



COUNCIL SUBCOMMITTEE ON WATER ISSUES MEETING

REGULAR SUBCOMMITTEE MEETING AGENDA

TUESDAY, APRIL 5, 2022, 9:30 AM

201 S Cortez Street
Prescott, AZ 86303
Council Chambers

Mayor Pro Tem Rusing - Chairperson
Councilman Montoya - Member Councilman Sischka - Member

The following Agenda will be considered by the Prescott Council Subcommittee on Water Issues at Regular Subcommittee Meeting pursuant to the Prescott City Charter, Article II, Section 13. Notice of the meeting is given pursuant to Arizona Revised Statutes, Section 38-431.02. One or more members of the Council may be attending the meeting through the use of a technological device.

Viewing & Participation

This meeting may be viewed on Channel 64, Facebook Live or on the City's Website: [Live City of Prescott Videos](#)

Or via Zoom by registering in advance: [Zoom Registration Link](#)

Comments from the public may be submitted through the City website: [Public Comment Form](#)

1. CALL TO ORDER

2. ROLL CALL

3. PUBLIC COMMENT

Public comment will be accepted following each agenda item and are limited to three (3) minutes. Please complete a comment card and return it to the City Clerk, speakers will be called in the order received.

4. DISCUSSION & ACTION ITEMS

A. Approval of the March 1, 2022 Meeting Minutes.

Recommended Action: MOVE to approve the March 1, 2022 minutes as presented

B. Water Service Application No. WSA21-024, Submitted by Cactus Mobile Ranch Home

Community Association, LLC, Prescott, Location: APN 114-06-104H, Comprising 6.37 Acres, in Township 14 North, Range 02 West, Section 34, SE¼, NE¼, SE¼.

Recommended Action: MOVE to recommend forwarding WSA21-024 to Council for approval or denial

- C. Approval of Annual Payment to the Arizona Department of Water Resources (ADWR) for 2021 Withdrawal and Use Fee of \$9,198.48.

Recommended Action: MOVE to approve payment to ADWR in the amount of \$9,198.48.

- D. Infrastructure Topic - Static Water Level Measurements at City Water Production Wells

Recommended Action: This item is for discussion only. No formal action will be taken.

- E. Discussion Regarding the Second Draft of the 2022 Water Management Policy.

Recommended Action: This item is for discussion only. No formal action will be taken.

5. GENERAL ANNOUNCEMENTS FROM STAFF

6. ADJOURNMENT

EXECUTIVE SESSION

Upon a public majority vote of a quorum of the City Council, the Council 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)).

THE CITY OF PRESCOTT ENDEAVORS TO MAKE ALL PUBLIC MEETINGS ACCESSIBLE TO PERSONS WITH DISABILITIES. With 72 hours advanced notice, special assistance can be provided for sight and/or hearing-impaired persons at this meeting. Reasonable accommodations will be made upon request for persons with disabilities or non-English speaking residents. Please call the City Clerk (928) 777-1272 to request an accommodation to participate in this public meeting. Prescott TDD number is (928) 445-6811. Additionally, free public relay service is available from Arizona Relay Service at 1-800-367-8939 and more information at www.azrelay.org

Confidentiality

Arizona statute precludes any person receiving executive session information from disclosing that information except as allowed by law. A.R.S. §38-431.03(F). Each violation of this statute is subject to a civil penalty not to exceed \$500, plus

court costs and attorneys' fees. This penalty is assessed against the person who violates this statute or who knowingly aids, agrees to aid or attempts to aid another person in violating this article. The city is precluded from expending any public monies to employ or retain legal counsel to provide legal services or representation to the public body or any of its officers in any legal action commenced for violation of the statute unless City Council takes a legal action at a properly noticed open meeting to approve of such expenditures prior to incurring any such obligation or indebtedness. A.R.S. §38-431.07(A)(B).

CERTIFICATION OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Prescott City Hall on _____ at _____ m. in accordance with the statement filed by the Prescott City Council with the City Clerk



Sarah M. Siep, City Clerk

**COUNCIL AGENDA MEMO**

MEETING TYPE/DATE: **REGULAR SUBCOMMITTEE MEETING** **04- 5-22**

DEPARTMENT: **City Clerk**

AGENDA ITEM: Approval of the March 1, 2022 Meeting Minutes.

ITEM SUMMARY

Attached for approval are the Council Subcommittee on Water Issues minutes for the March 1, 2022 meeting.

BACKGROUND

None.

FINANCIAL IMPACT

None.

Recommended Action: MOVE to approve the March 1, 2022 minutes as presented

ATTACHMENTS

1. [March 1, 2022 Water Issues Subcommittee Minutes.docx](#)



COUNCIL SUBCOMMITTEE ON WATER ISSUES MEETING

REGULAR SUBCOMMITTEE MEETING MINUTES

TUESDAY, MARCH 1, 2022, 9:30 a.m.

201 S Cortez Street
Prescott, AZ 86303
Council Chambers

Cathey Rusing, Mayor Pro Tem - Chairperson
Brandon Montoya, Councilman – Member Steve Sischka, Councilman - Member

MINUTES OF THE REGULAR SUBCOMMITTEE MEETING OF THE PRESCOTT COUNCIL SUBCOMMITTEE ON WATER ISSUES HELD ON MARCH 1, 2022 IN THE 201 S CORTEZ STREET PRESCOTT, AZ 86303 COUNCIL CHAMBERS.

1. CALL TO ORDER

Chairperson Rusing called the meeting to order at 9:32 a.m.

2. ROLL CALL

Cathey Rusing	Chairperson
Brandon Montoya	Member
Steve Sischka	Member

3. PUBLIC COMMENT

Public comment will be accepted following each agenda item and are limited to three (3) minutes. Please complete a comment card and return it to the City Clerk, speakers will be called in the order received.

4. DISCUSSION & ACTION ITEMS

A. Approval of the February 1, 2022, Subcommittee on Water Issues Meeting Minutes

MOTION BY MEMBER SISCHKA TO APPROVE THE FEBRUARY 1, 2022 MEETING MINUTES; SECONDED BY MEMBER MONTOYA: PASSED [3 – 0].

- B. Water Service Application No. WSA21-017, Submitted by Chamberlain Development Prescott LLC on Behalf of Property Owner JCI Investments LLC. Location: APN 106-04-001N, South Half and APN 106-04-001L, North Half, Together Comprising Approximately 322 Acres; Property is in the North ½ of Section 4, Township 14N, R02W, GSRB&M.

Deputy Public Works Director Gwen Rowitsch provided a presentation to the Subcommittee regarding WSA21-017, an application for the Hidden Hills Subdivision that came before the Subcommittee in August of 2021. This application went to the Planning & Zoning Commission on February 24, 2022, with a recommendation of approval. Under the procedural pre-annexation agreement for Deep Well Ranch (DWR), the developer can build up to 10,500 dwelling units. With the additional twenty (20) requested, they will be at 738 dwelling units. The original water demand was 25.67 acre-feet (AF) per year; the addition of twenty (20) lots will add 3.40 AF per year for a total water estimated use of 29.07 AF per year.

Chair Rusing asked for the reason for the amendment.

Applicant Vic Chapman explained that approximately 200,000 yards of excessive dirt were used to fill that area and create a new cul-de-sac with some additional lots rather than export the dirt.

Chair Rusing asked for confirmation of a wash in that area and added that stormwater runoff is a big issue when building a new subdivision. She asked if there were any plans for engineering the runoff.

Mr. Chapman responded yes; it has been completely engineered.

Chair Rusing asked Ms. Rowitsch about the easement going through the proposed development area.

Planning Manager George Worley responded that it is a high-tension power line easement.

Member Montoya asked for confirmation that this is an increase of 3.4 AF of water.

Member Sischka asked if the additional water allocation comes from the total for Deep Well Ranch and if it has already been contracted.

Ms. Rowitsch confirmed that it is under the pre-annexation agreement for Deep Well Ranch.

Chair Rusing inquired about the installation of rainwater harvesting systems.

Ms. Rowitsch responded not to her knowledge and that there is no code requirement for rainwater harvesting systems.

MOTION BY MEMBER SISCHKA TO FORWARD ITEM 4.B. TO COUNCIL FOR APPROVAL; SECONDED BY MEMBER MONTOYA: PASSED [3 – 0].

- C. Focus Topic – 2022 Draft Water Management Policy: Policy 11-14 “Water Budget”

Water Resource Project Manager Leslie Graser provided an overview of policies 11-14 of the 2022 Draft Water Management Policy and a review of the past policy to allow the Subcommittee to see how it has changed over time.

Member Montoya asked if this discussion is regarding residential, commercial, or both.

Ms. Graser responded both.

Water Policy History:

- 1999 Prescott Active Management Area (AMA) is out of safe yield
- 1999 city's first Decision and Order (D&O)
- City adopts its first water policy for 1999-2004
 - o Of the 1,085 AF of renewable supplies, the city makes 1,000 AF available for new residential growth.
 - o The volume of supply budgeted each year was as follows:
 - 1999, total allocation of 420; SFR 380, MFR 40
 - 2000, total allocation of 540; SFR 80, MFR 40
 - 2001, total allocation of 660; SFR 80, MFR 40
 - 2002, total allocation of 780; SFR 80, MFR 40
 - 2003, total allocation of 900; SFR 80, MFR 40
 - 2004, total allocation of 1000; SFR 80, MFR 40
 - o Allocation was 0.36 AF/year/unit and included "support services." Revised to 0.35, then again to 0.35 for single-family residential (SFR) and 0.25 for multi-family residential (MFR).
 - o The city worked under the assumption that only residential subdivisions needed to have an assured water supply. Commercial subdivisions were not considered.
- 2005 city's second D&O
 - o The city starts bringing in its surface water supply from the Chino Valley Irrigation District (CVID) IGA
 - o Still not using Prescott AMA groundwater
- City adopts second water policy for 2005-2010
 - o The city determines from its contract accounting that 1,775 AF is available for budgeting (carry over, unused and new supplies).
 - o The volume of supply budgeted each year was as follows:
 - 2005, total allocation of 131; Market 105 and Workforce/Affordable 26
 - 2006, total allocation of 200; Market 160 and Workforce/Affordable 40
 - 2007, total allocation of 200; Market 160 and Workforce/Affordable 40
 - 2008, total allocation of 200; Market 160 and Workforce/Affordable 40
 - 2009, total allocation of 200; Market 160 and Workforce/Affordable 40
 - 2010, total allocation of 200; Market 160 and Workforce/Affordable 40
 - Total for all years, 1,131; Market 905, and Workforce/Affordable 226
 - Allocation was 0.35 for SFR, 0.25 for MFR, both including a factor for support services.
 - CVID was allocated at 0.25 AF/acre.

Member Montoya asked if the numbers represent water that was allocated or used each year.

Ms. Graser responded the amounts represent what was available to allocate.

Member Sischka commented that it needs to be understood that at that time it was being allocated at 0.35, twice the amount of what is allocated now.

Public Works Director Craig Dotseth added that the chart shown depicts that not all water allocated was used.

- 2009 city's third D&O
 - The city is working to bring the Big Chino water supply into the water portfolio
 - The city is still watching the Alternative Water Supply
 - Long term storage account growing
 - City working to recharge and recover water supplies
 - Realized there was a significant imbalance between water sent out and water returned
- The city maintains the 2005-2010 water policy with amendments for 2011-2015
 - The city is budgeting year to year
 - The volume of supply budgeted each year as follows
 - 2011, total allocation of 200; Market 160 and Workforce/Affordable 40
 - 2012, total allocation of 200; Market 160 and Workforce/Affordable 40
 - 2013, total allocation of 200; Market 160 and Workforce/Affordable 40
 - 2014, total allocation of 200; Market 160 and Workforce/Affordable 40
 - 2015, total allocation of 100; Market 80 and Workforce/Affordable 20
 - Total for all years, 900; Market 720, and Workforce/Affordable 180
 - Allocation was 0.35 for SFR, 0.25 for MFR, both including a factor for support services
 - CVID was allocated at 0.25 AF/acre

Member Montoya asked if the home building was slow during this period due to the water budget being constrictive and if the water budget was applied to commercial.

Ms. Graser responded it helped to determine ratios necessary for a healthy community, and she is not sure that the budget applied to commercial at that time.

Member Sischka stated that the city was under an allocation situation during the first three years of his appointment to Council. When people ran up against an allocation, they were the first in line for the next allocation; he felt the city was picking winners and losers. While development was not necessarily discouraged, it was managed. The city got away from allocation because it did not seem effective; 0.1 per each 0.35 allocated was unnecessary for commercial because there was not enough commercial business coming in.

- City adopts 2016 water policy
 - City begins development of the long-term water management model (WRMM) with GIS interface

- o City identifies all Council actions from past years with their supplies, has account balances
- o General pool balance was 479 AF, set-asides were made for Bullwhacker and ERAU (Embry Riddle), leaving a balance of 324 AF
- o Water was set aside in 2016 as follows
 - Market, 125 AF
 - Workforce/MF/ Duplex/Apartments, 100 AF
 - Commercial, 99 AF
- o Reservation balances in AF
 - CVID, 5,019
 - Vacant residential in city limits, 431.7
 - Pre-existing/historic, 45.2
 - Deep Well Ranch, 1,821 with 900 tied to the Big Chino Water Ranch importation
- o Allocation was 0.35 for SFR, 0.25 for MFR, both including a factor for support services
- o CVID was allocated at 0.25 AF/acre

Chair Rusing asked if water was used from the workforce allocation.

Ms. Graser responded very little, and she is not sure of the actual amount.

Member Sischka commented that workforce housing was a moot point since it was not limited to those in the workforce.

- Tracking of the Big Chino supplies
 - o In the 2009 D&O, a total allocation of 8,067.4 AF was approved
 - o Council decided to budget 0
 - o IGA with the Town of Prescott Valley formed for 3,702.9 AF of the water
 - o 900 AF reserved for the Deep Well third increment
 - o 200 AF reserved for vacant residential (Touchmark is an example)
 - o The remaining volume less total committed and contracted of 4,802.9 AF was 3,264.5 AF

Current Water Policy:

- City adopts 2019 water policy
 - o The city combines groundwater and alternative water volumes (in 2018, then formally in the 2019 policy)
 - o The city determines that it has 9,807 AF available for budgeting
 - o No set volumes are made available for each year
 - o Water requests within city limits under 2 AF are administratively approved
 - o Water requests within city limits for more than 2 AF are required to contact the city Community Development Department for instructions on how to proceed
 - o Any water requests outside city limits are directed to contact city Water Resources staff. If there is an existing contract, follow city limits policy

- o Water will be provided, but no specific amount will be allocated to any project through a separate contract.
- o 2020-2021 Administrative approvals and Water Service Agreements based on the 2019 policy based on data from Central Square and independent spreadsheets
 - 2020 total Administrative Approvals – 8.22 AF/year
 - 2021 total Administrative Approvals – 23.20
 - 2020 Council approved water service agreements – 136.01 AF/year
 - 2021 Council approved water service agreements – 217 AF/year
 - ❖ does not include AED, DWR, Stringfield Ranch, and other contracts

Member Montoya stated that it is a little muddy to say Council approved 136 AF/year because some contracts were already approved. He asked if the development of Deep Well Ranch was approved based on reserves from the Big Chino.

Ms. Graser responded that the reserve was kept separate and that the development of Deep Well Ranch was not based on Big Chino reserves.

Chair Rusing commented that the 900 AF Member Montoya addressed was reserved for future growth per the original Deep Well Ranch agreement. She added that the decision went from Executive Session to Voting Session quickly and raised many questions.

Member Sischka asked if all of the water for Deep Well is in the WRMM.

Ms. Graser responded that staff did their best to load the 10,500 homes approved for Deep Well Ranch into the WRMM and that a commitment made in a contract needs to be honored; that is why 10,500 was moved into the WRMM even though it doesn't fit on the landmass.

Chair Rusing asked what the acronym PSI means.

Ms. Graser responded pounds per square inch. Deep Well Ranch wanted four (4) turnouts and made the units per PSI.

Mr. Dotseth commented that three limitations go with the water for Deep Well Ranch; the rooftops, the acre-feet, and the maps that include the land associated with the development. All of this is tracked, and then staff will identify how many rooftops and how much water will be used.

Member Sischka stated that his water usage is probably closer to 0.10 and asked if, as time goes on and staff averages current use, the average use of 0.17 will decrease.

Mr. Dotseth responded yes, as time goes by and older homes update to modern standards, the city-wide average use can reduce.

Ms. Rusing asked if Deep Well Ranch could transfer unused water to undeveloped adjacent land.

Ms. Graser responded that she hasn't read anything that states that unused water can be transferred. However, she feels this is a legal question.

Interim City Attorney Matt Podracky said he is unaware of that requirement, but he will look into it.

Proposed Draft Policy & Future Water Availability:

- 2022 draft volume estimate for proposed allocation
 - o Still working with groundwater and alternative water for a total of 16,507 AF/year
 - o The unapproved 2021 D&O modification is being used as a total demand estimate (14, 529 AF/year) for a certain land area
 - o Leaves approximately 1,978 AF for budgeting
- WRMM – D&O version
 - o Was built to look into the future
 - o Need to know different components
 - o Staff built it out to the general plan area

Chair Rusing asked if the WRMM only calculates usage in city limits.

Ms. Graser responded that it covers the water service area.

Member Montoya asked if an IGA was recently approved to allow the WRMM for Chino Valley.

Ms. Graser responded yes; it was an asset sharing agreement.

- What needs to be considered into the future
 - o Areas within the General Plan, but not yet identified in the WRMM for supplies (current, committed, or projected)
 - o Areas within the city that don't have water supplies assigned to them in the WRMM
 - o Areas within the city that are upsizing or infilling to meet added community needs
 - o Areas within the city serviced by private water companies or where water is hauled
 - o Areas within the city's service area but outside of the General Plan or current city limits
 - o Wells outside of city limits, who does the city plan to serve in the future

Chair Rusing asked about Glassford Hill and how much water will be saved by using it as open space and not building homes.

Ms. Graser responded that it depends on what type of park goes in, for example, natural vs. a park with turf.

Member Sischka asked for confirmation that each colored dot on the map shown is in the WRMM.

Ms. Graser confirmed.

Member Montoya asked if Granite Dells Estates are already allocated water for expansion through their development agreement.

Ms. Graser answered that amendments have moved the water volume to the west.

Member Montoya asked Ms. Graser to identify the more populated well areas on the map shown.

Ms. Graser pointed out the Williamson Valley corridor and Paquito Valley.

Ms. Rusing stated that due to the potential of wildfires the Bradshaw and National Forest well areas should be prioritized for city fire hydrants.

Member Montoya asked if there is any information available regarding the state of the exempt wells.

Ms. Graser responded that the State keeps track and that South Chino has started having some difficulties.

Ms. Rusing commented that she is a member of the Citizen's Water Advocacy Group (CWAG), which supports the water budget for both residential and commercial. CWAG believes a budget allows for planning and lets future businesses know that the city has planned for and manages water. She asked members Montoya and Sischka for their thoughts on establishing a water budget for residential and commercial.

Member Montoya responded that there is a valuable capacity for planning, and his concern is the sorting water service applications with commitments from the others. He has heard comments that there should not be a water budget due to so many outstanding commitments. Encourages sending today's presentation on to Council.

Member Sischka stated he has no problem with a water budget, but it needs to be done correctly. When there was a low water budget in the past, the public thought the city was running out of water; public communication needs to be improved. He added that the budget should be based on rationality rather than emotions.

Member Montoya added that meetings and postings are not enough to inform the public; social media, town halls, and public presentations are important as well.

Member Rusing stated that the elected public officials also need to be educated. She asked how many administratively approved projects to expect in the future, adding that she is surprised that 25 were administratively approved during COVID. She stated that the Yavapai Indian Tribe will have water needs for industrial use and that COVID includes industrial use.

Member of the public Howard Mechanic addressed the Subcommittee stating that workforce housing was never a result of water allocation. Property values are high, so there needs to be a discussion if the city is interested in workforce housing. He requested that the city discuss the Big Chino project, which has not been one in ten years, and asked if the city assumes the water rights when it takes over private water companies.

This item was for discussion only. No formal action was taken.

5. General Announcements from Staff

Ms. Graser announced the following:

- Upcoming SciTech Fest occurring this year will be held virtually. The city has provided water and wastewater videos for this and a video tour of facilities hosted by former Mayor Mengarelli and Craig Dotseth. In addition, the city has provided kits with water bottles, filters, and dye tablets to check for toilet leaks.
- Water Awareness month is April and the city will have a display at the library with a focus is on rainwater harvesting projects.

6. ADJOURNMENT

There being no further business to discuss, Chairperson Rusing adjourned the meeting at 11:32 a.m.

Cathey Rusing, Chairperson

ATTEST:

Jennifer Wiita, Deputy City Clerk

CERTIFICATION

I hereby certify that the foregoing minutes are a true and correct copy of the minutes of the Regular Subcommittee Meeting of the Council Subcommittee on Water Issues of the City of Prescott, Arizona held on March 1, 2022. I further certify the meeting was duly called and held and that a quorum was present.

Dated this _____ day of _____, 2022.

AFFIX
CITY
SEAL

Jennifer Wiita, Deputy City Clerk



COUNCIL AGENDA MEMO

MEETING TYPE/DATE: **REGULAR SUBCOMMITTEE MEETING** **04- 5-22**

DEPARTMENT: **Public Works**

AGENDA ITEM: Water Service Application No. WSA21-024, Submitted by Cactus Mobile Ranch Home Community Association, LLC, Prescott, Location: APN 114-06-104H, Comprising 6.37 Acres, in Township 14 North, Range 02 West, Section 34, SE¼, NE¼, SE¼.

ITEM SUMMARY

Water Service Application No. WSA21-024 was submitted on May 12, 2021. Applicant is seeking potable water to serve Cactus Mobile Ranch, a 52-unit mobile home community.

BACKGROUND

City of Prescott Water Management Policy, adopted November 19, 2019, includes a water connection policy. Projects within city limits requiring more than two (2) acre-feet per year of potable water are to be reviewed by the Subcommittee on Water Issues prior to submission to City Council.

The Planning and Zoning Commission, at its meeting held February 24, 2022, voted to forward the annexation request to City Council. The first vote, ANX21-004, rezoned County R1-35, the equivalent to SF-35 in the City's Land Development Code. The second vote, REZ21-009, rezoned the property from SF-35 to multifamily high density, MF-H. Both votes were passed 4-0.

Cactus Mobile Ranch was constructed in 1968. A single-family residence, dated 1943, currently accommodates the manager and a small office.

Cactus Mobile Ranch filed ENG Permit No. 1707-002 on September 18, 2017, for sewer service. They have been on the City's sewer system since December 1, 2017.

There are two wells on the property, ADWR Well Registry Numbers 55-632162 and 55-559051. Both wells will be abandoned when the mobile home community receives city water. For abandoning the two wells, the City will receive water credit for 52 service connections, plus one laundry connection, at ½ acre-foot per connection: $53 \times 0.5 = 26.5$ acre-feet. (Attachment E)

Cactus Mobile Ranch has had to supplement its demand with potable water deliveries, in addition to the production from the two wells.

A water demand analysis submitted by Murray E. Sharkey, P.E., on December 8, 2021, estimates a potable demand of 6.04 acre-feet per year based on 5,400 gallons per day usage. However, based on the demand of 0.12 for 52 units plus a laundry, the estimate is **6.36 acre-feet per year**.

Pre-Application Conference: June 24, 2021

Application Received: December 8, 2021

Presented to Planning & Zoning: February 24, 2022

Submitted All Documents: March 11, 2022

Present to Water Issues Subcommittee: April 5, 2022

Present to City Council: April 26, 2022

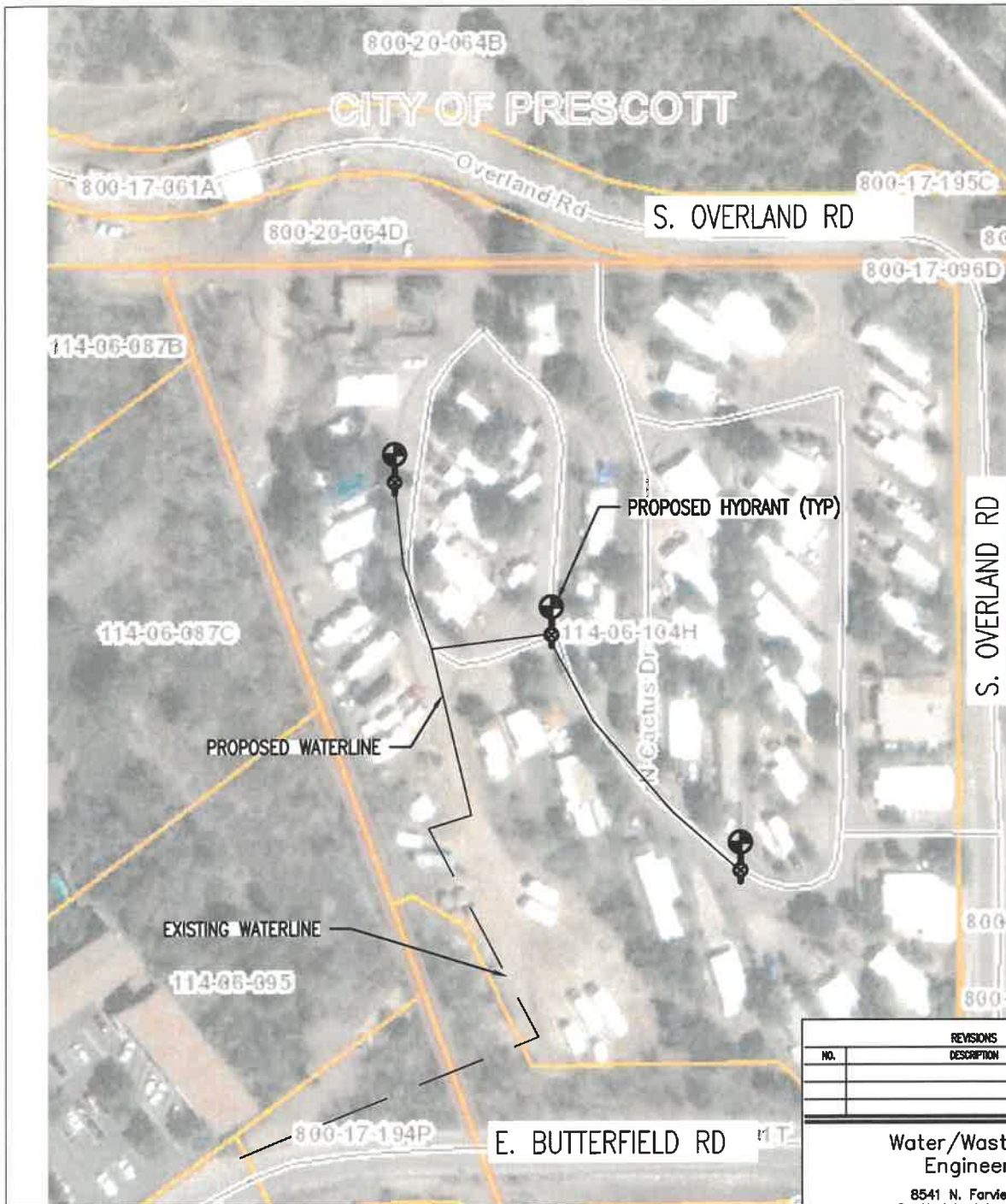
FINANCIAL IMPACT

N/A.

Recommended Action: MOVE to recommend forwarding WSA21-024 to Council for approval or denial

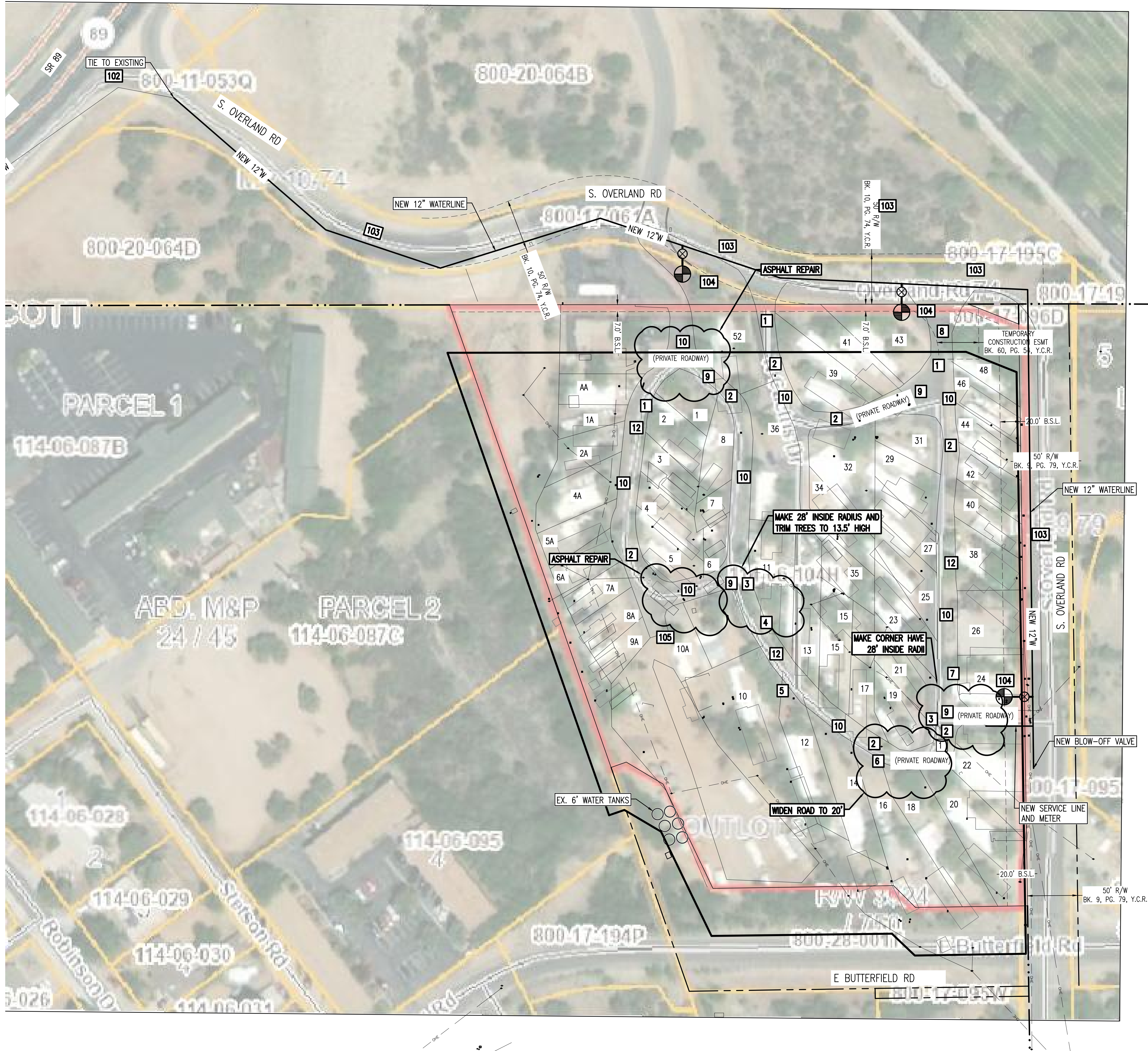
ATTACHMENTS

1. [Site Plan with fire hydrants.pdf](#)
2. [Site Plan with water lines.pdf](#)
3. [Location_Map \(1\).pdf](#)
4. [ATTACH E 2009 D&O Formula 2.pdf](#)



REVISIONS		
NO.	DESCRIPTION	DATE

Water/Wastewater Engineering 8541 N. Farview Drive Scottsdale Arizona 85258 Ph: 602-614-3721	
WATER SYSTEM CACTUS RANCH MHP	
PRESCOTT, ARIZONA	
DATE:	DRAWN:
DESIGNED:	CHECKED:
FILENAME:	
FIGURE 1	
SHEET 1 OF 1 PROJECT NUMBER 638-1	



GENERAL NOTES:

- 1] MINIMUM HEIGHT CLEARANCE OVER ALL ROADWAYS IS 13'-6" (CLEARANCE ALSO APPLIES TO UTILITY WIRES AND LIMBS)
- 2] WHERE POSSIBLE, MINIMUM STREET WIDTH SHALL BE 20'
- 3] WIDEN ROADWAY CURVE TO ACHIEVE INSIDE RADIUS OF 28'
- 4] REMOVE TREES AT LOT 11 THAT OVERHANG THE ROADWAY
- 5] TRIM TREES AT 10 THAT DO NOT COMPLY WITH GENERAL NOTE 1 REQ.
- 6] EXPAND ROADWAY BETWEEN LOTS 18/19 TO MEET WITH GENERAL NOTE 2 REQ.
- 7] CUT BACK GRADING AT LOT 24 TO MEET WITH GENERAL NOTE 2 REQ.
- 8] WIDEN ROADWAY BETWEEN LOT 43 AND 48 TO MEET WITH GENERAL NOTE 2 REQ.
- 9] POST NO PARKING SIGNS ON ALL STREET
- 10] REPAIR ALL PAVEMENT WHERE THERE IS EXISTING ASPHALT EROSION
- 11] EXISTING SOIL CONDITIONS SHALL BE ABLE TO SUPPORT A 72,000 LB FIRE TRUCK (STUDY PROVIDED SEPERATLY)
- 12] FINAL DESIGN TO BE DETERMINED AFTER ANNEXATION AND HYDRANT LOCATIONS AS REQUIRED BY FIRE INSPECTOR.

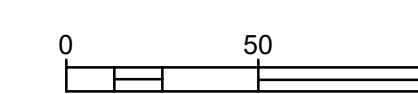
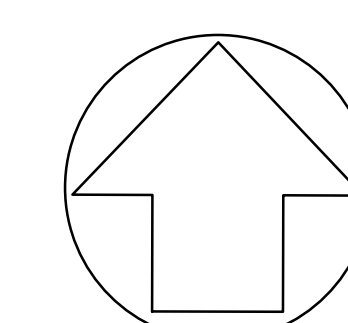
WATER NOTES:

- 101] THE WATER LINE IS PRELIMINARY AND IS SUBJECT TO COMMENTS FROM THE FIRE INSPECTOR AND THE CITY ENGINEERING DEPARTMENT
- 102] TIE IN TO EXISTING LINE NEAR SR 89/OVERLAND RD INTERSECTION
- 103] THE NEW MAIN WILL BE RUN IN THE EXISTING ROAD. RUN NEW 12" MAIN SUBJECT TO FINAL DESIGN
- 104] RUN THE NEW MAIN TO SERVE THE FIRE HYDRANTS TO BE LOCATED BY THE FIRE INSPECTOR. BOLLARDS REQUIRED AROUND FIRE HYDRANTS

ADDITIONAL NOTES:

- I. TREES TO BE CLEARED IN FIRE ACCESS ROADS TO 13.5' HIGH
- II. BOLLARDS REQUIRED AROUND FIRE HYDRANT PER CITY OF PRESCOTT GENERAL ENGINEERING STANDARDS
- III. ALL FIRE DEPARTMENT NOTED ITEMS TO BE ADDRESSED AND FUNDED BY THE APPLICANT AS A CONDITION OF THIS PROPERTY BEING ANNEXED INTO THE CITY LIMITS. ALL WORK TO BE COMPLETED WITHIN 1 YEAR OF ANNEX APPROVAL

NOT FOR
CONSTRUCTION

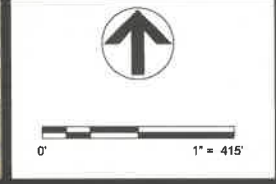


REVISIONS		
NO.	DESCRIPTION	DATE
Water/Wastewater Engineering		
8311 E. Via De Ventura #1005 Scottsdale Arizona 85258 Ph: 602-614-3721		
FIRE INSPECTOR RESPONSES CACTUS RANCH MHP		
PRESCOTT, ARIZONA		
DATE:	DRAWN:	
DESIGNED:	CHECKED:	
FILENAME:		
FIGURE 1		
SHEET 1 OF 1		
PROJECT NUMBER		
19004		



**Cactus Ranch Mobile Home Park
Annexation
202 N Cactus Dr**

This map is a product of
The City of Prescott



Attachment E

Formula 1:

The groundwater allowance will increase following the recording of a final plat for each of the subdivisions listed in Attachment B, so long as the conditions of this Decision and Order are met. The groundwater allowance will increase in accordance with the following formula:

The number of lots in the subdivision x 2.15 (average dwelling occupancy) x 150 gallons per capita per day x 365 days x 100

Divide product by 325,851 gallons/acre-foot to convert to acre-feet.

Formula 2:

The groundwater allowance will increase if Prescott replaces any residential groundwater use, including any non-residential use associated with the residential use, in existence on August 21, 1998, with permanent groundwater service by Prescott. The groundwater allowance will increase in accordance with the following formula:

0.5 acre-foot x the number of housing units receiving replacement water service x 100

**COUNCIL AGENDA MEMO**

MEETING TYPE/DATE: **REGULAR SUBCOMMITTEE MEETING** **04- 5-22**

DEPARTMENT: **Public Works**

AGENDA ITEM: Approval of Annual Payment to the Arizona Department of Water Resources (ADWR) for 2021 Withdrawal and Use Fee of \$9,198.48.

ITEM SUMMARY

Several reports for Calendar Year 2021 are required to be submitted to the Arizona Department of Water Resources (ADWR). These include the Annual Withdrawal and Use Report, plus supporting documents such as Recovery Well Reports, Underground Water Storage Report, Conservation Efforts Report, and Water Quality Lab Results.

BACKGROUND

Water users who pump groundwater from non-exempt wells in an Active Management Area (AMA) must report withdrawals annually to ADWR. This information enables the agency to determine how much and where water is being used. Users are also required to pay annual fees for groundwater withdrawal and recovery of long-term storage credits. The fees are used to offset the cost of managing these resources, and to fund augmentation projects and conservation efforts. The 2021 fees payable by the City of Prescott are \$9,198.48.

FINANCIAL IMPACT

Funding is available for payment in the amount of \$9,198.48 from the Water Fund.

Recommended Action: MOVE to approve payment to ADWR in the amount of \$9,198.48.

ATTACHMENTS

1. [2021 Annual Water Withdrawal and Use Report Summary.pdf](#)



2021 ANNUAL WATER WITHDRAWAL AND USE REPORT SUMMARY

In accordance with the State of Arizona Groundwater Code, the Director of the Department of Water Resources is required to levy and collect an annual groundwater withdrawal fee from each municipality that owns the right to withdraw groundwater within the Prescott Active Management Area.

THE 2021 CITY OF PRESCOTT WATER USE IS SUMMARIZED BELOW

1 acre-foot (AF) = 325,851 gallons

TOTAL WATER PUMPED TO SUPPLY CUSTOMERS	Water to serve City customers is pumped from eight (8) wells. Five (5) are in Chino Valley, and three (3) are near the Prescott Airport. Pumped supplies are in accordance with the City's service area right No. 56-003017, established in the early 1980s.
---	--

7,305 AF

TOTAL WATER USE BY CUSTOMERS	Water is provided to homes and businesses both inside and outside the city limits. The largest category of use is RESIDENTIAL comprising 66.5% of the volume consumed each year. The second largest is COMMERCIAL, using 17.8% of volume billed each year.
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6,730 AF

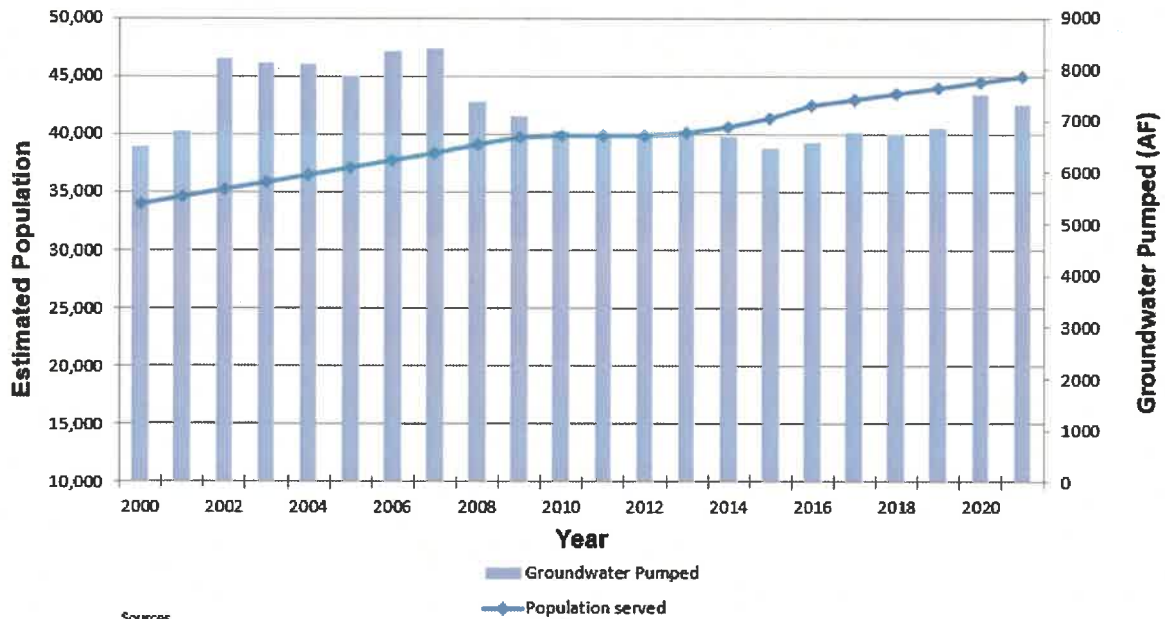
TOTAL WATER RECHARGED	Two types of water are recharged in accordance with the City's Recharge Facility, USF Permit No. 71-421123.0000. 1. Surface Water from Watson and Willow Lake Reservoirs, and 2. Reclaimed Water from customers connected to City wastewater collection and treatment facilities.
--------------------------------------	---

4,331.0 AF

TOTAL WATER RECOVERED FOR USE	The City recovers recharged supplies in accordance with Recovery Well Permit Nos. 74-561500 and 74-569302. In 2021, 1,569.38 AF of Surface Water and 1,136.23 AF of Reclaimed Supplies (effluent) were recovered. Reclaimed supplies not recovered in 2021 were placed into Long-Term Storage Account No. 70-421123.
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2,917 AF

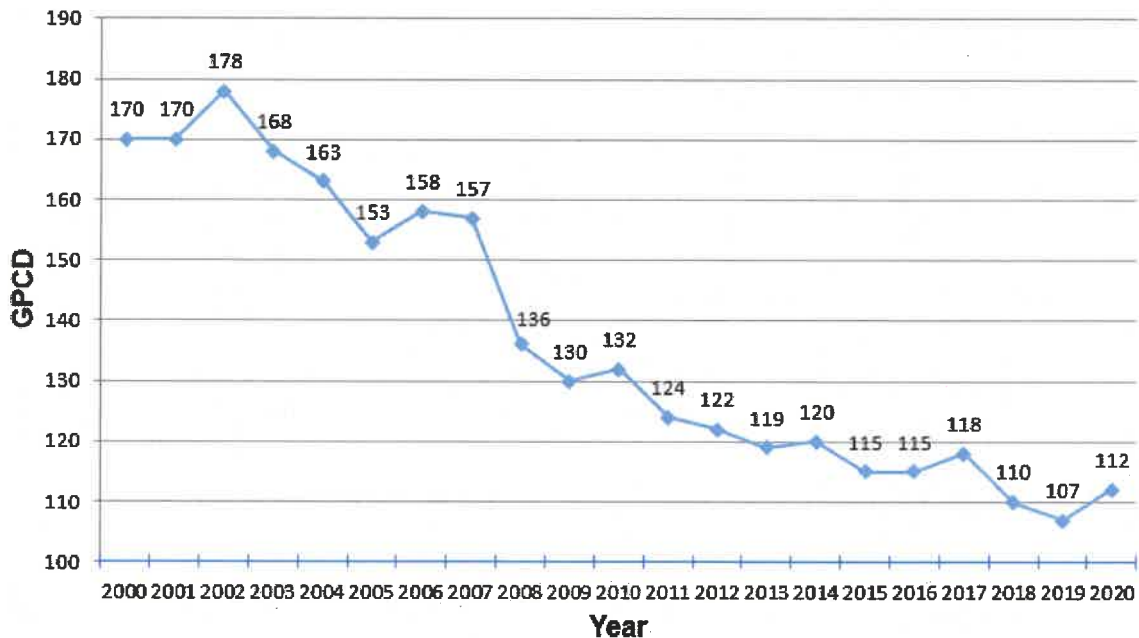
Groundwater Pumping and Population Served



Sources
 Total pumped: ADWR Annual Reports
 Estimated population: 2013 Water and Wastewater Models Report, Carollo Engineers, April 2014 and February 2020

This chart shows groundwater pumping from 2000 to 2021. Pumping has decreased while population has increased. Tiered water rates introduced through Ordinance in 2006, but not effective until July 2007, had an impact, as well as the Rebate Program and website water conservation messaging.

City of Prescott Gallons Per Capita per Day (GPCD)



Source: ADWR Annual Notification of GPCD

Following a relatively steady decline in Gallons Per Capita per Day from 2006 to 2019, ADWR determined an increase in GPCD for 2020 of 112. Results for 2021 won't be available until mid-2022.

**COUNCIL AGENDA MEMO**

MEETING TYPE/DATE: **REGULAR SUBCOMMITTEE MEETING** **04- 5-22**

DEPARTMENT: **Water Resources**

AGENDA ITEM: Infrastructure Topic - Static Water Level Measurements at City Water Production Wells

ITEM SUMMARY

Review of the static water level measurements taken by City staff at eight (8) production wells. Information is available from January 2007 to November 2021; see Attachment 1. Location maps are provided; see Attachment 2. An introduction of the Arizona Department of Water Resources' (ADWR) Statewide Groundwater Level Changes in Arizona Water Years, 2018 to 2019, 2009 to 2019, and 1999 to 2019, Open File Report No. 19 dated November 2021 will be provided.

Weblink: https://new.azwater.gov/sites/default/files/WLCR2019_Final.pdf

BACKGROUND

The previous Council Subcommittee for Water Issues requested information on water levels at City production wells. On March 2, 2021, the Subcommittee received an introductory presentation on static water levels and the locations of the two City wellfields in the Chino Valley and Airport areas. The last review of water levels was provided on September 7, 2021, showing data from January 2007 to July 2021.

Water levels are taken by City Water Operations staff and are reported as part of the City's Annual Water Withdrawal and Use Report to ADWR. Per the procedures used by the ADWR and other agencies such as the United States Geological Survey, a static water level is taken once a well's pump is halted for 8 hours or more. This is to allow the water level to return to a near "static" condition. Water levels can also be influenced by other nearby wells whose pumps may be in operation.

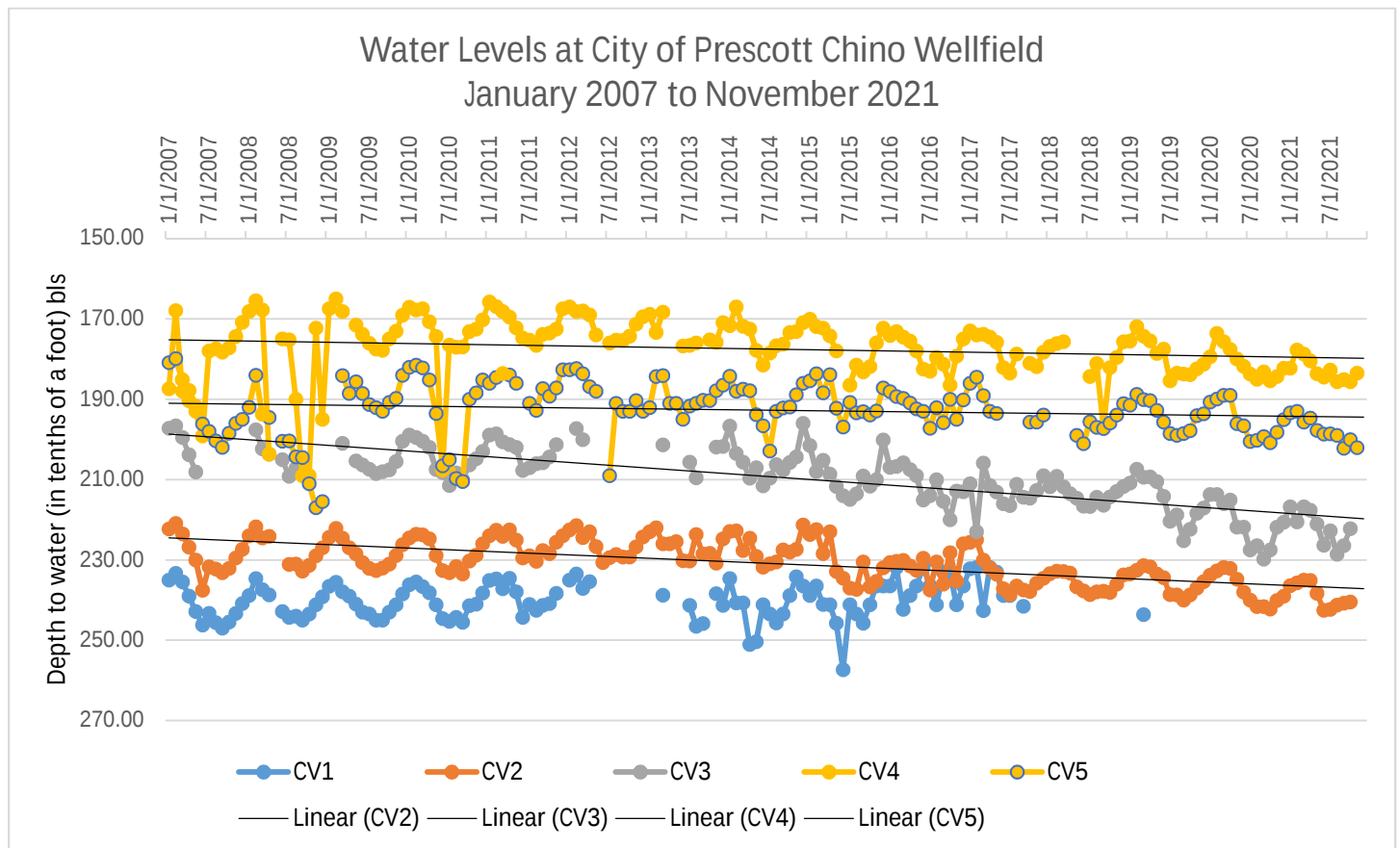
FINANCIAL IMPACT

No financial impact related to this item.

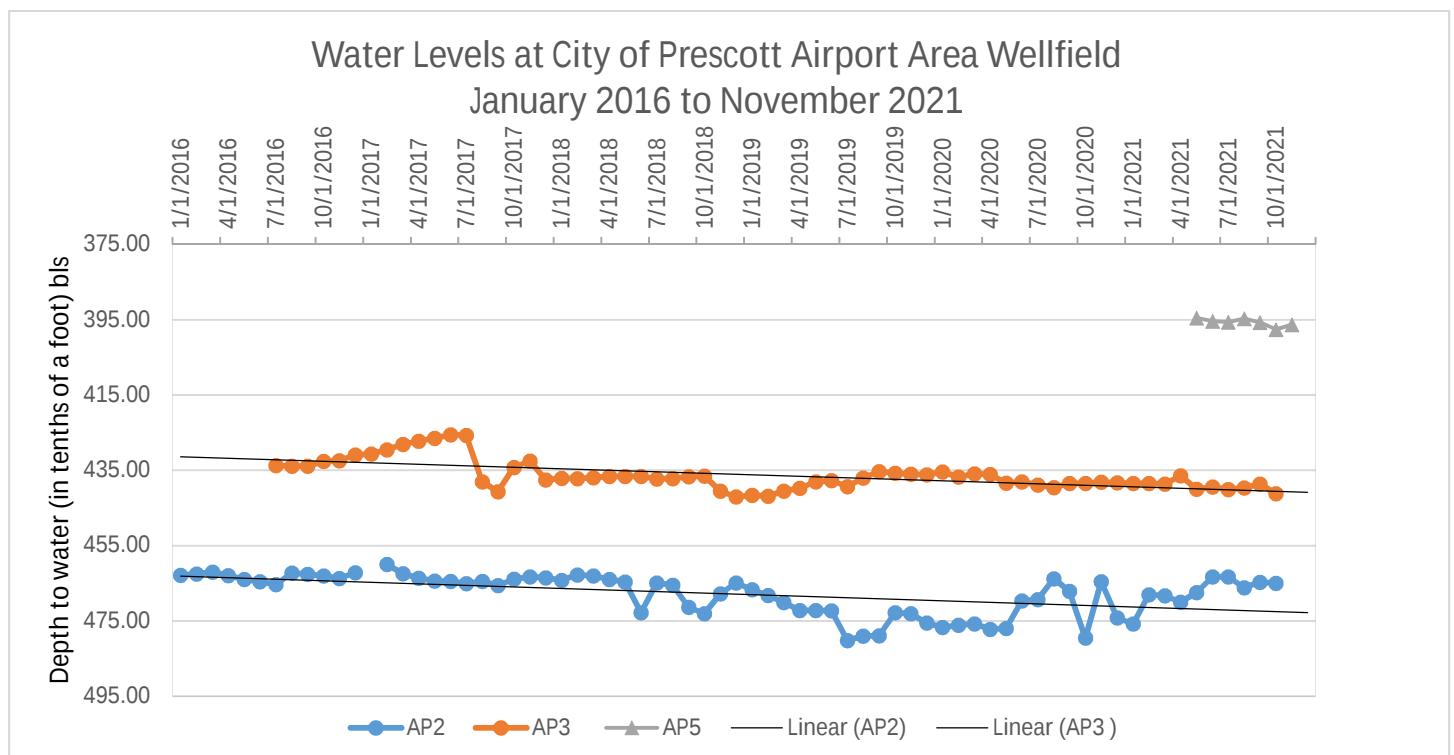
Recommended Action: This item is for discussion only. No formal action will be taken.

ATTACHMENTS

1. [Static Water Levels_Charts_Attachment 1.docx](#)
2. [Static Water Levels_Well sites_Attachment 2docx.docx](#)



Trend line (Linear) for CV1 not added due to limited data since mid-2017.



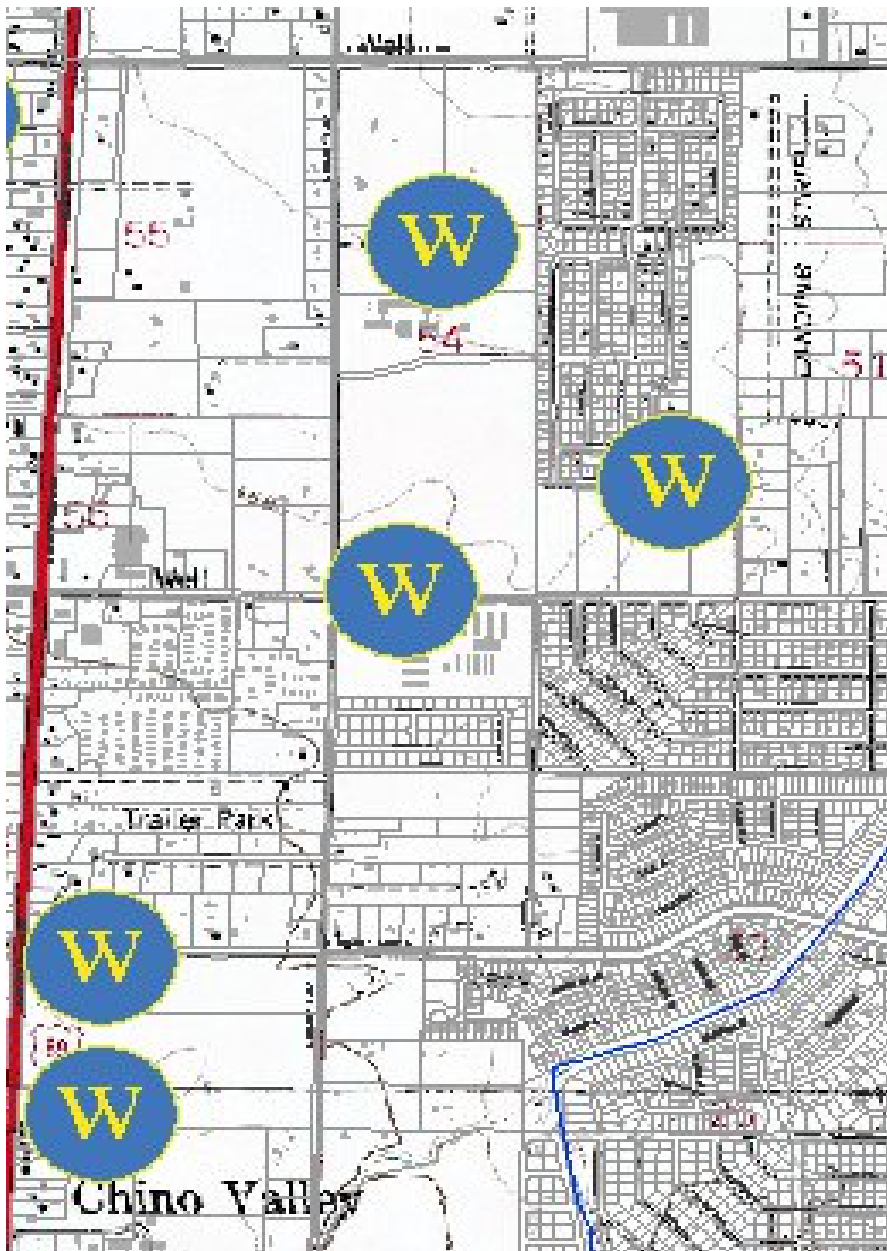
Trend line (Linear) for AP5 not added due to limited data. Record began in May 2021

Attachment 2

Chino Well Field

Basic info:

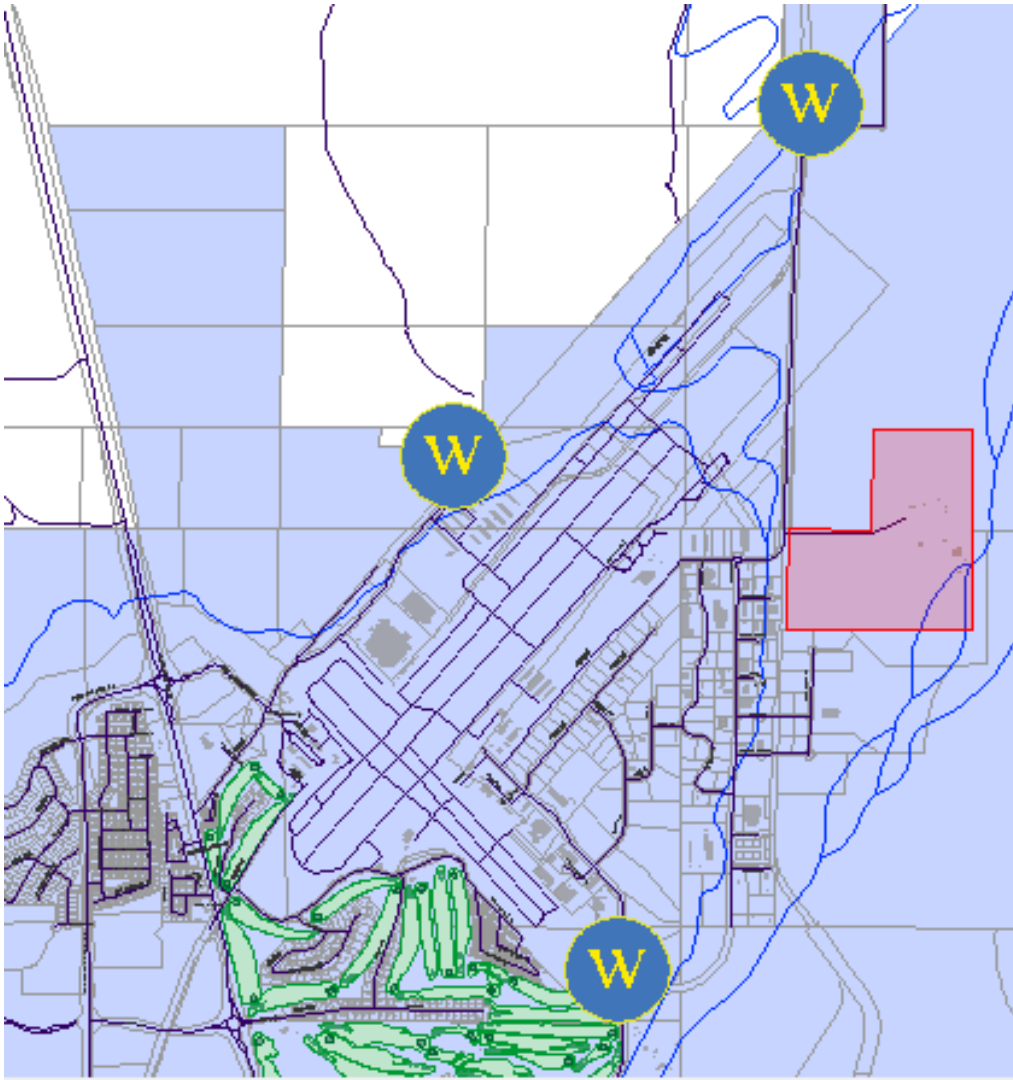
- 5 production wells in this portion of the subbasin
- Well Depths range from 535' to 690'
- Pumping Capacity ranges from 850 to 3,100 gpm
- Static Water Levels in 2020 range from 170' to 250' bls



Airport Well Field

Basic info:

- 3 production wells in this portion of the subbasin (3rd in April 2021)
- Well Depths range from 895' to 950'
- Pumping Capacity range from 640 to 1,600 gpm
- Static water level in 2020 range 430' to 480' bls



**COUNCIL AGENDA MEMO**

MEETING TYPE/DATE: **REGULAR SUBCOMMITTEE MEETING** **04- 5-22**

DEPARTMENT: **Public Works**

AGENDA ITEM: Discussion Regarding the Second Draft of the 2022 Water Management Policy.

ITEM SUMMARY

Discussion Regarding the Second Draft of the 2022 Water Management Policy.

BACKGROUND

The City's current Water Management Policy was adopted in November 2019. Upon direction from the Mayor and Council, staff began working on a revised Water Management Policy in 2022. The first draft of the 2022 Water Management Policy was presented to Council for discussion at Study Sessions on January 11th and 25th, 2022. Additionally, the Water Issues Subcommittee specifically discussed policies related to "Water Outside the City Limits" on February 1, 2022 and policies related to a "Water Budget" on March 1, 2022. In addition to the comments received during the January - March meetings, the 2022 Draft Water Management Policy was posted on the City website for public comment at: <https://www.prescott-az.gov/water-sewer/water-management/water-policy/> The City received written comments from 16 individuals.

Staff presented proposed changes to the 2022 Draft Water Management Policy for discussion at Council Work Study Sessions on March 8th and 22nd, 2022. The 2nd Draft of the 2022 Water Management Policy is posted on the City website until April 12, 2022, for final public comment. The Policy is tentatively scheduled for adoption at the April 26, 2022, Council meeting.

FINANCIAL IMPACT

N/A

Recommended Action: This item is for discussion only. No formal action will be taken.

ATTACHMENTS

- 1.[2022 MASTER_Water Management Policy_Draft 2_Redline Version \(3-28-22\).pdf](#)
- 2.[2022 MASTER_Water Management Policy_Draft 2_Clean Version \(3-28-22\).pdf](#)



~~Calendar Year 2022~~ DRAFT 2

Water Management Policy

Effective Date:

Section 1: Introduction

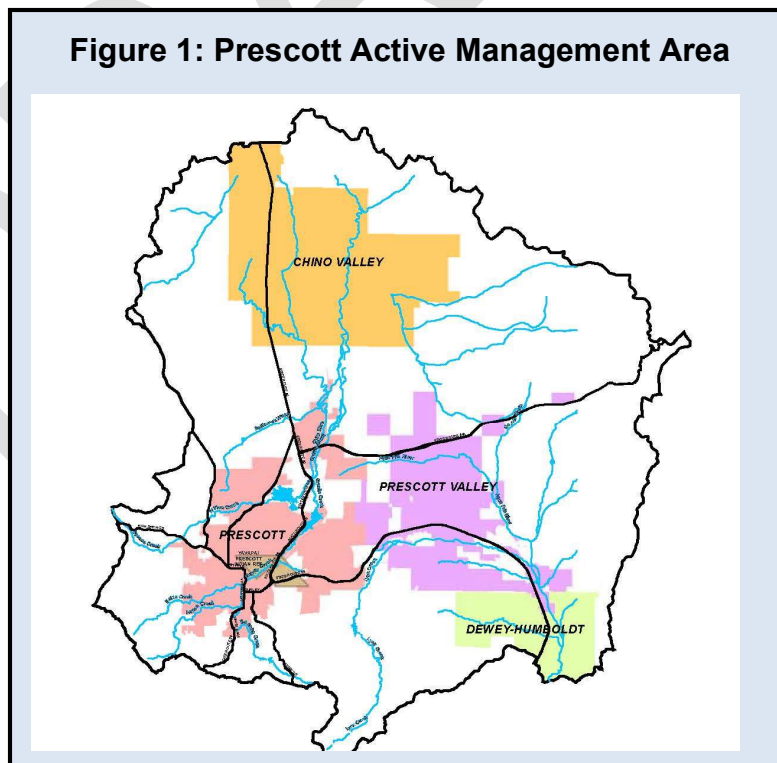
The City manages its water resources to ensure sufficiency for current and planned future demands. A team of professionals operates infrastructure (wells, pipes, storage tanks), manages physical resources (groundwater, surface water, and reclaimed water), and integrates supplies with State and City water 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 new 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 (AWS), Decision and Order (D&O) recognizing the City's commitment to provide a secure water supply, now and into the future. More detailed water management policies are adopted that reflect the regional economy, community growth, General Plan, and utilities infrastructure.

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 solely resolve the Prescott Active Management Area (PrAMA) overdraft designation, but rather to be a tool to work toward reducing overdraft., and ~~t~~The City's water service area comprises approximately 12.86% of the PrAMA land area.

Through a series of four 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 period will end in 2025 without reaching the goal of safe-yield in many of the AMA's across the state., ~~to help achieve the goal of aquifer safe-yield by 2025.~~

Meet all state requirements of A.R.S. Titles 45 and 49.

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. The City is currently operating under the 2009 D&O of Assured Water Supply (ADWR AWS No. 86-401501.0001), **Figure 2.** The next application to update the City's next Designation of Assured Water Supply was due to be filed byin December ~~31~~, 2021 and is currently under review.

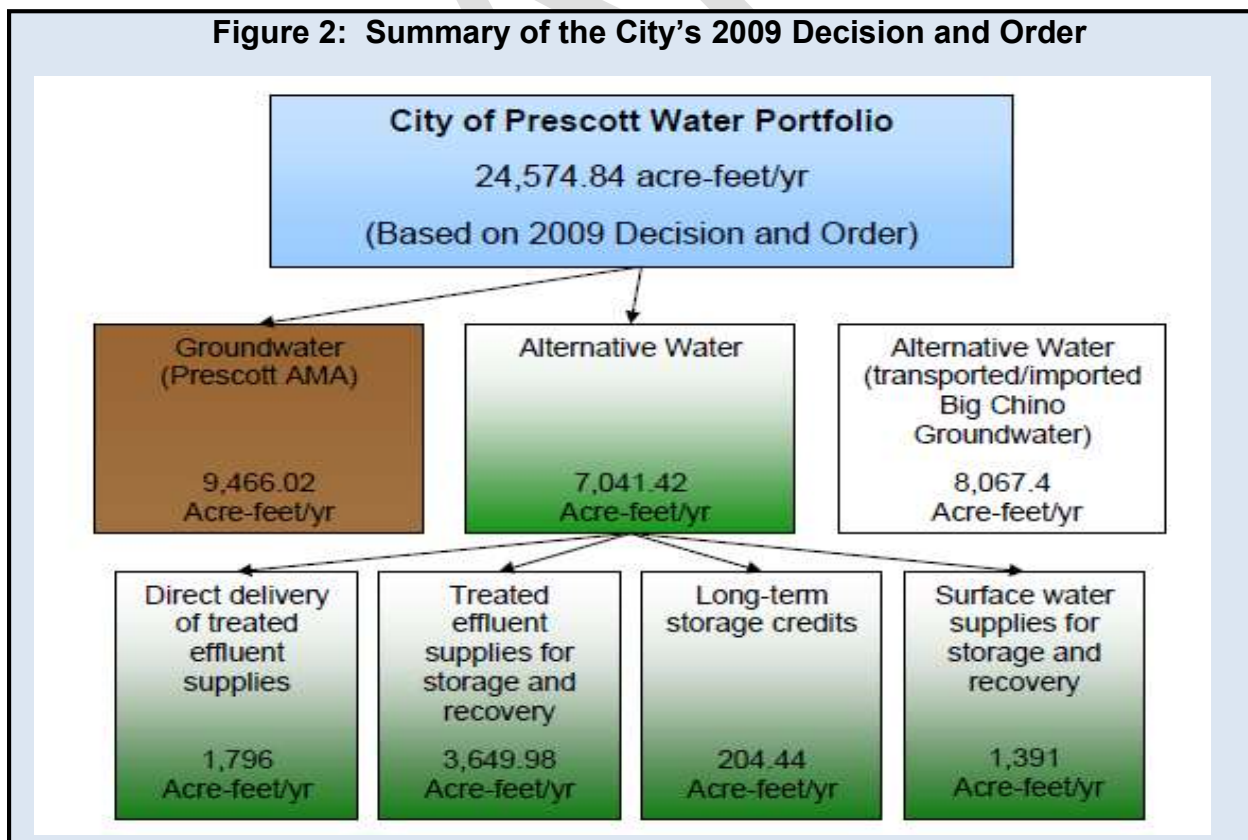
Uphold the City's Decision and Order of Assured Water Supply.

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

Further, the City manages its water resources in compliance with (AMA) requirements to work toward the AMA-wide goal of safe-yield.

In September 2014, ADWR adopted the Fourth Management Plan (4MP) for the PrAMA. Requirements of the 4MP became effective January 1, 2017. 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 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.

<https://www.prescott-az.gov/water-sewer/water-management/big-chino-water-ranch-project/>

Section 2.b: City Water Management Requirements

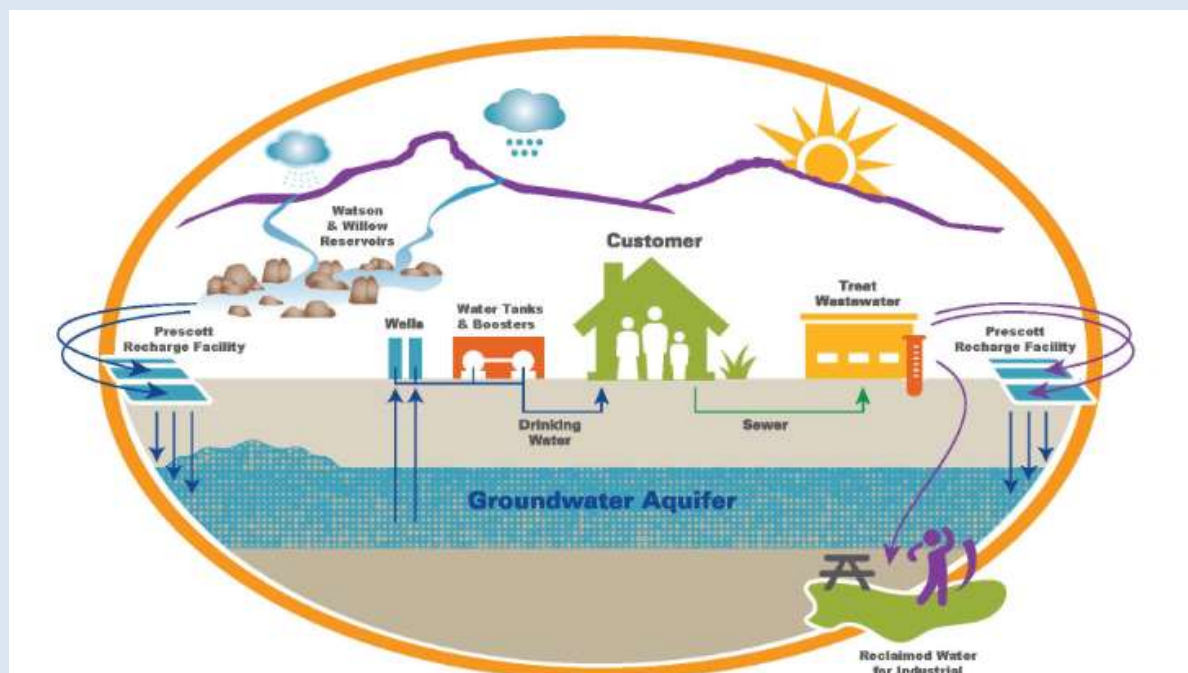
City plans, policies, and codes, including refinements to water management, are updated when necessary for consistency with water supply conditions. Notably, for annexations of 250 acres or more, Article I, Section 4 (Boundaries) of the City of Prescott Charter, adopted November 8, 2005, prescribes that “...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 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, a unique and efficient water routing designed to maintain a sufficient water supply for our community now and into the future.

Figure 3: City of Prescott's Urban Water Cycle



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.

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**).

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/>

Wastewater Collection and Treatment

The City's Wastewater Collection System (public sewer) is designed to convey the wastewater that is discharged from residential and ~~commercial~~ 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/

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**).

Water Uses

Water customers use the water supplied for various ~~commercial, industrial~~ non-residential and 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 4.a: 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 current City limits (Attachment 1), prospective annexation areas (Attachment 2), and water service area (Attachment 3), are appended to this Policy.

The Water Resource Management Model (WRMM) is the City’s long-range planning tool for tracking current (constructed), committed (platted) and projected (future) water demands and supplies. A rolling 5-year “Average” of all water used by existing single-family residential, multi-family residential and ~~commercial~~ commercial-non-residential properties is calculated based on utility billing record consumption data. The WRMM is updated annually, and the Average water use by development type is updated to reflect the most recent 5-year Average.

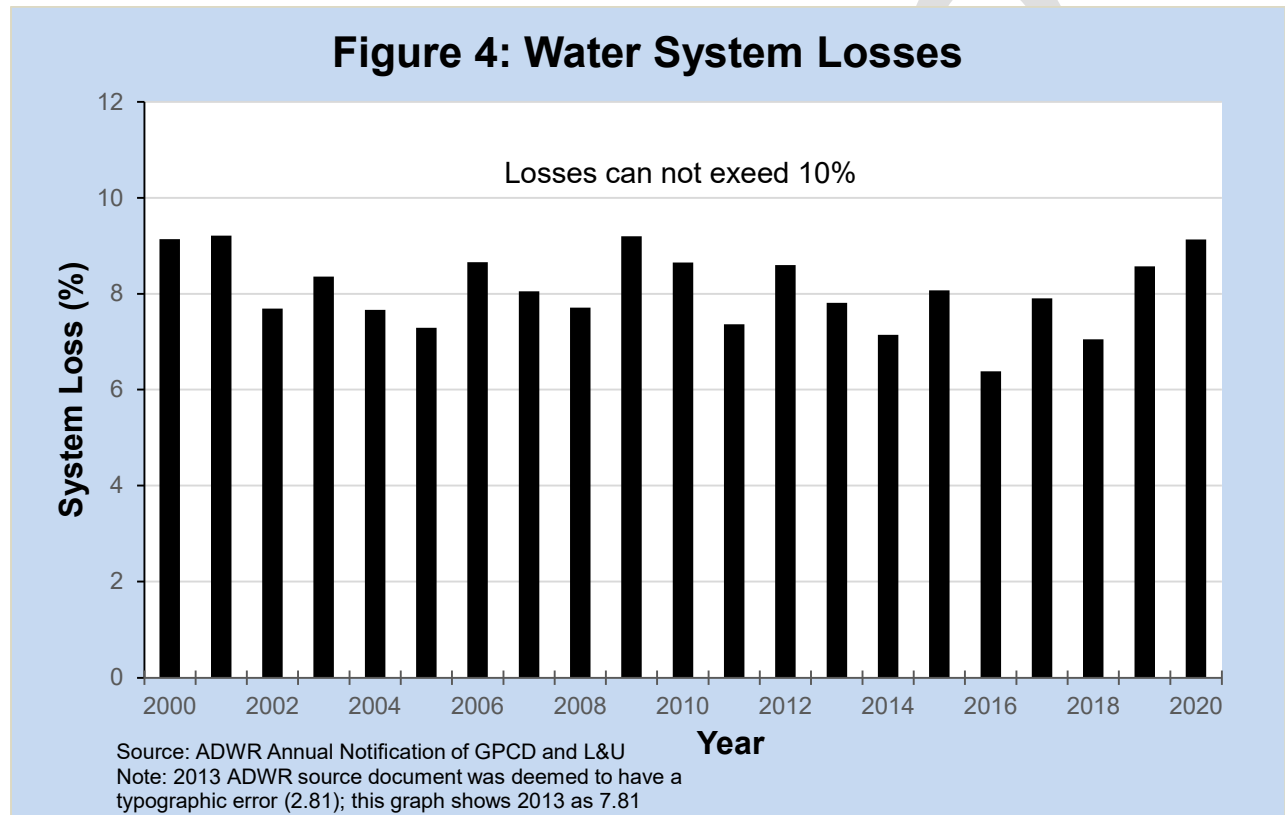
Section 4.b: Water Management and Conservation Planning

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.

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 and hydrant breaks and leakage, faulty meters, evaporation or leakage from storage facilities, 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**).



All effluent generated by new development within Proposition 400 Annexation Areas shall be used for permanent recharge.

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 remove outdoor turf 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 Figure 5 shows the amount of water saved each year since 2010. The City also provides the monetary incentives for installation of rainwater harvesting equipment.

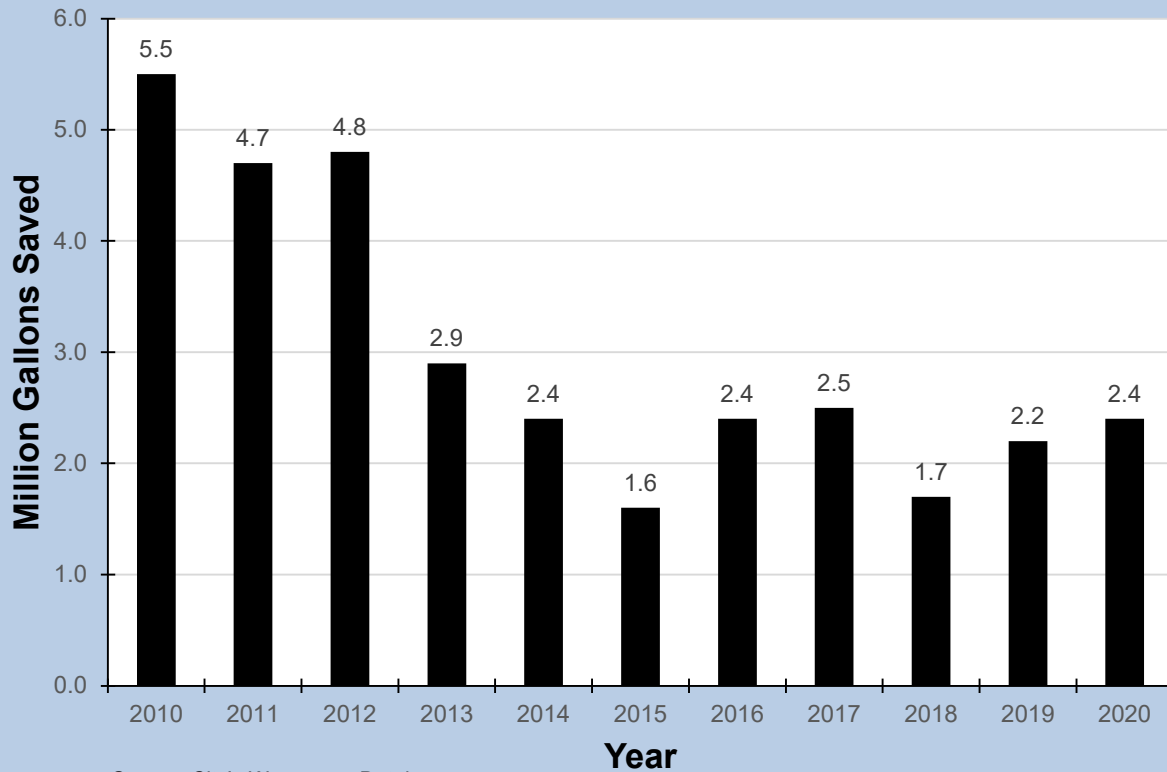
The City website provides a selection of native and low-water use plants, shares photos and landscape designs, provides virtual tours of local landscapes and gardens, and assists with locating landscape resources. Plantings consistent with ADWR's Low Water Use/Drought Tolerant Plant List under the 4th Management Plan, are required for all new development.

More information can be found here:

<https://www.prescott-az.gov/water-sewer/water-conservation/watersmart-landscaping/>

Meet the ADWR goal of 10 percent or less unaccounted for and lost water and work toward reducing system losses even further.

Figure 5: Rebate Program - Water Savings

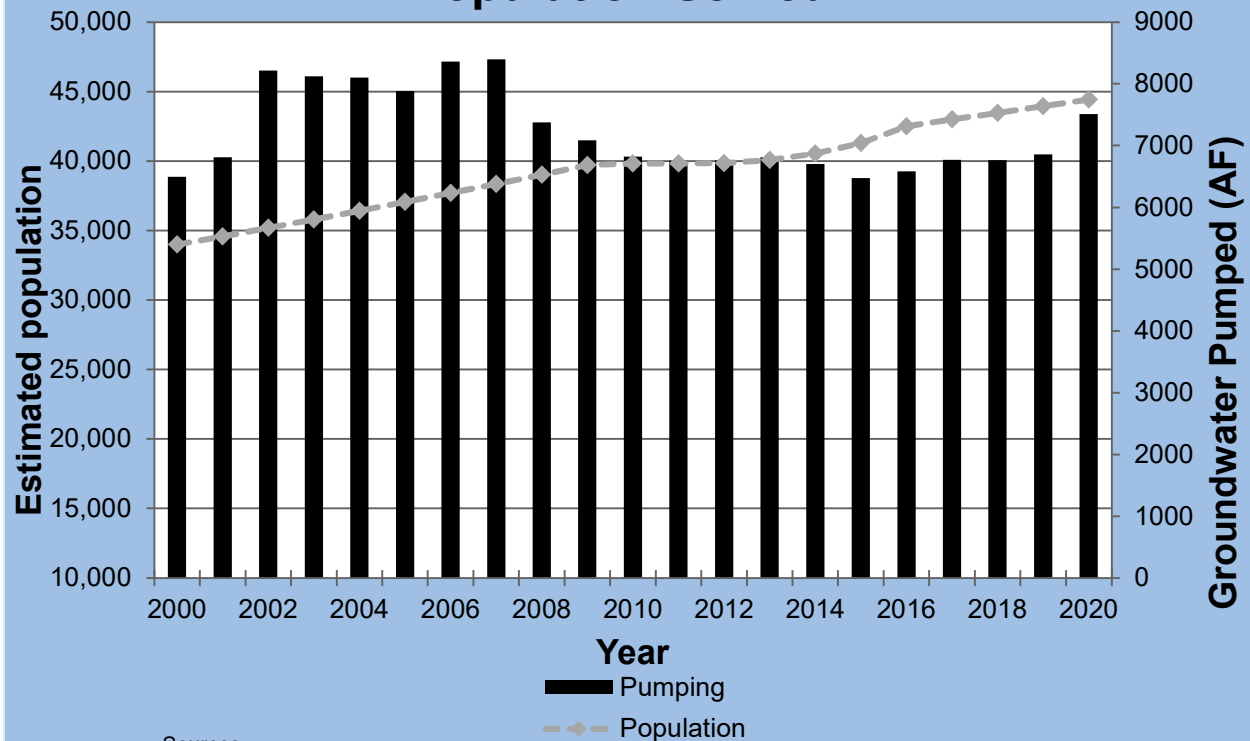


Source: City's Waterways Database

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



Sources

Total pumped: ADWR Annual Reports

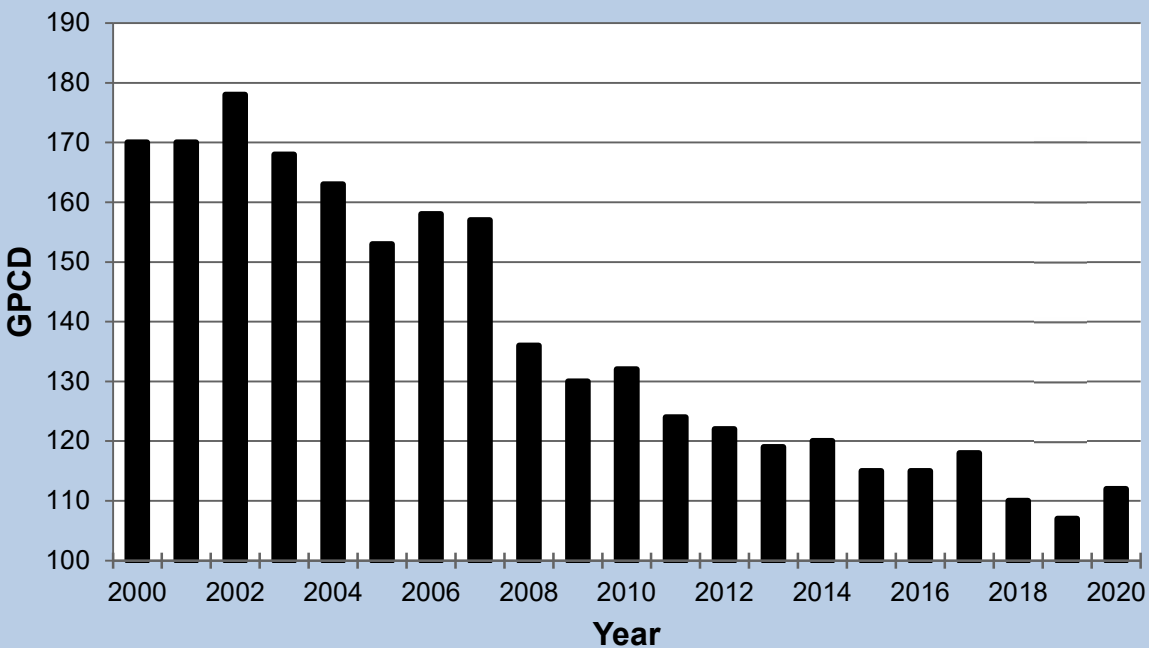
Estimated population: 2013 Water and Wastewater Models Report, Carollo Engineers, April 2014

Encourage water conservation awareness through continued outreach and education, rebate incentives and the use of low-water or drought tolerant plantings.

Gallons Per Capita Per Day

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 2000 to 2020, water use within the City's water service area declined from 170 to 112 with a low of 107 gpcd in 2019 (**Figure 7**). Outreach and education efforts, conservation measures, the [rebateconservation](#) incentive program and a tiered rate structure have all contributed to water usage declines.

Figure 7: Gallons Per Capita per Day (GPCD)



Source: ADWR Annual Notification of

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 Fourth Management Plan provides more details and recommendations for achieving and maintaining a condition of safe-yield. The City is actively participating in the development of the Fifth Management Plan, which will provide guidance beyond 2025.

Section 4.c: 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 4.d: Assured Water Supply and Infrastructure Planning

The City is an Assured Water Provider for over 45,800 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 5: Available Water Supplies and City Policies

Based on the City's 2009 Decision and Order, the City's ~~water portfolio~~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 ~~reservations, eContracts and a Water Budget~~and historical agreements to meet ADWR's requirement of tracking current, committed and future demands. ~~In November 2019, t~~The City began now ~~using~~the Water Resource Management Model (WRMM) which calculates ~~these~~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.

Figure 8: Water Resource Management Model Demands

Figure 8 AFY quantities are provisional based on ADWR review of City's 2022 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

In 2020 (**Figure 8**), Total Demand is estimated at 14,529,358.28 AFY, leaving a remaining 2,149,161,978.44 AFY available for water budgeting.

Section 5.a: Water Policies – Calendar Year 2022

This section contains criteria and guidance applicable to consideration of, and approvals for, water service to new projects ~~in Calendar Year 2022~~. Water supplies associated with a reservation, contract, or other previously approved Council actions, are not subject to the Calendar Year 2022 Water Budget.

New Applications:

Policy 1 – In order to receive water service from the City, a Water Service Application (WSA) shall be submitted ~~and must in conjunction with include~~ a formal site plan (LDC – Section 9.8) or a preliminary or final plat application. (*Attachment 5, Water Application Procedure*)

Policy 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 bi-annual Water Budget(s).

Policy 3 – Estimated water usage shall be based on the 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 shall be updated in January of each calendar year, incorporating the most recent rolling 5-year Average. Updated water usage estimates by project type shall be presented to the Water Issues Subcommittee and Council annually, at its March meeting as a discussion/information only item.

For Calendar year 2022, the following wWater use estimates shall be adjusted annually in January of each year as projected in the WRMM, in acre feet per year (AFY) shall be used:

- Single Family Residential shall be estimated at 0.17 AFY per dwelling unit.
- Multi-Family Residential shall be estimated at 0.12 AFY per dwelling unit.
- Low water landscaping shall be estimated at 1.5 AFY per acre of landscape area per ADWR guidelines.

Policy 4 – If a water use estimate cannot be determined by the WRMM or similar usage estimates cannot be provided from a like facility, The City shall require a water demand analysis shall be required for all non-residential projects. Residential projects may require a demand analysis at the City's discretion. This analysis will be performed by a civil engineer at the applicant's expense. In lieu of a water demand analysis, the applicant may provide historical water usage information from a similar facility or use but if the facility or use is not sufficiently similar, the City may require an analysis performed by a civil engineer.

Policy 5 – The City may require a cost benefit analysis for any project, 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.

Policy 6 – Approved Water Service Applications will expire one year after the date the application was submitted if a building permit or plat for the project described in the application does not move forward through the review process, be agendized for the is not considered by the Water Issues Subcommittee, or be administratively approved. Once a Water Service Application expires, it will need to be re-submitted for consideration pursuant to the then-current Water Management Policy and Wwater bBudget.

Policy 7 – In the event a property applying for water service has an existing entitlement to water from the City in a reservation, cContract or other historic agreement, 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 Water Service Application for the revised project, which will be evaluated according to the current Water Management Policy and Water Budget, if applicable.

Policy 8 – Redevelopment of property that will result in less total water use willdoes not be required to submit a new application for wWater sService Application. These requests will be

reviewed and tracked administratively. All such requests will be presented to the Water Issues Subcommittee and the Council bi-annually in January and July as a discussion/information item and shall not be included in the Water Budget. In the event the redevelopment requires more water than its existing use, it may apply for additional water following the ~~then~~ current procedures in the Water Management Policy and the ~~then~~ current Wwater bBudget. Any request for additional water shall be included in the Water Budget.

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

Policy 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. Water shall only be approved for nNew non-residential development projects that willshall return no less than 750% or more of the water sold as wastewater to the City Water Reclamation Facility. All such qualifying projects shall connect to and be served by the City sewer system prior to physical delivery of any water service by the City.

Water Budget:

Policy 11 – The Council shall set the Water Budget bi-annually at its last meeting in June and December of each year.

Policy 12 – A Wwater bBudget for new residential development ~~is hereby~~shall be created ~~in the amount of~~ AF for the period of January to June each year. An additional Wwater bBudget shall be created ~~in the amount of~~ AF for the period of July to December each year. Any remaining unallocated water budget balance may be preserved and carried over to the next budget period. This wWwater bBudget quantity is available for projects other than those already entitled to water by an existing ~~e~~Contract, ~~historic agreement or reservation~~. Administratively approved projects (Policy 2) shall be included in the residential Wwater bBudget.

Policy 13 – A Wwater bBudget for ~~new commercial, industrial or institutional~~non-residential development ~~is hereby~~shall be created ~~in the amount of~~ AF for the period of January to June each year. An additional wWwater bBudget shall be created ~~in the amount of~~ AF for the period of July to December each year. Any remaining unallocated water budget balance may be preserved and carried over to the next budget period. All non-residential uses with a water estimate greater than 1 AFY, will be reviewed by the Water Issues Subcommittee and ~~then,~~ 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 (Policy 2) shall be included in the Wwater bBudget.

Policy 14 – No single ~~residential~~ Water Service Application will be approved for water usagethat estimates ~~water usage~~ greater than 50% of the remaining bi-annual wWwater bBudget.

Projects that request more than 50% of the remaining bi-annual water budget may:

1. File a Water Service Application to be considered when the next Water Budget is available OR
2. 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.

Existing Contracts:

Policy 15 – Water supplies associated with an existing reservation, cContract, or other Council action mayshall 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 ~~then~~ current Water Management Policy and ~~wWater bBudget~~, if applicable.

Policy 16 – When a Water Service Agreement cContract expires, the associated volume(s) of water shall be returned to the water resource portfolio or original contractual reservation, as applicable.

Policy 17 – Water may be approved by the City Manager or designee to support City approved lot splits where no zoning change is required that would result in additional connections or within areas for which water is provided according to pre-existing or historical agreements; any request to change the zoning up or down shall not be administratively approved and subject to the process in Attachment 5.

Water Outside City Limits:

Policy 17 – C-Water service agreecontracts) for water service outside City limits shall contain performance criteria appropriate to the project, including a performance completion date. In the event a project does not meet the performance criteria or date, the allocation of water for the project shall be terminated and returned to the Water Portfolio.

Policy 189 – Water service agreements (contracts) for water service outside of the City limits shall only apply to those developments with a pre-existing historical or contractual agreement with the City. No new Contractswater service agreements for water outside of City limits shall be approved except as provided in Prescott City Code 2-1-8: (Attachment 8). Commitments to serve water outside City limits within existing Contracts will be met.

Water Portfolio:

Policy 1920 – All new development shall install water sense fixtures, meet adopted building and plumbing code standards and install only low-water use landscape plantings per City Code requirements. The Low Water Use/Drought Tolerant Plant List may be found at:

https://new.azwater.gov/sites/default/files/media/PRAMA2014LWUPL_2020.pdf

~~The City is committed to the long-term conservation of water resources and encourages residents both inside and outside the City limits to practice a low-water-use lifestyle as a way to ensure a long-term, sustainable water supply for the region. The City will continue to collaborate with water wise community partners and provide a water savings incentive program, including water awareness tools to bring water conservation awareness to the forefront of the community.~~

Policy 204 – Savings accrued to the effective date hereof, accumulated from the difference between the overall volumes of water allocated and actual volumes consumed by projects that were put into ~~reservation, eContract, or historic agreements~~ shall be retained in the WRMM as committed demand, and not used to support additional development.

Policy 212 – Well(s) on any property to be served by City water must be officially abandoned through the Arizona Department of Water Resources, ~~unless used for the continuation of ranching or agriculture prior to development, and so authorized by Council~~ as part of the approval of a Water Service Application. The increase in groundwater allowance received for these wells shall be retained in the City's Water Portfolio, and not used to support additional development that is not identified as current, committed or future demand within the WRMM.

Policy 223 – 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 provided (*Attachment 6*).

Policy 24 – ~~It is the City's goal to increase regional consultation and cooperation with other towns and municipalities, with Yavapai County, and with exempt well users to help bring the Prescott Active Management Area into safe yield.~~

ATTACHMENTS

Attachment 1 Map of Current 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 ~~Allocation~~ Application Procedure

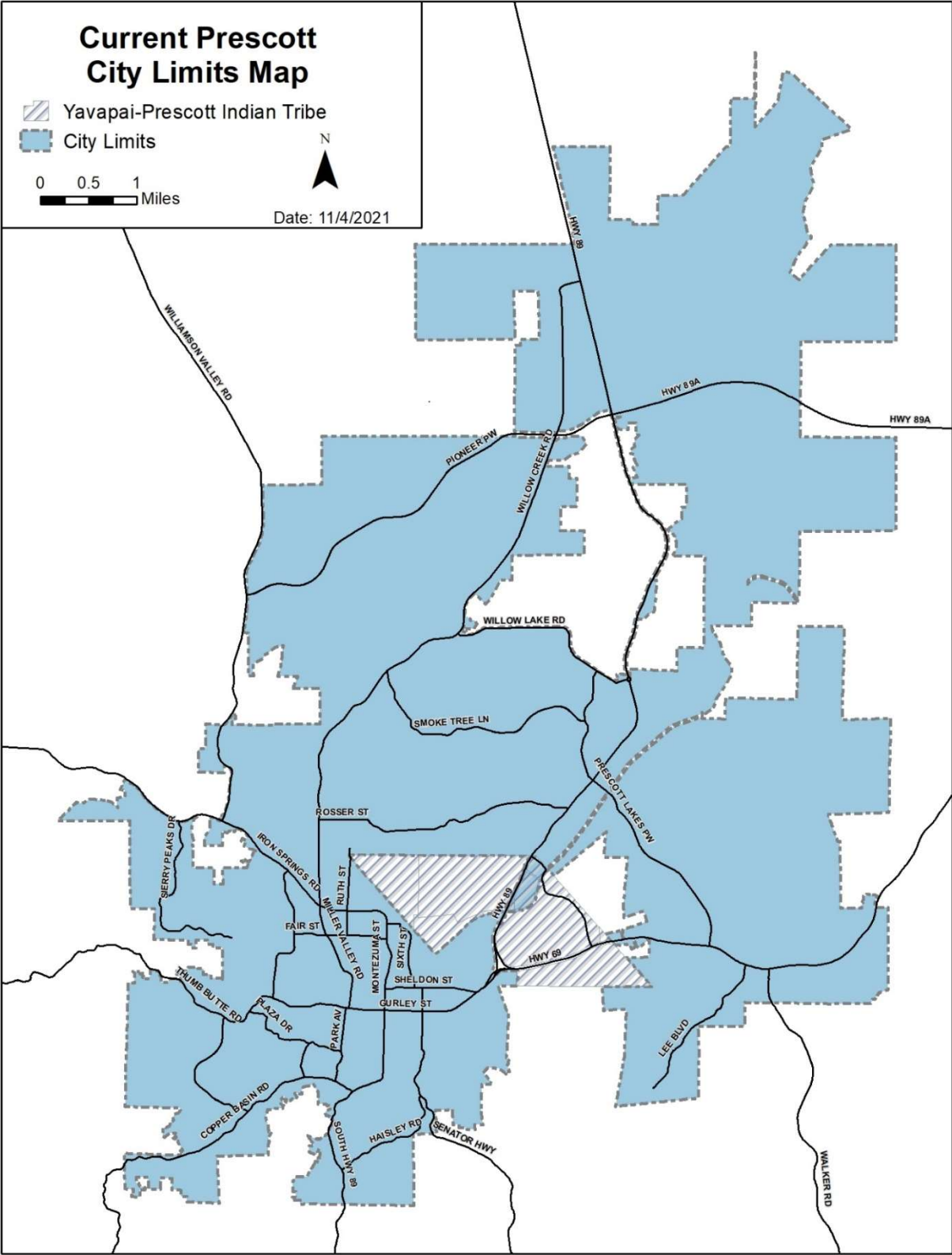
Attachment 6 Acceptance of Extinguishment Credits (IGFRs)

Attachment 7 Cost Benefit Analysis

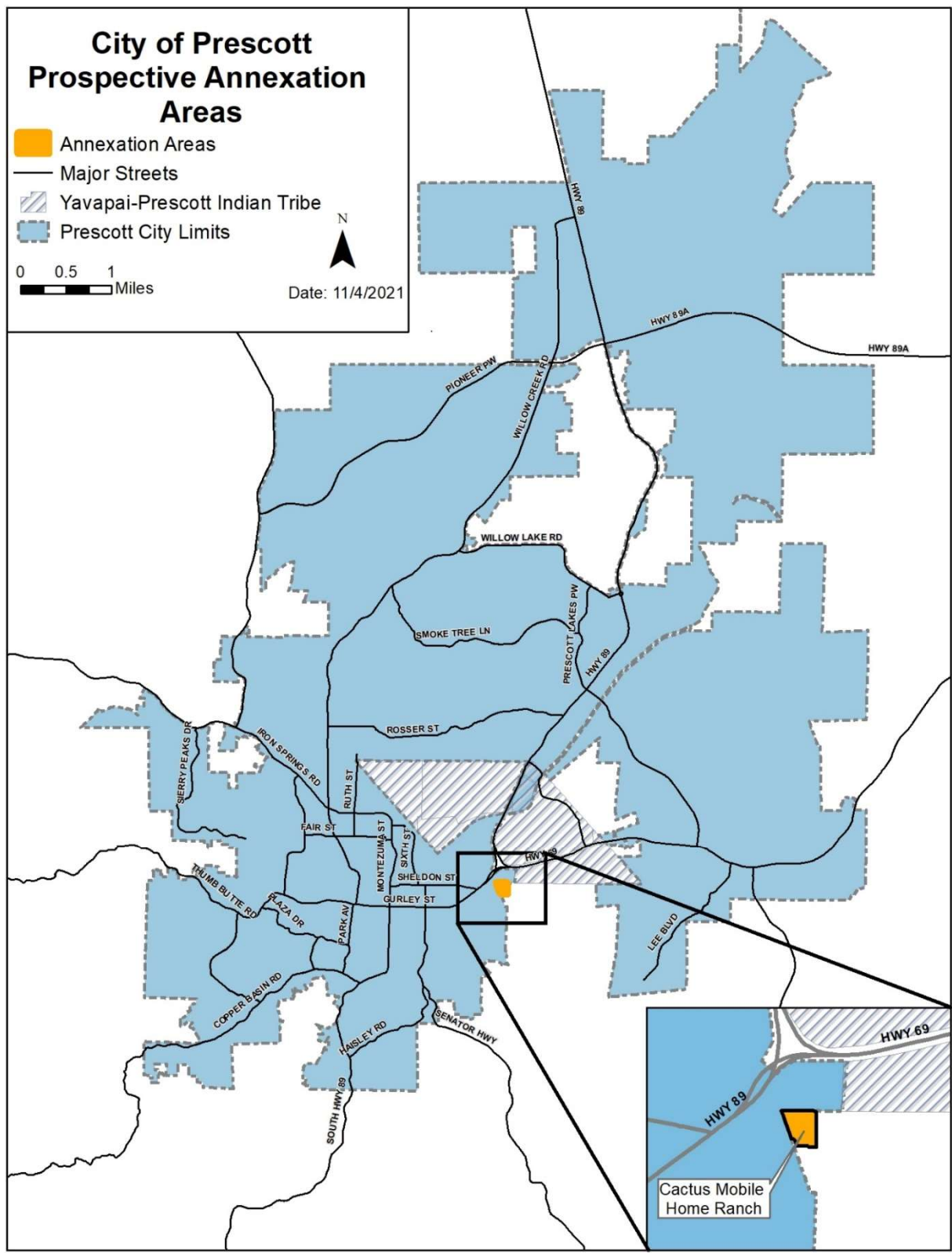
Attachment 8 Prescott City Code 2-1-8, Water Outside City Limits

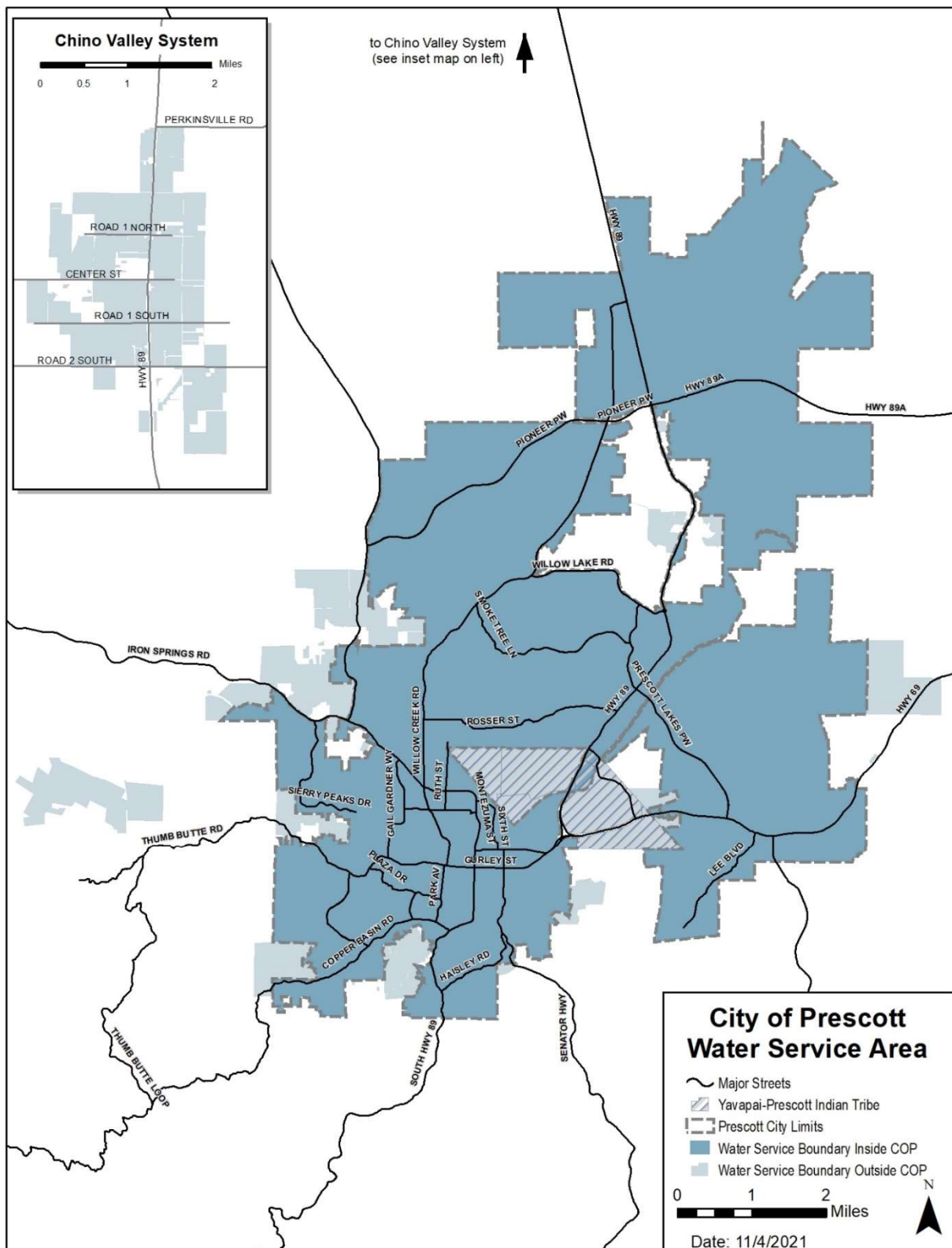
Attachment 9 Definitions

Attachment 1 Map of Current City Limits



Attachment 2 Map of Prospective Major Annexation Areas





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.

This document may be found on the City website at:

https://www.prescott-az.gov/wpcontent/uploads/2022/01/Application_Part_B_text_12_11_2021.pdf

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Attachment 5 Water Application Procedure

All new development within the City limits, other than those subject to an existing ~~reservation, Ccontract or historical agreement,~~ are required to submit a Water Service Application (WSA) concurrently with a site plan, preliminary, or final plat submittal. Such application shall include the number of single-family or multi-family dwelling units as well as any other amenities the residential development is considering including a clubhouse, pool, retail or office space and landscaping areas. For non-residential developments, a water demand analysis ~~is~~ may be required ~~if a similar use cannot be determined from the Water Resource Management Model (WRMM) or a like facility. -and a~~ cost benefit analysis may also be required.

New development outside of the City limits that is entitled to water service from an existing ~~reservation, Ccontract or historic agreement,~~ within the City's water service area, is required to submit a Water Service Application and ~~enter into a Water Service Agreement contract with the City. The Agreement will set forth~~ shall be subject to the all terms and conditions of ~~water servicethe Contract,~~ including, but not limited to the annual volume of water; time periods to use or lose the water allocation; third party approval requirements; connection to City sewer, and effluent ownership and rights to use thereof, if any; special fees or assessments; and stipulations and requirements regarding the use of the property to be developed.

In the event a property applying for water service has an existing entitlement to water from the City in a ~~reservation, cContract, or other historic agreement,~~ that entitlement must be fully utilized before the City will consider approving additional water for the property.

Approval of a Water Service Application for residential development plans or for ~~commercial/industrial~~ non-residential projects shall be in compliance with all applicable City development regulations, be consistent with and conform to the City's adopted General Plan, and be consistent with and conform to any and all adopted, applicable plans.

In determining whether a development is consistent with and conforms to applicable plans and policies, the overall intent and goals of the plans and policies shall be considered. The development plan shall also be evaluated as to whether it furthers the implementation of, and is not contrary to, the policies, goals, objectives, strategies and applicable elements of the plans and policies.

Any property that holds an existing water ~~reservation, cContract or other historic agreement~~ within the City limits to receive water, will not be required to obtain water service approval or submit a Water Service Application. There are four pathways to water service approval. The City will determine the most suitable path for each project from the following list:

1. Administrative Approval

Residential projects having 8 or less dwelling units (DU's) that are not subject to subdivision rules, and non-residential projects with an estimated water usage of 1 acre-foot per year (AFY) or less, are required to submit a Water Service Application with a Building-Permit Application.

- A. Contact Community Development to discuss the project and the need for a Pre-Application Conference (PAC). Submit PAC application and schedule the conference, if required.
- B. After PAC (if required) and determination of water supply needs, submit a Water Service Application and Building-Permit Application concurrently.
- C. Following staff review and approval of compliance with City Codes and Policies, the application may be administratively approved.
- D. The City may require a demand analysis or direct any request for water to the City Council for consideration.
- E. Water Service Applications shall expire 1-year after the application was submitted if the project described in the application has not been issued a building-permit for construction.

2. Site Plan Review

All multi-family residential and non-residential projects which exceed the maximum water usage for "Administrative Approvals", and which do not require a preliminary or final plat, are required to submit a Site Plan Review Application and a Water Service Application for approval by the City Council, per the LDC Section 9.8.

- A. Contact Community Development to discuss the project and the need for a Pre-Application Conference (PAC). Submit PAC application and schedule the conference.
- B. After PAC, and determination of water supply needs, submit a Site Plan Review Application and Water Service Application concurrently.
- C. Following staff review for compliance with City Codes and Policies, the request will be scheduled for Planning & Zoning Commission and Water Issues Subcommittee review and consideration.
- D. The City Council will consider the Site Plan Review and Water Service Application at the same meeting.
- E. Site Plan Review approval shall expire 6-months from the date of approval unless a complete Building-Permit Application has been submitted.
- F. Water Service 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.
- G. Redevelopment of property that will result in less total water usage does not require a new application for water service. In the event the redevelopment requires more water than its existing use, it may apply for additional water following

the then-current procedures in the Water Management Policy and the then-current Water Budget.

3. Preliminary Plat Review

- A. Contact Community Development to discuss the project and the need for a Pre-Application Conference (PAC). Submit PAC application and schedule the conference.
- B. After PAC, and determination of water supply needs, submit a Preliminary Plat Application and a Water Service Application concurrently.
- C. The Preliminary Plat Review process is described in the Land Development Code Section (LDC 9.10.9).
- D. Following staff review for compliance with City Codes and Policies, the request will be scheduled for Planning & Zoning Commission and Water Issues Subcommittee review and consideration.
- E. The City Council will consider the Preliminary Plat and Water Service Application at the same meeting.
- F. Water Service approval shall expire within one-year of Council approval, unless a final plat has been approved.

4. Outside City Limits

- A. Contact Public Works to determine if the property has a pre-existing ~~reservation, eContract or historic agreement~~ that provides water service to the parcel(s) within the City's ~~wWater sService aArea~~.
- B. Work with Public Works staff to make a determination of the City's contractual obligation and the water supply needs of the project. Applicants who do not have sufficient water rights under an existing ~~reservation, eContract or historic agreement~~ may acquire and present for consideration sufficient extinguishment credits to support their development. The volume of credits will be required to meet the calculated 100-year demand for water.
- C. The applicant shall obtain the written approval of any outside jurisdiction for the project prior to requesting water service from the City.
- D. Submit a Water Service Application and an Engineering or Water Service Permit Application. A water demand analysis may be required.
- E. Following staff review and approval of compliance with City Codes and Policies, the request will be administratively approved or scheduled for Water Issues Subcommittee and ~~then, City Council contractfor~~ consideration, whichever is applicable.
- F. Following Council approval, a permit application must be submitted within 1 year to the appropriate agency and a permit issued within 18 months or the Water

Service Application will expire, and a new Water Service Application will need to be submitted for consideration.

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. Commercial/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. $0.17 \text{ AF/yr} * 45 \text{ dwelling units} = 7.65 \text{ AF/yr}$
2. Multiply your annual water demand by 100 years.
 - a. $7.65 \text{ AF/yr} * 100 \text{ yrs} = \mathbf{765 \text{ AF}}$

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
- 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 commercial-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.

DRAFT 2

To be posted separately on the City website no later than 4/6/2022.

DRAFT 2

Attachment 9 Definitions

Acre Feet – means a unit of volume equal to the volume of a sheet of water one acre in area and one foot in depth or 325,851 gallons.

Active Management Area (AMA) – means a geographic area that has been designated pursuant to Arizona Revised Statute 45-411. Active management areas may be designated through local initiative or by the Director of the Arizona Department of Water Resources (ADWR).

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

Allocated – means an amount of water from the City’s water portfolio that is contractually obligated to a specific development project.

Arizona Department of Water Resources – means State agency which administers all state water laws, except those related to water quality. Arizona’s water supplies include surface water, including Colorado River water and in-state rivers, groundwater and reclaimed water.

City Council or Council – means the City of Prescott Mayor and Council members.

Civil Engineer – means 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 – means 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.

Contract – means 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 – means 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 – means 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 – means 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 – means 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 – means two or more dwelling units that are separated by a common wall, floor or ceiling within one building, with one owner.

Estimated Water – means 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 – An extinguishment credit is 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 – means 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 – means carrying out and meeting the primary material requirements of the contract.

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

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

Wastewater Infrastructure – means 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 – means an amount of water set aside bi-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 – means that portion of the City's Wastewater Sewer System designed to provide treatment of municipal sewage and industrial waste.

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

Water Issues Subcommittee – means 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 – means a collection of water resource legal acquired water supplies owned by the City, and included in the City's Decision and Order.

Water Service Application – means 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 – means the area of land being served water, for a non-irrigation use, by the City.

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

DRAFT 2



DRAFT 2

Water Management Policy

Effective Date:

Section 1: Introduction

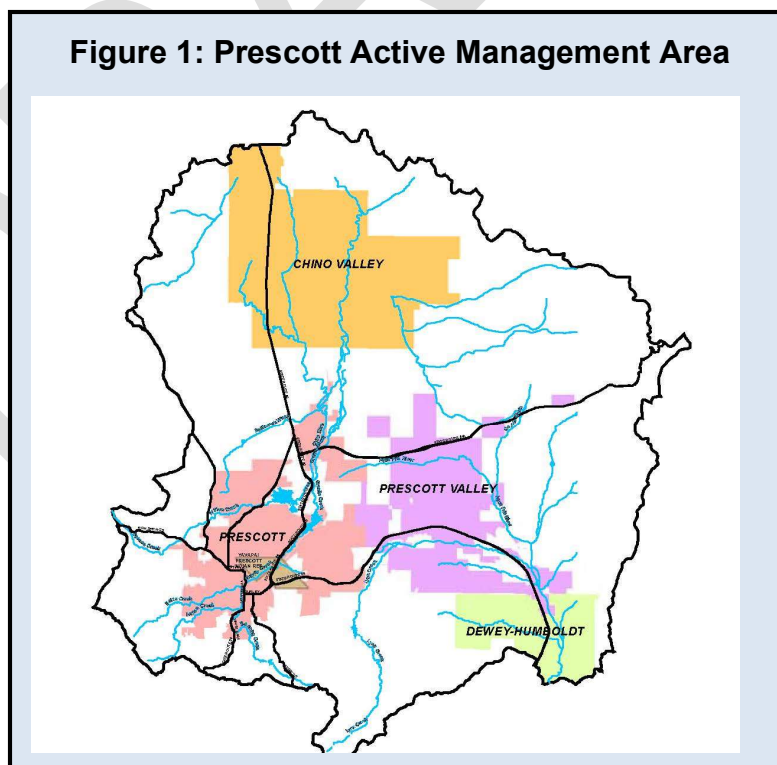
The City manages its water resources to ensure sufficiency for current and planned future demands. A team of professionals operates infrastructure (wells, pipes, storage tanks), manages physical resources (groundwater, surface water, and reclaimed water), and integrates supplies with State and City water 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 new 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 (AWS), Decision and Order (D&O) recognizing the City's commitment to provide a secure water supply, now and into the future. More detailed water management policies are adopted that reflect the regional economy, community growth, General Plan, and utilities infrastructure.

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 solely resolve the Prescott Active Management Area (PrAMA) overdraft designation, 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 four 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 period will end in 2025 without reaching the goal of safe-yield in many of the AMA's across the state.

Meet all state requirements of A.R.S. Titles 45 and 49.

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. 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.

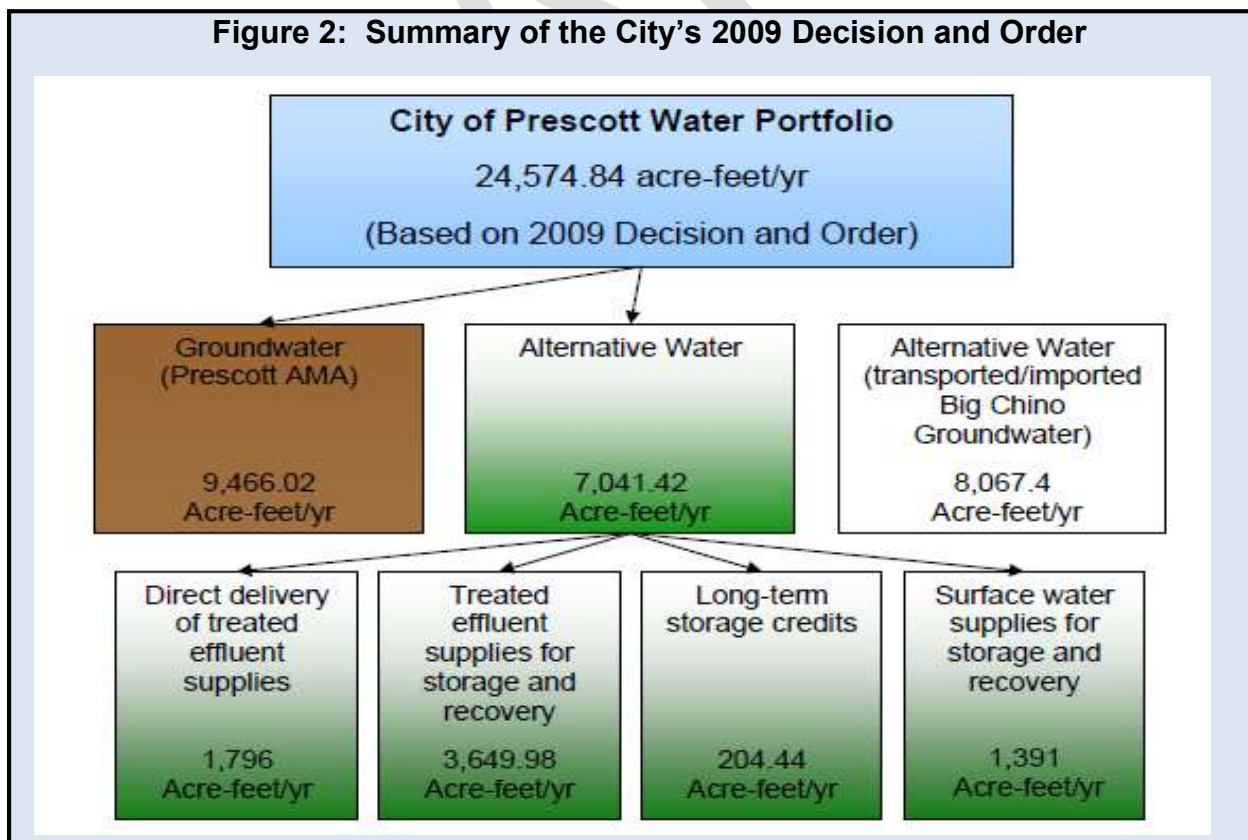
Uphold the City's Decision and Order of Assured Water Supply.

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

Further, the City manages its water resources in compliance with (AMA) requirements to work toward the AMA-wide goal of safe-yield.

In September 2014, ADWR adopted the Fourth Management Plan (4MP) for the PrAMA. Requirements of the 4MP became effective January 1, 2017. 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 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.

<https://www.prescott-az.gov/water-sewer/water-management/big-chino-water-ranch-project/>

Section 2.b: City Water Management Requirements

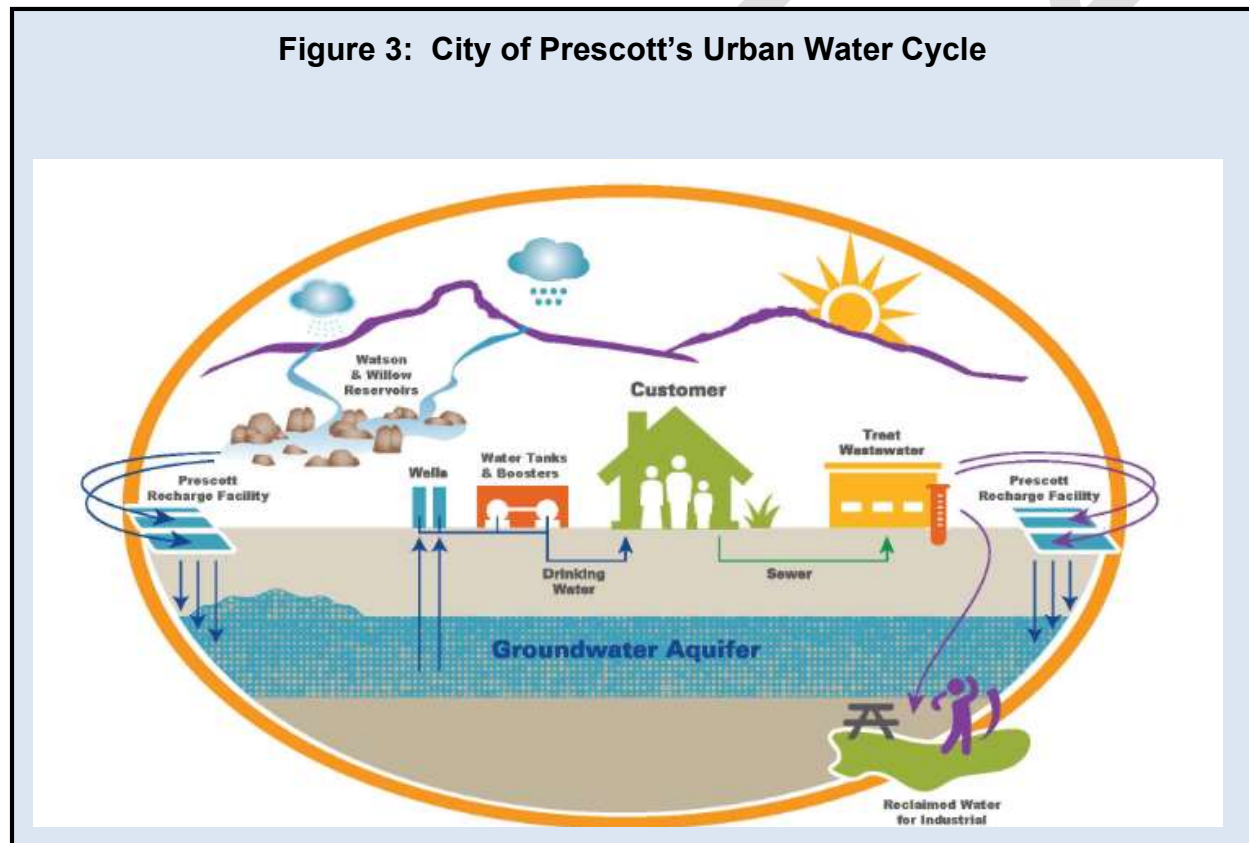
City plans, policies, and codes, including refinements to water management, are updated when necessary for consistency with water supply conditions. Notably, for annexations of 250 acres or more, Article I, Section 4 (Boundaries) of the City of Prescott Charter, adopted November 8, 2005, prescribes that “...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 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, a unique and efficient water routing designed to maintain a sufficient water supply for our community now and into the future.

Figure 3: City of Prescott's Urban Water Cycle



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.

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**).

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/>

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/

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**).

Water Uses

Water customers use the water supplied for various non-residential and 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 4.a: 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 current City limits (Attachment 1), prospective annexation areas (Attachment 2), and water service area (Attachment 3), are appended to this Policy.

The Water Resource Management Model (WRMM) is the City's long-range planning tool for tracking current (constructed), committed (platted) and projected (future) water demands and supplies. A rolling 5-year “Average” of all water used by existing single-family residential, multi-family residential and non-residential properties is calculated based on utility billing record consumption data. The WRMM is updated annually, and the Average water use by development type is updated to reflect the most recent 5-year Average.

Section 4.b: Water Management and Conservation Planning

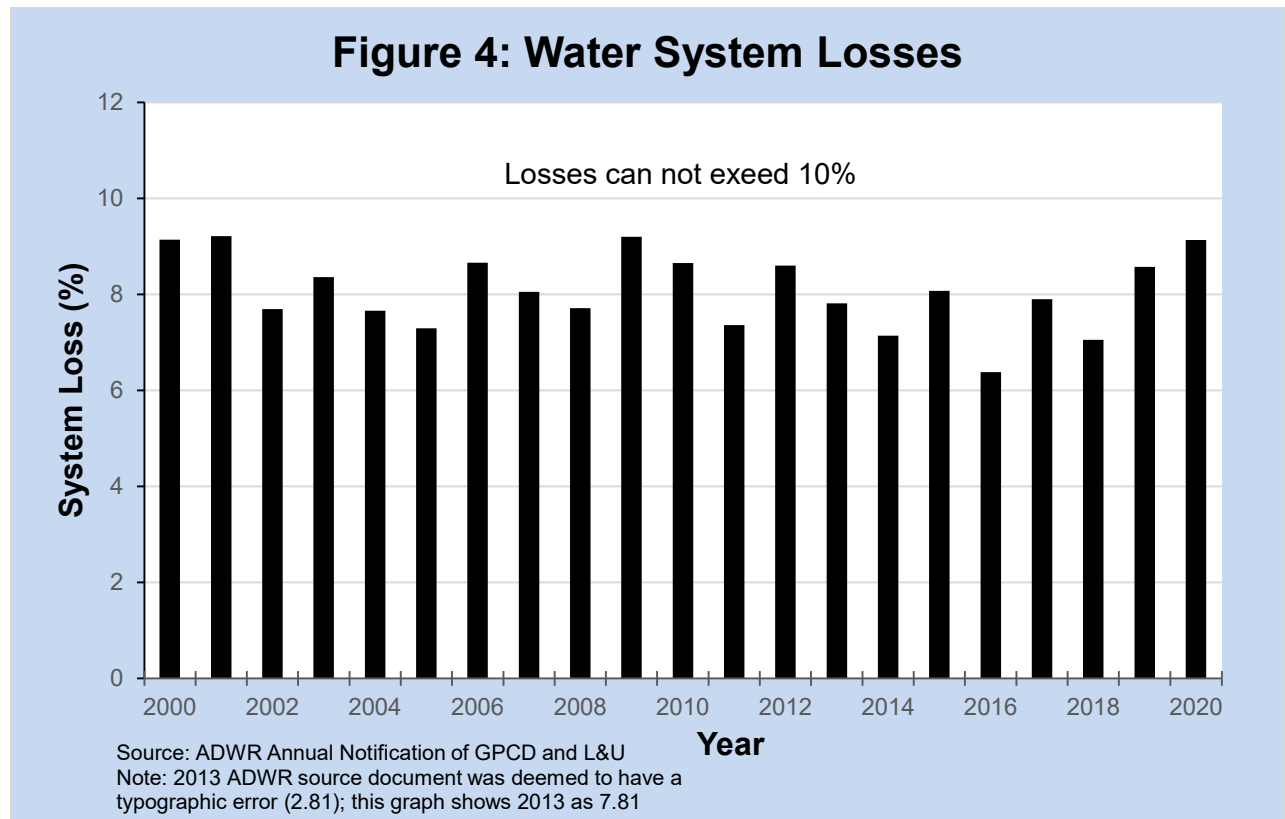
The City has established a strong foundation for water conservation. As far back as 1924, the Mayor and Council resolved that it had become “necessary to conserve and protect the water supply of the City of Prescott,” setting into motion conservation actions. The State of Arizona Groundwater Management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

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 and hydrant breaks and leakage, faulty meters, evaporation or leakage from storage facilities, 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**).



***All effluent generated by new development within Proposition 400
 Annexation Areas shall be used for permanent recharge.***

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.

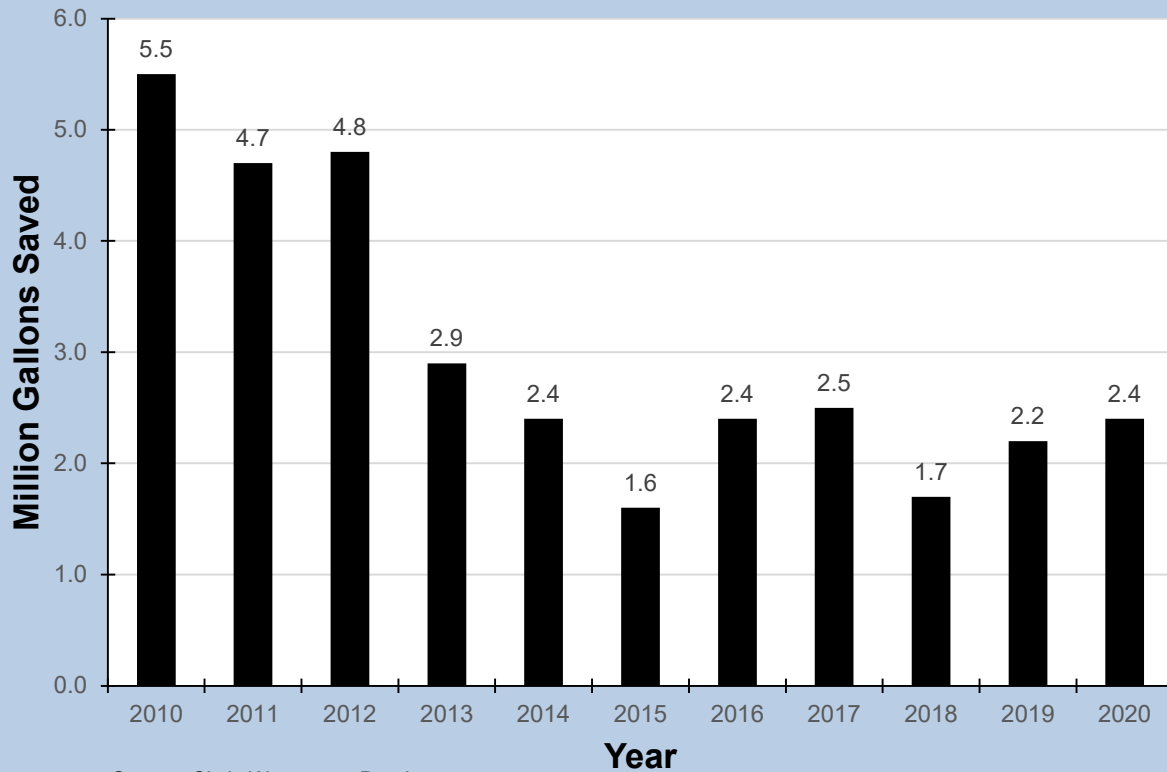
In 1992, the City began offering rebate incentives to create the opportunity to save millions of gallons of potable water by using water saving devices and remove outdoor turf grass. The adoption of current building codes also contributes to water savings in new construction. Water savings from replacing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

The City website provides a selection of native and low-water use plants, shares photos and landscape designs, provides virtual tours of local landscapes and gardens, and assists with locating landscape resources. Plantings consistent with ADWR's Low Water Use/Drought Tolerant Plant List under the 4th Management Plan, are required for all new development. More information can be found here:

<https://www.prescott-az.gov/water-sewer/water-conservation/watersmart-landscaping/>

Meet the ADWR goal of 10 percent or less unaccounted for and lost water and work toward reducing system losses even further.

Figure 5: Rebate Program - Water Savings

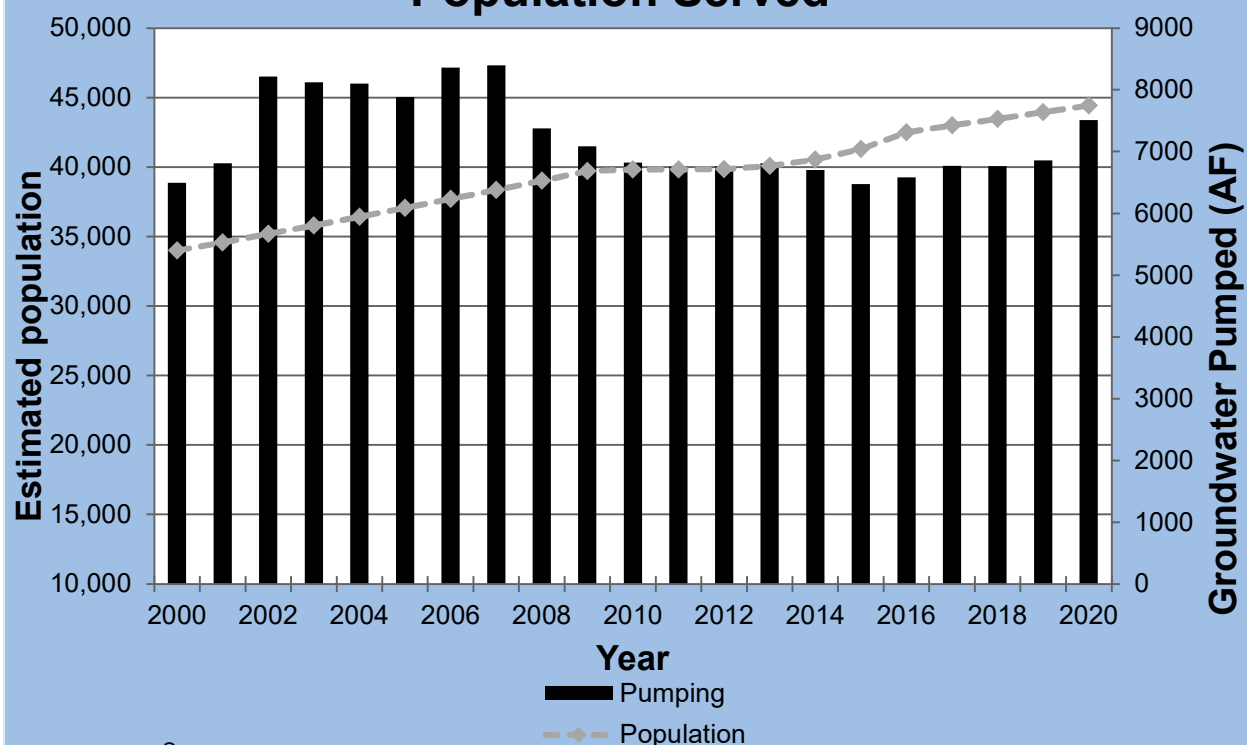


Source: City's Waterways Database

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



Sources

Total pumped: ADWR Annual Reports

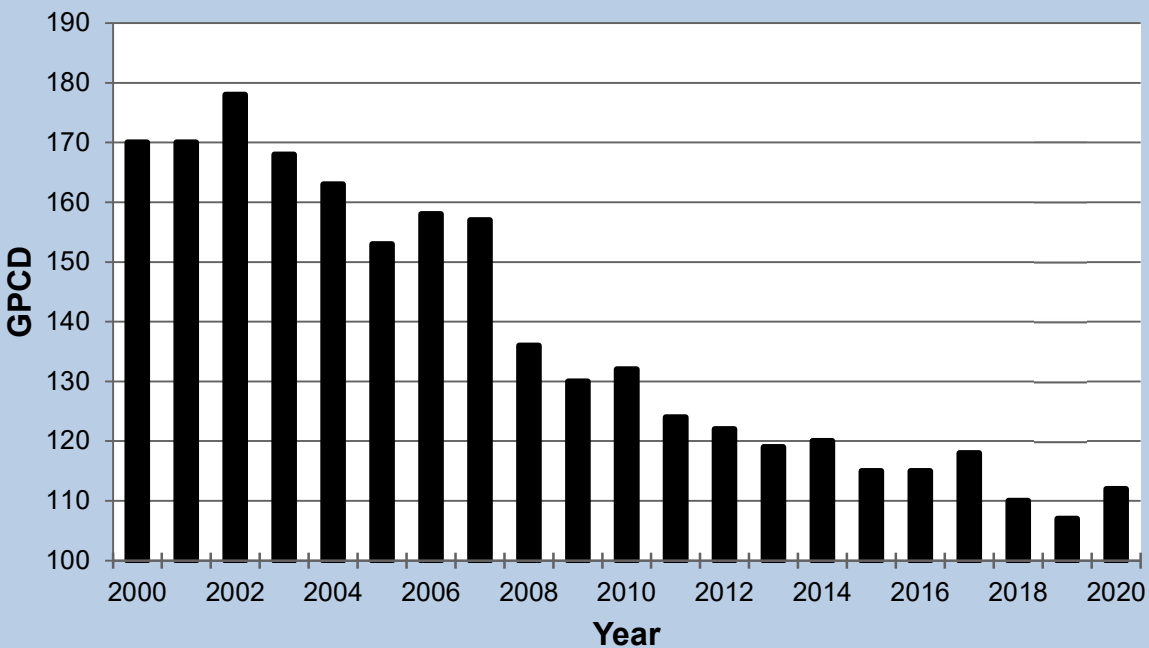
Estimated population: 2013 Water and Wastewater Models Report, Carollo Engineers, April 2014

Encourage water conservation awareness through continued outreach and education, rebate incentives and the use of low-water or drought tolerant plantings.

Gallons Per Capita Per Day

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 2000 to 2020, water use within the City's water service area declined from 170 to 112 with a low of 107 gpcd in 2019 (**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 (GPCD)



Source: ADWR Annual Notification of

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 Fourth Management Plan provides more details and recommendations for achieving and maintaining a condition of safe-yield. The City is actively participating in the development of the Fifth Management Plan, which will provide guidance beyond 2025.

Section 4.c: 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 4.d: Assured Water Supply and Infrastructure Planning

The City is an Assured Water Provider for over 45,800 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 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.

In 2020 (**Figure 8**), Total Demand is estimated at 14,529 AFY, leaving a remaining 1,978.44 AFY available for water budgeting.

Figure 8: Water Resource Management Model Demands

Figure 8 AFY quantities are provisional based on ADWR review of City's 2022 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

Section 5.a: Water Policies

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.

New Applications:

Policy 1 – In order to receive water service from the City, a Water Service Application (WSA) shall be submitted in conjunction with a formal site plan (LDC – Section 9.8) or a preliminary or final plat application. (*Attachment 5, Water Application Procedure*)

Policy 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 bi-annual Water Budget(s).

Policy 3 – Estimated water usage shall be based on the 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 shall be updated in January of each calendar year, incorporating the most recent rolling 5-year Average. Updated water usage estimates by project type shall be presented to the Water Issues Subcommittee and Council annually, at its March meeting as a discussion/information item.

Water use estimates shall be adjusted annually in January of each year as projected in the WRMM, in acre feet per year (AFY):

Policy 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.

Policy 5 – The City may require a cost benefit analysis for any project, 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.

Policy 6 – Water Service Applications will expire one year after the date the application was submitted if a building permit or plat for the project described in the application does not move forward through the review process, be agendized for the Water Issues Subcommittee, or be administratively approved. Once a Water Service Application expires, it will need to be re-submitted for consideration pursuant to the current Water Management Policy and Water Budget.

Policy 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 Water Service Application for the revised project, which will be evaluated according to the current Water Management Policy and Water Budget, if applicable.

Policy 8 – Redevelopment of property that will result in less total water use will be required to submit a Water Service Application. These requests will be reviewed and tracked administratively. All such requests will be presented to the Water Issues Subcommittee and the Council bi-annually in January and July as a discussion/information item and shall not be included in the Water Budget. 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.

Policy 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 bi-annually in January and July as a discussion/information item and shall not be included in the Water Budget.

Policy 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. New non-residential development projects shall return no less than 75% of the water sold as wastewater to the City Water Reclamation Facility.

Water Budget:

Policy 11 – The Council shall set the Water Budget bi-annually at its last meeting in June and December of each year.

Policy 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 (Policy 2) shall be included in the residential Water Budget.

Policy 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 (Policy 2) shall be included in the Water Budget.

Policy 14 – No single Water Service Application will be approved for water usage estimates greater than 50% of the remaining bi-annual Water Budget.

Projects that request more than 50% of the remaining bi-annual water budget may:

1. File a Water Service Application to be considered when the next Water Budget is available
OR
2. 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.

Existing Contracts:

Policy 15 – 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.

Policy 16 – When a Contract expires, the associated volume(s) of water shall be returned to the water resource portfolio.

Water Outside City Limits:

Policy 17 – Contracts for water service outside City limits shall contain performance criteria appropriate to the project, including a performance completion date. In the event a project does not meet the performance criteria or date, the allocation of water for the project shall be terminated and returned to the Water Portfolio.

Policy 18 – No new Contracts for water outside of City limits shall be approved except as provided in Prescott City Code 2-1-8 (*Attachment 8*). Commitments to serve water outside City limits within existing Contracts will be met.

Water Portfolio:

Policy 19 – All new development shall install water sense fixtures, meet adopted building and plumbing code standards and install only low-water use landscape plantings per City Code requirements. The Low Water Use/Drought Tolerant Plant List may be found at:

https://new.azwater.gov/sites/default/files/media/PRAMA2014LWUPL_2020.pdf

Policy 20 – Savings accrued to the effective date hereof, accumulated from the difference between the overall volumes of water allocated and actual volumes consumed by projects that were put into Contract shall be retained in the WRMM as committed demand, and not used to support additional development.

Policy 21 – Well(s) on any property to be served by City water must be officially abandoned through the Arizona Department of Water Resources, as part of the approval of a Water Service Application. The increase in groundwater allowance received for these wells shall be retained in the City's Water Portfolio, and not used to support additional development that is not identified as current, committed or future demand within the WRMM.

Policy 22 – 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 provided (*Attachment 6*).

ATTACHMENTS

Attachment 1 Map of Current 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

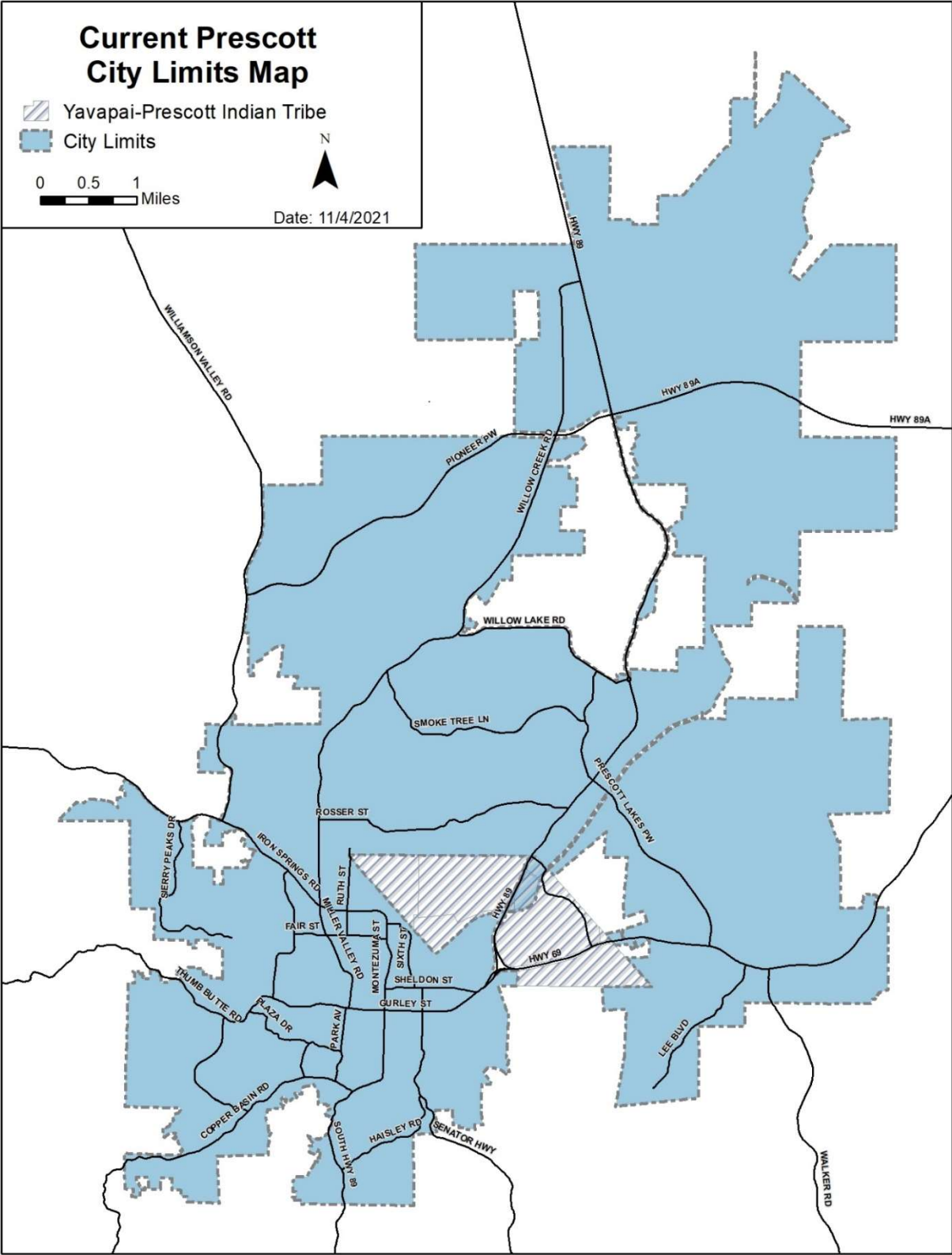
Attachment 6 Acceptance of Extinguishment Credits (IGFRs)

Attachment 7 Cost Benefit Analysis

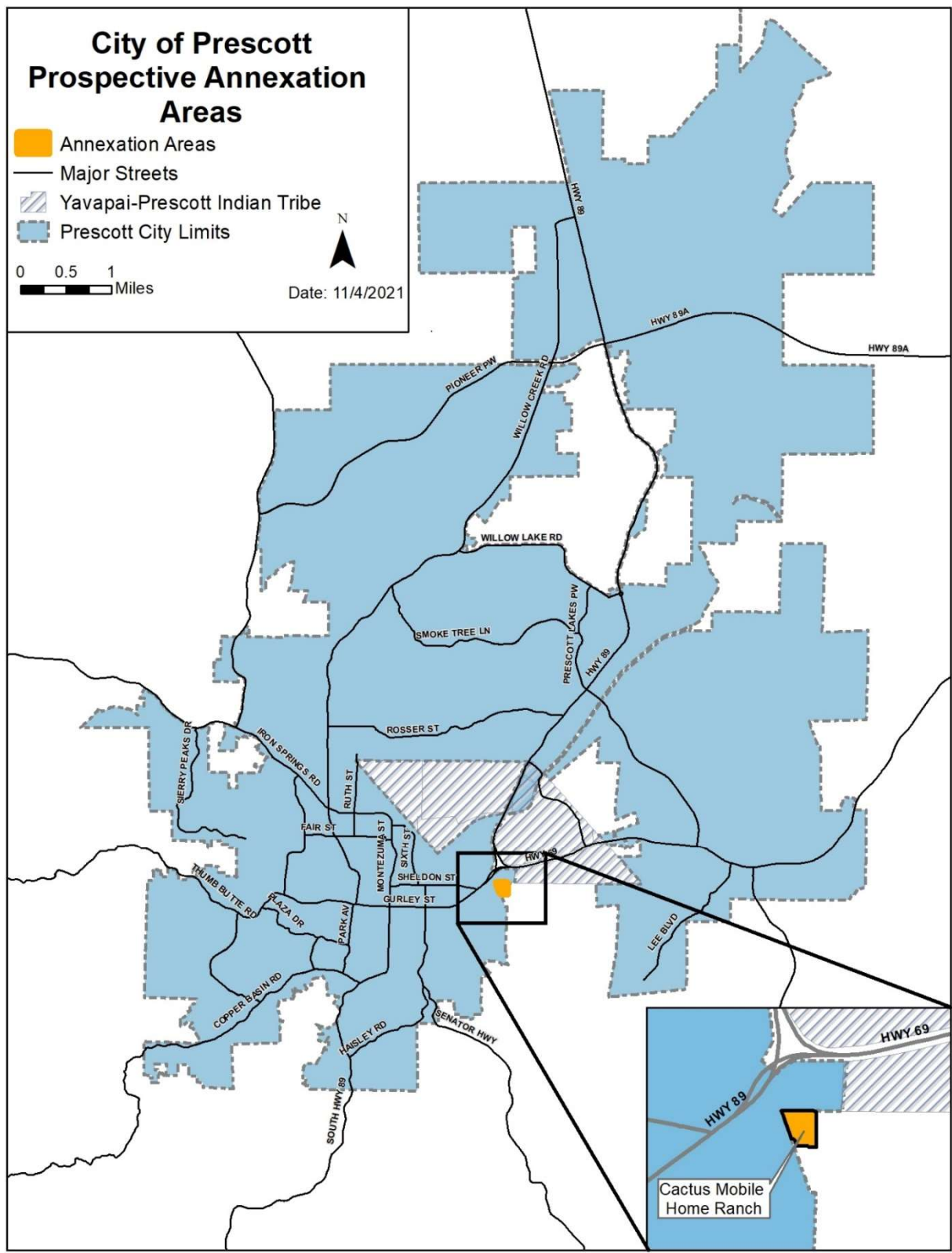
Attachment 8 Prescott City Code 2-1-8, Water Outside City Limits

Attachment 9 Definitions

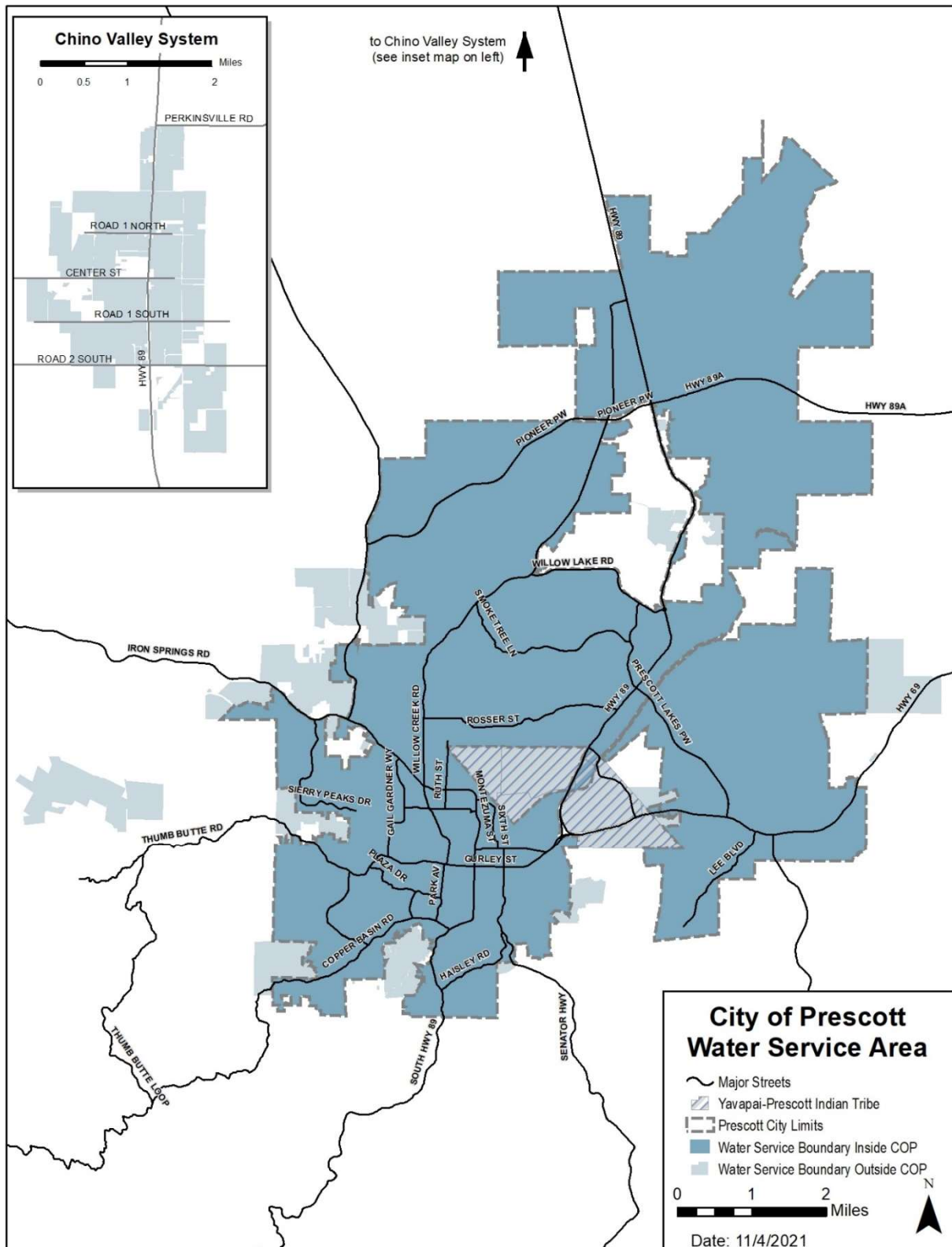
Attachment 1 Map of Current City Limits



Attachment 2 Map of Prospective Major Annexation Areas



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.

This document may be found on the City website at:

https://www.prescott-az.gov/wpcontent/uploads/2022/01/Application_Part_B_text_12_11_2021.pdf

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Attachment 5 Water Application Procedure

All new development within the City limits, other than those subject to an existing Contract are required to submit a Water Service Application (WSA) concurrently with a site plan, preliminary, or final plat submittal. Such application shall include the number of single-family or multi-family dwelling units as well as any other amenities the residential development is considering including a clubhouse, pool, retail or office space and landscaping areas. For non-residential developments, a water demand analysis may be required if a similar use cannot be determined from the Water Resource Management Model (WRMM) or a like facility. A cost benefit analysis may also be required.

New development outside of the City limits that is entitled to water service from an existing Contract within the City's water service area, is required to submit a Water Service Application and shall be subject to all terms and conditions of the Contract.

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.

Approval of a Water Service Application for residential development plans or for non-residential projects shall be in compliance with all applicable City development regulations, be consistent with and conform to the City's adopted General Plan and be consistent with and conform to any and all adopted, applicable plans.

In determining whether a development is consistent with and conforms to applicable plans and policies, the overall intent and goals of the plans and policies shall be considered. The development plan shall also be evaluated as to whether it furthers the implementation of, and is not contrary to, the policies, goals, objectives, strategies and applicable elements of the plans and policies.

Any property that holds an existing water Contract within the City limits to receive water, will not be required to obtain water service approval or submit a Water Service Application. There are four pathways to water service approval. The City will determine the most suitable path for each project from the following list:

1. Administrative Approval

Residential projects having 8 or less dwelling units (DU's) that are not subject to subdivision rules, and non-residential projects with an estimated water usage of 1 acre-foot per year (AFY) or less, are required to submit a Water Service Application with a Permit Application.

- A. Contact Community Development to discuss the project and the need for a Pre-Application Conference (PAC). Submit PAC application and schedule the conference, if required.
- B. After PAC (if required) and determination of water supply needs, submit a Water Service Application and Permit Application concurrently.
- C. Following staff review and approval of compliance with City Codes and Policies, the application may be administratively approved.
- D. The City may require a demand analysis or direct any request for water to the City Council for consideration.
- E. Water Service Applications shall expire 1-year after the application was submitted if the project described in the application has not been issued a permit for construction.

2. Site Plan Review

All multi-family residential and non-residential projects which exceed the maximum water usage for “Administrative Approvals”, and which do not require a preliminary or final plat, are required to submit a Site Plan Review Application and a Water Service Application for approval by the City Council, per the LDC Section 9.8.

- A. Contact Community Development to discuss the project and the need for a Pre-Application Conference (PAC). Submit PAC application and schedule the conference.
- B. After PAC, and determination of water supply needs, submit a Site Plan Review Application and Water Service Application concurrently.
- C. Following staff review for compliance with City Codes and Policies, the request will be scheduled for Planning & Zoning Commission and Water Issues Subcommittee review and consideration.
- D. The City Council will consider the Site Plan Review and Water Service Application at the same meeting.
- E. Site Plan Review approval shall expire 6-months from the date of approval unless a complete Permit Application has been submitted.
- F. Water Service 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.
- G. Redevelopment of property that will result in less total water usage does not require a new application for water service. In the event the redevelopment requires more water than its existing use, it may apply for additional water following the then-current procedures in the Water Management Policy and the then-current Water Budget.

3. Preliminary Plat Review

- A. Contact Community Development to discuss the project and the need for a Pre-Application Conference (PAC). Submit PAC application and schedule the conference.
- B. After PAC, and determination of water supply needs, submit a Preliminary Plat Application and a Water Service Application concurrently.
- C. The Preliminary Plat Review process is described in the Land Development Code Section (LDC 9.10.9).
- D. Following staff review for compliance with City Codes and Policies, the request will be scheduled for Planning & Zoning Commission and Water Issues Subcommittee review and consideration.
- E. The City Council will consider the Preliminary Plat and Water Service Application at the same meeting.
- F. Water Service approval shall expire within one-year of Council approval, unless a final plat has been approved.

4. Outside City Limits

- A. Contact Public Works to determine if the property has a pre-existing Contract that provides water service to the parcel(s) within the City's Water Service Area.
- B. Work with Public Works staff to make a determination of the City's contractual obligation and the water supply needs of the project. Applicants who do not have sufficient water rights under an existing Contract may acquire and present for consideration sufficient extinguishment credits to support their development. The volume of credits will be required to meet the calculated 100-year demand for water.
- C. The applicant shall obtain the written approval of any outside jurisdiction for the project prior to requesting water service from the City.
- D. Submit a Water Service Application and an Engineering or Water Service Permit Application. A water demand analysis may be required.
- E. Following staff review and approval of compliance with City Codes and Policies, the request will be administratively approved or scheduled for Water Issues Subcommittee and City Council for consideration, whichever is applicable.
- F. Following Council approval, a permit application must be submitted within 1 year to the appropriate agency and a permit issued within 18 months or the Water Service Application will expire, and a new Water Service Application will need to be submitted for consideration.

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. $0.17 \text{ AF/yr} \times 45 \text{ dwelling units} = 7.65 \text{ AF/yr}$
2. Multiply your annual water demand by 100 years.
 - a. $7.65 \text{ AF/yr} \times 100 \text{ yrs} = \mathbf{765 \text{ AF}}$
 - 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
- 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.

To be posted separately on the City website no later than 4/6/2022.

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Attachment 9 Definitions

Acre Feet – means a unit of volume equal to the volume of a sheet of water one acre in area and one foot in depth or 325,851 gallons.

Active Management Area (AMA) – means a geographic area that has been designated pursuant to Arizona Revised Statute 45-411. Active management areas may be designated through local initiative or by the Director of the Arizona Department of Water Resources (ADWR).

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

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

Arizona Department of Water Resources – means State agency which administers all state water laws, except those related to water quality. Arizona's water supplies include surface water, including Colorado River water and in-state rivers, groundwater and reclaimed water.

City Council or Council – means the City of Prescott Mayor and Council members.

Civil Engineer – means 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 – means 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.

Contract – means 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 – means 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 – means 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 – means 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 – means 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 – means two or more dwelling units that are separated by a common wall, floor or ceiling within one building, with one owner.

Estimated Water – means 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 – An extinguishment credit is 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 – means 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 – means carrying out and meeting the primary material requirements of the contract.

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

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

Wastewater Infrastructure – means 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 – means an amount of water set aside bi-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 – means that portion of the City's Wastewater Sewer System designed to provide treatment of municipal sewage and industrial waste.

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

Water Issues Subcommittee – means 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 – means a collection of water resource legal acquired water supplies owned by the City, and included in the City's Decision and Order.

Water Service Application – means 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 – means the area of land being served water, for a non-irrigation use, by the City.

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

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