WATER SERVICES WATER, WASTEWATER, RECLAIMED WATER RATE STUDY - FY25-29

City of Flagstaff Water Services 10-Year Capital Projects Drinking Water

The projects listed below will be paid for by a mix of water rates, loans and state or federal dollars. Although the current proposed rate changes only cover a 5-year period, we will evaluate our 10-year Capital Plan annually to ensure that rates continue to support these and future projects.

PROJECTS FUNDED BY WATER RATES

Aging System Replacement & Maintenance - $80.2M

- Aging Waterline Replacement Projects
- Bonito Load Out Station Rehabilitation or Relocate
- Booster Station and Water Tank Rehabilitation
- Computer Programming "SCADA" Well Upgrades
- Inner Basin Pipeline Design & Rehabilitation*, Spring Box Rehabilitation, and Diesel Engine Replacement for 3 Wells
- Radio Read Meter Replacements
- Switzer Transmission Main Replacement
- Upper Lake Mary Dam Repair, Treatment Plant Chlorine Dioxide Generator Replacement, Sedimentation Basins Rehabilitation, Raw Water Pipeline Rehabilitation*
- Water Vault & Valve Replacement Program

Partner Projects - "Don't Dig Twice"** - $9.1M

- Beaulah/University Waterline Relocation (City of Flagstaff Public Works)
- Cast Iron Waterline Upgrade at Milton Road (Arizona Department of Transportation)
- Coconino Estates Waterline Replacement (City of Flagstaff Public Works)
- Rio de Flag Flood Control Project - Waterline Relocation (Army Corps of Engineers)

Resiliency & Efficiency Projects - $6.5M

- Energy Efficiency Upgrades
- Equipment Storage Facility
- Master Planning Studies
- Woody Mountain Wellfield Powerline Burial

NEW CONNECTION "CAPACITY" FEES GO TOWARDS THESE PROJECTS

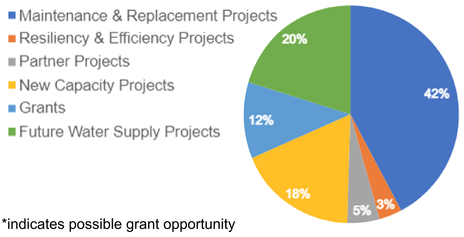
Capacity Projects - $34M

- Lake Mary Water Treatment Plant Land Acquisition
- Master Planning Studies
- Pressure Zone B Storage Facility*
- Railroad Springs #3 Storage Tank
- Reclaimed Water Projects (Included in water project list due to offset of potable demand)
  - 8-inch Distribution Main Upsizing
  - Complete Loop - FoxGlenn to Country Club
  - Reclaim Storage Tanks at Wildcat Hill & Rio Plants
- Switzer Transmission Main Replacement & New Line
- Waterline Upsizing Projects

Future Water Supply Projects - $38.3M

- New Local Groundwater Wells & Pumphouses
- Red Gap Ranch Feasibility Studies

TOTAL BUDGET % BY PROJECT TYPE



*indicates possible grant opportunity

**"Don't Dig Twice" identifies projects initiated by other internal and external organizations. Water Services funds these projects in order to wisely allocate resources.

FLAGSTAFF WATER SERVICES

Learn more about the future of water using the QR Code or visit cleanwaterflagstaff.com For questions call us at 928-213-2400

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City of Flagstaff Water Services 10-Year Capital Projects Drinking Water

Because our Master Plans identified many of the above listed projects as critical, we also believe it is necessary to convey the risks associated with NOT addressing these projects. Some anticipated risks and examples from the Master Plan are listed below.

Risks and Projects Identified as Not Contingent on City Population Growth

General Risks

- Each year a project is delayed, the cost can double or even triple
- Deferred repair and replacement of aging infrastructure increases the risk of triggering a water emergency*
- Delaying projects reduces the resiliency and robustness of our water systems
- Insufficient funding limits personnel resources, leading to staff burnout and increased risk of system failures
- Current CIP is already "conservative," meaning: 1) numbers don't include true experienced costs, as this would dramatically impact the rate study to a point of unreasonableness; 2) fulfilling the full CIP as presented will still not fully fund all the projects listed, and 3) cost escalator built into the model will not meet what is actually being experienced in today's market

Project-Specific Risks and Examples

- The Inner Basin Pipeline has significant leakage as well as infiltration. The leakage through the pipeline is causing substantial loss of water and the infiltration is degrading the water quality
- Lake Mary Water Plant Sedimentation Basins face severe deterioration, spalling, exposed aggregate and metal components, and corrosion on drives. If not addressed, the basins could fail, triggering a water emergency*
- The city has identified 13 water meter vaults beyond their useful life which require significant maintenance. Some vaults have groundwater intrusion. The city began replacing these water meter vaults in 2015
- The 2014 Master Plan identified a cost of just over $37.8 million to replace all system pipes that have exceeded their useful lives in the next CIP period (2024 – 2033). Delays will increase replacement cost and the risk of system failure
- Risk of insufficient fire flow (water available for firefighting)

Risks and Projects Identified as Contigent on City Population Grown

- The existing available maximum day production (firm capacity) is 16.9 MGD. Allowing for committed development (i.e., developments that have already been assured a 100-year water supply), a deficit of 1.8 MGD (1,250 gpm) is anticipated. Deficits in water production will trigger a water emergency*

* A water emergency occurs when the city's water production system is compromised to the point where city demand exceeds our capacity to deliver. During an emergency, the community is asked to curtail their water use.

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