

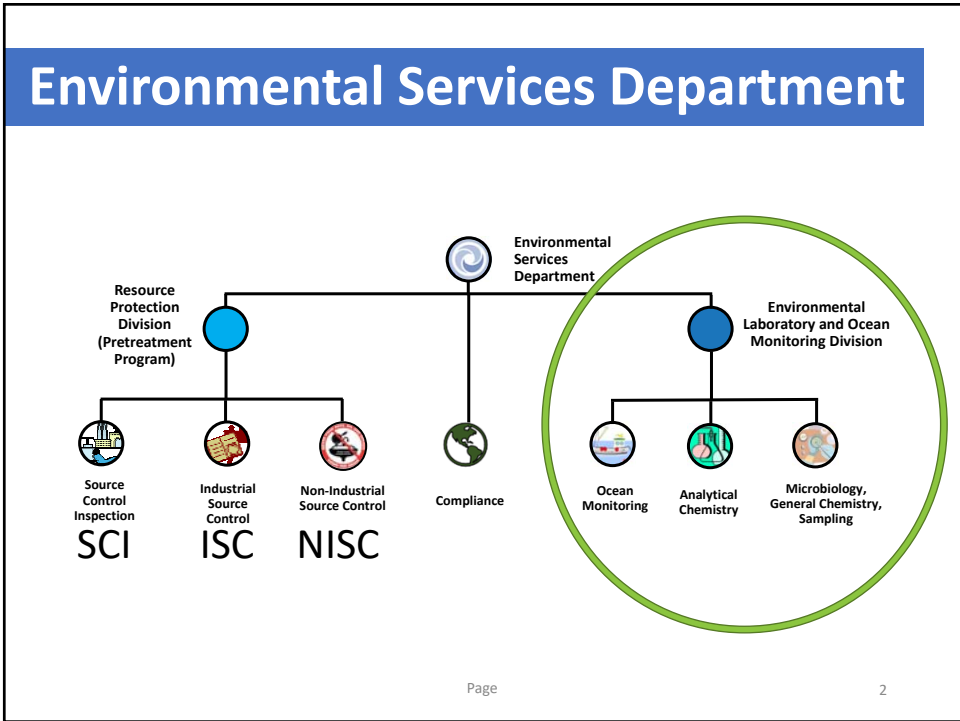


Environmental Laboratory and Ocean Monitoring Program (Division 630)

Presented by:
Samuel Choi
Environmental Services Department
Operations Committee
July 7, 2021



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Environmental Monitoring



Code of Federal Regulations



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 of Utah
Department of Health
Environmental Laboratory Certification Program
Certification is hereby granted to
Orange County Sanitation District
10844 Ellis Ave
Fountain Valley, CA 92706
This certification is issued to the
State of Utah accredited labs that accompany
this Certificate
EPA Number: CA00907
Expiration Date: 9/30/2021
Certificate Number: CA0030702204
Dr. Erik Christensen
Director, Utah Public Health Laboratory
Continued accredited status depends on successful ongoing participation in the program.

State

CALIFORNIA STATE
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM
CERTIFICATE OF ENVIRONMENTAL ACCREDITATION
is hereby granted to:
Orange County Sanitation District
Laboratory, Monitoring, and Compliance
10844 Ellis Avenue
Fountain Valley, CA 92706
Scope of the certificate is limited to the
analysis of the following:
This Certificate is provided in accordance with provisions of
Section 170063, of title 17, of the Health and Safety Code.
Continued accredited status depends on successful completion of on-site inspection,
proficiency testing events, and payment of applicable fees.
Certificate No.: 1481
Expiration Date: 9/30/2021
Effective Date: 9/13/19
California State
Environmental Laboratory Accreditation Program

Regional

South Coast
Air Quality Management District
11803 Canyon Drive, Diamond Bar, CA 91765-4178
(909) 390-2500 • www.aqmd.gov

March 2, 2021

Dr. Samuel Chen
Orange County Sanitation District
Environmental Laboratory & Ocean Monitoring Division
10844 Ellis Avenue
Fountain Valley, CA 92706-7018
Subject: LAP Renewal Notice
Reference # 15LAP0119

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 inform you that your firm is approved for the period beginning March 2, 2021, and ending September 30, 2023 for the following method:

Method 817-01

Thank you for participating in the LAP. Your participation 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 submissions to LAP Coordinator, Chita Ekerdt. She may be reached by telephone at (909) 390-2476, or via e-mail at cekerdt@aqmd.gov.

Sincerely,
Dr. Sara Latta
Deputy Director
Program Supervisor
Source 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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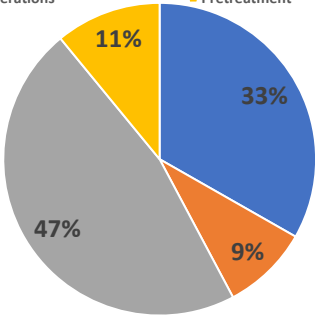
Laboratory Tests

Sample Type	2018	2019	2020
<i>General Chemistry</i>	59,282	56,274	58,259
<i>Metals</i>	10,227	10,517	10,089
<i>Microbiology</i>	22,878	23,377	23,185
<i>Organic Chemistry</i>	6,721	6,140	6,036
<i>Toxicology</i>	69	64	60
Total	99,177	96,372	97,629

2018-2020

■ Compliance (NPDES)
■ Ocean Monitoring

■ Operations
■ Pretreatment



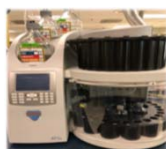
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Laboratory Instruments

Sample Preparation

ASE



AutoTrace



GPC



Concentrator



Analytical Instruments

Gandalf (GC-MS)
PAHs



Xena (GC-MS)
PCBS, Pesticides, PAHs



ICP-MS
Metals



FTIR
Microplastics



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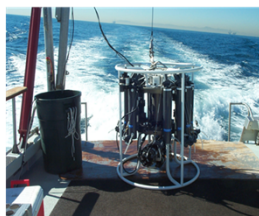
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Ocean Monitoring

R/V Nerissa



Water Quality



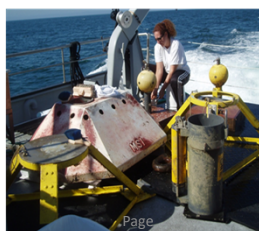
Ocean Bottom Health



Fish Health



Oceanography




Toxicology



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2020-2021 OC Beach Report Card



**2020-2021
Beach Report Card**

ORANGE COUNTY

2020-2021	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
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 Info

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



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