



# CITY COUNCIL AGENDA

CITY COUNCIL CHAMBERS . 11465 WEST CIVIC CENTER DRIVE . AVONDALE, AZ 85323

**WORK SESSION**  
January 11, 2010  
6:00 PM

## CALL TO ORDER BY MAYOR ROGERS

**1 ROLL CALL BY THE CITY CLERK**

**2 PRESENTATION OF PRELIMINARY RESULTS - CITY OF AVONDALE WATER RESOURCE MASTER PLAN STUDY**

City Council will receive a summary of the preliminary results from the new Water Master Plan. For information, discussion and direction.

**3 ADJOURNMENT**

Respectfully submitted,

A handwritten signature in cursive script that reads "Carmen Martinez".

Carmen Martinez  
City Clerk

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# CITY COUNCIL REPORT

**SUBJECT:**

Presentation of Preliminary Results - City of Avondale Water Resource Master Plan Study

**MEETING DATE:**

January 11, 2010

**TO:** Mayor and Council

**FROM:** Wayne Janis, Water Resources Director

**THROUGH:** Charlie McClendon, City Manager

**PURPOSE:**

Staff is providing the City Council a preliminary summary of results from the new Water Master Plan. This presentation is for City Council for information, discussion and possible direction.

**BACKGROUND:**

The Water Master Plan was originally completed in 2002 and last updated in 2005 with the exception of water supplies. Master Plans should be reviewed and updated approximately every 3-5 years. City Council approved a Professional Services Agreement with the firm of Malcolm Pirnie on July 20, 2009 to complete a new Master Plan.

Malcolm Pirnie has been working with staff to prepare the Water Resource Master Plan. This plan has several tasks and evaluations, including evaluation of the City of Avondale's water resource availability and existing improvements, and to propose new system improvements based on the selected alternative.

**DISCUSSION:**

The results of the study to date include the following findings (see the attached presentation for additional details):

**Water Resources:**

- The City's existing water resource supplies are adequate for our current needs.
- The water resource supplies available to the City should be adequate for the anticipated ultimate build out.
- The City will have to be careful to develop the anticipated water supplies based on both SRP on project and off project demands and water rights.
- Water resources include SRP supplies, CAP water, long term storage credits, groundwater allowances, recharged and recovered reclaimed water, and White Mountain Apache lease water.

**Water Supply Alternatives:**

Various alternates were explored to provide water supply. Two basic options were explored; 1) continue well development in areas of better water quality, and 2) construction of a surface water treatment facility. Another option of providing wells in areas that will require treatment was not explored due the cost and uncertainty of the future of waste disposal methods. Following is a summary of effects of the two options:

1) Continue the current City program of recharging water and developing wells. Develop wells in the northern portion of the City to minimize the requirements of water treatment.

o Advantages of this option are:

- It is a continuation of the City's current practice.
- It permits construction of facilities as development occurs, deferring capital costs until they are needed.

o Disadvantages include:

- Difficulty finding locations for new wells with adequate water quality.
- Constructing water mains to reach the existing distribution facilities.
- Constructing larger water transmission lines and loops to move water to the southern portion of the City.
- Possible imposition of future water quality requirements that may require treatment facilities, additional land and ancillary facilities in existing developed areas.

2) Provide a surface water treatment plant and minimize development of new wells.

o Advantages of this option include:

- It provides a larger supply of water in one location.
- Minimizes construction of well facilities in neighborhoods.
- Reduces the unit cost for water treatment due to increased quantity of water are processed.

o Disadvantages include:

- Requirement of a large capital outlay to construct the first facility even if phased.
- Challenging treatment process due to a variability in supply water quality.
- Lengthy permitting and approval process.
- Construction of larger water transmission lines and loops to get water to the southern portion of the City.

After evaluation of the alternatives, staff and the consultant recommend the first option of development of wells in the northern portion of the City for future water supply. This option is less expensive than a surface treatment facility, and more easily funded. However, since a surface water treatment plant may provide benefits in achieving future assured water supply designations and could alleviate the need to build additional recharge capacity; and given the inherent uncertainty of future groundwater treatment requirements, the City should consider acquiring a site now for a potential surface water treatment plant. This will preserve the City's future options should a treatment plant option become necessary due to regulatory, institutional or water quality needs.

#### **BUDGETARY IMPACT:**

There is no budgetary impact for this phase of the project.

#### **RECOMMENDATION:**

For information and direction only. Staff is providing the City Council a preliminary summary of results of the Water Master Plan Study currently being completed for direction and input.

## ATTACHMENTS:

[Click to download](#)

No Attachments Available