

EXECUTIVE OFFICER SUMMARY REPORT
March 15, 2017

- ITEM: 7
- SUBJECT: NPDES Permit Amendment: An Order to amend Order No. R9-2012-0015, *Waste Discharge Requirements for San Diego Gas and Electric Company Palomar Energy Center* (Tentative Order No. R9-2017-0012, NPDES No. CA0109215). (*Ben Neill*)
- PURPOSE: To receive public testimony and consider adoption of Tentative Order No. R9-2017-0012, amending Order No. R9-2012-0015 (Tentative Order).
- RECOMMENDATION: Adoption of the Tentative Order (**Supporting Document No. 1**) is recommended.
- KEY ISSUES: If adopted, the Tentative Order will allow San Diego Gas and Electric (SDG&E) to reuse up to 25,000 gallons per year of fire suppression system water and up to 0.375 million gallons per day (MGD) of retained storm water in the cooling towers at Palomar Energy Center (PEC).
- PRACTICAL VISION: Consistent with the mission of the *Strategy for Achieving a Sustainable Local Water Supply* chapter of the Practical Vision, the Tentative Order allows the PEC to reuse wastewater and storm water to augment supply to the cooling towers in an environmentally responsible manner.
- DISCUSSION: SDG&E is the owner and operator of the PEC, a 550-megawatt natural gas combined cycle power plant that discharges up to 1.4 million gallons per day (MGD) of cooling tower blowdown and low volume waste to the City of Escondido's Industrial Brine Collection System (IBCS). The IBCS discharges through the Escondido Land Outfall and the San Elijo Ocean Outfall to the Pacific Ocean. (See **Supporting Document No. 2** for a Location Map.)
- On September 12, 2012, the San Diego Water Board adopted Order No. R9-2012-0015, establishing waste discharge requirements for SDG&E to discharge from the PEC up to 1.4 MGD of cooling tower blowdown and low

volume wastes.

PEC uses approximately 5.3 MGD of tertiary treated recycled water obtained from the City of Escondido's Hale Avenue Resource Recovery Facility for the cooling towers, evaporative coolers, and water purification systems. Most of this water is lost to evaporation in the process. The recycled water circulated in the cooling towers enables the captured steam from the steam turbines to be cooled, recondensed, and routed to the heat recovery steam generators. The recycled water that is circulated in the cooling towers is continuously chlorinated as required by the California Code of Regulations, title 22, section 60306(c) to prevent biofouling and to minimize the growth of harmful bacteria and other organisms. Wastewater that is not lost to evaporation is discharged through the Escondido Land Outfall and San Elijo Ocean Outfall to the Pacific Ocean.

By letter dated May 4, 2015, SDG&E requested that Order No. R9-2012-0015 be amended to allow the reuse of specified waste streams generated on-site as additional cooling tower make-up water. The waste streams that are proposed for reuse include up to 25,000 gallons per year of fire suppression system water and up to 0.375 MGD of retained storm water. The fire suppression system uses tertiary treated recycled water. Therefore, the fire suppression system water has the same characterization as the water already used in the cooling towers. On June 9, 2016, SDG&E provided laboratory data characterizing the pollutant concentrations found in the retained storm water.

If adopted, the Tentative Order will allow PEC to reuse up to 25,000 gallons per year of fire suppression system water (comprised of tertiary treated recycled water) and up to 0.375 MGD of retained storm water. The Tentative Order includes an additional monitoring requirement for SDG&E to collect an annual grab sample of effluent when PEC is reusing retained storm water to confirm that effluent limitations and performance goals are being met.

The Tentative Order was released for public comment on January 6, 2017. No comment letters were received.

LEGAL CONCERNS: None

SUPPORTING
DOCUMENTS:

1. Tentative Order No. R9-2017-0012
2. Location Map

PUBLIC NOTICE:

The Tentative Order was noticed and released for formal public review on January 6, 2017. On January 6, 2017, a public notice was published in the San Diego Union Tribune newspaper. The release for public review and comment also included an email sent to all known interested parties and posting on the San Diego Water Board's website. Notice was also provided in the meeting notice and agenda for the March 15, 2017 Board meeting, which is posted on the San Diego Water Board's website.