

# FACT SHEET

## EXISTING OUTFALL CATHODIC PROTECTION PROJECT

### Sanitation Districts of Los Angeles County

#### Background

The Sanitation Districts approved and certified the Clearwater Program Master Facilities Plan (MFP) and Environmental Impact Report/Environmental Impact Statement (EIR/EIS) on November 28, 2012. A major component of the Clearwater Program is a new 6.9-mile-long, 18-foot-internal-diameter tunnel that will convey highly treated wastewater effluent from the Joint Water Pollution Control Plant (JWPCP) in the City of Carson to Royal Palms Beach at White Point off the Palos Verdes Peninsula, where the tunnel will connect to existing ocean outfall pipelines. The new tunnel will allow for the dewatering and any necessary repairs of two existing effluent tunnels – completed in 1937 and 1958 – which cross the Palos Verdes Fault and have not been inspected in over 50 years.

The four existing ocean outfall pipelines rest on the ocean bottom, extend up to 1.5 miles offshore from White Point, and discharge treated effluent at a depth of up to 200 feet. Studies performed during the planning process determined that the three largest and most recently constructed ocean outfalls are in good condition but require the addition of cathodic protection to extend their useful life.

Beginning in 2006, the Clearwater Program included over 500 public outreach meetings with public officials; civic and community groups; businesses; environmental organizations; news media; and various local, state, and federal agencies. Final design for the tunnel began in April 2013. Installation of cathodic protection on the existing outfalls began in October 2015 and will last until approximately early-December 2015. Tunnel construction is anticipated to begin in 2017 and will last approximately 6.5 years.

#### Cathodic Protection

Cathodic protection is a process used to protect important pieces of metal – in this case, joint connectors and manhole covers – from corroding and failing. Metal joint connectors hold some of the outfall pipe segments (made of concrete) together and metal manhole covers provide access to the outfalls. Sea water will corrode the metal used in the pipe joints and manhole covers, but the concrete pipe segments do not corrode.

During cathodic protection, the metal to be protected is connected to another piece of metal that is more easily corroded. The connection of the two metals creates an electrochemical cell, with the protected metal acting as the cathode and the added piece of metal acting as a sacrificial anode. Over a long period of time, the sacrificial anode corrodes, but the cathode remains whole.

There are three existing outfall pipes with manhole covers and two of them also have metal joints that require cathodic protection. Together, there are almost 600 joints that will be fitted with sacrificial anodes. The sacrificial anodes are aluminum, and look like dumbbells. Each anode weighs 170 pounds and is expected to provide protection for many years.

## Work Description

The anodes will be located next to the existing outfall pipes and connected to the protected joint and manhole cover with wire. Divers will put each anode in place by hand. Support equipment for the divers includes a barge from which the divers will work. A tug boat will be used to ferry workers and supplies back and forth between the barge and the shore, and to assist in moving and anchoring the barge. The divers will be able to put a limited number of anodes in place while the barge is anchored, after which the barge must be moved to allow the divers access to the next set of joints and manhole covers.

Work will proceed 24 hours per day, every day of the week except Sunday. The estimated duration of work is 6 to 8 weeks based on reasonable weather conditions. The Coast Guard has been informed of the project, and the work is being performed in accordance with regulatory permits.

The barge and tug boat will be visible from the shore. Lighting on the barge and tug boat, required to provide a safe work environment, will also be visible. Noise from the barge and tug boat is not expected to be loud enough to be heard from the shore. The work will begin close to shore and move further offshore until the project is completed.

## Contact Information

General information about the Clearwater Program is available at [www.ClearwaterProgram.org](http://www.ClearwaterProgram.org). Specific questions regarding the cathodic protection project can be referred to:

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