CITY OF FLAGSTAFF
WATER COMMISSION
June 18, 2020
Virtual Meeting
SUMMARIZED MINUTES

MEMBERS PRESENT	MEMBERS ABSENT	STAFF PRESENT	OTHERS PRESENT
Ward Davis	John Malin	Ryan Roberts	Paul Beier
Ben Ruddell	Jamie Whelan, Council Rep	Marion Lee	
Timothy Bowers	Elizabeth Christy	Erin Young	
Malcolm Alter		Nicole Antonopoulos	
Marie Jones, P&Z Rep		Brad Hill	
		Steve Camp	
		Lisa Deem	
		Joelle Sawaya	
		Stacy Fobar	
		Neil Chapman	
		Jolene Montoya	

I. CALL TO ORDER

Vice Chair, Ward Davis called the meeting to order at 4:00 p.m.

II. APPROVAL OF MINUTES – February 20, 2020

Moved by Malcolm Alter and seconded by Timothy Bowers to approve the meeting minutes of February 20, 2020. Motion carried unanimously.

III. PUBLIC PARTICIPATION - None

IV. NEW BUSINESS

A. Wildland Fire Rate Increase – Nicole Antonopoulos

Nicole Antonopoulos and Neil Chapman presented a PowerPoint on the Environmental Management Fee restructuring and the new Water Resources and Infrastructure Protection fee.

Discussion framework

How we got here

- Environmental Management Fee
  - ✓ Background
  - ✓ Proposed fee restructure
  - ✓ Customer impact scenarios
- Water Resource and Infrastructure Protection
  - ✓ Background

- ✓ Proposed fee
- ✓ Customer impacts
- Advancing City initiatives
- Timeline

Env. Management Fee
The Environmental Management Fee should be distributed equitably amongst City customers

Water Resources and Infrastructure Protection
Need to establish a sustainable, stable and long-term initiative to maintain investments in watersheds and City water infrastructure via the Wildland Fire Management Program

Environmental Management Fee

Background

- Established in 2002 to fund city-wide environmental programs
- Per the Solid Waste Code 7-04-001-0010 FEES "a fee of $4.00 fee per month per City utility bill …"
- In Fiscal Year 2019-20 the fee generated $1.02 Million
  - ✓ Fee provides revenues for Sustainability Section, Flagstaff Fire Department, and Greater Flagstaff Forest Partnership

Proposed Fee Restructure –Why?

The fee is intended to correlate between the environmental and natural resource impact and programming necessary to mitigate these impacts. In many cases the fee is not distributed equitably among service addresses. For example:

- A single-family residence with four residents is assessed at $4 monthly per bill.
- A high occupancy housing unit of 150residents is assessed at $4 monthly per bill have one monthly bill. A specific example is a high-density unit in Flagstaff with ~ 900 residents pays $20 per month for 5 bills at the unit.
- The City provides some services per contract and/or miscellaneous billings and these customers currently do not pay the fee at all.

Proposed Fee Restructure

- Restructure the fee to be $0.035 rate assessed on charges from water, wastewater, reclaimed water, stormwater, trash and recycling services ("core services")
- Restructure would keep the Environmental Management Fund flat, not increasing the annual revenue
- Arizona laws allow cities and towns to charge fees for the provision of these core services
- The fees collected are used for protecting and enhancing our core services
- Customers will have some ability to reduce their monthly fee, by consuming less

Residential Customer Impact Example with Typical Municipal Bill Services

Residential Customer Impacts	Current Bill	Proposed Bill	Change
Customer 1: Average Monthly Consumption 3,500			
Total bill w/o Environmental Fee	$ 77.46	$ 77.46	$ -
Amount of Environmental Fee	$ 4.00	$ 2.03	$ (1.97)

Customer 3: Average Monthly Consumption 10,000			
Total bill w/o Environmental Fee	$161.10	$ 161.10	$ -
Amount of Environmental Fee	$ 4.00	$ 4.77	$ 0.77

Commercial Customer Impact Example*
With Municipal Trash and Recycling Service

Commercial Customer Impacts	Current Bill	Proposed Bill	Change
Customer 1: Average Monthly Consumption 3,500			
Total bill w/o Environmental Fee	$ 313.79	$ 313.79	$ -
Amount of Environmental Fee	$ 4.00	$ 10.30	$ 6.30
Customer 3: Average Monthly Consumption 10,000			
Total bill w/o Environmental Fee	$ 379.08	$ 379.08	$ -
Amount of Environmental Fee	$ 4.00	$ 12.39	$ 8.39

***Example shows a Commercial customer with City trash service (6 yard bin 2 times per week) and City recycling service (4 yard bin 2 times per week).**

Water Resource & Infrastructure Protection

Background

- Watershed protection and Wildfire risk reduction program established in 1997 by Council
- Now recognized as a national model with proven success
- Currently funded by General Fund, grants & most recently FWPP bond
- The FWPP bond, a project specific funding source, will be fully encumbered/spent within the next 6-10 months
- Recognized need for sustainable ongoing program and project specific funding to protect our community, forests, watersheds and infrastructure

Ongoing Wildland Fire Management Program Funding

- **Will be funded through Ordinance 2020-XX** Water Resource and Infrastructure Protection Initiative via Wildland Fire Management
- **Wildland Fire Management Mission: Protect our community from catastrophic wildfire:**

Wildfire Mangement

Five Programmatic Areas

1. Unplanned Fire Prevention
2. Community Preparedness
3. Hazard Mitigation
4. Incident Response
5. Incident Recovery

Key Projects Not Funded in Program

1. Flagstaff Watershed Protection
2. Upper Lake Mary Paired Watershed
3. Community Hazard Tree Program
4. Community Smoke Mitigation:
   Clean Air Hub Hepa Filter Loan

Customer Impact –Financial Scenarios

- Effective 8/1/2020: $0.52 per 1,000 Gallons
- Effective 7/1/2022: $0.53 per 1,000 Gallons

Climate Change in Flagstaff Compared to today, by 2050 we expect to have, on average

- ✓ Hotter temperatures.
- ✓ Increased **risk of disease or illness from mosquitoes** and other pests.
- ✓ **Less snowpack**.
- ✓ **More rainfall** instead of snowfall.
- ✓ Increased **high-severity wildfire risk**.
- ✓ Increased **damage from forest pests** due to drought-stressed trees.
- ✓ More severe **drought** conditions as temperatures rises.
- ✓ **Lower water quality** of reservoirs.

Vulnerabilities: What is at risk?

-Tourism & Economy -Water -Land Use & Housing -Health

Climate change poses risks to everything from our health and infrastructure to local ecosystems.

Residential Consumption
3,500 gallons

- Environmental Management Fee = $2.03 ($1.97 decrease from current fee)
- Water Resource and Infrastructure Protection Fee =$1.82
- Total = **$3.85** per month
  - •$0.15 monthly savings
  - •$1.80 annual savings

Residential Consumption
10,000 gallons

- Environmental Management Fee = $4.77 ($0.77 increase from current fee)
- Water Resource and Infrastructure Protection Fee = $5.20
- Total = **$9.97**per month
  - •$5.97 monthly cost
  - •$71.64 annual cost

Advancing City Initiatives

- Regional Plan
- City Council Goals
- Climate Action and Adaptation Plan
- Wildland Urban Interface Code
- Greater Flagstaff Community Wildfire Protection Plan
- Rethink Waste Plan

Outreach

- Commissions: Open Space, Sustainability, Water
- Social media
- Direct/electronic mailing
- Volunteer corps
- Other –Key Program Partners, etc.

Ordinance

- June 2, 2020 1st read
- June 16, 2020 2nd read

B. Consumer Confidence Report – Steve Camp

The City of Flagstaff recently completed the Consumer Confidence Report (CCR), which summarizes 2019 water quality data for the City of Flagstaff drinking water system. Steve Camp provided a presentation and said one item to note is the detection of toluene in sample results for

EPDS005 and EPDS006. Toluene was also detected in the trip blank at the same concentrations. The lab included the following comment:

> "Toluene value is suspect due to similar concentration found in associated Travel Blank. Contamination is suspected from sample preservative."

- The CCR is a report of recent detections from sampling in the water system. Samples with no detections are not reported in the CCR. Lead and copper results in the CCR are from the sampling conducted in 2017. Water Services is conducting the 2020 lead and copper sampling this summer.

Flagstaff has great water. The latest CCR demonstrates Flagstaff Water Services commitment to the highest quality water.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2017	15	0	5.1	2.4–5.1	No	Erosion of natural deposits
Arsenic (ppb)	2019	10	0	5.5	NA	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2019	2	2	0.430	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine Dioxide (ppb)	2019	[800]	[800]	319	ND–319	No	Water additive used to control microbes
Chlorine (ppm)	2019	[4]	[4]	0.62	ND–1.11	No	Water additive used to control microbes
Chlorite (ppm)	2019	1	0.8	0.535	ND–0.535	No	By-product of drinking water disinfection
Chromium (ppb)	2019	100	100	1.6	NA	No	Discharge from steel and pulp mills; Erosion of natural deposits
Combined Radium (pCi/L)	2017	5	0	0.6	ND–0.6	No	Erosion of natural deposits
Fluoride (ppm)	2019	4	4	0.075	NA	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs] (ppb)	2019	60	NA	16	ND–36	No	By-product of drinking water disinfection
Nitrate (ppm)	2019	10	10	1.6	ND–1.6	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2019	80	NA	24	ND–46	No	By-product of drinking water disinfection
Toluene[1]	2019	1	1	0.00071	0.00062–0.00071	No	Discharge from petroleum factories
Total Organic Carbon[2] (ppm)	2019	TT	NA	4.9	3.7–4.9	No	Naturally present in the environment
Uranium (ppb)	2017	30	0	1.0	0.9–1.0	No	Erosion of natural deposits

C. Report to the Water Commission – Lisa Deem & Brad Hill

Water Services Communication assumed oversight for the annual Report to the Water Commission in 2020. This is a combined effort throughout the division, to accurately report and capture data, activity, milestones and accomplishments attained during the year. This report covers activity in Calendar Year 2019.

Brad said after 12.5 years with the City of Flagstaff and 9 years as a Water Services Director is retiring and this is his 12th Report to the Water Commission. Brad indicated page one of the Report is his message to the Water Commission Members in which he highlighted accomplishments over the years.

Over the years, this document has developed into the comprehensive accounting of water services activity in all areas: Water Resources, Water Production, Water Reclamation, Reclaimed Water, Engineering, Regulatory Compliance, SCADA IS, Water Distribution, Wastewater Collection and Stormwater. Lisa Deem, Mary Samar, and Joelle Sawaya presented a short presentation:

Flagstaff Water Facts

- Average household water usage was 139 GPD
- An average of 7.26 MGD of potable water are used citywide
- On June 21st, potable water production peaked at 10.83 MGD

Website Communications:

E-Blogs	News
Inner Basin Pipeline repaired just In time to aid in fire operations	Water Conservation in Action – City Hall Lawn Goes Green

Newman & Museum Fires

Response & Mitigation

- Newman Fire burned 5,000 acres & staff is still monitoring water quality impacts in ULM
- Water from the North Reservoir was used for Museum Fire relief efforts
- Stormwater staff contribute to post-fire flood mitigation & helping protect homes from damage

Water Services Strategic Plan 2025

Planning for the future

- Summarizes ten major issues facing the Division and community over next five years
- Lays groundwork for future discussions on specific strategies and investments
- City Manager's Aspen Award in Leadership

Staff thanked Brad Hill as he retires and wished him the best!

D. Reclaimed Water Master Plan Scope – Erin Young

Reclaimed water is a byproduct of the wastewater generated from homes and businesses, collected through pipelines for treatment at either the Rio de Flag Water Reclamation Plant (Rio WRP) or the Wildcat Hill Water Reclamation Plant (Wildcat WRP). Flagstaff has continued to improve the treatment process over time with both WRP's permitted at the highest quality regulated under Arizona Department of Environmental Quality (ADEQ), Class A+. Today reclaimed water makes up about 20% of all water used in Flagstaff with about 70 customers using the water primarily for irrigation. However, this percentage is only about one-third of the total supply available over the course of one year.

While reclaimed water has significantly offset potable demand for mostly outdoor uses, there is still a large volume of recycled water each year that is not used as a water resource benefit to our customers. Excess water is available in all but the dry months of the year, with May and June peak season. In general, only about one-third of all treated effluent annually is recycled back into the community.

Staff retained Brown and Caldwell to assist the City in conducting a Reclaimed Water Master Plan. The plan will address five water management options, as well as water quality considerations depending on end use, for the remaining volume of water, which for the last decade has been about 4,000 acre-feet per year. The benefits and costs to the community of these alternatives come with their share of complexities, including operational, economical, health, and environmental considerations requiring community input. Brown and Caldwell will lead a stakeholder process that narrows down the options listed below into four scenarios that will be carried into the Water Resources Master Plan. These water management options for excess reclaimed water include:

- current and future opportunities for expanding the reclaimed distribution system – referred to as direct reuse;
- aquifer recharge through a managed recharge permit (streambed recharge) – a form of indirect potable reuse with or without advanced treatment;
- aquifer recharge through a constructed recharge permit (groundwater recharge wells) – a form of indirect potable reuse with or without advanced treatment;
- pipeline to Upper Lake Mary – a form of indirect potable reuse with advanced treatment;
- drinking water – direct potable reuse with advanced treatment and purification.

The objective of this project is to not determine the one path forward for reclaimed water at this time – rather it is to develop community-specific guidance on water quality and narrow down the options to four scenarios as inputs into the Water Resources Master Plan.

Scope of Work from Brown & Caldwell and WestWater Research (WWR)

To determine the most optimal use of reclaimed water for the City of Flagstaff, a greater understanding of the availability, economics, and risk to human and environmental health is needed. This scope of work contains a multi-pronged approach to inform the City of favorable alternatives for the best and highest use of reclaimed water. The approach includes:

- Developing a reclaimed water balance and projection through the planning horizon. This water balance should include reasonably certain water conservation measures that may reduce the quantity of wastewater generated.
- Provide recommendations for an enhanced sampling program to identify drinking water contaminants and chemicals of emerging concern and inform of the relative risks to human and environmental health. This includes reviewing existing data the City has on wastewater, reclaimed, and raw water systems.
- Support discussion and evaluation of the value of reclaimed water and water rates impacts of different approaches to the use of recycled water.
- Collaborating with a stakeholder group to define community values regarding use of reclaimed water and acceptable water quality goals (determine how clean is clean) and develop strategies for expanding reclaimed water use.

Preparing for Stakeholder Workshop

- Working with the City, identify and engage community members to participate in the stakeholder group.
- Develop and distribute background materials to the stakeholder group. This may include a request for ‘homework’ to help bring ideas to the workshop or visit facilities. The City may organize a tour of the Scottsdale Water Campus (the State’s first Direct Potable Reuse facility), a tour of the City’s Water Reclamation Plants, or set up a webinar on statewide reuse project updates from other municipalities.

- Develop a water balance for all reclaimed water options to determine available reclaimed water supply, considering impacts of conservation efforts and the seasonal availability of reclaimed sources.
- Develop a list of water quality parameters for sampling and analysis of reclaimed water including trace compounds of concern. The listing will be organized into Tier 1, Tier 2 and Tier 3 chemicals per National Water Research Institute (NWRI) guidance. Review and compile existing water quality analyses results and identify compounds of concern for prioritization of actions (additional treatment, source minimization, etc.). Provide recommendations for additional sampling locations and compounds not previously analyzed to enhance source water monitoring practices for potable reuse.
- WWR will review current reclaimed water pricing and policies and compare their findings to other communities in Arizona to develop recommendations for pricing and policy going forward. WWR will analyze land use current and future land use and water demand to estimate fiscal and economic benefits per unit water demand. Findings will be provided to stakeholders for review prior to stakeholder workshops to help facilitate discussion and decision making.

Stakeholder Workshops

Objective: Through a select stakeholder group, develop community-specific water quality guidance for direct reuse, indirect potable reuse, and direct potable reuse based on risk to human health, environmental health, and potential for future impacts from compounds that persist and disperse to the aquifer or surface waters. Identify a short list of actions to reduce these risks through additional treatment processes or diversion from sources of the compounds. Identify four scenarios for development of reclaimed water use through direct reuse, indirect potable reuse, and direct potable reuse.

Conduct two half day workshops with the stakeholders. The first workshop will be to cover background information and gain an understanding of community values regarding reclaimed water and water quality. The second workshop will be for development of alternatives.

Paul Beier asked what the timeline was, and Erin said 9 months, starting July. Members of the Flagstaff Water Group & Friends of the Rio de Flag are interested in the Stakeholder Committee. Ward, Paul and Ben are interested in selecting a representative group and review applications.

V. OLD BUSINESS - None

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

Malcolm Alter requested for an update or a brief status report on a monthly basis on the Rio de Flag Project.

The Water Commission Members thanked Brad Hill for his dedicated services and commitment to this organization. Ben Ruddell praised Brad for his passion for water, distinguish of excellences and nationally excellent innovator in Water Resources.

VII. ADJOURNMENT

Ben Ruddell moved to adjourned at 5:26 p.m. and seconded by Timothy Bowers.