Oro Loma Breaks Ground on Two New Digesters

This month, the District started construction of two new anaerobic digesters with a total budgeted project cost of $12 million.

Oro Loma currently uses five digesters to stabilize solids separated from the wastewater stream. During a recent condition assessment, staff discovered corrosion in the reinforcing steel of the largest digester, constructed in 1958. The findings led to an analysis of various alternatives, including reconditioning the 1958 digester or constructing new facilities and removing the largest unit from service. The analysis showed that the lowest cost, long-term alternative for the digestion system was to construct two new digesters.

The findings led to a joint meeting of the Oro Loma and Castro Valley Sanitary District (25% owner in the treatment plant) Boards, acceptance of the recommended plan, and allocation of $12M for the effort. Staff then partnered with Kennedy Jenks Engineers to prepare plans and specifications. The design was completed, publicly bid, and the construction contract was awarded to Mountain Cascade, Inc. Due to the favorable construction bid, staff anticipates that the project will be completed for $1M less than the original budget projection.

Construction of the project is now underway and will be completed by the end of 2014. Funding for the project, which requires the equivalent of $180 per customer, will be supplied from available reserves. The citizens of Oro Loma may be happy to know that their existing sewer service rate already includes funds for this significant renewal of their infrastructure. The District’s reserve policy and funding level included an acknowledgement that the digester system was nearing the end of its reliable life. The digesters constructed today are expected to deliver 75 years of service.

The digester facilities are the last major area of the Oro Loma–Castro Valley Treatment Plant to be upgraded within the last 15 years. Since 2000, the treatment plant has undergone extensive upgrades to its electrical and emergency power systems, headworks, influent pumping, primary and secondary clarifiers, chlorine contact basins, sodium hypochlorite storage, thickening, and dewatering systems.

Digesters are an important step in the wastewater treatment process. They are used to stabilize the solids that are separated from the treated effluent. Stabilization reduces pathogens, reduces odors, and makes the resulting product unattractive to rodents or other vectors. During digestion, methane is produced and captured. Oro Loma uses the methane in two engines coupled with electrical generators. The electricity produced by the generators, along with the power from the District’s solar array, is enough to make the plant electrically self sufficient.