



# PLANNING & ZONING COMMISSION A G E N D A

**PLANNING & ZONING COMMISSION  
REGULAR MEETING / PUBLIC HEARING  
THURSDAY, JANUARY 26, 2012  
9:00 AM**

**COUNCIL CHAMBERS  
CITY HALL  
201 S. CORTEZ STREET  
PRESCOTT, ARIZONA  
(928) 777-1207**

The following agenda will be considered by the **PLANNING & ZONING COMMISSION** at its **REGULAR MEETING / PUBLIC HEARING** to be held on **THURSDAY, JANUARY 26, 2012, at 9:00 AM** in **COUNCIL CHAMBERS, CITY HALL**, located at **201 S. CORTEZ STREET**. Notice of this meeting is given pursuant to *Arizona Revised Statutes*, Section 38-431.02.

## I. CALL TO ORDER

## II. ATTENDANCE

### MEMBERS

Tom Menser, Chairman  
Len Scamardo, Vice Chairman  
Joe Gardner  
Tim Greseth

Ken Mabarak  
Don Michelman  
George Sheats

## III. REGULAR ACTION ITEMS

1. **Consider approval of the minutes** of the October 26, 2011 regular meeting / public hearing.

THE CITY OF PRESCOTT ENDEAVORS TO MAKE ALL PUBLIC MEETINGS ACCESSIBLE TO PERSONS WITH DISABILITIES. WITH 48 HOURS ADVANCE NOTICE, SPECIAL ASSISTANCE CAN BE PROVIDED FOR SIGHT AND/OR HEARING IMPAIRED PERSONS AT PUBLIC MEETINGS. PLEASE CALL 777-1272 OR 777-1100 (TDD) TO REQUEST AN ACCOMMODATION TO PARTICIPATE IN THIS MEETING.

#### IV. PUBLIC HEARING ITEMS

1. **SUP11-001, 218 E. Willis Street.** APN: 113-16-032. Request to place an emergency natural gas generator unit for a cell site at 218 E. Willis Street. Owner is Brown Revocable Trust. Applicant/agent is ATTN. Reg Destree. Community Planner is Mike Bacon (928) 777-1360.

#### V. CITY UPDATES

1. Discussion of the 2011 General Plan Committee presentation of the updated water element. Community Planner is Ryan Smith (928) 777-1209.

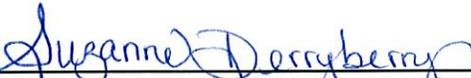
#### VI. SUMMARY OF CURRENT OR RECENT EVENTS

#### VII. ADJOURNMENT

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#### CERTIFICATION OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Prescott City Hall and on the City's website on January 19, 2012 at 4:00 p.m. in accordance with the statement filed with the City Clerk's Office.

  
\_\_\_\_\_  
Suzanne Derryberry, Administrative Specialist  
Community Development Department



**PLANNING & ZONING COMMISSION  
REGULAR MEETING / PUBLIC HEARING  
OCTOBER 13, 2011  
PRESCOTT, ARIZONA**

**MINUTES** of the **PRESCOTT PLANNING & ZONING COMMISSION** held on **October 13, 2011** at **9:00 AM** in **COUNCIL CHAMBERS, CITY HALL, 201 S. CORTEZ STREET, PRESCOTT, ARIZONA.**

**I. CALL TO ORDER**

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

**II. ATTENDANCE**

**Members**

Tom Menser, Chairman-Present  
Joe Gardner-Absent  
Tim Greseth-Absent

Ken Mabarak-Present  
Don Michelman-Present  
George Sheats-Present  
(Len Scamardo, leave of absence)

**Others in Attendance**

Jim Lamerson, Councilman  
Len Scamardo, Councilman  
Tom Guice, Community Development Directory  
George Worley, Planning Manager  
Dick Mastin, Development Service Manager  
Matt Podraky, City Attorney  
Cherri Letner, Recording Secretary

**III. REGULAR ACTION ITEMS**

1. **Consider approval of the minutes** of the September 29, 2011 regular meeting / public hearing.

Commissioner Michelman motioned to approve the minutes; the motion was seconded by Commissioner Mabarak. Passed vote 4-0

2. **CC11-002, 3291 Willow Creek Road (Prescott Honda).** APN: 106-08-209 and totaling ± 5.01 acres. Zoning is Business Regional (BR). Request comprehensive sign plan for new dealership. LDC Section 6.12. Owner is Prescott Commercial Properties. Applicant/agent is Dale Johnson, Signs Plus. Planning Manager is George Worley (928) 777-1287.

George Worley, Planning Manager, referred the commission to the site plan on the overhead. Mr. Worley stated this is a request for Prescott Honda's Comprehensive Sign Plan for their new location on Willow Creek Road. The building is under construction, the building it self is 215 feet north/south measured to the outside edges of the longest extensions. The property has 425 feet of frontage along Willow Creek Road. The speed limit along Willow Creek Road allows for highway commercial signage based on the code, highway commercial signage allows a one for one square footage of signage on the building based on the building frontage, giving them 215 square foot of building signage. It allows a free standing sign separately measured based on a set back from the front property line of 2 square feet for every one foot of setback allowing a 100 square foot sign, but requiring a setback 50 square feet from the front property line. The application involves a series of signs on the front of the building identifying both the

business and services provided. There are 2 signs that identify the business itself with words "Honda" and "Prescott Honda" one on each side of the portico, and the Honda logo, which is counted as signage; in addition to the direct advertising part there is reference to service center and a series of smaller signs that identify the service area and the individual bays for service. These signs are directional type signage. The free standing sign is proposed to be 20 feet tall. The sign face is a 10 x 10 for 100 sq ft. Placing the sign 8 feet back from the front property line and 18 feet from the roadway. The request adds up to a total of 395 square feet on the building, approximately half is directional signage. The building is 160 feet from the front property line which can account for a larger free standing sign.

Commissioner Mabarak ask if the pedestal of the free standing sign was 100 square feet and the sign itself is 100 square feet, Mr. Worley replied the pedestal is approximately 85 square feet based on the measurements, yes the structure is 200 square feet.

Chairman Menser called the applicant to the podium. The applicant stated his name, Dale Johnson of Signs Plus, and his address, 9200 Valley rd, Prescott Valley.

Commissioner Michelman asked why it was necessary to have Honda, Prescott Honda and the Logo on the property.

Mr. Johnson replied that most large corporation have standards. Signs Plus has been contracted to install the signs. The signs are being manufactured out of state by a national manufacturer for Honda Corporation. Signs Plus has been asked to submit Honda standards for the Comprehensive Sign Package.

Commissioner Michelman asked if this is a standard or is Honda the manufacturer telling Honda the dealership you will have signs of this size.

Mr. Johnson replied that Honda Corp cannot tell the municipalities what size the signs can be. The request made is Honda's standard.

Chairman Menser stated that this building sets so far back that the building signage is fine. The free standing sign also would not be an issue.

Commissioner Mabarak stated he would like to have the free standing sign moved back 25 feet from the property line.

Mr. Johnson stated that Honda wanted the free standing sign to be 30 ft tall, after conversations with the Planning and Zoning it was agreed to reduce the height to 20 ft.

Commissioner Sheats asked about the site lighting, Mr. Worley stated that the lighting questions had been approved.

Chairman Menser stated he would entertain a motion, Commissioner Michelman made the motion to recommend approval of the Prescott Honda Comprehensive Sign Plan as submitted, Commissioner Sheats 2<sup>nd</sup>. Vote 4-0 passed.

#### **IV. PUBLIC HEARING ITEMS**

No items to hear.

#### **V. CITY UPDATES**

No updates

**VI. SUMMARY OF CURRENT OR RECENT EVENTS**

No current or recent events to summarize

**VII. ADJOURNMENT**

Chairman Menser adjourned the meeting at 9:23 a.m.

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Tom Menser, Chairman

DRAFT

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**SUP11-001**

**SPECIAL USE PERMIT**  
**Modifications to Telecommunications Site**

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COMMUNITY DEVELOPMENT - PLANNING & ZONING DIVISION  
PLANNING COMMISSION  
**STAFF REPORT**  
Meeting Date: 1/26/12

**TO:** Board of Adjustment Members  
**FROM:** Tom Guice, Community Development Director *TG*  
George Worley, Planning Manager *GW*  
Mike Bacon, Community Planner *MB*  
**DATE:** 1/10/12

**Location:** 218 E. Willis Street **Zoning:** BR **Assessor Parcel No.:** 113-16-032  
**Owner** Brown Revocable Trus, 14401 Butternut Ct., Rockville, MD 20853-2324  
**Applicant:** ATTN. Reg Destree, Reliant Land Services 3200 N. Hayden Rd. #320  
Scottsdale, AZ 85251

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**REQUEST/ Project Description:** Verizon is requesting a Special Use Permit for the following modifications to the existing wireless (cell) site: To place an emergency natural gas generator unit adjacent to a residence at 218 E. Willis Street.

**Details:** The unit will be concealed behind a new 6-foot tall block wall enclosure which measures 12-ft. long by 12-ft. wide. The generator will be cycled (run) for one hour each month for maintenance and will operate during periods of power outages to insure network viability in case of an emergency. The projected average decibel level measured 7 feet away from the enclosure is 64.9. Restaurant and office conversation and Air conditioning unit at 20 feet measure 60 decibels, and a handheld electric mixer is 65 decibels.

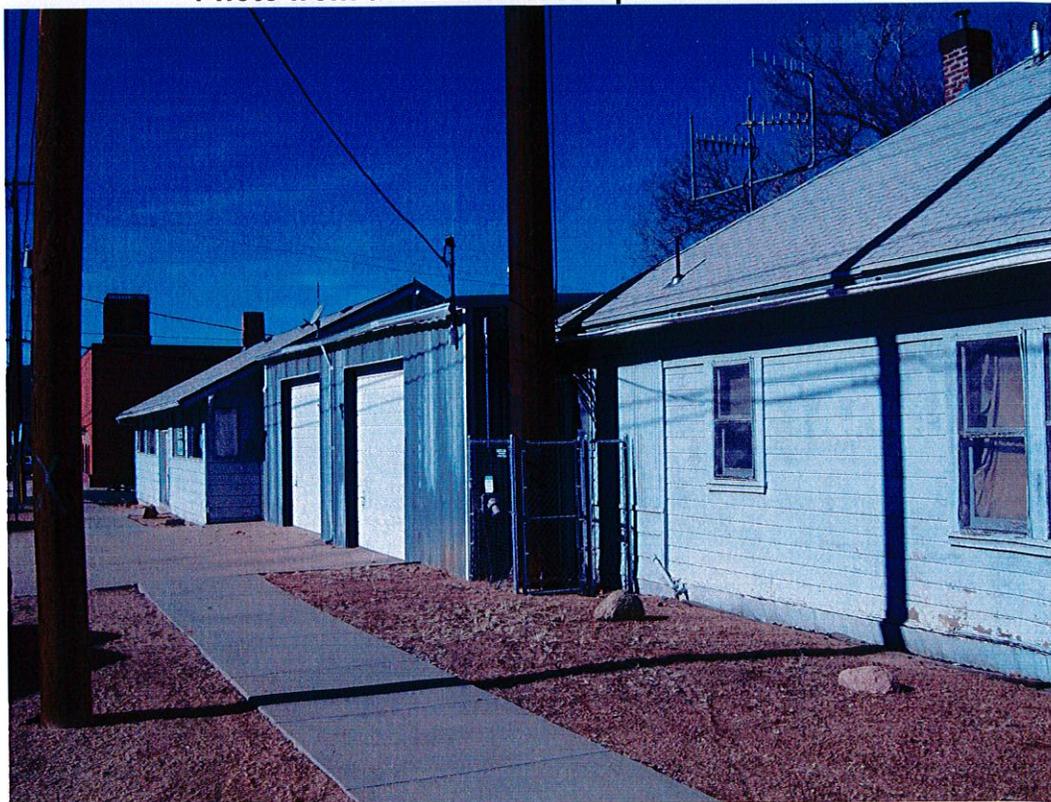
**Background:** The cell site is considered to be pre-existing, non-conforming in relation to LDC Section 2.4.51 which includes the City's Land Use Provisions for Telecommunications Facilities. The cell site was first developed in the mid 1990's. The City adopted Ordinance No. 3770 including language regulating Wireless Communication Facilities in July 1998. SUP09-004 was approved by City Council on October 13, 2009 and was a request to replace the 52' tall wood pole with the current 50' tall COR-TEN steel mono pole with antennas mounted on top. Electronic Equipment is located in the adjacent garage. This property is also home to Country Wide Communications a local communications service provider. It is not known if the house on the corner is occupied or not.

**Neighborhood Comments.** Staff has received no comments from area property owners.

**Photo from the East.**



**Photo from the East: Close-up of wall location**



## STAFF ANALYSIS

### Special Use Permit Requirements For Wireless Facilities

The following items display the Code requirements for Special Use Permits for Wireless Facilities:

1. Inventory of sites that the applicant operates or intends to operate. A goal of the Wireless Plan and Ordinance is for wireless communication services to occur via networks that provide commercial coverage with the fewest number of sites.  
*Verizon currently provides service to our area from the following locations;*
  - *The site on Willis Street that is the subject of this SUP.*
  - *A site located on Badger / "P" Mountain.*
  - *Alltel Tower at the City's Mingus Tank Site, Douglas Street, near Willow Creek Road.*
  - *City's Sundog Road site (Alltel).*
  - *543 Gurley Street (Gurley and Park).*
  - *6100 Wilkinson (Davidson plant at the Airpark).*
  - *3741 Karicio Lane (KGCB Radio/Alltel).*
  - *1046 Spire Drive (Willow Lake Mini Storage).*
2. Distance to nearest residential unit.  
*This property is located in a mixed use area with single-family and multi-family residences abutting and adjacent to the subject property, the Social Security Office Building just to the west, and an office building to the east of the subject property. The old Mountain Bell tower, including 2 cell sites is located approximately 250' to the west. The City has a guideline (rather than an adopted rule) that suggests wireless sites be located 300 feet away from residences. The 300-foot distance was suggested for both visual impact and "electromagnetic field" purposes. The City does evaluate visual impacts associated with wireless facilities but does not regulate radio frequency or electromagnetic field issues (per limitations included in the Federal Telecommunications Act of 1996).*
3. Collocation preference.  
*The design and size ( $\pm 24$ " diameter) and location of this pole will not allow for collocation.*
4. Municipal sites in the area.  
*The City has evaluated leasing space for a communication site at the Parking Garage on Granite Street.*
5. Wireless sites operated by others where interference may occur.  
*The applicant has indicated that this site will not interfere with the other existing sites.*
6. FCC compliance.  
*Verizon is licensed by the FCC.*
7. FAA compliance.  
*This application does not require FAA Notice.*
8. Existing structures preferred over new structures.  
*This cannot be accomplished on-site.*

9. When new structures are contemplated, it is preferred that they be of a type and design that is common to the vicinity rather than "apparent" wireless structures. *A grey or white color to the block wall to match either the grey or white of the existing buildings is suggested to reduce the visual impact of the site. The applicant is receptive to a condition of approval stipulating the colors.*
10. Wireless structures, which cannot be observed from the street, are preferred. *Under the previous permit (SUP09-004) the white-colored antennae panels were removed and replaced by rust/brown colored panels and the wooden pole replaced with at metal pole with a rust/brown finish to reduce the visual impacts. The new wall will obstruct visibility to the generator and the base of the cell tower.*
11. Height of structure not to exceed the height limitation of the zoning district in which it is located. *The property is zoned Business Regional (BR). The height limit for walls is 6-feet on the corner side of the property. The wall is 6-feet tall. .*
12. Opportunity for collocation of governmental or public safety communication equipment. *The City is not seeking collocation at this site.*
13. Setbacks. Section 7.22.H. calls for a setback equal to the height of the structure (for the cell tower). *The Council has the right to waive this setback distance; however, the setback distance of the existing cell tower already approved by council is not the subject of this current application. This proposed wall meets setback requirements.*

**Recommended Action:** Move to approve SUP 11-001 with the following conditions of approval

1. The block wall shall be painted a white or grey color to match the existing buildings on the site.

# PROJECT NARRATIVE

FOR

## Verizon Wireless AZ2 Gurley St (Gen)

218 E. Willis St  
Prescott, AZ 86301

APN: 113-16-032

Jurisdiction: City of Prescott

Zoning: BR (Business Regional)



Submitted by:

Reg Destree

Reliant Land Services, Inc.  
3200 N. Hayden Road, Ste. 320

Scottsdale, AZ 85251

602-349-6930 (mobile)

602-453-0002 (fax)

Reg.destree@rlsusa.com

December 8, 2011

## Purpose of Application

As part of its ongoing effort to maintain the pre-eminent wireless network in Yavapai County, Verizon Wireless is proposing to place a new emergency generator at 218 E. Willis St. This generator will help ensure continued operation of the wireless communication facility that is also on this property in case of power outage.

This is a region-wide effort and Verizon Wireless has been working for the better part of 2011 on upgrading existing sites to include emergency generators, especially legacy Alltel sites like the one located on this parcel.

## Site Description

This parcel is developed with two houses connected by a garage. Originally built as residences the buildings have been used for commercial purposes for over 25 years. The site is also developed with a 50' monopole along Willis St and associated radio equipment inside the building.

The neighboring parcels vary widely in their use. The parcel directly north is zoned BR and developed with a multi-unit rental property. The parcels across Alarcon to the east is zoned BG and is used for office spaces. The parcels across Willis to the south are multi-unit residential and west of the site is the Social Security office building.



## Site History

This parcel was originally developed in 1904 with the two houses. The garage connecting the two was added in 1977 and in 1985 Countrywide Communications began using the parcel as a sales office. This parcel was developed with a wireless site 15 years ago by Alltel.

## **Description of Proposal**

Verizon is proposes to add an emergency natural gas generator adjacent to the existing monopole on the Willis St side of the property. This new emergency generator will be concealed behind a new 12' x 20' block wall that will be 6' high. The new block wall will fully conceal the generator from Willis and Alarcon. It will also conceal the bottom of the existing pole and help to improve security.

Typically Verizon utilizes diesel generators but in this particular case Verizon will be using a natural gas generator to minimize the size of the unit as well as mitigate neighbor concerns that are sometimes associated with diesel fuel. The natural gas will be plumbed to the unit from the existing service to the parcel.

The generator cycles about 1 hour per month for maintenance and runs during power outages to ensure ongoing use of the wireless site on property. Events that cause power outages tend to be high-volume times for wireless customers and are also the times when people rely on their phones the most.

## **Conclusion**

This proposed emergency generator will help ensure on-going network viability in case of emergency in this part of Prescott. This site has been designed to avoid negative impact on neighbors and Verizon is requesting approval of a Special Use Permit to authorize the installation of this generator on this parcel.



**SITE**

**SF-9**

**MF-M**

**MF**

**MF-M**

**BG**

**MF-M**

**MF-H**

N PLEASANT ST

N ALARCON ST

N MOUNT VERNON AVE

N PLEASANT ST

N ALARCON ST

E WILLIS ST

N MARINA ST

N ST

N CORTEZ ST

E SHELDON ST

E GURLEY ST

ST

VIRGINIA









INTERNAL REVIEW	DATE
CONSTRUCTION SIGNATURE	DATE
RF SIGNATURE	DATE
FINAL DATE SIGNATURE	DATE



8000 E. BASELINE RD., MESA, AZ 85206  
PHONE: (480) 838-8888 FAX: (480) 838-8888

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PROJECT NUMBER: [REDACTED] CADD BY: [REDACTED]  
DATE: [REDACTED]

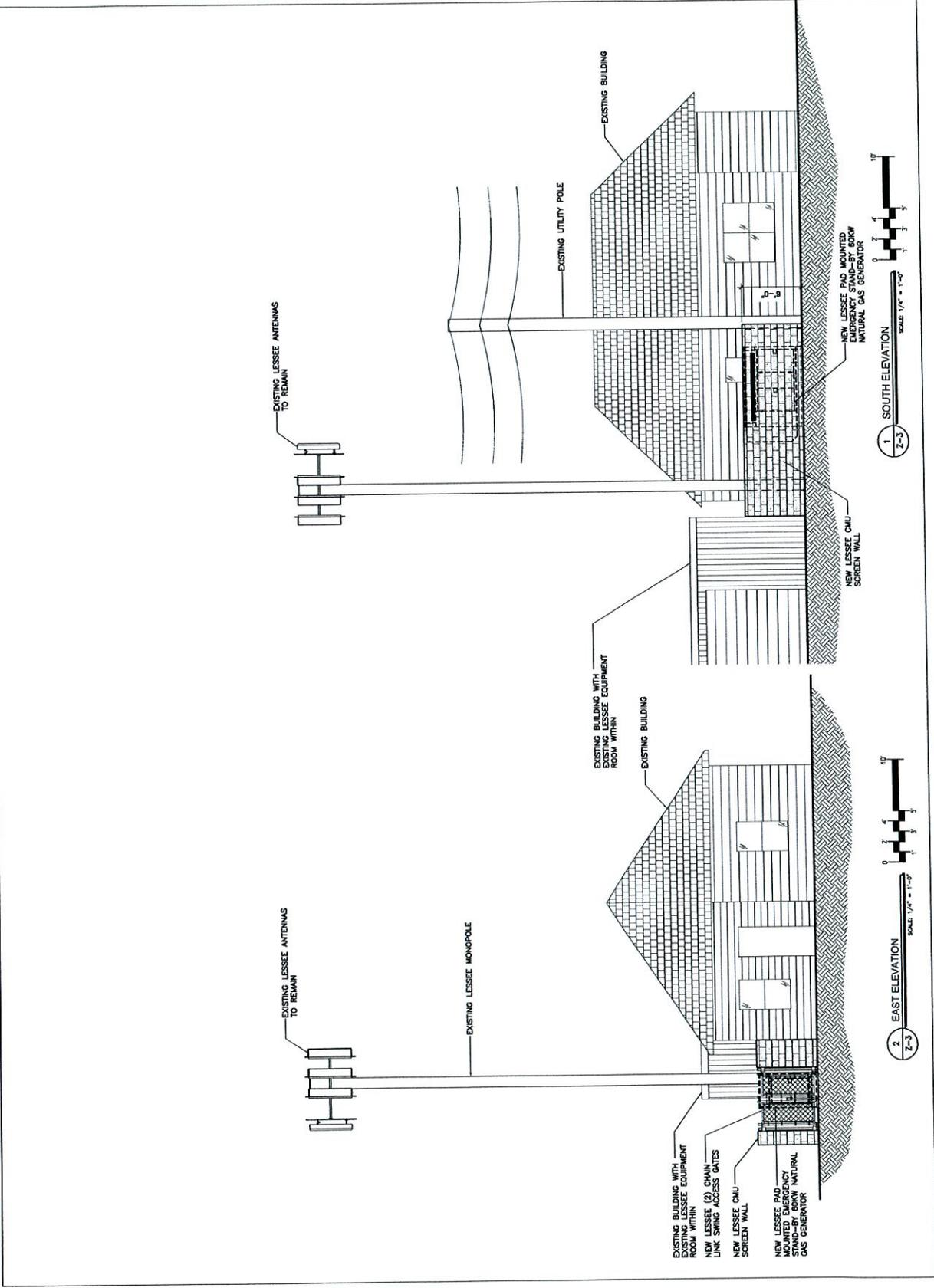
REVISIONS	DATE	ISSUE TO CLIENT
1		ISSUE FOR SUBMITTAL

SITE NAME: **AZZ GURLEY STREET**

FILE NUMBER: [REDACTED]  
SHEET NUMBER: [REDACTED]  
PROJECT: AZ 8000

**ELEVATIONS**

SHEET NUMBER: **Z-3**



**1 SOUTH ELEVATION**  
SCALE: 1/4" = 1'-0"  
Z-3

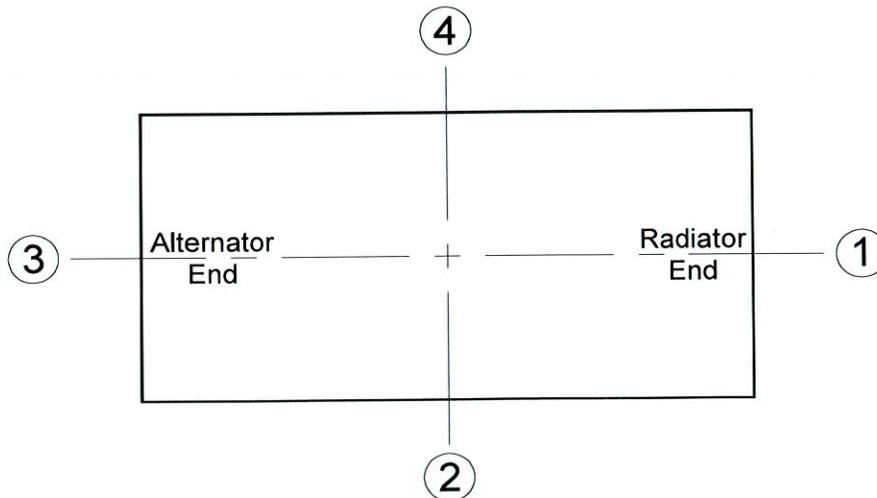
**2 EAST ELEVATION**  
SCALE: 1/4" = 1'-0"  
Z-3

**Sound Analysis**  
**SG060 6.8L FORD**

**Level 2A Sound Attenuated Enclosure**  
**Sound Pressure Levels in dB(A)**

**GENERATOR SET WITH EXHAUST SYSTEM**

Position	Overall Level	Frequency Spectrum Levels								
		Center Frequency (Hz)								
		31.5	63	125	250	500	1000	2000	4000	8000
1	66	21	42	52	56	59	46	50	47	38
2	65	20	43	50	51	59	48	48	49	43
3	65	21	41	47	49	56	47	48	45	40
4	64	21	41	51	56	57	43	49	43	35
<b>Average</b>	<b>64.9</b>	<b>24</b>	<b>60</b>	<b>56</b>	<b>51</b>	<b>55</b>	<b>48</b>	<b>46</b>	<b>42</b>	<b>36</b>



Notes:

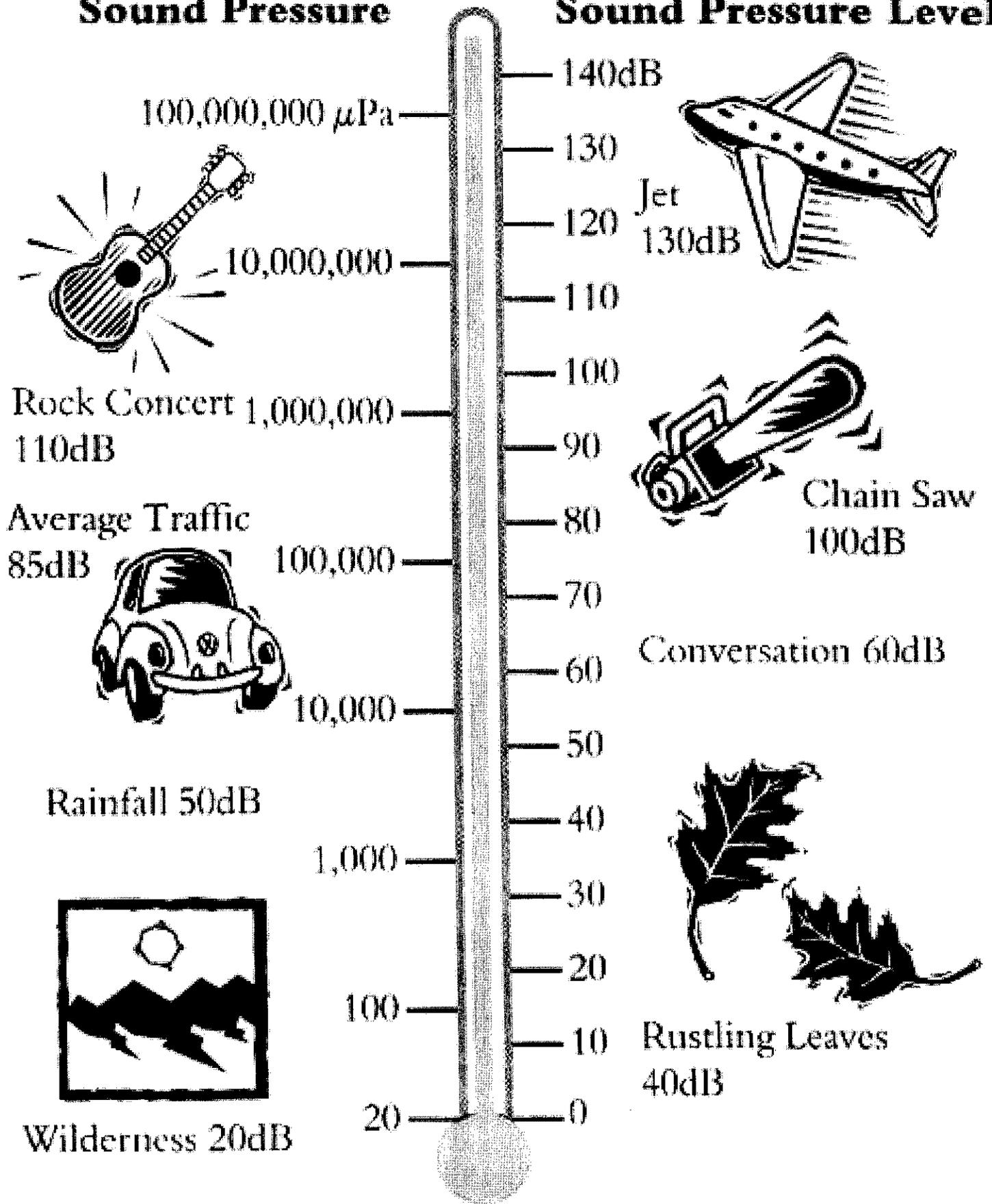
1. Generator operating at 60 kW.
2. All measurement positions are 7 m (23 ft) from center of generator set and at 1 m (3.3 ft) height.
3. Test conducted on an asphalt surface in free field conditions.
4. Reference sound pressure is  $2 \times 10^{-5}$  Pa.

# dB

50 hp siren (100')	<b>140</b>	Strong rock vocal (1' from microphone)
Threshold of pain		
Pneumatic chopper (5')	<b>130</b>	Jet turbine (200')
Hammering on steel plate (2')	<b>120</b>	Local rock music (on stage)
Boiler factory	<b>110</b>	Tramcar
Car manufacturing plant		Subway passing
Heavy truck (50')	<b>100</b>	Drilling machine (35')
		Very loud music (adjacently)
	<b>90</b>	10-hp outboard motor (50')
Heavy street traffic (5') inside bus		
Stenographic room	<b>80</b>	
Average factory		
Average automobile	<b>70</b>	Department store
Conversation (3')		Noisy office
	<b>60</b>	Background music
Average office		
Quiet residential street		
	<b>50</b>	Maximum street noise
Average residence		Very quiet radio at home
	<b>40</b>	
Very soft music		Country house
	<b>30</b>	Quiet auditorium
Quiet whisper (5')	<b>20</b>	Quiet sound studio background noise level
		Leaves rustling
Anechoic room	<b>10</b>	
		Threshold of hearing

# Sound Pressure

# Sound Pressure Level



# General Plan Committee Presentation of the Updated Water Element

## AGENDA

COMMUNITY DEVELOPMENT – PLANNING AND ZONING DIVISION  
PLANNING AND ZONING COMMISSION

### Staff Report

Planning Commission Dates: January 26, 2012

**TO:** Prescott Planning and Zoning Commission

**FROM:** Tom Guice, Community Development Director *TG*  
George Worley, Planning Manager *GW*  
Ryan Smith, Community Planner *RS*

**DATE:** January 19, 2012

**Applicant:** 2011 General Plan Committee and the City of Prescott  
201 S. Cortez Street  
Prescott, AZ 83001

### **BACKGROUND:**

The General Plan Committee has completed draft edits to the Water Element after several meetings of presentations regarding the City water delivery system, sewer system, street infrastructure, finance and water availability. The Committee indicated their belief that water is among the most important issues affecting future growth. City revenue was also considered to be important, however, the Committee agreed that water should be the initial element of revision.

The Water Element is arguably the most complex and intensely discussed subject regarding the future growth of Prescott. Several Committee members are on or regularly attend local citizen water committees. Committee members and members of the public brought their opinions, knowledge and experience to the discussion. City staff provided information and guidance to the Committee, particularly regarding the appropriateness of goals and strategies. It is emphasized that the General Plan is not a strategic plan and that goals and strategies must be measurable and implementable by Council. The General Plan cannot change state water laws, AMA regulations or influence other municipalities.

The result of the Committee discussions is a compact and useful water element with appropriate goals and strategies. Attached is the draft Water Element. There are several areas that may require further discussion regarding "emerging contaminants" for which no safety standards yet exist, and the addition of an explanation regarding the

status of exempt water wells within the City. The Committee may discuss these issues when the General Plan returns to them as a completed document for final edits.

**ACTIVITY:**

The Committee has met for 13 meetings with a 14th meeting scheduled on January 25, 2012. Members of the public continue to attend Committee meetings and provide input.

In addition to classes instructing the Committee on City functions, explanation of critical growth issues, discussion regarding Committee procedures and the water element, the Committee also discussed the Vision Statement of the plan. Ultimately, the Committee tabled the Vision Statement choosing to later revisit this topic with a better understanding of the elements of the General Plan.

The Committee is now in the process of updating the Land Use Element of the General Plan.

## 10.0 WATER RESOURCES ELEMENT

### 10.1 EXISTING CONDITIONS

Water availability is crucial to maintaining a strong economy and good quality of life. Precipitation supplies 100% of the water in the aquifer which serves as the primary source of water for the City of Prescott.

Under the Arizona Groundwater Management Code of 1980, the State of Arizona established five active water management areas to ensure that groundwater would not be depleted beyond the level being recharged, a condition defined as "safe-yield." The City of Prescott water service area is located within the Prescott Active Management Area (AMA) along with Prescott Valley, Chino Valley, the Yavapai-Prescott Indian Tribe, Dewey-Humboldt and extensive county areas (figure 10-1).

Communities within the AMA draw groundwater based on rights, goals and policies established by the groundwater law and must demonstrate a 100-year assured water supply (AWS) through a program aimed at new development. Management plans administered by the Arizona Department of Water Resources (ADWR) establish a water management strategy emphasizing conservation, replacement of existing groundwater, renewable supplies, recharge, and water quality management by all providers within the AMA. Safe yield is the goal by the year 2025. Private domestic use wells are exempted from the 1980 Groundwater Code. According to the ADWR Prescott AMA Assessment, exempt wells have increased steadily from 4,560 in 1985 to 11,035 in 2006.

In 1998 the ADWR determined that the Prescott AMA was no longer in a state of safe yield. This determination capped the amount of groundwater which could be used by the respective jurisdictions within the AMA as a source of assured water for new development.

The City of Prescott water service area accounts for about 8.6% of the land within the Prescott AMA. The groundwater basin aquifers within the AMA are interconnected. Therefore, drawdown in other parts of the Prescott AMA will contribute toward decreased water tables in the Prescott water service area.

Prescott is in a region of relatively moist cool upland slopes below timberline dominated by large coniferous trees. Other areas of the AMA are within the High Desert area of the state's Central Highlands region. Rainfall continues to be below average, with drought conditions being reported by various scientific institutions.

The State's AMA safe-yield is a groundwater management goal, which attempts to achieve and maintain a long-term balance between the amount of groundwater withdrawn and the annual amount of natural and artificial recharge in the AMA (see ARS §45-561.12). The Prescott AMA has not achieved safe-yield, therefore, the current rate of drawdown is not sustainable over the long term.

#### A.R.S. 9-461.05.

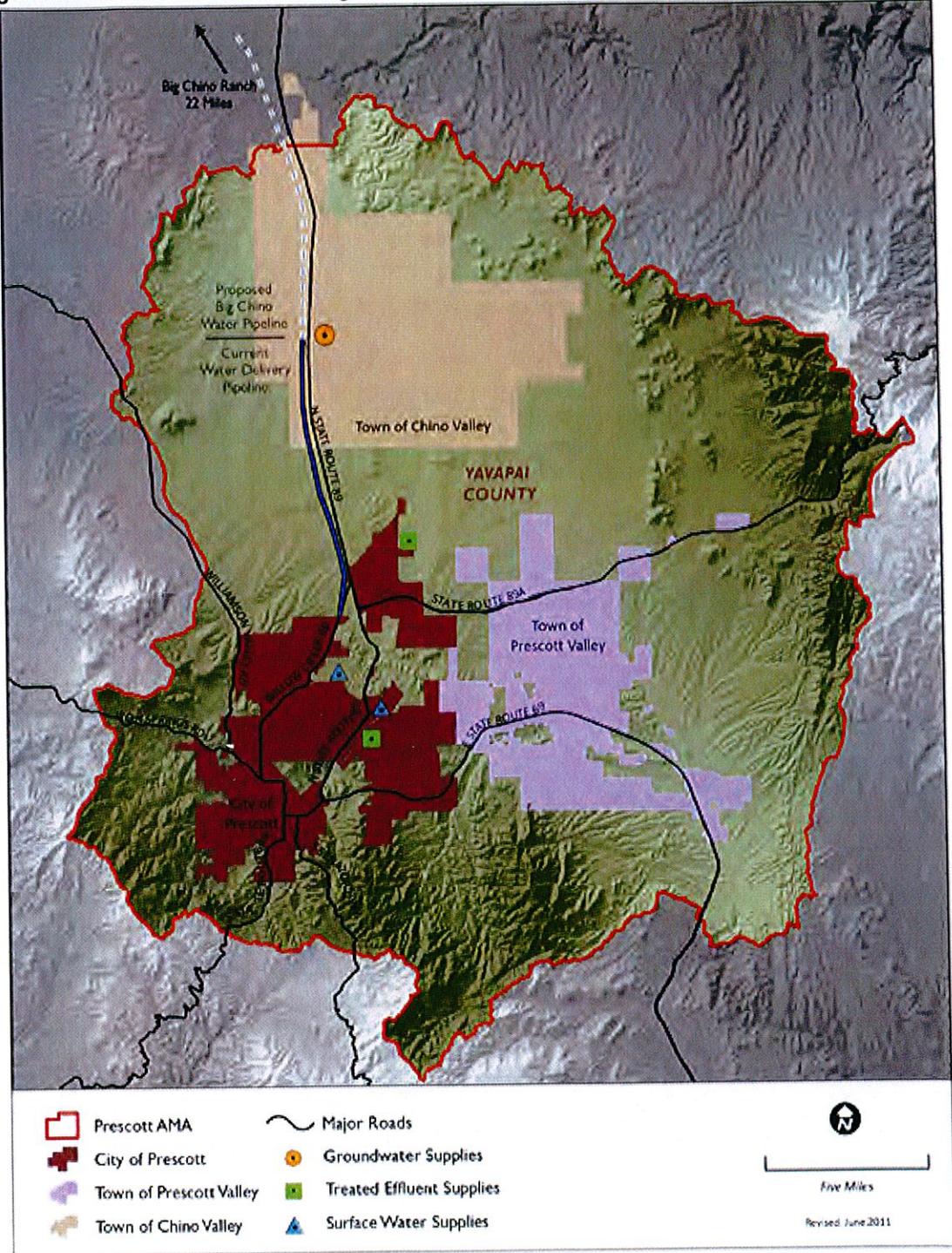
5. A water resources element that addresses:

(a) The known legally and physically available surface water, groundwater and effluent supplies.

(b) The demand for water that will result from future growth projected in the general plan, added to existing uses.

(c) An analysis of how the demand for water that will result from future growth projected in the general plan will be served by the water supplies identified in subdivision (a) of this paragraph or a plan to obtain additional necessary water supplies.

Figure 10-1 Prescott Active Management Area



## 10.2 LEGALLY AND PHYSICALLY AVAILABLE WATER

### 10.2.1 Legal Availability

Due to the restrictions imposed by the 1980 Groundwater Management Code and the 1998 ADWR declaration of water mining, communities within the AMA must develop additional water supplies to demonstrate the 100 year assured water supply in order to approve new development. Additional water rights acquired must meet standards of legal and physical availability as recognized by the state water code. Water supply is available under State Law and when legal documentation exists securing the rights to a specific amount and source of water. The City's current legal document regarding water supplies is known as the 2009 Decision and Order (D&O) authorized and signed by ADWR.

### 10.2.2 Physical Availability

The physical availability of water resources is dependent upon natural conditions such as the amount of precipitation, evaporation, natural recharge and geology. It is also dependent on the demand placed on the resource by all water users. Since the water policies pursued by an individual jurisdiction affect all jurisdictions in the AMA, water policies are a topic of major regional interest. Regional cooperation and coordination will be necessary to maintain an assured water supply for the City and the region. A regional coordinating body known as the Yavapai County Water Advisory Committee, has been established with members representing the AMA and other local jurisdictions.

The City of Prescott has pursued an aggressive water management policy since 1985 and has invested in numerous strategies to secure both the legal and physical availability of water for existing and projected water users within the City of Prescott water service area. These resources, as recognized in the City's D&O, include groundwater, surface water and treated effluent supplies used for recharge & recovery. Among the City's water portfolio is the legal right to import up to 8068 acre-feet per year from the Big Chino sub basin (ARS §45-555E and F). The current water resources legally and physically available to the City are presented in Figure 10-2.

**Figure 10-2** Current water supplies as allowed by the 2009 D&O.

<b>Groundwater</b>	9,466 af/yr
<b>Treated effluent (recharge and recovery and direct use)</b>	5,446 af/yr
<b>Surface Water (recharge and recovery)</b> Granite & Willow Creeks (net)	1,733 af/yr
<b>Imported Groundwater*</b>	8,068 af/yr
<b>Total legally and physically available water supply</b>	24,713 af/yr

\*Imported groundwater is subject to the initiation and completion of infrastructure. City Charter Article VI, Section 16, also requires voter approval for certain high value projects. Of this quantity of imported groundwater 45.9% is committed by intergovernmental agreement to the Town of Prescott Valley. Note: The City holds additional groundwater rights and surface water claims that are not provided for in the 2009 D&O. These rights and claims are held in reserve.

Without tapping importation rights, the city's current legal and physical availability of groundwater and alternative water sources can cover existing uses and projected allocations to all platted parcels in the water service area. This takes into consideration water demand that had been previously committed for preliminary subdivision plats approved prior to August 1998.

Since the declaration that the AMA is not in safe-yield, the City has taken a conservative approach to the allocation of water to new development through a "water budget" process specifying quantities to be made available. This budget and the policies underpinning it are reviewed and updated by the City Council each year.

### **10.3 FUTURE GROWTH AND WATER DEMAND**

Population growth and development anywhere within the AMA will affect the aquifers and the AMA goal of reaching safe-yield. There are a number of specific threats to safe-yield:

- population growth and resulting increases in aquifer draw-down
- commitment of groundwater to non-residential uses
- drilling of new exempt wells within the AMA

In addition, the aquifer has multiple jurisdictions drawing upon it, which complicates achieving coordinated water management policies and practices which can collectively contribute to safe-yield for the entire AMA. Development patterns and policies in other jurisdictions within the AMA differ from those of the City of Prescott. The City anticipates the need to continue to work with regional water forums to implement a regional coordination strategy.

Meeting the water needs of future residents will require that the City optimize existing groundwater supplies through conservation and maximize alternative water supplies such as reuse or recharge of treated effluent. To meet the demands of the growing population and contribute to the safe-yield goal for the AMA, the City of Prescott anticipates the need to develop additional water sources including importation. Water rights have been secured and infrastructure designed for importation of water from the Big Chino Sub-basin located just north of the Prescott AMA.

Significant aspects relating to the importation of water include monetary, social and environmental. Economic factors include the costs of infrastructure, methods of financing and securing of water rights. Social impacts include the effects on quality of life and public services caused by population growth fed by imported water. Environmental considerations include the possibility of affecting surface water flows and increased urbanization, which may in turn affect land, habitats, and air quality.

#### **10.3.1 Treated Effluent Supplies**

Treated effluent has become an important water resource for the City of Prescott. When treated, the effluent from the City's water reclamation plants can be used for certain applications, such as irrigation of large turf areas, reducing demand on groundwater supplies. The City supplies effluent to golf courses within the municipal service area. Treated effluent is also used to recharge the aquifer through the use of infiltration basins, where the treated effluent water percolates into the ground and is further cleansed through natural processes. The City of Prescott has operated an effluent recharge facility near the airport since 1988. Between 2000 and 2010 the City has recharged an average of 2,500 acre feet per year of effluent. Future plant expansions are planned. Using current techniques for wastewater treatment, the effluent is expected to be treated to federal standards termed A+. This is a healthier standard and will make available treated effluent to be used for a wider range of uses.

Work on both of the City's water reclamation plants is included in the 5-year Capital Improvement Plan with first phase completion anticipated to be early 2014. Class A+ water is an Arizona Department of Environmental Quality requirement for plants that are of 0.25 mgd (million gallons per day) capacity or greater. The Reclaimed Water Quality Standards include two "+" categories of reclaimed water, Class A+ and Class B+. Both categories require treatment to produce reclaimed water with a total nitrogen concentration of less than 10 mg/l (milligrams per liter). These categories of reclaimed water will minimize concerns over nitrate

contamination of groundwater beneath sites where reclaimed water is applied. It will allow for landscape irrigation of areas open to public access. (Source: *Sundog WWTP and Airport WRF Capacity and Technology Master Plan, October 2010 and ADEQ website.*)

Additional methods to optimize this resource include increasing the amount of treated effluent available for recharge by limiting the amount of new turf that must be irrigated, periodic review of effluent pricing, possible financial penalties to customers who exceed their allotment, and improved collection of wastewater in areas currently on septic systems.

### **10.3.2 Surface Water Supplies**

Watson and Willow Lakes and their associated water rights were purchased in 1998. These supplies are an important resource for City water customers. As with treated effluent, lake water is diverted to the City's recharge facility for storage and recovery purposes. This source is recognized in the City's 2009 D&O. The water level of the lakes is contingent upon weather patterns, therefore an inherent uncertainty from year to year exists with this supply. All water supplies require careful management strategies, however, lake water supplies differ due to the need to balance their water supply, open space, and recreation functions.

### **10.3.3 Water Conservation**

The City's existing water conservation program encourages wise water use practices. This program is currently posted on the City's website ([www.cityofprescott.net](http://www.cityofprescott.net)). Conservation measures that could yield water savings include limiting the sale of additional quantities and direct use of effluent primarily for irrigation purposes, reducing the amount of lost and unaccounted for water by increasing the watertight integrity of the City's distribution system, maintaining financial incentives for conservation, and further expansion of public education. Proposed new policies will require careful formulation and subsequent adoption through public processes. Trends in water consumption show greater seasonal use in the summer. Continuing efforts will be made to reduce outdoor use during the hotter months.

### **10.3.4 Additional Water Supplies**

Serving the anticipated population growth with water has been considered and incorporated in the City's Alternative Water Budget and in ADWR Management Plans for the Prescott AMA. Importation could balance the overdraft and assist in meeting the goal of safe-yield, however, even with importation, a degree of uncertainty exists. The current drought and its potential duration is relevant in ongoing water resources management.

Drought could cause water sources to literally or legally "dry up", placing the community and a larger future population relying upon imported resource in jeopardy of water supply shortfalls. Due to climatological factors and ongoing stream adjudication legal proceedings, our water supply is not and cannot be completely controlled by the City of Prescott.

## **10.4 WATER RESOURCES LONG TERM MANAGEMENT PLAN**

In 2011 litigation ended resulting in recognition of the City of Prescott 2009 D&O as the official document defining water availability from the ADWR, which enumerates the sources of water to which the City is entitled. The D&O is based on ADWR examination of water that is physically, legally, and continuously available for 100 years. Now that the City's current and future water rights have been determined, formulation of a long-term water management plan can occur to apply those resources to the City's needs. This plan will take into account all supplies recognized in the D&O, groundwater, surface water, treated effluent, and imported supplies, as well as conservation and an appropriate contribution by Prescott toward meeting safe yield in the AMA. All supplies will need to be assessed for their best use and to secure water for future generations.

### 10.4.1 Water Availability For Future Development

Water currently available for the City's future growth is defined by the D&O. The amount of unallocated water available for future growth is defined in an earlier D&O from 2005 where approximately 355 acre feet (AF) remains as of December, 2011. This quantity would support approximately 1014 new homes, The most recent D&O has an additional 1,472 acre-feet which could serve an additional 4,205 residential lots. Should water from the Big Chino Sub-basin be imported, this number would increase. Specific reservations have already been made for previously approved and unbuilt residential subdivisions, and for tracts of vacant, residentially zoned property within the current city limits. Considering that in 2010, the Census found 22,159 total housing units in Prescott, the following estimate quantifies future growth constrained by water availability:

1998 Plats - Grandfathered Groundwater	
Final Plats	3,398
Preliminary Plats	3,456
Reservation for Residentially Zoned Unwatered Tracts	1,920
Current Alternative Water Balance (355 AF)	1,014
2009 Decision and Order	
Alternative Water (1,472 AF additional)	4,205
<b>TOTAL</b>	<b>13,993 housing units</b>

The legal, physical and economic 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, the availability of water and capital will determine the long-term growth of the City.

### 10.5 EMERGING CONTAMINANTS

As defined by the U.S. EPA, "emerging contaminants" are commonly derived from municipal, agricultural, and industrial wastewater sources and pathways. These newly recognized contaminants represent a shift in traditional thinking as many are produced industrially yet are dispersed to the environment from domestic, commercial, and industrial uses. Emerging contaminants can be broadly defined as any synthetic or naturally occurring chemical or any microorganism that is not commonly monitored in the environment but has the potential to enter the environment and cause known or suspected adverse ecological and/or human health effects. In some cases, the release of emerging chemical or microbial contaminants to the environment has likely occurred for a long time, but may not have been recognized until new detection methods were developed. In other cases, synthesis of new chemicals or changes in use and disposal of existing chemicals can create new types of emerging contaminants.

### 10.5 WATER RESOURCES GOALS AND STRATEGIES

**Goal 1.** Provide a reliable water supply for the city adequate for implementation of this General Plan.

**Strategy 1.1** Develop a Long-Term Water Management Plan.

**Strategy 1.2** Review annually the city water budget and balance new allocations with available resources in accordance with the City's water management plan.

**Strategy 1.3** Reduce lost and unaccounted for water through monitoring, more accurate reporting, and system improvements.

- Strategy 1.4** Continuously seek, evaluate, and implement additional measures for the City's Water Conservation Program.
- Strategy 1.5** Maintain a water rate structure aligned to conservation.
- Goal 2.** Maintain water supply reliability by optimizing use of the effluent resource component.
  - Strategy 2.1** Maximize recharge of renewable resources, treated effluent and surface water.
  - Strategy 2.2** Encourage extension of sanitary sewers into areas presently served by septic or other alternative disposal systems where feasible to increase return flow to water reclamation plants.
- Goal 3.** Augment City water supplies.
  - Strategy 3.1** Seek additional water resources to reduce depletion of local ground water reserves and contribute to the achievement of "safe-yield" in the AMA.
  - Strategy 3.2** Develop funding strategies to finance new water sources and technologies.
  - Strategy 3.3** Investigate opportunities for enhancing infiltration within watercourses for groundwater replenishment and rainwater macro-harvesting technologies for application within the City of Prescott and the Prescott AMA to increase water supply.
  - Strategy 3.4** Operate City-owned lakes to maximize storage for surface water recharge while maintaining a balance with recreational and habitat values.
- Goal 4.** Increase public information, awareness, and involvement in water management.
  - Strategy 4.1** Promote public participation in water policy and initiatives through media outreach and public informational dissemination.
- Goal 5.** Maintain participation in regional water resource and management efforts.
  - Strategy 5.1** Jointly formulate a plan to achieve safe yield within the Prescott AMA with other jurisdictions.
  - Strategy 5.2** Partner with other jurisdictions and contribute funding, where necessary, for development of intergovernmental water management programs.
  - Strategy 5.3** Work with regional partners to influence and modify Arizona state water laws and regulations of significant importance to the city and AMA.