

AGENDA

**COUNCIL WATER ISSUES COMMITTEE
NOTICE OF PUBLIC MEETING
Tuesday, March 7, 2017
9:00 a.m.**

**Prescott City Hall
Lower Level Conference Room
201 South Cortez St., Prescott, Arizona
(928) 777-1100**

The following Agenda will be considered by the Council Water Issues Committee at its meeting on **Tuesday, March 7, 2017, at 9:00 a.m.** in the Lower Level Conference Room, 201 South Cortez Street, Prescott, Arizona. One or more members of the Council may be attending this meeting through the use of a technological device.

- A. Call to Order.
- B. Roll Call.

COUNCIL WATER ISSUES COMMITTEE MEMBERS:

Chairman Jim Lamerson
Member Steve Blair
Member Steve Sischka

- C. Approval of minutes of the February 7, 2017, Council Water Issues Committee meeting
- D. Alternative Water Portfolio Update
- E. Water Service Agreements
 - 1. Brian Wirick (WSA 17-004)
 - 2. Raymond Hickle (WSA 17-005)
 - 3. Pine Haven Apartments (WSA 17-006)
- F. Analysis and recommendations for unit allocations of alternative water for residential development
- G. Adjournment

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.

Dana R. DeLong, City Clerk

COUNCIL WATER ISSUES
COMMITTEE
REGULAR MEETING
TUESDAY, FEBRUARY 7, 2017
PRESCOTT, ARIZONA

MINUTES OF THE REGULAR MEETING OF THE COUNCIL WATER ISSUES COMMITTEE HELD ON FEBRUARY 7, 2017, in the LOWER LEVEL CONFERENCE ROOM, located at CITY HALL, 201 SOUTH CORTEZ STREET, Prescott, Arizona.

A. Call to Order.

Chairman Lamerson called the meeting to order at 9:00 a.m.

B. Roll Call.

COUNCIL WATER ISSUES COMMITTEE MEMBERS:

Present:

Chairman Jim Lamerson
Member Steve Blair, (arrived at 9:09 am)
Member Steve Sischka

Staff Present:

Michael Lamar, City Manager
Virginia Mefford, Deputy City Clerk
Clyde Halstead, Assistant City Attorney
Craig McConnell, Regional Programs Director
Leslie Graser, Water Resources Manager

C. Approval of minutes of the January 3, 2017, Council Water Issues Committee meeting.

COUNCILMAN SISCHKA MOVED TO APPROVE THE MINUTES OF THE JANUARY 3, 2017, WATER ISSUES COMMITTEE MEETING; SECONDED BY MAYOR PRO TEM LAMERSON; PASSED 2-0.

D. Alternative Water Portfolio Update

Leslie Graser, Water Resources Manager, presented. She reviewed the Calendar Year 2017 Alternative Water Budget, remaining balances in the Residential and Commercial categories, and requests associated with projects on this (February 7, 2017)_ agenda.

No action was taken.

E. Water Service Agreements

1. Prescott Lakes Villas (WSA 17-001)

Leslie Graser said two representatives from the projects were in attendance. The project is already in process; Prescott Lakes Villas were seeking the balance of alternative water needed for the 200-unit apartment complex, in the amount of 25.25 acre-feet. On September 13, 2016, Water Service Agreement Application No. 16-008, City Contract No. 2017-009, was approved by Council for Phase 1 (12.25 acre-feet for 99 of the 200 total units).

Ms. Graser pointed out the location of the project on the map, and mentioned Council had already approved 12.25 AF of alternative water for Phase 1. An additional 25.25 acre-feet was needed to build out the 200-unit apartment project.

Mayor Pro Tem Lamerson asked if it would reduce the amount available for residential.

Ms. Graser indicated that it would reduce the residential availability by 25.25 acre-feet.

MAYOR PRO TEM LAMERSON MOVED TO FORWARD THE REQUEST TO THE FULL COUNCIL FOR CONSIDERATION; SECONDED BY COUNCILMAN SISCHKA; PASSED UNANIMOUSLY.

2. Creekside Village Apartments (WSA 17-002)

Leslie Graser said this request was for 22 units, with the circumstances similar to those of the Prescott Lakes Villas project. It had gone as far as it could with the water allocated to the project. On January 3, 2017, Water Service Agreement application (WSA 17-002) was submitted by Bethel Development seeking the balance of alternative water needed (12.5 acre-feet) for the 72 unit workforce housing apartment complex. On December 20, 2016, Water Service Agreement Application No. 16-025, City Contract No. 2017-205, was approved by Council for allocation of 5.5 acre-feet for Phase 1 (22 apartment units) of the 72-unit apartment complex.

On December 20, 2016, Council approved SI 16-007 contingent upon adoption of a General Plan amendment for rezoning the property from Industrial to Business Regional. Included was approval of WSA No. 16-025 (City Contract No. 2017-205) for Phase 1 alternative water in the amount of 5.5 acre-feet for 22 dwelling units. On January 24, 2017, the Council adopted Resolution No. 4359-1568 and Ordinance No. 5019-1557 for the General Plan amendment and rezoning, respectively. The rezoning allows for up to 153 units, less a deduction due to floodplain. The resulting request for 72 units will be evidenced on the updated site plan. Water supplies are available for the additional 2 units (72 total units vs. 70 units indicated on a prior site plan).

Councilman Blair, having joined the meeting, asked for a brief overview.

Mayor Pro Tem Lamerson and Ms. Graser updated him on the changes.

MAYOR PRO TEM LAMERSON MOVED TO FORWARD THE REQUEST TO THE FULL COUNCIL FOR CONSIDERATION; SECONDED BY COUNCILMAN SISCHKA; PASSED UNANIMOUSLY.

3. Don Biele (WSA 17-003)

Ms. Graser said this was an application by Don Biele, who was seeking an alternative water allocation for one (1) single-family dwelling. The submittal was in accordance with the Water Management and Calendar Year 2017 Alternative Water Allocation Policy. She indicated the location of the project on the map

Mayor Pro Tem Lamerson asked if there was allocation for this property.

Councilman Siscka asked if there was a duplication in budgeting the water..

Ms. Graser said no, this was a request for a residential allocation of alternative water, with neither grandfathered groundwater or the markup on allocations of alternative water for nonresidential support services (such as grocery stores, hair salons and restaurants involved).

Councilman Sischka asked if a grocery store could be served with grandfathered groundwater.

Ms. Graser said they only would be if they were part of a commercial subdivision that existed in 1998 when Assured Water Supply rules were implemented.

Mr. McConnell said that today, if the demand was over 5-acre feet, a grocery store would have to apply for alternative water via a water service agreement.

Mayor Pro Lamerson asked if the Biele request would be forwarded to Council for consideration.

Ms. Graser said the City Manager had authority to administratively approve a new water service agreement to enable construction of, and water service to, the proposed single-family dwelling, subject to a performance requirement of a certificate of occupancy being issued within three (3) years.

No action was taken.

F. Unit allocations of alternative water for residential development

Ms. Graser said this item was informational only.

Mr. McConnell said the topic of unit allocations to single-family and multi-family dwelling units for new development had been touched upon at previous Committee meetings, was important because the City was getting down to the bottom of the barrel of available alternative water, and it was time to analyze allocation versus actual usage by customers. He said the Indication was the actual usage by single-family was considerably less than the 0.35 acre-foot allocated per unit, and 0.25 acre-foot per multi-family unit. He gave several reasons for the importance of the subject: (1) depletion of the balance of available, unreserved alternative water from renewable and/or imported sources, as distinct from grandfathered groundwater; (2) actual average annual usage (demand) for the residential accounts among the City's 23,000 water customers is well below the aforementioned unit allocations; (3) water conserving plumbing codes are in effect; (4) water conserving (Water Smart™) landscaping is now widely used; (5) a water conservation rate structure has been in place for several years; and (6) separate accounting and allocation of alternative water for non-residential development may be more prudent on an individual project basis, rather than the nominal markup of 0.1 acre-foot on each residential unit that is presently being made.

Councilman Blair said he had three questions: how the 0.35 was originated, would the State of Arizona Department of Water Resources support a reduction, and what their view would be if it was reduced by the City.

Ms. Graser described how the original allocation started in 1999, based upon a formula for prior groundwater use. A year later (2000), separate unit allocations for each of the single-family (0.35 acre-foot) and multi-family (0.25 acre-foot) housing types were adopted, both of which included a 0.1 acre-foot markup for nonresidential support services, the demand for which is driven by new residents. She said the City did not have any authority relative to groundwater, that being set by statute. With respect to alternative water, there is flexibility; as long as the allocation was reasonable, she did not think the State would Object.

Councilman Blair stated that as the City moved forward, background information would be needed.

Mr. McConnell said that the City had been very conservative on the allocation of alternative water, the approach has served the community well, and now it's time to pay a lot more to the unit allocations for the reasons stated. To consider changes to the unit allocations, background information will be needed.

Councilman Blair asked how far back this would go.

Mr. McConnell said they had to look at the actual usage by a variety of housing types for a number of years to address actual usage versus the unit allocations.

Mayor Pro Tem Lamerson said water consumption had been reduced due to implementation of various changes in policy below the levels calculated by the State based upon projections.

Mr. McConnell said the opportunity was there to do an analysis and make a prudent adjustment of unit allocations.

Councilman Sischka asked if any changes to allocations would only apply moving forward, or would they also be retroactive.

Mr. McConnell said they would be recommended moving forward. He said they would do data analysis of actual usage by newer housing, to see what makes sense. Mayor Pro Tem Lamerson said if the approach was one of moving forward, he presumed that changes in the Unified Code Development would be reflected.

Michael Lamar, City Manager asked how far back did we have data.

Ms. Graser said 2010, but if necessary, additional data could be looked at prior to then.

Mr. Lamar suggested looking back to get data indicating what changes might have occurred over time, and the associated usage trend.

Mr. McConnell said there was more headroom than expected, and they were not going to recommend building more houses using that headroom..

Mr. Lamar said it would be interesting to look at meaningful data from when consumption began to trend down..

Councilman Blair said the City had the right to pump so much, but was not even close to pumping the quantity recognized in the Water Portfolio.

Councilman Sischka asked that of the average of 0.20 acre-foot being used by a single-family dwelling unit, how much was returned to the City's wastewater treatment plants to be recharged. Ms. Graser said about 54%.

Councilman Sischka, commenting on the size of a residence, said that if there were two people living in a larger house, they wouldn't necessarily use more water, and proceeded to ask if there was evidence of higher water use.

Mr. McConnell said the size of the meter was one indication of the level of water usage. He said they would bring specific usage information to the next meeting.

G. Upcoming NAMWUA Discussion Dues

Leslie Graser, Water Resources Manager, presented. She said the item was for informational purposes, to keep in mind for the Fiscal Year 2018 Budget..

A financial model had been developed by the NAMWUA Program Manager and reviewed by the TAC to determine the dues increase necessary to include funding of

the NIA water reallocation report. She said for the City of Prescott, these would be \$6,418.18 and \$2,005.68, respectively, for the next two years, resulting in FY18 dues of \$9,151.54 and FY19 dues of \$4,789.04. All such dues are paid from the City's Water Fund. The partnership with NAMWA was a shared cost.

Ms. Graser said in July 2016, the Board authorized Herb Dishlip to assist the TAC in developing a scope of work for a report that would be used for decision-making regarding the NIA water reallocation in 2021 by ADWR. The reallocation involved 17,333 AF of NIA CAP water that will be available to water providers outside the three-county CAP service area. The draft scope of work was presented to the NAMWUA Board at their October 2016 meeting. The tasks of the proposed scope of work include the following:

- Describe and evaluate the characteristics of the CAP NIA water supplies
- Describe and evaluate the cost components associated with holding an allocation of CAP NIA water
- Describe the process for requesting a CAP NIA allocation. Describe the probable evaluation criteria to be used in assessing those requests.
- Compile data from individual NAMWUA member communities related to the information necessary to make a request for a CAP NIA allocation.
- Evaluate options and opportunities for individual NAMWUA members to make beneficial use of CAP NIA water supplies
- Describe and evaluate opportunities to enter into partnerships or other types of arrangements to assist in funding and water delivery
- Prepare an executive summary of findings and conclusions

Mayor Pro Tem Lamerson said it was imperative that the City maintain a presence on NAMWUA. It would be beneficial to share the importance with Council as a whole.

Councilman Blair said the dues dropped in the past, this group had done a lot, and the more they do and see how other communities are doing and use some of their knowledge and some of our knowledge, the better off they were.

Ms. Graser said they would have had more information today, but the prior meeting was postponed due to weather. She said it was a team effort within the rural area of Northern Arizona, and added that NAMWUA is very credible across the State. Councilman Blair asked for the next agenda to see a summary of the water monitoring with SRP, and discussion of how much water evaporated from the lakes annually.

Ms. Graser said that monitoring data was being generated, but had not yet been analyzed; he would comment on the data collected, as well as lakes evaporation.

Councilman Blair also brought up the subjects of operation of the lakes (Watson and Willow Lakes reservoirs), and current overflow (spilling).
Ms. Graser said that the City's website was up-to-date, and all the information was there for the public to see.

H. Adjournment

There being no further business to be discussed, the Council Water Issues Committee adjourned the Public Meeting of February 7, 2017, at 10:00 a.m.

JIM LAMERSON, Chairman

ATTEST:

DANA R. DeLONG

COUNCIL WATER ISSUES COMMITTEE AGENDA MEMO	
March 7, 2017	
DEPARTMENT:	City Manager (Water Resource Management)
AGENDA ITEM:	Alternative Water Portfolio Update

Approved By:	Date:
Water Resource Manager: Leslie Graser	
Regional Programs Director: Craig McConnell	

Summary

For Calendar Year 2017 (January 1, 2017, through December 31, 2017), quantities were made available ("budgeted") by Council in two categories:

- 1. Residential 70 acre-feet
- 2. Commercial 100 acre-feet

According to policy, no single project is eligible for allocation of more than 50% of each of the preceding (residential and commercial) quantities, or the remaining balances of these quantities during the calendar year.

At year-end 2017, if the preceding quantities are fully allocated, 50 acre-feet would be the opening balance for Calendar Year 2018 according to the policy adopted December 13, 2016, which identified an annual transfer of 50 acre-feet from the vacant, residentially-zoned tract reservation (until that reservation is extinguished). The actual volume recommended for 2018 may be more than 50 AF, depending upon any unallocated 2017 year-end balance.

As of February 27, 2017, of the 70 acre-feet residential budget, 31.7 acre-feet remain. Two applications has been received that meet the requirements for administrative approval (3 units or less), but neither corresponding quantity has yet been placed into contract.

Requests for alternative water associated with the projects on this (March 7, 2017) agenda, if viewed favorably by the Council Water Issues Committee, would reduce the Calendar Year 2017 budget balances to:

- 1. Residential 28.20 acre-feet
- 2. Commercial 100.00 acre-feet

AGENDA ITEM: Alternative Water Portfolio Update

Note that the preceding information is solely for tracking purposes, for Calendar Year 2017. Recall that an additional 100 acre-feet has also been set aside for a specific contractual obligation (Lee/Bullwhacker).

Committee Recommendation to Council: Update for Committee information.

COUNCIL WATER ISSUES COMMITTEE AGENDA MEMO

March 7, 2017

DEPARTMENT: City Manager (Water Resource Management)

AGENDA ITEM: Water Service Agreement Application No. 17-004 by Brian Wirick, for construction of a single-family residential unit on APN 106-20-024K at 662 S. Lakeview Drive

Approved By:

Date:

Water Resource Manager: Leslie Graser

Regional Programs Director: Craig McConnell

Summary

On January 31, 2017, Water Service Agreement application (WSA 17-004) was submitted by Brian Wirick seeking an alternative water allocation for one (1) single-family dwelling. The submittal is in accordance with the Water Management and Calendar Year 2017 Alternative Water Allocation Policy.

Background

The subject parcel APN 106-20-024K is part of the Willow Creek Heights Subdivision, a replat of Lot 14, which occurred in 2005. Due to the 2005 replat, an allocation from the City's alternative water portfolio for 0.35 acre-foot will be required.

The City Manager has authority to administratively approve a new water service agreement to enable construction of, and water service to, the proposed single-family dwelling, subject to a performance requirement of a certificate of occupancy being issued within three (3) years.

Attachments

- 1) Location Map
- 2) Water Service Agreement Application WSA 17-004

Committee Recommendation to Council: For information of the Committee; no action necessary.

Parcel Report for APN: 106-20-024K

Site Address: 662 S LAKEVIEW DR

Owner:
WIRICK BRIAN & STEPHANIE LIVING TRUST
 2127 LAKEWOOD DR
 PRESCOTT AZ 863015471

Subdivision Name: **WILLOW CREEK HEIGHTS**
 REPLAT LOT 14

Max. Lot Coverage: 35%
 Max. Bldg Height: 35 ft
 Setbacks
 Front: 25 ft
 Side: 9 ft
 Rear: 25 ft
 Corner: 15 ft

Acres: 0.5 acres
 Square Ft: sq.ft.
 TRS:

DOR Usage Code: Vacant
 Description: 0011-VACANT RESIDENTIAL

Zoning Information

Zoning: SF-18

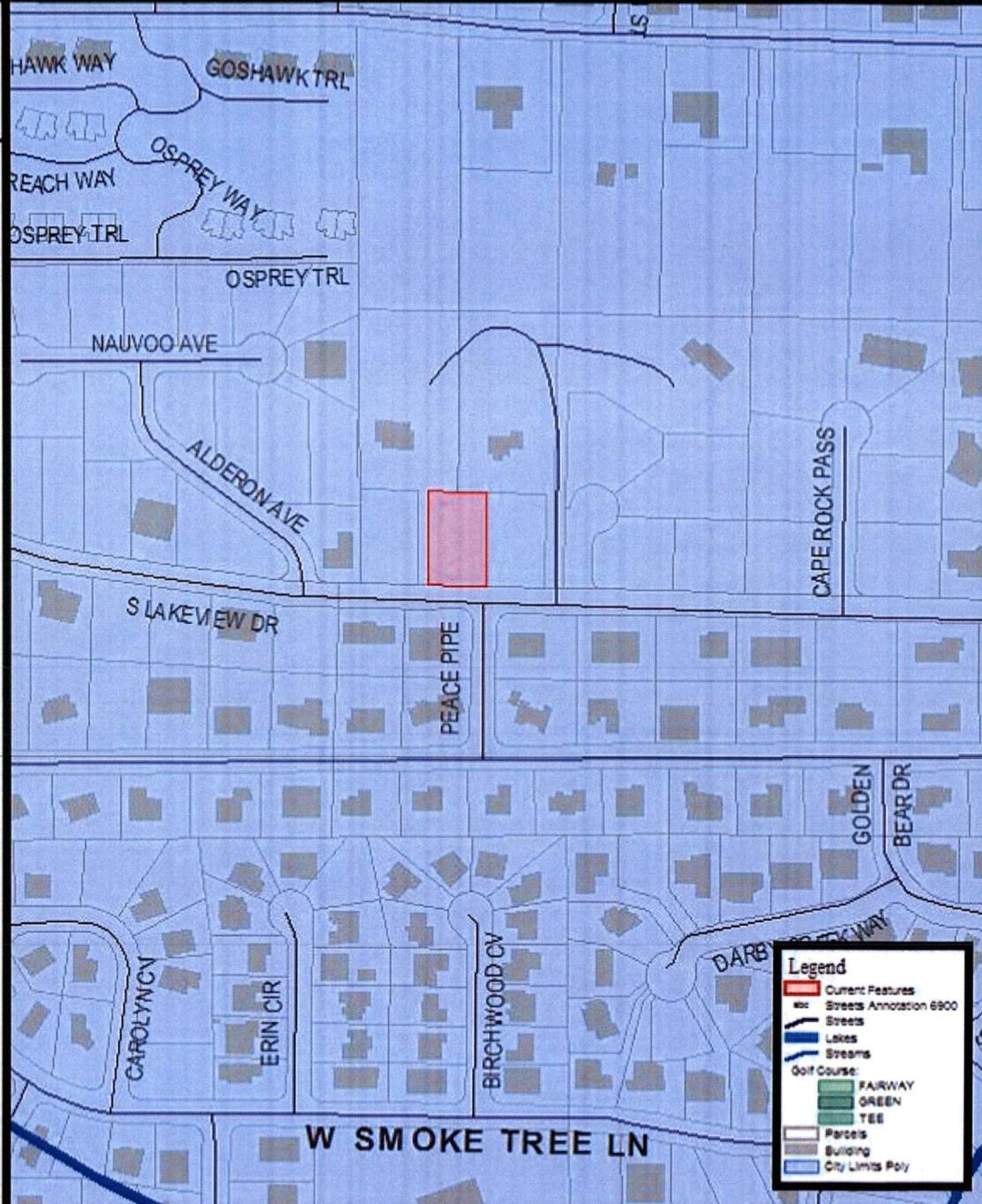
Flood Zone: X;
 FIRM Panel: 04025C2055G

Overlay District Information

HPD District: Outside
 NR District: Outside
 Willow Creek District: Outside
 Wipple-Zuma District: Outside
 Hwy 89 District: Outside
 Prescott East Area Plan: Outside
 Prescott Enterprise: Outside
 Airport Noise District: Outside
 Wildlife Urban Interface: Outside

Planner's Actions:

RZ-067: Rezones
 Ord 4520
 RZ-0314: Rezones



662 S LAKEVIEW DR

Legend

- Current Features
- Streets Annotation 6900
- Streets
- Lakes
- Streams
- Golf Course:
- FAIRWAY
- GREEN
- TEE
- Parcels
- Building
- City Limits Poly

This map is a product of The City of Prescott





WATER SERVICE AGREEMENT APPLICATION

Water Resources: Annikki Chamberlain
 201 S. Cortez St., Prescott, AZ 86303
 (P) 928.777.1645 (F) 928.777.1255

Please complete the form and submit a legible legal description on a separate sheet of paper as well as a site plan of the subject property with proposed improvements. Submit all documents and the filing fee directly to the Community Development Department at 201 S. Cortez St, Prescott, AZ 86302.

APPLICANT INFORMATION

Applicant: Brian Wirick Contact Person: Brian Wirick
 Address: 2127 Lakewood Dr City/State/Zip: Prescott AZ 86301
 Phone: ~~Prescott AZ 86301~~ Email: bwirick@cableone.net
928-710-3393

PROPERTY OWNER INFORMATION

Owner: Brian & Stephanie Wirick Contact Person: Brian Wirick
 Address: Same City/State/Zip: Same
 Phone: (928) 710-3393 Email: bwirick@cableone.net

PROJECT SITE

Address: 462 S Lakewood Dr. Prescott 86301
 Current Zoning: SE18 Proposed Zoning: _____
 Assessor's Parcel Number(s) of Existing Property
106-20-0246 _____
 Existing Water Service (Y/N): N Existing Sewer Service (Y/N): NO
 Existing Well (Y/N): N If Yes, Well Registry No.: _____

PROJECT DESCRIPTION

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

of Proposed Units: 1 # of Proposed Lots: 1

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

FEES: Fees are subject to change.

Single Family Residence	Multi-Family/Apartments	Residential Subdivision	Commercial Subdivision or Individual Commercial Project
<input checked="" type="checkbox"/> \$150	2-5 units <input type="checkbox"/> \$150 6-10 units <input type="checkbox"/> \$200	6-25 lots <input type="checkbox"/> \$300 26-100 lots <input type="checkbox"/> \$500	<2 acre feet <input type="checkbox"/> \$150 2-4.9 acre feet <input type="checkbox"/> \$200
Existing Connection	11-50 units <input type="checkbox"/> \$300 51-99 units <input type="checkbox"/> \$400	100+ lots <input type="checkbox"/> \$700	5-10 acre feet <input type="checkbox"/> \$250 >10 acre feet <input type="checkbox"/> \$300
<input type="checkbox"/> \$150	100+ units <input type="checkbox"/> \$500		100+ units <input type="checkbox"/> \$500

Applicant Signature: [Signature] Date: 1/31/2017

COUNCIL WATER ISSUES COMMITTEE AGENDA MEMO March 7, 2017
DEPARTMENT: City Manager (Water Resource Management)
AGENDA ITEM: Water Service Agreement Application No. 17-005 by Ray Hickle, for construction of an additional residential unit on APN 110-02-052 at 138 S. Penn Avenue

Approved By:	Date:
Water Resource Manager: Leslie Graser	
Regional Programs Director: Craig McConnell	

Summary

On February 2, 2017, Water Service Agreement application (WSA 17-005) was submitted by Joseph Lena, on behalf of Ray Hickle, seeking an alternative water allocation to convert an existing garage to a habitable residential unit on a property zoned multi-family. The submittal is in accordance with the Water Management and Calendar Year 2017 Alternative Water Allocation Policy.

Background

The subject parcel APN 110-02-052 is part of the Willow Creek Heights Subdivision, a replat of Lot 14, which occurred in 2005. Due to the 2005 replat (no additional groundwater supplies are identified in the portfolio to serve this 2005 replat), an allocation from the City's alternative water portfolio is necessary.

The City Manager has authority to administratively approve a new water service agreement to enable construction of, and water service to, the proposed additional residential unit, subject to a performance requirement of a certificate of occupancy being issued within three (3) years.

Attachments

- 1) Location Map
- 2) Water Service Agreement Application WSA17-005

Committee Recommendation to Council: For information of the Committee; no action necessary.
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Parcel Report for APN: 110-02-052

Site Address: 138 S PENN AVE

Owner:
**HICKLE RAYMOND FRANCIS &
138 S PENN AVE
PRESCOTT AZ 863034476**

Subdivision Name: **JOSLIN WHIPPLE SUBDIVISION**

Max. Lot Coverage: **40%**
Max. Bldg Height: **35 ft**
Setbacks

Front: **20 ft**
Side: **7 ft**
Rear: **20 ft**
Corner: **10 ft**

Acres: **0.2 acres**
Square Ft: **sq.ft.**
TRS:

DOR Usage Code: **Residential**
Description: **0130-SFR-AVERAGE/AVERAGE
PLUS**

Zoning Information

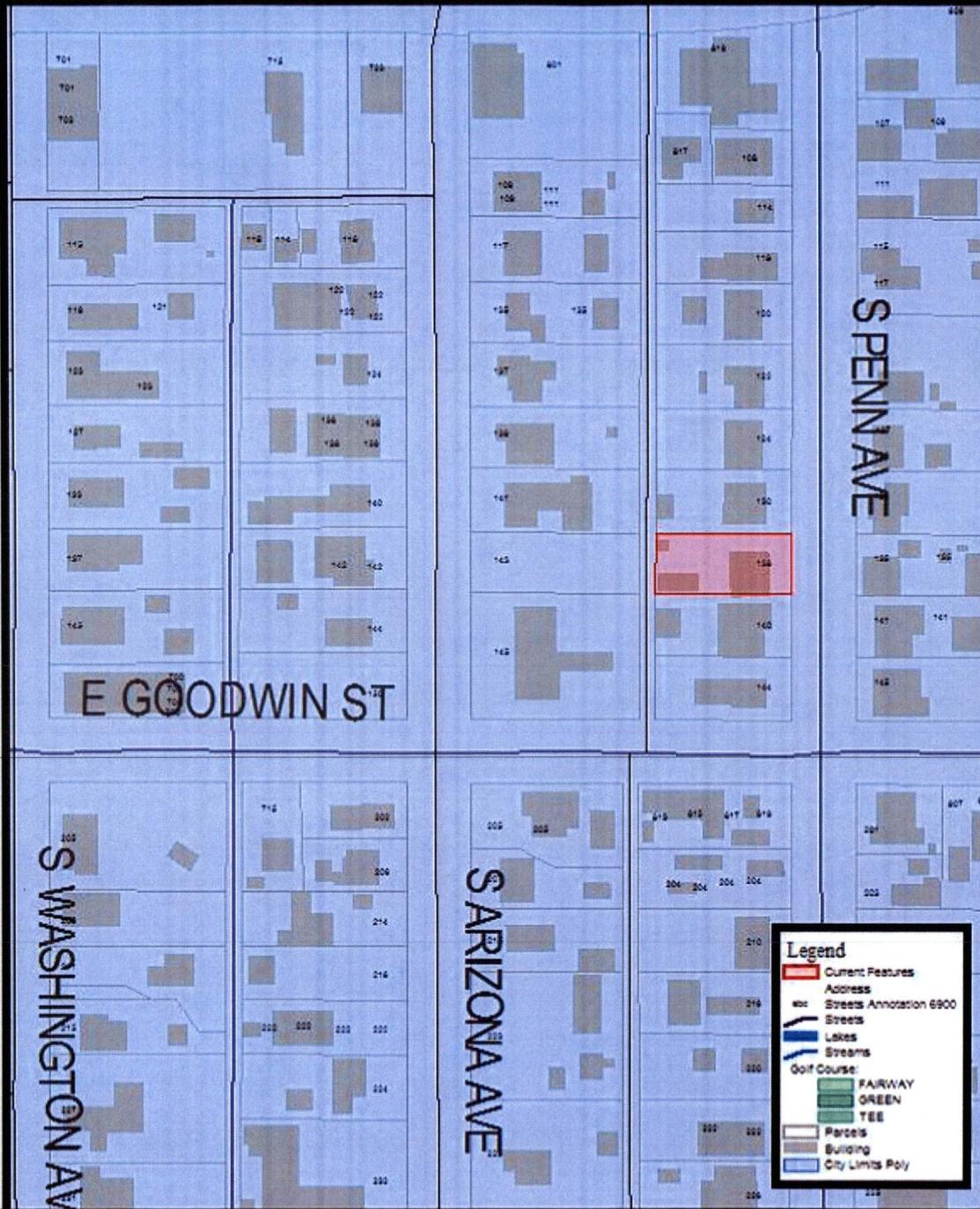
Zoning: **MF-M**

Flood Zone: **X**;
FIRM Panel: **04025C2065G**

Overlay District Information

HPD District: **Outside**
NR District: **Outside**
Willow Creek District: **Outside**
Whipple-Zuma District: **Outside**
Hwy 89 District: **Outside**
Prescott East Area Plan: **Outside**
Prescott Enterprise: **Inside**
Airport Noise District: **Outside**
Wildlife Urban Interface: **Outside**

Planner's Actions:

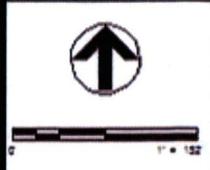


138 S PENN AVE

Legend

- Current Features
- Address
- Streets Annotation 6900
- Streets
- Lakes
- Streams
- Golf Course
- FAIRWAY
- GREEN
- TEE
- Parcels
- Building
- City Limits Poly

This map is a product of The City of Prescott





WATER SERVICE AGREEMENT APPLICATION

Water Resources: Annikki Chamberlain
201 S. Cortez St., Prescott, AZ 86303
(P) 928.777.1645 (F) 928.777.1255

WSA 17 - 005

Building Permit #
B1610-151

Please complete the form and submit a legible legal description on a separate sheet of paper as well as a site plan of the subject property with proposed improvements. Submit all documents and the filing fee directly to the Community Development Department at 201 S. Cortez St, Prescott, AZ 86302.

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APPLICANT INFORMATION

Applicant: Joseph Lema Contact Person: Joseph Lema
Address: 138 S Penn Ave City/State/Zip: Prescott, AZ 86303
Phone: 928-458-8330 Email: _____

PROPERTY OWNER INFORMATION

Owner: Ray Hinkle Contact Person: _____
Address: 138 S Penn Ave City/State/Zip: Prescott, AZ 86303
Phone: 520-343-8824 Email: _____

PROJECT SITE

Address: 138 S Penn Ave
Current Zoning: _____ Proposed Zoning: _____
Assessor's Parcel Number(s) of Existing Property
110-02-052
Existing Water Service (Y/N): Y Existing Sewer Service (Y/N): Y
Existing Well (Y/N): N If Yes, Well Registry No.: NA

PROJECT DESCRIPTION

Is the project Residential or Commercial? Residential
Please provide brief description: Conversion of Garage to M-I-L Quarters
w/ Restroom & Kitchen

of Proposed Units: _____ # of Proposed Lots: _____

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

FEES: Fees are subject to change.

Single Family Residence	Multi-Family/Apartments	Residential Subdivision	Commercial Subdivision or Individual Commercial Project
<input checked="" type="checkbox"/> \$150	2-5 units <input type="checkbox"/> \$150 6-10 units <input type="checkbox"/> \$200	6-25 lots <input type="checkbox"/> \$300 26-100 lots <input type="checkbox"/> \$500	<2 acre feet <input type="checkbox"/> \$150 2-4.9 acre feet <input type="checkbox"/> \$200
Existing Connection	11-50 units <input type="checkbox"/> \$300	100+ lots <input type="checkbox"/> \$700	5-10 acre feet <input type="checkbox"/> \$250
Change of Use	51-99 units <input type="checkbox"/> \$400		>10 acre feet <input type="checkbox"/> \$300
<input type="checkbox"/> \$150	100+ units <input type="checkbox"/> \$500		100+ units <input type="checkbox"/> \$500

Applicant Signature: Joseph Lema

Date: 2/02/2017

*To be paid at building permit pick-up. Copy w/ building plans.

COUNCIL WATER ISSUES COMMITTEE AGENDA MEMO

March 7, 2017

DEPARTMENT: City Manager (Water Resource Management)

AGENDA ITEM: Water Service Agreement Application WSA17-006, by Coalesce Properties LLC, for conversion of an existing mobile home park to a forty-two (42) unit apartment complex at 1257 White Spar, APNs 107-17-003 and 107-15-049A

Approved By:

Date:

Water Resource Manager: Leslie Graser

City Manager: Craig McConnell

Background

The project is to convert an existing mobile home park to a new forty-two (42) unit apartment complex consisting of seven (7) buildings, plus an office and parking lot. According to the City water allocation policy, expected water demand for this project is 0.25 acre feet (AF) per dwelling unit.

42 multi-family dwelling units X 0.25 AF/dwelling unit = 10.5 AF

This property has been in existence as a mobile home park since prior to 1998; therefore, the water usage of record can be carried forward, as long as no replat is required (i.e., the project is developed as an apartment complex). Historic water usage for this property is 7.5 acre-feet. Therefore, allocation of the balance, 3.0 acre-feet will be required from the General Pool.

In accordance with City policy, a water service agreement application was submitted with a Site Plan (SI 17-001). Placement of water into contract will be subject to Calendar Year 2017 available supplies, a Committee recommendation, and Council approval. The Site Plan will be placed on an upcoming Planning & Zoning Commission meeting.

The tentative water service agreement will require that a certificate of occupancy be obtained for the project within three (3) years. It should be noted that the Land Development Code defines an apartment as not less than 320 square feet; however, when a historic building is remodeled, the City Building Department applies the International Building Code, Chapter 3 – Use and Occupancy Classification. The original and current project is considered Residential Group R-2, no change in classification.

Attachments

- 1) Location Map
- 2) Water Service Agreement Application WSA 17-006 and Site Plan Application SI 17-001

Agenda Item: Water Service Agreement Application WSA17-006, by Coalesce Properties LLC, for conversion of an existing mobile home park to a forty-two (42) unit apartment complex at 1257 White Spar, APNs 107-17-003 and 107-15-049A

Committee Recommendation to Council: (1) MOVE to recommend approval of Water Service Agreement Application WSA 17-006 to the Council for consideration following action by the Planning & Zoning Commission OR (2) Other motion to be determined by the Committee.

Parcel Report for APN: 107-15-049A

Site Address: 1257 UNIT23 WHITE SPAR RD
(first 4 of 21 shown)
1257 UNIT24 WHITE SPAR RD
1257 UNIT25 WHITE SPAR RD
1257 UNIT26 WHITE SPAR RD

Owner:
COALESCE PROPERTIES LLC
965 PANICUM DR
PRESCOTT AZ 863053829

Subdivision Name:

Max. Lot Coverage: 50%
Max. Bldg Height: 35 ft
Setbacks
Front: 20 ft
Side: 7 ft
Rear: 20 ft
Corner: 10 ft

Acres: 1.4 acres
Square Ft. sq.ft.
TRS:

DOR Usage Code: Vacant
Description: 0011-VACANT RESIDENTIAL

Zoning Information

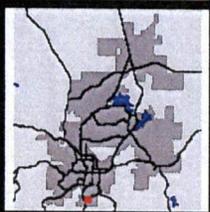
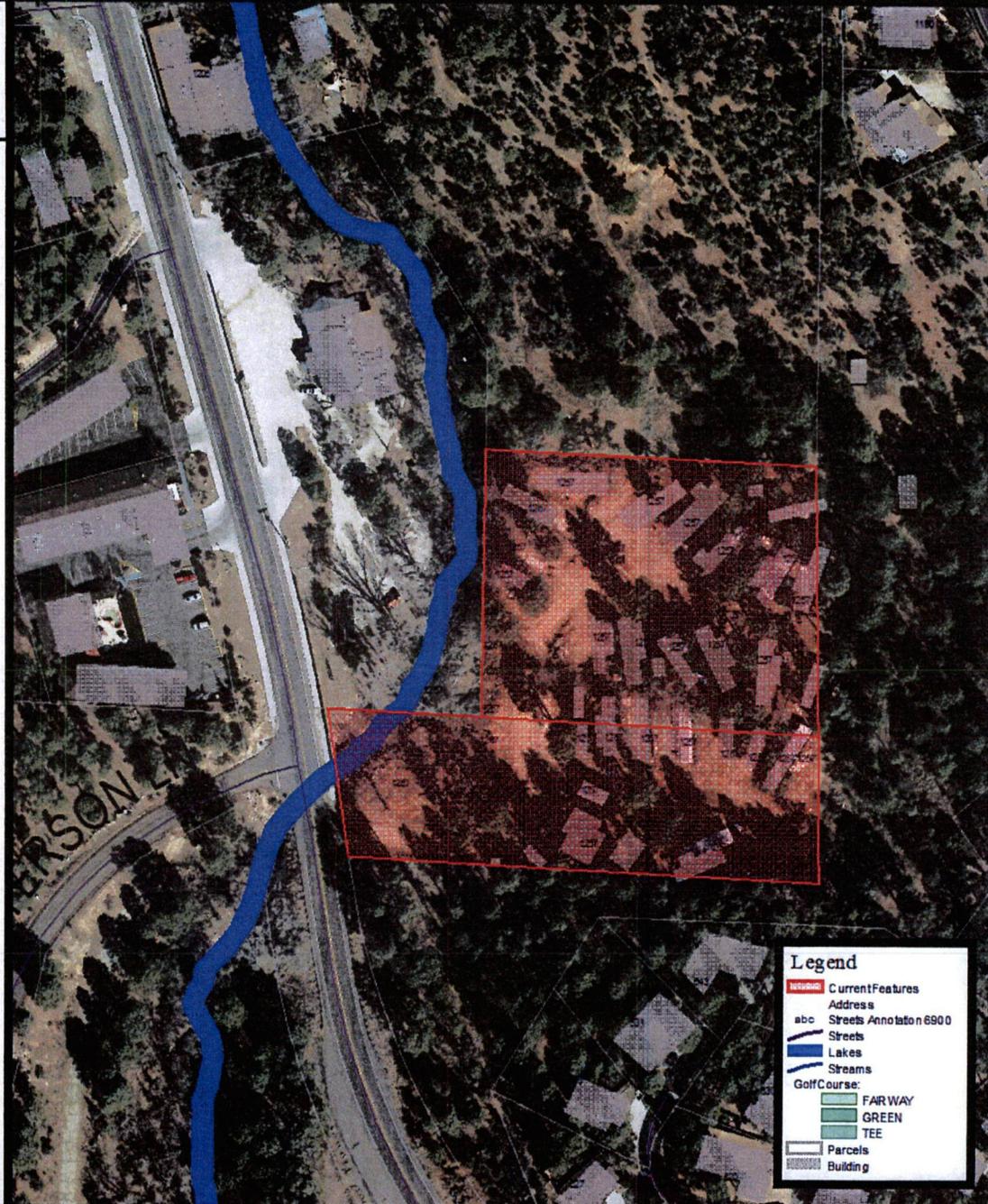
Zoning: MF-H

Flood Zone: X;
FIRM Panel: 04025C2063G

Overlay District Information

HPD District: Outside
NR District: Outside
Willow Creek District: Outside
Wipple-Zuma District: Outside
Hwy 69 District: Outside
Prescott East Area Plan: Outside
Prescott Enterprise: Outside
Airport Noise District: Outside
Wildlife Urban Interface: Inside

Planner's Actions:



1257 UNIT 27 WHITE SPAR RD

Legend

- Current Features
- Address
- Streets Annotation 6900
- Streets
- Lakes
- Streams
- Golf Course:**
 - FAR WAY
 - GREEN
 - TEE
- Parcels
- Building

This map is a product of The City of Prescott



WSA 17 - 006



WATER SERVICE AGREEMENT APPLICATION

Water Resources: Annikki Chamberlain
 201 S. Cortez St., Prescott, AZ 86303
 (P) 928.777.1645 (F) 928.777.1255

Please complete the form and submit a legible legal description on a separate sheet of paper as well as a site plan of the subject property with proposed improvements. Submit all documents and the filing fee directly to the Community Development Department at 201 S. Cortez St, Prescott, AZ 86302.

APPLICANT INFORMATION

Applicant: Randy Goodman Contact Person: Randy Goodman
 Address: 965 Panicum Dr City/State/Zip: Prescott AZ 86305
 Phone: 928-460-3634 Email: goodmanbuilders@hotmail.com

PROPERTY OWNER INFORMATION

Owner: Randy Goodman Contact Person: Randy Goodman
 Address: 965 Panicum Dr City/State/Zip: Prescott AZ 86305
 Phone: 928-460-3634 Email: goodmanbuilders@hotmail.com

PROJECT SITE

Address: 1257 White Spar Rd
 Current Zoning: Commercial 33 units per A/C Proposed Zoning: Same - no change
 Assessor's Parcel Number(s) of Existing Property: 107-17-003 107-05-049A
 Existing Water Service (Y/N): Yes Existing Sewer Service (Y/N): Yes
 Existing Well (Y/N): No If Yes, Well Registry No.: _____

PROJECT DESCRIPTION

Is the project Residential or Commercial? Commercial
 Please provide brief description: 42 unit Apartment project

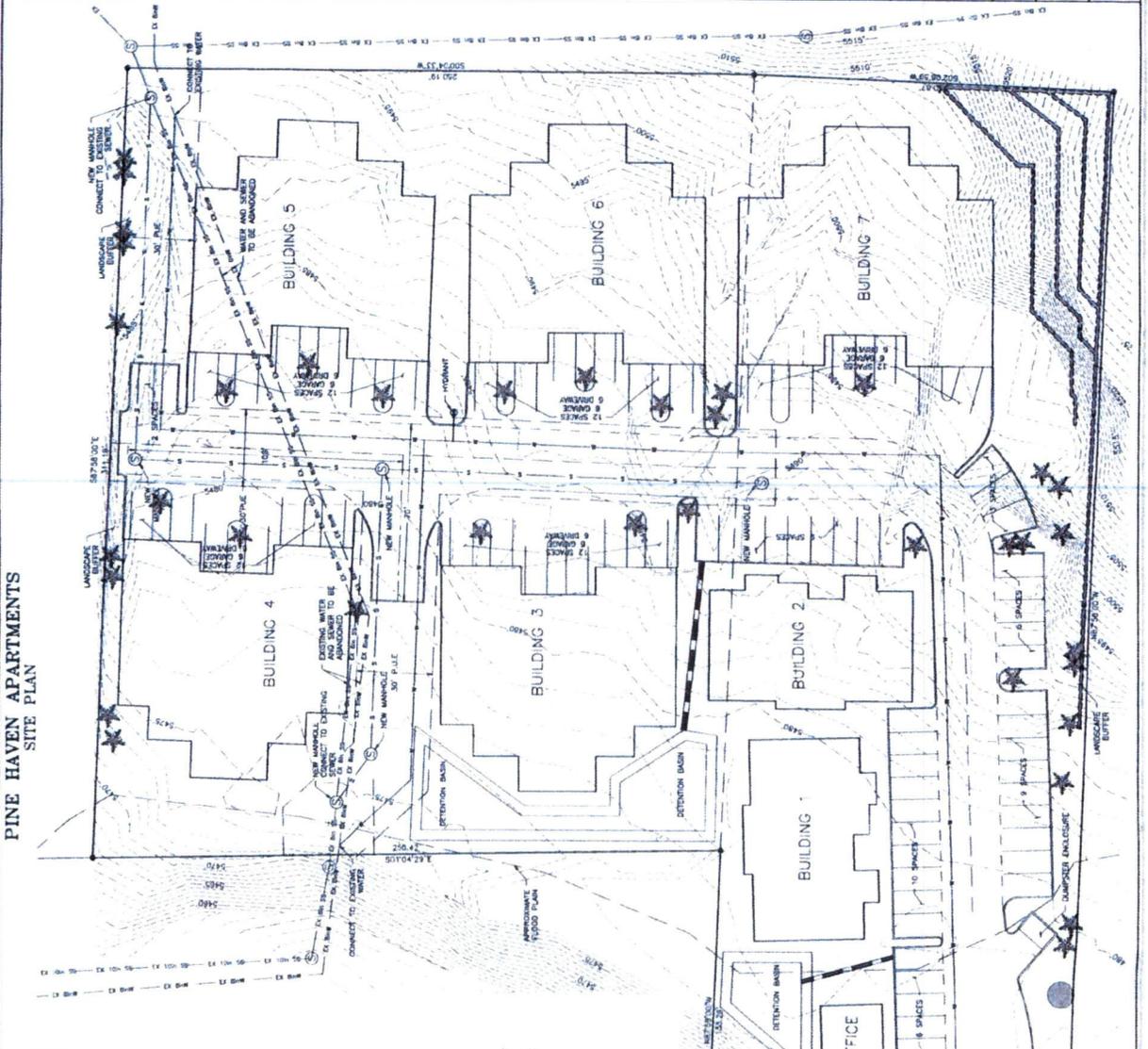
of Proposed Units: 42 # of Proposed Lots: 2

Has a Water Demand Analysis been completed (commercial)? yes
 Has a building permit application been submitted? No
 Has a Planning and Zoning Recommendation been made? yes

FEES: Fees are subject to change.

Single Family Residence	Multi-Family/Apartments	Residential Subdivision	Commercial Subdivision or Individual Commercial Project
<input type="checkbox"/> \$150	2-5 units <input type="checkbox"/> \$150 6-10 units <input type="checkbox"/> \$200	6-25 lots <input type="checkbox"/> \$300 26-100 lots <input type="checkbox"/> \$500	<2 acre feet <input type="checkbox"/> \$150 2-4.9 acre feet <input type="checkbox"/> \$200
Existing Connection	11-50 units <input checked="" type="checkbox"/> \$300	100+ lots <input type="checkbox"/> \$700	5-10 acre feet <input type="checkbox"/> \$250 >10 acre feet <input type="checkbox"/> \$300
Change of Use	51-99 units <input type="checkbox"/> \$400 100+ units <input type="checkbox"/> \$500		100+ units <input type="checkbox"/> \$500

Applicant Signature: [Signature] Date: 2-23-17



DESIGN NOTES:

- EXISTING SEWER: 6" DIA. 15' DIA. 18'
- PROPOSED SEWER: 6" DIA. 15' DIA. 18'
- PROPOSED WATER: 6" DIA. 15' DIA. 18'
- PROPOSED FLOW: 1.000 GPM AT FIRE HYDRANTS

1257 WHITE SPAR ROAD
 APN 107-17-003 AND 107-15-049A
 SECTION 9, T14N, R2W, G.S.R.M.
 CITY OF PRESCOTT
 YAVAPAI COUNTY, ARIZONA

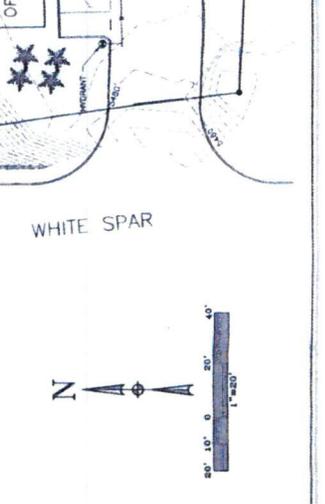
UNIT COUNT:

- 12-2 BEDROOM UNITS (NO GARAGE)
- 30-2 BEDROOM UNITS W/GARAGE

PARKING REQUIREMENTS:

- 24 SPACES
- 12-2 BEDROOM UNITS (NO GARAGE) 60 SPACES
- 30-2 BEDROOM UNITS W/GARAGE 60 SPACES
- TOTAL REQUIRED 124 SPACES
- TOTAL PROVIDED 124 SPACES
- (30 UNIT DRIVEWAY SPACES)
- (30 UNIT DRIVEWAY SPACES)

NOTE: APARTMENT COMPLEX RESTRICTIONS WILL MANDATE GARAGES BE UTILIZED FOR PARKING.



COUNCIL WATER ISSUES COMMITTEE AGENDA MEMO
March 7, 2017

DEPARTMENT: City Manager (Water Resource Management)

AGENDA ITEM: Unit allocations of alternative water for residential development

Approved By:

Date:

Water Resource Manager: Leslie Graser

Regional Programs Director: Craig McConnell

Summary

This item was introduced to the Committee on February 7, 2017, to be followed by presentation of more detailed information and recommendations at the March meeting.

From 2000 to present, the allocations of alternative water have been 0.35 acre-foot per new single-family dwelling unit, and 0.25 acre-foot per new multi-family unit. Each of these allocations includes a 0.1 acre-foot markup for development of non-residential/support businesses anticipated to eventually serve the new residents.

Attachment 1, an analysis of actual residential water usage from Fiscal Years 2010 through 2015, identified the following:

- Single-family residences used an average of 0.17 acre-foot (AF), or 55,395 gallons, of water annually [about 2/3 of the use assumed by the standard 0.25 AF (81,463 gallons) unit allocation]
- Multi-family residences used an average of 0.09 AF, or 29,327 gallons, of water annually [also about 2/3 of the use assumed by the standard 0.15 AF (48,878 gallons) unit allocation]
- Approximately 0.08 AF (79%) of the 0.1 AF markup was used for all new nonresidential customers (meters) that did not require a water service agreement; however, the breakdown between businesses and institutions directly supporting an increase in population (net new residents)—the purpose for which the 0.1 AF markup was created—and other nonresidential uses, is not known

Attachment 2 graphically illustrates the preceding information.

Based upon the actual usages, the following unit allocations for *Water-Efficient Residential Development*, *subject to certain conditions and requirements being met as outlined*, and other actions, are recommended:

1. Revise the Unit Allocations for *Water-Efficient Residential Development*
 - Single-family residential: 0.20 AF (65,170 gallons per dwelling unit per year)
 - Multi-family residential: 0.12 AF (39,102 gallons per dwelling unit per year)
(Note: All multi-family is deemed to be *Water-Efficient Residential Development*)
2. Retain the Unit Allocation for other Single-Family Residential Development
 - Single-family residential: 0.25 AF (81,463 gallons per dwelling unit per year)

Agenda Item: Unit allocations of alternative water to residential development

3. Suspend the 0.1 AF markup, track the actual new demand (water supplied through new water meters set) for support businesses on an annual basis, and provide a summary to Council in conjunction with the Annual Water Report presented in March of each year, including recommendations for further policy adjustments, as applicable

4. Establish the following criteria for *Water-Efficient Residential Development*
 - Applicable to new preliminary and final subdivision plats, and replats of master plan communities served by alternative water (but not lot splits, or individual units on existing lots or tracts)
 - The development is Water Sense (best practices) certified
 - All City water saving/conservation plumbing codes apply at the time of building permit issuance
 - Applicable to all multi-family units, which may be individually or master-metered; and single-family units with 5/8" x 3/4" meters
 - Common areas, medians, and parkways xeriscaped in accordance with the Land Development Code and State requirements for Active Management Areas, and separately metered, with CC&Rs requiring the xeriscape to remain in place and be maintained by a property owners association, and all of the preceding included as a condition in the water service agreement
 - A new *Water-Efficient Development* water rate will be recommended, applied to annual usage in excess of the unit allocation (a higher rate for the overage quantity, calculated on December 31st of each year, with the additional charge divided into three equal parts, and applied on the February, March, and April bills); the rate would be set in the utilities rates update scheduled to commence during 2017, with a January 2019 effective date

The Water Resources Division recommends that consideration be given to amending the City Water Management and Calendar Year 2017 Alternative Water Allocation Policy to implement the recommendations above, through the following public process:

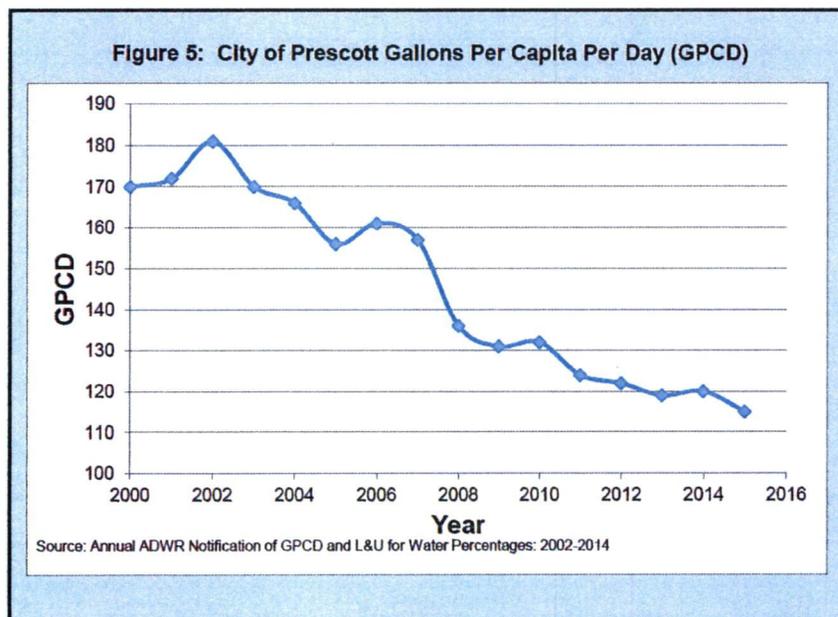
- | | |
|----------------|--|
| March 7, 2017 | Water Issues Committee Meeting
Presentation of analysis and recommendations; Committee discussion; public comment |
| April 4, 2017 | Water Issues Committee Meeting
Committee action on proposed revisions to unit allocations; public comment |
| April 25, 2017 | City Council Study Session
Presentation of background and recommendations; Council discussion and public comment |
| May 9, 2017 | City Council Voting Meeting
Council discussion and public comment; Council adoption of a resolution amending the City Water Management and Calendar Year 2017 Alternative Water Allocation Policy |

Background

Review and adjustment of the unit allocations is timely considering: (1) depletion of the balance of available, unreserved alternative water from current renewable sources; (2) actual annual usage (demand) for residential accounts, the majority of the City's 23,000 water customers, is well below the present unit allocations; (3) water conserving plumbing codes are in effect; (4) Water Smart™ landscaping is widely used; (5) a water conservation rate structure has been in place for a number of years; and (6) separate tracking and allocation of alternative water for nonresidential development will be more useful on an individual project basis, rather than the nominal markup of 0.1 acre-foot on each residential unit allocation, without knowing how this relates to actual demand for support services created by the new residential development.

The City of Prescott became a Designated Provider of Assured Water Supply (AWS) in 1999. "Alternative supplies" in the City's water portfolio, as recognized by the Arizona Department of Water Resources, are those to support new development from sources other than additional groundwater pumping. The use of alternative supplies for such development is a requirement of State of Arizona AWS Rules applicable to the Prescott Active Management Area.

In 1999, the City commenced allocation of alternative water at a rate of 0.36 acre-foot per residential unit (both single-family and multi-family). The 0.36 acre-foot included a 0.1 acre-foot markup for community support services (e.g., restaurants, automotive shops, grocery stores, and other associated development). A year later (2000), separate unit allocations for each of the single-family (0.35 acre-foot) and multi-family (0.25 acre-foot) housing types were adopted, both of which included the 0.1 acre-foot markup. These allocations were calculated from assumed occupancies for new development per dwelling type, and gallons per capita per day of water use (which has since markedly decreased, as shown by the following figure).



Throughout the years, the City has continuously reviewed water management policies, and made adjustments. Based upon the analyses of Attachment 1, additional revisions are justified at this time, to assure the most effective and efficient use of this limited resource.

Conservation Savings Will Remain in Place

The combination of the conservative approach to providing alternative water at the 0.35 and 0.25 acre-foot unit allocations, while actual usages are considerably less, the conservation-oriented water rate structure in effect, an active City water conservation program offering rebates, more water-efficient plumbing codes, and conservation awareness and practices by our residents, have resulted in an estimated 410 acre-feet of current "headroom" (the difference between the overall volume of water allocated and the actual total being used) for projects that have been built and occupied, which could increase to a future total of 760 acre-feet if all approved but presently unbuilt projects are added (see Attachment 3). The revised unit allocations recommended herein are intended to be prospective; hence, *the conservation savings and other lower usages accrued to date will remain in the City's water portfolio as a cushion, and not be "mined" for additional future development.*

Implementation of the lower unit allocations arguably represents more efficient use of the finite resource; even so, additional headroom is anticipated to accrue from the difference between the new unit allocations and actual usages (0.20 AF for single-family vs. actual usage of 0.17 AF per dwelling unit; and 0.12 AF for multi-family vs. actual usage of 0.09 AF per dwelling unit).

Relationship of the Recommended Changes to the City's Water Portfolio

The City's water portfolio is documented in a State of Arizona-issued Decision and Order of Assured Water Supply ("D&O"). Changes in unit allocations are solely and directly related to the "alternative supplies" (reclaimed, surface, and imported water). As stated above, due to application of the 0.35 AF and 0.25 AF single-family and multi-family unit allocations, respectively, from 2000 to the present, a "cushion" has been accruing (see Attachment 3), which will not be used to provide water for additional development via new contracts.

In summary, as part of the City's water portfolio, the availability of alternative water supplies (reclaimed and surface water) for placement into new contracts will be affected by the following factors:

- Reclaimed water supply projections identified in the 2009 D&O have not occurred; the shortfall has been recognized by Water Resource Management, and is reflected in the availability reported to the Water Issues Committee monthly, and periodically to the Council.
- Significant volumes of alternative water have been placed into contracts, but the actual quantities are not yet being delivered (construction of the projects and connection to the City water system have not occurred). Any contracts for which

Agenda Item: Unit allocations of alternative water to residential development

the performance criteria are not met will result in return of the corresponding volumes to the water portfolio.

- Proposition 400 requires that for annexations of 250 acres or more, the treated wastewater effluent be permanently recharged (not recovered and reused). This will reduce the volume (1,472 acre-feet) projected for such reuse as set forth by the 2009 D&O.

Relationship of the Recommended Changes to the 2015 Prescott General Plan

The 2015 Prescott General Plan used the 2010 Census (population of 39,843) and an annual growth rate of 2% to project a population of 48,500 in 2020, while noting that the actual annual growth rate from 2000 to 2010 was 1.74%. The actual growth since 2010 has been much lower.

Fundamental to future growth is water availability. Section 10.4 of the General Plan estimated the addition of 22,142 future housing units for buildout, which depending upon unit occupancy, would represent a doubling of the City's population to about 80,000. Over half of the future housing units (12,471) are dependent upon importation of water from the Big Chino Sub-basin. The General Plan provided the following comment regarding water availability and growth:

The availability of water from sources which are known or can be reasonably anticipated, including the costs of water rights and infrastructure to access and deliver water, will be a limiting factor in the future development of Prescott. Even with a strong market demand, availability of water and capital will determine the long-term growth of the City.

The build-out population, and rate at which it may occur, are dependent upon many variables, prominent among which are market demand, water and capital availability, economic development (job creation), and quality of life. With Prescott's growth (market demand for housing) consistently lower than projected, demographics (low occupancy per household), the requirement for (and recovery of) large capital investment to import Big Chino water, and oft-stated facts that Proposition 400 will reduce recoverable recharge, and that recharge/recovery has not met projections—attributable to shortfalls of treated effluent due to lower population growth, and surface water recharge primarily due to drought, factors that will have to be addressed in the City's next D&O issued by the Arizona Department of Resources, and that could conceivably lead to a reduction in alternative water availability until/unless these components increase—changes to the unit allocations recommended herein will neither lead to accelerated housing development over the short term, nor necessarily result in a higher long-term, build-out population. With the 2020 decennial census and next General Plan update or re-adoption due in 2025, there are, and will continue to be, ample opportunities to monitor and effectively manage growth.

Looking Forward – Alternative Water for Economic Development

Due to the diminishing balance of unreserved alternative water available for annual budgeting to support new development, upon the recommendation of the Water Resource Management Division, the Water Management and Calendar Year 2017 Alternative Water Allocation Policy (Resolution No. 4368-1577, adopted 12-13-16) provides for reduction of

Agenda Item: Unit allocations of alternative water to residential development

the reservation for vacant, residentially zoned tracts by the quantity of fifty (50) acre-feet each year, with said reduction to be transferred to the General Pool (available for new development/water service agreement applications), effective January 1, 2017, and on each subsequent anniversary date thereafter. The beginning balance on said date was approximately 381.3 acre-feet (so presently, $381.3 - 50 = 331.3$ acre-feet).

As indicated in the section above pertaining to the General Plan, considering that without imported Big Chino water, nearly 10,000 (single-family) housing units can be built using either grandfathered groundwater or alternative water, brings into question whether a portion of the remaining 331.3 acre-feet above should instead be moved into a reservation for economic development projects leading to job creation. If 150 acre-feet were placed into such a reservation (in addition to the 100 acre-feet budgeted in Calendar Year 2017 for commercial projects), 181.3 acre-feet would still be available for annual budgeting, enabling downtown multi-use projects with a housing component, lot splits, etc.

This topic warrants further study, consistent with the approach of continuous City water policy analysis and refinement, as a separate topic from the recommended changes in unit allocations for residential development. Water Resource Management will be approaching it as such, along with possible changes in guidelines for requiring demand calculations and annual monitoring for nonresidential development/redevelopment, for example (not a specific recommendation at this time):

- Commercial subdivisions
 - State law requires an assured water supply
 - Demand calc required
- Institutional users
 - Government agencies, educational facilities, hospitals (water service agreements do not generally exist for these customers)
 - For new facilities, require a demand calc; renovations/ other permits to be reviewed for water use, and may require a demand calc
- Site plans
 - Plans requiring Council approval require a demand calc
- Nonresidential projects
 - Demand calc required if usage appears to be > 1 AF
- All new nonresidential
 - Monitor usage annually

Attachments

1. Review of Unit Allocations of Alternative Water Residential Development in the City of Prescott – March 2017
2. Diagram - Breakdown of Unit Allocations of Alternative Water for Residential Development
3. Diagram – The City of Prescott Water Portfolio - 2017

Recommended Committee Action: None at this meeting – item for information and discussion only.

Review of Unit Allocations of Alternative Water for Residential Development in the City of Prescott - February 2017

Purpose

Unit allocations of alternative water (renewable resource currently consisting primarily of recharged/recovered surface water and treated wastewater effluent) to residential development, initiated pursuant to policy adopted in 1999, and subsequently revised to those currently in place, were reviewed to:

1. Determine actual annual water use compared to the volumes allocated at the time of development approval.
2. Determine potential availability of "unused" water associated with the 0.1 acre-foot (AF) commercial mark-up per residential dwelling unit (single-family, multi-family).
3. Compare the City of Prescott water allocation policy and actual water use at three existing subdivision.
4. Analysis of Gallons Per Capita Per Day (GPCD)

Background

The Prescott AMA was declared to be out of safe yield in 1999. This declaration triggered Assured Water Supply (AWS) rules, and prohibited serving new subdivisions with groundwater. Development of alternative water from sources other than groundwater was required to support new development. Alternative water sources for the City of Prescott include the recharged/recovered surface water from the Watson and Willow Lakes reservoirs, and treated wastewater effluent.

Since 1999, the City of Prescott has allocated water for residential development and nonresidential (commercial, industrial) uses through Water Service Agreements (WSAs), subject to policy in place at that time, which provide a means to account for the allocated alternative water, and track usage. A WSA application is now required for all residential development, and nonresidential development involving significant water demand, when a project of either type is not otherwise eligible to be served with grandfathered groundwater. A WSA application for three or fewer dwelling units (e.g., single-family, duplex, condominium), may be approved administratively by the City Manager. A project for four or more dwelling units requires City Council approval. In general, each WSA includes performance requirements specific to the development, and an expiration date. To facilitate tracking, WSAs are assigned to one of the following categories:

- **APPLIED:** The applicant has submitted a WSA application and is awaiting consideration of approval by either Council or the City Manager. The water has not been debited from the portfolio.
- **APPROVED:** The WSA has been formally approved, and the the water debited from the portfolio. If the performance criteria are satisfied in the allotted time, the WSA will be finalized; if not, the water will be returned to the portfolio.

- **FINALED:** The performance criteria have been met, and the water has been permanently debited from the portfolio.
- **VOIDED:** The WSA has been terminated (withdrawn, expired); the water has been returned to the portfolio, and is available for allocation to a different application.

Initially, alternative water was allocated to residential development at 0.36 AF per dwelling unit. This unit allocation was derived by multiplying the quantity of 150 gallons used per capita per day (GPCD) by the average number of persons per dwelling unit, and converting to an annual volume used:

$$(150 \text{ gallons} \times 2.15 \text{ persons per dwelling unit} \times 365 \text{ days}) / (325,851 \text{ gallons per AF}) = 0.36 \text{ AF/dwelling unit}$$

Soon thereafter, the basis was changed to separate unit allocations for single-family and multi-family housing categories, to each of which a markup was added for nonresidential (NR) water use supporting the residential development (retail businesses including stores, restaurants, and service establishments). This approach avoided small commercial development/community services from having to submit a water service agreement application and associated water demand analysis. The unit allocations adopted at that time are still in use at present:

$$\text{Single-family unit allocation} = 0.25 \text{ AF} + 0.1 \text{ AF markup} = 0.35 \text{ AF per single-family dwelling unit}$$

$$\text{Multi-family unit allocation} = 0.15 \text{ AF} + 0.1 \text{ AF markup} = 0.25 \text{ AF per multi-family dwelling unit}$$

The 0.1 AF markup was originally viewed as a simplified approach to managing water resources while meeting Arizona Department of Water Resources (ADWR) requirements such as GPCD. Commercial subdivisions and nonresidential uses involving significant water usage are required to submit a WSA application and associated water demand analysis

Community Water Consumption and the 0.1 AF Markup

Community water consumption and dwelling units were quantified by querying FY10-15 utility billing data for the entire Prescott water service area, excluding Chino Valley:

1. Water Consumption by Service Code:
 - WATER RI: single-family residential water use in City limits
 - WATER RO: single-family residential water use outside City limits
 - WATER MI: multi-family residential water use in City limits
 - WATER MO: multi-family residential water use outside City limits
 - WATER NRI: NR water use in City limits
 - WATER NRO: NR water use outside City limits
2. Total number of single-family dwelling units inside and outside City limits.
3. Total number of multi-family dwelling units inside and outside City limits.

The data was then analyzed to determine if the current alternative water unit allocations correlate to actual usage by the community as a whole.

1. Assessment of the residential unit allocations without the 0.1 AF markup (0.25 AF per SFR, 0.15 AF per MFR) (Table 1).

a. The total number of SFRs was multiplied by 0.25 AF to determine the assumed water use by SFRs.

$$\# \text{ of SFRs} \times 0.25 \text{ AF} = \text{assumed water use for SFRs}$$

b. The total number of MFRs was multiplied by 0.15 AF to determine the assumed water used by MFRS.

$$\# \text{ of MFRS} \times 0.15 \text{ AF} = \text{assumed water use for MFRs}$$

c. The assumed water uses so calculated were then compared to the actual water uses of SFRs and MFRs.

2. Assessment of the non-residential category of water allocation.

a. The total number of SFRs and MFRs were multiplied by 0.1 AF to determine the assumed water use by community support services.

$$\# \text{ of SFR and MFR} \times 0.1 \text{ AF} = \text{assumed water use by community support services}$$

b. The assumed water use by community support services was then compared to the actual actual water use by these customers.

3. Assessment of water use at the dwelling unit level.

a. The total SFR water use was divided by the number of SFR dwelling units to determine the average annual volume used per SFR dwelling unit.

$$(\text{Total volume used by all SFRs}) / (\text{Total number of SFR dwelling units}) = \text{average actual water use per SFR dwelling unit}$$

b. The total MFR water use was divided by the number of MFR dwelling units to determine the average annual volume used per MFR dwelling unit.

$$(\text{Total volume used by all MFRs}) / (\text{Total number of MFR dwelling units}) = \text{average actual water use per MFR dwelling unit}$$

4. The volume of actual NR water use was compared to the assumed use (0.1 AF markup)

$$(\text{Total volume of actual NR water use}) / (\text{Total volume of 0.1 AF markups}) = \text{the comparison percentage}$$

Findings: Actual water use compared to assumed water use

1. Overall, the actual residential water use is 67% of the assumed use estimated by applying the unit allocations of the City's current Water Management Policy (0.25 AF per SFR unit, 0.15 AF per MFR unit)

2. The actual NR water use is 78% of the use estimated by applying the 0.1 AF markup to each residential unit

3. Actual water uses are as follows:

- a. Single-family residences use an average of 0.17 AF of water annually (66% of the use assumed by the standard 0.25 unit allocation)
 - b. Multi-family residences use an average of 0.09 AF of water annually (63% of the use assumed by the standard 0.15 unit allocation)
 - c. Non-residential water use is approximately 0.08 AF per residential dwelling unit (79% of the use assumed by the standard 0.1 AF unit allocation)
4. It is important to note these community water use patterns are based on average water consumption values from 2010-2015, and there are likely fluctuations in actual water use over time or from year to year.

Potential Availability of "Unused" Water from the 0.1 AF Markup (September 2016)

1. A total of 2028.64 AF have been allocated from the alternative water category of the City's water portfolio by WSAs since 1999. These WSAs were for single family dwelling units, multifamily dwelling units, and large commercial developments. Of this total:
 - WSAs totaling 1212.61 AF have been finalized
 - WSAs totaling 768.46AF have been approved
 - WSAs totaling 47.55AF have applied
2. The finalized WSAs were for 2,345 SFR and 58 MFR dwelling units
 - The sum of the 0.1 AF markups for WSAs finalized since 1999 is 234.5 AF
 - If the 2010-2015 community water use average was 79% as identified above, 21% of the 234.5 AF would potentially be available, a total of 50.46AF
 - NR water use decreased from 2010 to 2015, hence the data set does not include the prior years of higher economic activity (i.e., prior to 2008)
3. The approved WSAs are for 1,152 SFR and 331 MFR dwelling units
 - The sum of the 0.1 AF markups for WSAs that are currently approved is 148.3 AF
 - If the 2010-2015 community water use average was 79% as identified above, 21% of the 148.3 AF would potentially be available, a total of 31.14 AF
4. The applied WSAs are for 88 SFR and 174 MFR dwelling units
 - The sum of the 0.1 AF markups for WSAs that are currently approved is 26.2 AF
 - If the 2010-2015 community water use average was 79% as identified above, 21% of the 26.2 AF would potentially be available, a total of 5.5 AF

Analysis of Assumed (existing unit allocation) and Actual Water Uses by Selected Residential Subdivisions

1. Analysis of actual water use was performed for each of the following subdivisions:

- a. Lakeside at Prescott Lakes
 - Final Plats – 2005
 - Average lot size – 0.22 acre
 - b. Pinon Oaks
 - Final Plats – 1995-2005
 - Average lot size 0.48 acre
 - c. Timber Ridge
 - Final Plat – 1981
 - Average lot size 0.30 acre
2. Utility billing data was used to calculate average monthly water consumption for calendar years 2010-2015 for each residence in the subdivision. Months with zero consumption were not included in the calculation.
 3. Actual water usages for all of the residences in the subdivision were summed, from which an annual average per residence was calculated.

Findings: Comparison of Residential Unit Allocations (existing) and Actual Water Use for Selected Subdivisions

Subdivision	COP Assumed Use (acre feet)	Actual Use (acre feet)
Lakeside at Prescott Lakes	48	29
Pinon Oaks	228	142
Timber Ridge	142	69

Actual Use was less than the Assumed Use (applying the standard residential unit allocations) for all three subdivisions. Note that all subdivisions have common areas that require outdoor irrigation. Irrigation use was not assessed at this time.

Analysis of Gallons Per Capita Per Day (GPCD)

In 1999, the City became a Designated Water Provider with the issuance of a “Decision and Order of Assured Water Supply” by the Arizona Department of Water Resources. A calculation used by the State to determine a community’s water use and conservation efforts is GPCD. Within State Statutes, Title 45, a formula is used to derive GPCD. In the 2010 to 2015 timeframe, the same timeframe used to review actual water use by single family and multi-family billing accounts, the GPCD determined by the State of Arizona, using the City’s Annual Water Withdrawal and Use Report numbers is shown below.

Year	2010	2011	2012	2013	2014	2015
GPCD	132	124	122	119	120	115

The average GPCD for this timeframe is 122. Using the equation shown earlier with the current community data produces.

$$(122 \text{ gallons} \times 2.03 \text{ persons per dwelling unit} \times 365 \text{ days}) / (325,851 \text{ gallons per AF}) = 0.27 \text{ AF/dwelling unit}$$

Note that the person per dwelling unit has also been updated and is consistent with the 2015 Prescott General Plan (adopted April 14, 2015).

Findings

The State's GPCD calculation takes into account both residential and non-residential uses. As such, it reflects two important pieces of information related to the City's investigations regarding adjusting the unit allocation.

- 1) Whether the allocation is for single family or multi-family, a resulting 0.27 AF/dwelling unit is within an acceptable range of the analysis based on the City's billing records (0.17 AF for SFR with the 0.1 AF markup already removed, meaning the billing database was queried to provide residential use separate from other, non-residential uses.
- 2) The City's housing types currently reflect a greater number of single family versus multi-family structures. It is likely that these housing type proportions will continue into the future. Using an adjusted unit allocation in the 0.20 AF/dwelling unit range will not cause the supplies to be neither too generous nor too limited.

Recommendations

- 1) Adjust the unit allocation to 0.20 AF/unit for Single family and 0.12AF/unit for Multi-family until tracking or new evidence suggests the need for additional or new analysis.
 - a. This adjustment will be for new allocations only, no retroactive adjustments at this time.
 - b. The conservation achievements will remain intact (as this new unit allocation will not be retroactive). Further the conservation achievements will continue to accrue as existing and new homes (housing that has an existing contract, but are not yet built) are constructed to meet the existing and future plumbing codes requiring water efficient fixtures.
- 2) Water Management and Calendar Year 2017 Alternative Water Allocation Policy revisions
 - a. Policy 2 (page 12) – unit allocation and details for a Water-Efficient Residential Development
 - i. Revise the Unit Allocations for Water-Efficient Residential Development
 - Single-family residential: 0.20 AF (65,170 gallons per dwelling unit per year)

- Multi-family residential: 0.12 AF (39,102 gallons per dwelling unit per year)

(Note: All multi-family is deemed to be Water-Efficient Residential Development)

ii. Retain the Unit Allocation for other Single-Family Residential Development

- Single-family residential: 0.25 AF (81,463 gallons per dwelling unit per year)

iii. Suspend the 0.1 AF markup, monitor the actual new demand (water supplied through new water meters set) for support businesses on an annual basis, and provide to Council in conjunction with the Annual Water Report presented in March of each year, including recommendations for further policy adjustments, as applicable

iv. Establish the following criteria for Water-Efficient Residential Development

- Applicable to new preliminary and final subdivision plats, and replats for master plan communities served by alternative water (but not lot splits, or individual units on existing lots or tracts)
- The development is Water Sense (best practices) certified
- All City water saving/conservation plumbing codes apply at the time of building permit issuance
- Applicable to all multi-family units, which may be individually or master-metered; and single-family units with 5/8" x 3/4" meters
- Common areas, medians, and parkways xeriscaped in accordance with the Land Development Code and State requirements for Active Management Areas, and separately metered, with CC&Rs requiring the xeriscape to remain in place and be maintained by a property owners association, and all of the preceding included as a condition in the water service agreement
- A new *Water-Efficient Development* water rate will be recommended, applied to annual usage in excess of the unit allocation (a higher rate for the overage quantity, calculated on December 31st of each year, with the additional charge divided into three equal parts, and applied on the February, March, and April bills); the rate would be set in the utilities rates update scheduled to commence during 2017, with a January 2019 effective date

- b. Vacant Residentially Zoned Tracts Reservation, 2C (page 14) – to be discussed for possible further revisions as to targeted use.
- c. Pre-Existing/Historic Agreement Reservation, (page 15) – to be discussed further and may have revisions.
- d. Attachment outlining the elements of a Water-Efficient Residential Development
- e. New section on non-residential development and requirements for the allocation of alternative water.

Breakdown of Unit Allocations of Alternative Water for Residential Development

0.1 AF Markup per SF or MFDU	Unused Balance of Markup
	<p>Water Delivered to/Consumed by:</p> <p>(1) Single-family residential users or more than 0.35 AF</p> <p>(2) Increased institutional, commercial, industrial use by customers such as VA, PUSD, YRMC, Yavapai College exceeding grandfather groundwater quantities (and not covered by a water service agreement for supplemental alternative water)</p> <p>(3) Irrigation meters without a water service agreement</p>
	Water Used by Non-Residential Customers that Actually Support/Provide Services for Residential Development
Assumed Demand 0.25 AF per SFDU 0.15 AF per MFDU	Water Conservation Savings
	Unused Water due to Conservative Unit Allocations
	<p>Water - Actually Used by Residential Customers</p> <p>Single - family 0.17 AF average use per dwelling</p> <p>Multi-family 0.09 AF average use per dwelling</p>

The City of Prescott Water Portfolio – 2017

<p>Alternative Water Headroom (Cushion) Accrued from Lower Water Use, Conservation</p> <p><u>410</u> AF (current total for projects built)</p> <p><u>760</u> AF (future total if all approved but unbuilt projects added))</p>	<p>Preserve this Headroom (do not reduce it to serve new development)</p>
<p>Alternative Water – Available for Allocation</p> <p><u>238.9</u> AF</p>	<p>Renewable resource available to be allocated to new development</p>
<p>Alternative Water – Allocated or Reserved</p> <p><u>3,422.07</u> AF</p>	<p>Consists of Alternative Water: (1) Binding allocations that were made to development that has been built (2) Balance of reserved quantities still available for new development</p>
<p>Groundwater - Pending ADWR Recognition</p> <p><u>Approx. 1,270</u> AF</p>	<p>Pre-Declaration lots that ADWR has not yet recognized as eligible to be served by grandfathered groundwater</p>
<p>Groundwater - Current & Committed Demand</p> <p><u>9,466.02</u> AF</p>	<p>Lots (built and unbuilt) that ADWR has recognized as eligible to be served by grandfathered groundwater</p>
<p>Miscellaneous Other Resources (Long-term Storage Credits, etc.)</p>	<p>Recognized by ADWR for particular purposes (e.g., YPIT) or not made available for allocation</p>