

Diversion Dam

Last Updated Sunday, 07 December 2008

The Rio Grande River will transport the San Juan-Chama water, which will then be diverted. We have completed construction on a diversion dam about 1,500 feet south of the Alameda Bridge on the river. Water will be diverted from the river through a high-tech, 620-foot-long adjustable height bladder dam. The dam will extend the full width of the river. Sheet piling and concrete foundations for western portions of the inflatable dam were completed on the west side in early 2005.

The height of the dam will not exceed three feet in its maximum position. When the dam is in its down position, it will not be visible. From the dam, water will be diverted into a nearby pump station adjacent to the river. From there, it will be transmitted via a pipeline running east along Paseo del Norte and south along the North Diversion Channel to a new state-of-the-art water treatment plant.

Crews install the diversion dam along the Rio Grande.

Curtailment Strategy

The Albuquerque Bernalillo County Water Utility Authority has made a commitment to shut down the system involving the dam when flows are less than 130 cubic feet per second. This is consistent with the Authority's strategy to utilize the aquifer as a drought reserve during times of very low surface water supply. Under normal circumstances, there will be a one-to-three inch difference in the water level upstream and downstream of the dam, hardly noticeable in a 600-foot-wide river. Curtailing or completely shutting diversions is also the Authority's commitment to protect fish and wildlife and the Bosque during low flows. During droughts we will stop releasing San Juan-Chama water from Abiquiu and will utilize ground water. When flows return to normal the following winter, the stored San Juan-Chama water will be treated and placed back into the aquifer (Aquifer Storage Recovery) to assist in balancing the amount removed during the drought.

In conjunction with the Obermeyer gates is the "fish screen." Fish are directed through a canal that connects to a bypass channel leading back to the river. This passage allows endangered Silvery Minnows to pass the dam, and keeps them out of the water system intake.

Dam is Operated By Obermeyer Gates

The Diversion Dam is operated by Obermeyer gates. The gates are activated by pneumatic pipes within a pneumatic vault that raise and lower the effective height of the gate crest, allowing free river flow of up to 4.5 feet of depth of water held by the dam. The dam has various lengths of Obermeyer gates, ranging from 10 to 40 feet. There are also two 50-foot Obermeyer gates controlling flow into the intake structure on the east end of the dam. The intake structure included in the project will supply water to a future pump station, which is under construction. The structure will provide water through two 60-inch-diameter reinforced concrete pipes to the project limit east of the East Albuquerque Drain channel.

Intake structure in closed position.

Other Environmental Features

In order to provide continuous passage for the endangered silvery minnow, the Authority will construct a new fish passage channel. The fish passage channel will provide an alternate route to get around the diversion dam although fish will actually be able to navigate downriver or upriver through sections of the dam that will remain open. The fish passage channel and fish screens (intake structure) will be constructed on the east side of the river.