



CITY OF FLAGSTAFF
WATER COMMISSION
 April 21, 2022
Virtual Meeting
SUMMARIZED MINUTES

MEMBERS PRESENT

<input checked="" type="checkbox"/> Commissioner Kurt Riegelman	<input checked="" type="checkbox"/> Commissioner Robert Dilday
<input checked="" type="checkbox"/> Commissioner Joe Loverich	<input checked="" type="checkbox"/> Commissioner John Nauman
<input checked="" type="checkbox"/> Commissioner Malcolm Alter	<input type="checkbox"/> Commissioner Ben Ruddell
<input type="checkbox"/> Commissioner Don Bills	

COUNCILMEMBER & P&Z REP/ LIAISON TO THE CITY COUNCIL

<input checked="" type="checkbox"/> Council Rep Miranda Sweet	<input type="checkbox"/> P & Z Rep, Marie Jones
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STAFF & OTHERS PRESENT

Andy Bertelsen	Marion Lee	Gary Miller
Erin Young	Jim Huchel	Sara Dechter
Lisa Deem	Trevor Henry	Jordan Hollinger
Christine Cameron		

I. CALL TO ORDER

Chair Kurt Riegelman called the meeting to order at 4:02 p.m.

II. APPROVAL OF MINUTES – March 24, 2022

Moved by Joe Loverich and seconded by Robert Dilday to approve the meeting minutes of March 24, 2022. Motion carried unanimously.

III. PUBLIC PARTICIPATION – None

IV. NEW BUSINESS

A. Update on Wastewater Bond Presentation – Jim Huchel

Jim Huchel, Wastewater Treatment Plant Manager gave a brief presentation on the Infrastructure Wastewater / Projects for Wastewater Facilities.

Flagstaff Water Reclamation Plants

1. Wildcat Hill (WCH) – End of the Line Plant rated at 6.0 Million Gallons per Day (MGD) liquids and biosolids capacity
2. Rio De Flag (RIO) – Satellite Plant Rated at 4.0 Million Gallons per Day (MGD) liquids capacity

The biosolids from Rio De Flag are sent via the wastewater system to the Wildcat Hill Plant for treatment

History of Wastewater Treatment in Flagstaff

- 1971 – Wildcat Hill constructed at 3 MGD
 - ✓ Class B reclaimed water is produced and delivered to Continental Country Club
 - ✓ Biosolids are disposed on-site
- 1981 – Wildcat Hill expanded to 6 MGD
- 1993 – Constructed Rio Water Reclamation Plant (4 MGD, Class A+ reclaimed water)
- 2009 – Wildcat Hill treatment upgraded to Class A+ reclaimed water
 - ✓ No liquids or biosolids capacity expansion
 - ✓ Only portions of the plant were upgraded
- 2013 Consent Order – Temporary Solutions

Plant Processes at Wildcat and Rio de Flag – Water Reclamation Plants

Preliminary Treatment @ Headworks – Protects downstream equipment

1. Bar Screens: large debris are removed.
2. Grit Removal System: inorganic solids removed.
Currently no grit removal at Rio.

Primary Treatment –Settable solids removed

3. Primary Clarifiers use gravity to remove settable solids, which are then thickened and sent to the digesters

Secondary Treatment –Biological treatment

4. Integrated Fixed-Film Activated Sludge process (IFAS): converts suspended solids to settable solids and ammonia nitrogen to nitrogen gas
5. Secondary Clarifiers: Removes settleable solids produced in IFAS, which are then thickened and sent to the digesters

Tertiary Step –Final Treatment

6. Disc Filters/Sand Filtration: Remove particulate matter greater than 10 microns
7. Disinfection: Remaining pathogens disinfected- Wildcat uses chlorine, Rio uses ultraviolet disinfection

Fully Treated Water goes either to:

8. Reclaimed Water Distribution into the reclaimed water system
9. Discharged to the Rio de Flag drainage

Bio-Solids Treatment

- A. Anaerobic Digesters: All solids enter here to be broken down to carbon (bio-solids), releases water and byproducts converted into methane gas
- B. Digested Solids (Biosolids) are sent to these disposal areas and ultimately land applied on-site

Wildcat Hill Water Plant Issues – Why the urgency?

- Solids Treatments Capacity is at **88 %**
- Liquids Treatment Capacity is at **87%**
- Redundancy
 - ✓ Multiple Single Points of Potential Failure
 - ✓ Limited Operational and Mechanical Flexibility
- Rehabilitation and Replacement
 - ✓ Budget Constraints
 - ✓ Lack of Redundancy to Make Repairs
- Peak Flow Events Increasing Due to Climate Change (3X Daily Flows)

Project Scope – Prioritized (#)

Partial Funding Through Capital Improvement Plan

- WHWRP Digester Complex Expansion (1)
 - *Consultant selected*
- WHWRP Headworks Rehabilitation (2)
 - *Construction plans*
- WHWRP Primary Pumps station (3)
 - *90% construction plans*
- RDFWRP Bar Screen Rehabilitation (4)
 - *Plan ready*
- WHWRP Headworks Motor Control (6)
 - *Construction plans*
- WHWRP Septage and Grease receiving (8)
 - *Construction plans*
- WHWRP Co-generation using Biogas (9)
 - *Construction plans*

No Funding

- RDFWRP Generators and Automatic Transfer Switch (5)
 - *Design and planning begun*
- RDFWRP Main Motor Control Centers (7)
 - *Needs design*
- RDFWRP Smaller Turbo Blowers (10)
 - *Needs design*

Project Benefits & Community Impacts

These projects update plants to maintain current standards and technology. They do not increase capacity or eliminate the future need for a new plant. They address the key focus areas below:

- Reduce risk, increase safety to staff and facility
- Maintain compliance with ADEQ & U.S. EPA regulations
- Redundancy
- Resiliency
- Energy improvements
- Master plan improvements
- Operational improvements

Negative Impacts if Unaddressed

- If Reclamation Plants shut down,
 - Facilities are flooded and damaged
 - Wastewater potentially contaminates local environment
 - Non-compliance from regulatory agencies
 - Loss of community trust
 - Loss of reclaimed water supply

Council Goals & Objectives

- **PBB Key Community Priorities & Objectives**
 - Safe & Healthy Community
 - Sustainable, Innovative Infrastructure
 - High Performing Governance

- **Regional Plan Goals**

- Environment & Conservation – Goal E&C.2, 3, and 4 and associated policies, Policy E&C.10.6
- Energy - Policy E.1.12
- Environment and Conservation – Policy E&C.9.1(County policy)
- Water Resources –Goal WR.2, Policies WR.2.1 and 2.2, Goal WR.4, Policy WR.6.1
- Water Resources – Goal WR.2, Policies WR.2.1, and 2.2, Policy WR.3.4, Policy WR.3.6, Goal WR.4, and Goal WR.6

John Nauman asked if the plant had backup generators. Jim indicated the plant does have backup generators but do not have transition battery power. The reason the plant does not have transition battery power is because whenever power is switched it delays in restarting all the equipment.

Joe Leverage asked what the outlook was on a new plant or increasing the capacity. Jim said staff is currently working with the City Manager and finance on that. Jim estimates 5 to 7 years because they can get a new plant online. Staff is currently looking at membranes or MBR’s for direct potable reuse (DPR).

Jim indicated that most of the bigger projects cannot be funded with the rate study, so staff is looking at every option available for these projects and bonding is one of them.

Malcolm asked if the Wastewater Bond request was going before the Water Commission for approval before going to City Council. Jim did not know but staff will look into the procedure.

B. Flagstaff Regional Plan Update – Sara Dechter

Sara Dechter, Comprehensive Neighborhood Planning Manager presented an update on the Flagstaff Regional Plan. The Flagstaff Regional Plan is a policy guide, serving as the general plan for the City of Flagstaff and an amendment to the Coconino County Comprehensive Plan. The plan covers a range of topics with information on current conditions, the vision for the future carefully developed goals and policies to realize the future vision. The Flagstaff Regional Plan will be developed over four years, corresponding to four different phases of public participation and development.

What is the Regional Plan:

The Hierarchy of Planning Documents are as follows:

Regional Plan Specific Plans – Parks | Recreation | Utilities | RTP Implementation – CIP | Zoning Code | Housing | Engineering Standards | Annual Budget.

Why is it a “Regional Plan?”

<u>City of Flagstaff</u>	<u>Coconino County</u>
- Serves as the General Plan	- Is an amendment to the County Comprehensive Plan*
- Must be ratified by voters every 10 years	- Adopted by the Board of Supervisors as a Major Amendment
- Supports land use decisions, policy making, the 100-year water supply designation and transportation planning plus many other efforts	- Provides a map of area and place types that is further refined by area plans

*The Comprehensive Plan has no land use map.

What did the public want the Flagstaff Regional Plan 2030 to do?

- Hold government accountable for publicly derived policy outcomes and goals
- Guide physical and economic development

- Establish priorities for public action
- Direction for complementary private decisions
- Encourage predictable decisions making

Flagstaff Regional Plan 2030

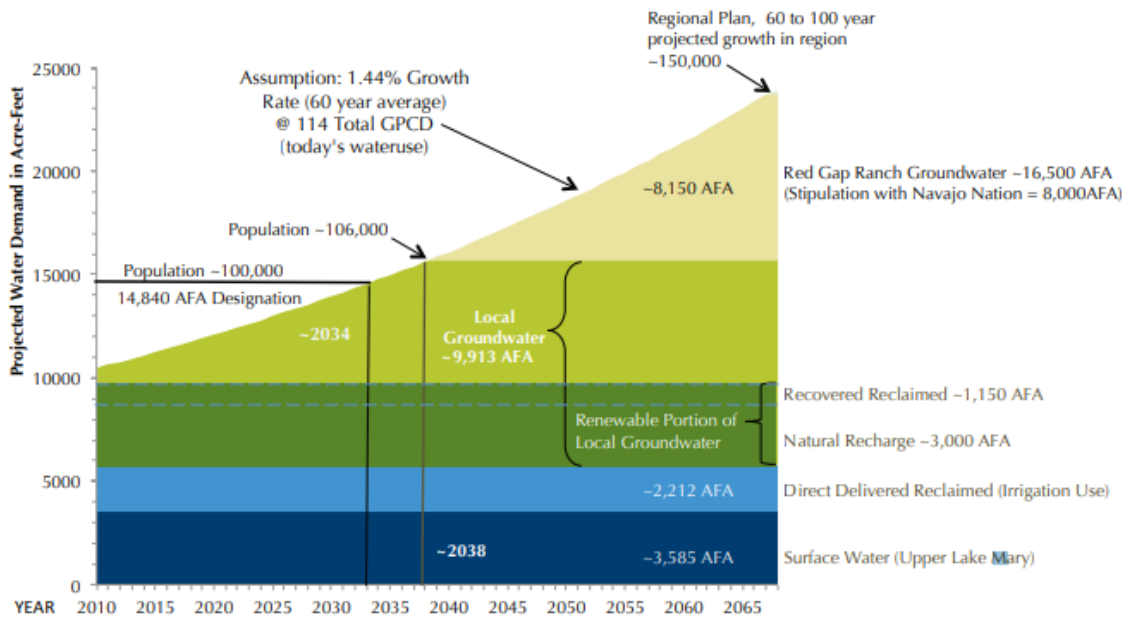
- More emphasis on goals and policies than maps
 - 97 goals
 - 508 policies
- Generalized land use map with clearly identified activity centers based on scenario planning
- Robust basis for transportation modeling with Metroplan based on background data
- Multimodal transportation emphasis
- Foundation for 100-year water supply designation by Arizona Department of Water Quality

Related Vision and Goals

In 2030, the region’s water supply is maintained through conservation, re-use, innovative treatment technologies, and smart development choices.

City of Flagstaff 100-Year Designation of Adequate Water Supply

(as determined by Arizona Department of Water Resources, supplies are in acre-feet annually [AFA])



Levels of Public Participation (Four Phases)

Plan Development & County Adoption: *Collaborate*

City Adoption: *Empower*

The Water Commission did engage in the SWOT (Strengths, Weaknesses, Opportunities, and Threats) Analysis by entering their assessment of the current Flagstaff Regional Plan 2030 related to water resources and to consider what opportunities or threats could be foreseen in the update

process. Staff has consolidated the inputs to prevent duplication and the process of rating the ideas exchanged among members.

Sara shared the link to a digital whiteboard for input from Commissioners. Comments are attached to minutes.

V. OLD BUSINESS

A. Proposed 2023 Capital Improvement Plan – Gary Miller

Gary Miller, Engineering Section Manager presented the 2023 Proposed Capital Improvement Plan. Every year the Water Services Division updates the Capital Improvements Plan. Engineering staff presented to Water Commission the first draft of the CIP in January and has since been revised and presented to Council. Staff will continue to work with the City Budget Team to make additional revisions so with that requesting approval of the FY23 Capital Improvements Plan.

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.

The Capital Improvement Program (FY23) is updated. As requested from the January meeting staff has also provided a prioritized list of projects planned for FY23.

Water Services Capital Improvement Program 2023 Summary			
ACCT#	Description		FY 2023
	202 Water	Priority	\$ 9,980,000
202-08-370-3156-0-4463	Rio De Flag Waterline Relocations \$4M Bond=\$400K annual	Low	\$ 400,000
202-08-370-3157-0-4421	Annual Water Line Replacement Program	Low/Medium	\$ 200,000
202-08-370-3165-0-4461	Water Vault and Compound Meter Annual Improvements	Low/Medium	\$ 150,000
202-08-370-3170-0-4461	Annual Radio Read Meter Replacement	Low	\$ 1,000,000
202-08-370-3177-0-4421	Water Reserve for Improvements		\$ 300,000
202-08-370-3178-0-4421	Water System Master Plan	Low	\$ 150,000
202-08-370-3381-0-4407	SCADA Well Upgrades	Medium	\$ 30,000
202-08-370-3350-0-4464	New Well and Pumphouse	Medium	\$ 2,000,000
202-08-370-3371-0-4463	Coconino Estates- Bundle #4	High	\$ 1,000,000
202-08-370-3372-0-4463	LMWTP Sedimentation Basins \$3M Bond=\$260K annual	High	\$ 3,250,000
202-08-370-3427-0-4463	Switzer Canyon Phase 4	High	\$ 1,500,000
	203 WasteWater		\$ 7,700,000
203-08-375-3203-0-4421	Sewer System Master Plan	Low	\$ 200,000
203-08-375-3204-0-4463	Energy Efficiency Project- Anoxic Mixers	High	\$ 500,000
203-08-35-3207-0-4407	SCADA Network Upgrades	Medium	\$ 200,000
203-08-375-3220-0-4463	Annual Sewerline Replacement Program	Medium	\$ 100,000
203-08-375-3235-0-4421	Sewer Reserve for Improvements		\$ 300,000
203-08-375-3286-0-4463	Rio De Flag Sewerline Relocations \$4M Bond=\$400K annual	Low	\$ 400,000
203-08-375-3431-0-4466	Wildcat Jen Bacher Rebuild	Medium	\$ 2,500,000
203-08-375-3444-0-4463	Rio WRP Bar screens	Medium	\$ 1,000,000

203-08-375-3472-0-4466	Rio Clarifier Rebuild	Extremely High	\$ 250,000
203-08-375-3506/3473-0-4466	Wildcat Hill WRP Headworks Rehab-/ Flow Diversion?	Extremely High	\$ 1,500,000
203-08-375-3507-0-4466	Rio Influent Grit Removal	High	\$ 750,000
	204 Reclaimed Water		\$ 1,640,000
204-08-380-3381-0-4421	RW System Improvements 8" Bottleneck-Construction	High	\$ 500,000
204-08-380-3382-0-4421	Rio Reclaim 16" PRV Relocation	Medium	\$ 200,000
204-08-380-3382-0-4421	Rio Reclaim Pump Valve Actuators	Medium	\$ 40,000
204-08-380-3416-0-4421	Rate Study - Reclaimed Portion	High	\$ 25,000
204-08-380-3458-0-4461	NAU Reclaim Water meters and vaults	Low	\$ 25,000
204-08-380-3509-0-4435	Buffalo Park Chlorine Building	Medium	\$ 100,000
204-08-380-3510-0-4466	Rio IP PRV Station-Raise/Relocate	High	\$ 750,000
	206 Stormwater		\$ 22,565,000
202-08-385-3238-0-4442	Cedar Ave Culvert Upsizing	High	\$ 600,000
202-08-385-3238-0-4442	Spruce Wash Channel Improvements	High	\$ 400,000
206-08-385-3238-0-4466	Spot Improvements	Low	\$ 165,000
206-08-385-3238-0-4466	Capital Reserves for improvements		\$ 300,000
206-08-385-3469-0-4442	Linda Vista Culvert at Spruce Ave Wash	High	\$ 1,300,000
206-08-385-3479-0-4442	Spruce Wash Dortha Inlet Improvements	High	\$ 300,000
206-08-385-3498-0-4422	Killip Retention Basin	High	\$ 1,500,000
206-08-385-3454-0-4433	Reserve for improvements- Rio de Flag FCP bond		\$ 16,000,000
206-08-385-XXXX-0-4421	Downtown Mile	Medium	\$ 2,000,000
	TOTAL		\$ 41,885,000

Malcolm Alter said he did not see the Rio de Flag Project on the list presented and was wondering if that is part of the bond proposal. Gary indicated that it is still part of the Stormwater funding and certainly a part of a fees analysis, not a rate study. Erin added that a fees analysis is much simpler than a rate study.

Moved by Robert Dilday and seconded by Joe Loverich to approve the 2023 Capital Improvement Plan. Motion passed unanimously.

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

Due to time, the informational items were tabled until month.

- A. Rio de Flag Project Update – Trevor Henry/Christine Cameron
- B. Re-entry Information – Hybrid Meetings

VII. ADJOURNMENT

Meeting adjourned at 6:11 p.m.