Meeting Minutes
City Council Work Session

June 20, 2022 | 4:00 p.m.
Council Chambers Conference Room
88 E. Chicago St., Chandler, AZ

Call to Order

The meeting was called to order by Mayor Kevin Hartke at 4:00 p.m.

Roll Call

Council Attendance

Mayor Kevin Hartke
Vice Mayor Terry Roe
Councilmember OD Harris
Councilmember Mark Stewart
Councilmember René Lopez
Councilmember Christine Ellis
*Councilmember Matt Orlando

*Councilmember Orlando attended telephonically.

Appointee Attendance

Josh Wright, City Manager
Kelly Schwab, City Attorney
Dana DeLong, City Clerk

Staff in Attendance

Dawn Lang, Deputy City Manager / Chief Financial Officer
Andy Bass, Deputy City Manager
John Knudson, Public Works and Utilities Director
Gregg Capps, Utility Resources Manager
Simone Kjolsrud, Water Resource Advisor
Matt Burdick, Communications and Public Affairs Director
Ryan Peters, Strategic Initiatives Director
Alexis Apodaca, Government Relations Coordinator
Toni Smith, Communications Manager
Jenny Winkler, Assistant City Attorney
Micah Miranda, Economic Development Director

Discussion

1. Presentation and Discussion on City of Chandler's Water Resources and Drought Plan

Mayor Hartke said that access to safe and secure water is essential and one of our greatest priorities. Actions taken today to address the shortages of the Colorado River, Lake Powell, and Lake Mead have not yet had impacts upon our water supplies. This is a serious issue in the future, so we want to be prescient and prepare for the future. The average household in Chandler uses 20% less water than we did 25 years ago, we have come a long way. Mayor Hartke called for a staff presentation.

JOSHUA WRIGHT, City Manager, introduced the discussion item and said this is a timely topic. This is something the City has been preparing for, for many years. Chandler has been thinking about this for decades and has a diverse supply of water. Even though there are challenges in our water portfolio, it does not mean Chandler cannot continue to seize opportunities for growth and plan smartly for the future.

GREGG CAPPS, Utility Resources Manager, presented the following presentation.

- Chandler's Water Resources and Drought Preparedness
- Agenda
    - Introduction
    - Chandler's Water Supplies
    - Planning for Growth
    - Colorado River Shortage & Impacts to Chandler
    - Chandler's Drought Preparation
    - Conservation programs
    - Next Steps
- Where Does Our Water Come From?
    - Surface Water
        - Salt & Verde Rivers
            - Delivered by Salt River Project (SRP)
            - Roosevelt Water Conservation District (RWCD)
        - Colorado River
            - Delivered by Central Arizona Project (CAP)
    - Groundwater
    - Treated Wastewater (Reclaimed Water)
- Chandler's Water Supplies
- Surface Water
    - Colorado River + Salt River + Verde River → City of Chandler
- Salt and Verde River Systems
    - Chandler's primary water supply comes from the Salt and Verde Ricers, stored in SRP reservoirs.

    - SRP reservoirs are currently 68% full
- Central Arizona Project Canal
    - Colorado River water is stored in Lakes Powell and Mead
    - Pumped uphill from Lake Havasu
    - CAP Canal: 336 Miles
    - Average Annual Delivery: 1.2 million AF/Year

COUNCILMEMBER LOPEZ pointed out that each city has different allocations of where they get their water from and levels of consumption of CAP water.

MR. CAPPS agreed and said every city is different based on their contracts and allocations.

MR. CAPPS continued the presentation.

- Chandler Water Delivery Map

COUNCILMEMBER STEWART asked what our groundwater levels look like.

MR. CAPPS said our groundwater levels are very good.

COUNCILMEMBER ORLANDO asked if there are costs associated with infrastructure and participation.

MR. CAPPS answered that there are multiple costs associated with each supply. The Colorado River water has a delivery fee and charges for use of the canal. SRP is the least expensive water supply, and we pay an allocation for every acre foot of water. RWCD has different costs associated. Groundwater just uses our energy to pump the water so there is no cost.

COUNCILMEMBER ORLANDO asked if those costs were available.

MR. CAPPS said it ranges from $50 to $200 per acre foot.

MAYOR HARTKE asked how old the water delivery maps are and if they are ever revisited by providers.

MR. CAPPS answered that these borders are set in stone based on legal agreements. The SRP member service area was developed when the Roosevelt Dam was built, and landowners put their land up for collateral and formed an association. RWCD boundaries are set by legal settlements. The non-member area were individuals that did not put land up for collateral—they were in the SRP district but used groundwater.

MAYOR HARTKE asked if the Roosevelt water had the same history.

MR. CAPPS said they entered into an agreement with SRP to receive surface water, but the district boundary is set in legal settlements.

MR. CAPPS continued the presentation.

- Groundwater Supplies
    - Chandler will rely on groundwater reserves during surface water shortages
    - 35 active wells provide redundancy (73 MGD)
    - Well maintenance and careful planning
    - Chandler has stored water in underground aquifers for recovery during surface water shortages.

COUNCILMEMBER LOPEZ referred to the proposed reclaimed water interconnect facility—we have that water on paper either way, the facility will allow us to use the water under our feet rather than being stored in other cities.

MR. CAPPS affirmed and said if the water is stored and recharged in other cities, they could theoretically use it in their wells. If we bring this water back, we know we have it within our service area.

MR. CAPPS continued the presentation.

- 35 City Wells – 73 MGD Capacity
    - (12.6 MGD used in CY21)
    - Groundwater Levels in Chandler
        - Began monitoring in 2004
        - 35 monitor stations (at well sites)
        - 94% of well sites show stable or rising water levels

COUNCILMEMBER STEWART asked if the more housing development there is instead of agriculture, the less water is used.

MR. CAPPS said that that is correct for the SRP service area. Housing development uses 1.5 acre foot of water per acre, a farming development uses 6 acre foot of water per acre. There is a sizable difference. The SRP service area has decreased in water demand. Our service area is increasing because it did not have the same delivery points but are more efficient.

MAYOR HARTKE asked about the reasoning behind the 6% of wells that are decreasing in volume.

MR. CAPPS explained that it is difficult to determine what the use of the water out of wells is. It could be regional, or nearby use.

COUNCILMEMBER ORLANDO asked about the joint SRP wells on the map.

SIMONE KJOLSRUD, Water Resource Advisor, answered stating that we have six currently and two more about to be added.

MR. CAPPS added the six wells are currently joint wells with SRP and more will be added on to the system.

COUNCILMEMBER ORLANDO asked if Chandler has first rights on water pumped out of the ground.

MR. CAPPS said yes, the way it is set up is that we have a service area right. Each city has a service area right where we are allowed to pump water but are restricted on the amount. The groundwater management act limits the amount of water able to be pumped without storing water to replenish the aquifers. It is our right, but that right is limited through the groundwater management act.

COUNCILMEMBER ELLIS asked if evaporation has to do with the 6% of well volume reduction.

MR. CAPPS said this only applies to belowground waters. The groundwater aquifer dropped. It is not a significant concern. Having 94% of our sites stable and rising is a greater variable to consider.

COUNCILMEMBER ELLIS asked if we are experiencing any evaporation in any area of water retention.

MR. CAPPS said the only location for potential evaporation would be recharging at Veterans Oasis Park, some water does not make it into the aquifer. Other than irrigation, there are no other locations experiencing evaporation.

MR. CAPPS continued the presentation.

- Chandler Reclaimed Water
    - Infrastructure planning started in the 1980's
    - Reclaimed distribution system adds a new water supply, reducing demand for other supplies
    - Deliveries to over 360 customers (~30,000 AF)
        - HOA's, Golf Courses & Parks
        - Schools & Businesses
        - Aquifer Recharge Facilities (Underground Storage)
- Chandler Reclaimed Water Delivery Area
- Planning for Growth
    - Careful long-term planning has Chandler well-positioned for continued growth
    - General Plan – lays out a vision for future growth
    - Utility Master Plan – ensures adequate infrastructure to meet the demands of future growth

- Water Supply Acquisition – water supplies were acquired to meet demand during both normal supply years and shortage years
- Water Policy – Staff continues to monitor future policy discussions with potential impacts to Chandler's water

VICE MAYOR ROE asked if AMWA rates communities on their water use and what supplies they have.

COUNCILMEMBER LOPEZ said no, AMWA does not rate communities. Cities take different approaches. Some cities are better off than others because of their planning. Some cities turned their wells off and stopped maintenance during the recession because of the high cost. There has been discussions to try and do that rating, but it varies city to city.

COUNCILMEMBER STEWART supported that and said these actions are not hoarding water but investing in water infrastructure.

MR. CAPPS continued the presentation.

- Surface Water Shortages
  - Shortage – it's not a matter of if…it's a matter of when.
  - 88% of Chandler's Colorado River supplies are high-priority contracts (impacted in Tier 3)
  - Year 2023 – Tier 2 Shortage (3% - 6% reduction)
  - Chandler off-project / non-member lands rely on Colorado River Water

COUNCILMEMBER ORLANDO asked if Intel is in the SRP water service district.

MR. CAPPS said there are two sites, one is in West Chandler, and one is in South Chandler. One of them is served by SRP.

COUNCILMEMBER ORLANDO asked if we pump groundwater for Intel is that an issue.

MR. CAPPS clarified if we meet the demands of Intel by pumping groundwater.

COUNCILMEMBER ORLANDO said yes, to meet the demands of the Ocotillo plant and other manufacturing plants.

MR. CAPPS said we do not really pump most of the groundwater to that area of developments. We meet the demands in that service area, and the wells pump to meet those demands. It does not go to just one site. The higher the demand and the lower the supply, the more groundwater will be pumped to meet the demands.

COUNCILMEMBER ORLANDO asked if the infrastructure today supports the use of groundwater.

MR. CAPPS said there is chlorine, as well as regular treatment. There are a few arsenic wells, where arsenic is present and there is a separate filter system.

MR. CAPPS continued the presentation.

- Reservoir Storage
    - Salt and Verde reservoirs are highly variable, but historically recover quickly (57% of Chandler's supply)
    - Colorado River reservoirs have steadily declined

MS. KJOLSRUD continued the presentation.

- Chandler is Prepared for Drought
    - During surface water shortages, Chandler will rely on back-up supplies
    - Diverse Supplies – Chandler has secured multiple sources of water
    - Conservation Programs with demonstrated success
    - Infrastructure investments
    - 1 Interconnected water distribution system, with flexibility to deliver multiple water sources to anywhere in Chandler
    - 2 Surface water treatment plants (access to SRP and CAP canals)
    - 35 City drinking wells provide 100% back-up supply
    - 3 Water Reclamation Facilities – every drop is used again
    - 5 Recharge facilities to store water in underground aquifers
- Chandler Conserves
    - 25 years of declining water use – Chandler cares about conservation
    - Chandler residents have reduced water use by 20%
        - 29 gallons per person daily
        - 8.1 million gallons per day
        - 9,073 acre-feet per year
        - 111-2021 GPCD
    - Chandleraz.gov/SaveWater
- Chandler's Programs
    - Saved 80 million gallons based on 2021 conservation program results
    - 3,322 Chandler students educated
    - 513 adults attended workshops
    - 917 Residential Water Audits
    - 47 Landscape Consultations
    - 250 Conservation Rebates
- Drought & Conservation Education
    - Updated information now available online
    - Chandleraz.gov/SaveWater
    - Chandleraz.gov/Drought
- Drought Awareness & Conservation Messages

    - Chandler's Drought Plan includes expanded messaging
    - Current Efforts:
        - Conserve Like You Mean It (video, posters, transit stops)
        - Facebook, CityScope, blog posts, podcasts
        - Water Use It Wisely
        - Adult education, events, youth education, school visits
    - Expanded Efforts:
        - New Digital Marketing Campaign (social media & targeted digital ads)
        - Updated online resources
        - Local media (print, online, email)
        - DIY Video Series (leak detection)
        - Large Landscape Efficiency Program
        - City Drought Team & Dashboard Metrics
        - Future AMI Implementation
        - Blog posts & podcasts (increased frequency)
- Chandler's Drought Plan
    - Drought stages evaluate supply and implement additional conservation
    - Note: triggers could change as Chandler acquires additional supplies and/or drills additional wells

MR. CAPPS mentioned that when we developed the drought plan, the stages are voluntary until Stage 4, which would involve drastic changes. Other cities might have different stages because their water portfolio is different. Chandler may be at a Stage 2, where another city might be at mandatory participation. All cities have different water portfolios and different stages of their drought plan.

VICE MAYOR ROE said water issues have occurred across the country. Are there other communities that have implemented the same plans, and if so, what were the outcomes.

MR. CAPPS answered that within Arizona, we all went to Stage 1, and then the SRP reservoir was filled, and cities stepped back down. This is different because the Colorado River affects everyone differently

MS. KJILSRUD added that California is experiencing extreme drought, part of which is their dependence on Colorado Water. Their state water project is experiencing extreme stress. Both of their sources of surface water are extremely stressed, and they do not have a lot of storage. The L.A. area implemented mandatory outdoor water reductions a few months ago. We have 57% water from the SRP system which is not experiencing stress.

MR. CAPPS added that we have more groundwater sources. We have wells to pump, and groundwater beneath us.

MR. CAPPS continued the presentation.

- Next Steps
    - Declare Stage One of Chandler's Drought Management Plan and monitor Colorado River Conditions
    - Expand drought public awareness campaign and increase water conservation outreach
    - Evaluate conservation opportunities within municipal programs and develop dashboard performance metrics
    - Renew 100-Year Assured Water Supply Designation
- Chandler's Aquifer and Wells

COUNCILMEMBER ORLANDO asked if the decrease of water usage was due to the transition from farmland to urban areas.

MR. CAPPS answered that that is the City of Chandler usage, residents are using less water for low water use landscaping since 1997. There are more efficient plumbing fixtures and changes in lot sizes. This is just due to decreased City of Chandler demands.

COUNCILMEMBER ORLANDO asked if that decrease then is on top of the residents' decrease.

MR. CAPPS said yes, they are different things that add up over time.

COUNCILMEMBER ORLANDO asked how much more water we would use per day with the proposed Council item with Intel to move the water.

MR. CAPPS answered that it is around 10 million gallons per day. It is the water that SRP is delivering to other recharge sites in other cities. Instead of outsourcing it, it will be delivered to the Airport Water Reclamation Facility to recharge in Chandler. It is also possible to use conservation space on Roosevelt Dam or CAP supply when available. The goal is to divert the water from outside the City and bring it inside the City to store it.

COUNCILMEMBER ORLANDO asked how much more water do we have for allocation that we would have to put in recharge outside of the City versus internal.

MR. CAPPS said that all the water previously diverted to other cities would be diverted here. The water would not be sent out. The same volume of water would stay in Chandler.

COUNCILMEMBER ORLANDO asked about the other recharge facility where we are getting credits from.

MR. CAPPS said that is the Granite Reef Underground Storage project. Chandler has 20% ownership. Some water would still be sent there, just depending on the supply in that year.

COUNCILMEMBER ORLANDO clarified that Chandler is keeping its own water supply rather than having credits for water somewhere else.

MR. CAPPS confirmed that we would have the same credit, but it will be under Chandler.

MAYOR HARTKE asked when advance metering is anticipated for residents to look at water use in real time.

MR. CAPPS said we are waiting on the grant fund. Once the grant is done, there would be a propagation study to put collectors in the City. Then data could be stored and then we would set up the new billing system. There may be other opportunities to bring data back to the customers. It is estimated that it will take a couple years. It will not be the full scale until the billing system is updated. In the meantime, there are 86,000 smart meters that have been updated.

VICE MAYOR ROE asked how Chandler compares to other desert communities for water usage.

MR. CAPPS said he does not have the exact number, but we are in a good place. Tucson likely uses the lowest gallons per capita because they have desert landscaping. Other Valley cities are also in a good place and have been implementing long term conservation efforts.

COUNCILMEMBER STEWART asked about the 2021 water safety report, if it is a self-report or an independent study, and what are we doing about pharmaceuticals in the water supply.

MR. CAPPS said the 2021 report should come out soon. Any violation gets reported to the state. Mr. Capps said we produce the report which is validated through the state.

JOHN KNUDSON, Public Works and Utilities Director, said that any pharmaceuticals are unregulated. The EPA is aware of the low levels of pharmaceuticals that may exist in water. They are unregulated as of now. Some cites discuss the idea of treatment for those. Until there is an issue by the EPA and regulation begins, there is no course of action because there are no treatment specifics.

MAYOR HARTKE asked if that is comparable to the issue of arsenic and chromium levels, where once we were aware, we adjusted.

MR. KNUDSON said that was correct. In 2006, arsenic was at a 50 ppb, which decreased to 10 ppb due to the City's reaction of creating arsenic treatment systems on certain wells to meet the EPA's standard. This is how the City would react to any direction given by the EPA.

COUNCILMEMBER LOPEZ asked if the smart meters were already deployed and if it is just a matter of installing collectors.

MR. CAPPS said yes, it is just a matter of installing collectors.

COUNCILMEMBER LOPEZ said that for residents to view in real time the billing system needs to be upgraded. For the City to view its own water usage, does the same upgrade need to apply.

MR. CAPPS said we would have to use a third-party application to get the software online. The meter manufacturer does have software that has it that could be used temporarily.

COUNCILMEMBER LOPEZ mentioned there was a reverse osmosis to treat the salt levels in the water and asked if that also affects pharmaceuticals.

MR. KNUDSON answered that the level of treatment for total dissolved solids reduction does not impact any pharmaceuticals. There would have to be high-level reverse osmosis systems to remove such a small level of content. We are constantly looking for improvements and enhancements of water treatment such as reduction of total trihalomethanes and changing activated carbon filters. When the EPA dictates a change, we will act then.

COUNCILMEMBER STEWART asked if we could act before the EPA.

MR. KNUDSON said there is technology to get in front. However, it is a matter of deciding of what issues to address. Every treatment is very specific. For us to go after one and the EPA targets another, it may be very costly. The EPA has many contaminants they are looking for, and Chandler is keeping up with it and monitor levels. There will be no action until there is affirmed direction from EPA.

Adjourn

The meeting was adjourned at 5:06 p.m.

ATTEST: _____ _____

City Clerk Mayor

Approval Date of Minutes: July 11, 2022

Certification

I hereby certify that the foregoing minutes are a true and correct copy of the minutes of the Work Session of the City Council of Chandler, Arizona, held on the 20th day of June 2022. I further certify that the meeting was duly called and held and that a quorum was present.

DATED this _____ day of July, 2022.

_____

City Clerk