

Folsom Water Vision Supply Alternatives



Project Group	Alternative ID	Project Name	Project Description	Details	Benefits	Limitations
Infrastructure Improvement	1	Redundant Raw Water Pipeline	The Redundant Raw Water Pipeline project would include construction of a second pipeline from Folsom Lake to the Folsom Water Treatment Plant.	This new pipeline will run parallel to the existing one, providing a crucial backup in case the original pipeline fails or needs maintenance.	By creating this redundancy, the project ensures a continuous and uninterrupted water supply, contributing to the overall stability and resilience of the water system for the community.	The project does not add any new source of supplies.
	2	Redundant Water Treatment Plant Pipelines	The Redundant Water Treatment Plant Pipelines project will enhance the reliability of the City's Water Treatment Plant (WTP).	This project involves constructing additional bypass pipelines within the Folsom Water Treatment Plant. These new pipelines will connect various parts of the treatment process, enabling the City to reroute water easily in the event of maintenance or a pipe break.	This added redundancy will help maintain a consistent and reliable water supply for the community, even during unexpected issues or necessary maintenance.	The project does not add any new source of supplies.
	3	Raw Water Storage	The Raw Water Storage project involves constructing a new inground raw water storage reservoir designed to store water for dry years.	The reservoir will have a required volume of 6,125 acre-feet, which is sufficient to provide six months of indoor water usage. It would cover a footprint of 120 acres.	Enhancing the community's resilience against water shortages during dry periods.	There is not a good location to build this much storage within the City's service area.
Regional Supply Improvement	4	Alder Reservoir	The Alder Reservoir project is a regional water supply project that has been under consideration since the 1970's. It will construct a new high-altitude reservoir between the Sierra Nevada ridge and Placerville.	This proposed reservoir will divert water from the South Fork American and Silver Fork. Water will be stored in the new off-channel reservoir and then released for renewable energy generation, to meet water supply demands, and provide environmental flows.	Key benefits include increase reliability for Folsom Lake, mitigate snowpack reductions, and improve flood protection.	This project is a regional project, limiting the City's control over this project's design and control schedule.
Improve American River Supply	5	Folsom South Canal Diversion	The Folsom South Canal Diversion project involves connecting to the existing Folsom South Canal diversion facility.	It would entail constructing a new pump station at the connection, and 24-inch raw water transmission main to Folsom's existing water treatment plant, utilizing pipelines where possible.	This new infrastructure will allow the City to pull water from downstream of Folsom Reservoir, enhancing the water supply system's reliability during a drought. It also provides an alternative intake location in the case of emergency with the current reservoir intake.	This project does not diversify the City's water portfolio because the Folsom South Canal is downstream of the Folsom Reservoir.
	6	USBR Raw Water Supply	The USBR Raw Water Supply project would provide a redundant Folsom Reservoir intake system.	The City has partnered with San Juan Water District (SJWD), the City of Roseville (Roseville), and the Bureau of Reclamation to evaluate potential solutions. Currently two alternative solutions are being evaluated: a south of the river intake and pump station (with a pipe bridge to SJWD and Roseville) and a series of pumps on floating barges (one barge to serve Folsom and Folsom Prison and a separate one to serve SJWD and Roseville).	This new infrastructure will allow the City to divert Folsom Reservoir water during low lake levels.	This project does not diversify the City's water portfolio.
Interties	7	El Dorado Irrigation District	This project involves constructing a new intertie with the El Dorado Irrigation District (EID).	This 10-inch intertie is designed to supply approximately 2 MGD for use during emergency situations.	The intertie will enhance the community's water supply resilience during emergency situations.	This intertie will likely not provide additional supply during drought scenarios.
	8	Golden State Water Company	This project involves upsizing the City's two existing interties with Golden State Water Company (GSWC).	Recent study and hydraulic modeling on the GSWC interties found that it is hydraulically impractical to increase capacity of these existing interties without other infrastructure improvements. This project would provide an additional 3 MGD of supply during emergency situations.	The intertie will enhance the community's water supply resilience during drought and emergency situations.	This intertie will likely provide up to 2,000 acre-feet during drought scenarios.
	9	San Juan Water District or Partnering Agencies	This project includes building a new or upsizing an existing intertie with either San Juan Water District or Fair Oaks Water District.	This project would require constructing a watermain over the American River, likely at the Rainbow Bridge or the Hazel Bridge. The intertie would provide between 8 to 10 MGD during emergency situations.	The intertie will enhance the community's water supply resilience during emergency situations.	This intertie will likely not provide additional supply during drought scenarios.
	10	Other interties with neighboring agencies (Citrus Heights Water District, Orangevale Water Company, Carmichael Water District)	This project includes constructing a new intertie with CHWD, OVWC, or CWD.	Connecting to any of these agencies would require going through either San Juan Water District or Fair Oaks Water District.	The intertie will enhance the community's water supply resilience during emergency situations.	These intertie will likely not provide additional supply during drought scenarios.

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Groundwater	11	South County Groundwater Supply	This project will provide the City with groundwater from the South American Subbasin.	It involves constructing a City owned well field in the vicinity of Sunrise Boulevard and Jackson Road, which is outside of the known groundwater contamination area. The new wells will be equipped for aquifer storage and recovery (ASR). This project would also include constructing new pump stations and transmission mains to convey the groundwater to the City's distribution system.	By installing ASR wells, the City will be able to store surplus water underground during wet and average years and access this stored groundwater during dry years.	This project is expensive to construct and will add groundwater to the City's water portfolio.
	12	North County Groundwater Supply	This project would provide the City with groundwater from the North American Subbasin.	The City could either partner with SJWD and partners in the construction of new wells or construct a new City owned well field. In either scenario, new wells will be equipped for aquifer storage and recovery (ASR). This project would also entail constructing a transmission pipeline over the American River. This project would pair well with an intertie to SJWD or partnering agencies.	By installing ASR wells, the City will be able to store surplus water underground during wet and average years and access this stored groundwater during dry years.	This project is expensive to construct and will add groundwater to the City's water portfolio.
Water Rights Exchange	13	South County Groundwater through SMUD Swap	This project would entail exchanging water rights with SMUD to increase the amount of water the City can pull from Folsom Reservoir.	This project entails building a South County well field and sending pumped groundwater to the Folsom South Canal. SMUD would then pull this quantity of water out of South Folsom Canal instead of pumping from their groundwater wells and in exchange allow Folsom to pull SMUD's water rights from Folsom Reservoir. This project involves to new transmission mains to the City's distribution system. It is a water rights exchange only.	This project increases the quantity of water the City can pull from Folsom Reservoir.	It does not provide a new source of supply or increase the reliability of the City's supply during drought or emergency scenarios.
	14	North County Groundwater through SJWD Swap	This project would entail a surface water/groundwater exchange with SJWD or the City of Roseville to increase the amount of water the City can pull from Folsom Reservoir.	This project entails building a North County well field and sending pumped groundwater to SJWD and its partners or the City of Roseville, who would then use this water instead of pumping from their groundwater wells. In exchange Folsom could pull additional water from Folsom Reservoir. This project involves to new transmission mains to the City's distribution system. It is a water rights exchange only.	This project increases the quantity of water the City can pull from Folsom Reservoir.	It does not provide a new source of supply or increase the reliability of the City's supply during drought or emergency scenarios.
New Surface Water Supplies	15	Vineyard WTP in Elk Grove (Freeport intake) (SCWA)	This project will provide the City with Sacramento River treated at the Vineyard Water Treatment Plant.	The project would include installing pipe from Elk Grove to Folsom.	This project would provide the City access to Sacramento River water, thereby diversifying its supply portfolio.	This project is expensive to construct because of the length of pipeline required. It will also be expensive to convey water through the Freeport intake and treat at the Vineyard Treatment Plant.
Demand Offset	16	Remediated Groundwater for Non potable Use	This project will use treated Aerojet groundwater for non-potable uses.	This project entails the construction of storage, pump station, and transmission main from Aerojet's GET A&B facilities to the City's purple pipe distribution system.	This project would reduce potable demand by providing non-potable water for irrigation and industrial purposes.	This project does not increase the available potable water.
	17	Sewer Scalping Plant for Non potable Reuse	This project will redirect some of the City's wastewater to small wastewater treatment plants (or scalping plants).	Wastewater would then be treated to tertiary standards and used for non-potable reuse through the City's purple pipe network. This project entails the construction of diversion structures from the City's wastewater collection system, scalping plants, and purple pipe transmission mains to convey reuse water to existing purple pipe distribution mains.	This project would reduce potable demand by providing non-potable water for irrigation and industrial purposes.	This project does not increase the available potable water and has a limited available supply (about 1,600 acre-feet). It could also only be used during irrigation season.
	18	Conservation	This project will reduce the City's demand by increasing water conservation beyond what will be required by the State's "Make Conservation a California Way of Life" framework. No new water supply is provided under this project.	The "Make Conservation a California Way of Life" framework will require the City to implement significant conservation measures. This project would be conservation beyond what is required by the State.	This project would reduce the system demands.	No new water supply to meet currently approved development is provided under this project. Conservation beyond what is required by the State will be costly and difficult to achieve.