SANTA FE WATER REUSE FEASIBILITY STUDY

Highest-Ranking Alternative

JANUARY 2017

Full Consumption of San Juan Chama Project (SJCP) Water Via Rio Grande Return Flow Credits

QUICK FACTS

Sustainable Water Supply Benefit	2,344 acre-feet per year (2,344 AFY, equivalent to 760 million gallons per year) with peak flow up to 3 million gallons per day (mgd)
Pipeline	17.7 miles, 14" diameter to convey water from Water Reclamation Facility (WRF) to Rio Grande below Buckman diversion
Pump Station	1 new pump station at Water Reclamation Facility
Maintains releases to Santa Fe River for downstream environmental and cultural uses	
Utilizes existing Santa Fe assets at Buckman Direct Diversion	
Requires no new water treatment facilities	

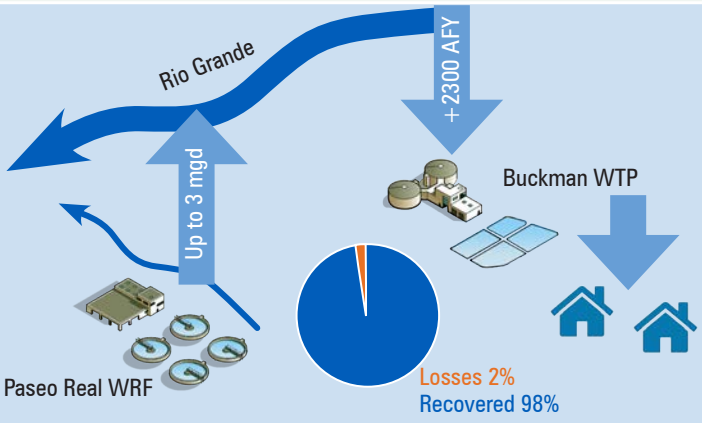
The Rio Grande Return Flow Credits Alternative was ranked highest among seven reuse alternatives evaluated in detail, based on:

COMMUNITY BENEFITS

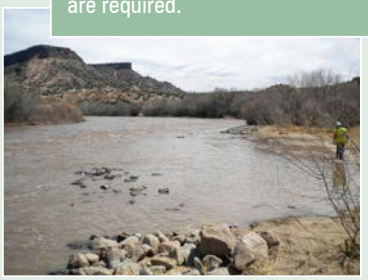
- Greatest water supply benefit through drought-resistant recycled water supplies
- Fully utilizes Santa Fe's SJCP water
- Lowest capital and long-term costs
- Requires no additional treatment
- Lowest energy and chemical usage (most sustainable)
- Leverages Santa Fe's existing investments and available capacity in the Buckman Direct diversion, conveyance, and treatment systems
- Maintains releases to Santa Fe River for downstream environmental and cultural uses
- Potential for sharing construction costs with U.S. Bureau of Reclamation through the Title XVI program

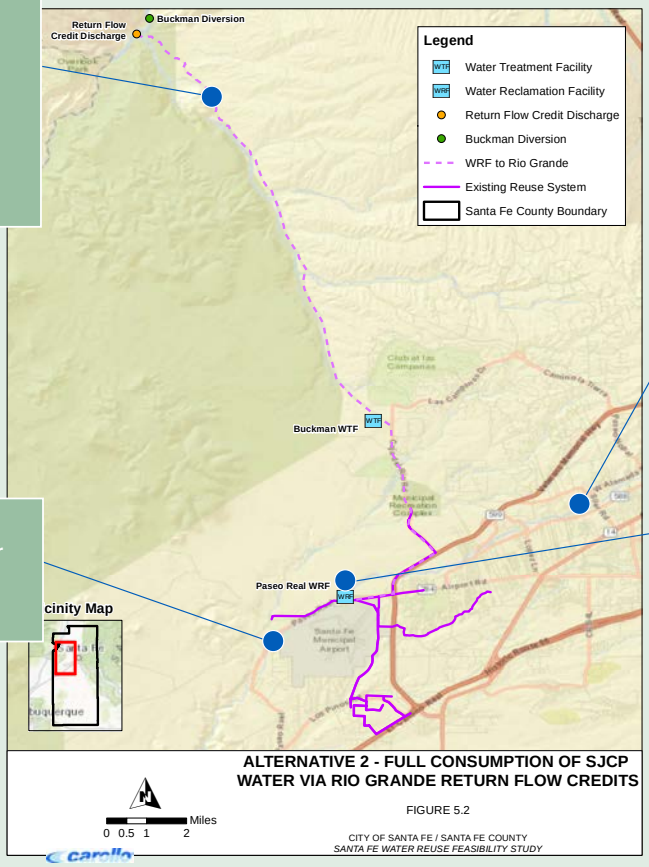
Full Use of SJCP Water via Rio Grande Return Flow Credits

- Pump up to 3 mgd WRF flow to Rio Grande
- Exchange for Rio Grande water
- Divert additional 2344 AFY through existing Buckman system



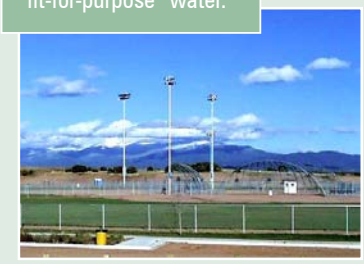
2,344 AFY of water is conveyed to the Rio Grande via a new 17.7-mile pipeline. This water is then exchanged for additional water supply using the existing Buckman Direct Diversion Project. No new water rights or treatment facilities are required.





The City of Santa Fe will continue to create a "living river" via bypass flows from the Canyon Reservoirs.

Santa Fe will continue to operate its existing reuse system with "fit-for-purpose" water.



Flows continue to be released at the Water Reclamation Facility for downstream environmental and cultural uses.

1950s. Water from the City of Santa Fe's Wastewater Treatment Plant utilized for irrigation of the Santa Fe Country Club golf course.

1988. Santa Fe Metropolitan Water Board publishes a Long Range Planning Study that identifies return flow credits from the Wastewater Treatment Plant for San Juan – Chama water as a potential "fourth source of supply."

1994. City initiates the Treated Effluent Management Plan (TEMP) to determine how to optimize the beneficial use of reclaimed water. This process included public input through a series of public meetings and culminated in the publication of the TEMP in 1998.

2004. Initiation of the City's Long Range Water Supply Plan (LRWSP), which was published in 2008 and identified optimization of treated effluent as a critical policy for the City's long-term water viability.

2013. The City of Santa Fe completes the Reclaimed Wastewater Resource Plan to review options for the use of reclaimed water. Expansion of existing practices, as well as new uses, were evaluated and presented.

2015. The City of Santa Fe and Santa Fe County, working collaboratively with the Bureau of Reclamation, completed this evaluation of the effects of climate change on availability of water resources, health of flora and fauna, food security, human development and quality of life. Adaptation strategies were identified and given an initial evaluation; reclaimed water is identified as a viable and resilient future source of water supply.

2017. The City of Santa Fe, working collaboratively with Santa Fe County and the Bureau of Reclamation, completes the Water Reuse Feasibility Study that evaluates several alternatives for reclaimed water reuse from the 2015 Basin Study. Piping wastewater to the Rio Grande in order to establish return flow credits is identified as the highest-scoring alternative based on triple bottom line criteria of economic, cultural, and environmental considerations, as well as overall technical feasibility.

1950 1960 1970 1980 1990 2000 2010 2020

RIO GRANDE RETURN FLOW CREDITS QUICK FACTS

- Construction cost $17.8 million
- Quantity of water 'created' for potable supply (2,344 AFY)
- Potential cost-share with U.S. Bureau of Reclamation