CITY OF FLAGSTAFF
WATER COMMISSION
February 17, 2022
Virtual Meeting
SUMMARIZED MINUTES

MEMBERS PRESENT	MEMBERS ABSENT	STAFF PRESENT	OTHERS PRESENT
Don Bills		Andy Bertelsen	Ward Davis
Robert Dilday		Marion Lee	Robert Vane
Joe Loverich		Erin Young	
John Nauman		Brian Huntzinger	
Kurt Riegelman		Gary Miller	
Malcolm Alter		Lisa Deem	
Ben Ruddell		Bryce Thayer	
Marie Jones (P&Z Rep)			
Miranda Sweet (Council Rep)			

I. CALL TO ORDER

Chair Kurt Riegelman called the meeting to order at 4:04 p.m.

II. APPROVAL OF MINUTES – January 20, 2022

Moved by Robert Dilday and seconded by Joe Loverich to approve the meeting minutes of January 20, 2022. Motion carried unanimously.

III. PUBLIC PARTICIPATION – None

IV. NEW BUSINESS

A. Tuthill #2 Pump Development & Aquifer Testing Update – Brian Huntzinger

Brian Huntzinger, Water Production Manager presented a brief update on the Tuthill #2 Pump Development and Aquifer Testing. In early June of 2021, Boart Longyear completed drilling and casing Flagstaff's newest groundwater well, Tuthill #2, based off technical specifications developed by the geotechnical/engineering firm Atlas/ATC. With the City's highest capacity groundwater well, Tuthill #1 nearby, there were high expectations of Tuthill #2's production capacity. In October, Water Production had well and pump maintenance contractor, Empire Pump, make necessary arrangements to pump develop and aquifer test Tuthill #2, with the assistance and supervision of Atlas/ATC and city staff. After a modification to the wellhead, Tuthill #2 was equipped with spare submersible equipment (pump, motor and seal) intended for Tuthill #1 (with an operational range of 600-1200 gallons per minute (gpm)) and 8 inch column pipe (as used in both Tuthill #1 and Shop Wells) to a depth of 1689 feet below land surface (bls). In addition, Empire Pump setup the discharge head assembly, including two in-line mag-meters; rented a 1000 kilo-watt generator; subcontracted the installation and rental of approximately 900 ft. of temporary 10 inch discharge pipe; and rented a variable frequency drive (VFD) trailer, with expertise from Applied Ingenuity, LLC.

Unfortunately, within the first couple minutes of testing the equipment on Oct. 15th, Tuthill #2 quickly fell short of expectations. As confirmed by Atlas/ATC on Oct. 18th, with a flow rate of only about 300 gpm, Tuthill #2 would drawdown (decrease in water table level) to within dangerous levels of the pump or nearly 570 feet. In comparison, when Tuthill #1 was initially tested at a flowrate of 800 gpm the drawdown was only 40 feet. The lack of capacity of the well with the installed equipment posed multiple problems, two of highest priority being: inadequate velocity (>600 gpm) to lift sand out of the well and inadequate flow to cool the submersible equipment. After a couple rounds of surging and stressing the well, the decision was made to downsize before resuming pump development and aquifer testing.

Fortunately, Water Production had smaller used submersible equipment on hand (with an operational range of 150-400 gpm), all but 200 feet of smaller 5 ½ inch column pipe, a smaller but appropriately sized portable generator (350 kilowatt) and smaller but appropriately sized VFD trailer. Starting the second week of November, Empire Pump pulled and re-equipped Tuthill #2 with the smaller equipment and column pipe.

Prior to the Thanksgiving holiday, city staff, along with assistance from Empire, Atlas/ATC and Applied Ingenuity succeeded in pump development and step testing Tuthill #2. Pumping levels (water above the pump) were increased, and clear water was achieved. After the holiday, city staff completed a constant rate test of the well before concluding on December 3rd.

Based on the testing results, Atlas/ATC recommended a flowrate of 425-450 gpm from the new Tuthill #2 well with a submersible equipment depth placement of 1650 feet bls. A flowrate of 425 gpm is better than the average flowrate of all water production wells (384 gpm) and having an additional high quality, reliable and consistent groundwater well in the area will be a great success for the City of Flagstaff.

Erin Young, Water Resources Manager added additional information. Indicated there are five wells in the current 10-year CIP program and Tuthill #2 is the first of five wells. Every year, 1.5 million is budgeted to drill or equip a well. Once a well house is built for Tuthill #2, another well will be drilled. Water Services has a designation of adequate water supply through the Department of Water Resources and with that, the City is designated to pump 9,900 acre of water a year. Currently pump about 5 or 6 thousand of ground water allotment. The next step is the design engineering for Tuthill #2.

Robert Dilday asked where the next well will be drilled. Erin indicated staff is looking at a number of areas: Canyon Del Rio, North of Tuthill, possibly Thorpe Park or Woody Mountain Well Field. Geophysics is what is used and will factor where to drill. Another factor is the proximity of Water Distribution.

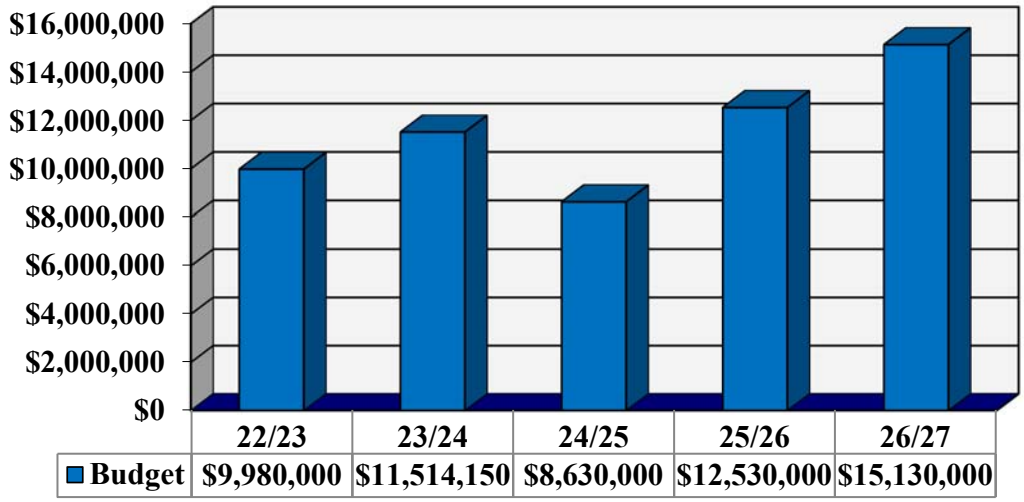
B. Proposed 2023 Capital Improvement Plan – Gary Miller

Gary Miller, Water Services Engineering Section Director presented a powerpoint on the proposed 2023 Capital Improvement Plan (CIP). Staff is requesting feedback and will bring this item back for approval in March before presented to City Council in April.

Projects are selected based on need. Need includes regulatory requirements, capacity, maintenance, and anticipated growth. The CIP requires changes during the year based on management directives.

Water (Proposed)
5 YR CIP BUDGET - FY23 WATER: $ 9.98M

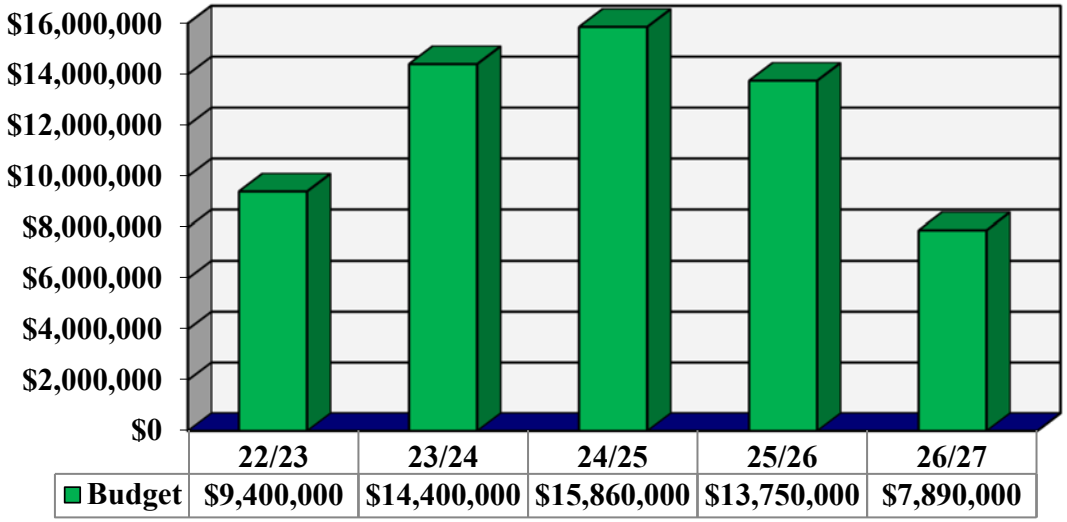
- Rio De Flag Water line relocations *
- Coconino Estates WL Replacement *
- Water Vault /PRV Replacement Program*
- New Wells & Pumphouses*
- SCADA Well Upgrades
- Reserve for Improvements
- Aging Water Main Replacements *
- Switzer Canyon Phase 4 *
- Radio Read Meter Replacement*
- Lake Mary WTP Sedimentation Basins*
- Water System Master Plan



Sewer (Proposed)

5 yr CIP BUDGET - FY23 SEWER: $ 7.7M (Actual) - $5.7M GO Bond

- Aging Sewer Main Replacement Program
- Wildcat Co-Gen Engine Replacement
- Rio Two Bar Screens
- Wildcat Headworks Rehab
- SCADA Network Upgrades / Assessment
- Sewer System Master Plan
- Rio De Flag Sewer line relocations
- Wildcat Digesters 3 & 4 Design
- Rio Clarifier Rebuild Design
- Rio Influent Grit Removal
- Energy Efficiency Program
- Reserve for Improvements



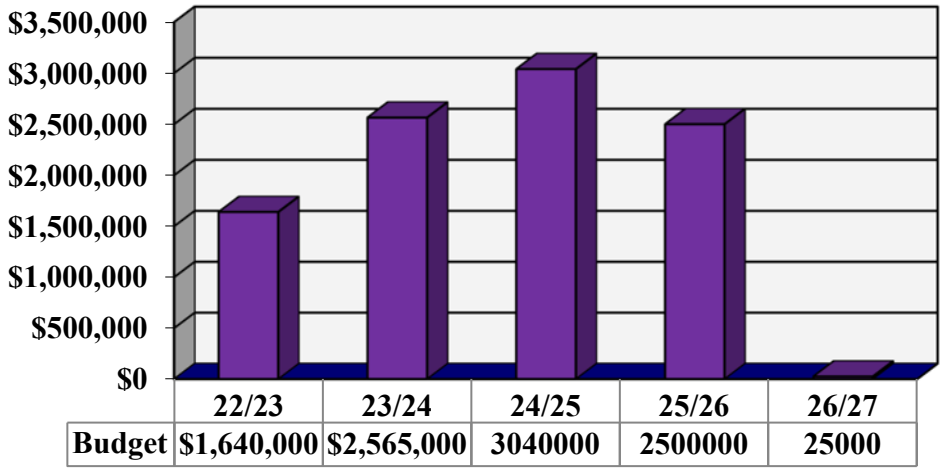
Reclaimed Water (Proposed)

5 YR CIP - BUDGET FY23 RECLAIMED WATER: $1.64M - $850K GO Bond

- Design of RW Bottleneck
- Rio Reclaim Water PRV relocation 16”
- Rate Study
- Reclaim Water Meter and Vault Replacement
- Buffalo Park Chlorine Bldg upgrade (Design)

FY22-24

- Installation of 20 inch RW Main

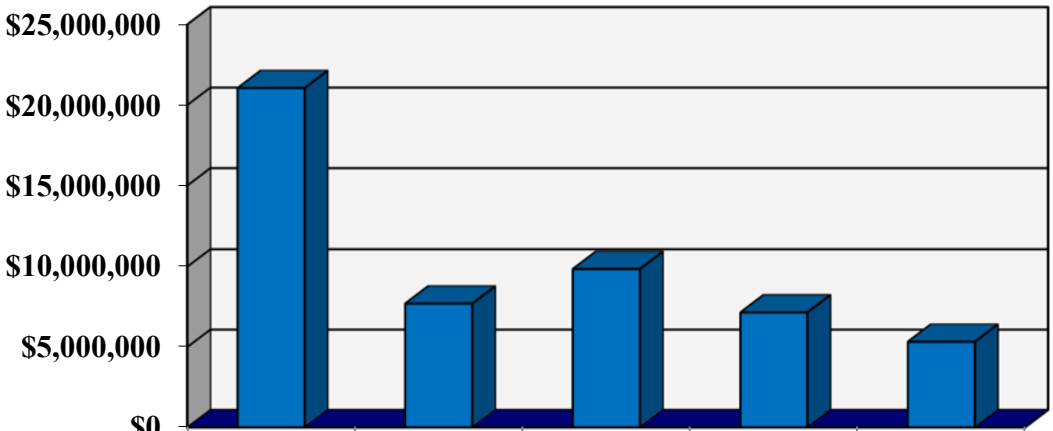


	22/23	23/24	24/25	25/26	26/27
Budget	$1,640,000	$2,565,000	3040000	2500000	25000

Stormwater (Proposed)

5 YR CIP - BUDGET- New Rates - FY23 STORMWATER: $21.05M- $2.3M GO Bond

- Linda Vista Culvert @ Spruce Wash
- Cedar Ave Culvert Upsizing
- Spruce Wash Channel Improvements
- Spruce Wash Dortha Inlet
- Killip Basin Inlet
- Rio De Flag Project - $16M (Debt)



	22/23	23/24	24/25	25/26	26/27
Budget	$21,050,000	$7,700,000	$9,850,000	$7,150,000	$5,325,000

Don Bills indicated that most of the projects presented are either underfunded, impacted by inflation or in need of more funding. Asked if the city is taking advantage of the Federal Infrastructure funds. Gary said yes and staff will continue to investigate Federal Infrastructure funds.

Kurt Riegelman said since Wildcat WWTP is overwhelmed in terms of solids, does it create potential regulatory issues and funding. Indicated that staff and Commission need to ensure Council understands this is critical infrastructure. Gary indicated that Council does see this as a priority and staff is getting positive feedback from the Bond Committee.

Joe Loverich asked how the Museum Flood plays into the CIP plan. Gary said Stormwater will have some significant debt in some projects presented so to overcome that, staff is looking at potential rate increases associated with stormwater. Some projects that are not funded by the general obligation bond are not possible without additional revenue source or grant funding. Staff is looking to do an in-house rate study or go out to a consultant.

The Proposed 2023 Capital Improvement will be back on the agenda next month for approval and then presented to City Council.

V. OLD BUSINESS

A. 2021 Communication – A Year in Review – Bryce Thayer & Lisa Deem

Lisa Deem and Bryce Thayer presented this item. This is an informational update on the 2021 Communication and Outreach efforts by Flagstaff Water Services Communications Team.

The Communications Plan strives to:

- Keep the public substantively informed of efforts and projects that support a safe, efficient and reliable water system
- Inform and engage employees, allowing them to act as ambassadors during interactions with the public.
- Ensure key stakeholders have sufficient information needed for sound policy decisions
- Above all, reinforce the agency's high-level STANDARDS, driving policy and guidelines

Our 2021 outreach activities included:

- Social media and website updates and improvements
- E-blogs and news pieces
- Public notices
- Community Events
- Educational outreach
- As request, Analytics are included.

Chair, Riegelman asked if budget was tracked with communications to help prioritize. Lisa indicated that Water Conservation section has an ongoing budget and Communications for the rest of Water Services is relatively new with a little to no budget. Most of outreach is electronic.

B. Upcoming Rate Study and Policy Discussion – Erin Young

Erin Young, Water Resources Manager presented this agenda item. At the January 2022 Water Commission meeting, staff presented a number of polices and considerations as objectives to include in the next rates and cost-of-service study, as requested by previous water commissioners, councilmembers, staff and the public. The presentation included a review of these considerations, concluding with a request that commissioners ultimately recommend this list be incorporated into the scope of work with the selected rate consultant at a later date. Those considerations were summarized into the strategies and objectives presented in this staff summary.

This meeting is another opportunity for discussion, suggestions, questions based on the list below, or any new topics. Becoming familiar with current rates and fees will help the commission prepare for more in-depth discussions lead by the rate consultant as well, therefore, current rates and fees sheets are attached (note the fees sheets do not include all fees, such as permits, liquid waste).

The solicitation for qualifications should be released on the City Planet Bids website this month. Input from Commissioners and City Council will be included into the final scope of services with the selected consultant. An email will go out asking Commissioners if they are interested in participating in the Review Committee to email Marion and it will be kept confidential. One person from the Water Commission will be selected.

John Nauman said the Master Plan of 2025 Strategic Plan states evaluating Indirect Potable Reuse (IPR) / Direct Potable Reuse (DPR); investing purifying reclaimed water for indirect use or direct potable use which is not included in the plan. He suggested to add this.

Mr. Nauman also requested for staff to list the CIP projects presented and include costs to help better understand these projects and prioritize. He also mentioned, the Flagstaff Water Group made a presentation to City Council back in September 11, 2018 with regards to the future rate study. He asked staff to refer back to what was presented by Robert Vane. Erin indicated she tried to capture everything from that presentation but will review again.

Robert Vane, Public made a comment on Strategy 1 below, it states “through a cost-of-service” but none of what is listed deal with the cost-of-service study. Stated that the last rate study, a cost-of-service analysis was not done. Erin indicated the cost-of-service in Strategy 1 refers to tired rates and seasonal rates. Robert said the cost-of-service is the cost to the city servicing the different classes of customers (commercial vs. residential). Erin said staff does plan to do a cost-of-service study in this rate study.

Mr. Vane said in 2018, one thing that was added was to exam or modify the capacity fees for projects or designs that are definitely water efficient. Another words, a standard project meets code and if a contractor goes above and beyond to do efficient, could there be a mechanism to reduce those capacity fees.

Mr. Vane also commented that under Strategy 1 - sixth bullet – “Ensure the lower rate for off-peak reclaimed water use is legal, fair and equitable.” Said legality is not an issue because there is no state guidelines or rules on how to charge reclaimed water. The city can do whatever it wants. So is the off-peak rate a fair rate.

Robert Vane also commented on Strategy 4 – “Explore option of auctioning reclaimed water to highest bidder” - this idea was raised at a previous meeting, but not if it is restricted to private bidders. Private bidders do not have to worry about long term supply of water to the City. He indicated there has to be a mechanism to reflect the public interest in the bidding.

Flagstaff Water Services is soliciting comments to the strategies and objectives presented in the below table, or other considerations to include in the rates and cost of service study, by email to Erin Young at eyoung@flagstaffaz.gov, before March 1.

The strategies and objectives in this table were developed from the content shared in the January presentation. The objectives are clarified with staff comments provided below each, in italics.

Strategy 1. Implement water and wastewater rates and charges that are legal, fair and equitable through a cost-of-service study	
Objectives	• Ensure changes to the City's rate structures drive water conservation equitably in both residential and non-residential customer classes, such as through implementing indoor vs outdoor or seasonal water use pricing structures, as per strategies adopted by City Council in the City's Water Conservation Strategic Plan *A citizen proposal presented to the Water Commission and City Council proposed tiered water rates for commercial; staff wish to revisit rate structures that promote water efficiency. Currently, larger families that use water efficiently are automatically paying a portion of water use from a higher water tier. Tiered rates for commercial customers might put a portion of water used by a water efficient restaurant into a higher tier, while a smaller office not using water efficiently doesn't feel a price signal to incentivize water conservation.* • Ensure customers are charged equitably for wastewater strength concentrations, solids loading, and wastewater operations, maintenance and treatment • Review lawn meter rates are priced to encourage water use efficiency • Ensure capacity fees are collecting appropriate revenues to fund growth-related capacity and infrastructure needs; explore capacity vs. impact fees, and consider a capacity fee for the reclaimed water system • Evaluate the cost to treat wastewater is adequately captured in the cost of providing recycled water to the community *Industry standard is to begin the cost to provide reclaimed water service at the point where wastewater is fully treated as per its environmental permit requirements. City Council and citizens have requested reclaimed customers incur some of the costs associated with treating wastewater and even some of the costs to produce potable water.* • Ensure the lower rate for off-peak reclaimed water use is legal, fair and equitable
Strategy 2. Develop a Long-Range Financing Plan that sets forth the long-term funding needs of Water Services	
Objectives	• Develop and maintain financial planning models to include long term forecasts of operating and capital expenditures, revenue requirements and rates and charges (Policy A3.2) *The previous rate study did not include financial planning models* • Ensure the long-term financial plan is based on reasonable, conservative assumptions and accounts for uncertainties that influence water use (Policy A3.1) *From the vantage of a water utility manager, a high fixed component of the customer bill is highly desirable, since it reduces the volatility of revenue from one month to the next. Yet from the vantage of a customer, the proportion of the monthly bill attributable to the fixed charge may not be desirable, as this structure limits the potential savings the customer can achieve by reducing water use. Given the substantial achievements in water conservation since the increasing residential tier structure was adopted circa 1990 staff wish to review monthly water use and revenue patterns to ensure the monthly meter charges are adequate for revenue and operational stability while encouraging conservation.* • Ensure the long-term plan maintains the Water Services good standing in the credit markets to provide ready access to cost-effective capital financing • Evaluate Water Services' capital financing and debt service coverage policies to optimize cash funding of capital investments (Policy A1.1) *Our annual payment for debt service across the four funds (water, sewer, reclaimed, stormwater) is about 20% of total annual Operating Revenues, which is policy. Staff wish to explore exceeding this limit to capitalize on new funding opportunities administrated through the Water Infrastructure Finance Authority, to achieve critical infrastructure projects.* • Evaluate Water Services cash reserve policies to consider optimal uses and levels of reserves (Policy A1.2)

Strategy 3. Establish fees that pay that cover the cost of service, ensuring the utility meets regulatory requirements	
Objectives	• Ensure customer service fees are adequate to cover the cost of service, such as connection fees, service charges, permits, late fees, liquid waste, etc. • Review fees and charges for Industrial Waste customers • Review liquid waste fees, such as water haulers, restaurant grease, mud sump waste, river cans, to ensure fees and charges cover the cost of service
Strategy 4. Discuss forward-thinking or new opportunities for how rates and pricing strategies can help achieve goals of the utility or City	
	• Explore option of a recycled water credit to customer's water or sewer bills based on return flow for recycling *A citizen proposal to the Water Commission and City Council; staff like the value this proposal puts on recycled water. Discussion points include how to incentivize return flows without decentivizing water conservation and how the credit is funded (by reclaimed water revenues?)* • Explore option of auctioning reclaimed water to highest bidder *This was an idea provided by a Water Commissioner at the January meeting. WestWater Research recently completed an evaluation on this and other ways the community can value reclaimed water for the Reclaimed Water Master Plan. This document can be accessed at https://www.flagstaff.az.gov/4453/Materials-and-Resources*

VI. INFORMATIONAL ITEMS TO/FROM THE CHAIR, COMMISSION OR STAFF

- Andy Bertelsen, Water Services Director said the City is still managing COVID protocols at the wastewater facilities so tours are on hold.
- Staff will email the Strategic Plan.
- Andy thanked the Flagstaff Water Group for their input on the rate study.
- Rio de Flag Project update on a future agenda item.

VII. ADJOURNMENT

Meeting adjourned at 6:03 p.m.