

Replacement Effluent Booster Station at Overlook Park for the Purpose of Irrigating Ball Fields and Park Facilities

Incorporated County of Los Alamos 2019 WTB Request \$800,000

The existing effluent booster station was built in 1982. All of the major mechanical and electrical equipment is original and at the end of its service life. The pumps were installed outdoors and have been exposed to the elements through the years, adding to the deterioration. The equipment is experiencing more frequent failures and replacement components are becoming harder to find. The new booster station will be built adjacent to the existing, in a new building. Placing the pumps and associated equipment indoors will add security and extend the life of the equipment. Overlook Park consists of 35 acres of irrigated space, the majority of which is grass ball fields. Replacing this aged booster station will allow Los Alamos County to continue irrigating the park with treated effluent to conserve potable water and preserve the groundwater aquifer.

Over 20 million gallons of effluent water used annually, which would otherwise be potable water use

Overlook Park is the premier recreation area and gathering site for the community. It is estimated that 85% of the residents of the community of White Rock visit Overlook Park each year. Activities that draw residents to the park are youth and adult baseball/softball/soccer leagues, 4th of July fireworks, biking, family/school/church/club gatherings and outdoor enthusiast use of the multiple trails that go through the park.

Design of the replacement booster station was completed in-house by the Department of Public Utilities Engineering staff. Design was coordinated with utility and parks operators, to incorporate needs and efficiencies learned from decades of operating this system. Efficiency improvements that have been designed into the new booster station are metering, modern solid state instrumentation and control systems, variable frequency drives and new pumps will be sized accurately to meet the current irrigation demand.

Reduced power consumption and reduced downtime of the system

The project will continue to use the current configuration with an open pond reservoir and adjacent pumping system. The open reservoir is a source of water for wild land firefighting in the White Rock Canyon. Water from the pond is available for fire truck filling and helicopters equipped with buckets.

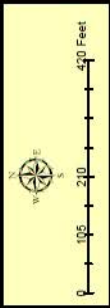
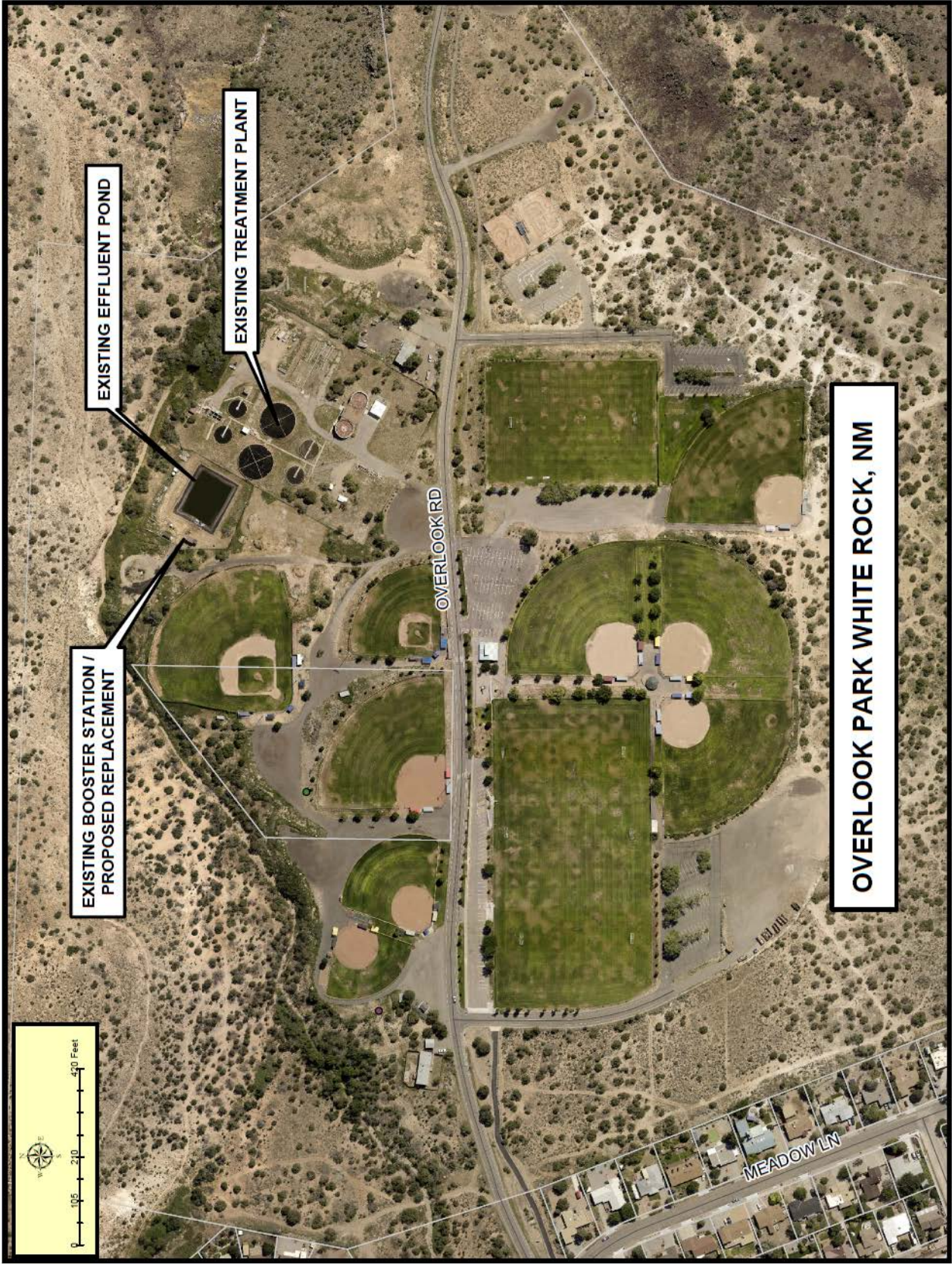
Irrigate 35 acres of park space.

Project Benefits:

1. **Conserve Energy** by not having to pump groundwater out of the ground over 1,000 feet.
2. **Conserve Potable Water** for future generations.
3. **Preserve Aquifer** by reducing pumping of groundwater.
4. Allow **Efficient and Reliable Irrigation** to maintain the treasured Overlook Park facilities, which **accommodate youth and adult sports, community activities and family gatherings**.



Photo of existing booster pumps installed in 1982.



EXISTING BOOSTER STATION /
PROPOSED REPLACEMENT

EXISTING EFFLUENT POND

EXISTING TREATMENT PLANT

OVERLOOK RD

MEADOW LN

OVERLOOK PARK WHITE ROCK, NM