

Reclaimed Water Master Plan Update

Erin Young, Water Resources Manager

June 30, 2020



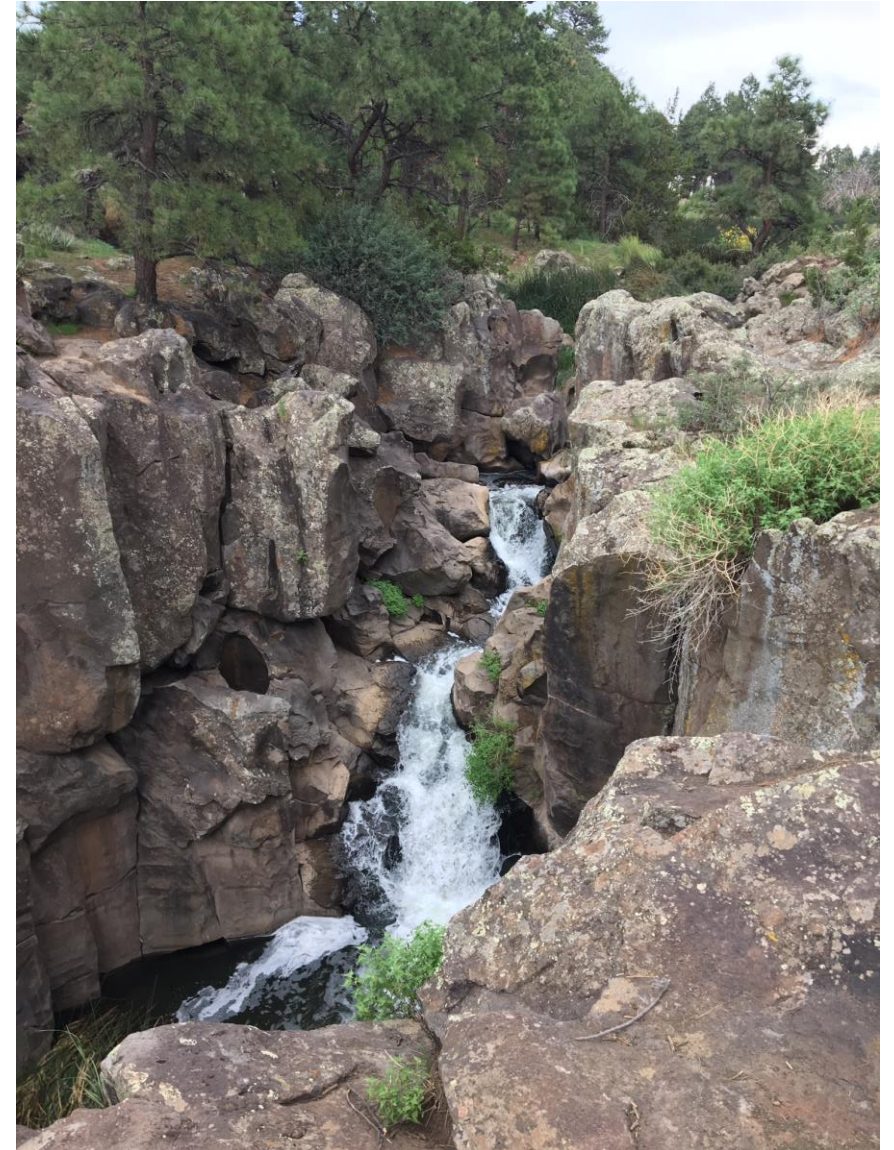
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Tonight's Update



- Presentation is about a process, not solutions, regarding the future use of reclaimed water
- This is an opportunity to build an educated public
- Come back to commissions and council with results for four reclaimed water scenarios will be incorporated into the Water Resources Master Plan



RWMP Objective

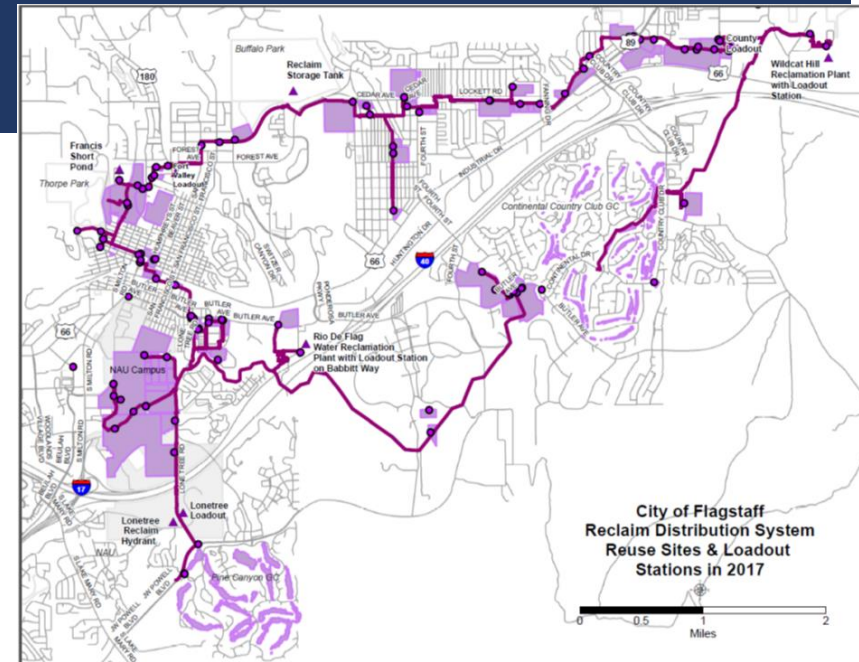
develop community-specific guidance on water management options for the City's uncommitted reclaimed water

these options will be incorporated into the Water Resources Master Plan



MANAGEMENT OPTIONS - Carollo Supply Alternatives Report (2017)

- Direct reuse opportunities to expand the reclaimed distribution system
- Aquifer recharge through streambed recharge
 - With and without advanced treatment
- Aquifer recharge through groundwater recharge wells
 - With and without advanced treatment
- Augmentation of Upper Lake Mary
- Direct Potable Reuse



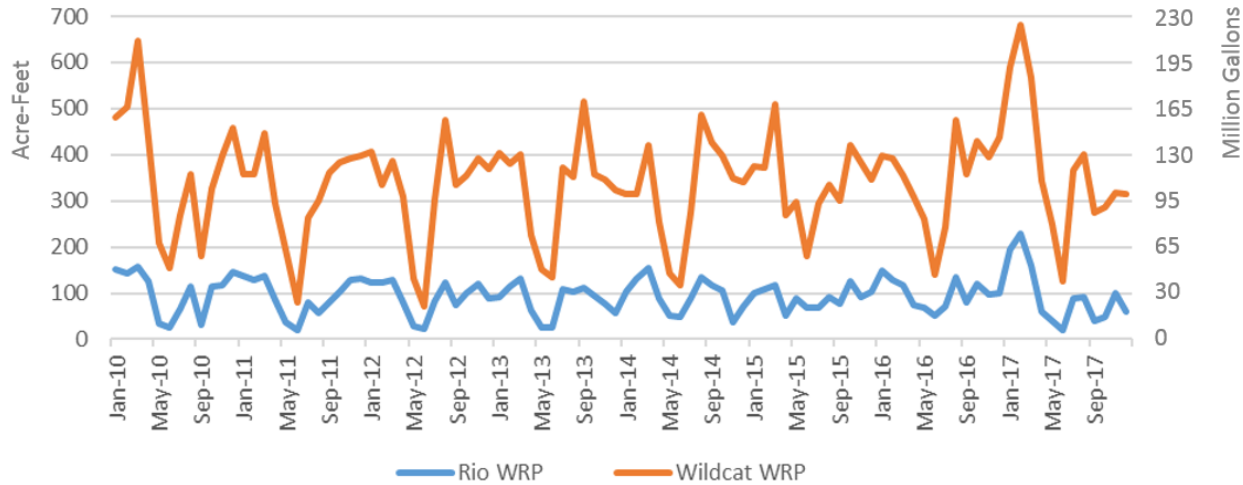


Reclaimed Water Available

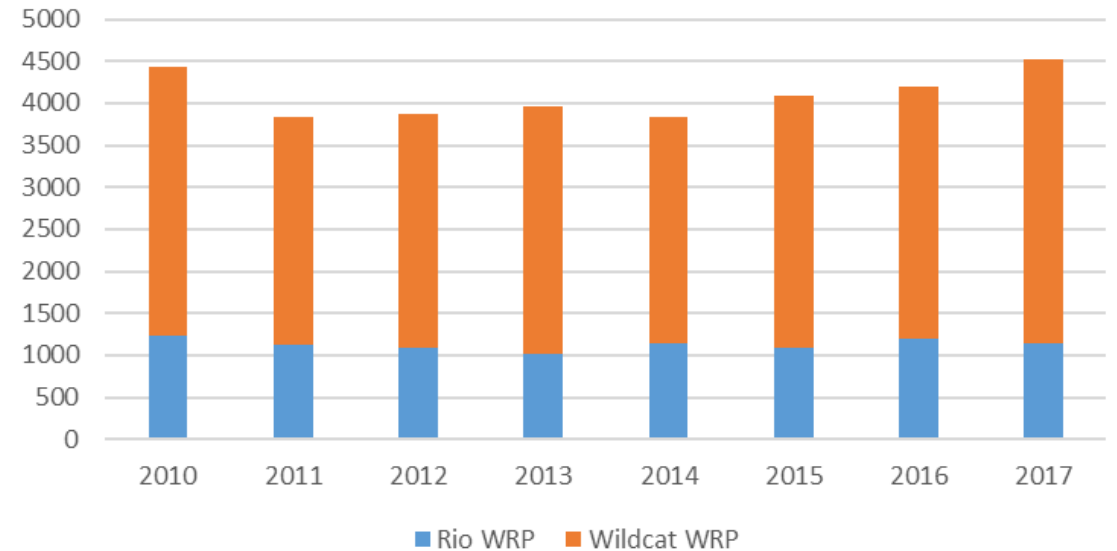


How much water “uncommitted”?

Total Discharge to Rio de Flag Wash, Acre-Feet and Million Gallons per Month



Discharge to Rio de Flag wash, Acre-Feet per Year



Seasonal variation limits applications that require continuous new demand: very little water is available in May and June to an excess of 150 million gallons a month in the cooler months

On an annual basis, from 3,500 to 4,500 acre-feet of water is available each year for recycling back into the community.



WRMP Scope of Work

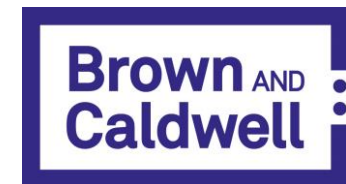


a multi-pronged approach to inform the City of favorable alternatives for the best and highest use of reclaimed water

- **Phase 1 – Compile information for review and discussion at stakeholder meetings**
- **Phase 2 – Lead stakeholder meetings**
- **Phase 3 – Report results for inclusion into Water Resources Master Plan**



WATER RESOURCES
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Phase 1 – Compile data

Compile information for review and discussion at stakeholder meetings

- reclaimed water balances
- operations and infrastructure considerations
- economics and costs of all options
- categorization of existing water quality data
- public perceptions



Aquifer seepage study 3/19/2020. Allen Haden, Natural Channel Design, documents the 1,000 gallons-per-minute release of reclaimed water at Lonetree at Bow & Arrows Wash.



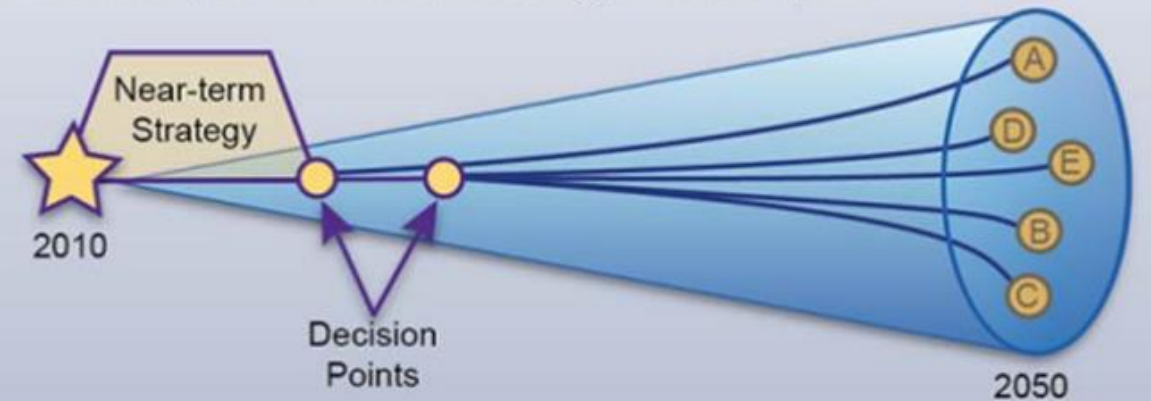
Phase 2 – Stakeholder Meetings

Objective - develop community-specific water management guidance on reclaimed water expansion options

- review general background information
- review data compilations from B&C & WWR
- discuss and identify four scenarios for expansion of reclaimed water use for Water Resources Master Plan

Water resource scenario planning – develop water demand futures and identify water sources

- Identify a set of scenarios to represent a plausible range of future conditions
- Seek a common near-term strategy that works across the scenarios
- Re-evaluate the scenarios and strategy at decision points



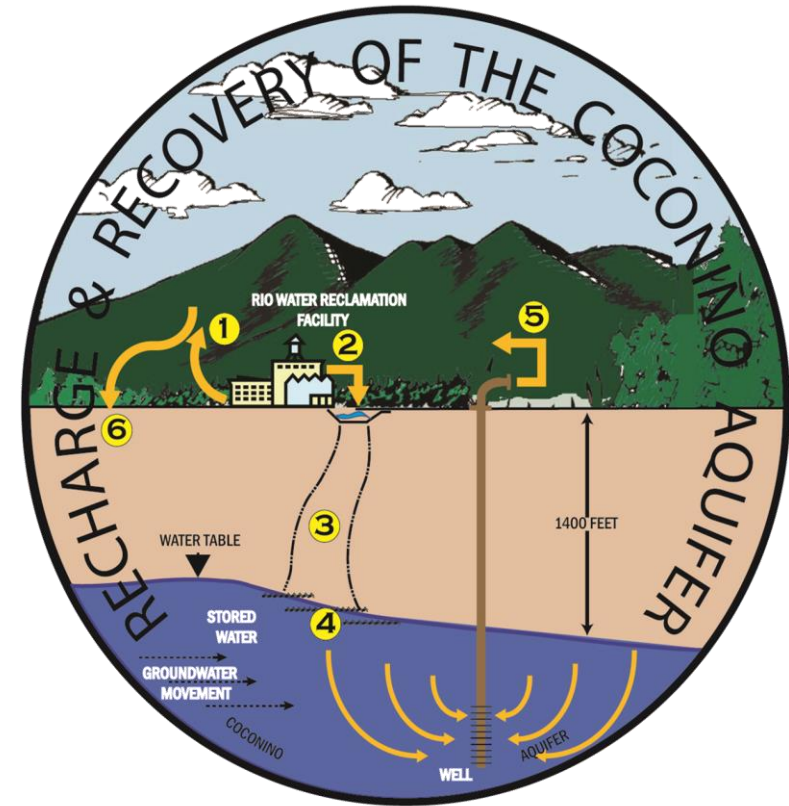
From previous Water Resources Master Plan Presentations to Commission and Council



Phase 2 – Stakeholder Meetings

Stakeholder meeting format

- Conduct two half day workshops with consultants & the stakeholders
 - first workshop will cover background information and gain an understanding of community values regarding reclaimed water and water quality
 - second workshop will be for development of alternatives
- Additional meetings as necessary
- Formal recommendation of four options





Phase 3 – Reporting Results

Technical Memorandum, Presentations, Policy recommendations

- B&C: reclaimed water balances, water quality data and literature reviews
- B&C: Summarize findings from stakeholder group workshops group regarding **water quality risks, standards and reclaimed water strategies**
- WWR: Recommend **key considerations and policy topics that City Council and rate consultants should consider** when establishing reclaimed water rates.
- WWR: Recommend next steps for incorporating baseline data and analysis into more sophisticated decision support models, and for **applying the information in the city's land use policy-making.**



Solicitation of Applicants

Build an educated and informed group that understand the issues and carry the message

- **Commitment from Stakeholders ~4 hours a month for 6 months**
- **Stakeholder Committee Selection – looking for applications to narrow to ~10 individuals**
 - **Engineering Consultants**
 - **Field Experts**
 - **Large Customers**
 - **Public**
 - **Sustainability Commission**
 - **Water Commission**



Numerous goals, policies, plans will benefit



- Council Goals (Water Conservation, Climate Change, Environmental & Natural Resources, Economic Development)
- Regional Plan Goals (Water Resources, Climate Change)
- Provide direction to Water Services, Economic Vitality, Community Development, Parks - on expansion of reclaimed water system
- Alignment with climate and sustainability initiatives
- Provides guidance on the value of reclaimed water in the community



Thank you

Erin Young – Water Resources
Manager



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