

COVID-19 Impacts on Small Community Water Systems

VILLAGE OF CHAMA CASE STUDY:

Small Water Systems Need Immediate Assistance Maintaining Operations Through Revenue Shortfalls

This case study examines some of the challenges COVID-19 poses for small utilities, especially those that recently invested in expensive operation and maintenance projects to meet water-quality standards and provide safe drinking water.

The Village of Chama is a small town of about 1,000 people that live high in the Rocky Mountains of northern New Mexico and are heavily reliant on tourism. Chama is 80% Hispanic, 13% White, 6% Native American, and 1% other. It has a median household income of about \$25,000, just below the federal poverty level.¹

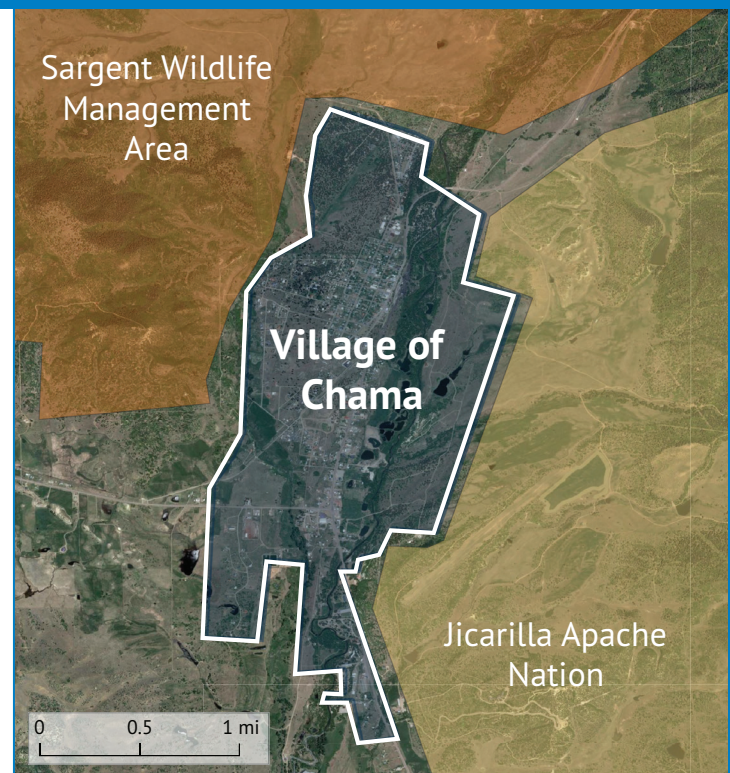
The COVID-19 Pandemic Dramatically Reduced Village Income, Putting Stress on Residents and Town Managers

The COVID-19 pandemic dramatically reduced village income, putting stress on residents and town managers. The 2021 budget outlook is bleak. During an August 2020 council meeting, Chama councilmembers considered cutting the annual budget for emergency medical services from \$45,000 to \$20,000 for this fiscal year, even though the nearest hospital is 55 miles away, in Colorado. Chama treasurer Kristina Archuleta said that income is “trickling in, but all sources were down including Gross Receipts Tax (GRT), Lodgers Tax, and Franchise Fees. Some people are just not paying (the taxes).”² In an October 2020 meeting, she stated, “We continue to see a decrease in the GRT and Lodger’s Tax, by the minute.”³

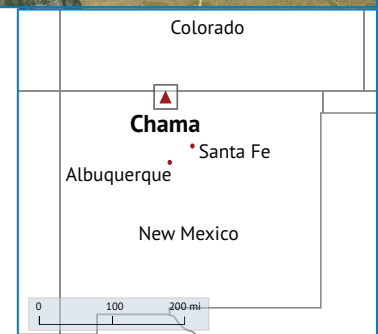
Chama’s Water System Faced Several Challenges Before the Pandemic That Have Been Exacerbated by Funding and Operation Shortfalls

Chama’s water system faced several challenges before the pandemic that have been exacerbated by funding and operation shortfalls. The system provides both drinking water and wastewater services, with about 200 service connections. For several years, the wastewater system exceeded legal concentrations of nitrate and phosphorus in water discharged from the wastewater treatment plant. This resulted in administrative orders, complaints, fines from the Environmental Protection Agency, and poor scores on state compliance evaluations. A 2016 Preliminary Engineering Report acknowledged that the existing infrastructure was not able to reduce the contaminants to the allowable levels.

In 2014, the State of New Mexico allocated \$8 million for construction of a new wastewater treatment plant that



Source: Architectural Research Consultants, Inc., 2011



1 US Census Bureau, 2018, “2018 5-Year ACS Demographic and Housing Estimates - Table DP05.”
2 Mark Glover, 2020, “Chama Council Could Face Suit over Water Quality,” *Rio Grande Sun*, November 5.
3 Glover, 2020, “Chama Councilors Mull \$1 Million in Water Repair Bills,” *Rio Grande Sun*, September 3.

was completed in 2019. With this new plant, Chama must now fund operations and maintenance that are more complicated and require more staff, energy, and chemicals than previously.⁴ Indeed, the plant must be staffed at all times, yet Chama currently has only one qualified operator. Chama has funding for two more operators, who are in training. However, there are no plans or funding to hire additional operators in the future, even though Chama could use a fourth operator.

The Drinking Water Treatment Plant Has Also Faced a Myriad of Challenges, Affecting Residents and Village Income

The drinking water treatment plant has also faced a myriad of challenges, affecting residents and village income. During a recent upgrade, the original contractor went bankrupt, and Chama incurred additional expenses to complete the project at the end of 2019. Subsequently, the plant's filtering tanks were mismanaged, causing the plant to distribute contaminated water to residents that required them to boil it before use. **While the filters were being replaced in early 2020, there were days when the plant was unable to provide water to residents, requiring the National Guard to bring in additional supplies. Despite support from the National Guard, hauling this water from nearby water systems cost Chama nearly \$10,000.**

Businesses that could have remained open during the pandemic, like car washes and restaurants (for takeout), had to close because they had no water, further reducing income to residents and the village. **Chama still owes \$1 million for the upgrade and has no way to pay, especially with the financial impacts of the pandemic. Nicole Mangin, owner of Mountain Pacific Meter Tech Services, was contracted in April to assist Chama with its water systems. "The village feels abandoned by politicians and state and federal governments," she said.**

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Rebounding From the Economic Costs of the Pandemic Will Be Challenging

Rebounding from the economic costs of the pandemic will be challenging. Chama was unable to access CARES funding, missing an important opportunity. The plant's contracted operator runs drinking water plant operations at night to save money on off-peak electricity, but such cost cutting measures are not sufficient to meet the revenue shortfalls. To continue to provide safe water and wastewater services, the Village of Chama needs federal, state, and local financial support.

This case study was based on news coverage and an engineering report (see footnotes) and an interview in November 2020 with Nicole Mangin, whose company, Mountain Pacific Meter Tech Service, is contracted by the Village of Chama to operate the water system until it is back in compliance.

⁴ Molzen Corbin, 2017, *Village of Chama Wastewater Treatment Plant*, Engineering Report.