CoSF Water Supply & Demand Update: 2021

This report is available at [https://www.santafenm.gov/water](https://www.santafenm.gov/water)

Background and Jargon

- City of Santa Fe Water has 4 water sources
  - 2 utilize river water or “surface water”
    - Canyon Road Water Treatment Plant treats Santa Fe River Water stored in two reservoirs in the Upper Santa Fe River Watershed.
    - Buckman Direct Diversion Water Treatment Plant treats water diverted from the Rio Grande, that (for accounting purposes) is Colorado River Water delivered into the Rio Grande system through the San Juan Chama Project. It is stored in 3 reservoirs in the Chama system.
    - Surface water is settled, filtered, and chlorinated at treatment plants
  - 2 utilize well water or “groundwater” from underground aquifers
    - The City Wellfield consists of 7 wells, 5 of which are clustered near the Santa Fe River between St. Francis and Alire.
    - The Buckman Wellfield consists of 13 wells, 9 of which are clustered near the Rio Grande at the end of the Buckman Road.
    - Groundwater is naturally filtered as it moves underground and is chlorinated before being delivered into the potable system.
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City of Santa Fe Sources of Water Supply
Total Production (annual average 2013 - 2019)

<table>
<thead>
<tr>
<th>Source</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buckman Well Field</td>
<td>975</td>
</tr>
<tr>
<td>City Well Field</td>
<td>911</td>
</tr>
<tr>
<td>Buckman Direct Diversion</td>
<td>3,901</td>
</tr>
<tr>
<td>Canyon Road WTP</td>
<td>2,867</td>
</tr>
<tr>
<td>total</td>
<td>8,594</td>
</tr>
</tbody>
</table>

45% BDD
33% Canyon Road
22% Groundwater
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1. Monthly Supply and Demand Summary

- City of Santa Fe Water produced about 8700 Acre Feet (AF) of potable water in 2021.

- 79% (about 6840 AF) of production came from surface water sources (rivers).

- 21% (1860 AF) of production came from groundwater sources (wells).

- 94% of potable water produced was delivered to City customers (6% “unaccounted” water loss).

- Potable production and use by month is shown on Page 4.
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2. Cumulative Annual Surface Water and Groundwater Production

- Despite an approximately 1% increase in number of meters in 2021, 2021 City production was lower than 2020 production. This is likely a result of both continued conservation efforts and relatively good summer rains.

- City of Santa Fe Water used about 8700 AF of water in 2021, only 3/4 of our average estimated renewable water availability of **12,000 AF per year**.
  - For the 12 years from 2010 through 2021, average Colorado River water allocated to City of Santa Fe was 4841 AF per year. Accounting for evaporation and other losses, we assume availability of 4500 AF per year.
  - For the 23 years from 1999 through 2021, average treatable Santa Fe River water (accounting for Acequia and Living River uses) was ~3000 AF per year.
  - We estimate renewable groundwater availability from all of our wells of ~4500 AF per year (2000 AF from City Wells, 2500 AF from Buckman Wells).
  - Combined, City of Santa Fe water estimates a renewable water supply of approximately 12,000 AF per year (4500 AF/yr from the Colorado River, 3000 AF/yr from the Santa Fe River, and 4500 AF/yr from wells)

- Cumulative annual production from rivers and wells is shown on Page 6.
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City of Santa Fe Water Cumulative Production 2021

- **2021 production from rivers**
- **2021 production from wells**

2020 Total Production (% cumulative production from rivers)

- Jan-21: 86%
- Feb-21: 90%
- Mar-21: 88%
- Apr-21: 88%
- May-21: 87%
- Jun-21: 81%
- Jul-21: 73%
- Aug-21: 73%
- Sep-21: 76%
- Oct-21: 77%
- Nov-21: 79%
- Dec-21: 82%

Estimated renewable: 4500 AF/yr

Total production: 7500 AF/yr
3. City of Santa Fe Water Reservoir Storage

- Santa Fe Reservoirs had 752 AF of water in storage at the end of 2021 (19% capacity).

- City of Santa Fe Water had 11,891 AF of Colorado River (San Juan – Chama Project) water in storage in Heron, El Vado, and Abiquiu reservoirs on December 29th 2021 (~1.4x City total annual potable demand).

- There is extra Colorado River water in storage because of the City-County Shared Pool Agreement under which the City used native County water instead of Colorado River water, effectively storing that water for potential future use by the County.

- Reservoir storage in 2021 compared to 2019 and 2020 is show on Page 8.
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* In Heron, El Vado, Abiquiu, and Elephant Butte (2008-2014 only).

Does not include SJC water stored by exchange in SF River reservoirs.
4. Miscellaneous – The most expensive water in the Country?

- There is a myth out there that Santa Fe has the most expensive water in the country. This is likely a result of a 2016 RATE study by Circle of Blue that included a 600 gallons per meter per day scenario (150 gallons per person and a 4 person household) that was applied to water rates across the country, and in our case would result in hefty monthly water bill of $153.

- Because of our focus on conservation and a tiered rate structure designed to discourage high water use, our average residential use is way below 600 gallons per meter per day. Internal analysis of 2020 bills shows average use of less than 150 gallons per meter per day, and as a result, in 2020 92% of City of Santa Fe Water residential customers paid less than $105 per month for water.
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- The difference between potential and actual is supported by a BILL specific study also by Circle of Blue that shows our average bill lands in the middle of the other water utilities evaluated. The figure below is from that study which is found here: https://www.circleofblue.org/2016/water-management/pricing/infographic-average-u-s-household-water-use-bills-2015-16/

![Average Bill and Average Number of Gallons Used per Month](Average-Bill-and-Average-Number-of-Gallons-Used-per-Month.png)

- So if someone tells you that our water is the most expensive in the country, you can explain that while our rates are designed to discourage high use, what people actually pay for water is very comparable to other water utilities across the country.