

ABOUT THE PROJECT

The Freeport Regional Water Project (FRWP) is a cooperative effort of the Sacramento County Water Agency (SCWA) and East Bay Municipal Utility District (EBMUD) of Oakland to supply surface water from the Sacramento River to customers in central Sacramento County and the East Bay Area. The project represents the end to a decades-long dispute between EBMUD and Sacramento area water interests over water deliveries from the Sacramento area to the East Bay. The disputes centered on EBMUD's contractual right to take water from the American River for use in the East Bay, and Sacramento-area interests' desire to preserve their prized American River waterway. Recognizing some common ground and a water supply need for both regions, EBMUD and Sacramento water interests agreed on a solution using water delivery from the Sacramento River that culminated in the FRWP.

SACRAMENTO COUNTY WATER AGENCY FACILITIES

SCWA will use up to 85 million gallons of water per day (mgd) from the FRWP to supply water to its customers in central Sacramento County. Surface water from the Sacramento River allows SCWA to supplement groundwater use in the central part of the county and to recharge area aquifers. SCWA receives water via the pipeline that begins at the FRWA intake facilities on the Sacramento River and extends east through portions of the City and County of Sacramento to SCWA's new water treatment plant located at Florin and Knox Roads. The plant treats the river water and then distributes it to SCWA's customers.

EAST BAY MUNICIPAL UTILITY DISTRICT FACILITIES

EBMUD will use up to 100 mgd from the FRWP as a supplemental water supply only during dry years, augmenting its Mokelumne River water supply and its water conservation programs. Water provided by the FRWP during dry years will help serve over 1.3 million customers. EBMUD receives FRWP water via the pipeline that begins at the FRWA intake facilities on the Sacramento River and extends east through portions of the City and County of Sacramento to a terminal facility at the Folsom South Canal (FSC), located in central Sacramento County. Water is discharged from the pipeline into the FSC, where it flows south in the canal to a new pipeline at the terminus of the FSC. From the terminus of the FSC, the water is pumped to EBMUD's Mokelumne Aqueducts for transport to EBMUD's service area.

F R E E P O R T R E G I O N A L W A T E R P R O J E C T

A regional water supply solution for central Sacramento County and the East Bay



RAW WATER PROCESS

The FRWA pump building takes in water through fish screens into two forebays, located below the pump building. From the forebays, water flows to pump inlets at the rear wall of the building. The water is lifted out of the forebays by eight vertical turbine pumps and then flows through eight individual 30-inch diameter pipes. The pipes converge into one 72-inch diameter pipe, which continues through a meter vault. Beyond the meter vault, the pipe diameter increases to 84 inches and tunnels under Freeport Boulevard and Interstate 5. The pipe continues 12 miles eastward where it splits into two 72-inch pipes; one extending one mile north to the SCWA treatment plant, and the other continuing four miles east to the Folsom South Canal for use by EBMUD.

RIVER WALL

The "River Wall" is a relief sculpture that incorporates poetry and prose about water and the adjacent river. The text on the wall was composed by local, national and international authors. It invites viewers to contemplate their relationships to water and to this particular site. In this reach of the Sacramento River, water flows in two directions depending on tides. The large script that reads "River" both forwards and backwards is inspired by this two way flow, as the water makes its way from the Sierras to the Delta.



LANDSCAPING

The 5-acre landscaped area serves as a buffer between the project site and adjacent residences. The design reflects the rippling effect of a water drop. The landscaped area is planted with drought-tolerant vegetation, including some California-native plants and trees.

FISH SCREENS

Sixteen fish screens, each approximately 10 feet wide, are installed along the river side of the pump building. The 1.75 millimeter openings in the screens are designed to protect salmon and steelhead fry, Delta smelt, and other fish from entrainment or entering the pumps. The screens are cleaned by a brush system that runs along the outside of the screens. Log booms protect the screens and brush from floating debris.

SURGE TANKS

The four surge tanks on the site are each 12 feet in diameter and 65 feet long. Each is filled with water and compressed air and is connected to the main 84-inch pipeline. The compressed air acts as a shock absorber to prevent water hammer during changes in system flow.

SEDIMENTATION BASINS

The three sedimentation basins are part of the system to settle particles out of the raw water before it gets pumped to SCWA and EBMUD facilities. As water is taken into the forebays, a large portion of the sediment carried by the river water settles to the floor of the forebays. This sediment is scraped from the forebay floor into a sump via a fiberglass chain-and-flight system. It is then pumped, with some water, out to the sedimentation basins. Normally, one basin is filled with water and settling the collected sediment, another is drying the sediment for removal, and the third is cycling between modes. After the settling process is completed, the clean water is returned to the forebay, drawn into the main pumps, and distributed through the pipelines to SCWA and EBMUD facilities.

