

**BEFORE:**



**AFTER:**



REP was hired by Pueblo Water in 2022 to design modifications to the Southside Diversion Dam, located a few miles west of downtown Pueblo, CO. The dam was a 12 foot tall low-head dam that had been the site of **several known drownings**, including a father and son on Father’s Day 2020. As the dam is needed for water diversion, the design modified the dam rather than removing or lowering it. The project extends the upstream to downstream boatable section, creates a **recreational mecca**, improves the river environment, and creates upstream fish passage. REP partnered with SG1 Water Consulting and the construction contractor was Holcim.

The park’s innovative design features a north channel and a south channel, seven strategically placed **drop structures**, two new pedestrian bridges, riverside **ADA** accessible trails, many river access points, beaches, and a surf wave. The drop structures, built out of large grouted natural boulders and concrete slabs, are all unique and engineered to provide recreational value while remaining navigable for boaters, swimmers, tubers, rafters, etc. of **all skill levels**. The south channel incorporates a large “spillway”. The north channel is the “boater bypass” channel and features five smaller drop structures. All of the drops incorporate a segregated **fish passage** constructed with natural boulders. Primary design considerations included public safety, easy river access for all users, instream recreation, aquatic and riparian habitat, water utility needs, long-term structural integrity, and floodplain.



RIVER SURFING FEATURE



BOATER BYPASS CHANNEL



RIVERSIDE TRAILS

*With an emphasis on safety and accessibility, this project attracts outdoor enthusiasts and fosters community engagement, making Pueblo a premier destination for river enthusiasts and casual park visitors.*