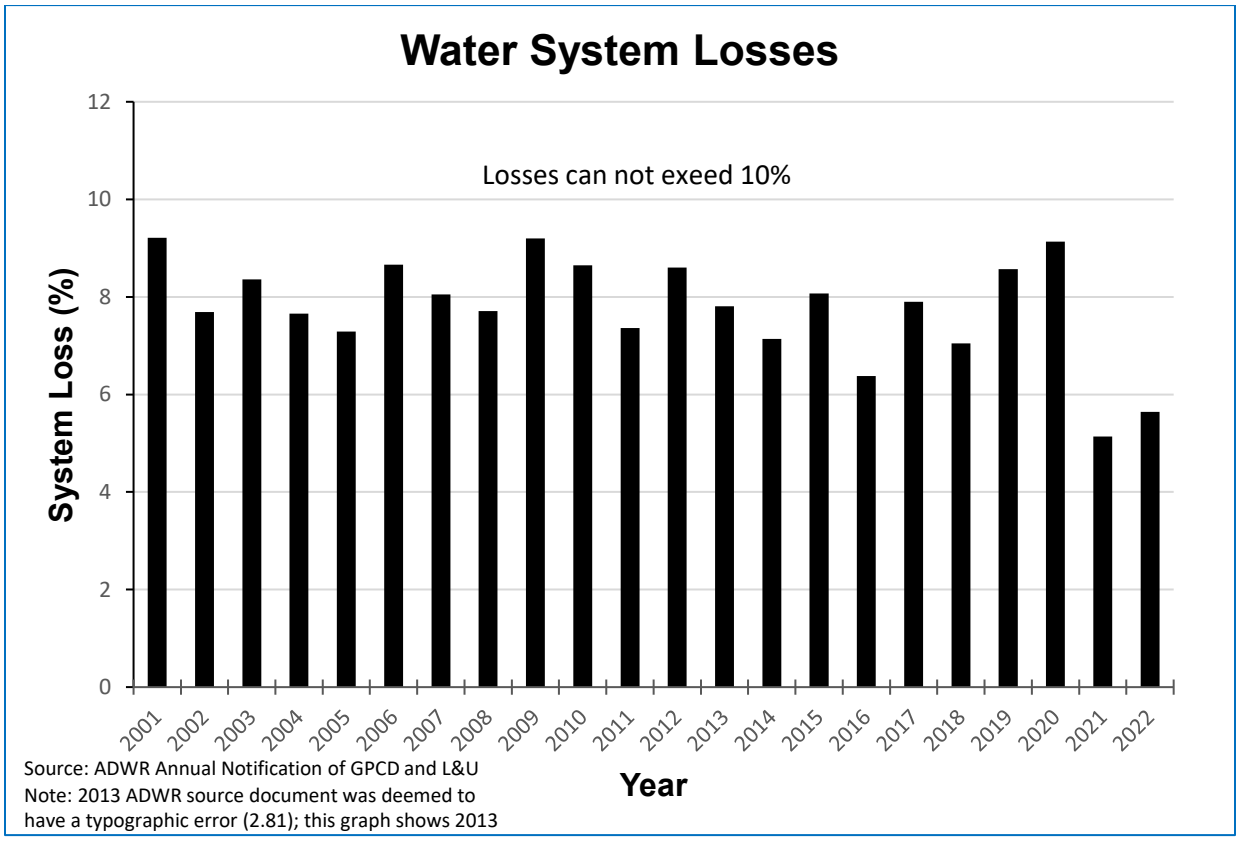


Figure 4: Water System Losses

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

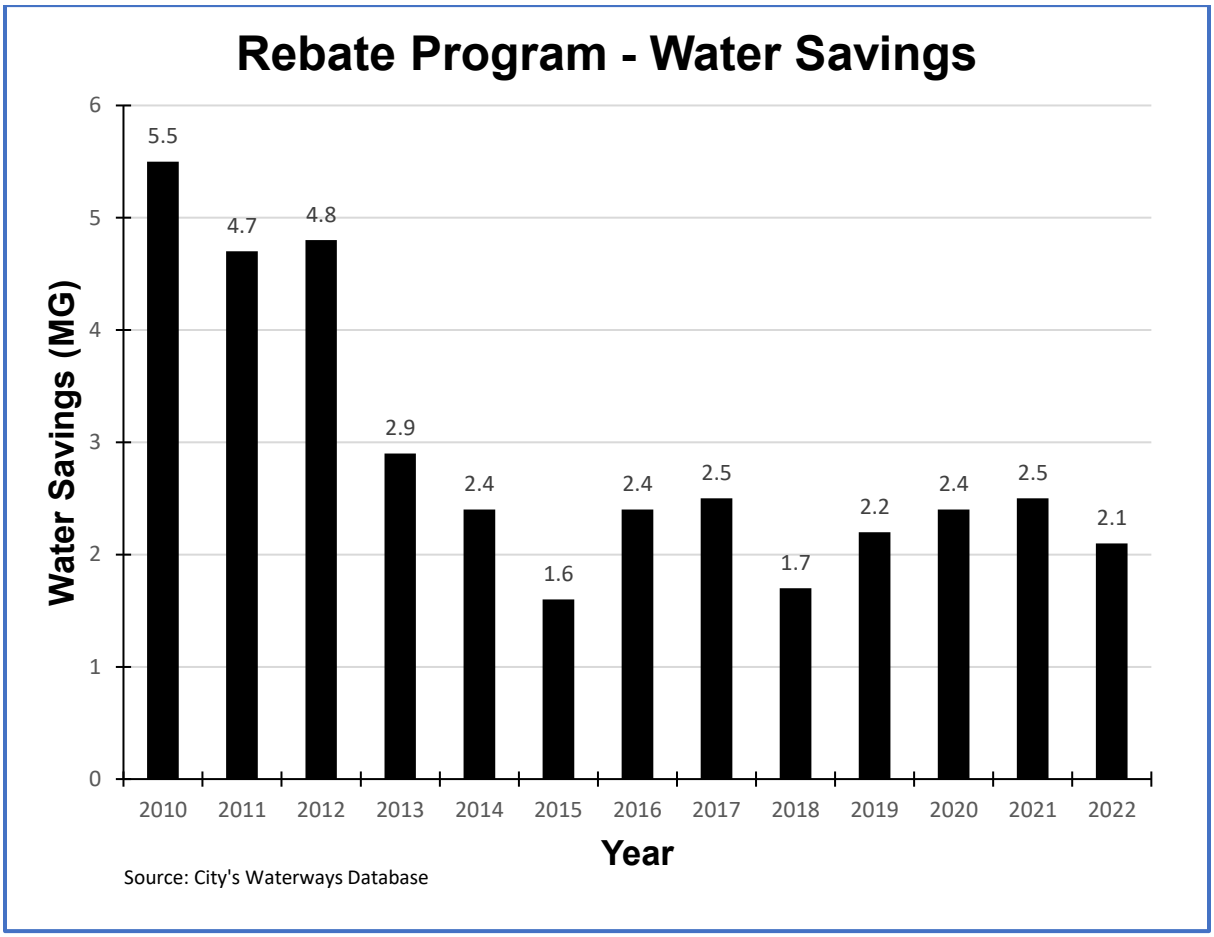


Figure 5: Rebate Program – Water Savings

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.

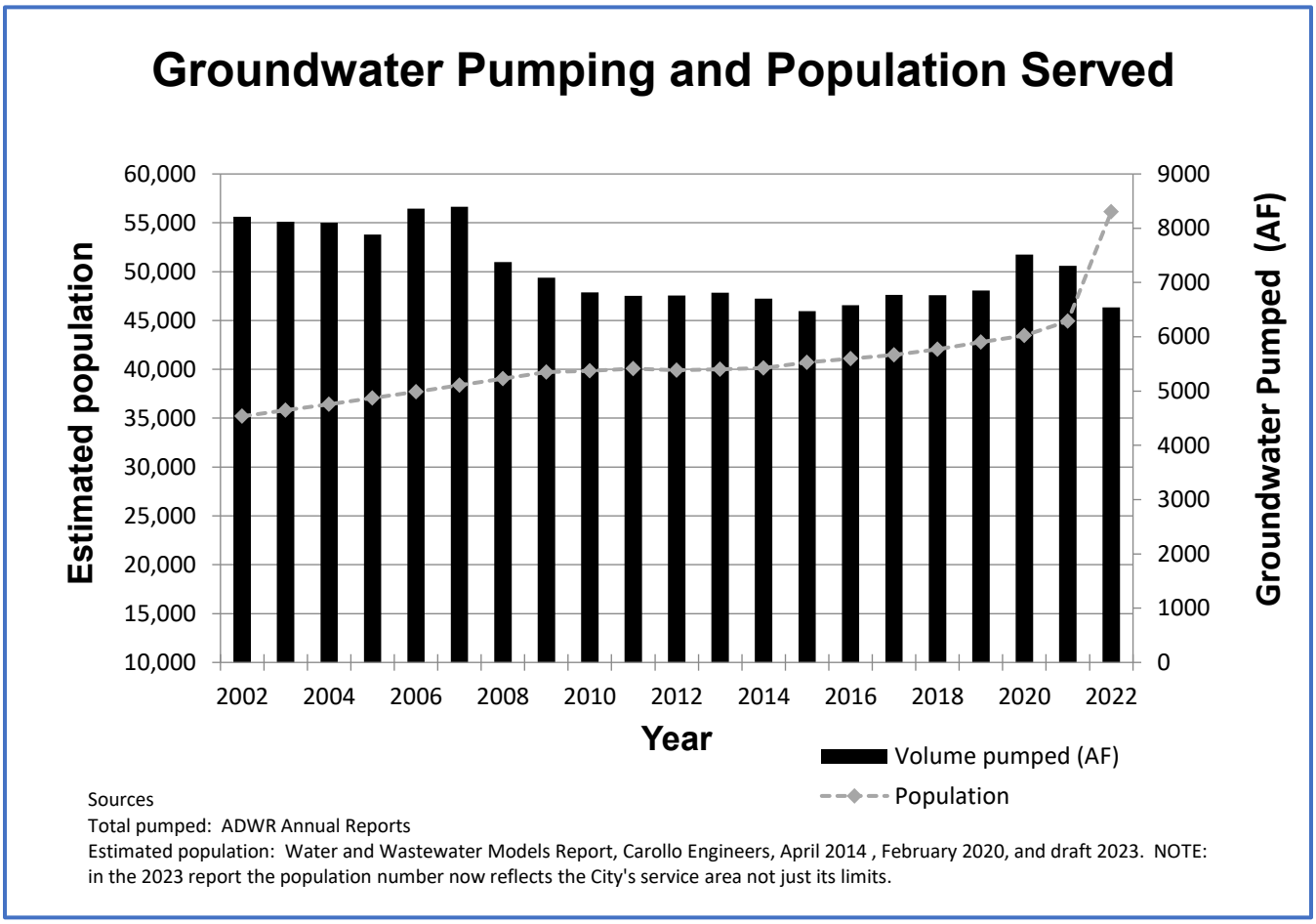


Figure 6: Groundwater Pumping and Population Served

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 by 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.

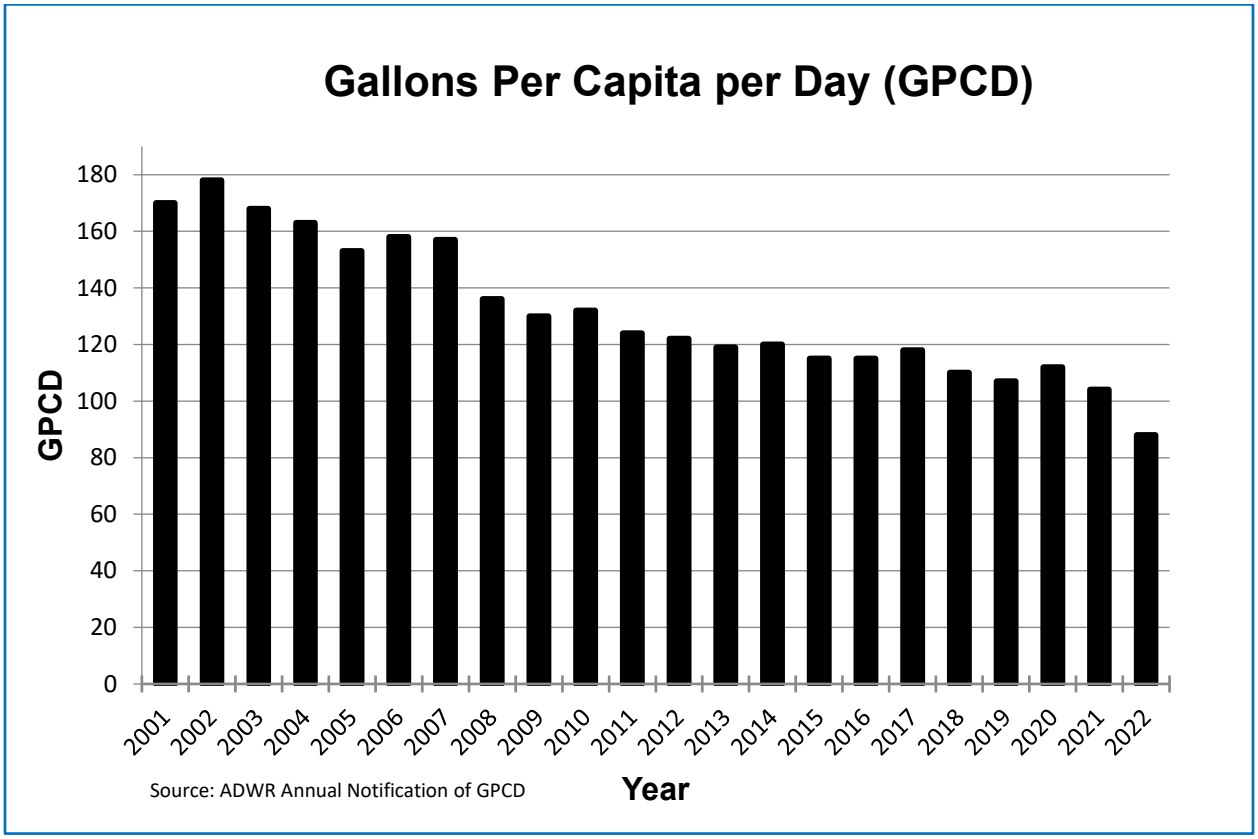


Figure 7: Gallons Per Capita per Day

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 Groundwater Management Act (GMA) and then the Assured Water Supply (AWS) requirement becoming effective in the Prescott AMA in 1998, that there remain 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 also important the City institutes safeguards 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 adequately examined within this 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 acre-feet per year (AFY) (***Figure 8***).

Water Resource Management Model Demands

AFY quantities are provisional based on ADWR review of City's 2021 Decision and Order application.

Current Demand	9,328 AFY
Committed Demand	3,534 AFY
Projected Demand	1,667 AFY
Total Demand Estimate	14,529 AFY

Current Demand means the 100-year water demand for existing uses within the service area of a designation applicant or designated provider, based on the annual report for the previous calendar year.

Committed Demand means the 100-year water demand at build-out of all recorded lots that are not yet served water within the service area of a designation applicant or a designated provider.

Projected Demand means the 100-year water demand at build-out, not including committed or current demand, of customers reasonably projected to be added and plats reasonably projected to be approved within the designated provider's service area and reasonably anticipated expansions of the designated provider's service area.

Source: WRMM 2020

Figure 8: Water Resource Management Model Demands

From the 2009 D&O volume consisting of the groundwater (9,466.02 AFY) and the alternative water (7,041.42 AFY), an overall volume totaling 16,507.44 AFY (***Figure 2***). This resulted in a differential in water volume of 1,978.44 AFY between 2009 D&O and the 2021 modified D&O still under review at the time of completion of this document.

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 December 2023 timeframe, approximately 140.28 AF was made available and became associated with residential and non-residential projects. 332.81 AF was administratively approved based on existing contract (see 2022 Water Management Policy, Policy 12) obligations. During that time, two appeals occurred in the amount of 40.78 AF. The total water made available for January 2022 to December 2023 was 513.87 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.

Section 5a1: 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 the project's formal planning application to be reviewed by either the Planning and Zoning Commission, or Board of Adjustment. In the event the project scope does not require planning application per the Land Development Code, then the WSA application submittal package shall include a basic site-plan if exterior improvements are included in the project scope, or a basic floorplan to be reviewed by City staff.

   The WSA application contains questions regarding hazardous substances and pollutants that could be potentially introduced into the stormwater and sanitary sewer systems. City Water Resources staff can use this information to understand if any pretreatment conditions are required for the proposed development. The WSA application also identifies the responsibilities of the applicant to comply with the City's MS4 and Wastewater Pretreatment Programs. Identification of hazardous material usage through administration of the Water Policy in conjunction with the implementation of the MS4 and Pretreatment Programs, help reduce potential discharge of hazardous materials into the City's water supplies.

   (Attachment 5, Water Service Agreement application)

2. The City Manager or designee may: (1) direct any request for water to the Water Issues Subcommittee and 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, not subject to subdivision rules, and non-residential projects with an estimated water usage of 1.5 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 are 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 the Water Issues Subcommittee & City Council, within two months after the WRMM is updated, to evaluate water usage for budgeting purposes. An annual report on water resource activities associated with this policy (e.g. WRMM, D&O, and impacts to the water portfolio) will be provided to Council.

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 a civil engineer at the applicant's expense.

5. The City may require a cost benefit analysis for any project at the applicant's expense (*Attachment 7*). However, a cost benefit analysis will provide the most useful information for a large project that exceeds the total water budget for any budget period and for projects with many users/uses or large industrial or commercial uses. 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 1-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 an approved footing inspection is obtained for the project, then the water allocation shall expire. The applicant will need to reapply 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 resubmission 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 shall 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 WSA application. This request 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.

Section 5a2: Water Budget

11. The Council shall set the Water Budget semi-annually at its last meeting in June and December of each year. Unallocated 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. A roll-over of the budget from the previous six-month period may occur for the 4 budget periods (2 years) from the time of policy adoption.

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 1.5 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 WSA 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 WSA 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*)

Section 5a3: Existing Contracts

16. Single-family residential lots within a platted subdivision are not required to submit a WSA application.

17. 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 resubmission 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.

Section 5a4: Water Outside City Limits

18. No new water service outside the 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 many city codes were removed related to how water would be managed, i.e. allocated and tracked. The City's overall guiding water management principles, with the intent 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 are listed to support this policy. Only PCC Land Development 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 until its updated Designation of Assured Water Supply is complete or another condition sets forth new water management practices.

<u>Section 7.4 Subdivision and Land Split Design Standards</u>
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.

<u>Other codes</u>

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 Current City Limits

Attachment 2: Map of City of Prescott and General Plan Area (2015)

Attachment 3: Map of City Water Service Area

Attachment 4: Water Resource Management Model Demands

Attachment 5: Water Service Agreement application

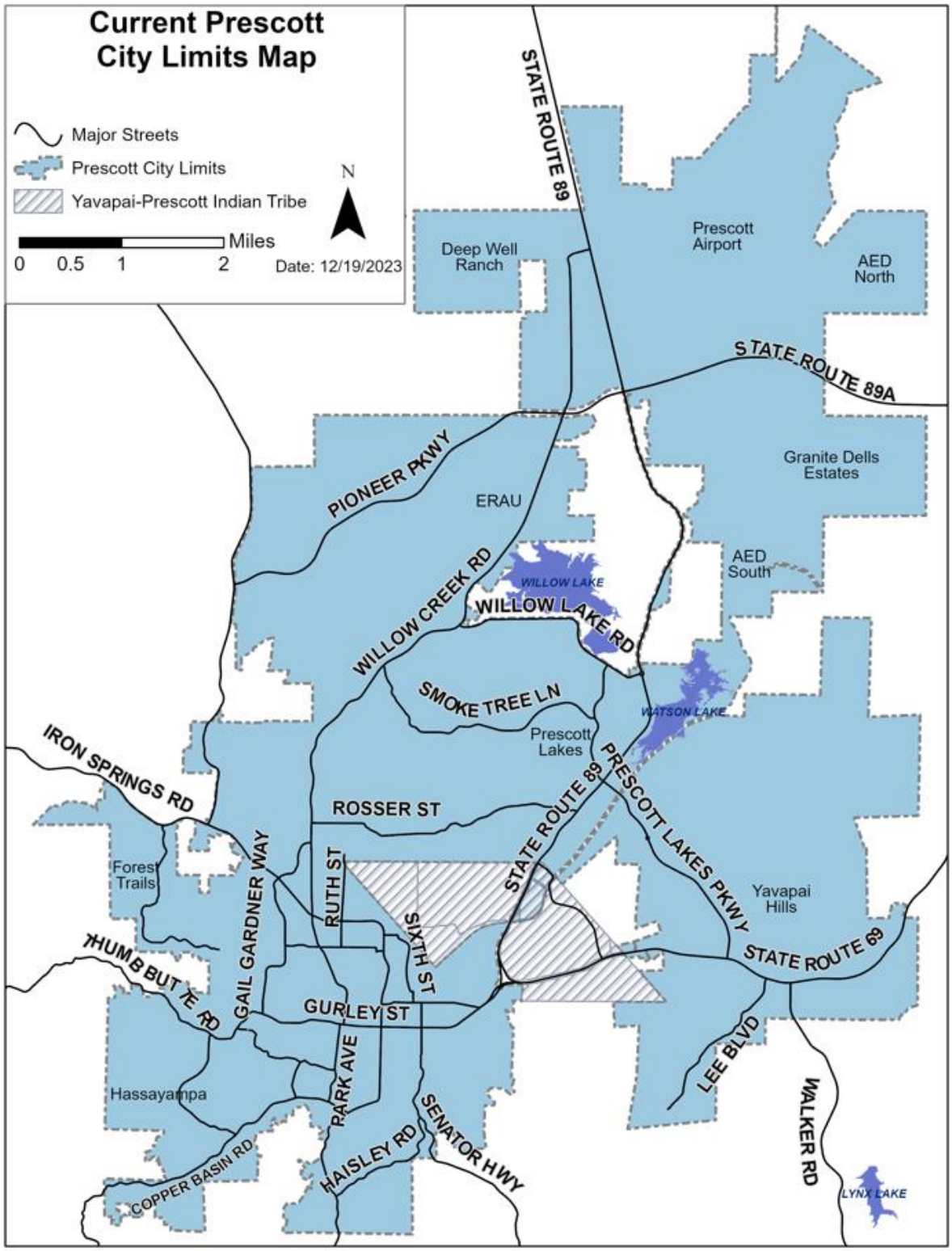
Attachment 6: Acceptance of Extinguishment Credits (IGFRs)

Attachment 7: Cost Benefit Analysis

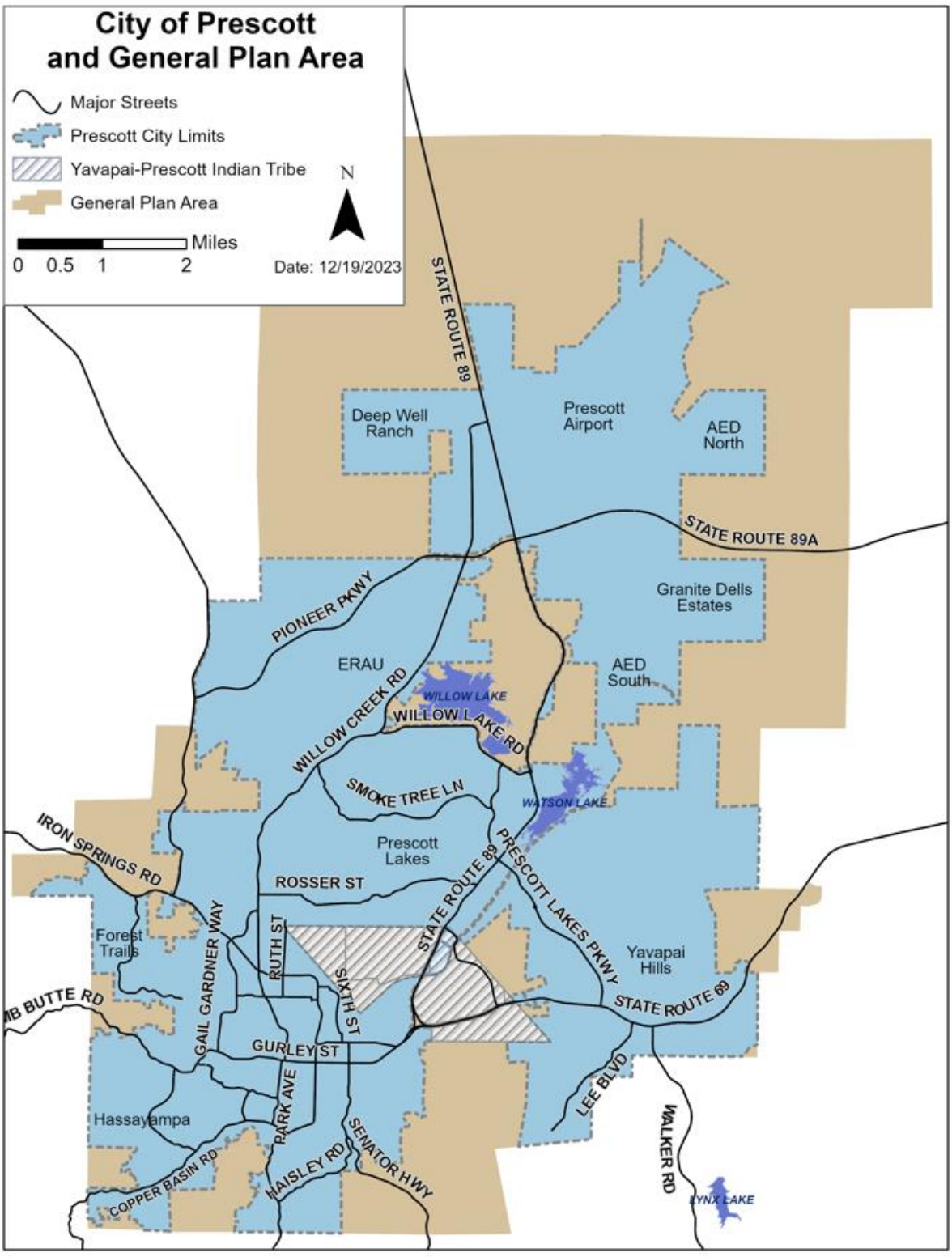
Attachment 8: Prescott City Code 2-1-8 Water Outside City Limits

Attachment 9: Definitions

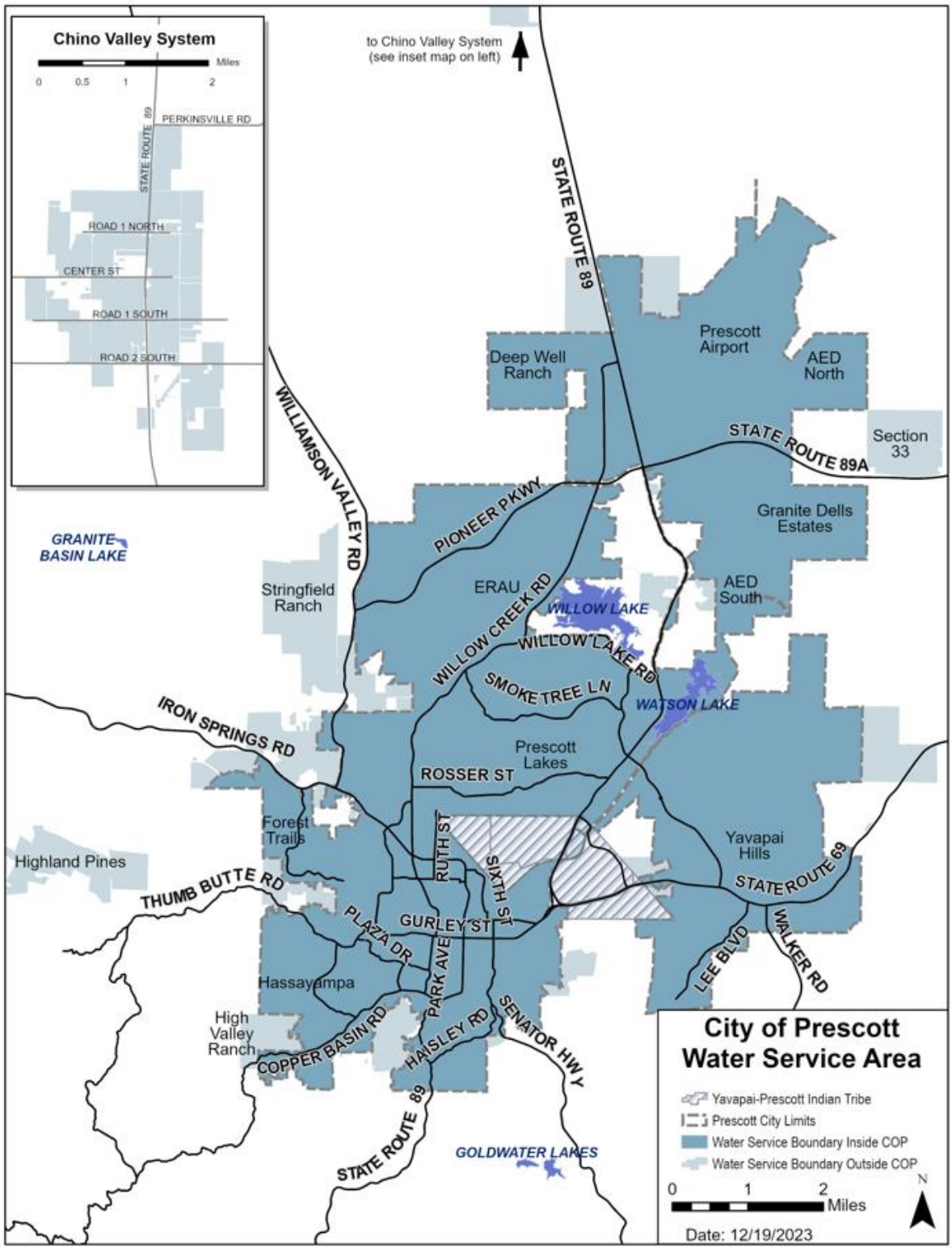
Attachment 1 Map of Current City Limits



Attachment 2 Map of City of Prescott and General Plan Area (2015)



Attachment 3 Map of City Water Service Area



Attachment 4 Water Resource Management Model Demands

The City of Prescott submitted an application for the modification of Designation of Assured Water Supply No. 86-401501.0001 on December 17, 2021, to the Arizona Department of Water Resources. The application includes the Water Resource Management Model demands for Current, Committed and Projected Demand, within Part B of the application, specifically pages 3-6.

Attachment 5 Water Service Agreement application

WATER SERVICE AGREEMENT APPLICATION

Water Resource Management Division
201 S. Cortez St., Prescott, AZ 86303
(P) 928.777.1405

Water Service Agreement Applications are submitted in accordance with City Water Management Policy. Submit all documents directly to the Permit Center at 201 S. Cortez St, Prescott, AZ 86303. Please print your contact information legibly.

APPLICANT INFORMATION

Applicant: _____ Contact Person: _____
Address: _____ City/State/Zip: _____
Phone: _____ Email: _____

Property Owner: _____ Contact Person: _____
Address: _____ City/State/Zip: _____
Phone: _____ Email: _____

PROJECT SITE

Address: _____
Current Zoning: _____ Proposed Zoning: _____
Assessor's Parcel Number(s) of Existing Property:
_____-_____-_____ _____-_____-_____ _____-_____-_____ _____-_____-_____

Existing Water Service (Y/N): _____ Existing Sewer Service (Y/N): _____
Existing Well (Y/N): _____ If Yes, Well Registry No.: _____

PROJECT DESCRIPTION

Is the project Residential or Commercial? _____
Please provide brief description: _____

# of Proposed Units: _____ # of Proposed Lots: _____

Has a Water Demand Analysis been completed (commercial)? _____
Has a building permit application been submitted? _____
Has a Planning and Zoning Recommendation been made? _____

For Commercial Applications: Please check any of the following categories that apply to this development

☐ Food Service Facility	☐ Vehicle Service Facility
☐ Industrial/Manufacturing Facility	☐ Medical Facility
☐ Dental Facility	☐ Other Please Describe: _____

Please describe any toxic/hazardous materials utilized by this development that may be discharged into the City's stormwater or sanitary sewer collection systems.

_____

_____

_____

Please note that the City of Prescott operates a Municipal Separate Storm Sewer System (MS4) and a Wastewater Pretreatment Program. These programs are mandated by the Environmental Protection Agency (EPA) and overseen by the Arizona Department of Environmental Quality (ADEQ). By signing this application, the applicant acknowledges that they will be responsible for abiding by all laws and regulations required by these programs for mitigation of hazardous materials and pollutants prior to discharging into the City's storm sewer system and/or the City's sanitary sewer system and wastewater treatment facilities. The applicant further acknowledges that they will be responsible for all costs associated with meeting discharge standards required by these programs.

Applicant Signature: **Date:**

OFFICE USE ONLY	
Assigned Tracking No. WSA -	Date entered

Attachment 6 Acceptance of Extinguishment Credits (IGFRs)

Any applicant for development and/or water service within the City of Prescott water service area 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 City's sewer system before water supplies are furnished.

What are extinguishment credits?

Extinguishment credits are generated when a grandfathered groundwater right is extinguished. The extinguished right can never be used again; however, the credits generated can be pledged to the City of Prescott (because they have a Designation of Assured Water Supply) to support the water requirements of a development. This policy allows for a developer to provide the water necessary to supply a development that is served via the City of Prescott water/wastewater infrastructure.

How many extinguishment credits are required for my project?

1. Determine the annual water demand of your project based on the following:
    a. Residential (single-family): 0.17 AF/yr/dwelling unit
    b. Residential (multi-family): 0.12 AF/yr/dwelling unit
    c. Non-residential: determined per project based on Water Demand Analysis

2. Determine the 100 yr water demand of your project based on the following allocations:
    a. Multiply the annual water demand by 100 years
    b. This is the volume of extinguishment credits that will be required to be pledged to the City of Prescott

    Example:

A forty-five lot subdivision:

1. Determine the annual water demand of your project based on the following allocations:
    a. Residential Single-family: 0.17 AF/yr/dwelling unit
    b. 0.17 AF/yr * 45 dwelling units = 7.65 AF/yr
2. Multiply your annual water demand by 100 years.
    a. 7.65 AF/yr * 100 yrs = **765 AF**
    b. 765 extinguishment credits

How do I locate extinguished credits that are not yet pledged?

The Arizona Department of Water Resources Office of Assured and Adequate Water Supply should be contacted for a current list of Unpledged Assured Water Supply Credits for the Prescott Active Management Area:

Phone: 602-771-8599 or Email: assuredadequate@azwater.gov

Attachment 7 Cost Benefit Analysis

The City of Prescott recognizes the potential advantages of expanding the City's water system. In considering potential extensions, the City is committed to making consistent, fair, and well-informed decisions that will benefit the City. For these reasons, the benefits and costs of all proposed extensions of the City water system will be carefully evaluated. The following Policies ensure uniformity and completeness in the preparation of such analysis.

Scope: A formal cost-benefit analysis prepared according to the guidelines below shall be prepared for any application for city water to serve any non-residential project or subdivision outside of city limits. The analysis should include estimates of all identifiable and quantifiable costs and benefits to the City that can be expected to result from the new service.

Examples of costs to the City include water, wastewater, infrastructure maintenance, and other governmental services to maintain existing levels of service.

Examples of benefits include impact fees, water acquisition fees, out of city water rates, land donations and easements for required infrastructure, open space, or other community benefits.

The City recognizes that some costs and benefits are not quantifiable. Non quantifiable costs and benefits should be clearly identified, and they will receive explicit consideration in the final review of the proposed water service as potential mitigating or aggravating factors.

Requirements: Each cost-benefit analysis shall satisfy the following requirements:

1. **Forecast Period**: The analysis shall encompass a time period of at least 25 years. A year-by-year forecast of costs and benefits will be presented for the first ten years following the anticipated water service approval date and costs and benefits will be aggregated for each of the following five-year periods.

2. **Assumptions**: A narrative discussion of quantifiable and non-quantifiable cost and benefit assumptions should be set forth in separate sections of the report. The source which supports the assumption should also be identified.

3. **Cost of Funds**: Accumulated costs incurred by the City and revenues received by the City through the new service shall be calculated at the end of each forecast period.

   If the balance of accumulated costs exceeds the balance of accumulated revenues, a rate of interest reflecting the City's opportunity or financing cost of funds (referred to herein as the "financing rate") shall be applied to the difference and included in the following period's costs.

   If the balance of accumulated costs is less than the balance of accumulated revenues, the financing rate shall be applied to the difference and included in the following period's revenues.

   The financing rate to be used in cost-benefit analysis shall be provided by the City of Prescott Finance Department.

4. **Inflation:** The analysis shall incorporate projected inflation rate(s) to be provided by the City of Prescott Finance Department.

5. **Net Present Value**: Proposed water service connections will be evaluated in terms of the discounted value of their associated benefits less the discounted value of their associated costs. Costs and benefits realized during the forecast period will be reflected using the net present value discounted to the present using a discount rate to be provided by the City of Prescott Department of Finance.

   Discounting takes into account the time value of money thereby permitting expenses incurred and revenues received at different dates to be compared using a common metric. The discount rate used in cost-benefit analysis shall be equal to the financing rate, defined above. Future costs and benefits shall be discounted as if they occurred at the midpoint of the period in which they are realized.

6. **Sensitivity Analysis:** Baseline cost and benefit projections should be accompanied by sensitivity analysis showing the impact of changing selected critical assumptions on the projected costs and benefits and on the estimated net present value of the proposal. A separate sensitivity analysis will be conducted for each of the critical assumptions identified by City staff. Sensitivity analysis will be provided for alternative assumptions regarding the following factors:

   - Build-out periods (compressing the build-out period by 25-35% and extending the build-out period by 25-35%),
   - Occupancy rates (plus or minus 10-20% of projected occupancy rates)
   - Infrastructure costs (plus or minus 15-20% of projected infrastructure costs)

7. **Responsibility for Completing and Paying for the Analysis**: The Applicant shall be responsible for all costs associated with the Cost-Benefit analysis.

   In the event the applicant has questions on any aspect of the foregoing Policies, they should be directed to the City of Prescott Finance Director.

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

2-1-8 UTILITIES DIVISION; PROVISION OF WATER TO AREAS OUTSIDE OF THE CITY LIMITS; RULES AND REGULATIONS:

(A) Water Service: Water will be furnished to users subject to rules and regulations adopted by the City Council. Those rules and regulations, including the City Code and City of Prescott Water Management Policy, are made a part of every permit, application, license, contract, or other agreement entered into with the City.

(B) Return of Water: 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.

(C) Water Outside the City Limits:

1. New water connections may only be made outside of the City limits as follows:

   (a) Pursuant to an intergovernmental agreement with the federal government or any federal department or agency, Indian tribes, the state of Arizona, any other state, all departments, agencies, boards and commissions of this state or any other state, counties, school districts, fire districts, cities, towns, and municipal corporation. The City will not enter any intergovernmental agreement for water service outside City limits with water improvement districts or other specially created districts; or

   (b) One single-family residential dwelling unit on a single parcel of land that connects to a City water main and a City sewer main. All wells on the parcel requesting City water and sewer services shall be abandoned through Arizona Department of Water Resources.

2. Applicants for service outside the City of Prescott jurisdictional limits are responsible for the extension of all utility infrastructure necessary to serve their property, unless exempt by prior agreement with the City of Prescott.

(D) Pursuant to A.R.S. § 49-204, gray water reuse is prohibited for those properties receiving City sewer service. (Ord. 4856-1313, 5-28-2013; Ord. 2019-1696, 11-19-2019; Ord. 2020-1712, 4-28-2020; Ord. 2022-1787, 4-26-2022)

Attachment 9 Definitions

Acre Feet
The volume of water required to cover one acre to a depth of one foot and is equivalent to 43,560 cubic feet or 325,851 gallons.

Active Management Area (AMA)
A designated geographic area where groundwater management is required to ensure sustainable use of the groundwater resources.

Administrative Approval
The review and approval of an application or request by City staff that the request is in conformance with City Codes and policies.

Allocated
An amount of water from the City's water portfolio that is contractually obligated to a specific development project.

Arizona Department of Water Resources (ADWR)
Arizona State agency which administers all state water laws, except those related to water quality.

City Council or Council
The City of Prescott Mayor and Council members.

Civil Engineer
A professional registrant licensed in the State of Arizona that plans, designs, constructs, maintains, and operates infrastructure while protecting the public and environmental health, as well as improving existing infrastructure that may have been neglected.

Conservation Incentive Program
A program developed by the City to encourage residents and businesses to conserve water by providing a monetary incentive for the purchase and installation of devices to retrofit plumbing fixtures with high rates of flow, and to limit outdoor water use for landscaping purposes, see Prescott City Code 3-10-8.

Contract
A written agreement, enforceable by law, requiring the mutual consent of two or more persons, one of them making an offer and another accepting. Examples of a "contract" under this policy shall include but not be limited to a historic agreement, development agreement, water service agreement or any other agreement which has specific language regarding the granting of water or providing water service by the City.

Cost Benefit Analysis
The process of comparing a project and its estimated cost, benefits or opportunities to determine whether the benefits make sense from a business perspective.

Designation of Assured Water Supply (DAWS)
A decision and order issued by the director of ADWR designating a municipal provider as having an assured water supply pursuant to statute and the assured water supply rules, which means, a water supply that meets all of the following criteria as defined in ADWR Rules.

Dwelling Unit
A structure used to provide living accommodations but does not include a hotel, motel, or other establishment where the units are used on a transient basis.

Single-Family Dwelling Unit – A free-standing residential building designed to be used as a single dwelling unit, with one owner, no shared walls, and its own land.

Multi-Family Dwelling Unit – Two or more dwelling units that are separated by a common wall, floor or ceiling within one building, with one owner.

Estimated Water
An amount of water usage calculated from the Water Resource Management Model (WRMM) based on similar uses within the model and used to project water usage for existing and similar uses.

Extinguishment Credits
Created when an existing grandfathered groundwater right is extinguished pursuant to a process established by the Department of Water Resources in administrative rule. The credit reflects an amount of groundwater that may be withdrawn and pledged to a certificate or designation of assured water supply.

Non-Residential Uses
A use other than a residential use and that has a zoning designation that is not intended for residential land use. Non-residential uses include, but are not limited to, land zoned for commercial or industrial uses.

Performance Criteria
Carrying out and meeting the primary material requirements of the contract.

Plat
A preliminary plat, final plat, revision of plat as defined by the City Land Development Code.

Residential Uses
Uses related to the activities of a single-family or multi-family housing unit or units.

Wastewater Infrastructure
A network of pipes, pumping stations and appurtenances that convey sewage from its points of origin to a point of treatment and disposal.

Water Budget
An amount of water set aside semi-annually from the City's Water Portfolio for new development projects, which do not have an existing Contract, to be served by City water.

Water Reclamation Facility
The portion of the City's Wastewater Sewer System designed to provide treatment of municipal sewage and industrial waste.

Water Demand Analysis
A study of the volume of water required by a user to satisfy their water needs.

Water Issues Subcommittee
The City of Prescott Water Issues Subcommittee, which assists in developing policies regarding water issues facing the City and serves in an advisory capacity to the entire City Council

Water Portfolio
A collection of water resource legal acquired water supplies owned by the City, and included in the City's Decision and Order.

Water Service Agreement (WSA) Application
A form to be completed by a property owner, developer or contractor requesting approval of water service from the City, which would result in a reservation of water from the City's water portfolio for that use for 100 years.

Water Service Area
The area of land being served water, for a non-irrigation use, by the City.

Water Use Estimate
An estimation of proposed water use based on a demand analysis, the WRMM or a similar/like facility.