

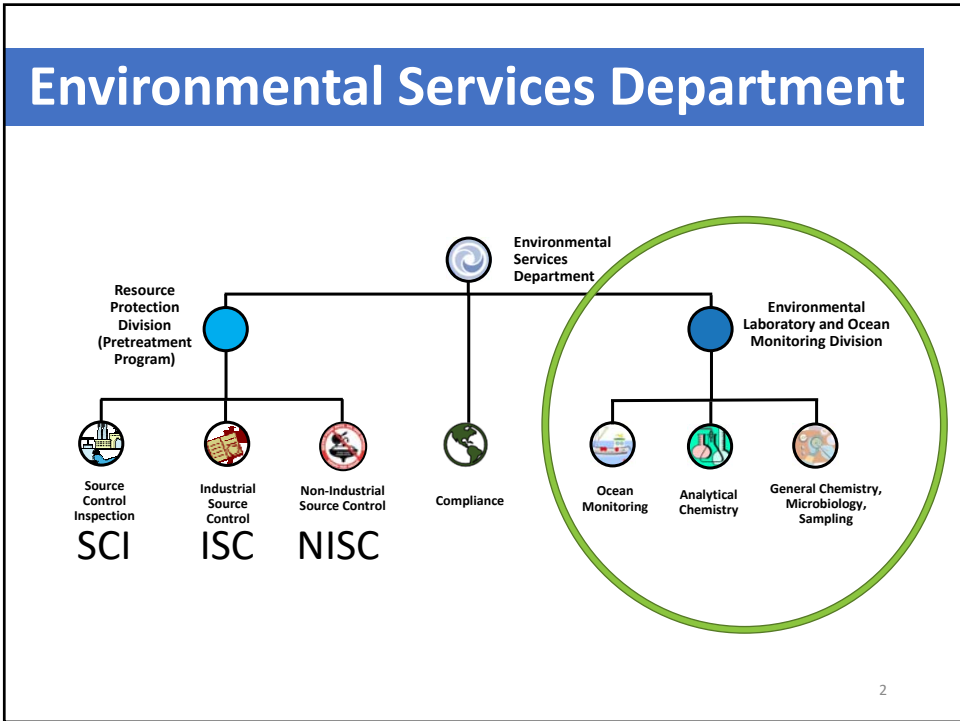


Environmental Laboratory and Ocean Monitoring Program (Division 630)

Presented by:
Samuel Choi
Environmental Lab and Ocean Monitoring Manager
Operations Committee
June 1, 2022





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Environmental Monitoring






**United States
Environmental Protection
Agency**

**Code of
Federal
Regulations**






**CALIFORNIA
WATER BOARDS**
State Water Resources Control Board

STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

**California Ocean Plan
Santa Ana RWQCB Basin Plan**



NPDES Permit

OC San Ocean Monitoring and Reporting Program

Compliance Monitoring
Regional Monitoring
Strategic Process Studies

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Accreditations (Quality Assurance)

National

State

Regional

State of Utah
Department of Health
Environmental Laboratory Certification Program
Certification is hereby granted to
Orange County Sanitation District
10844 Ellis Ave
Fountain Valley, CA 92708

Has conformed with the 2015 TW Standard
Scope of accreditation is limited to the State of Utah accredited fields that accompany this Certificate

EPA Number: CA00307
Expiration Date: 9/30/2022
Certificate Number: CA003072021-5

Kristin Brown
Kristin Brown
Program Manager

Continued accredited status depends on successful ongoing participation in the program.

**CALIFORNIA STATE
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM**

**CERTIFICATE OF
ENVIRONMENTAL LABORATORY ACCREDITATION**
is hereby granted to

Orange County Sanitation District

Laboratory, Monitoring, and Compliance
10844 Ellis Avenue
Fountain Valley, CA 92708

Scope of the certificate is limited to the "Fields of Accreditation" which accompany this Certificate.

Continued accredited status depends on compliance with applicable laws and regulations, proficiency testing studies, and payment of applicable fees.
This Certificate is granted in accordance with provisions of Section 100820, et seq. of the Health and Safety Code.

Certificate No: 1661
Effective Date: 8/1/2021
Expiration Date: 8/31/2023

Sanemarks, California subject to bid/contract or innovation.

Christina
Christina Mello, Chief
Environmental Laboratory Accreditation Program

**South Coast
Air Quality Management District**
11805 Canyon Street, Escondido, CA 91739-4178
(951) 276-2251 • www.scaqm.com

March 1, 2021

Dr. Robert Chen
Orange County Sanitation District
Environmental Laboratory & Compliance Monitoring Division
10844 Ellis Avenue
Fountain Valley, CA 92708-1018

Subject: LAP Renewal Notice
Reference # 02LAP19

Dear Dr. Chen:

We completed our review of the renewal application you submitted for approval under the South Coast Air Quality Management District's Laboratory Approval Program (LAP). We are pleased to advise you that your Site is approved for the period beginning March 1, 2021, and ending September 30, 2023 for the following method:

Method 161.11

Thank you for participating in the LAP. Your cooperation helps us to achieve the goal of the LAP - to maintain high standards of quality in the sampling and analysis of water resources.
You may direct any questions or information to LAP Coordinator, Crissa Eckhardt. It may be reached by telephone at (951) 276-2476, or via e-mail at ceckhardt@scqm.com.

Sincerely,
Dr. Robert Chen
Regional Director
Program Support
Research Test Engineering

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Laboratory and Ocean Monitoring Division

Mission Statement

To ensure safe recreational and environmental protection; perform sampling, analysis and reporting to document OC San's exemplary regulatory compliance, inclusive of air, biosolids, water recycling and ocean discharge

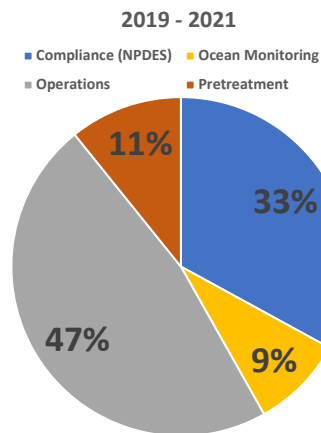


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Laboratory Tests

Sample Type	No. of Laboratory Tests		
	2019	2020	2021
General Chemistry	56,274	58,324	58,742
Metals	10,517	10,101	9,981
Microbiology	23,377	23,188	22,063
Organic Chemistry	6,140	6,160	5,422
Toxicology	64	60	70
Total	96,372	97,833	96,278



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Laboratory Instruments

Sample Preparation

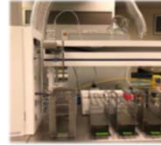
ASE



AutoTrace



GPC



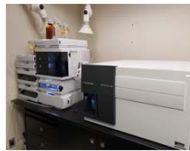
Concentrator



Analytical Instruments

Andor (LC-MS)

PFAS, PPCPs, IEDCs, DA, Hormones



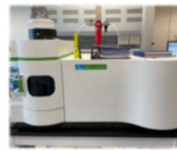
Annikan (TQ GC-MS)

PCBs, Pesticides



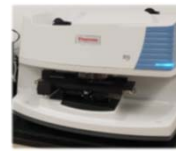
ICP-MS

Metals



FTIR

Microplastics



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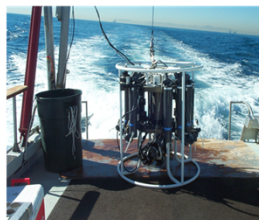
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Ocean Monitoring

RV Nerissa



Water Quality



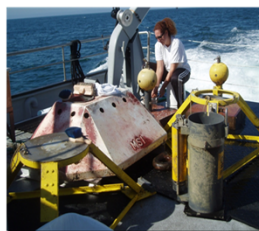
Ocean Bottom Health



Fish Health



Oceanography




Toxicology



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2020-2021 OC Beach Report Card



2020-2021 Beach Report Card

ORANGE COUNTY

2020-2021 GRADE	Summer Dry ☀️		Winter Dry ☁️		Wet Weather ☁️	
	#	%	#	%	#	%
A	118	88%	122	90%	24	31%
B	11	8%	9	7%	9	12%
C	4	3%	5	4%	2	3%
D	1	1%	0	0%	10	13%
F	0	0%	0	0%	33	42%
A+B	129	96%	131	96%	33	42%
C,D,F	5	4%	5	4%	45	58%

HONOR ROLL

2020-2021 4+

BEACH NAME	COUNTY
Crown Beach, at Sunset Rd.	Alameda
Royal Palms State Beach	Los Angeles
Leo Carrillo Beach, at Arroyo Sequit Creek	Los Angeles
Puerco State Beach, at creek mouth	Los Angeles
Las Flores State Beach, at Las Flores Creek	Los Angeles
Broad Beach, at Trancas Creek	Los Angeles
Escondido State Beach, at Escondido Creek	Los Angeles
Nicholas Beach, at San Nicholas Canyon Creek	Los Angeles
Newport Bay, Promontory Point	Orange
Crystal Cove (CSDOC)	Orange
Newport Beach, at Orange Street	Orange
Newport Beach, at 52nd/53rd Street	Orange
Balboa Beach Pier	Orange
Balboa Beach, The Wedge	Orange
Crystal Cove	Orange
1000 Steps Beach, at 9th St.	Orange
North Aliso County Beach	Orange
Treasure Island Beach	Orange
Carlsbad, at Encina Creek	San Diego
Carlsbad, at Palomar Airport Rd.	San Diego

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Team in Action



From Left to Right

Staff

Dr. Jeff Armstrong (Retired)

Laura Terriquez

Former Directors

Keith Curry

Bob Kiley

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Looking Forward (Research and Innovation)

Strategic Process Studies (SPS)

- Plume modeling
- Changes in discharge footprint using LABs
- Meiofauna baseline assessment
- Use of bioassays for biological response
- Microplastics characterization

Regional Monitoring

- Leverage resources to address regional issues such as:
 - Ocean acidification and Hypoxia (OAH)
 - Persistent contaminants

Innovation and Research

- Method development – PFAS, Microplastics, Domoic Acid
- Explore cutting edge technologies

COVID-19 Wastewater Surveillance

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OC San Partners



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Serving the Community

Protect Public Health and the Environment

Water Quality: **Safe to Swim**
Sediment Quality: **Health Ecosystem**
Fish Health: **Safe to Eat**

Public Outreach

Laboratory Tours (including virtual)
Open House
Science Fairs
Children's Water Festival



Technical/Professional Organizations

SCAMIT	TNI Committee	SCAS
SETAC	Standard Methods	SCAITE
ELTAC	CSEA	SCUM
ASM	CWEA	

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Questions



Contact: Samuel Choi
schoi@ocsan.gov
714-593-7497

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