#### ORANGE COUNTY SANITATION DISTRICT

## Answers to questions about...

# Ocean Monitoring Program

The Orange County Sanitation District (OC San) is a public agency that provides wastewater collection, treatment, and recycling services for approximately 2.6 million people in central and northwest Orange County. OC San has two plants that treat wastewater from residential, commercial, and industrial sources.

#### How does OC San protect the ocean?

To meet our mission of "protecting public health and the environment," OC San maintains an Ocean Monitoring Program, which is overseen by the United States Environmental Protection Agency and the California Regional Water Quality Control Board.

OC San regularly monitors the marine life, sediment quality, and water quality in over 185 square miles of ocean surrounding OC San's 5-mile ocean outfall. Samples are brought to OC San's accredited laboratory for analysis, and the results are compared between outfall and reference locations. Bacteria samples are also collected along 19 miles of Orange County coastlines, from Seal Beach to Crystal Cove, to assess potential health risks to beachgoers. The Ocean Monitoring Program documents that the release of OC San's treated wastewater into the Pacific Ocean is not degrading marine habitats & wildlife and does not pose a risk to human health.

#### What does the program show?

 Bottom-dwelling fish and invertebrate communities where highly treated wastewater is released are not significantly different from reference locations with no outfall impacts.

- Fish are safe to eat. The concentration of contaminants in muscle tissue of bottom-dwelling fish meet state and federal human consumption standards. Therefore, it is safe to eat fish caught offshore.
- The level of pollutants in sediment has decreased dramatically since 1985 because of OC San's Source Control Program.
- Overall, OC San's core monitoring area is healthy and similar to reference conditions throughout the Southern California Bight region. OC San regularly collaborates with community partners on regional monitoring programs to ensure public health and the environment are protected.

OC San is proud of the efforts taken every day by its staff to protect public health and the environment. Hard work is put into preventing chemicals from entering the sewer system. Great care is taken to use the best wastewater treatment technologies available. OC San's Ocean Monitoring Program continues to be a model for other programs throughout the United States.

To learn more about OC San's Ocean Monitoring Program, visit www.ocsan.gov/ocean



OC San's Ocean Monitoring Vessel Nerissa.



OC San's Ocean Monitoring team — the team of 14 goes out 103-110 days a year to collect samples for compliance monitoring.

### **Facts About The Ocean Monitoring Program**







A **trawl net** is used to collect fish and large invertebrates from the ocean floor to conduct marine population assessments and fish tissue contaminant analysis.

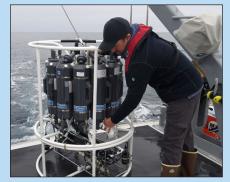


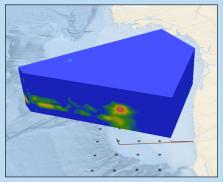




A **grab sampler** is used to collect sediment and small invertebrates from the ocean floor to conduct sediment contaminant analysis, sediment toxicity testing, and marine population assessments.







A **rosette sampler** is used to collect water samples and oceanographic data (e.g. temperature). This data is used to evaluate water quality and track the movement of our discharged effluent (via dissolved organic matter, depicted in red in the plot above).

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