

## WORK SESSION AGENDA

CITY COUNCIL WORK SESSION  
TUESDAY  
FEBRUARY 13, 2024

COUNCIL CHAMBERS  
211 WEST ASPEN AVENUE  
3:00 P.M.

All City Council Meetings are live streamed on the city's website  
(<https://www.flagstaff.az.gov/1461/Streaming-City-Council-Meetings>)

### \*\*\*PUBLIC COMMENT\*\*\*

Verbal public comments may be given through a virtual public comment platform or in-person

If you want to provide a verbal comment during the Council Meeting, use the link below to join the virtual public comment room.

### VIRTUAL PUBLIC COMMENT WAITING ROOM

Written comments may be submitted to [publiccomment@flagstaffaz.gov](mailto:publiccomment@flagstaffaz.gov). All comments submitted via email will be considered written comments and will be documented into the record as such.

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#### 1. Call to Order

#### NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

*Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this work session, the City Council may vote to go into executive session, which will not be open to the public, for discussion and consultation with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).*

#### 2. Roll Call

*NOTE: One or more Councilmembers may be in attendance through other technological means.*

MAYOR DAGGETT  
VICE MAYOR ASLAN  
COUNCILMEMBER HARRIS  
COUNCILMEMBER HOUSE

COUNCILMEMBER MATTHEWS  
COUNCILMEMBER MCCARTHY  
COUNCILMEMBER SWEET

#### 3. Pledge of Allegiance, Mission Statement, and Land Acknowledgement

#### MISSION STATEMENT

*The mission of the City of Flagstaff is to protect and enhance the quality of life for all.*

## LAND ACKNOWLEDGEMENT

*The Flagstaff City Council humbly acknowledges the ancestral homelands of this area's Indigenous nations and original stewards. These lands, still inhabited by Native descendants, border mountains sacred to Indigenous peoples. We honor them, their legacies, their traditions, and their continued contributions. We celebrate their past, present, and future generations who will forever know this place as home.*

### 4. **Public Participation**

*Public Participation enables the public to address the Council about an item that is not on the prepared agenda. Comments relating to items that are on the agenda will be taken at the time that the item is discussed. Public Participation appears on the agenda twice, at the beginning and at the end. If you wish to address the Council at today's meeting, please complete a comment card and submit it to the recording clerk as soon as possible. Your name will be called when it is your turn to speak. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.*

### 5. **Review of Draft Agenda for the February 20, 2024 City Council Meeting**

*Citizens wishing to speak on agenda items not specifically called out by the City Council may submit a speaker card for their items of interest to the recording clerk.*

### 6. **February Work Anniversaries**

Recognition of employees celebrating work anniversaries in the month of February

### 7. **City Manager Report**

Information Only

### 8. **Report of Recent Social Science Findings on Forest and Fire Management from the Greater Flagstaff, Arizona Area from the Ecological Restoration Institute and NAU School of Forestry**

Inform the Greater Flagstaff Community and City Council

### 9. **Introduction to Water, Wastewater, and Reclaimed Water Rate Design**

Discussion with City Council to develop a list of priorities and objectives to consider when developing alternative rate design models for discussion and direction at the March 4, 2024 Joint Work Session with the Water Commission.

### 10. **Public Participation**

### 11. **Informational Items To/From Mayor, Council, and City Manager; future agenda item requests**

**12. Adjournment**

CERTIFICATE OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Flagstaff City Hall on \_\_\_\_\_, at \_\_\_\_\_ a.m./p.m. in accordance with the statement filed by the City Council with the City Clerk.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

\_\_\_\_\_  
Stacy Saltzburg, MMC, City Clerk

THE CITY OF FLAGSTAFF ENDEAVORS TO MAKE ALL PUBLIC MEETINGS ACCESSIBLE TO PERSONS WITH DISABILITIES. With 48-hour advance notice, reasonable accommodations will be made upon request for persons with disabilities or non-English speaking residents. Please call the City Clerk (928) 213-2076 or email at [stacy.saltzburg@flagstaffaz.gov](mailto:stacy.saltzburg@flagstaffaz.gov) to request an accommodation to participate in this public meeting.

NOTICE TO PARENTS AND LEGAL GUARDIANS: Parents and legal guardians have the right to consent before the City of Flagstaff makes a video or voice recording of a minor child, pursuant to A.R.S. § 1-602(A)(9). The Flagstaff City Council meetings are live-streamed and recorded and may be viewed on the City of Flagstaff's website. If you permit your child to attend/participate in a televised Council meeting, a recording will be made. You may exercise your right not to consent by not allowing your child to attend/participate in the meeting.

**CITY OF FLAGSTAFF  
STAFF SUMMARY REPORT**

**To:** The Honorable Mayor and Council  
**From:** Stacy Saltzburg, City Clerk  
**Date:** 02/07/2024  
**Meeting Date:** 02/13/2024



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**TITLE:**

**February Work Anniversaries**

**DESIRED OUTCOME:**

Recognition of employees celebrating work anniversaries in the month of February

**EXECUTIVE SUMMARY:**

**INFORMATION:**

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**Attachments:** [Presentation](#)





# TEAM FLAGSTAFF



## First Year Anniversaries

- Dakota Orme, Streets Operations Technician
- Zachary Fritsch, Recreation Assistant
- Bruce Bowditch, Recreation Instructor II
- Derek Lusk, Mechanic II
- Shannon Jones, Water Services Division Director
- Christopher Somers, IT Analyst
- DeAnna Simmons, Recreation Official I
- Tiffin Miller, Street Operations Technician





# TEAM FLAGSTAFF



## First Year Anniversaries

- Kortnee Begaye, Recreation Official I
- Michael Ingallina, Airport Operations/ARFF Specialist
- Ryian Brydenthall, Library Specialist
- Linda Tillson, Library Director
- David Ploughe, Maintenance Technician II
- Meriah Franklin, HR Generalist
- Avery McAllister, Maintenance Technician I
- Brandon Prieto-Briano, Water Services Operator Trainee





# TEAM FLAGSTAFF



## First Year Anniversaries

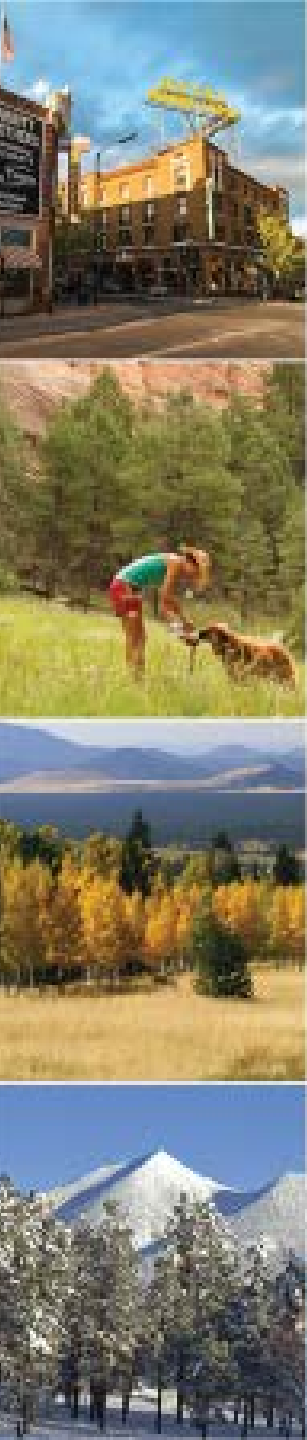
- April Belinti, Water Services Administrative Specialist
- Connor Newton, Digital Media Specialist
- Carson Knott, Police Officer



# Five Year Anniversaries



Danny Neal  
Recreation Official I

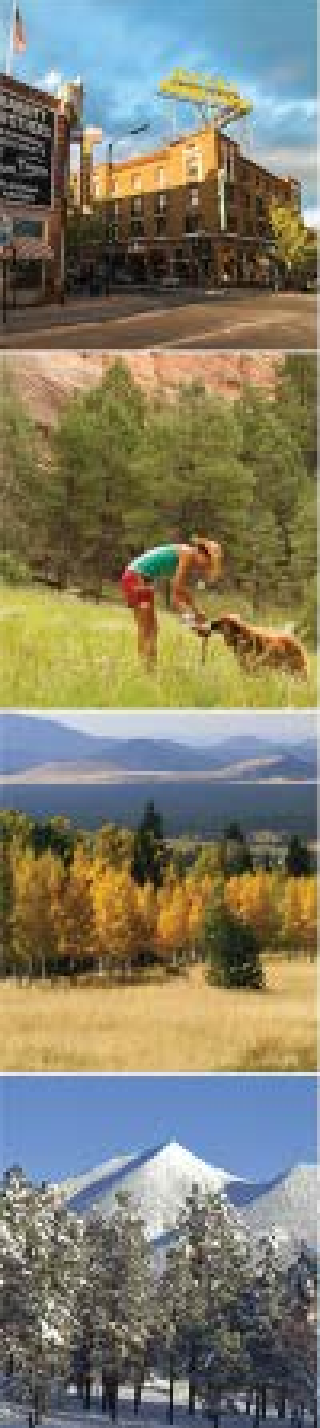


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# Five Year Anniversaries

Stephanie Semallie  
Recreation Official I



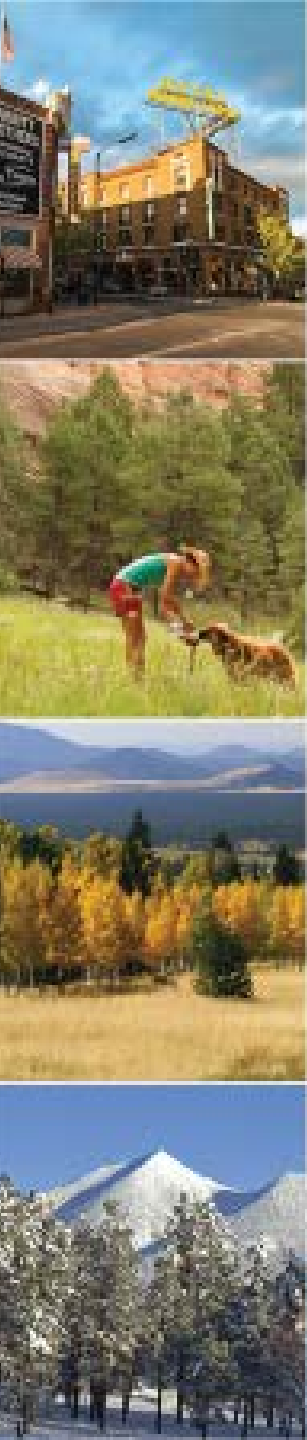
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# Five Year Anniversaries



Sarah Ulibarri  
Recreation Assistant

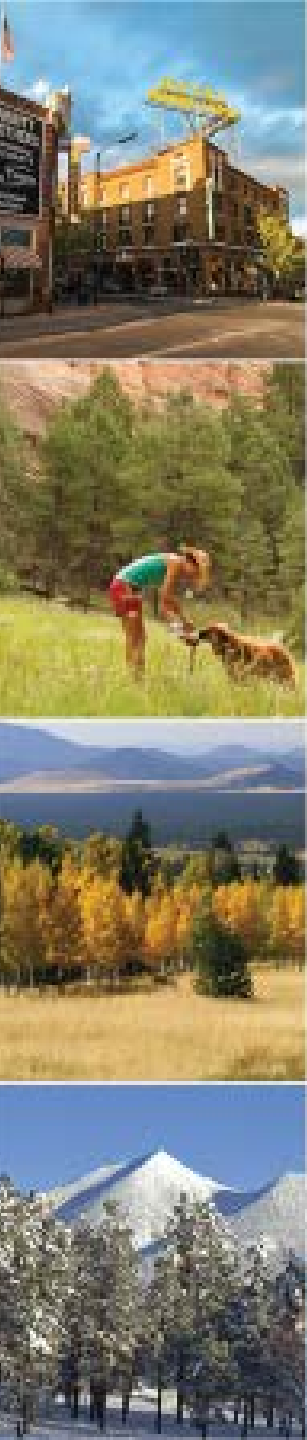
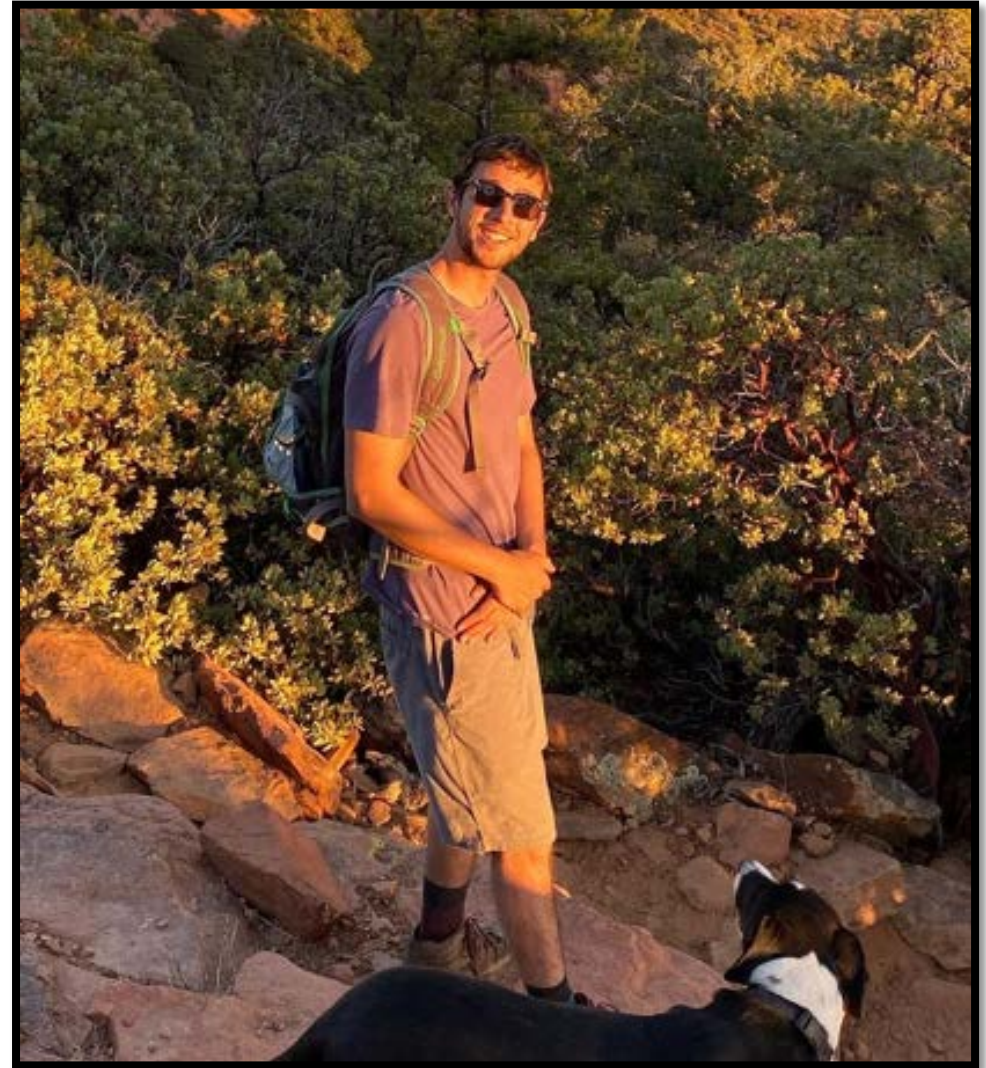


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# Five Year Anniversaries

Jackson Salazar  
Water Services Plan  
Reviewer



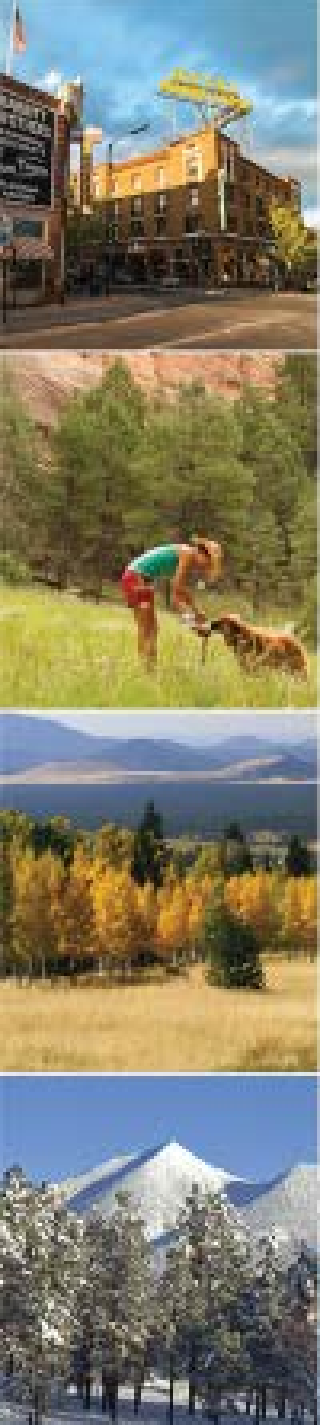
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# Five Year Anniversaries



Jessica Kittleson  
Customer Service  
Manager

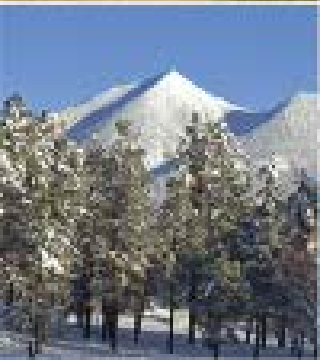
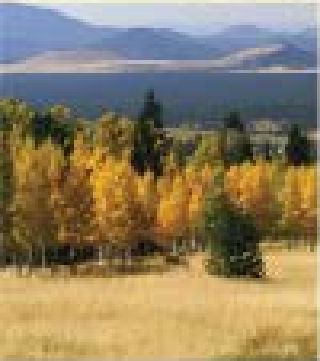


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# Ten Year Anniversaries

Sara Dechter  
Comprehensive and  
Neighborhood Planning  
Manager



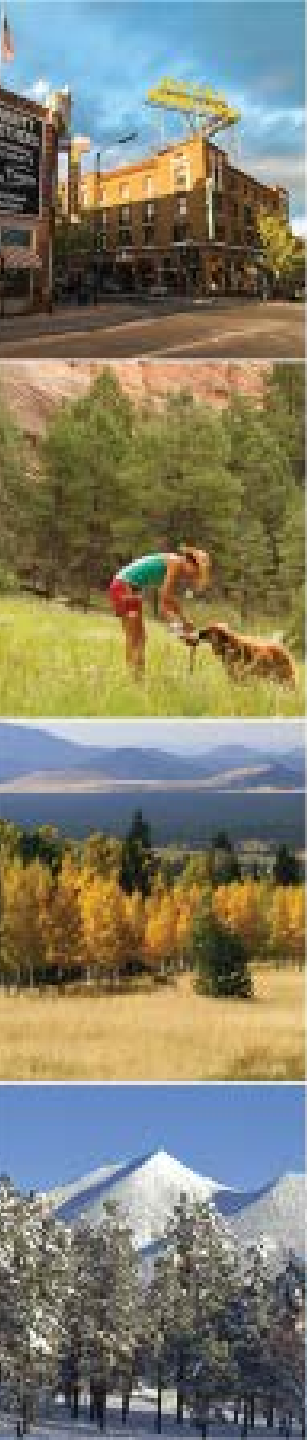
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# Ten Year Anniversaries



Kristin Decker  
Police Special Services  
Supervisor

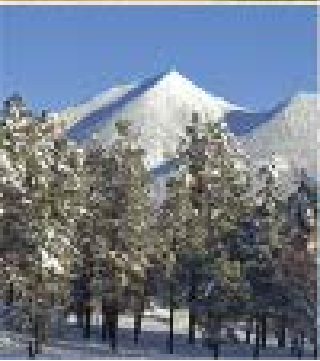
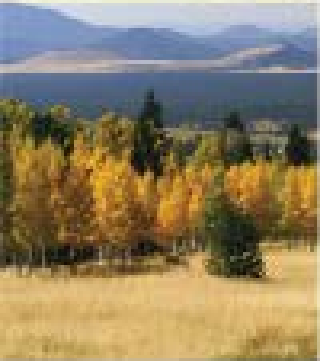


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# Ten Year Anniversaries

Lorn Sampson  
Water Services Operator IV



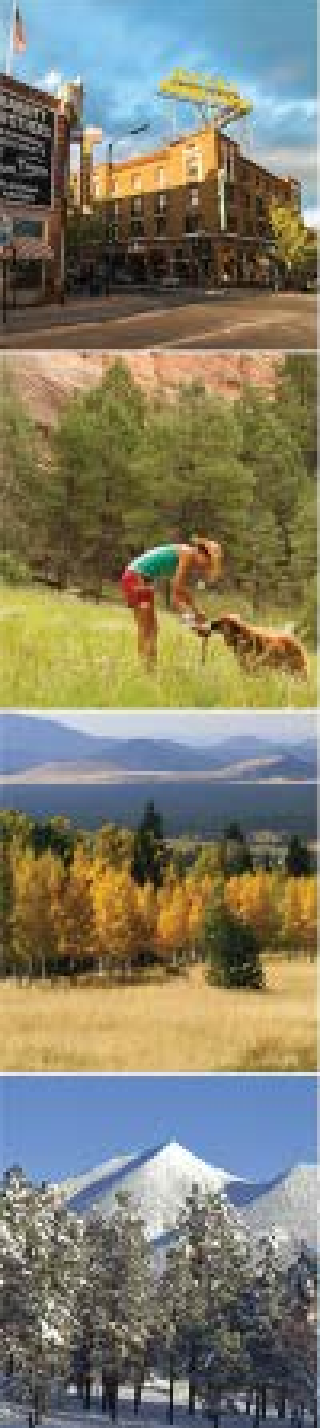
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# Twenty Year Anniversaries



Mark Piper  
Airport Operations/ARFF  
Lead Worker



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# Twenty-Five Year Anniversaries

Crystal has been an integral team member in Recreation for the past 25 years keeping her colleagues engaged and educated while bringing a high level of emotional intelligence each day. Crystal brings excellence into the workplace and gives opportunity for the Flagstaff community to take part in our wonderful programming. From creating and working on programs like Evenings of Art and Culture, Daddy Daughter Ball, Touch-A-Truck, and Juneteenth, to being a role model to countless youth in our community, Crystal is a pillar in our community.

Crystal has been a mentor and positive role model to countless youth from her time at Cogdill Recreation Center up to this day where she is the Supervisor at Hal Jensen Recreation Center. Crystal is sought out daily by many of the youth for her wisdom, compassion, and attentive ear. Our team values her passion, dedication, and the joy she brings to the workplace daily.



Thank you, Crystal, for 25 years of excellence in service and commitment to the City of Flagstaff!



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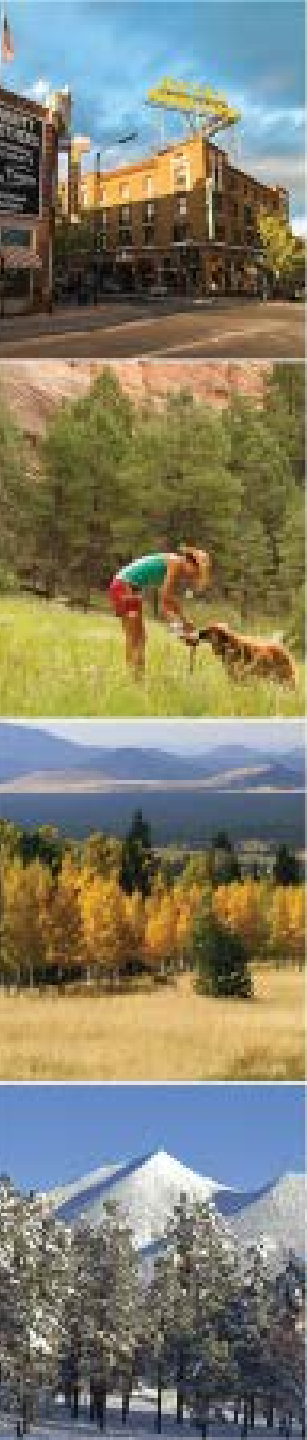


# Forty Year Anniversaries

Stacey Brechler-Knaggs or may be better known as “SBK” is celebrating forty years with the City of Flagstaff this month. She was hired on February 13, 1984.

Stacey continues developing Emergency Management and Contracts with the hiring of those managers. SBK has been recognized for going above and beyond throughout her career. She was recognized as the Leader of the Year in 2021 and received a City Manager’s Award in 2023 for the Inner Basin Waterline Repair project. Prior she received WOW awards in 2006, 2008, 2011, 212, 2015 and 2016, a Quality Step Increase in 2017 and a City Manager’s Excellence Award in 2020.

Thank you SBK for your dedication to TEAM FLAGSTAFF and serving the community!



**TEAM FLAGSTAFF**  
WE MAKE THE CITY BETTER



**CITY OF FLAGSTAFF  
STAFF SUMMARY REPORT**

**To:** The Honorable Mayor and Council  
**From:** Stacy Saltzburg, City Clerk  
**Date:** 02/07/2024  
**Meeting Date:** 02/13/2024



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**TITLE:**

**City Manager Report**

**DESIRED OUTCOME:**

Information Only

**EXECUTIVE SUMMARY:**

These reports will be included in the City Council packet for regularly scheduled Work Session meetings. The reports are intended to be informational, covering miscellaneous events and topics involving the City organization.

**INFORMATION:**

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**Attachments:** [City Manager Report](#)  
[IT Winter Report](#)  
[PROSE January Newsletter](#)  
[Water Services Quarterly Report](#)

# City Manager's Report

February 7, 2024

Council and Colleagues, greetings. These reports will be included in the City Council packet for Council Work Sessions. The reports are intended to be informational, covering miscellaneous events and topics involving the city organization. Updates are also attached from IT, PROSE, and Water Services.

## Council Rotation for State, Federal, and Other Special Meetings

Sarah Langley and Shawn Johnson, as your Intergovernmental Affairs representatives, maintain and update the rotation list. There are three lists that we use to choose Councilmembers to attend meetings along with the Mayor: State, Federal, and One-Off Meetings that sometimes pop up when an elected official or state official ask for a meeting on short notice.

This does not include direct invites to the Mayor or Council from other elected officials or representatives to meet individually. A great example of this would be when Senator Sinema came to visit and the Mayor was invited directly by the Senator's office to attend. These requests do not happen on a regular basis usually, but we ask that if you do attend one to please let the Mayor and City Manager know, just so that they are aware.

Regarding how newly elected council are placed in the existing list; we place the newly elected members in the spot of the outgoing seats they will be filling. As an example, in the last election, Councilmember Harris took Mayor Daggett old spot as Vice Mayor since Councilmember Harris is filling the 2-year term rather than 4 years. From there, staff draws from this list for all meetings (in state and out of state). Below are a few snapshots of the current lists:

### CITY COUNCIL STATE LEGISLATIVE TRIP ROTATION

Per Council direction on 10/08/2019 a rotating list of Councilmembers was established to assist with future lobbying trips. The next person in the rotation will attend, unless otherwise determined by unanimous vote of the Council.

Odegaard	2/13/19
Whelan	2/13/19
Salas	2/13/19
Aslan	4/10/19
Shimoni	11/4/19
McCarthy	4/10/19
Odegaard	4/10/19
Daggett	-
Salas	3/15/21
Aslan	3/15/21
Shimoni	3/11/22
McCarthy	3/11/22
Sweet	3/20/23
Matthews	3/20/23
House	02/05/24
Aslan	02/25/24
Harris	
McCarthy	
Sweet	
Harris	
House	

### CITY COUNCIL ONE OFF MEETING ROTATION

Per Council direction on 10/08/2019 a rotating list of Councilmembers established to assist with ONE-OFF meetings. The next person in the rotation will attend, unless otherwise determined by unanimous vote of the Council.

Odegaard	2/13/19
Whelan	2/13/19
Salas	2/13/19
Aslan	4/10/19
Shimoni	11/4/19
McCarthy	4/10/19
Odegaard	4/10/19
Daggett	-
Salas	3/15/21 – Senator Sinema Visit
Aslan	3/15/21 – Senator Sinema Visit
Shimoni	3/11/22 – Congressman Gallego Visit
McCarthy	3/11/22- Congressman Gallego Visit
Sweet	3/20/23 – Corps Meeting
Matthews	3/20/23- Corps Meeting
House	
Aslan	
Harris	
McCarthy	
Sweet	
Harris	

### CITY COUNCIL WASHINGTON D.C. ROTATION

Per Council direction on 10/08/2019 a rotating list of Councilmembers was established to assist with future lobbying trips. The next person in the rotation will attend, unless otherwise determined by unanimous vote of the Council. Two Councilmembers, in addition to the Mayor, attend each lobbying trip.



Councilmember	Trip Date
McCarthy	03/2017
Odegaard	03/2018
Whelan	03/2019
Salas	03/2019
Aslan	12/2019
Shimoni	04/2021
McCarthy	04/2021
Odegaard	12/2019
Daggett	3/23/22
Salas	3/23/22
Sweet	4/1/23
Matthews	4/1/23
McCarthy	
Aslan	
Harris	
House	
Aslan	

### Police

A snapshot of current staffing in PD:

- Patrol: 19% down on total sworn staffing.
- Dispatch: 13% down on total dispatch staffing
- Police Aides: Fully Staffed!
- Records Staffing: Two openings.

The department held its annual awards and promotional ceremony this past week. Thank you to all who helped organize, those who attended and those who were honored. The following individuals were honored with awards. Please congratulate them for their accomplishments.

### The 2023 Flagstaff Law Enforcement Association Officer of the year Officer Ryan Sherf

Ryan Sherf was hired by the City of Flagstaff on April 24<sup>th</sup>, 2017, as a Police Officer. Prior to his hire with the Flagstaff Police Department had recently retired from the United States Army where he spent over twenty years within the Criminal Investigations Division. During his almost seven-year career with the Flagstaff Police Department, Officer Sherf has worked in many roles and has given his all to this department. He is currently the lead Field Training Officer in the patrol division, actively training and educating the next generation of police officers in our agency. He is a role model to all. We congratulate him for being honored as Flagstaff Law Enforcement Association's 2023 Officer of the year!



The 2023 Volunteer of the Year  
Records Technician Jessica Sealana

Jessica has selflessly volunteered her time while off duty to assist in Community Policing events to strengthen ties in our community; the Police Department's Booth; Badges for Baseball; the Citizen's Academy; National Night Out; Active Shooter training; and the Holiday Toy Drive.

Jessica truly cares for the department, its members, and the community. These tireless efforts provide a positive image for the Flagstaff Police Department that helps with building public trust in the community. She is honored as our 2023 FPD Volunteer of the Year!



The 2023 Valerie Hernandez Excellence Award  
ACO Brooke Breslin



Brooke joined the Flagstaff Police Department Animal Control unit in May of 2023. She has become a leader and respected resource for animal control issues. In addition to her normal work assignments, she has taken it upon herself to help train Officers and Police Aides in the proper tools and techniques of handling animals. She has helped develop our policy on responding to animal control calls, and she makes herself available after her normal shift to answer questions and respond to the field as necessary.

Brooke is a positive reflection of the Department within our community. In the short time she has been with us, she has standardized policy and procedure and elevated the position to one that reflects professionalism and compassion for animals. We are honored to select her for our Valerie Hernandez Excellence Civilian of the Year Award.

The 2023 FPD Officer of the Year  
Officer Jason Nguyen

During this last year Officer Jason Nguyen has found himself going from being a junior officer on an extremely experienced squad, to being the most senior officer on a squad of newer officers. Jason has responded to this challenge admirably becoming leader and mentor to his squad mates and setting the example for the less experienced officers he works with. His performance as the senior officer and mentor on his squad has led to his role within the department expanding. He has since been selected to be a Field Training Officer (FTO) and an Acting Supervisor. Jason has not only accepted the challenge of these new positions but has excelled at them. He has quickly become a trusted and reliable FTO who has successfully mentored and trained the recruits assigned to him.



Jason has also proven himself instrumental to building a positive culture within our organization. He always takes time to connect with members of every section of the department to build and foster positive relationships. We are honored to select Officer Jason Nguyen as our Flagstaff Police Department Officer of the Year.

For 20 years of volunteerism with the Flagstaff Police Department  
Gary Gimenez

Gary started with Flagstaff Police Department as a Volunteer in the spring of 2003, doing ADA Parking enforcement, parking lot patrols, and radar speed monitoring.

He has assisted members of the department with Citizens Police Academy, the Flagstaff Home Show, National Night Out, the County Fair, and the Law Enforcement Toy Drive. Gary also worked with Detectives preparing summaries of Burglary reports. Gary has been involved in the Citizens Police Academy program for more than 18 years and involved in the FPD Firearms program for more than 10 years.



Thank You Gary for your 20 years of volunteering!

The Eric Lindstrom Leadership Award  
Officer Clint Stewart

Officer Clint Stewart represents the true values of leadership within this Department. He is an active member in the Mobile Field Force Team, a Defense Tactics Instructor, a Taser Instructor, Driving Instructor, General Instructor, and an outstanding Field Training Officer.

Stewart also dedicates endless hours of training at the High-Country Training Academy for new recruits and provides numerous hours of internal trainings to officers within our department. Officer Stewart has led by example through self-evaluation and an ever-present desire for his own improvement, to inspire others to do and be better. He is one of the very successful patrol leaders and mentors that others look up to and he seeks to make his squad, his department and law enforcement in general better every day. As a result of his leadership and work ethic, he is being presented the Lindstrom Leadership Award!



Veterans of Foreign Wars Officer of the Year  
Officer Day Warden

Officer Day Warden was honored as the Veterans of Foreign Wars Officer of the Year for consistently exhibiting exceptional professionalism, commitment, selfless service and compassion in serving the Flagstaff community. Congratulations to Officer Warden!

**Fire**

- The department is transitioning to the new Motorola radios.
- FFD has begun a “grey shirt” volunteer program where volunteers complete tasks to assist Fire stations throughout the City. These volunteers will help with delivering EMS supplies, station supplies, delivering mail and other tasks that help the department run smoothly.
- The honor guard was in Phoenix for the PFFA Fallen Fire Fighter Memorial.



- FFD attended a career fair at Coconino Community College to speak with students about fire service in the Greater Flagstaff Region.
- The department held its annual awards ceremony and recognized the firefighter of the year, members who were recently promoted and exceptional service. Congratulations to all!



### **JoJo's Place**

The ribbon cutting at JoJo's was wonderful. Housing Solutions of Northern Arizona first purchased the hotel (Travelodge) in September of 2021, and construction on the project was recently finished. The hotel has 44 studio apartment units, with rent based on the household's income.

JoJo's Place residents will have access to onsite case management services such as mental health support and healthcare services and will be able to stay up to 24 months. It's a wonderful asset to the community, enabling transitional housing for those who need a little assistance.



That's all for now, Council. More updates in a couple weeks.



# IT DIVISION REPORT

Fall/Winter 2023

*“Our purpose is to provide you the secure tools to make your job easier tomorrow than it was today.”*

*Division of IT Mission*



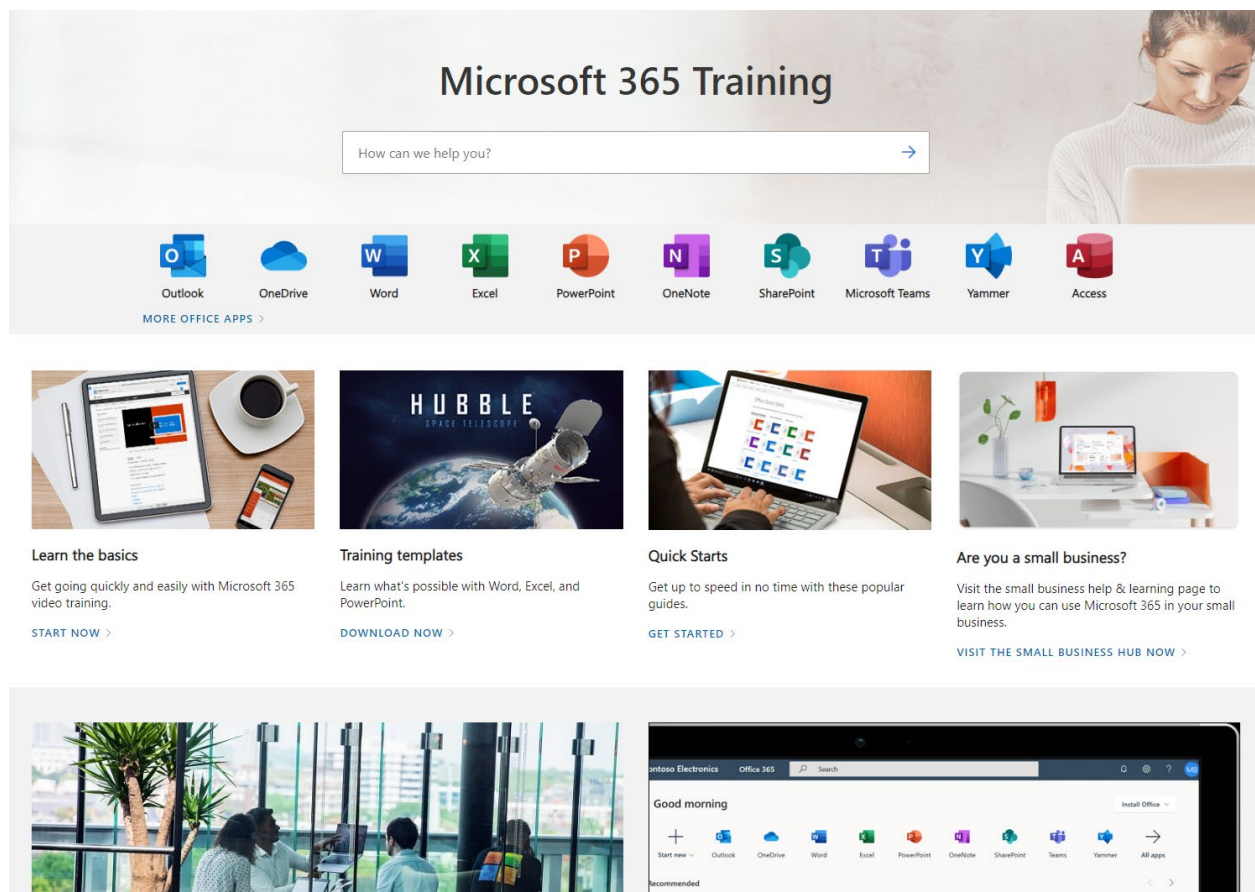
# Tips and Tricks

## Microsoft 365 Training

If you have any questions about the various Microsoft 365 tools we have, Microsoft already has a whole website dedicated to providing tips, tricks and basic training on how to use their tools. Take advantage of these videos and work at your own pace:

GOTO:

<https://support.microsoft.com/en-us/training>



The screenshot shows the Microsoft 365 Training website. At the top, there is a search bar with the text "How can we help you?" and a right-pointing arrow. Below the search bar is a row of icons for various Microsoft 365 applications: Outlook, OneDrive, Word, Excel, PowerPoint, OneNote, SharePoint, Microsoft Teams, Yammer, and Access. Below these icons is a link that says "MORE OFFICE APPS >".

The main content area features four columns of training resources:

- Learn the basics:** "Get going quickly and easily with Microsoft 365 video training." Includes a "START NOW >" link.
- Training templates:** "Learn what's possible with Word, Excel, and PowerPoint." Includes a "DOWNLOAD NOW >" link.
- Quick Starts:** "Get up to speed in no time with these popular guides." Includes a "GET STARTED >" link.
- Are you a small business?:** "Visit the small business help & learning page to learn how you can use Microsoft 365 in your small business." Includes a "VISIT THE SMALL BUSINESS HUB NOW >" link.

At the bottom of the page, there is a large image of people in a meeting and a screenshot of the Microsoft 365 application interface showing a "Good morning" greeting and a row of application icons.



# IT Program Spotlight

## GIS Program

### Rob Speer – IT Manager – GIS



**How do I make your job easier?** In GIS, we help answer the question of "where." From question like "how many square feet of building space is in Commercial Service zoning" to "what is the total length of City maintained lane miles of streets," the GIS Team can help answer and analyze spatial patterns and integrate "where" into different software systems.

**What project am I working on now?** An ongoing project I have been working on is the Computer Aided Dispatch mapping system for the Police and Fire department. I'm striving to make this system as accurate and easy to use as possible for our dispatchers and our Police and Fire department.

**Get to know me a bit more.** With my wife Chrissy, two teenaged daughters Mayla and Molly, and two dogs Riggins and Bode, we enjoy spending time outdoors and traveling around the West for my daughters' out of town ski races and competitive softball tournaments.

### Kelsea Hundtoft – IT Administrator – GIS



**How do I make your job easier?** I make your job easier by meeting your mapping needs. Whether it is setting up a field map to collect assets that need to be painted downtown or creating a web application for city residents to find out what day their trash and recycling will be picked up, I am always happy to help.

**What project am I working on now?** A project I'm currently working on is setting up a web application to track what properties in county islands have a service contract with Flagstaff Fire Department. This project will make it easier for Fire to look up information about these properties and quickly identify what properties have a contract while on a call.

**Get to know me a bit more.** Outside work, I enjoy hiking with my three dogs, woodworking, and spending time with family.



## John Crockett – IT Administrator – Business Systems

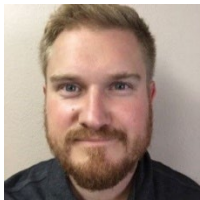


**How do I make your job easier?** I study departmental processes and workflows looking for possible areas of improvement. I also document the processes I study and try to find tools that will positively impact productivity, compliance, or other metrics.

**What project am I working on now?** Many processes in Community Development (CD) and City Engineering (CE) are highly dependent on a part of the Harris Innoprise Suite called the “ComDev module.” I am working with Harris to Improve our usage of the module. I am also very close to getting the CD documents in the LaserFiche system transferred over to On Base

**Get to know me a bit more.** My life outside work includes building things and going places. I don’t confine myself to just one kind of “building,” though. My builds include furniture, high-powered rockets, plastic scale models of aircraft, and much more. I am the proud father of two amazing women who continually surprise me with their zest for life. I also love SCUBA, photography, riding bicycles and motorcycles, and PC gaming. One of my goals for 2024 is to get a pilot’s license for sailplanes (gliders) or hot-air ballooning (or both).

## Paul Rosevear – GIS Analyst II



**How do I make your job easier?** I work with multiple city divisions to create maps and applications to meet division needs on reporting and tracking of assets and projects. GIS technology has come a long way and there are many ways we can implement effective tools for daily use in house without having to rely on vendors.

**What project am I working on now?** At the moment I am working on working with our Emergency Management team to create products and solutions for them to be able to react and analyze threats and hazards in real time. I am also an FAA Certified Part 107 sUAS Pilot and am working with our city divisions to streamline our Drone Program at the City of Flagstaff.

**Get to know me a bit more.** Outside of work I am an avid hiker and skier (when there’s enough snow on the mountain). I am also a ceramist which is a hobby I am getting back into this year. My wife works in the beer industry so I also enjoy drinking great craft beer, going to beer related events, and brewing a beer with friends when time permits.



## Hannah Penado – GIS Analyst I



**How do I make your job easier?** I make your job easier by keeping the maps up to date from parcels, building footprints, addresses, and much more. I also create programs to help our databases and GIS Portal stay as up to date as possible.

**What project am I working on now?** I am very excited to be working with Engineering to update our Construction Plans Application by making sure each plan outlines where work was done along with creating description columns that help summarize what work was done. I am also creating a program to help analyze and track our Map/Layer Services, Web Maps, and Applications so we can find items no longer used and free space to make room for items that can help our organization along with show our community the amazing work we do at the City of Flagstaff.

**Get to know me a bit more.** Outside of work, I love to work out by lifting weights and going swimming. I also enjoy learning about new things and doing things to get me to think outside of the box. One of my biggest hobbies is programming which always has something new for me to learn, allows me to think creatively, and shows me how small steps can solve a large problem.



# Major Project Updates

## Fiber and Broadband

The City of Flagstaff released an RSOQ to bring in a Broadband/Fiber Provider to Flagstaff. We have received a lot of interest and are hoping to bring additional competitive options to our community.

To see the bid details, go to:

<https://pbsystem.planetbids.com/portal/27606/bo/bo-detail/113337>



# IT Problems This Quarter

## Statistics

IT has had 17 documented “Problems” since the beginning of September. Problems are defined as outages that are not local to a single end user but affect large parts of the organization. Below are some highlights of issues we worked on this quarter:

### Harris Innoprise ERP

We have been having regular stability issues with our main ERP system. We have multiple tickets open with the vendor to resolve these. The vendor has been less than responsive so we’ve been escalating the tickets to people higher at Harris. In the meantime, we have several workarounds to resolve the immediate issues.

### Hexagon Dispatch and Records Software

We continued to have a variety of issues with our Hexagon Dispatch software. Several of the issues were the result of other agencies we are dependent on, but others were similar to issues we’ve seen with the Hexagon software in the past. We continue to explore options to upgrade or change our Dispatch and Records software for Public Safety.

### Internet Outage

On October 18<sup>th</sup>, we experienced an Internet outage that affected all sites except the Police Department. This was the result of an APS transformer issue. We are currently working on a project that will provide Internet redundancy to our sites so that even if one Internet provider goes down, we can move to another one.

### WiFi Outage

On the morning of November 27<sup>th</sup>, we experienced a failure of all of our Wi-Fi technology across all sites. This was the result of a firmware upgrade that got hung up. We attempted to reboot the system and the failed firmware caused our Wi-Fi controller to lock up. While we couldn’t have anticipated the outage, we’ve implemented some process changes that will reduce the risk of such an incident occurring during business hours in the future.

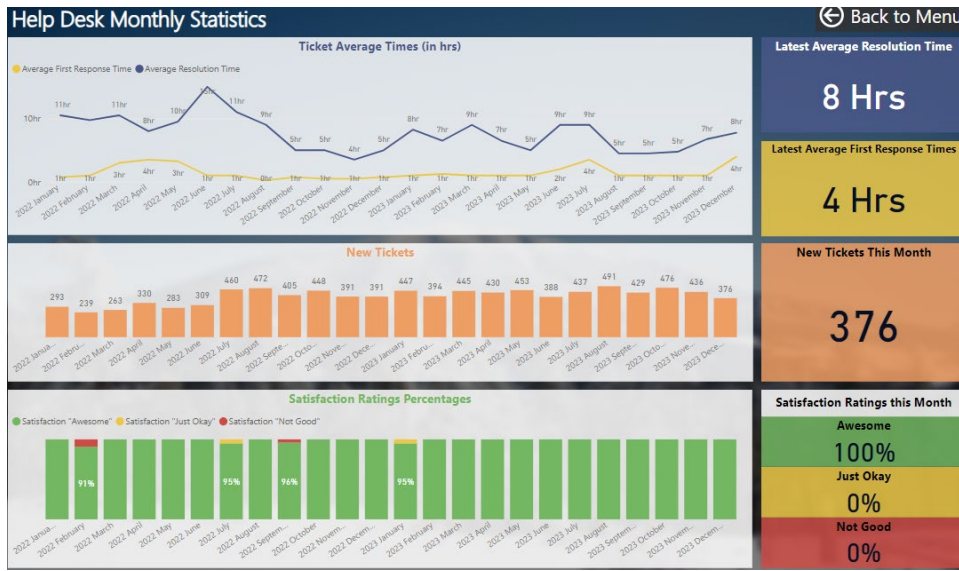
There were a handful of other lower priority Problems and we continue to learn from every issue that crosses our path.



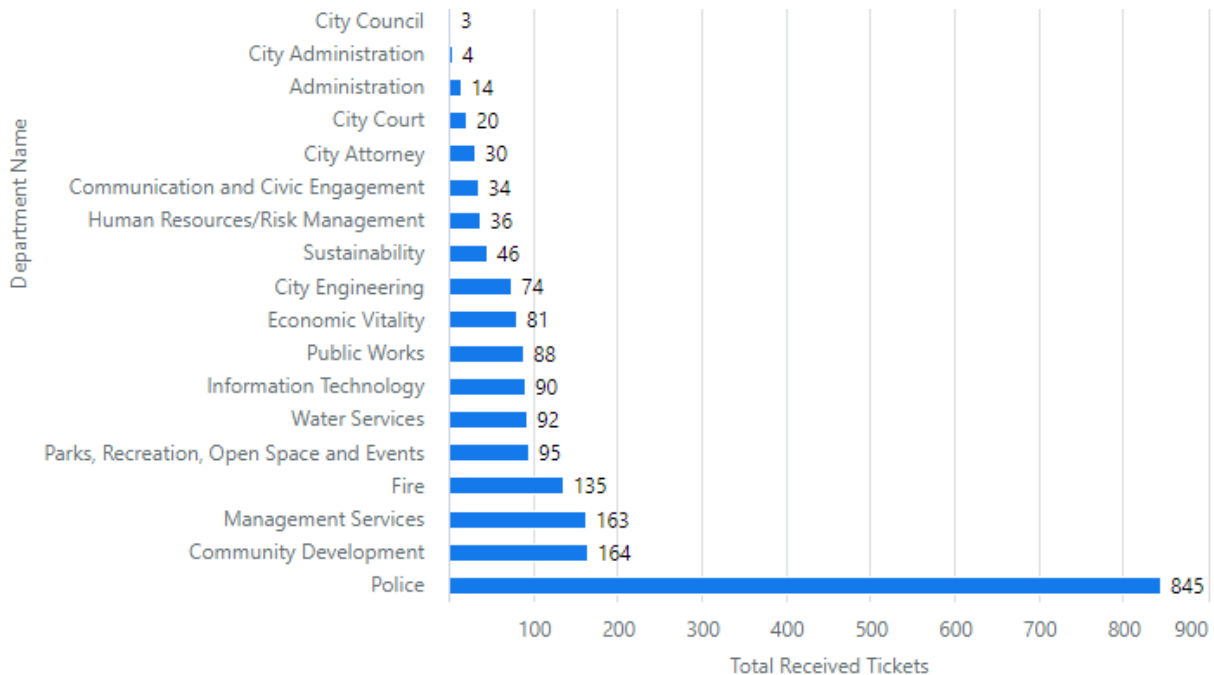
# Program Accomplishments

## Help Desk

September 2023 thru Jan 19th the IT Help Desk *received* 2,020 tickets, *resolved* 1,992 of those tickets, achieved an average first response time of just under 3 hours, and an average resolution time of about 8 hours. Satisfaction ratings for this period came in at 100% Awesome!



## Ticket breakdown by Division

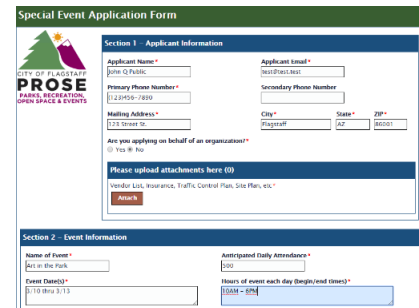


# Program Accomplishments

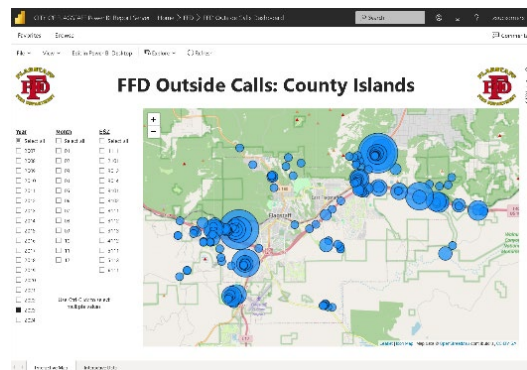
## Applications

### OnBase

Award winning Adam Zwebti has been hard at work automating business process throughout the City. In just the last quarter alone he has completely transformed the way several areas are handling their day-to-day including Fire, Contracts, HR, City Clerks, PROSE and Records. One form of special highlight is the Special Event Application Form he created in collaboration with PROSE. The workflow behind this form had some intense logic built in for approvals as not every application has to be approved by the same groups of people. PROSE had been needing a solution for this business process for years and it is exciting to finally see it come to fruition!



### Custom Reporting and Dashboards



Chris Somers has been working with several Divisions on custom reporting and dashboards to provide business intelligence to aide in their decision-making processes. He created the dashboards that you saw for the volunteer initiative. He also has been working internally with IT users to create dashboards and statistics around PC replacement. Chris has just completed a custom report and dashboard, including a map, for Fire Department to give them access to data that will help them capture revenue for City parcels within County islands that do not have a subscription to the Fire Department’s services.

### Public Safety

Alan Church has been scheduling demonstrations for a potential new Computer Aided Dispatch (CAD) system and Records Management System (RMS). We have already looked at Mark43 and Tyler Technologies as potential products and we are working on scheduling with Oracle, Central Square and Versaterm, as well as demoing the latest iteration of software with our current vendor, Hexagon.

Alex Stevenson has been working with end-users to determine the essential functions of Public Safety software to use as fuel for demonstrations of how a potential new piece of software would handle the business process. The decision to move CAD software vendors is a huge undertaking, not to be taken lightly, and we are doing our due diligence to ensure we are vetting new products comprehensively.

A HUGE shout out to Captain Casey Gonzales from the Fire Department that has stepped in and completely conquered revamping the Fire Department response plans. With his ingenuity and diligence, he has revolutionized Fire Department’s ability to respond to calls as quickly as possible.

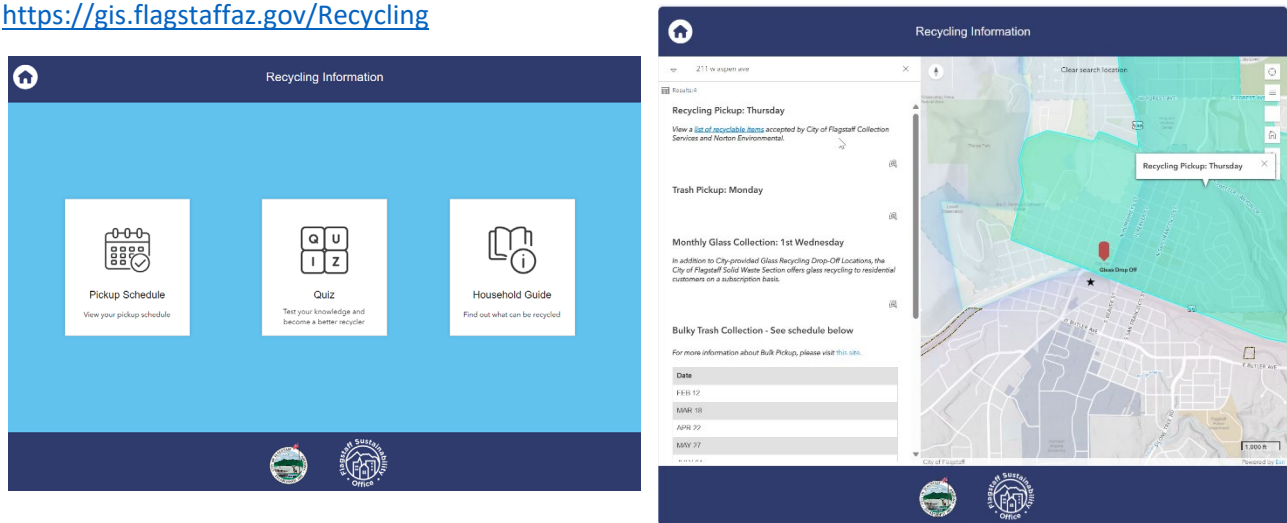


# Program Accomplishments

## GIS

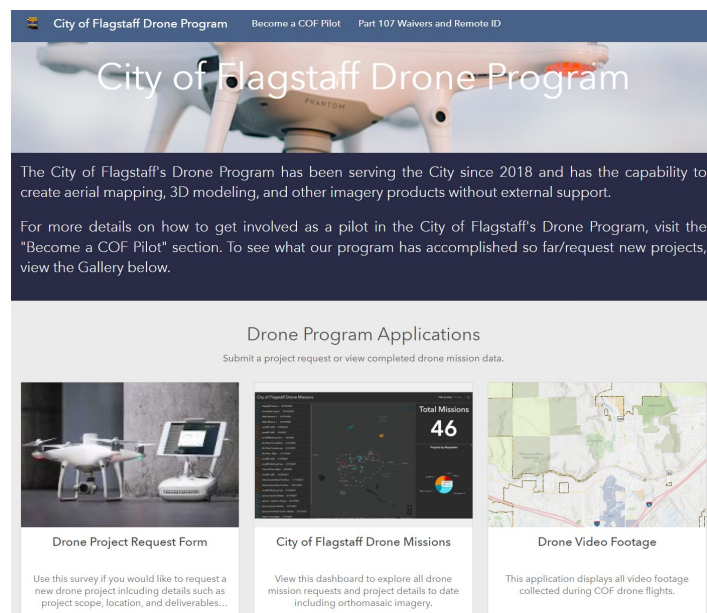
Kelsea has been working with the Sustainability division to upgrade the “Recycle by City” website, with an in-house website utilizing software platforms we already have at the City. The new site will provide all the needed functionality of the old site, without any annual cost, and will even tell you what your pickup up days are for your current location. This is a work in progress, so check out the new page at

<https://gis.flagstaffaz.gov/Recycling>



Paul Rosevear is a FAA Certified Part 107 sUAS Pilot, and has been working to re-vamp our Drone Program web page, where you can learn more about what IT/GIS has available for drone products, learn about becoming a certified pilot, and request a flight be flown for your program. Visit

<https://gis.flagstaffaz.gov/Drone>



# Program Accomplishments

## Operations

### **Remote Connectivity upgrades coming**

Our networking team is hard at work on creating a more capable, secure, and streamlined remote work experience for our employees. We will be rolling out a new method in which our City provided laptops will connect back to City resources, such as S Drive and other applications. FPD and COF IT have been using this method for several months, and with tweaking, it's about ready for prime time!

### **Phone Calling upgrades coming**

Our communications team has been hard at work preparing and planning for our upgrade to Teams Calling for all our city staff, replacing Cisco Call Manager. This switch will provide a whole host of benefits, from making traditional phone calls from Microsoft Teams application (phone, desktop), ease of management for IT staff, and better integration into the general workflow of staff.

We're now in the procurement phase, so more information will be coming as we begin rolling this out.

**More information on both of these large projects will be coming in the next couple months, so stay tuned!**

### **Network Security Project**

Our networking & security teams have been working for the past 18 months laying the foundation for a new project. While we keep details on items like this close to our vest, we can share that much planning and effort has gone into this project. This summer, we will be performing a drastic overhaul on the backbone of our network that while our everyday users may not notice, it will drastically increase our security posture, also increasing network and internet resiliency to outages.



# PROSE

## PARKS, RECREATION, OPEN SPACE, AND EVENTS

January 2024

### Staff Celebration

Congratulations to Juan Avitia Herrera, Ian Andersen, and Amy Hagin who all received City Managers Awards for their incredible work in 2023.

Right: Oak Award recipient  
Amy Hagin



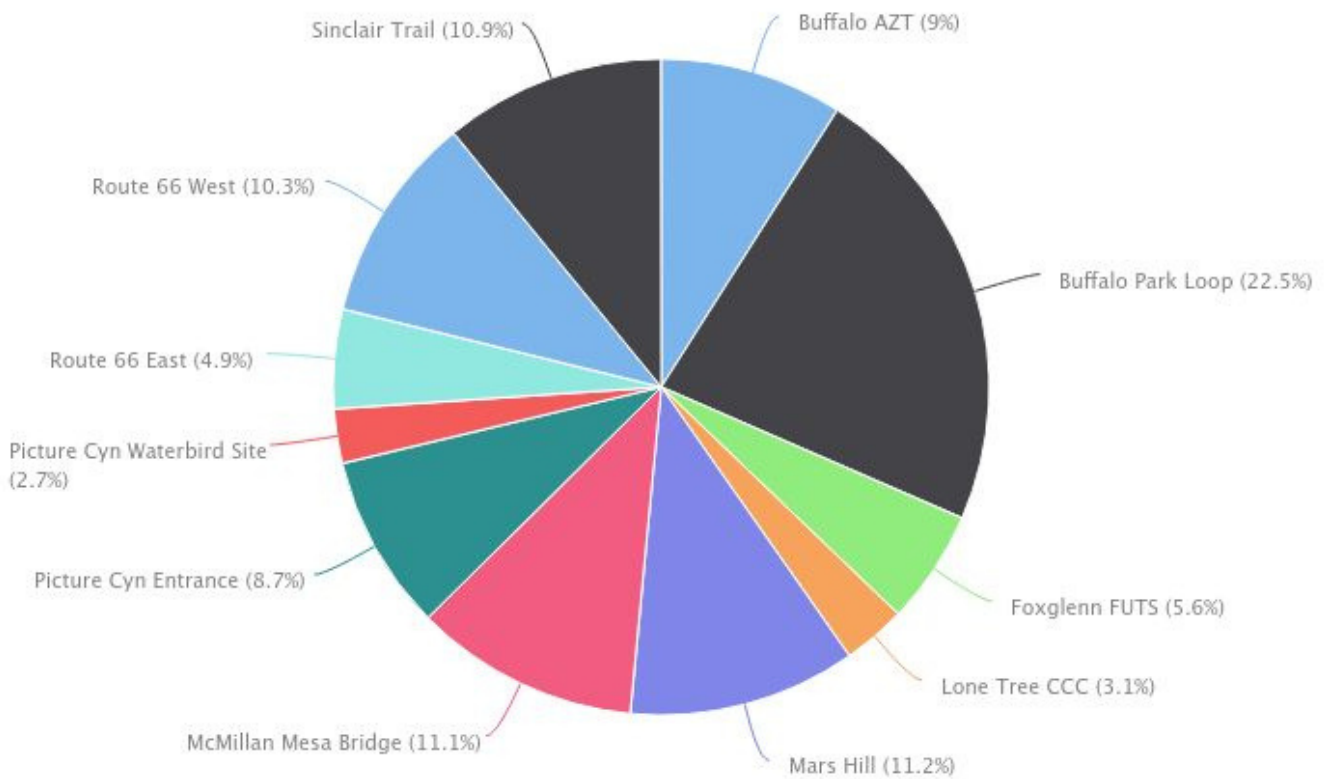
Left: Aspen Award  
recipients Ian  
Andersen and Juan  
Avitia Herrera

## Trail Counts

The month of December brought our community some chilly nights and a few snowflakes, but not much stops our trail user community and commuters or visitors to our open spaces and natural areas. The greater Buffalo Park and McMillan Mesa Natural Area continue to be our most traveled portions of the FUTS followed by the commuter routes along Route 66. As budget season kicks off, staff are collaborating with multi-modal planning and others to create a plan for repair and replacement of this community gem. Plus, seek funding from other sources including grants as protecting our assets is a top priority.

### Compare Sites

2023-12-01 to 2023-12-31



Site Name	Daily Average
Buffalo AZT	84.5 (9.0%)
Buffalo Park Loop	211 (22.5%)
Foxglenn FUTS	52.5 (5.6%)
Lone Tree CCC	29.4 (3.1%)
Mars Hill	105.3 (11.2%)
McMillan Mesa Bridge	103.7 (11.1%)
Observatory Mesa	0 (0.0%)
Picture Cyn Entrance	81.4 (8.7%)
Picture Cyn Waterbird Site	25.1 (2.7%)
Route 66 East	45.8 (4.9%)
Route 66 West	96.2 (10.3%)
Sinclair Trail	102.2 (10.9%)

## Thorpe Park Multi-Purpose Access and Gate Improvement

The Parks Section has been fitting in between snow operations this winter season on an improvement at the Thorpe Park Multi-Purpose fields adjacent to Clark Homes. The improvements include corrections to the access points to the turf field as well as gate improvements. The improvements are a direct result of speaking with our athletic user groups that receive permits on the field plus creating correct access for all in our community.



Above: Thorpe Park Multi Purpose gate

Even when it is cold outside, the ice rink is crushing it during the winter season. During December and a school break for the youth in our community, Jay Lively Activity Center alters the typical programming to provide longer and additional public skate times. From December 21st to January 4th, there were 20 public skate sessions, a handful of sticks and pucks plus some open hockey sessions. The altered programming witnessed 3,732 patrons bringing in \$30,256 in revenue! Many times interested skaters could be seen wrapped around the entry doors of the ice rink getting ready to lace up with their friends and family. The facility is truly a special winter season attraction for our community.



Did you know that Zumba® is back?! The Aquaplex is ecstatic to bring back the fitness program that involves cardiovascular and Latin-inspired dance. Look for more fitness and aquatic programming as the coordinator superstars continue to make improvements to the offerings for members and day pass users.

The Joe Montoya Community and Senior Center recently worked with Custom Sight and Sound to enhance the acoustics for the many patrons that utilize the Allen Room. This project has dramatically improved the sound quality of conversations, presentations, and musical offerings. Sound quality is particularly important based upon the patron demographic that mainly utilizes this space in the facility, providing better listening enjoyment for all.



We completed a year-long Heritage Grant Education Project and have received funding for an additional two years! We completed seven field trips to Open Space with Flagstaff Unified School District classrooms, 13 field trips with Youth Organizations, 16 volunteer work/education programs, three meetings with the Nature Education of Northern Arizona, six educational tabling events, 32 new partnerships with Science, Technology, Engineering, and Math professionals and organizations, and in total 680 youth have engaged with an Open Space education program.



Above: Open Space participants  
Right: New AmeriCorp Desert Mulford

We recently hired an AmeriCorps Environmental Literacy Corps (ELC) member to our team! Desert Mulford will be working with the Open Space environmental education program.



## Snow Plow Engagement

The Berminator, Holy Sleet, Panda, Dwight D. Eisenplower, Darth Blader, Scoop Dog, Rhinestone Plow Boy, and Tater Tot hit the town and PROSE social media in early January for snow ops.

The fleet was met with positive engagement including 294 reactions, 43 shares, 30,843 impressions, and a reach of 30,181 making this our best performing post to date.



[flagstaff.az.gov/prose](https://flagstaff.az.gov/prose)

CITY OF FLAGSTAFF

ADULT  
VOLLEYBALL

SPRING | LEAGUE PLAY BEGINS  
2024 | FEB 25

### REGISTRATION

**Opens Jan 12**  
• Register online using QR Code below or in-person at the Flagstaff Aquaplex  
**Closes Feb 12**

**Registration fee**  
• \$275 per team  
**Late registration after 2/12**  
• \$325 per team

### LEAGUE INFO

**Sunday: Coed B, E, G**  
**Monday: Women's B/C**  
**Tuesday: Coed F**  
**Wednesday: Women's A**  
**Thursday: Coed D**  
**Friday: Coed C**

**Manager's Meeting**  
Wednesday, February 14 at 6 PM  
at Hal Jensen Recreation Center  
2403 N Izabel





# Quarterly Report



Drinking Water



Wastewater



Reclaimed Water



Stormwater

## Water Services Updates

2023 – It's a Wrap!

### Section Reviews

#### Stormwater

The Spruce Wash suite of projects have been rolled into one CMAR project which is underway and scheduled for completion in three years. Prop 441 dollars and Stormwater Utility rates are hard at work! On the other side of the city the Schultz Creek set of drainage improvements are also ongoing with completion of several stabilization projects this fall and the start of the Highway 180 culvert project this winter.

The updated Stormwater design manual is ready for *prime time*. The changes align to current industry standards and mirrors other Arizona drainage code including the County and Maricopa Association of Governments, providing a consistent interface. The manual's last update was in 2009. Next step, a public outreach and comment period.

#### Frances Short Pond



Frances Short Pond is back in action, as Flagstaff's premiere local fishing hole! Thanks to a dedicated team of city staff and public agencies working together to not only dredge, but make improvements to the pond's function. This is the second round of 500 fish released into the pond in November.

Photo courtesy Glenn Kuyper

## Water Education 101

### A Word about *I*IOT

In Water Services' world, *I*IOT, otherwise known as the ***Industrial Internet of Things***, is a big deal. Big enough, to have its own program. These tools are sensors, used throughout the water system, tracking flows in drainages feeding into Upper Lake Mary, through the raw water pipelines, into the Water Treatment Plant and through the distribution system.

Sensors follow the wastewater collection system, alerting of possible leaks in the system or unusual flows. They also send out alarms set to trigger-points, monitoring chemistry levels of water at all stages of treatment. When too much, or too little pressure causes problems, these sensors track data, which helps with trouble-shooting and aids in future design.

Stormwater sensors are critical in early detection of possible flooding threats. Yes, rain gauges are also some of our *I*IOT devices!

Many of these sensors are remotely located, requiring battery operations, and staffing to replace or keep them clean and operational. This is an integral part

that crews work during low demand periods to perform maintenance. Crews worked into the night to replace a broken butterfly valve in the Paradise/Linda Vista neighborhood, completing the work as the sun rose.

The Schultz Creek Stabilization project is completed, within the time frame required by FEMA/DEMA. Interpretive signs will be installed at the Wye, as part of the outreach component.

### Wastewater Collections

We are finally on the home stretch to purchase a new Combo Vac Truck for Wastewater Collections. This purchase has been in the works for several years, taking two years of funding appropriations to complete.

### SCADA Information Systems

Thunderstorms can wreak havoc on electrical relay equipment in the field and at facilities. This summer and fall were no exception, as the SCADA IS Team works to re-connect the connections to Upper Lake Mary's Raw Water Pump station and communications with Lake Mary and Woody Mountain wellfields. New servers are upgraded for better functionality.

SCADA IS Section has also taken on security for the Division. They are bringing facility cameras and door locks up to city-wide standards, as well as migrating the OT system, from the IT servers the city uses, as a cyber security measure.

### Water Distribution

Keeping the water flowing often requires

Three broken water lines in Cheshire required strategic coordination to perform excavations safely. For aging pipelines, breaks become more common, as we enter into the winter season.

The bid for smart water meters resulted in contracts with multiple vendors, to allow greater flexibility with ongoing supply-chain issues.

## **Water Production**

Bi-annual basin cleaning at the Lake Mary Water Treatment Plant went well. The reduced surface water production allowed replacement of all four of the basin drain valves installed in the 1960's and helped to improve taste & odor issues experienced early fall. These issues are now resolved and surface water production is back up to 40-50%, despite manual operations of surface water pumps required until communications with the Raw Water Pump Station are upgraded.

Fall was a good time for Water Treatment tours for brew masters, with staff guiding both Mother Road Brewery employees, as well as NAU Brewing Science students through the facility.

The Upper Lake Mary aerator motor and surge suppressor at Lake Mary Well #8 have been replaced and are now fully operational. We continue to make repairs from lightning damage incurred during severe thunderstorms last monsoon season.

The Inner Basin pipeline flood mitigation project conducted a shutdown walk through on November 20. At site 3, gabion baskets were built up a 30 ft drainage to support the road and protect the pipeline where the pipeline was severed after monsoon damage, post Pipeline Fire. Road access to Snowslide spring was made and the intake was cleared of debris amongst many, many other achievements during a very production construction season with contractors Hunter/Jacobs. We'll resume work in the spring!



## **Water Reclamation Plants**

Water Reclamation Plants are running well. Both facilities have maintenance projects occurring.

Rio de Flag WRP bar screen project will be completed, as parts finally come in.

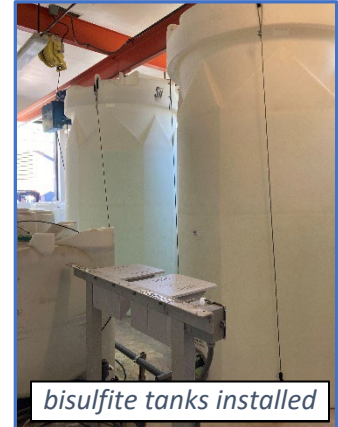


Wildcat Hill WRP took delivery on a new front-end loader after over a year-long wait. This piece of equipment will move solids, snow and a variety of functions around the facility.

Chemicals have been at a premium price, when available, causing staff to switch to a different de-chlorination process. The new sodium bisulfate tanks installed at the facility will save container charges of \$2,000 per delivery –

a worthwhile investment.

The west basin mixers have been replaced, however the Variable Frequency Drive (VFD – think efficiency) motor parts on backorder.



## Regulatory Compliance

Jolene Montoya, Regulatory Compliance Manager also serves as e chair of AZ Water's Industrial Pretreatment/FOG Committee. In November, she conducted a two-day workshop for over 100 Pretreatment/FOG professionals from around the state, Hawaii, Kansas and California, including some EPA representatives. Thanks, Jolene!

Regulatory Compliance is working with one of the City's significant Industrial users to bring them into compliance to their discharge permit.

## Water Resources and Conservation

Conservation is gearing up for the BOR Water Revenue Loss grant, with a meeting with a consultant to discuss strategy.

Conservation staff succeeded with corporate outreach at Home Depot, allowing them to post signs at the retail outlets on toilet rebates available. Hotel consultations for water efficiency measures continue, as well as working with the city's housing authority to updates fixtures on city owned property

Erin Young, Water Resource Manager, is project manager for the Rate Study in Water, Wastewater and Reclaimed funds. There will be much, more outreach in the coming months.

Water Resources is renewing their contracts for hydrological monitoring with USGS and JE Fuller.

Water Resources is involved in providing comments for the state's recent draft of a *Roadmap for Advanced Water Treatment*. Comments were due by Dec 2.

## **Partnerships**

A local research firm, T-Gen, is working with NAU and Water Services on an Intergovernmental Agreement (IGA) for viral tracking in the wastewater and reclaimed system.

## **Water Commission**

### **October Agenda**

- A. Watershed Alliance for the Rio de Flag (WARF) Resolution - Ed Schenk
- B. Rate Study Financial Planning Scenarios Presentation & Discussion - Erin Young

### **November Agenda**

- A. Rate Study Approach for Capacity Fee Calculations, Cost Allocations, Misc. Fees Informational Item - Frances Short Pond Refurbished and Refilled – Lisa Deem

### **December Agenda**

- A. Update on Capacity Fee Calculations, Cost Allocations, Misc. Fees - Erin Young
- Informational Item - Comment Period for Advance Water Purification Proposed Roadmap – Shannon Jones

## CITY OF FLAGSTAFF STAFF SUMMARY REPORT

**To:** The Honorable Mayor and Council  
**From:** Neil Chapman, Forest Health Supervisor  
**Date:** 12/14/2023  
**Meeting Date:** 02/13/2024



### TITLE:

**Report of Recent Social Science Findings on Forest and Fire Management from the Greater Flagstaff, Arizona Area from the Ecological Restoration Institute and NAU School of Forestry**

### DESIRED OUTCOME:

Inform the Greater Flagstaff Community and City Council

### EXECUTIVE SUMMARY:

Staff from the Ecological Restoration Institute and NAU School of Forestry will present recent research in social science related to forest and fire management:

- Full Cost Accounting for the Schultz Fire
- Household Experiences with the 2019 Museum Fire
- Community Acceptance of Smoke from Wildfire and Fire Used for Land Management

#### Presenters:

Melanie Colavito, PhD  
 Director of Policy and Communications  
 Ecological Restoration Institute  
 melanie.colavito@nau.edu

Niki (Nicolena) vonHedemann, PhD  
 Human Dimensions Specialist  
 Ecological Restoration Institute  
 niki.vonhedemann@nau.edu

Catrin Edgeley, Ph.D.  
 Assistant Professor | Graduate Coordinator  
 School of Forestry, Northern Arizona University  
 catrin.edgeley@nau.edu

### INFORMATION:

#### Priority Based Budget Key Community Priorities and Objectives

- High Performing Governance: Implement innovative local government programs
- Safe and Healthy Community: Ensure built environment is safe through the use of consistent standards, rules and regulations, & land use practices
- Environmental Stewardship: Promote, protect & enhance a healthy, sustainable environment & its

natural resources

- Environmental Stewardship: Strengthen Flagstaff's resilience to climate change impacts on built, natural, economic, health, & social systems

### **Carbon Neutrality Plan**

- CR-1: Ensure all mitigation actions improve Flagstaff's ability to adapt to the future
- CR-2: Strengthen existing community systems to create resilience to both short-term shocks and long-term change.

Consolidating carbon stocks in fewer, larger trees reduces the risk of carbon loss from fire. The pre-suppression forest structure provides the best target for maintaining sustainable carbon stocks and ecological function. Implementing prescribed fire after mechanical thinning treatments supports the maintenance of the restored natural tree structure and pattern.

### **Regional Plan**

- Environmental Planning & Conservation – Vision for the Future: In 2013, the long-term health and viability of our natural resource environment is maintained through strategic planning for resource conservation and protection.
- Policy E&C.3.3 – Invest in forest health and watershed protection measures.
- Policy E&C.6.1 – Encourage public awareness that the region's ponderosa pine forest is a fire-dependent ecosystem and strive to restore more natural and sustainable forest composition, structure, and processes.
- Policy E&C.6.3 – Promote protection, conservation, and ecological restoration of the region's diverse ecosystem type and associated animals.
- Policy E&C.6.6 – Support collaborative efforts for forest health initiatives or practices, such as the Four Forest Restoration Initiative (4FRI), to support healthy forests and protect our water system.
- Policy E&C.10.2 – Protect, conserve, and when possible, enhance and restore wildlife habitat on public land.

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**Attachments:**     [ERI in Brief\\_Social-Science-Findings\\_Feb2024  
Presentation](#)

## *Recent Social Science Findings on Forest and Fire Management from the Greater Flagstaff, Arizona Area*

### **Overview**

Recent research in social science related to forest and fire management illustrates best practices for engaging with the public around decision-making, resource allocation, and public safety, among other key topics. This briefing paper reviews highlights from several recent social science studies conducted in and around Flagstaff, AZ between 2019–2022 to highlight growing public support for forest management and provide suggestions that can leverage support during future forest management planning and implementation.

### **Full Cost Accounting for the Schultz Fire**

In 2020, a team of researchers conducted a full cost accounting for the 2010 Schultz Fire. The total cost of the fire and flooding for a ten-year assessment period (2010–2020) was conservatively estimated to be approximately \$111 million in 2021 dollars, only 10% of which were for fire suppression. This represents a fire cost of \$7,345 per acre, which is 4.5 times the proposed cost of restoration. Furthermore, these costs continued to accrue over time and included long-term financial costs, but also effects that are more difficult to quantify such as decreases in local ecosystem services and societal costs like community well-being.

Surveyed households in 2020 indicated that they were still experiencing long-term well-being and mental health effects. Namely, 25% of survey respondents shared that the Schultz Fire and subsequent flooding had caused significant stress, while almost 20% agreed that their mental health had suffered because of fire or flooding. There was also a decline in respondents who said they were purchasing flood insurance over time, most notably 2–5 years after the fire.

### **Household Experiences with the 2019 Museum Fire**

Two household surveys — one in 2019 and one in 2022 — sought to understand Flagstaff resident experiences before and after flooding following the 2019 Museum Fire. While conditions surrounding the Museum Fire concerned many residents, there is continued support for forest management activities through proactive and collaborative approaches, suggesting that most Flagstaff residents may have reached a consistent level of acceptance of fuels management that is resilient in the face of wildfire events. This support was likely tied to a high level of understanding regarding fire ecology; an overwhelming majority (86.5%) of 2019 respondents agreed that “fire is a natural part of the landscape around Flagstaff,” indicating high social acceptability of fire activity in the area.

A strong majority of 2022 respondents found a variety of forest management practices acceptable, including strategic removal of trees to reduce hazardous fuels (89.5%), creating fuel breaks (88.9%), allowing lightning-ignited fires to burn (74%), and utilizing prescribed fire (79.5%). A strong majority also supported reforestation in burned areas (95%), forest thinning (75.2%), and use of prescribed fire (76.6%) to manage flood risk. This built upon high acceptance in the 2019 survey, where more than 60% of respondents felt more open forests, temporarily reduced recreation access, prescribed fire, the presence of residual materials, temporary roads, and burned areas were moderately or very acceptable. An exception was reduced air quality (40.6%), although prescribed fire had high levels of acceptance (78.4%). This contradiction highlights the challenges of management tactics that have consequences beyond public land such as reduced air quality.

The public's support is built upon the perception that continued collaborative forest management will lead to positive long-term outcomes, with a strong majority of 2022 respondents agreeing that continued forest management will reduce the risk of catastrophic fire (90.3%) and postfire flooding (80.7%) and minimize future costs associated with wildfire (81.4%) and postfire flooding (77.8%). Under these collaborative conditions, local government and land management agencies have a relative amount of flexibility given widespread public support for and recognition of the need for forest restoration and wildfire and post-fire flood risk reduction.

## Community Acceptance of Smoke from Wildfire and Fire Used for Land Management

Two household surveys were conducted in Parks, AZ in 2021 and across the Highlands Fire District (HFD) including Kachina Village, Mountainaire, and Forest Highlands, AZ in 2022. Participants were asked to report how long they would tolerate unhealthy levels of smoke from different sources; wildfire smoke was identified as most tolerable (an average of 5.2 days in Parks and 5.6 in HFD), while slash pile burning was less tolerable (4.6 days in Parks, 4.9 days in HFD). Survey respondents reported high acceptance of prescribed fire, particularly when described as reducing wildfire risk to homes (Parks 83.2%, HFD 89.0%).

## Recommendations

While these findings are not representative of Coconino County or northern Arizona in its entirety, these studies collectively suggest that support for forest management and tolerance of associated impacts remain high despite recent wildfires. We conclude that:

- It may take a minimum of 3–5 years following a fire to understand the full costs of a single event. Furthermore, investment in treatment costs upfront far outweigh the economic, social, and ecological costs following uncharacteristic fire and flooding.
- Uncharacteristic fire and flooding can impact mental health; thus, it is important to emphasize the connection between preparation and mental health. Higher levels of preparation such as property-level mitigation and purchase of flood insurance can offer peace of mind.
- Continued communication about the importance of maintaining flood insurance is needed, particularly at the two-year mark after a fire when interest begins to decline.
- Support for a diverse suite of forest management approaches has remained consistent in the greater Flagstaff area. This continued high support for forest management has been bolstered by effective communication about the value of fire in Flagstaff and provides an opportunity to engage in more nuanced discussions related to forest management, while sustaining current communication approaches to new residents.
- Given high ecological literacy across studies, outreach regarding forest management should focus not only on why activities are necessary, but also provide more information about the approaches being used and the decision-making rationale.
- Addressing disconnects between short-term impacts of forest management (e.g., smoke) versus long-term benefits (e.g., reduced property risk) can extend public acceptance of forest management activities even further.
- Resident turnover in the greater Flagstaff area requires continued engagement and communication about forest health and management, but many new residents are more willing to accept the impacts and outcomes of forest management.

For a comprehensive list of publications and resource links, visit [eri.nau.edu/social-science-findings](https://eri.nau.edu/social-science-findings), or use the QR code below.



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Niki vonHedemann, Human Dimensions Specialist, [Niki.vonHedemann@nau.edu](mailto:Niki.vonHedemann@nau.edu), 928.523.7854

Catrin Edgeley, Assistant Professor, School of Forestry, [Catrin.Edgeley@nau.edu](mailto:Catrin.Edgeley@nau.edu), 928.523.7347

Ecological Restoration Institute, Northern Arizona University, PO Box 15017, Flagstaff, AZ 86011, [eri.nau.edu](https://eri.nau.edu)

*The Ecological Restoration Institute is dedicated to the restoration of fire-adapted forests and woodlands. ERI provides services that support the social and economic vitality of communities that depend on forests and the natural resources and ecosystem services they provide.*



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# Recent Social Science on Forest and Fire Management from the Greater Flagstaff, Arizona Area

*Melanie Colavito, Catrin Edgeley, and Niki vonHedemann*



Ecological Restoration  
Institute



School of Forestry

*Presentation to Flagstaff City Council  
February 13, 2024*

# Ecological Restoration Institute Northern Arizona University



## Our Mission:

The ERI serves diverse audiences with objective science and implementation strategies that support ecological restoration and climate adaptation in our western forest landscapes.



## What We Provide:

Best available science

- Ecology
- Socio-political
- Economic
- Operational efficiency



## To Whom:

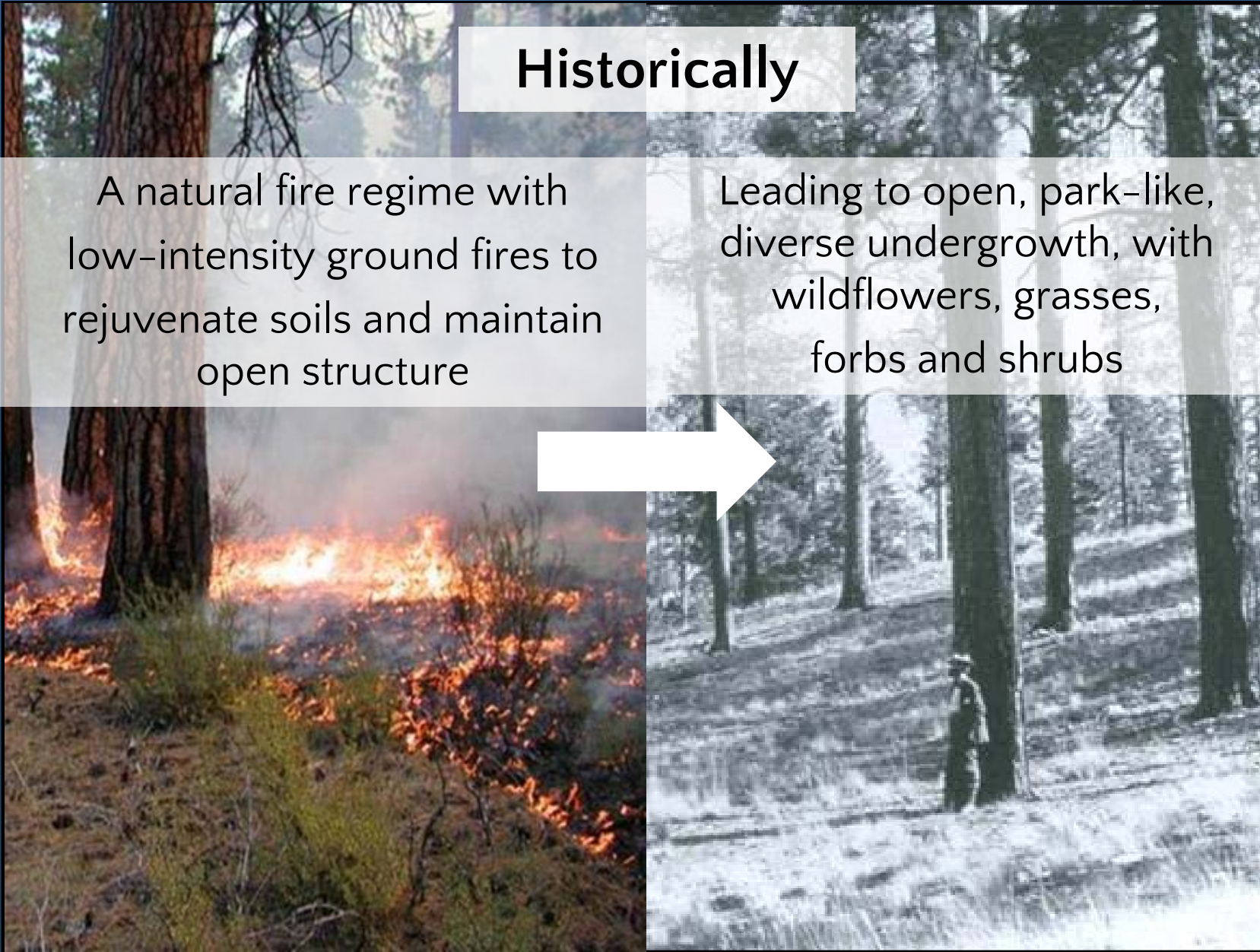
A wide variety of audiences including:

- Federal and state land managers
- Academic researchers
- Elected officials and policy makers
- Federal land stakeholders, the public, and non-profit organizations

## Historically

A natural fire regime with low-intensity ground fires to rejuvenate soils and maintain open structure

Leading to open, park-like, diverse undergrowth, with wildflowers, grasses, forbs and shrubs



## Today

Forests are crowded with weak trees susceptible to disease, infestation, and fire

Fire moves from the ground into the canopy, impacting soils, water, and devastating entire landscapes







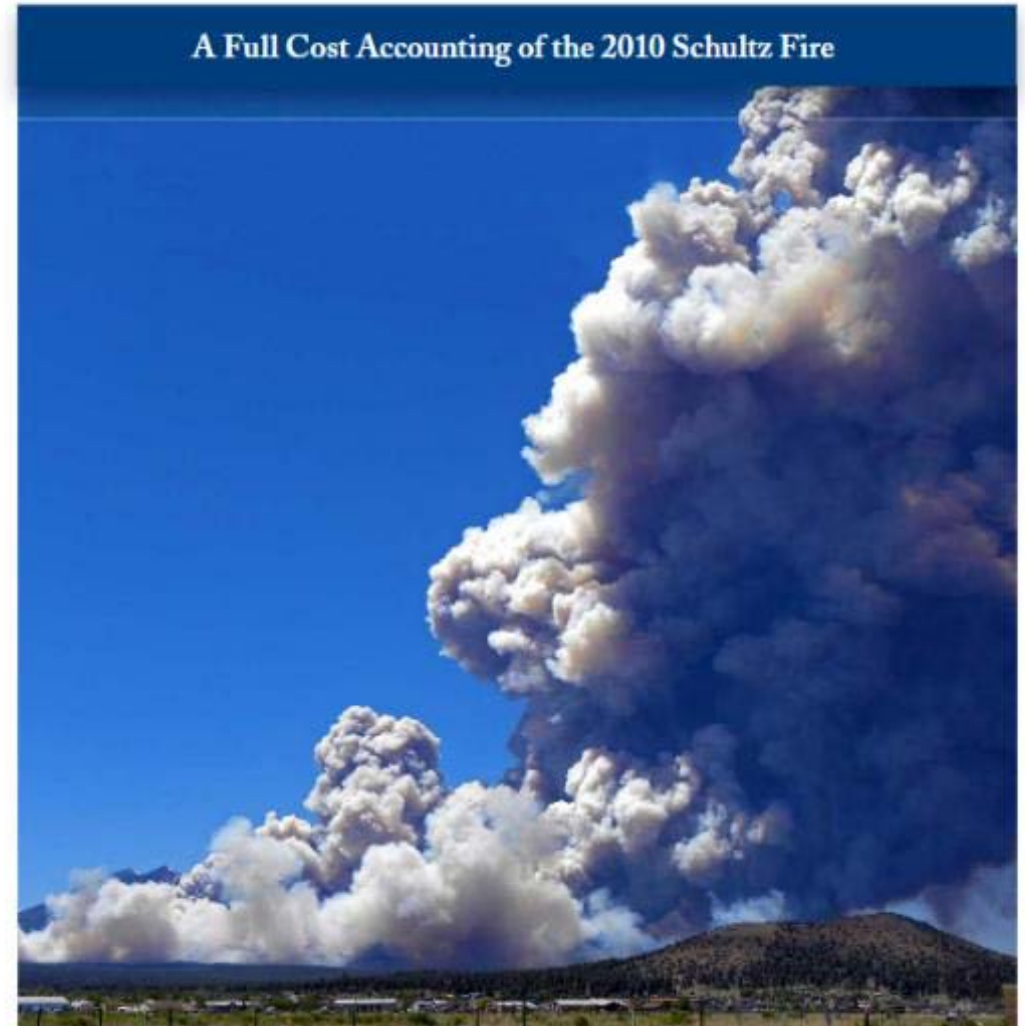


# 2010 Schultz Fire Full Cost Accounting



# Study approach

- 2013 full cost accounting
  - Estimated \$133-\$147 million in costs
- 2020 collaborative effort to re-measure full costs after a decade
- Partial remeasurement of costs for:
  - Household costs
    - Insurance
    - Prevention and mitigation
  - Government agencies and utilities
  - Mexican spotted owl (MSO) habitat
  - House sale price losses
- Household survey
  - Also measured long-term well-being and mental health effects

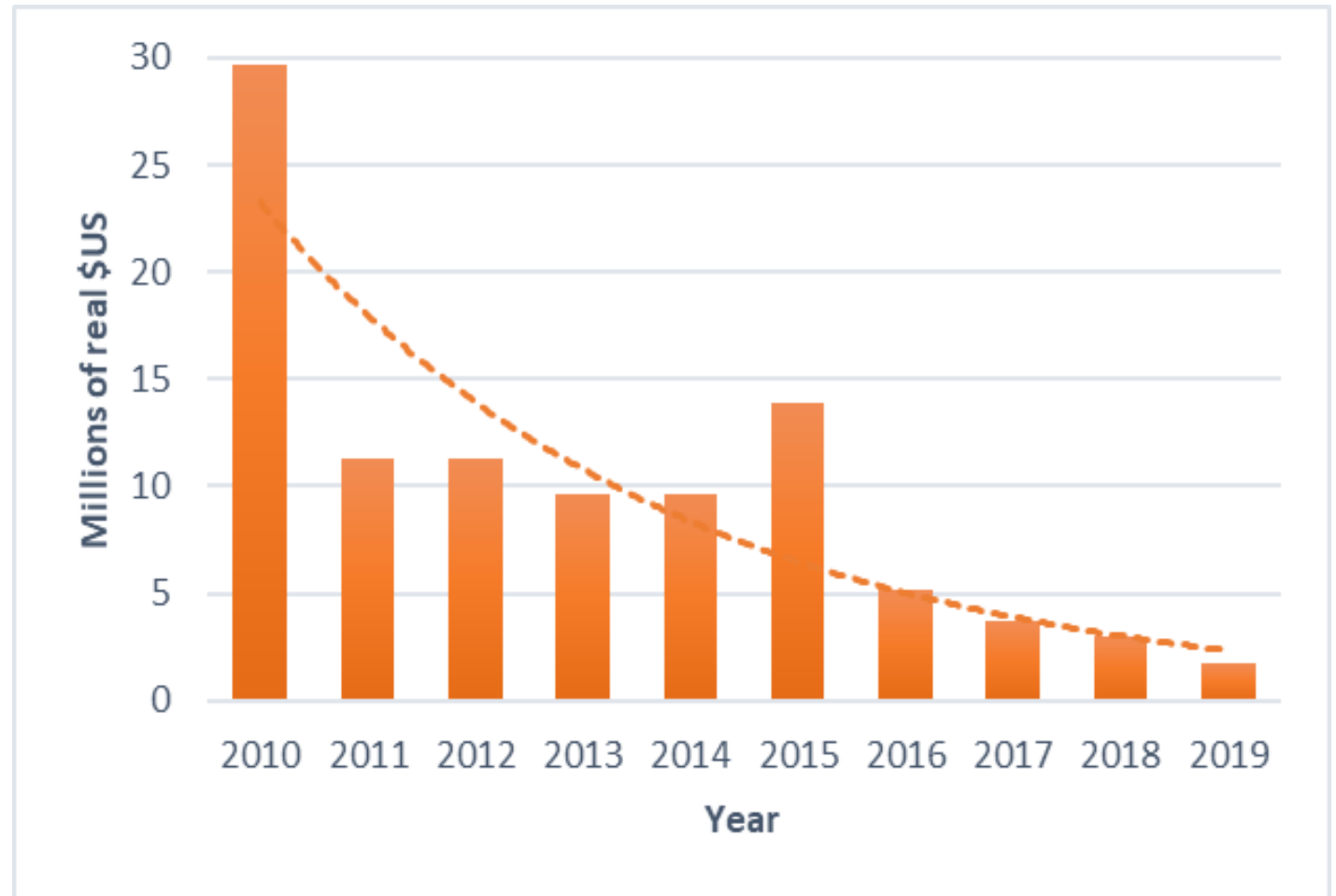


# Total Costs for the 2010 Schultz Fire

<b>Cost Types</b>	<b>Total Costs</b>
Government and utility expenses 2010-2019	\$72,392,991
Mexican spotted owl habitat displacement	\$1,080,500 (range \$546,000–\$1,615,000)
House sale price losses	\$9,920,000
Insurance	\$5,611,193 (range \$4,613,866–\$6,608,520)
Prevention and mitigation measures	\$4,368,748 (range \$3,437,271–\$5,300,225)
Loss of life	\$9,760,000
Structural damage	\$3,470,499
Cleanup	\$2,044,592
Unpaid labor	\$1,698,409
Home contents	\$614,158
Fire evacuation costs	\$250,456
<b>Total</b>	<b>\$111,211,546 (range \$108,748,242–\$113,674,850)</b>

# Schultz Fire indirect costs: 2010-2019

- 89%** **Indirect costs**  
(government mitigation, loss of life, structure damage)
- 10%** **Direct fire suppression costs**
- 1%** **Direct fire costs from MSO habitat loss**



# Treatment costs vs. wildfire costs

- Schultz Fire cost \$7,345/ acre
- Potential cost savings with treatments planned before the fire
  - *Estimated treatment costs*
    - \$1,285/ acre for mechanical thinning
    - \$300/ acre for prescribed fire
    - Total treatment cost of \$12.5 million
- The full cost of fire was 4.5 times the proposed cost of restoration



# Long term effects of Schultz Fire on well-being

- 12%** reported that their **physical health** suffered as a result of the fire's impacts
- 18.9%** reported that their **mental health** suffered as a result of the fire's impacts
- 25.3%** experienced **significant stress** as a result of the Schultz Fire
- 8.3%** reported that **pre-existing health conditions were worsened** by Schultz
- 4.4%** reported that they were **still experiencing health issues** related to the Schultz fire at the time of our 2020 survey
- 14.5%** **don't like living in the area** as much since the Schultz fire and flooding events.

# 2019 Museum Fire and Post-Fire Flooding



# Longitudinal mixed-mode surveys

## 2019 survey

- Mixed mode
  - Mail survey packet + reminder postcard
  - Online versions - Qualtrics and City of Flagstaff website
- 787 responses, 22.3% response rate

## 2022 survey

- Mixed mode
  - Mail survey packet + 2 x reminder postcard
  - Online versions - Qualtrics
- 612 responses, 16% response rate



# Fire response and communication: 2019

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- 59.0% reported using social media to find emergency info
- 84.5% reported that they are signed up for Coconino County emergency alerts
- 41% expected to be notified in person about evacuation
  - [Need to dispel this expectation](#)
- **Coconino County has new evacuation zone map**



# 2022 communication about flood events

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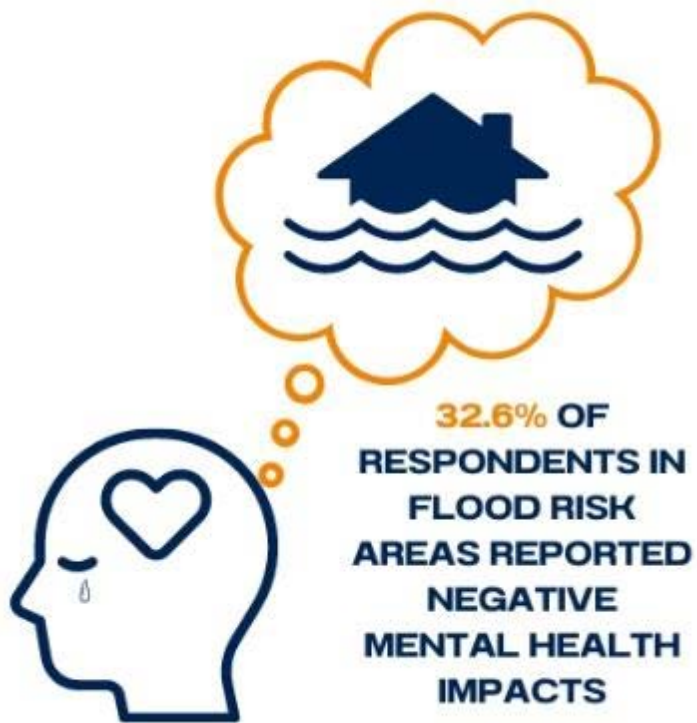
- 56% received a flash flood warning on their phones from the National Weather Service/Coconino County emergency alert system
- 48.4% saw floodwater begin to collect in their neighborhood
- 30.2% observed local weather forecasting
- 0.8% had an official come to their property to alert them

## Trust in information sources over time

	<b>2019: trustworthy for information related to <u>Museum Fire</u></b>	<b>2022: trustworthy for information for making decisions about <u>flood risk</u></b>
USFS	79.0%	47.5%
Coconino County	73.8%	60.6%
Law enforcement	69.1%	40.1%
Local fire department	66.7%	37.1%
City of Flagstaff	65.6%	57.4%

# Household flood impacts: 2022

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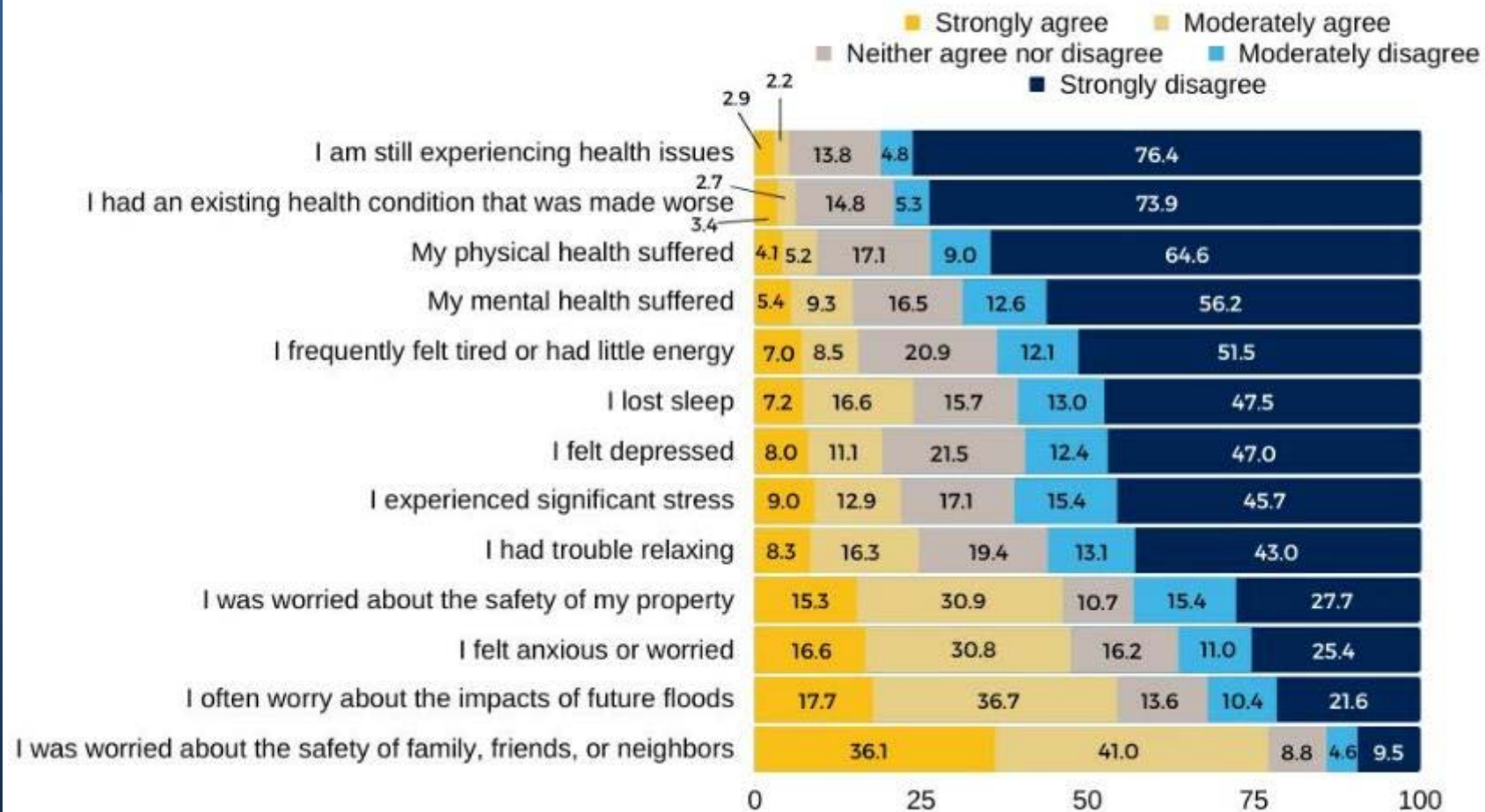


- 30.2% reported property damage from 2021 floods
  - 83.7% reported non-structural damage (e.g., driveways, landscaping, fencing)
  - 21.9% reported damage to interior of home
- 32.8% of respondents had to rearrange schedules
- 11.1% couldn't attend work



# Mental and physical health impacts: 2022

## Because of flood risk or flood experiences...



# Flood insurance: 2022

- 22.3% purchased flood insurance (most commonly between July and August 2019)
- 63.8% had retained their coverage from 2019-2022
- 4.7% filed insurance claims related to flood damage in 2021
- 15.6% had flood impacts that were not covered by insurance (average cost: \$33,362)

**50.0% OF RESPONDENTS PLAN  
TO RENEW FLOOD INSURANCE  
INDEFINITELY**



# Flood mitigation on private property: 2022

Sandbag use more than doubled:

13% in 2019



vs.



27% in 2022

- 36.9% cleared flood debris from drainage areas, roads, sidewalks
- 23.9% parked vehicles off the street
- 16.3% built an emergency “stay kit”
- 66.5% didn’t take action because they felt their property’s flood risk was too low to warrant mitigation efforts

# Post-fire flooding experiences - summary

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- People look to different information sources depending on hazard
  - The same sources are perceived as having different trustworthiness
  - Post-fire flood communication is not as mature as during fire communication
  - May indicate a need to test different messaging with groups
- Emphasize the connection between preparation and mental health, the unpredictability of monsoon flooding and the importance of maintaining flood insurance
- Explore grants, cost shares, or other funding mechanisms related to insurance and/or other forms of flood mitigation

# Perceptions of Forest and Fire Management



# Understanding the Museum Fire: 2019

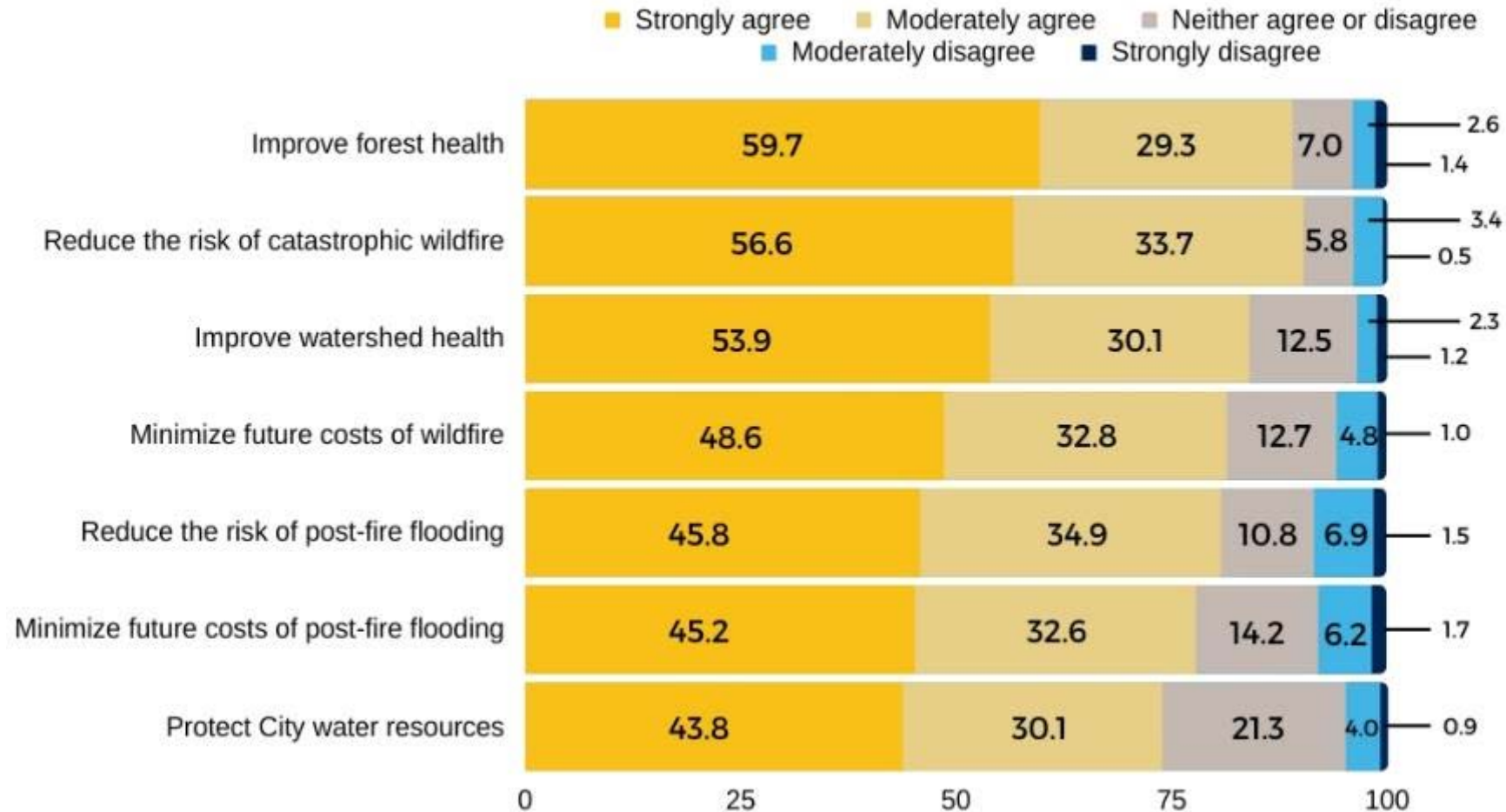
**85.2%** responded that they were aware of the reported cause of the Museum Fire

**86.5%** of respondents agree that fire is a “natural part of the landscape around Flagstaff”

**74.3%** agree that “the landscape will recover from the impacts of the Museum Fire”

# Most residents see forest management positively: 2022

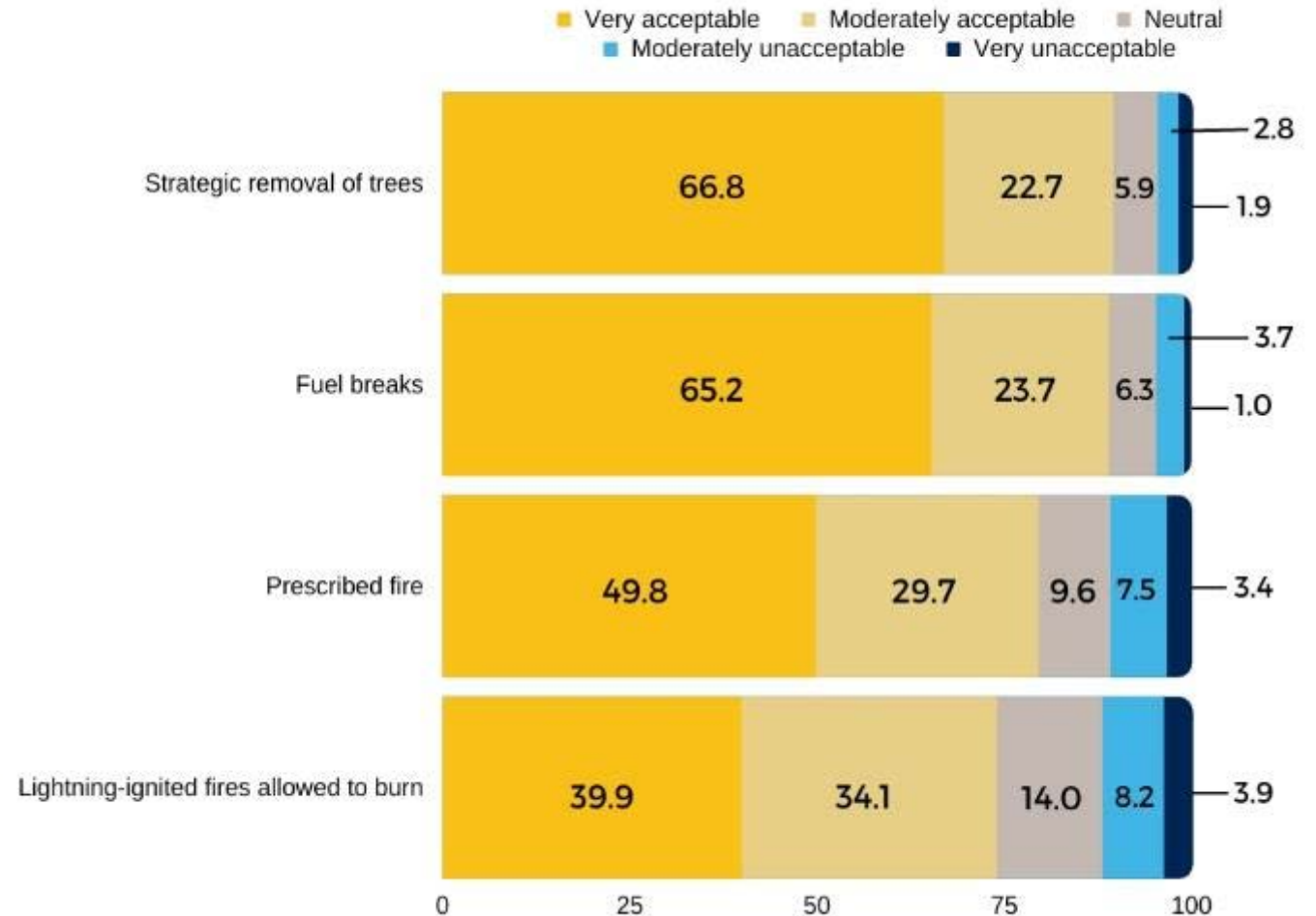
Continued forest management will:



# Most residents are supportive of multiple types of forest management: 2022



Acceptability of forest management strategies:



# Partnerships for forest management

**89.6%** (2022) (2019: 92.2%) agree that  
“partnerships between the City, USFS,  
and other organizations are the best  
way to address fire risk to Flagstaff”

**73.2%** (2019) support future initiatives like  
Flagstaff Watershed Protection  
Partnership (FWPP) to reduce wildfire  
and flood risk in Flagstaff



89.6% OF PEOPLE BELIEVE  
PARTNERSHIPS ARE THE BEST WAY  
TO ADDRESS FIRE RISK



# Future forest management

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- High levels of support for future forest management
  - Positive responses for diverse management strategies
  - Support included fire use
- Continued support for future initiatives for implementing forest management
  - Indicative that public understanding of fire in Flagstaff has reached a new threshold
- Local research collectively demonstrates high support, but a need for greater depth in public communication



# Smoke adaptation surveys: *Parks* (2021) and *Highlands FD* (2022)



# Approach

## Survey

- Mixed mode
  - Primary homes: in-person
  - Secondary homes: mail
- Parks: 367 responses (45%)
- HFD: 562 responses (20.6%)

## Interviews (Parks only)

- 46 interviews with 56 individuals
- Average ~ 1 hour
- Survey respondents and non-respondents, professionals

# Acceptability of fire ignition source

	Parks	HFD
A prescribed fire that is ignited by managers to <b>reduce wildfire risk to homes</b>	83.2%	89.0%
A prescribed fire that is ignited by managers to <b>achieve forest health objectives</b>	73.3%	85.1%
Slash pile burning of materials removed from forests to improve forest health	71.4%	83.4%
A wildfire that managers are attempting to suppress	70.4%	71.0%
A managed fire that is unintentionally ignited but allowed to burn to achieve forest health objectives	64.9%	73.3%
A lightning-ignited wildfire	48.8%	55.4%
A lightning-ignited fire started on <b>public lands that is allowed to burn</b>	47.7%	59.5%
A human-caused wildfire	<b>2.4%</b>	<b>5.6%</b>

# Smoke tolerance

“I could tolerate unhealthy levels of smoke from...”



	<b>Parks</b>	<b>Highlands Fire District</b>
	Mean # days	Mean # days
A wildfire	5.2	5.6
A prescribed fire	5.2	5.3
A managed fire	5.4	5.1
Slash pile burning	4.6	4.9

# Trustworthiness of smoke information sources

	<b>Parks</b>	<b>HFD</b>
Coconino County	<b>69.1%</b>	81.9%
Local fire department	68.5%	<b>83.3%</b>
U.S. Forest Service	67.2%	78.3%
AZDFFM	58.1%	67.6%
My neighbors, friends, or family	58.0%	50.2%
AZDEQ	50.9%	68.1%
My healthcare provider	38.2%	40.2%
EPA	36.3%	50.6%
My health insurance company	18.0%	19.8%

## Interest in adaptation resources (Parks)

	Interested	Not interested	Already have access
A website or app that indicates when air quality is unhealthy	<b>68.5%</b>	15.3%	<b>16.2%</b>
Educational materials about air quality	51.2%	34.0%	<b>14.8%</b>
A household assessment conducted by an expert with recommendations for improving air quality	25.5%	69.4%	5.1%
Open houses or listening sessions with local fire professionals about smoke	<b>45.7%</b>	47.2%	7.0%
Opportunities to ask questions about forest and fire management to land managers	<b>61.0%</b>	31.7%	7.3%
An email or text messaging alert system to let me know when air quality is about to decline	<b>79.8%</b>	15.5%	4.7%

# Smoke survey/interview takeaways

- High tolerance for smoke in the Flagstaff area
- Questions tend not to be about whether forest management is necessary, but instead the approaches used
- Shifting population; newcomers have greater trust in USFS and support for forest management
- Widespread interest in learning more about smoke
- Adaptation strategies that match community identity



# Summary and Recommendations



# Recent Social Science in the Southwest

Strengths: social acceptance of landscape treatments,  
public support for management




Opportunities: diversity, smoke, post-fire flooding



A shift toward landscape, state, regional scales

- Focus on collaborative, policy-driven cases



Still a need for localized studies, restudies

# Recommendations

- Wait 3-5 years post-fire to evaluate full costs.
- Emphasize connection between preparation and mental health.
- Continue communication about flood insurance, especially 2 years post-fire.
- Engage residents in more nuanced discussion about forest management.
- Provide information about management approaches and decision rationale.
- Address disconnects between short-term impacts of management versus long-term benefits.
- Continue to communicate and engage with new residents.

# Questions and Contact Information

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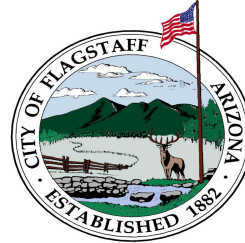
[niki.vonhedemann@nau.edu](mailto:niki.vonhedemann@nau.edu)



*For a comprehensive list of publications and resource links, visit [eri.nau.edu/social-science-findings](http://eri.nau.edu/social-science-findings), or use the QR code.*

## CITY OF FLAGSTAFF STAFF SUMMARY REPORT

**To:** The Honorable Mayor and Council  
**From:** Erin Young, Water Resources Manager  
**Date:** 02/07/2024  
**Meeting Date:** 02/13/2024



### TITLE:

**Introduction to Water, Wastewater, and Reclaimed Water Rate Design**

### DESIRED OUTCOME:

Discussion with City Council to develop a list of priorities and objectives to consider when developing alternative rate design models for discussion and direction at the March 4, 2024 Joint Work Session with the Water Commission.

### EXECUTIVE SUMMARY:

At the February 6, 2024 City Council meeting, the second phase of the Rate Study was presented by Staff. This meeting was to request the Council's direction on capacity fees for new, or upsizing an existing, connection to the City's water or wastewater system.

At this Work Session, Stantec will present proposed monthly user rates for the City's current rate structure based on the Council-recommended Full CIP Financial Plan from the October 23, 2023 Joint Water Session with the Water Commission. A list of strategies and objectives to consider in this rate study, from a previous City Council, will be presented for discussion and guidance.

Information from this Work Session will be used to guide Stantec and Staff in preparing alternative rate structures for further analysis and presented for discussion and direction at the March 4 Joint Work Session with the Water Commission.

### INFORMATION:

An objective of this rate analysis is to develop cost-of-service-based water, wastewater, and reclaimed water rates that charge customers in proportion to the cost of serving each customer. The methodologies used by Stantec are ones endorsed by the leading utility rate-making organizations in the United States, the American Water Works Association (AWWA) and the Water Environment Federation (WEF.)

Common industry practice is a two-part rate structure comprising both fixed and volume charges. Generally accepted practice recovers a portion of the costs of the system in a fixed monthly charge (base charge), recognizing that utilities have substantial investments in system costs and other year-round fixed costs to maintain a state of readiness to meet peak demands of customers when these demands occur. In addition, fixed charges also include recovery of customer-related costs. Volume charges recover the remaining revenue requirements, often based on average day-to-day use of the systems. Peak demands of water systems may also be recovered through other forms of volume

charges, such as tiered or seasonal rates.

The City currently has a monthly base charge for water service, which is scaled based on meter size. In addition, a usage charge is applied to customers based on metered water use. For wastewater service, customers are charged a uniform volume rate based on customer class. Reclaimed water rates are established at 35% of the water rates by policy.

The City's current rate structures for both water and wastewater services comply with common industry practice. City Council will be presented with a set of rate structure considerations and pricing objectives that are used to evaluate alternative rate structures. These objectives include revenue stability, water conservation, and equity between customer classes and within a customer class, among other considerations.

**The desired outcome from this Work Session is guidance on values and priorities of City Council for the purpose of developing monthly user rates.**

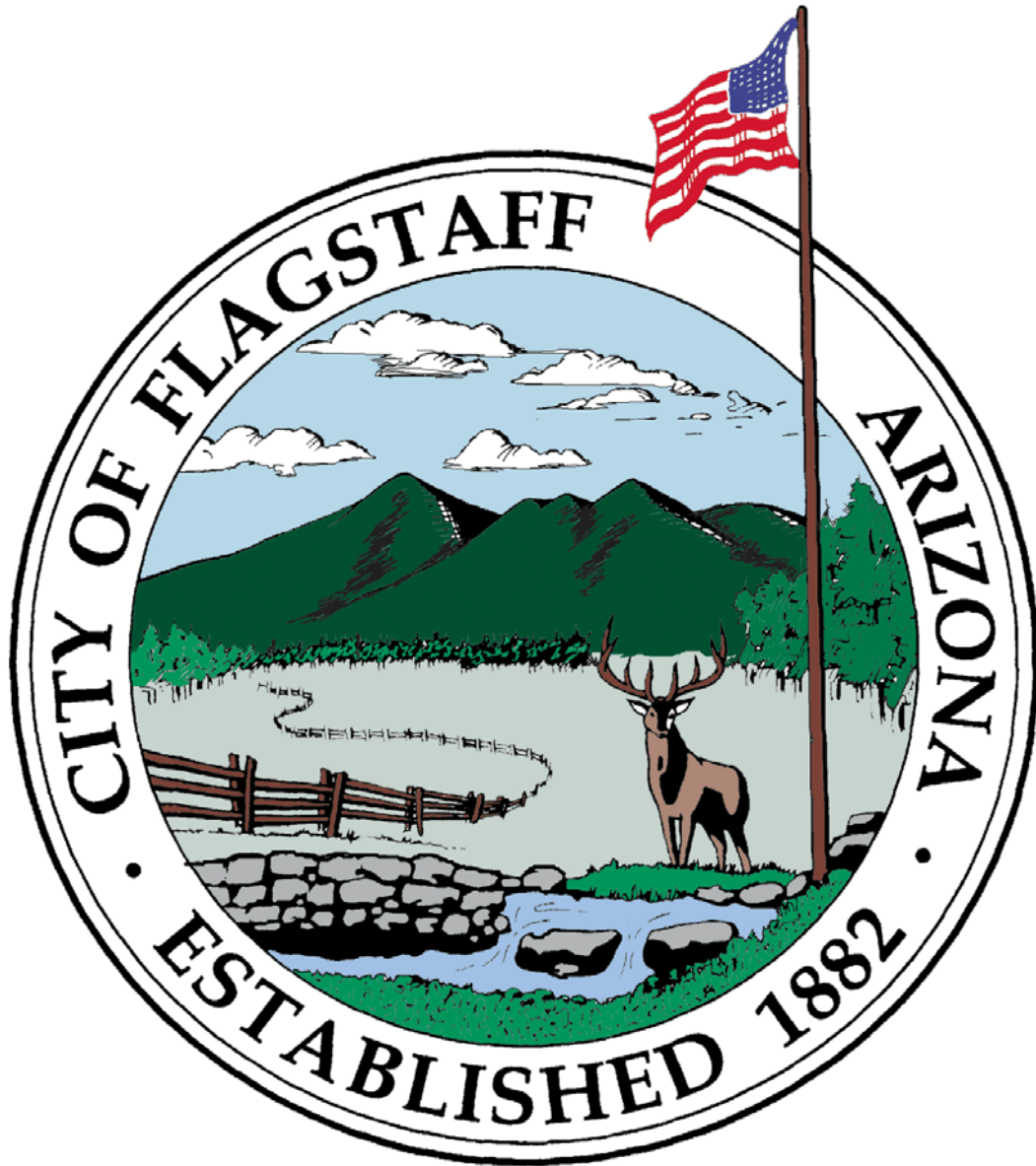
Stantec will incorporate the objectives and priorities from City Council and the Water Commission and provide rate alternatives to the existing structure for discussion and direction at the Joint Water Commission-City Council Work Session scheduled for March 4, 2024.

The user fee portion that addresses the cost-of-service to complete miscellaneous services is currently being worked on and the results will be presented at a future commission meeting.

City Council should expect the Rate Study to remain on monthly agendas through the proposed adoption of updated rates and fees at City Council's June 18<sup>th</sup> and July 2<sup>nd</sup> meetings.

---

**Attachments:**     Presentation  
                          Pricing Criteria Memo



# City of Flagstaff, AZ

## Water, Reclaimed Water, & Wastewater Cost-of-Service Study – Introduction to Rate Design

*City Council Work Session  
February 13, 2024*

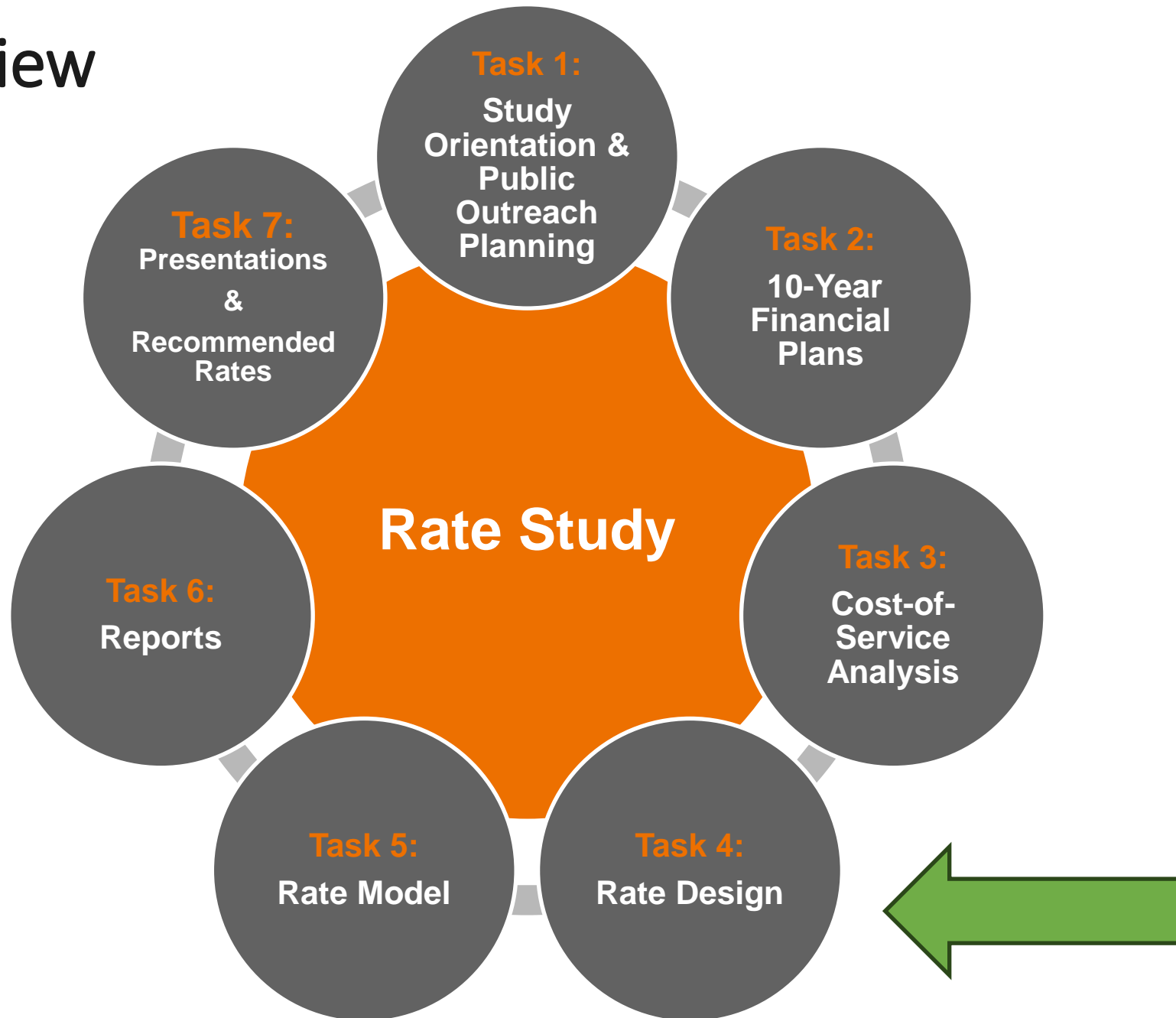


# Agenda

1. What is Rate Design?
2. What are Current Rate Structures?
3. Customer Usage Trends
4. Discussion & Guidance – Water Services, Council, & Water Commission Objectives



# Scope Overview





# What is Rate Design?



# Rate Design: Overview

**Task 4**

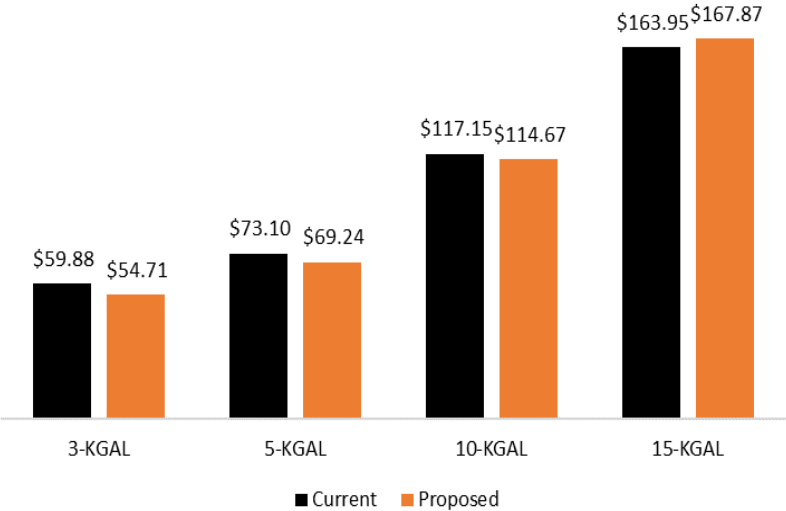
Develop alternatives and recommendations for adjustments to current rate structures.

**Approach**



**Outcomes / Benefits**

- Assessment of existing structures & challenges
- Comparison of adjustments with goals of study
- Clear path for future enhancements
- Clarity of customer impacts of all options





# The Rate Study Process

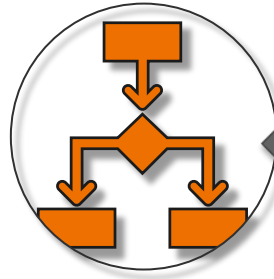
## How Much?



### Financial Plan

- Operations & Maintenance, debt service, projects
- Financial policies & targets
- Council direction for funding full CIP on October 23, 2023

## From Whom?



### Cost-of-Service Allocations

- Identifies how costs are incurred
- Determines how customers use the systems
- Council direction on capacity fees February 6, 2024

## How to Collect?



### Rate Design

- Identifies objectives of the City
- Ties rate structure alternatives to objectives
- Communicates costs of service to customers



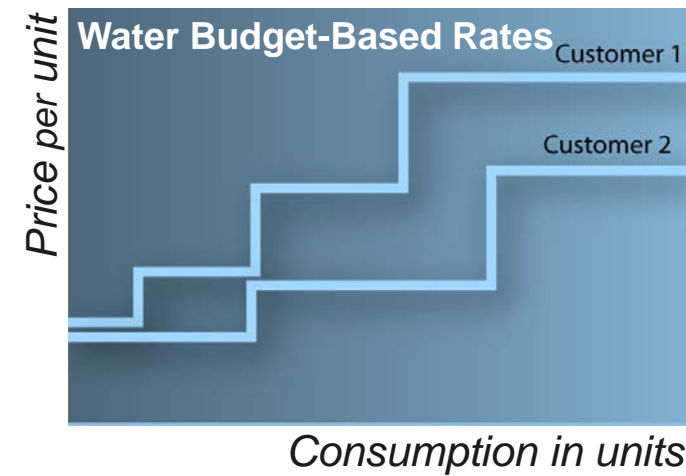
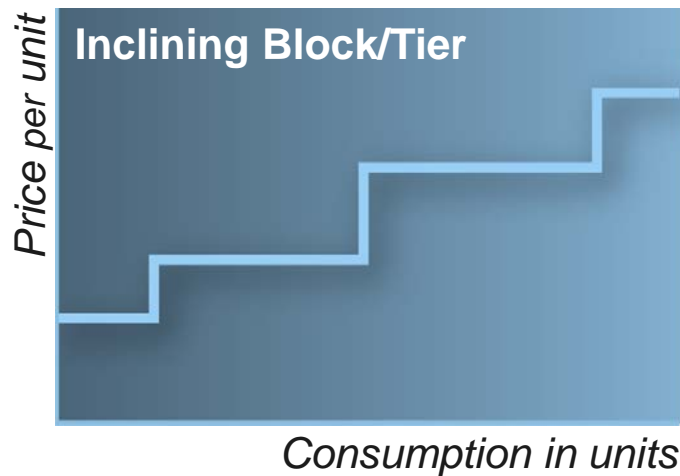
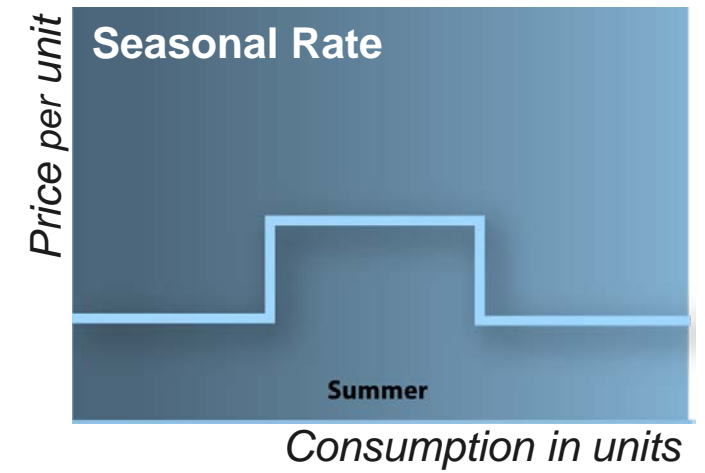
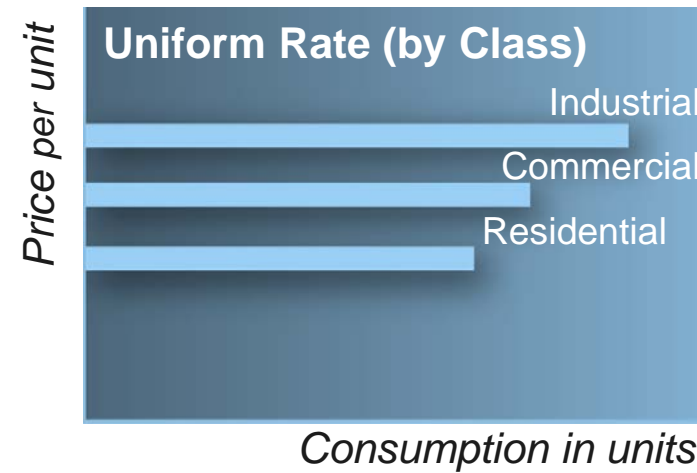
# Rate Design Focus

## Strategy Examples:

- Goals for Water Rate Design
  - Explore percentage of revenue collected from base charges vs volume charges
  - Investigate tiered commercial rates
  - Investigate seasonal rates
  - Simplify non-residential rates by class
- Goals for Wastewater Rate Design
  - Group customer classes by wastewater loadings
  - Consider monthly base charge for wastewater
  - Simplify non-residential rates
- Estimate bill impacts to different customers

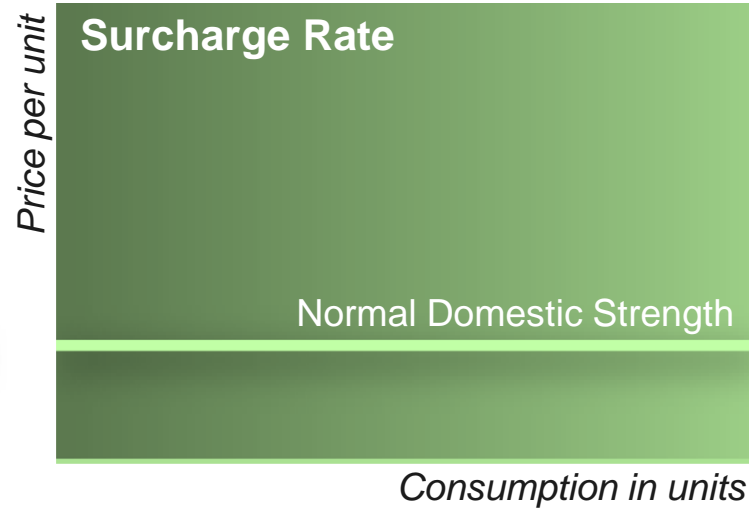


# Traditional Water Rate Designs

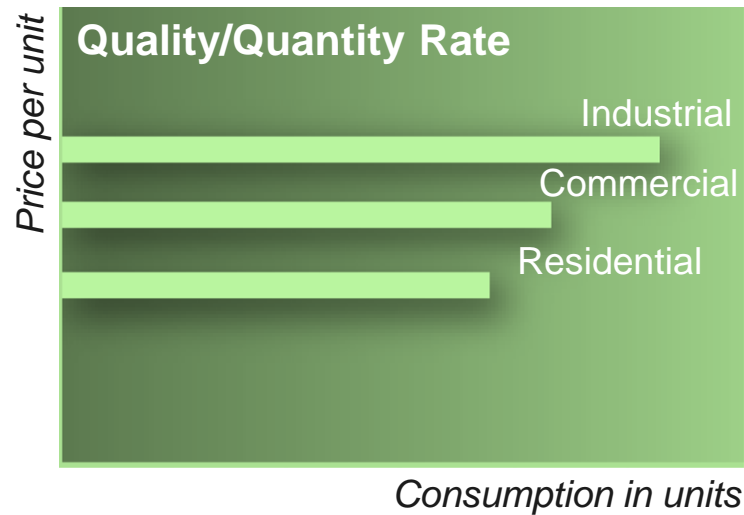




# Traditional Wastewater Rate Designs



- > Domestic BOD = surcharge per pound
- > Domestic TSS = surcharge per pound



\*BOD = Biochemical Oxygen Demand  
\*\*TSS = Total Suspended Solids  
mg/L = milligrams per liter



# What are Our Current Rate Structures?



# CITY OF FLAGSTAFF WATER & SEWER RATES

Effective January 1, 2023 (\*\*Subject to Change\*\*)

## MONTHLY FIXED CHARGE

Meter Size:	Customer Class	Inside City Rate	Outside City Rate
3/4"	All	\$16.64	\$18.30
1"	All	\$19.60	\$21.56
1 1/2"	All	\$26.98	\$29.68
2"	All	\$35.84	\$39.42
3"	All	\$56.52	\$62.17
4"	All	\$86.05	\$94.66
6"	All	\$159.88	\$175.87
8"	All	\$248.47	\$273.32
10"	All	\$351.83	\$387.01

## WATER RATES

POTABLE WATER: (per 1,000 gallons)		Customer Class	Water Rate	Outside City Rate	Water Energy Rate	*WRIP FEE
Single Family	Tier 1 (0 - 3,500 gallons)	R1 or R4	\$3.44	\$3.78	\$1.24	\$0.53
	Tier 2 (3,501 - 6,200 gallons)		\$4.45	\$4.90	\$1.24	\$0.53
	Tier 3 (6,201 - 11,500 gallons)		\$6.86	\$7.55	\$1.24	\$0.53
	Tier 4 (11,501+ gallons)		\$13.72	\$15.09	\$1.24	\$0.53
Multi-Family Units		R2 or R3	\$4.42	\$4.86	\$1.24	\$0.53
Commercial/Schools		C	\$4.69	\$5.16	\$1.24	\$0.53
Northern Arizona University		NA	\$4.30		\$1.24	\$0.53
Manufacturing		MN	\$4.63	\$5.09	\$1.24	\$0.53
Landscaping/Lawn Meters		LM	\$4.69	\$5.16	\$1.24	\$0.53
Hydrant Meter		HM	\$7.17	\$7.89	\$1.24	\$0.53
Standpipe**		SP	\$10.19			

\*\*Includes sales tax and environmental fee

\*Effective 7/1/22

Outside City 10% surcharge



## RECLAIMED WATER RATES

<b>RECLAIMED WATER: (per 1,000 gallons)</b>		<b>Customer Class</b>	<b>Inside City Rate</b>	<b>Outside City Rate</b>
Private Residential	Tier 1 (0 - 3,500 gallons)	R1	\$1.64	\$ 1.80
	Tier 2 (3,501 - 6,200 gallons)		\$1.99	\$ 2.19
	Tier 3 (6,201 - 11,500 gallons)		\$2.84	\$ 3.12
	Tier 4 (11,501+ gallons)		\$5.24	\$ 5.76
Commercial (no main Ext):		C	\$2.08	\$ 2.28
Commercial (w/ main Ext):		C	\$4.45	\$ 4.89
Manufacturing (no main Ext):		MN	\$2.05	\$ 2.26
Manufacturing (w/ main Ext):		MN	\$4.40	\$ 4.84
NAU (No main extension):		NA	\$1.94	
NAU (with main extension):		NA	\$4.16	
Hydrant Meter		WR	\$4.21	
Standpipe**		RS	\$4.79	
Off Peak/Golf Course:		WR	\$1.81	\$ 1.99
**Includes sales tax and environmental fee				



# SEWER RATES

SEWER: (per 1,000 gallons)	Customer Class	Inside City Rate	Outside City Rate
<b>Residential</b>			
*Single- and Multi-Family	R1 - R4	\$5.35	\$5.89
<b>Non-Residential</b>			
Car Washes	CW	\$5.38	\$5.92
Laundromats	L	\$5.53	\$6.08
Commercial	C	\$5.68	\$6.25
Hotels & Motels	H	\$7.58	\$8.34
Restaurants	RF	\$9.09	\$10.00
Industrial Laundries	IL	\$8.36	\$9.20
Manufacturing	MN	\$6.09	\$6.70
Pet Food Manufacturers	PF	\$13.34	\$14.67
Soft Drink Bottling	SD	\$10.57	\$11.63
Ice Cream Cone Manufacturing	IC	\$16.48	\$18.13
NAU	NA	\$4.91	\$5.40

\*Residential usage based on WQA (usage billed in winter months of December, January, February, March)

### Surcharge rates for BOD & TSS over residential amount – 7-02-001-0041

- BOD over 300 mg/L = \$0.273/pound
- TSS over 350 mg/L = \$0.1343/pound

### Higher surcharge rates – 7-02-001-0041 D

- BOD 400mg/L to 500 mg/L = fee is doubled
- BOD above 501 mg/L = fee is tripled
- TSS 450 mg/L to 550 mg/L = fee is doubled
- TSS 551 mg/L = fee is tripled

\*BOD = Biochemical Oxygen Demand  
 \*\*TSS = Total Suspended Solids  
 mg/L = milligrams per liter



# Water Fund Direction from October 23, 2023

Scenarios	FY24-FY33 CIP Funding Level (\$M)	FY24	FY25	FY26	FY27	FY28	FY29	FY30-FY33 Annual
<b>Full-CIP Alternative Option</b>	<b>\$208</b>	0.0%	15.0%	15.0%	15.0%	15.0%	15.0%	5.0%

Alternative Option reflects Full Funding Scenario with level plan of annual rate increases

CIP = Capital Improvement Program



<b>MONTHLY FIXED CHARGE</b>		<b>Impact of Full CIP on Rates</b>						
<b>Meter Size:</b>		<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>FY 25-29 Change</b>
3/4"		\$16.64	\$19.14	\$22.01	\$25.31	\$29.10	\$33.47	\$ 14.33
1"		\$19.60	\$22.54	\$25.92	\$29.81	\$34.28	\$39.42	\$ 16.88
1 1/2"		\$26.98	\$31.03	\$35.68	\$41.03	\$47.19	\$54.27	\$ 23.24
2"		\$35.84	\$41.22	\$47.40	\$54.51	\$62.68	\$72.09	\$ 30.87
3"		\$56.52	\$65.00	\$74.75	\$85.96	\$98.85	\$113.68	\$ 48.68
4"		\$86.05	\$98.96	\$113.80	\$130.87	\$150.50	\$173.08	\$ 74.12
6"		\$159.88	\$183.86	\$211.44	\$243.16	\$279.63	\$321.58	\$ 137.71
8"		\$248.47	\$285.74	\$328.60	\$377.89	\$434.58	\$499.76	\$ 214.02
10"		\$351.83	\$404.60	\$465.30	\$535.09	\$615.35	\$707.66	\$ 303.05

<b>WATER RATES</b>		<b>Impact of Full CIP on Rates</b>						
<b>POTABLE WATER: (per 1,000 gallons)</b>		<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>FY 25-29 Change</b>
Single Family	Tier 1 (0 - 3,500 gallons)	\$3.44	\$3.96	\$ 4.55	\$ 5.23	\$ 6.02	\$ 6.92	\$ 2.96
	Tier 2 (3,501 - 6,200 gallons)	\$4.45	\$5.12	\$ 5.89	\$ 6.77	\$ 7.78	\$ 8.95	\$ 3.83
	Tier 3 (6,201 - 11,500 gallons)	\$6.86	\$7.89	\$ 9.07	\$ 10.43	\$ 12.00	\$ 13.80	\$ 5.91
	Tier 4 (11,501+ gallons)	\$13.72	\$15.78	\$ 18.14	\$ 20.87	\$ 24.00	\$ 27.60	\$ 11.82
Multi-Family Units		\$4.42	\$5.08	\$ 5.85	\$ 6.72	\$ 7.73	\$ 8.89	\$ 3.81
Commercial/Schools		\$4.69	\$5.39	\$ 6.20	\$ 7.13	\$ 8.20	\$ 9.43	\$ 4.04
Northern Arizona University		\$4.30	\$4.95	\$ 5.69	\$ 6.54	\$ 7.52	\$ 8.65	\$ 3.70
Manufacturing		\$4.63	\$5.32	\$ 6.12	\$ 7.04	\$ 8.10	\$ 9.31	\$ 3.99
Landscaping/Lawn Meters		\$4.69	\$5.39	\$ 6.20	\$ 7.13	\$ 8.20	\$ 9.43	\$ 4.04
Hydrant Meter		\$7.17	\$8.25	\$ 9.48	\$ 10.90	\$ 12.54	\$ 14.42	\$ 6.18
Standpipe**		\$10.19	\$ 11.72	\$ 13.48	\$ 15.50	\$ 17.82	\$ 20.50	\$ 8.78
**Includes sales tax and environmental fee								
*Effective 7/1/22								
Outside City 10% surcharge								



# Reclaimed Water Fund Direction from October 23, 2023

Scenarios	FY24-FY33 CIP Funding Level (\$M)	FY24	FY25	FY26	FY27	FY28	FY29	FY30-FY33 Annual
<b>Full-CIP Alternative Option</b>	<b>\$11</b>	0.0%	15.0%	15.0%	15.0%	15.0%	15.0%	5.0%

Alternative Option reflects current reclaimed water pricing policy keeping rates at specified %'s of potable water rates

CIP = Capital Improvement Program



# RECLAIMED WATER RATES

## Impact of Full CIP on Rates

RECLAIMED WATER: (per 1,000 gallons)		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 25-29 Change
Private Residential	Tier 1 (0 - 3,500 gallons)	\$1.64	\$1.88	\$ 2.17	\$ 2.49	\$ 2.86	\$ 3.29	\$ 1.41
	Tier 2 (3,501 - 6,200 gallons)	\$1.99	\$2.29	\$ 2.63	\$ 3.03	\$ 3.48	\$ 4.01	\$ 1.72
	Tier 3 (6,201 - 11,500 gallons)	\$2.84	\$3.26	\$ 3.75	\$ 4.31	\$ 4.96	\$ 5.70	\$ 2.44
	Tier 4 (11,501+ gallons)	\$5.24	\$6.02	\$ 6.92	\$ 7.96	\$ 9.16	\$ 10.53	\$ 4.51
Commercial (no main Ext):		\$2.08	\$2.39	\$ 2.74	\$ 3.16	\$ 3.63	\$ 4.17	\$ 1.79
Commercial (w/ main Ext):		\$4.45	\$5.11	\$ 5.88	\$ 6.76	\$ 7.78	\$ 8.95	\$ 3.83
Manufacturing (no main Ext):		\$2.05	\$2.36	\$ 2.72	\$ 3.12	\$ 3.59	\$ 4.13	\$ 1.77
Manufacturing (w/ main Ext):		\$4.40	\$5.06	\$ 5.82	\$ 6.70	\$ 7.70	\$ 8.86	\$ 3.79
NAU (No main extension):		\$1.94	\$2.23	\$ 2.56	\$ 2.95	\$ 3.39	\$ 3.90	\$ 1.67
NAU (with main extension):		\$4.16	\$4.78	\$ 5.49	\$ 6.32	\$ 7.27	\$ 8.36	\$ 3.58
Hydrant Meter		\$4.21	\$4.84	\$ 5.56	\$ 6.40	\$ 7.35	\$ 8.46	\$ 3.62
Standpipe**		\$4.79	\$5.51	\$ 6.34	\$ 7.29	\$ 8.38	\$ 9.64	\$ 4.13
Off Peak/Golf Course:	All Tiers	\$1.81	\$2.08	\$ 2.39	\$ 2.75	\$ 3.16	\$ 3.63	\$ 1.56
**Includes sales tax and environmental fee								



# Wastewater Fund Direction from October 23, 2023

Scenarios	FY24-FY33 CIP Funding Level (\$M)	FY24	FY25	FY26	FY27	FY28	FY29	FY30-FY33 Annual
Full-CIP Alternative Option	\$139	0.0%	25.0%	25.0%	15.0%	10.0%	5.0%	5.0%

Alternative Option reflects \$9M deferral & escalation of Unfunded CIP in Full Funding Scenario with more debt financing

CIP = Capital Improvement Program



<b>SEWER RATES</b>		<b>Impact of Full CIP on Rates</b>					
<b>SEWER: (per 1,000 gallons)</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>FY 25-29 Change</b>
<b>Residential</b>							
*Single- and Multi-Family	\$5.35	\$6.69	\$8.36	\$9.61	\$10.57	\$11.10	\$5.75
<b>Non-Residential</b>							
Car Washes	\$5.38	\$ 6.73	\$ 8.41	\$ 9.67	\$ 10.63	\$ 11.17	\$5.79
Laundromats	\$5.53	\$ 6.91	\$ 8.64	\$ 9.94	\$ 10.93	\$ 11.48	\$5.95
Commercial	\$5.68	\$ 7.10	\$ 8.88	\$ 10.21	\$ 11.23	\$ 11.79	\$6.11
Hotels & Motels	\$7.58	\$ 9.48	\$ 11.84	\$ 13.62	\$ 14.98	\$ 15.73	\$8.15
Restaurants	\$9.09	\$ 11.36	\$ 14.20	\$ 16.33	\$ 17.97	\$ 18.87	\$9.78
Industrial Laundries	\$8.36	\$ 10.45	\$ 13.06	\$ 15.02	\$ 16.52	\$ 17.35	\$8.99
Manufacturing	\$6.09	\$ 7.61	\$ 9.52	\$ 10.94	\$ 12.04	\$ 12.64	\$6.55
Pet Food Manufacturers	\$13.34	\$ 16.68	\$ 20.84	\$ 23.97	\$ 26.37	\$ 27.69	\$14.35
Soft Drink Bottling	\$10.57	\$ 13.21	\$ 16.52	\$ 18.99	\$ 20.89	\$ 21.94	\$11.37
Ice Cream Cone Manufacturing	\$16.48	\$ 20.60	\$ 25.75	\$ 29.61	\$ 32.57	\$ 34.20	\$17.72
NAU	\$4.91	\$ 6.14	\$ 7.67	\$ 8.82	\$ 9.70	\$ 10.19	\$5.28
*Residential usage based on WQA (usage billed in winter months of December, January, February, March)							



City of Flagstaff - January 2024



# Understanding Your Municipal Services Bill Commercial

Below are standard fees and charges for a Commercial customer

Color Key	Current Activity	Usage (Gallons)	Rate	Amount
Water Services Division flagstaff.az.gov/waterservices	Base Meter Charge			16.64
	Energy Surcharge	51,750	1.24	64.17
	Water Protection Fee	51,750	0.53	27.43
	Water Charge Commercial	51,750	4.69	242.71
Wildland Fire Management flagstaff.az.gov/wildlandfire	Sewer Charge	51,750	5.68	293.94
	Stormwater Fee			37.71
Sustainability Division flagstaff.az.gov/sustainability	Solid Waste Charge			157.90
	Recycling Fee			93.81
Solid Waste Section flagstaff.az.gov/solidwaste	Environmental Management Program Fee			28.92
	State and Local Taxes			31.69

## Water Charges

### Base Meter Charge

A fixed fee is charged each month based on the diameter of the water meter. This charge funds the water system operations, maintenance, and capital projects.

### Water Charge

For a commercial customer, this charge is based on how much water is used.

This charge funds the water system operations, maintenance, and capital projects.

### Energy Surcharge

This fee, calculated annually, captures fluctuations in water production energy costs.

## Sewer Charge

This charge is based on how much water is used. The rate is dependent on service class. See Rate Tables for a list of classes.

This charge funds the wastewater system operations, maintenance, and capital projects.

## Stormwater Fee

This fee is based on an "Equivalent Rate Unit". An ERU is a measure of the impact a property has to the stormwater system. One ERU is equal to 1,500 square feet of non-porous surface on the property.

Funding provides greater flood mitigation and flood risk reduction.

## Water Protection Fee

This fee is a rate that is applied to water usage and supports the Wildland Fire Management Program (WFM).

The WFM Program helps increase and maintain wildfire resilience, protect our valuable water, wastewater, and stormwater resources and infrastructure.

## Environmental Management Program Fee

This fee is a rate that is applied to a portion of the total of water, sewer, stormwater, trash, and recycling services.

The fee funds environmental management, waste prevention, recycling, sustainability, climate change, and conservation education programs.

## Solid Waste Charge

Cost for commercial trash and recycling services vary based on size and frequency of service

## Recycling Fee

Cost for supplemental glass recycling service.

For questions related to your Municipal Bill, please contact Customer Service at [solutions@flagstaffaz.gov](mailto:solutions@flagstaffaz.gov) or 928-213-2231  
View our Rate Tables at [flagstaff.az.gov/3596](http://flagstaff.az.gov/3596)

City of Flagstaff - January 2024



# Understanding Your Municipal Services Bill Single-Family Residential

Below are standard fees and charges for a single-family residential Municipal Services Bill

Color Key	Current Activity	Usage	Rate	Amount
Water Services Division flagstaff.az.gov/waterservices	Base Meter Charge			16.64
	Tier 1 Residential Water	3,500	3.44	12.04
	Tier 2 Residential Water	1,050	4.45	4.67
	Energy Surcharge	4,550	1.24	5.64
Wildland Fire Management flagstaff.az.gov/wildlandfire	Water Protection Fee	4,550	0.53	2.41
	Sewer Charge	2,080	5.35	11.18
Sustainability Division flagstaff.az.gov/sustainability	Stormwater Fee			12.57
	Solid Waste Charge			25.45
Solid Waste Section flagstaff.az.gov/solidwaste	Recycling Fee			5.09
	Environmental Management Program Fee			2.48
	State and Local Taxes			3.73

## Water Charges

### Base Meter Charge

A fixed fee is charged each month based on the diameter of the water meter. This charge funds the water system operations, maintenance, and capital projects.

### Tiered Water Charges

For single-family residential customers, this charge is based on how much water is used within these tiers shown on the Rates Tables:

- Tier 1 (0-3,500 gallons)
- Tier 2 (3,501-6,200 gallons)
- Tier 3 (6,201-11,500 gallons)
- Tier 4 (11,501+ gallons)

This charge funds the water system operations, maintenance, and capital projects.

### Energy Surcharge

This fee, calculated annually, captures fluctuations in water production energy costs.

## Sewer Charge

This charge is based on your average water consumption billed in December to March, updated as an average consumption rate in June each year.

This charge funds the wastewater system operations, maintenance, and capital projects.

## Stormwater

This fee is based on an "Equivalent Rate Unit". An ERU is a measure of the impact a property has to the stormwater system. One ERU is equal to 1,500 square feet of non-porous surface on the property.

Funding provides greater flood mitigation and flood risk reduction.

## Water Protection Fee

This fee is a rate that is applied to water usage and supports the Wildland Fire Management Program (WFM).

The WFM Program helps increase and maintain wildfire resilience, protect our valuable water, wastewater, and stormwater resources and infrastructure.

## Environmental Management Program Fee

This fee is a rate that is applied to a portion of the total of water, sewer, stormwater, trash, and recycling services.

The fee funds environmental management, waste prevention, recycling, sustainability, climate change, and conservation education programs.

## Solid Waste Charge

Cost for monthly residential trash and recycling collection, including bulky waste charge.

## Recycling Fee

Cost for supplemental glass recycling service.

For questions related to your Municipal Bill, please contact Customer Service at [solutions@flagstaffaz.gov](mailto:solutions@flagstaffaz.gov) or 928-213-2231  
View our Rate Tables at [flagstaff.az.gov/3596](http://flagstaff.az.gov/3596)



# Bill Projections for Current Rate Structure - Residential

Municipal Services Bill Example for Residential Customer @ 4,550 gallons in one month	Usage (Gallons)	FY 2024 Rate (Dollars)	FY 2024 Amount (Dollars)	Alternative 1 – No Change to Current Rate Structure	
				FY 2025	FY 2029
Base Meter Charge		Base Charge ¾ " meter	\$16.64	\$19.14	\$33.47
Tier 1 Residential Water	3,500	\$3.44	\$12.04	\$13.85	\$15.92
Tier 2 Residential Water	1,050	\$4.45	\$4.67	\$5.37	\$6.18
Energy Surcharge	4,550	\$1.24	\$5.64	\$5.64	\$5.64
Water Protection Fee	4,550	\$0.53	\$2.41	\$2.41	\$2.41
Sewer Charge	2,090	\$5.35	\$11.18	\$13.98	\$23.21
Stormwater Fee			\$12.57	\$14.07	\$22.14
Solid Waste Charge			\$25.45	\$25.45	\$25.45
Recycling Fee			\$5.09	\$5.09	\$5.09
Environmental Management Program Fee			\$2.48	\$3.67	\$4.88
State and Local Taxes			\$3.73	\$4.20	\$5.80
<b>Total</b>			<b>\$101.90</b>	<b>\$112.87</b>	<b>\$150.19</b>



# Bill Projections for Current Rate Structure - Commercial

WATER, RECLAIMED WATER, & WASTEWATER STUDY

Municipal Services Bill Example for Commercial Customer	Usage (Gallons)	FY 2024 Rate	FY 2024 Amount (Dollars)	Alternative 1 – No Change to Current Rate Structure	
				FY 2025	FY 2029
Base Meter Charge		Base Charge ¾ " meter	\$16.64	\$19.14	\$33.47
Energy Surcharge	51,750	\$1.24	\$64.17	\$64.17	\$64.17
Water Protection Fee	51,750	\$0.53	\$27.43	\$27.43	\$27.43
Water Charge Commercial	51,750	\$4.69	\$242.71	\$279.11	\$488.17
Sewer Charge	51,750	\$5.68	\$293.94	\$367.43	\$610.04
Stormwater Fee			\$37.71	\$42.21	\$66.42
Solid Waste Charge			\$157.90	\$157.90	\$157.90
Recycling Fee			\$93.81	\$93.81	\$93.81
Environmental Management Program Fee			\$28.92	\$36.79	\$53.95
State and Local Taxes			\$31.69	\$35.50	\$57.37
<b>Total</b>			<b>\$994.92</b>	<b>\$1,123.49</b>	<b>\$1,652.63</b>

DRAFT – FOR DISCUSSION PURPOSES



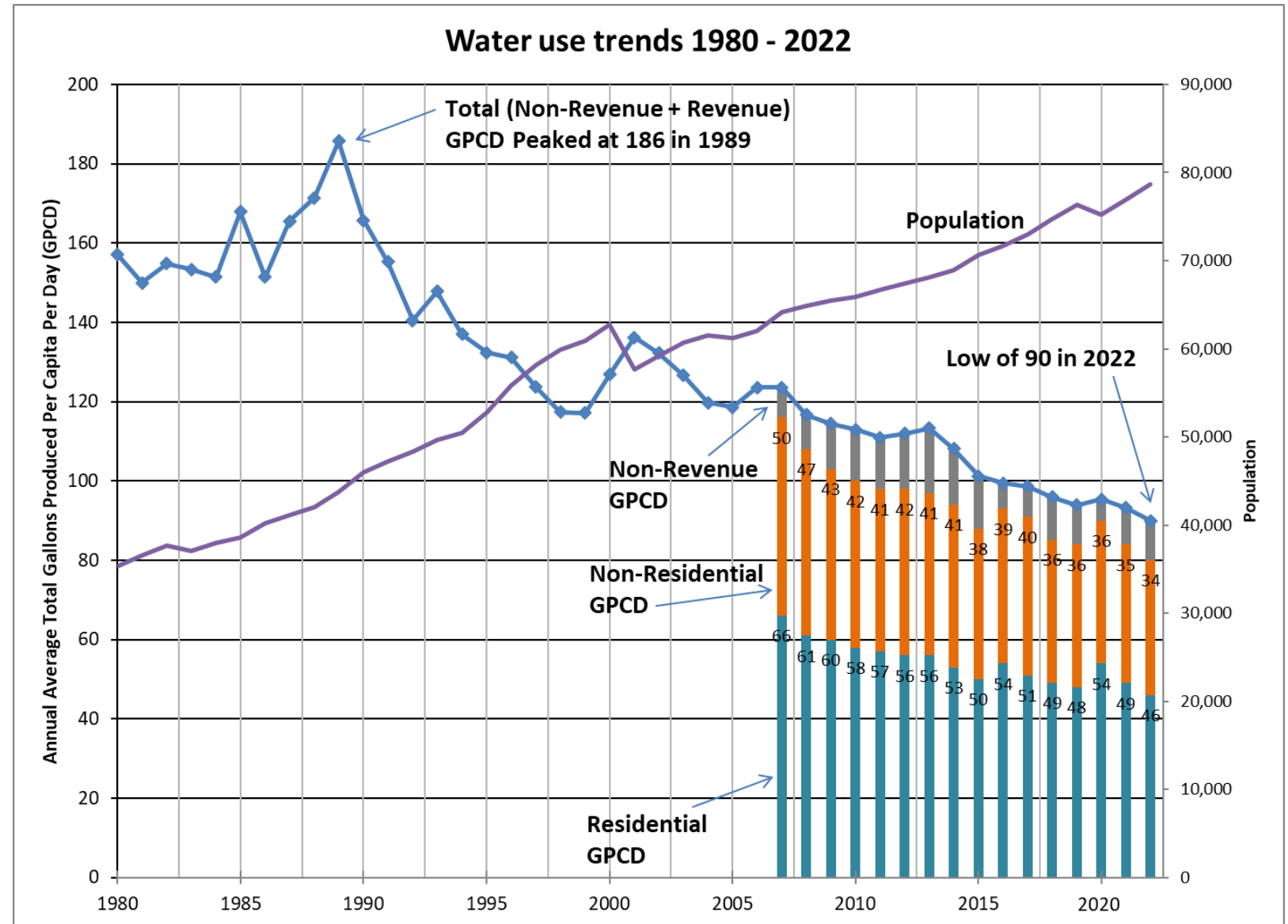
# How Have These Rate Structures Affected Customer Usage Trends?



# Water Use Trends

- Conservation Ordinance - 1988  
Amended in 2003 to establish Water Conservation Program
- Implemented Tiered Rate Structure – 1991
- Toilet Rebate Programs since 1991
- Reclaimed Water Distribution System – 1993

GPCD = gallons per capita per day





# Water System Customers

**1.4% Increase**  
in Number of **Accounts** from 2021 - 2023

# of Accounts (End Year)			
Customer Type	2021	2022	2023
Single-Family	15,955	16,123	16,225
Multi-Family	3,085	3,087	3,089
Commercial	1,669	1,686	1,686
Landscape	332	332	332
Manufacturing	39	38	38
Institutional	7	7	7
Hydrant	0	0	0
Standpipe	1	1	1
<b>Total</b>	<b>21,089</b>	<b>21,274</b>	<b>21,378</b>

**-10.4% Decrease**  
in Water **Usage** from 2021 - 2023

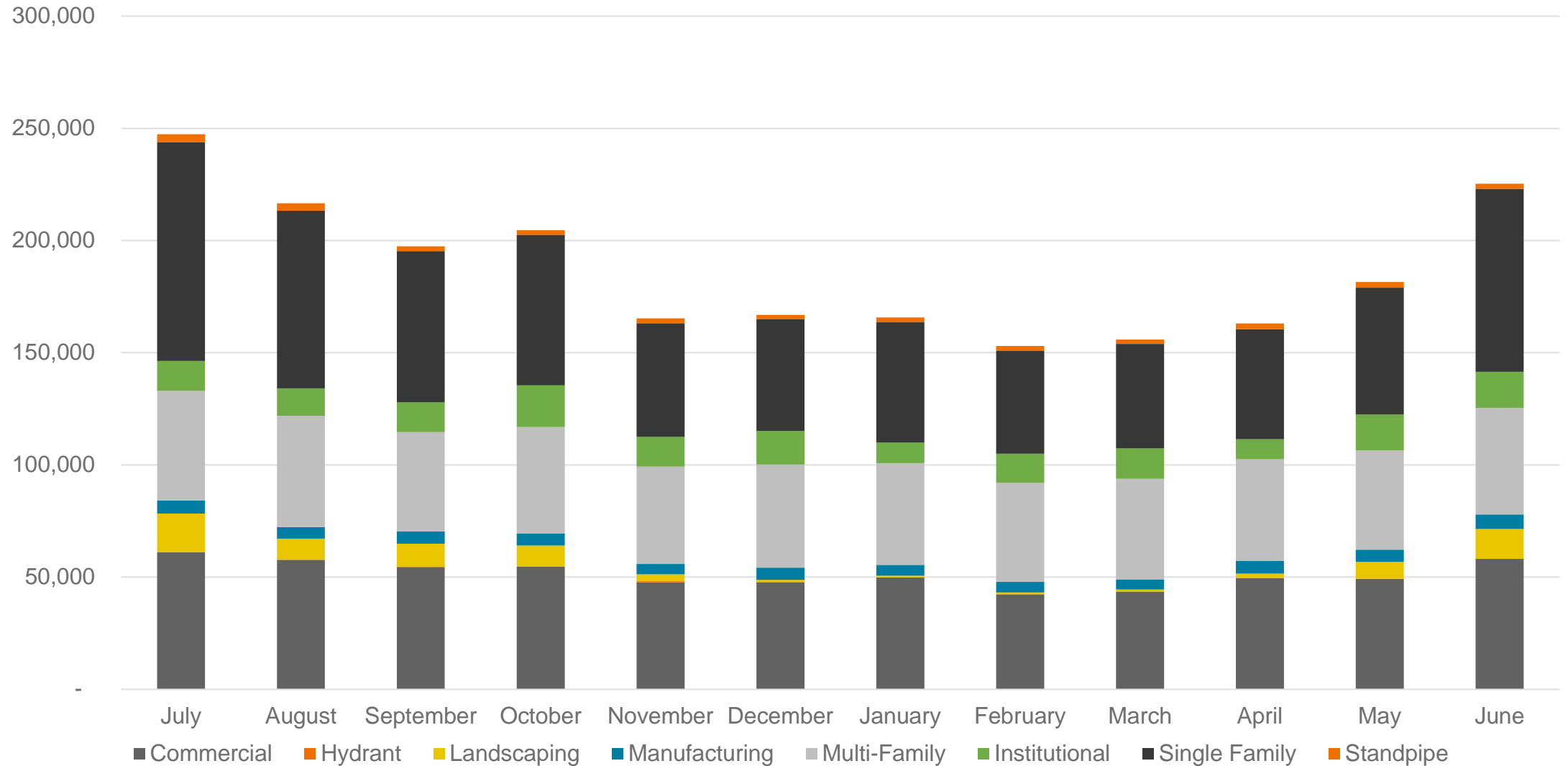
Water Usage (1,000 gallons)			
Customer Type	2021	2022	2023
Single-Family	916,498	799,522	744,542
Multi-Family	573,118	546,850	550,670
Commercial	621,641	628,820	616,305
Landscape	121,291	92,035	75,873
Manufacturing	70,345	60,264	63,721
Institutional	169,265	167,317	162,456
Hydrant	78	11	606
Standpipe	31,531	29,539	28,600
<b>Total</b>	<b>2,503,765</b>	<b>2,324,357</b>	<b>2,242,773</b>



# Monthly Water Use Characteristics

FY 2023 Water Usage

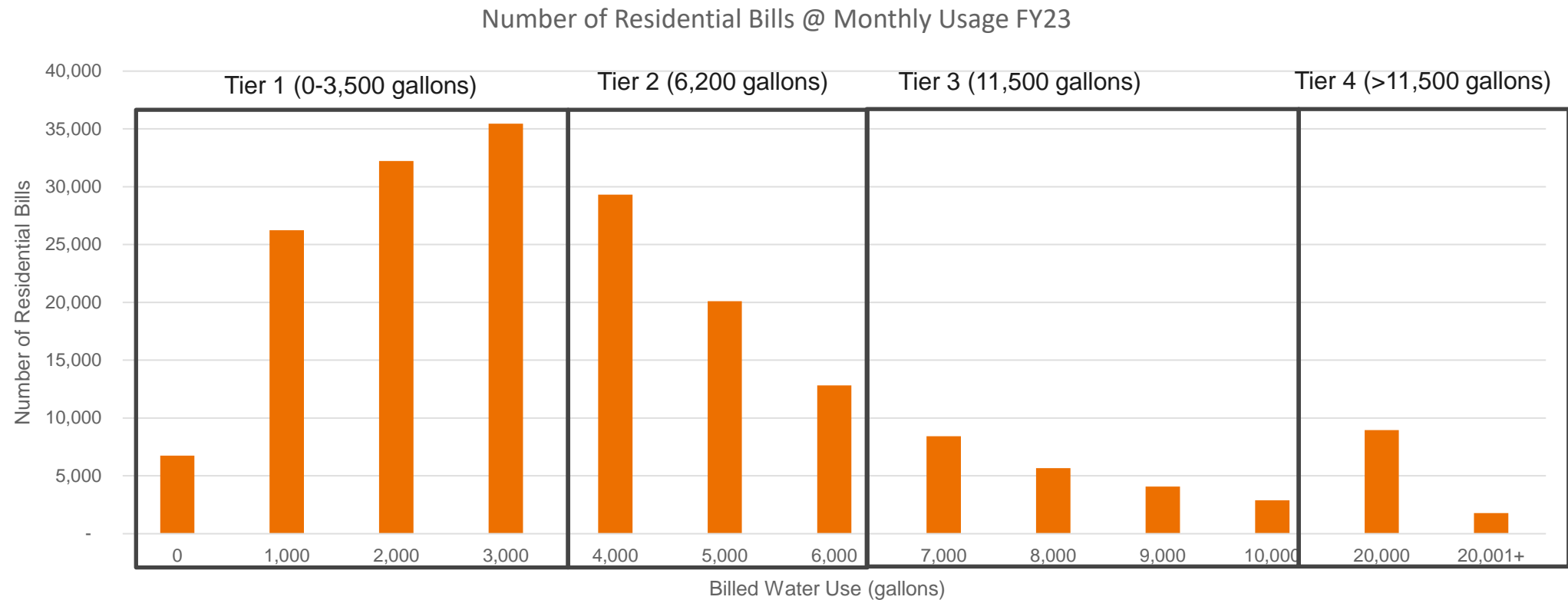
WATER, RECLAIMED WATER, & WASTEWATER STUDY





# Residential Water Bills per 1,000 Gallons

FY	2020	2021	2022	2023
Average usage per bill (gal)	4,480	4,787	4,132	3,824



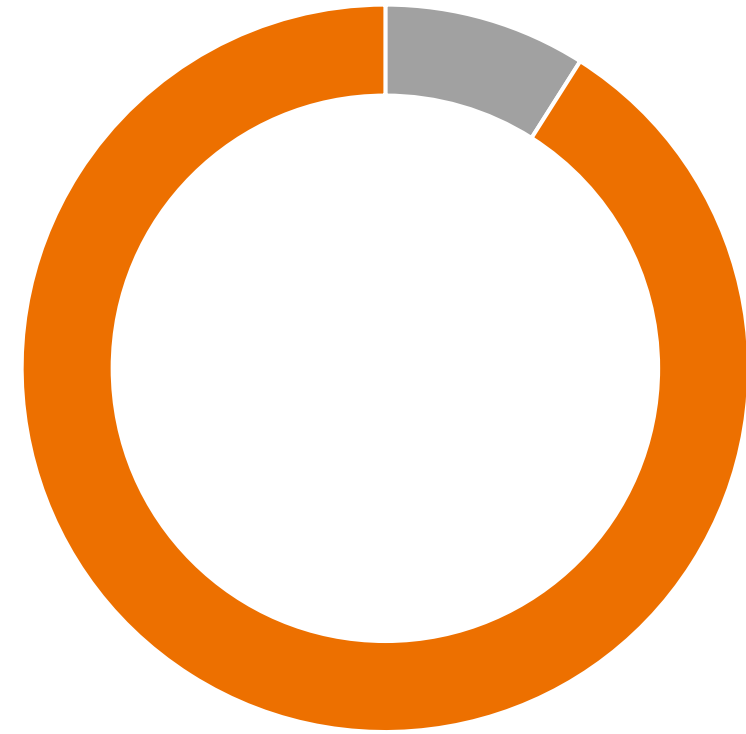
\*Majority of bills issued in Tier 1



# Reclaimed Water Customers

Service Class		Number of Accounts	FY23 Flows (1,000 gallons)
Residential	Residential/ Multi-family	9	365
Non-Residential	Commercial	55	127,179
	Municipality	30	41,340
	Institutional	7	60,009
	Off Peak	2	150,539
	Manufacturing	1	4,260
	Standpipe	1	12,879
	Golf Course	2	25,99
<b>Total</b>		<b>106</b>	<b>422,915</b>

2023 Accounts by Type



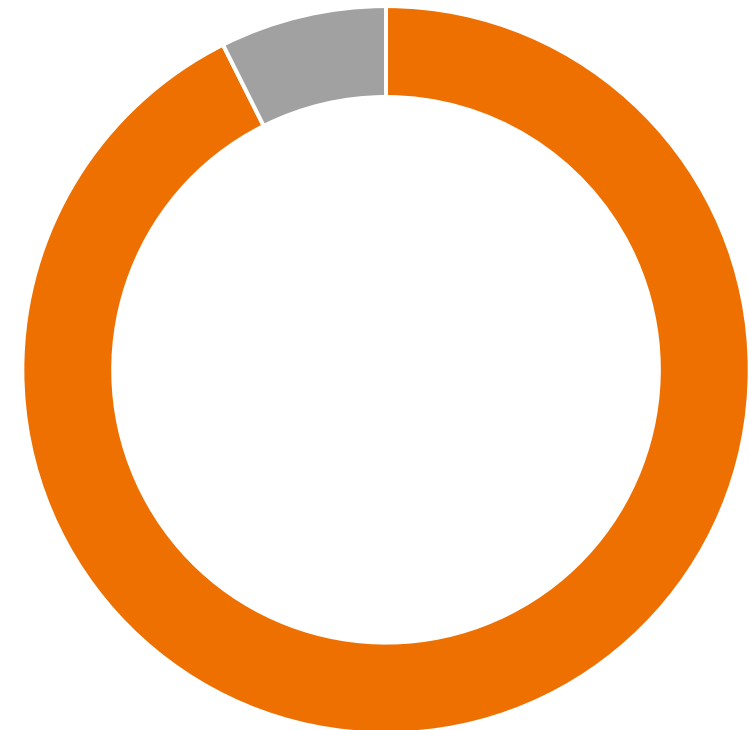
■ Residential ■ Non-Residential



# Wastewater System Customers

Service Class		Number of Accounts	FY23 Flows (1,000 gallons)
Residential	Residential	21,080	1,116,143
Non-Residential	Commercial	1,402	277,949
	Restaurants	132	61,531
	Hotels and Motels	97	138,843
	Manufacturing	27	19,262
	Car Washes	13	24,539
	Laundromats	6	7,893
	Industrial Laundries	1	9,342
	<b>Total</b>		<b>22,758</b>

2023 Accounts by Type



■ Residential ■ Non-Residential



# Assumed Wastewater Strengths by Customer Class

Customer Class	BOD (mg/L)*	TSS (mg/L)**
Residential & Multifamily	250	250
Car Washes	20	150
Laundromats	150	110
Commercial	200	175
Hotels & Motels	310	120
Restaurants	1,000	600
Industrial Laundries	670	680
Manufacturing 1	200	175
Manufacturing 2	701	527
Manufacturing 3	20,926	393
Institutional	130	100

\*BOD = Biochemical Oxygen Demand

\*\*TSS = Total Suspended Solids

mg/L = milligrams per liter



# What are Our Objectives?



# Pricing Objectives

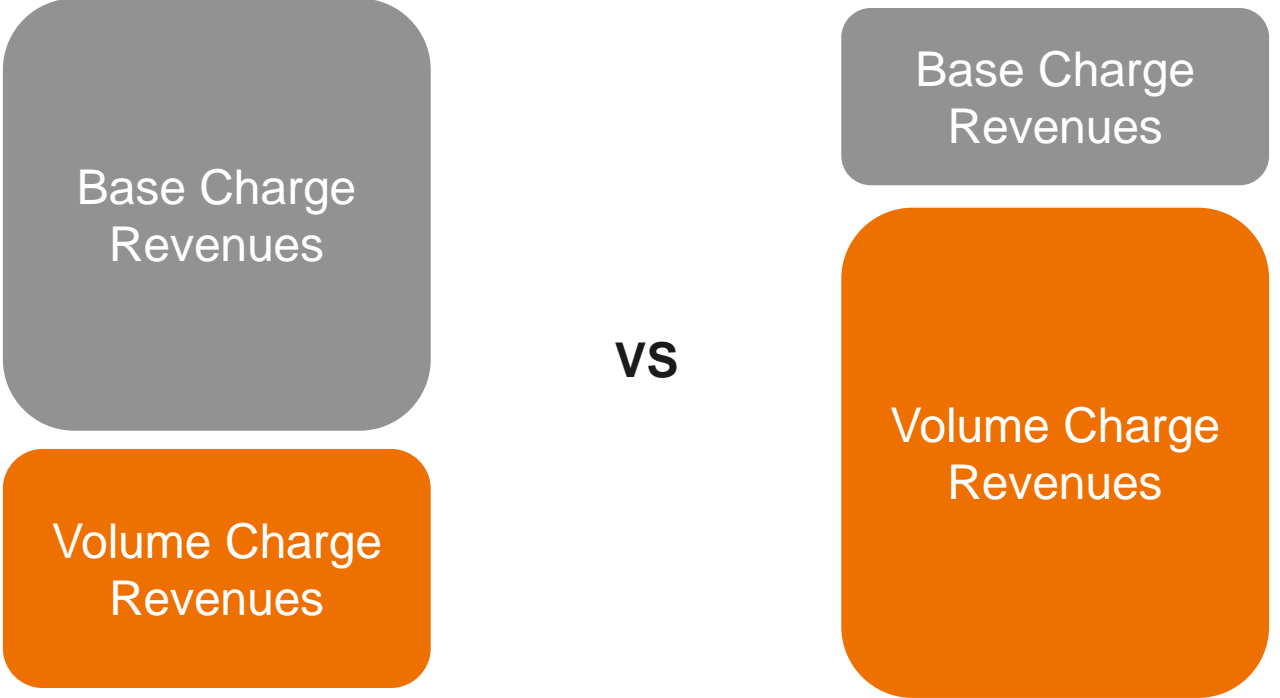
Category	Pricing Criteria
Revenue	Revenue Sufficiency
	Revenue Stability
Legal	Legal Defensibility
Equity	Interclass (between classes) Equity
	Intraclass (within class) Equity
	Intergenerational (existing vs. new connections) Equity
Customer Impact	Affordability
	Conservation/ Demand Management
	Bill Stability
Administration	Administrative Burden
	Complexity/Customer Understanding
	Public and Political Acceptance



# Pricing Objectives - Revenue


Pricing Criteria	Definition
✓ Revenue Sufficiency	Rates recover full cost of service annually
Revenue Stability	Rates minimize fluctuations in revenue due to usage, weather, or other factors

## Rate Design Examples





# Pricing Objectives - Legal

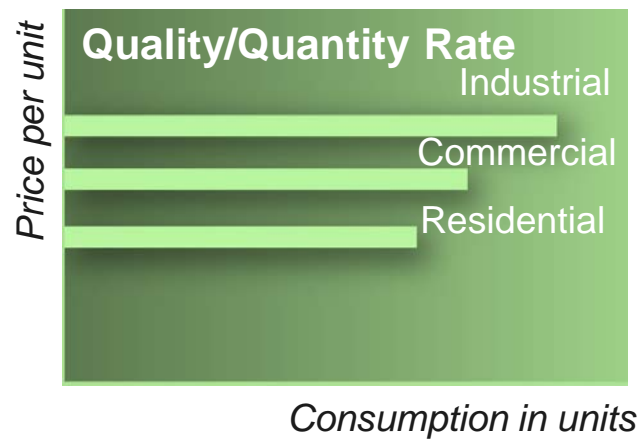
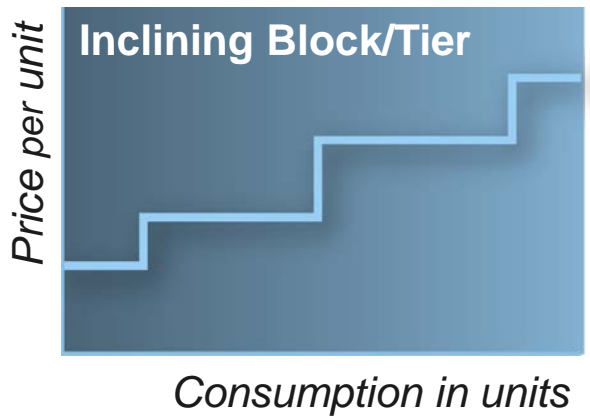
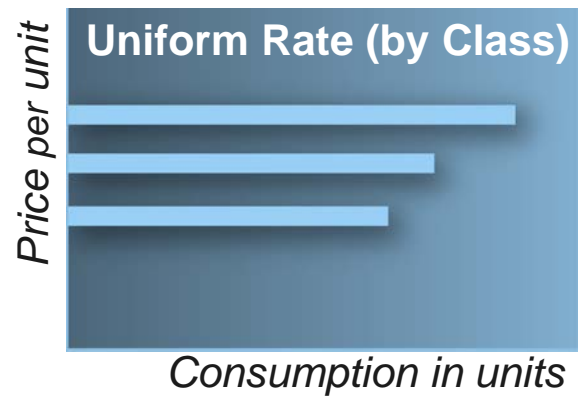
Pricing Criteria	Definitions
 Legal Defensibility	Rate structure complies with state and national laws/guidelines



# Pricing Objectives - Equity

Pricing Criteria	Definitions
Interclass (between classes) Equity	Costs recovered proportionally from each class
Intraclass (within class) Equity	Costs recovered proportionally from lower users vs higher users in a class
<input checked="" type="checkbox"/> Intergenerational (existing vs. new connections) Equity	Costs of growth recovered from new connections vs existing users

## Rate Design Examples





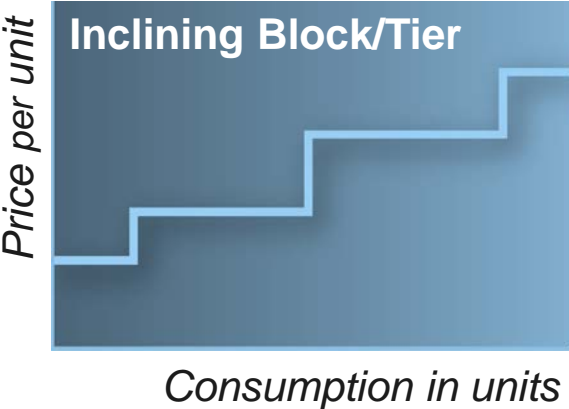
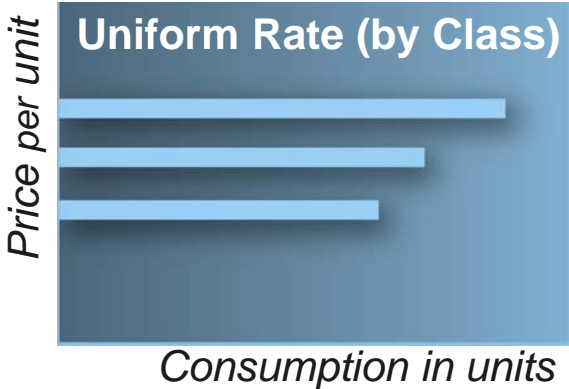
# Pricing Objectives – Customer Impact

Pricing Criteria	Definitions
Affordability	Ability for customer to influence bill by adjusting water use
Conservation/ Demand Management	Rate structure provides price signal/incentive to use less water
Bill Stability	Rates minimize monthly fluctuations in bills

## Rate Design Examples


Base Charge Revenues

Volume Charge Revenues

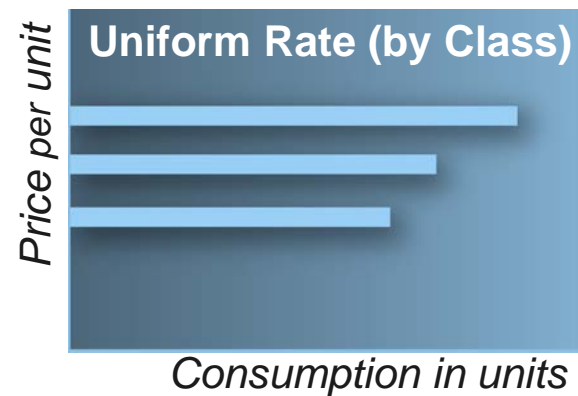




# Pricing Objectives - Administration

Pricing Criteria	Definitions
Administrative Burden	Cost, effort to implement & maintain rates
Complexity/Customer Understanding	Ability of public to understand rates; ease of explanation of rates
 Public and Political Acceptance	Necessary agreement that rate structure meets community values and goals

## Rate Design Examples





# Pricing Objectives – Discussing Priorities

Category	Pricing Criteria	Water Services	Council	Water Commission
Revenue	Revenue Stability			
Equity	Interclass (between classes) Equity			
	Intraclass (within class) Equity			
Customer Impact	Affordability			
	Conservation/ Demand Management			
	Bill Stability			
Admin	Administrative Burden			
	Complexity/Customer Understanding			



# Rate Design Focus - Recap

## Strategy Examples:

- Goals for Water Rate Design
  - Explore percentage of revenue collected from base charges vs volume charges
  - Investigate tiered commercial rates
  - Investigate seasonal rates
  - Simplify non-residential rates by class
- Goals for Wastewater Rate Design
  - Group customer classes by wastewater loadings
  - Consider monthly base charge for wastewater
  - Simplify non-residential rates
- Estimate bill impacts to different customers



# Community Outreach Update

## Community Groups

- Input from two developers – Jan 30 & 31 Drop-ins @ Water Services  
*(Notices emailed Jan 24 and Jan 30 - open rate of 62% and 71%)*
- Coffee with Downtown Business Alliance business owner on Feb 8<sup>th</sup>
- Meet with Chamber of Commerce Feb 15<sup>th</sup>
- Staff reaching out to schedule additional community group meetings  
*(Notices emailed Jan 16 - open rate of 89%)*

## Community Events

- March 11 Town Hall 5:30 – 6:30 PM | In-person & Virtual | Presentation on Rate Design Options to Customers



# Tabling Events for Water Awareness Month


- April 1 | Downtown Library
- April 3 | Jay Lively Ice Arena Public Skate
- April 6 | Science Saturday at Willow Bend
- April 8 | 4<sup>th</sup> Street Library
- April 10 | Joe Montoya Center
- April 13 | Tentative - Public Tours of Wildcat Hill Water Reclamation Plant
- **\*\*\*\* April 16 | *Notice of Intent to Change Rates & Fees Council Meeting* \*\*\*\***
- April 17 | Hal Jensen
- April 20 | Earth Day
- April 27 | Science, Technology, Engineering and Math (STEM) Celebration at Ft. Tuthill



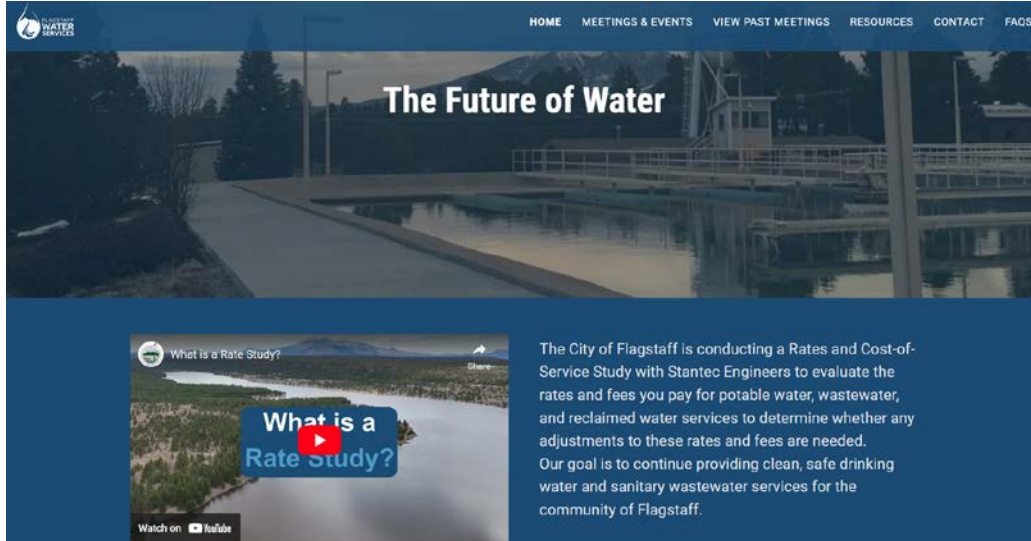


# Additional Website Content

- Recent updates to functionality of website
- Community Resources (in progress)
  - Understanding Your Municipal Services Bill
  - Water & Wastewater Capital Project Lists
  - Criticality of Projects on Capital Project Lists



**LEARN MORE**  
SCAN THE QR CODE OR VISIT  
CLEANWATERFLAGSTAFF.COM



HOME MEETINGS & EVENTS VIEW PAST MEETINGS RESOURCES CONTACT FAQS

## The Future of Water

What is a Rate Study?

The City of Flagstaff is conducting a Rates and Cost-of-Service Study with Stantec Engineers to evaluate the rates and fees you pay for potable water, wastewater, and reclaimed water services to determine whether any adjustments to these rates and fees are needed. Our goal is to continue providing clean, safe drinking water and sanitary wastewater services for the community of Flagstaff.



FULFILLING REGULATORY REQUIREMENTS

### View Previous Events

Click the button on the top right of the video player to show other videos in the playlist.

City Council Water Rate Study Update - January 23, 2024

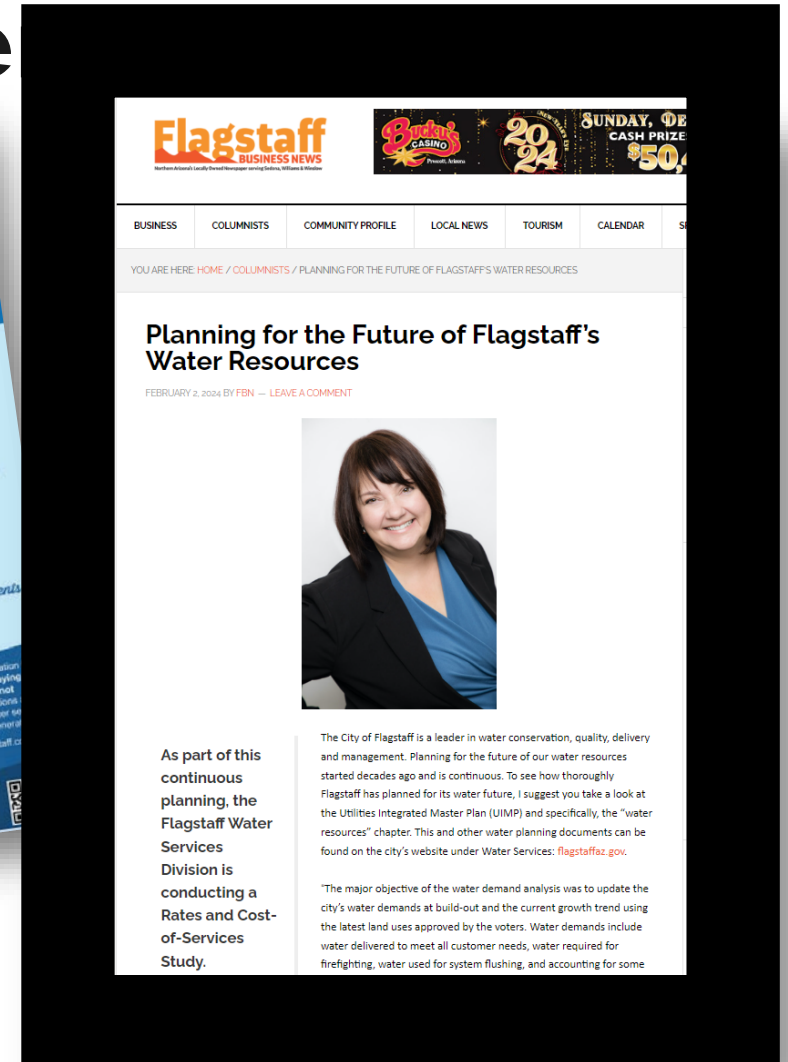
February 6, 2024 Water, Wastewater, Reclaimed Water Rate Study Presentation 3 of 3 on Capacity Fees and Misc. Fees 3 PM  
City Council Meeting  
Minutes  
Video should be posted above 10 Feb 2024

January 23, 2024 Water, Wastewater, Reclaimed Water Rate Study Presentation 2 of 3 on Capacity Fees and Misc. Fees 3 PM  
City Council Meeting - Video available above  
Minutes  
Video Above



# Outreach Materials Development

- Rack Cards
- Social Media Campaign
- Digital Ads
- Radio Spots
- Fact Sheets
- Posters
- Press Releases





# Next Steps

- February 15, 2024 Water Commission – rate design introduction
- March 4, 2024 - Joint City Council & Water Commission Rate Design Direction
- *Future opportunities for direction:*
  - March 25, 2024 - available for Joint City Council & Water Commission, if needed
  - April work sessions for policy topic discussions
- April 16, 2024 – adopt notice of intention (NOI) to change rates and fees
- June 18 and July 2, 2024 - Public hearings on changes in rates and fees
- September 1, 2024 - new rates are effective



# Discussion & Guidance

*Next Steps/Action Items*

To: Erin Young, Water Resources Manager;  
City of Flagstaff Water Services

From: Carol Malesky, Principal  
Stantec Consulting Services Inc.

Date: February 8, 2024

**Reference: Pricing Objectives for Cost of Service-Based Rates and Fees**

As part of the Water, Reclaimed Water, & Wastewater Cost-of-Service Study (Rate Study), a discussion of pricing objectives or criteria used in rate-setting is useful for evaluating decisions made during the Rate Study. For the purposes of this discussion, the following pricing criteria are organized into five categories:

1. Revenue
2. Legal
3. Equity
4. Customer Impact
5. Administration

The table below summarizes the potential subcomponents of each major category.

Category	Pricing Criteria
Revenue	Revenue Sufficiency
	Revenue Stability
Legal	Legal Defensibility
Equity	Interclass (between classes) Equity
	Intraclass (within class) Equity
	Intergenerational (existing vs. new customer) Equity
Customer Impact	Affordability
	Conservation/ Demand Management
	Bill Stability
Administration	Administrative Burden
	Complexity/Customer Understanding
	Public and political acceptance

Reference: Pricing Objectives for Cost of Service-Based Rates and Fees

## PRICING CRITERIA DEFINITIONS

### REVENUE

**Revenue sufficiency.** Rates and fees should be designed and set such that the full cost to provide service is recovered on an annual basis.

**Revenue stability.** The proposed alternative should minimize fluctuations in revenues due to changes in usage or other factors outside the control of the City.

### LEGAL

**Legal defensibility.** The rates and fees must be legally defensible if challenged.

### EQUITY

**Interclass equity.** This type of equity is improved if the alternative recovers the cost of serving each class. Each customer class pays its fair share and no class provides or receives a subsidy from another class. An example for the City is equity between residential and non-residential customers.

**Intraclass equity.** This type of equity is maximized when individual customers within a class pay their proportionate share for their contribution to the customer class revenue requirement. An example for the City is equity between low water/sewer users and large water/sewer users.

**Intergenerational equity.** Intergenerational equity is the relationship between new and existing customers. The addition of new customers should not burden existing rate payers. This is traditionally accomplished through the City's capacity fees to new customers for the cost of growth-related capital improvements.

### CUSTOMER IMPACT

**Affordability.** The ability of the alternative to provide a means for customers to influence their monthly bills by adjusting water consumption. Rate structures with higher base charges may present affordability challenges for lower income customers with low water use.

**Conservation/demand management.** The ability of the alternative to send the appropriate price signals to encourage efficient use of indoor and outdoor water use. Conservation rate structures are often used in combination with other non-price programs to achieve specific conservation reductions.

**Bill stability.** The implementation of an alternative may cause fluctuations in customers' bills due to the one-time structure change or on a monthly basis (winter vs summer). To minimize this, many utilities will transition, or phase-in, to a new rate/fee over a period of time. This criterion identifies the level of impact the City is willing to undertake with a new rate or fee change.

February 8, 2024

Erin Young, Water Resources Manager; City of Flagstaff Water Services

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Reference: Pricing Objectives for Cost of Service-Based Rates and Fees

## **ADMINISTRATION**

**Administrative burden.** The amount of administrative burden required to implement and maintain a new rate or fee. Billing system changes, changes to reporting requirements and staffing levels required to administer a rate structure may be affected with the administration of a new rate or fee.

**Complexity/customer understanding.** The public's ability to understand changes to a rate, fee, or structure.

**Public and political acceptance.** The rate study recommendations should be acceptable to the public and City Council. Acceptance of rates and fees is typically tied to community values and goals. This criterion typically requires gathering information on likely customer responses and the involvement of elected officials.

**Carol Malesky**

Senior Principal, Financial Consulting Services

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