

**MINUTES OF THE SPECIAL MEETING
TOWN COUNCIL WATER AND UTILITIES SUBCOMMITTEE
TOWN OF CHINO VALLEY**

**THURSDAY, SEPTEMBER 24, 2020
3:00 P.M.**

**CHINO VALLEY COUNCIL CHAMBERS
202 N. STATE ROUTE 89, CHINO VALLEY, AZ**

1) CALL TO ORDER

Chair Lon Turner called the meeting to order at 3:18 p.m.

2) ROLL CALL

Present: Lon Turner, Chair; Corey Mendoza, Councilmember; Jack Miller, Councilmember

Staff Cecilia Gritman, Town Manager; Joshua Cook, Development Services Director; Maggie

Present: Tidaback, Economic Development / Project Manager; Frank Marbury, Public Works
Director/Town Engineer; Mark Holmes, Water Services Consultant

Attendees: Rick Schrodes, Consultant, Richard Aldridge, Civiltec Representative

3) APPROVAL OF MINUTES

- a) Consideration and possible action to approve August 11, 2020, regular meeting minutes.

MOVED by Councilmember Jack Miller, seconded by Councilmember Corey Mendoza to approve the August 11, 2020, regular meeting minutes.

AYE: Chair Lon Turner, Councilmember Corey Mendoza, Councilmember Jack Miller

3 - 0 PASSED - Unanimously

4) ENGINEER'S REPORT

5) CALL TO THE PUBLIC

Call to the Public is an opportunity for the public to address the Subcommittee concerning a subject that is not on the agenda. Public comment is encouraged. Individuals are limited to speak for three (3) minutes. The total time for Call to the Public may be up to 15 minutes per meeting. Subcommittee action taken as a result of public comment will be limited to directing staff to study the matter, scheduling the matter for further consideration and decision at a later date, or responding to criticism.

6) OLD BUSINESS

7) NEW BUSINESS

- a) Presentation by Civiltec regarding Integrated Water Master Plan at Old Home Manor (OHM).

Richard Aldridge of Civiltec, presented the following:

- The current information was the fourth update by Civiltec. Updates included population numbers, growth and town figures.
- They had identified land use and land area. OHM was about 200 acres out of the total 840 acres, with the remaining land designated as public land.
- The zoning and land use maps were reviewed with the committee.
- They had revised the original RV acreage to 60 acres and designated 60 acres to the ball fields.
- Staff pointed out a needed correction for the equestrian land lease.
- The transportation map plan had been updated with the help of staff. Most changes were based on the traffic study conducted in the area. The planned roadway infrastructure basically followed the 40 acre parcel lines around the site.
- The annual growth change was now approximately 2% per year, which projected out to the year 2034, a 15 year outlook.
- The building permit information was useful, but percent growth was not consistent.
- The year 2010 was used as the base year for growth because it was a census year.
- The commercial growth rate was researched. There was approximately 2.7 million square feet of available building space at OHM. They used 15% growth for the first five years, and projected square footage of buildings through 2025. For the remaining 2.3 million square feet, they used a flat projection rate to 2035.
- The numbers used for the process could be updated every couple years to show the actual growth rates.
- The public lands available and the build out was projected through 2035. Staff and consultants came up with a reasonable growth rate and build out period, and came to the following estimation:
 - The Ballfields by 2025.
 - The Equestrian Park by 2027.
 - The Parks and Rec by 2030.
 - The rapid infiltration galleries (recharge ponds) and public works area and the RV Park within five years.
 - The unclassified by 2030.
 - The Chino Air Park by 2035.
- A 15 year horizon was kept on everything because anything beyond the first five years was subject to change.
- The master plan had every scope of work item contained in it, but it was not likely the final version because there was still a large amount of information to implement.
- Landscape irrigation guidelines would need to be discussed through a workshop. Part of the process would include developing draft ordinances for irrigation.
- Mark Holmes specified that there were four master plans: Water Resources, Water System, Wastewater System and Reclaimed Water System. There was also a landscape component of the overall landscape design that would utilize rainwater and drainage to help limit outdoor water usage. The other component was the Capital Improvement Plan.

Rick Schrodes of Civiltec, presented the following:

- The goal was to create a water system model that took into account the current usage and the projected usage. It also looked at anomalies, shortages, needs for redundancy, pipeline sizes, tank and storage needs, additional source needs and system operation in a fire emergency.

- A spreadsheet using the years 2015-2019 was developed, which would help design the final model system. It allowed the user to take a designated area and time and see the water usage and demand. This number helped in the system design considerations, which were designed for maximum daily use, plus fire, ensuring they did not run out of water.
- The turf water usage at the Community center was broken out separately on the spreadsheet because the water usage was high compared to the regular commercial and residential water usage. This was important when considering the ballfields at OHM, because it would have higher demands and very high peak demands.
- The years 2015-2019 were combined to come up with an average use, based on the daily use numbers the current use was 500,000. This number was accelerated based on future projections for the model design. The usage model was reviewed with the Committee.
- A key point discovered was on the Peavine Trail system line, which was the backbone of the system. It should have a diameter of 16 inches minimum (they recommended a diameter of 18 inches). Growth and use affected the pressure of current system, and would be addressed through the model. By 2030 a new line and tank would need to be installed. Everything currently served by the water production facility needed to go through a pump station, and the idea behind future development was to use gravity feed.
- The demand number used for the model was also used for the submittal for the analysis of assured water supply for OHM, based on 4605 acre feet per year for 100 years that was proved to be physically available. That number would be locked up for ten to twenty years.
- There was a potential for higher growth in the near future that could taper off later, so higher numbers were used for the model. Overall, the residential water use was a small number. The greatest use was from commercial and potential fire use.
- All areas had an existing certain number of water demand. The future average daily number of demand (ADD) and maximum daily number of demand (MDD) were determined. It was found that operational storage tanks, which provided peak hour flows, and emergency storage, would need to be upgraded by 2030. With growth, and under normal situations, a higher demand would require more wells. Even though there currently was enough water production, if a system were to fail, the Town would not have enough water and the storage tanks would go dry. It was pointed out that it was important to determine the time frame of when the Town tapped into the fire flow storage.
- The Town needed to determine what they wanted at OHM for sufficient fire suppression water flow. Central Yavapai required any structure over 5000 square feet had to be fire sprinkled. If buildings had fire sprinklers, the water demand numbers for storage changed and the fire flow only had to be 25% of what the published numbers were. Regardless of what the Town's requirements for sprinkled buildings, the fire water flow and storage needed to be provided appropriately. The Town needed to be consistent with the surrounding town's fire flow code requirements.
- The model system had two to three possible scenarios for gravity feed systems. The possible scenarios and solutions for Bright Star were discussed.
- The current model showed what would happen at OHM if everything was on one zone. The lowest pressure would be 45 psi and the highest would be 105 psi.
- The biggest concerns were reliability, resilience and robustness of the system. The worst case scenarios can and do happen. The Town needed to consider if they wanted to have two pressure zones, a backup well and extra storage tank at OHM.
- Committee members discussed upgrading a current well at OHM, which could pump water to a storage tank as a backup system.
- The Bright Star worst case water capabilities scenario was discussed.
- Discussed the possibility of developing the future Peavine and Perkinsville lines as transmission lines instead of distribution lines, providing flow with PRV's used as distribution lines, with back feeding from tank to tank.
- There would be a set of recommendations provided if a water production line failed.

- Committee members discussed the priorities of completing the Peavine Trail line, a working second well, backup lines and water tank.
- It was questioned if it was beneficial to put a second million gallon tank on the hill of Bright Star, leaving the existing tank in place. The well could pump to the upper tank, which would feed the lower tank so the water did not become stagnate. Consultants thought that the existing lower tank should be put out of service eventually, and the well would provide a tank on the hill that would gravity feed Bright Star.
- The placement of the water tank at OHM was discussed.
- The technical memo was provided and reviewed. It was based on the information gathered to date.
- The model system had to be built for maximum peak flow day, which was 2.09, which was higher than the average of 1.8.
- The system supply, what the wells produce, should meet or exceed max day demand. The storage should be reserved for the peak hours within a day plus fire storage.
- A developer could use historical numbers. Their numbers would be calculated through the model.
- It was determined the Peavine line would supply the water tank at Bright Star, and 90 hours of available backup tank water after a line failure did not include the 500 gallons coming from Country West. It gave an additional buffer of 130 hours instead of 90 hours. This would be a burden on the Country West well. The consultants took a conservative, worst case scenario. Staff's contingency plan if a line failed, was to get it back up and running within 24 hours. It was suggested that the spare parts be kept in storage so there would be no delivery or waiting time.
- The water used for the existing commercial area usage was determined through the Town's current billing system. There were overlapping service areas, but the numbers used were from Town records.
- The draft would be provided to members for reviews and comments. The full Council would get a more detailed executive summary.
- The plan would point out deficits and recommendations.
- Price estimates would be provided as part of the five year Capital Improvement Plan for OHM or outside of OHM if it would be beneficial. That plan could be updated annually for projects that have been completed or delayed and include inflationary increases.
- The enterprise fund or Capital Improvement funds would pay for the improvements.
- The business benefits would be discussed through an economic development outlook, but it was also a part of the master plan as a whole.
- Water towers were no longer valuable because of the short lifespan, safety issues and the high maintenance costs. Underground tanks were now more efficient and used more often. The Town had the central highland area that could provide the perfect gravity fed system.

8) ADJOURNMENT

MOVED by Councilmember Jack Miller, seconded by Councilmember Corey Mendoza to adjourn the meeting at 4:37 p.m.

AYE: Chair Lon Turner, Councilmember Corey Mendoza, Councilmember Jack Miller

3 - 0 PASSED - Unanimously

Submitted: October 8, 2020.

By: Traci Lavelle, *Deputy Town Clerk*

Approved: October 13, 2020.