

# Water Conservation Strategic Plan 2022 Update

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# Strategic Plan Overview



- Originally passed December 2020
- 20 year plan (thru 2040)
- Extensive public outreach process
- Assessed current and future conservation actions
- Awards
  - 2020 WaterSense Excellence Award
  - Alliance for Water Efficiency Leaderboard

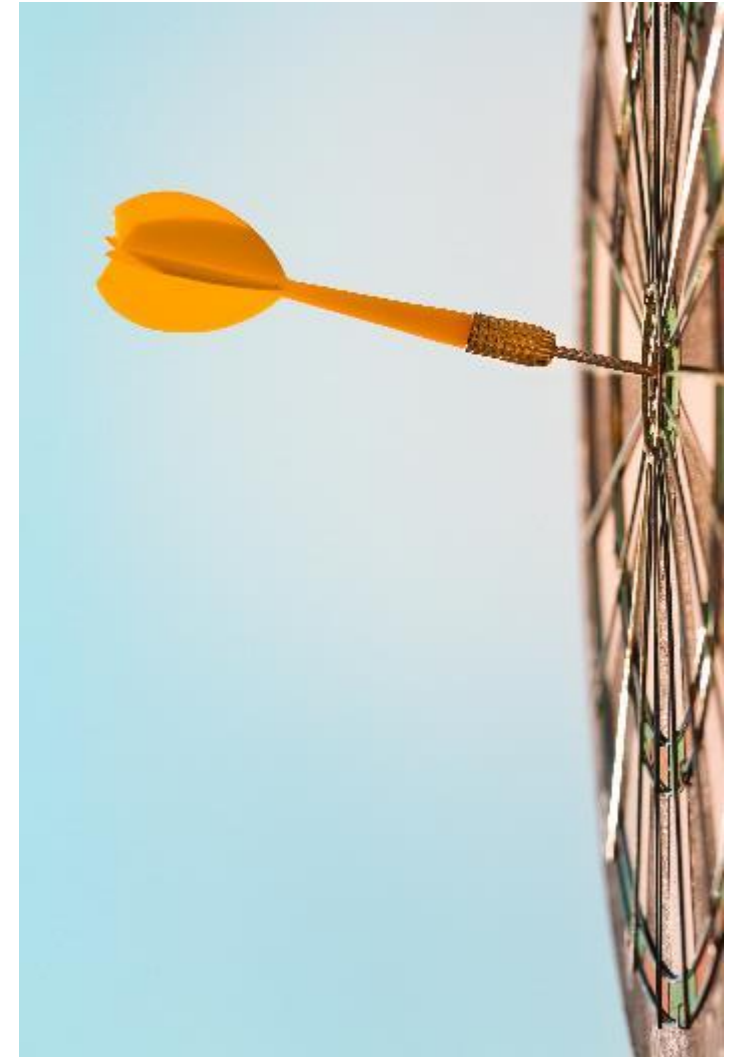




# Strategic Plan Goals



1. Quantify water savings
2. Select future water conserving activities
3. Ensure community benefit of conservation programming
4. Establish Flagstaff as leader in water conservation

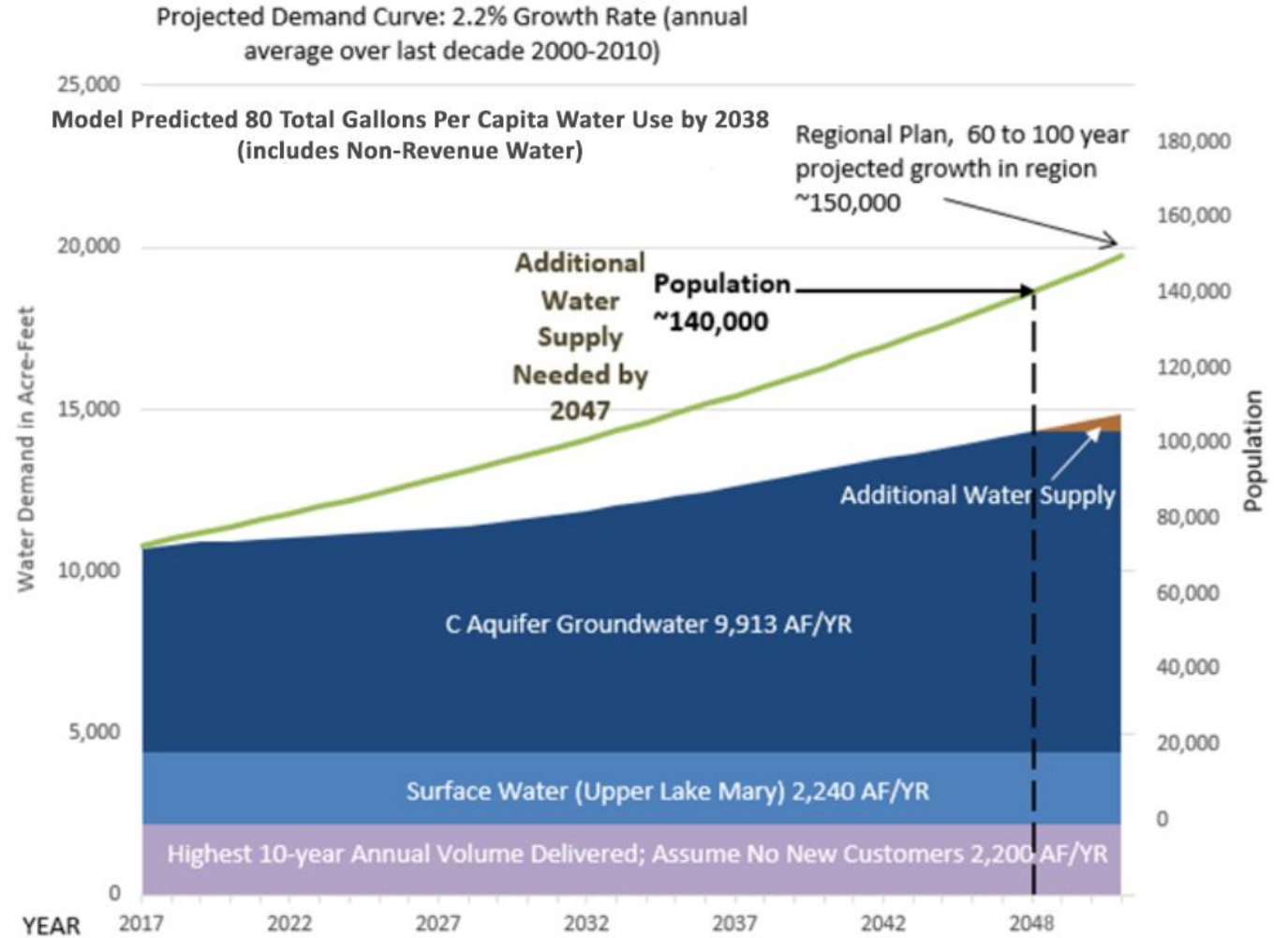
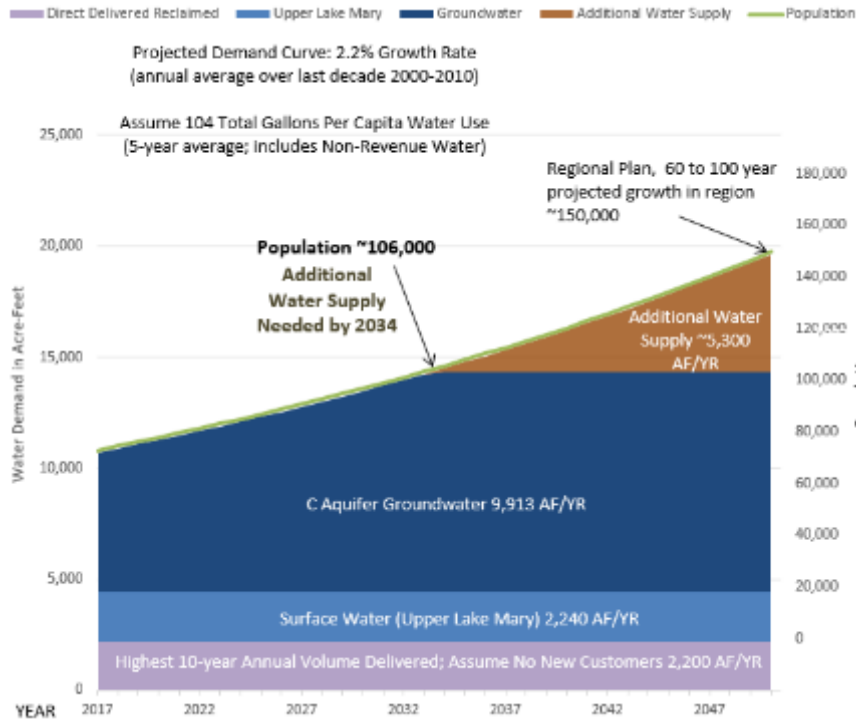




# Projected demand



Direct Delivered Reclaimed Upper Lake Mary Groundwater Additional Water Supply Population





# Preexisting Programming

- Public outreach & Social Media
  - Water Awareness Month & Annual Mayor's Challenge
  - 4<sup>th</sup> Grade Water Festival
- Residential and Commercial consultations / rebates
- Meter replacement across community
- Code enforcement
- Efficient fixture giveaways





# Commercial & Residential Rebates

- Increased efficiency requirements to premium efficiency (1.1 gpf or lower effective flush volume)



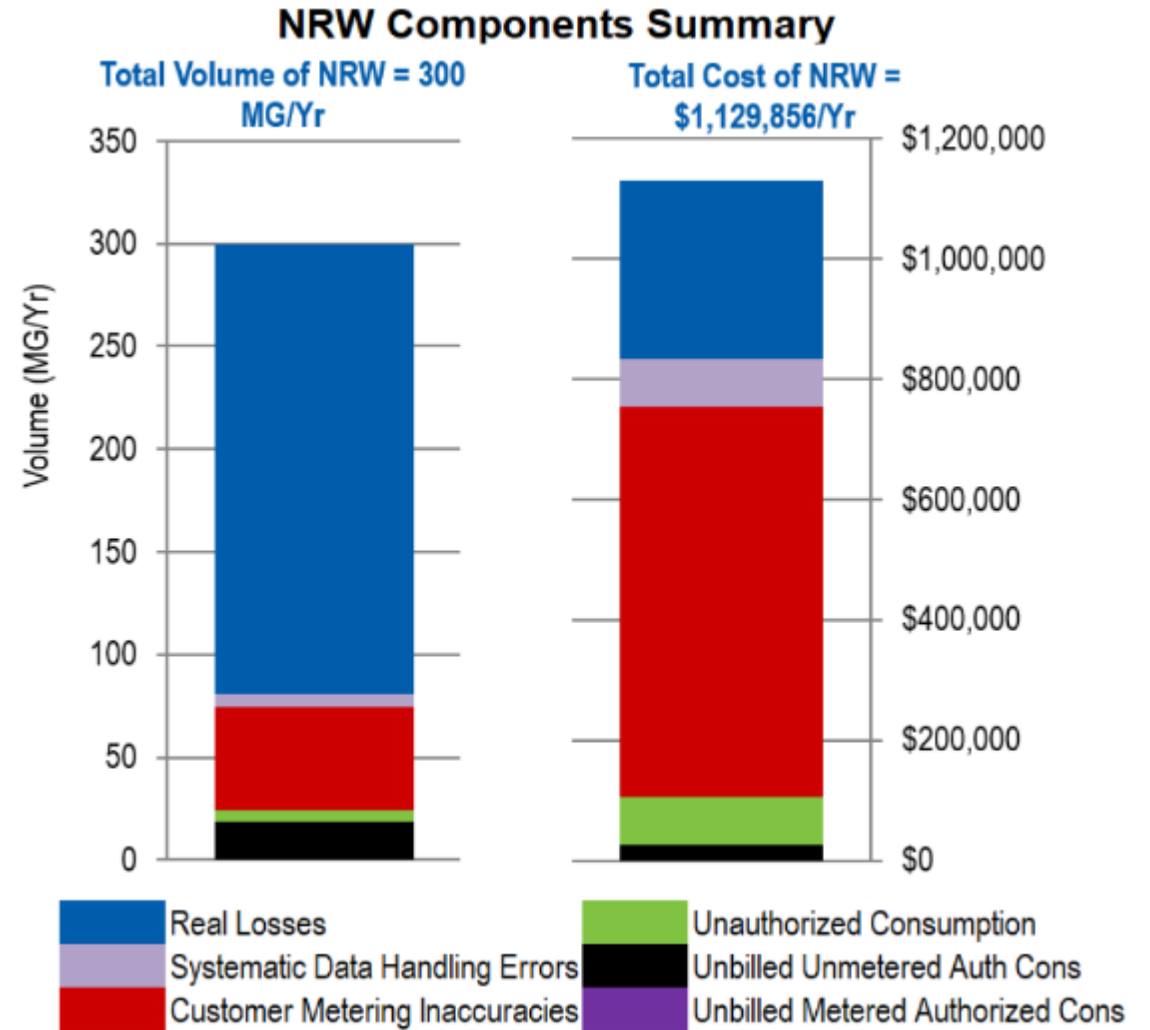
- Were able to perform toilet replacements at several hotels during pandemic
  - DoubleTree
  - RoadWay Inn
- New high efficiency showerheads at Aquaplex



# Nonrevenue Water Audit



- Performed for CY 2020, CY 2021 to be assessed soon
- Showed annual loss of approx 300 million gallons, total cost approx \$1.13M
- Data validity can be increased by annually testing system entry meters





# School Retrofits

## Flagstaff Junior Academy: Cedar Campus

- Replaced 1.6 gpf toilets with premium efficiency toilets (50% savings)
- Replaced aerators (average 70% savings)
- Replaced leaking faucet in one classroom
- Annual estimated water savings 44,000 gallons
- Conservation program for all students on World Water Day, discussing the retrofit and how they can save water.





# School Retrofits



## Mountain School

- Replaced valves in commercial toilets for estimated water savings of 20-37%
- Replaced all faucet aerators with water savings between 50-75%
- Detected several leaks and provided replacement parts for faucets and urinals

## Haven Montessori

- Replaced valves in commercial toilets for estimated water savings of 20%
- Replaced all faucet aerators with water savings between 50-75%
- Detected one sink leak and providing new faucet





# Rainbarrel Program Update

- Reduce staff time thru volunteers – Co-Coop Maker’s Space
- Partnership with Habitat for Humanity and E.R.I.C for free screen material (diverted from landfill)
- Revitalized rainwater workshop to emphasize reducing outdoor water consumption
- Held 9 workshops in FY22/FY23
  - Provided 143 totes and barrels to community
  - 250 new requests for barrels in the last few months.





# Code proposals



## WaterSense Certified Faucets, Showerheads, Toilets

- Would improve and adjust as the certification changes over time
- Ensures both efficiency and efficacy
- Outreach to contractors and plumbers winter 22/23
- Existing similar codes: Sierra Vista, NYC, Colorado, Georgia (California and Texas)

## Landscape Code - Passive Rainwater Capture and Review Plant List

- Passive rainwater capture requires contouring of landscape to slow flows
- Existing plant list may include inappropriate plants
- Public participation – workgroup or advisory committee (FY23)



# Innovation Fund

- 17 households testing Pearl's Premium low water turf
- Purchasing additional submeter units for customized data tracking

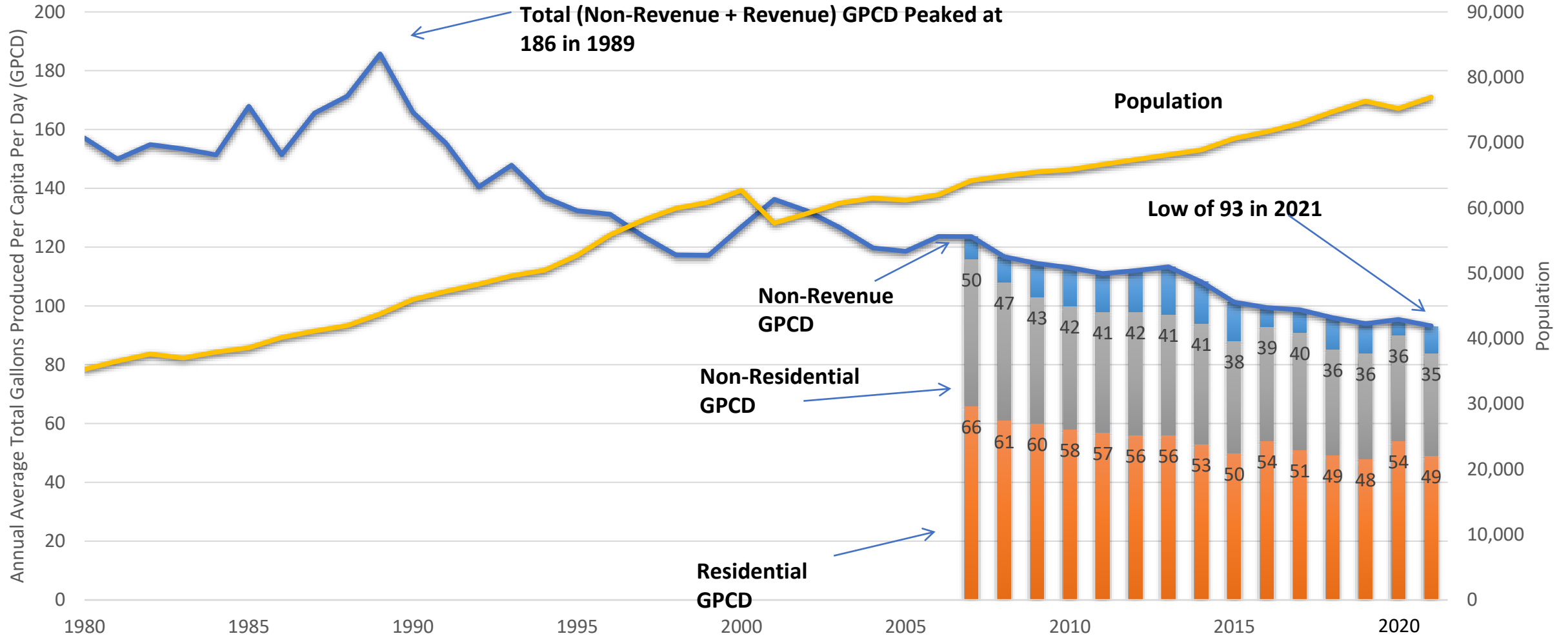


- Other proposals / ideas
  - Partnership with local plant nurseries to promote native and low water use plants
  - Housing partnership for low income home owners
  - Drip irrigation for large rainwater catchment systems for community gardens



# Water Use Trends

### Water use trends 1980 - 2021



# Thank you!

- Next Steps
  - Continue to implement new programs in the plan
    - Outdoor water budgeting
    - Higher education partnerships
    - Housing partnership
  - Annual tracking sheet on progress
    - Total participation
    - Community water use trends
  - Water Services Rate Study
    - Scope of work includes conservation considerations

