

- Rate Study Journey
- New Baseline O&M Needs
- Capital Plan Scenarios & Financial Plan
- Impact Summary of Scenarios
- Outreach

Utility Structure – Flagstaff is complex

- Water quality (NPDES, MS4, etc)
- Outreach and education
- Drainage development review
- Construction inspections (SWPP, erosion control plans, BMPs)
- Master planning and technical assistance
- Capital Improvements
- FEMA floodplain management
- “Green” infrastructure programs (LID)
- Stormwater maintenance
- Asset management, inventory, life cycle planning, GIS
- Climate change planning and management
- Rain and stream gauging (flood alert infrastructure)
- Floodproofing, property purchases, direct assistance
- Regional studies
- Regional flood management (including post-fire)
- Regional watershed management (forest thinning, water supply management, Natural Beneficial Floodplains)

Stormwater Rates are based on Equivalent Rate Units (ERUs)

1 ERU is equal to 1,500 square foot of impervious area

Residential properties have a maximum of 5 ERUs

- Average Residential property for the City of Flagstaff has 3 ERUs

Commercial properties do not have a maximum ERU

Impervious surfaces are reviewed every three to five years for ERU adjustments. The City is completing a review based on 2021. Anticipated to be implemented in 2023-2024.

A sustainable financial plan should have rates that are:

1. Sufficient to cover operating costs
2. Sufficient to cover debt service obligation/ coverage ratio requirements (1.20)
 - Debt service is calculated based on total revenues and expenses from water, wastewater and stormwater
 - Ideally each fund should be self-sufficient
3. Generate sufficient funds to meet reserve targets
 - 25% of Revenue
 - Emergency CIP Fund - \$300K in 2023 to \$2M in 2027

Voters Approved Proposition 441

- \$26 million in General Obligation Bonds for Stormwater
- Addressing high-risk of Post-Wildfire flooding within the Spruce Wash including channel improvements from Paradise to the Killip Retention Basin
- GO Bond Projects not included in this capital-revenue plan


Purpose of Rate Adjustment

- Increased fire and flood events over the past few years have made current infrastructure insufficient


- Increased fire and flood events have increased demand on operations – staffing and equipment
- Increased Mitigation costs in new flood areas, such as Spruce Wash and Schultz Creeks
- Construct some deferred Capital Improvement Projects
- Meet inflationary cost reality for construction projects.
- Completing critical capital projects reduces flood response - operations costs

Three rate scenarios were provided, all three have the same operations and maintenance funding, a large increase from existing conditions due to increased flood response and mitigation duties and in operations and maintenance of new regional flood control basins in post-wildfire affected watersheds. The difference in scenarios is based on capital improvement project funding and anticipated projects in the next five (5) years after the current fiscal year. Below are the three scenarios (Barebone CIP, CIP-1, CIP-2) as well as a descriptive funding model that describes the impact of the increased O&M **ONLY** (not intended as a scenario as it does not include necessary funding of completed but unfunded CIP or debt servicing of existing debt).

	Current Rate	Proposed Rate					
		Apr-23	Jan-24	Jan-25	Jan-26	Jan-27	Jan-28
O&M Requirement	\$ 3.74	\$ 4.68	\$ 5.84	\$ 5.84	\$ 5.84	\$ 5.84	\$ 5.84
Barebone CIP	\$ 3.74	\$ 4.68	\$ 5.84	\$ 6.08	\$ 6.32	\$ 6.57	\$ 6.84
CIP - 1	\$ 3.74	\$ 4.68	\$ 5.84	\$ 6.43	\$ 7.07	\$ 7.78	\$ 8.05
CIP - 2	\$ 3.74	\$ 4.86	\$ 6.32	\$ 7.58	\$ 8.34	\$ 8.64	\$ 8.94



STORMWATER RATE ADJUSTMENT



The City of Flagstaff is proposing amendments to the City Code to adopt an increase in fees related to stormwater service charges on customers' monthly municipal services bill. The current stormwater rate of \$3.74/Equivalent Rate Unit (ERU) was set in 2018. Since then, fire and flood events have combined to make that rate insufficient to meet current and future community needs.

The following charts outline what this increase could look like for residential and commercial customers in a 6-year horizon, should Council adopt one of the three options. All three scenarios include Operations and Maintenance (O&M) funding, accounting for 52-75% of the increase, depending on the capital plan chosen.

- **Scenario 1** is a bare-bones plan, providing maintenance for new infrastructure and addressing only current flood-committed capital improvement projects (CIP). Increases of 25% in the next two years will cover maintenance, with 4% increases annually for debt and inflation.
- **Scenario 2** provides maintenance and addresses capital needs, incorporating anticipated new grant revenue in the budget. Increases of 25% in the next two years cover maintenance, with 10% increases annually thereafter for grant match, debt, and inflation.
- **Scenario 3** provides maintenance and addresses capital needs through rates. Only awarded grants are included in this plan. Increases of 30% will be seen the first two years, reducing to 20%, 10%, then 3.5% annually to cover capital needs, debt, and inflation.

A public hearing to discuss this proposal is scheduled for the **January 31, 2023**, City Council meeting. Changes are scheduled to go into effect April 1, 2023.

Cost/Equivalent Rate Unit (ERU)				Average Monthly Increase Residential* (\$ ERU)		Average Monthly Increase Restaurant (14 ERU)		Average Monthly Increase Big Box (220 ERU)	
	Current	Year 1	Year 6	Year 1	Year 6	Year 1	Year 6	Year 1	Year 6
Scenario 1 (minimal CIP)	\$3.74	\$4.68	\$6.94	\$2.82	\$8.30	\$13.10	\$43.40	\$209.60	\$682.00
Scenario 2 (capital with grants)	\$3.74	\$4.68	\$8.05	\$2.82	\$12.03	\$13.16	\$60.34	\$206.80	\$948.20
Scenario 3 (capital with rates)	\$3.74	\$4.86	\$8.94	\$3.36	\$15.00	\$15.66	\$72.80	\$246.40	\$1,144.00

*While a typical house has 3 ERUs, there may be more or less depending on the amount of impervious surface on the property

Why is this rate increase important?
 The rate increase allows the Stormwater Utility from move from a reactive position to seasonal rains and flooding, to a long-term solution in the post-wildfire environment. Capital projects that increase flow capacity and supporting maintenance to this infrastructure will better equip our community to withstand post-wildfire floods in the future.

How are Equivalent Rate Units determined?
 One Equivalent Rate Unit (ERU) is equal to 1,500 square feet of impervious surface on the property, e.g., asphalt, brick or concrete pavers, buildings, compacted gravel surfaces, decks, driveways, parking areas, patios, rooftops, and sidewalks. This is a flat rate, across all industries and service levels.

For more information, including the stormwater rate study, FAQ page, and community forum dates, visit our website at www.flagstaff.az.gov/StormwaterRates or scan the QR code here:



Operations & Maintenance with Debt Service						
	2023	2024	2025	2026	2027	2028
Operating Expenses	\$2,001,108	\$4,288,668	\$4,391,050	\$4,497,229	\$4,560,226	\$3,781,159
Debt Service	\$623,894	\$2,073,020	\$2,057,486	\$2,042,409	\$2,026,763	\$2,010,539
Total O&M with Debt Service	\$2,625,002	\$6,361,688	\$6,448,536	\$6,539,638	\$6,586,989	\$5,791,698

Which Capital Projects Will Receive Funding?		
Scenario 1 (minimal CIP)	Scenario 2 (capital with grants)	Scenario 3 (capital with rates)
Rio de Flag Flood Control Project	Rio de Flag Flood Control Project	Rio de Flag Flood Control Project
Downtown Mile	Downtown Mile	Downtown Mile
Killip Detention Basin	Killip Detention Basin	Killip Detention Basin
Schultz Creek-Highway 180 Culvert Improvements	Schultz Creek-Highway 180 Culvert Improvements	Schultz Creek-Highway 180 Culvert Improvements
Side Drain Lateral North Downtown	Side Drain Lateral North Downtown	Side Drain Lateral North Downtown
Spruce Wash Resiliency - 4th and Butler	Spruce Wash Resiliency - 4th and Butler	Spruce Wash Resiliency - 4th and Butler
Killip Inlet	Killip Inlet	Killip Inlet
Stormwater Capital Reserve	Stormwater Capital Reserve	Stormwater Capital Reserve
Spot Improvements	Spot Improvements	Spot Improvements
Wildwood Drainage Project	Wildwood Drainage Project	Wildwood Drainage Project
Phoenix Avenue Bridge - Construction	Phoenix Avenue Bridge - Construction	Phoenix Avenue Bridge - Construction
Spruce Avenue Wash Dortha Inlet	Spruce Avenue Wash Dortha Inlet	Spruce Avenue Wash Dortha Inlet
	Columbia Circle	Columbia Circle
	Steves Wash at Soliere Ave (Soliere Project)	Steves Wash at Soliere Ave (Soliere Project)
	Fanning Drive Wash at Route 66	Fanning Drive Wash at Route 66
	Fanning Wash at Steves Boulevard	Fanning Wash at Steves Boulevard
	Switzer Canyon Flood Detention Structure	Switzer Canyon Flood Detention Structure
	Fanning Wash Channel Capacity Improvements	Fanning Wash Channel Capacity Improvements
	Mobile Haven Drainage Ditch Improvements	Mobile Haven Drainage Ditch Improvements
	Shadow Mountain-Monte Vista Drainage Improvements	Shadow Mountain-Monte Vista Drainage Improvements
	Smokerise Neighborhood Drainage Improvements	Smokerise Neighborhood Drainage Improvements

These projects in red will be funded by debt in capital plan.

These projects in yellow are existing projects with grant funds, 25% City match.

These projects in green are anticipated to be funded with future grants, 25% City match.

Projects in white are rate-funded.



Ben Ruddell stated his concern is if Stormwater end up with more surprise costs and to what extent, and what way can staff build in those contingencies. Staff needs to have a plan for that at this point and that is one problem we are trying to solve. Also, to change the behavior of people in the community, the way we plan, build, and the way we act in the forest. All these changes will make stormwater operations more efficient, lower costs, more resilient over the long term. Think about incentives like how to charge, who is charged and incentivize improvements in Stormwater.

John Nauman referred to an article in the newspaper, indicated that the Forest Service came up with a proposal on changes in forest management. Indicated the City and the Water Commission needs to support this proposal.

Malcolm indicated that some of the debt services pay for important projects, like Rio de Flag. Asked how much money Stormwater has for capital under the scenarios presented. Ed Schenk indicated they have 2 million right now for the Downtown Mile cost, which is part of the Rio de Flag Project.

Kurt added that Ed presented his presentation to the Chamber of Commerce this morning and he thought it was interesting and some valid concerns. Stormwater is at the bottom 5% and the big concern in Flagstaff is resiliency and to keep the community moving forward. He said maybe some funds should go from other programs that do not have an impact this does, so the rate hike on our

citizens is not so high. The money should come from part of the city budget, not from our citizens. Kurt said he is going to make this recommendation and wants the Commissions support. Indicated most of the initiatives were heard and money is used in the business community straining in case we get a grant. The voice behind City Council is a group, like the Commission. Also, to tag team with City Council to coordinate with the County on planning on reaction and to get a chance to prioritize what is being spend so that Flagstaff gets a fair share, if not the biggest share of impact.

B. Discussion on irrigation and optimization use in Pine Canyon – Brad Hill

Chair Riegelman indicated this agenda item will be deferred a month. Pine Canyon was not ready with their presentation so this item will be back on the agenda in February.

C. Consideration of Water Services Division FY 24 CIP Plan – Gary Miller

Gary Miller, Water Services Engineering Section Director presented the FY 24 CIP Plan. Every year staff provides this information to the Water Commission to receive feedback prior to it being delivered to City Council during the budget process in February. This is an informational item.

The Water Services CIP Projects were identified in conjunction with the corresponding operations staff and have been selected based on need. Need includes regulatory requirements, capacity, maintenance, and anticipated growth. This initial CIP draft was developed based on these needs without the benefit of projected revenues. The CIP will require changes during the year based on revenue projections and management directives.

Capital Improvement Program – Water Services - FY2024 Projects

Drinking Water

1	Aging Water Infra. Replacement	Drinking Water	200,000
7	Rio de Flag Flood Control Project	Drinking Water	400,000
8	Switzer Canyon Transmission Line PH4	Drinking Water	3,954,648
9	Switzer Canyon Transmission Line PH5	Drinking Water	500,000
10	Water Energy Efficiency Upgrades	Drinking Water	100,000
11	Water Vault/PRV Replacement	Drinking Water	200,000
14	Reserve for Improvements	Drinking Water	300,000
15	SCADA Well Upgrades	Drinking Water	30,000
18	Lake Mary Raw Water Pipeline Rehab	Drinking Water	500,000
24	New Zone B Storage	Drinking Water	50,000
27	Radio Read Meter Replacements	Drinking Water	800,000
28	Lake Mary Sedimentation Basins (Flocculation)	Drinking Water	4,250,000
29	Fort Tuthill Well (\$300K Dev & Testing)	Drinking Water	1,300,000
31	Inner Basin Waterline Rd	Drinking Water	3,000,000
34	Lake Mary Dam Repairs	Drinking Water	150,000
35	Solier Waterline 12" Upsizing	Drinking Water	800,000
36	Grandview Water Relocation	Drinking Water	750,000
37	Beulah/Univ Water Relocation	Drinking Water	<u>404,103</u>
			17,688,751

Wastewater

5	RDFFCP Sewer Relocations	Wastewater	1,000,000
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11 Reserve for Improvements	Wastewater	300,000
15 Grandview Sewer Relocation	Wastewater	770,000
16 Beulah/Univ Sewer Extension	Wastewater	300,000
17 County Club Interceptor to WCH (AIR)	Wastewater	300,000
18 Sewer Collection AIR Assessments	Wastewater	50,000
19 WCH New Electrical/Fiber upgrade	Wastewater	2,373,000
22 WCH Roof Replacements	Wastewater	1,000,000
23 WCH UV Disinfection	Wastewater	500,000
24 Rio Digesters	Wastewater	10,000,000
25 Rio Main MCCs	Wastewater	300,000
10 Wastewater - Digesters	Bond	1,750,000
11 Wastewater - Wildcat Pumps	Bond	2,500,000
12 Wastewater - Co-Generation	Bond	2,500,000
13 Wastewater - Generators	Bond	360,000
14 Wastewater - Turbo Blowers	Bond	<u>100,000</u>
		24,103,000

Reclaimed Water

1 8" Bottleneck - Reclaimed Line Replcmt	Reclaimed Water	1,500,000
4 Rio Reclaim Pump Valve Actuator	Reclaimed Water	40,000
5 Reclaim Water Meters and Vaults	Reclaimed Water	25,000
10 Reclaim recharge outfall project	Reclaimed Water	350,000
11 AWT Sampling and Testing	Reclaimed Water	60,000
13 Reclaim system PRV/ARV Assessment	Reclaimed Water	<u>100,000</u>
		2,075,000

Stormwater

4 Spot Improvements - Annual	Stormwater	150,000
5 Spruce Wash Resiliency - 4th / Butler	Stormwater	90,000
6 Stormwater Capital Reserve	Stormwater	200,000
14 Schultz Creek at Hwy 180	Stormwater	4,366,334
3 Arroyo Seco Inlet	Bond	1,818,500
4 Arroyo Seco to Dortha Channel	Bond	110,500
5 Cedar Crossing	Bond	305,000
6 Cedar to Linda Vista Channel	Bond	525,000
7 Linda Vista Crossing	Bond	380,000
8 Grandview	Bond	530,000
9 Killip Inlet	Bond	<u>50,000</u>
		8,525,334

Total Water Services 52,392,085

Capital Program Process

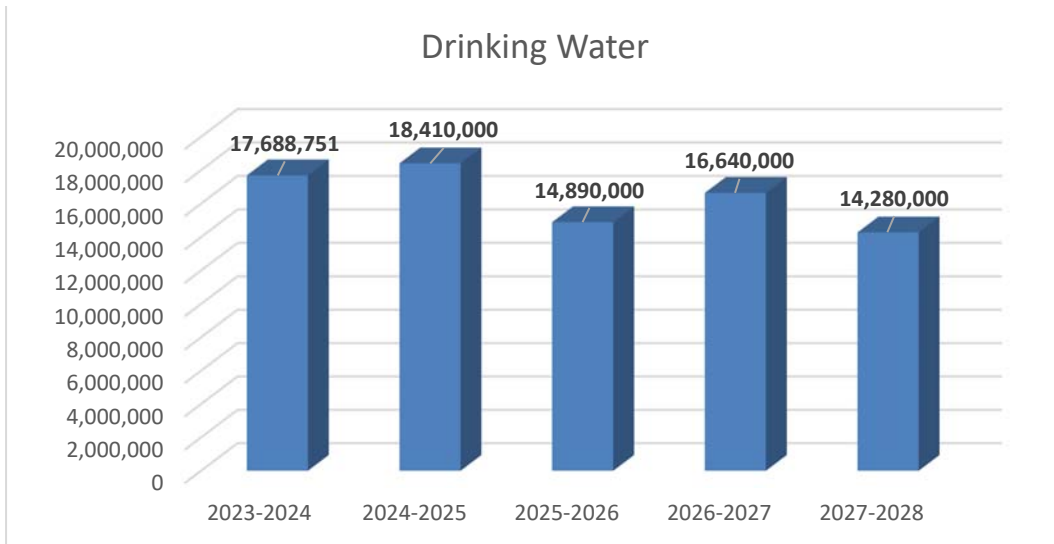
- *Planning Documents*
 - *Water Master Plan – 2014*
 - *Sewer Master Plan – 2015*
 - *Biosolids Master Plan – 2020*
 - *NEAMDS (Stormwater) – 2010*
- *Meet with Staff*
- *Adjust Based on Revenues*

Capital Project Challenges

- *Supply Chain*
- *Construction Cost Inflation*
- *Revenues not keeping pace with needs*
- *Project Management Resources*

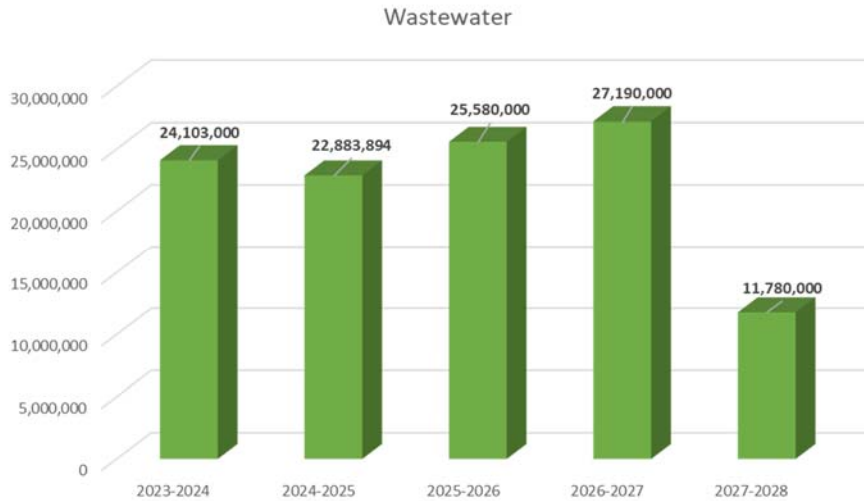
Water (Proposed) - 5 YR CIP BUDGET - FY24 WATER: \$ 17.7M

- | | |
|---------------------------------------|--|
| Rio De Flag Water line relocations * | Aging Water Main Replacements * |
| Coconino Estates WL Replacement * | Switzer Canyon Phase 4 * |
| Water Vault /PRV Replacement Program* | Radio Read Meter Replacement |
| New Wells & Pumphouses* | Lake Mary Water Treatment Plant Sedimentation Basins * |
| Lake Mary Raw Water Pipeline* | Inner Basin Waterline Rd. |



Wastewater (Proposed) - 5 yr CIP Budget - FY24 Sewer: \$ 7.7M (Actual) - \$5.7M GO Bond

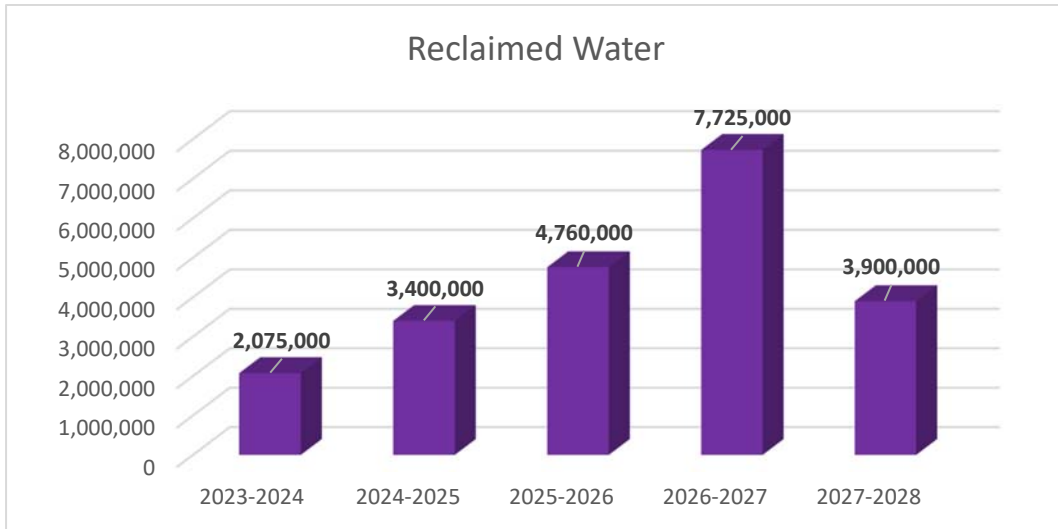
- | | |
|---|---|
| <i>Aging Sewer Main Replacement Program</i> | <i>Rio De Flag Sewer line relocations</i> |
| <i>Wildcat Co-Gen Engine Replacement</i> | <i>Rio Generators</i> |
| <i>Rio Turbo Blowers</i> | <i>Rio Digesters</i> |
| <i>Wildcat Digester</i> | <i>Wildcat Headworks Rehab</i> |
| <i>Energy Efficiency Program</i> | <i>Reserve for Improvements</i> |



Sewer 5yr CIP (Proposed)

Reclaimed Water (Proposed) - 5 YR CIP - BUDGET FY24 RECLAIMED WATER: \$2.1M

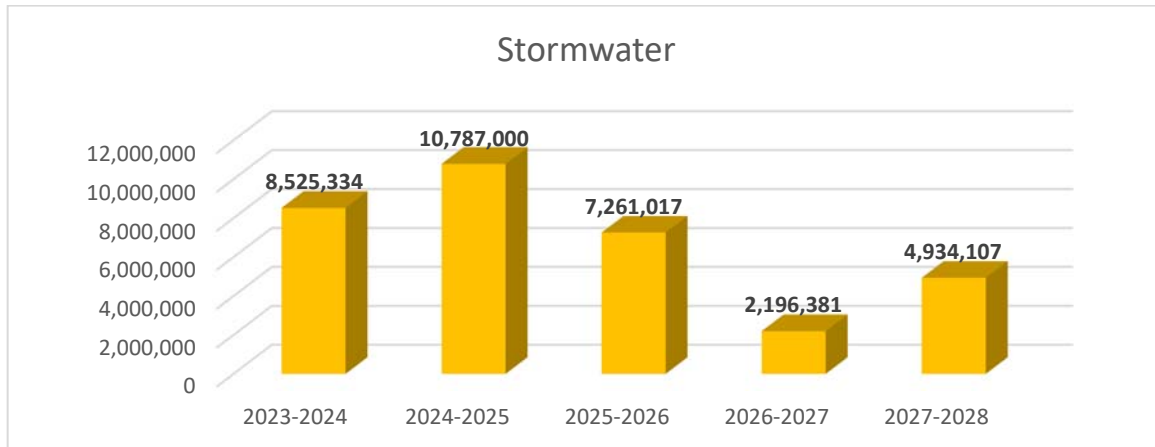
- Reclaimed System Bottleneck
- Rio Reclaim Water PRV relocation 16"
- Buffalo Park Chlorine Bldg upgrade (Design)
- Reclaim Recharge Outfall Project
- Advanced Water Treatment Sampling, Testing, Piloting



Reclaimed Water 5-yr CIP Budget

Stormwater - 5 YR CIP - BUDGET-New Rates - FY24 STORMWATER: \$8.5M

- Spruce Watershed Improvements
 - Linda Vista Culvert @ Spruce Wash
 - Cedar Ave Culvert Upsizing
 - Killip Basin Inlet
 - Spruce Wash Channel Improvements
 - Grandview
- Schultz Creek at Hwy 180
- Rio De Flag Project - \$16M (Debt)



Stormwater 5 yr CIP Budget

Chair Riegelman requested for the Commissioners to pick the top 15 projects and to mark red, yellow, and green for planning, execution, and funding. Kurt said this is a good way to start the initiative.

Robert Vane, resident of Flagstaff addressed that in a period of scarce funds, the Commission should certainly look all these items. Mr. Vane picked four projects that deserve questions and some additional investigation. The Red Gap Ranch does not have a 10-to-15-year plan result or if the project is moving forward. Another project is the 8-inch bottleneck totaling \$3.9 million. Robert said he fully understands the desire to get rid of them; however, he has not heard a single customer complain about the lack of water. So again, stated that in a scarce funds, why are we pushing this? Also, the Reclaimed Recharge Outfall Project which is a single biggest line item at \$6.35 million. This project has been discussed with Council and they gave the go to seek a grant, but the project is not moving forward. This needs to be put in front of Council for discussion. The third one is item 11, the AWT Sampling and Testing. This project shows it ends after three years but it should be continued for testing to evaluate the results of the AWT Pilot Plan. Unless the \$60,000 per year is wrapped up within the \$2.5 million, it should be extended.

D. Inner Basin Pipeline Project – Gary Miller

Gary Miller announced Stacey Brechler-Knaggs, David Pedersen and Brian Huntzinger will provide a brief presentation on the Inner Basin Pipeline Project. This is an informational update on the Pipeline West Post-Wildfire Flooding, Inner Basin Waterline Disaster Recovery efforts.

The Pipeline Fire was reported on June 12, 2022, approximately 6 miles north of Flagstaff within the Coconino National Forest. The fire burned 26,532 acres, including portions of the Schultz Creek and Chimney watersheds.

The post-fire flooding impacted the City of Flagstaff in July 2022 and caused catastrophic damage, including damage to the city's Inner Basin Pipeline, Waterline (FS 146) and Schultz Pass (FS420) roads. The pipeline is exposed and broken in multiple locations and no longer able to provide water to the North Reservoir Filtration Plant. Both Waterline and Schultz Pass roads are impassable in numerous locations. Spring water from the Inner Basin can peak as high as 2 million gallons per day (MGD) in summer months. Well water from the three wells (IB9, IB 11 & IB 14) in the Inner Basin has a similar peak capacity of about 2 MGD. The design capacity of the North Reservoir Filtration Plant (NRFP), where Inner Basin water is treated, is 4 MGD. Overall Inner Basin water can account for at least 20% of the daily potable water demand during peak consumption weeks of summer for Flagstaff. In summary, spring and well water from the Inner Basin, flowing through the Inner Basin Pipeline and within both the Waterline and Schultz Pass Roads, is a significant supply of both potable water to the residents in and around Flagstaff, as well as fire-fighting purposes.

Repair and reinforcement of the Inner Basin Pipeline, along with repair of both Waterline and Schultz Pass Roads are urgently needed to ensure the health and safety of residents and safe, efficient, operations and maintenance of the Inner Basin water infrastructure.

David Pedersen indicated that staff presented this item to Council on January 10, and the full presentation is available on the City's website. The Guaranteed Maximum Price (GMP 1) was approved by Council this week with Hunter Contracting to get through 30% design. GMP 2 will come before Council in May. The hope is to start work late summer to repair waterlines.

Stacey touched on funding. Indicated that there are three separate declarations based on timing of the flooding and the time set up between rainstorm events. The Department of Emergency Management Military Affairs (DEMA) will pay \$7525, and funding is available now. Staff is working with the County Emergency Manager on the House Bill post fire flooding to get 100% funding.

V. OLD BUSINESS

A. Project/Issues Tracking for the Water Commission – Brad Hill & Lisa Deem

Marion is working on getting a list of agenda items for the year and the Commissioners will come up a list to add.

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

Chair Riegelman announced that Ben Ruddell will join the Regional Planning Committee.

Don Bills and Erin Young provided an update on two items of the water legislation.

1.--Governors executive order 4 establishing a Water Policy Council. [Executive Order 4 | Office of the Arizona Governor \(azgovernor.gov\)](#) Gov appointed council Primary goal to modernize the 1980 GW Management Plan, and to evaluate options for addressing State rural GW issues.

2.-- Proposed Rural GW legislation: Local Groundwater Stewardship Areas (LGSA) HBxxxx. Intended replace and upgrade past RMA bills.

Establishing a Stewardship Area can be done in three ways – designation by a County Board of Supervisors, petition by residents, or designation by the Director of ADWR. In each case, the process must be open and transparent to the public and there must be research-based evidence showing that a Stewardship Area is needed to protect against specific threats to the community’s groundwater. Once a Stewardship Area is designated, a County Board of Supervisors nominates members to serve on the LGSA Council and the Governor makes final appointments. This plan must include a goal or goals for the area, a description of current conditions, and a method for monitoring and reporting on the area’s progress towards achieving its goals. Most importantly, the plan must also include the Council’s recommended actions to move the area towards meeting its groundwater goals. This means that local communities set their own goals for their groundwater based on the evidence of current conditions and receive support for the implementation of actions to achieve their determined goals from the technical experts.



[Executive Order 4 | Office of the Arizona Governor](#)

WHEREAS forty-three (43) years ago, Governor Bruce Babbitt convened the Arizona Groundwater Management Commission in a time of great uncertainty and adversity to ensure that Arizona remained a welcoming home for everyone for generations to come by protecting against overuse of the State’s finite groundwater; and WHEREAS, this effort brought leaders of both parties and stakeholders across the ...
azgovernor.gov

Erin indicated that staff could put this on February's Water Commission Agenda so the Commission can weigh in on the bill. Erin also mentioned on February 16 to visit the Capital and lobby on this. She will e-mail more information on this.

The Water Commission thanked Brad Hill for his time as interim Water Services Director. This will be Brad's last Water Commission Meeting.

VII. ADJOURNMENT

Meeting adjourned at 6:14 p.m.