



AGENDA

CALL TO ORDER

DECLARATION OF QUORUM: Clerk of the Board

PUBLIC COMMENTS: *If you wish to address the Committee on any item, please complete a Speaker's Form (located at the table at the back of the room) and submit it to the Clerk of the Board or notify the Clerk of the Board the item number on which you want to speak. Speakers will be recognized by the Chairperson and are requested to limit comments to three minutes.*

REPORTS: *The Committee Chairperson and the General Manager may present verbal reports on miscellaneous matters of general interest to the Directors. These reports are for information only and require no action by the Directors.*

CONSENT CALENDAR: *The Consent Calendar Items are considered to be routine and will be enacted, by the Committee, after one motion, without discussion. Any items withdrawn from the Consent Calendar for separate discussion will be considered in the regular order of business.*

1. **APPROVAL OF MINUTES** (Clerk of the Board)

RECOMMENDATION: Approve Minutes of the Regular Meeting of the Steering Committee held September 26, 2018.

INFORMATION ITEMS:

2. **STRATEGIC PLAN UPDATE** (Rob Thompson)

The 2018 Draft Strategic Plan Update will be presented.

CLOSED SESSION:

During the course of conducting the business set forth on this agenda as a regular meeting of the Board, the Chair may convene the Board in closed session to consider matters of pending real estate negotiations, pending or potential litigation, or personnel matters, pursuant to Government Code Sections 54956.8, 54956.9, 54957 or 54957.6, as noted.

Reports relating to (a) purchase and sale of real property; (b) matters of pending or potential litigation; (c) employment actions or negotiations with employee representatives; or which are exempt from public disclosure under the California Public Records Act, may be reviewed by the Board during a permitted closed session and are not available for public inspection. At such time as the Board takes final action on any of these subjects, the minutes will reflect all required disclosures of information.

CONVENE IN CLOSED SESSION

- (1) **CONFERENCE WITH LEGAL COUNSEL RE ANTICIPATED LITIGATION**
(Government Code Section 54956.9(d)(2))

Significant exposure to litigation. Claim of Big Canyon Country Club.

RECONVENE IN REGULAR SESSION.

CONSIDERATION OF ACTION, IF ANY, ON MATTERS CONSIDERED IN CLOSED SESSION:

OTHER BUSINESS AND COMMUNICATIONS OR SUPPLEMENTAL AGENDA ITEMS, IF ANY:

ADJOURNMENT:

To the Steering Committee meeting scheduled for Wednesday, November 28, 2018 at 5:00 p.m.

Accommodations for the Disabled: Meeting Rooms are wheelchair accessible. If you require any special disability related accommodations, please contact the Orange County Sanitation District Clerk of the Board's office at (714) 593-9433 at least 72 hours prior to the scheduled meeting. Requests must specify the nature of the disability and the type of accommodation requested.

Agenda Posting: In accordance with the requirements of California Government Code Section 54954.2, this agenda has been posted outside the main gate of the Sanitation District's Administration Building located at 10844 Ellis Avenue, Fountain Valley, California, and on the Sanitation District's website at www.ocsd.com not less than 72 hours prior to the meeting date and time above. All public records relating to each agenda item, including any public records distributed less than 72 hours prior to the meeting to all, or a majority of the Board of Directors, are available for public inspection in the office of the Clerk of the Board.

Agenda Description: The agenda provides a brief general description of each item of business to be considered or discussed. The recommended action does not indicate what action will be taken. The Board of Directors may take any action which is deemed appropriate.

NOTICE TO DIRECTORS: To place items on the agenda for a Committee or Board Meeting, items must be submitted to the Clerk of the Board 14 days before the meeting.

Kelly A. Lore, MMC
Clerk of the Board
(714) 593-7433
klore@ocsd.com

For any questions on the agenda, Committee members may contact staff at:

General Manager	Jim Herberg	(714) 593-7300	jherberg@ocsd.com
Assistant General Manager	Lorenzo Tyner	(714) 593-7550	ltynr@ocsd.com
Assistant General Manager	Rob Thompson	(714) 593-7310	rthompson@ocsd.com
Director of Environmental Services	Jim Colston	(714) 593-7450	jcolston@ocsd.com
Director of Human Resources	Celia Chandler	(714) 593-7202	cchandler@ocsd.com
Director of Operations & Maintenance	Ed Torres	(714) 593-7080	etorres@ocsd.com

**MINUTES OF THE
STEERING COMMITTEE**

**Orange County Sanitation District
Wednesday, September 26, 2018 at 5:00 p.m.**

A regular meeting of the Steering Committee of the Orange County Sanitation District was called to order by Board Chairman Greg Sebourn on Wednesday, September 26, 2018 at 5:06 p.m. in the Administration Building of the Orange County Sanitation District.

A quorum was declared present, as follows:

COMMITTEE MEMBERS PRESENT:

Greg Sebourn, Board Chair
David Shawver, Board Vice-Chair
Peter Kim, LaPA Committee Chair
Chad Wanke, Administration Committee
Chair
John Withers, Operations Committee
Chair
Ellery Deaton, Member-At-Large

COMMITTEE MEMBERS ABSENT:

Donald Wagner, Member-At-Large

STAFF PRESENT:

Jim Herberg, General Manager
Bob Ghirelli, Assistant General Manager
Rob Thompson, Assistant General
Manager
Celia Chandler, Director of Human
Resources
Jim Colston, Director of Environmental
Services
Ed Torres, Director of Operations &
Maintenance
Lorenzo Tyner, Director of Finance &
Administrative Services
Kelly Lore, Clerk of the Board
Jennifer Cabral
Rhea DeGuzman
Al Garcia
Cortney Light
Laura Maravilla
Gerry Matthews
Andrew Nau
Thomas Vu

OTHERS PRESENT:

Brad Hogin, General Counsel
Dan Fears, Payne & Fears, Special
Counsel
Roger Cerda, Alston & Bird LLP, Special
Counsel

PUBLIC COMMENTS:

No public comments were provided.

REPORTS:

Chair Sebourn did not provide a report.

General Manager Herberg provided information regarding his recent attendance at the CSDA Conference where he was a panel participant for the session “So you Wanna be a General Manager.”

CONSENT CALENDAR:

1. **APPROVAL OF MINUTES** (Clerk of the Board)

MOVED, SECONDED, AND DULY CARRIED TO: Approve Minutes of the Regular Meeting of the Steering Committee held on August 24, 2018.

AYES: Deaton, Kim, Sebourn, Shawver, and Withers
NOES: None
ABSTENTIONS: None
ABSENT: Wagner and Wanke

NON-CONSENT:

2. **GENERAL MANAGER’S FISCAL YEAR 2018-2019 WORK PLAN** (Jim Herberg)

Mr. Herberg provided a brief presentation of his work plan.

MOVED, SECONDED, AND DULY CARRIED TO: Recommend to the Board of Directors to: Receive and File the General Manager’s Fiscal Year 2018-2019 Work Plan.

AYES: Deaton, Kim, Sebourn, Shawver, and Withers
NOES: None
ABSTENTIONS: None
ABSENT: Wagner and Wanke

Director Wanke arrived at the meeting at 5:07 p.m.

3. **PROPERTY MANAGEMENT SERVICES FOR 18429 PACIFIC STREET, 18368-18375 AND 18410-18436 BANDILIER CIRCLE, FOUNTAIN VALLEY** (Lorenzo Tyner)

Assistant General Manager Lorenzo Tyner provided an update on the property management services and proposed amendment.

MOVED, SECONDED, AND DULY CARRIED TO: Recommend to the Board of Directors to: Approve an amendment with The Muller Company for Property Management Services, for an additional management fee of \$3,293 per month

plus other incurred expenses, for the additional of District acquired properties on Bandilier Circle and Pacific Street including two additional renewal periods of six months each.

AYES: Deaton, Kim, Sebourn, Shawver, Wanke and Withers
NOES: None
ABSTENTIONS: None
ABSENT: Wagner

INFORMATION ITEMS:

None.

CLOSED SESSION:

CONVENED IN CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54956.9(d)(1):

The Board convened in closed session at 5:12 p.m. to discuss three items. Confidential minutes of the Closed Session have been prepared in accordance with the above Government Code Sections and are maintained by the Clerk of the Board in the Official Book of Confidential Minutes of Board and Committee Closed Session Meetings.

RECONVENED IN REGULAR SESSION:

The Board reconvened in regular session at 5:43 p.m.

CONSIDERATION OF ACTION, IF ANY, ON MATTERS CONSIDERED IN CLOSED SESSION:

General Counsel Brad Hogin did not provide a report.

OTHER BUSINESS AND COMMUNICATIONS OR SUPPLEMENTAL AGENDA ITEMS, IF ANY:

None.

ADJOURNMENT:

Chair Sebourn declared the meeting adjourned at 5:44 p.m. to the next Steering Committee meeting to be held on Wednesday, October 24, 2018 at 5:00 p.m.

Submitted by:

Kelly A. Lore, MMC
Clerk of the Board

STEERING COMMITTEE

AGENDA REPORT

Meeting Date 10/24/18	To Bd. of Dir. 10/24/18
Item Number 2	Item Number

Orange County Sanitation District

FROM: James D. Herberg, General Manager
Originator: Rob Thompson, Assistant General Manager

SUBJECT: STRATEGIC PLAN UPDATE

GENERAL MANAGER'S RECOMMENDATION

Information Only.

BACKGROUND

In November 2013, the Board of Directors adopted the 2014-2019 Five-Year Strategic Plan. Each year, the Orange County Sanitation District (Sanitation District) reviews and updates the Strategic Plan to make any necessary changes.

In April 2017, the Sanitation District retained the firm of BHI Management Consulting to solicit input on Strategic Plan goals from interested Board members. In July 2017, the consultant led an employee workshop and in August 2017 took part in the Executive Management Team's annual planning meeting to assist in the preparation of the 2017 Strategic Plan Update. The 2017 Strategic Plan Update concluded that the Sanitation District had completed all but one of the Strategic Goals listed in the Five-Year Strategic Plan including:

Completed Strategic Goals:

- Disinfection of Ocean Discharge - Develop an implementation plan associated with cessation of disinfection of the ocean discharge.
- Legislative Advocacy and Public Outreach - Develop a unified legislative advocacy and public outreach program.
- Odor Control - Completion of the Odor Control Master Plan.
- Future Biosolids Management Options - Study biosolids management options, including 3rd party contracts and onsite capital facilities.
- Energy Efficiency - Research new energy efficiency and energy conversion technologies.
- Local Sewer Transfers - Complete the transfer of 174 miles of local sewers serving parts of Tustin and unincorporated areas north of Tustin, and local sewer transfers in the City of Santa Ana.
- Future Water Recycling - Determine partnerships, needs, strategies, benefits, and costs associated with recycling of Plant No. 2 effluent water.

The eighth goal – Workforce Planning and Workforce Development – is an ongoing goal.

With the completion of the bulk of the prior five-year Strategic Plan, staff propose a new direction for the strategic planning process. The new proposed planning method is intended to support the long-term maintenance and technology adoption that is necessary for a mature utility with more than \$10 billion in assets.

The new proposed strategic planning process will follow a two-year development cycle to support the two-year budgeting process. The Strategic Plan should be completed in the fall prior to development of the two-year budget.

Since the Sanitation District is entering a continuous period of maintenance and technology improvement, a new format is appropriate. Strategic goals will be listed with initiatives to move toward the goal. Strategic goals are intended to be broad policy statements such as Environmental Stewardship, Resource Recovery, Energy Independence, or Organizational Effectiveness. The strategic initiatives are the smaller, more achievable steps that move toward the goal.

The following Strategic Goals and Initiatives are being proposed for the 2018 Strategic Plan Update:

Strategic Goal #1: Environmental Stewardship - This goal is part of the Sanitation District's commitment to protecting public health and the environment by utilizing practical and innovative means of recycling wastewater, energy, and solids to recover resources.

Initiative 1.1: Water Supply Reliability - Support the final expansion of the Groundwater Replenishment System to maximize water recycling by delivering GWRS Final Expansion projects necessary to separate reclaimable and unreclaimable flows at Plant No. 2 no later than 2023.

Initiative 1.2: Resource Recovery - Develop Food Waste Receiving Plan and Implementation (this may be a part of the existing Food Waste Receiving Station).

Initiative 1.3: Air Emissions Permit Evaluations - Develop an implementation strategy to review the Clean Air Act Title V Permits at both plants.

Strategic Goal #2: Organizational Effectiveness - This goal is part of the Sanitation District's commitment to creating a safe and productive workplace with the best workforce possible by providing opportunities for training and development.

Initiative 2.1: Site Security - Develop and update physical site security design standards and cyber security controls based on industry guidance and best practice to ensure security controls are incorporated into future projects.

Strategic Goal #3: Operational Optimization - This goal is part of the commitment to maintain the Sanitation District's assets at the lowest life cycle cost by developing optimum asset maintenance and replacement strategies.

Initiative 3.1: Asset Management Plan (AMP) - Create an annual AMP that documents the condition of facilities, plans short-term maintenance activities, and defines major refurbishment/replacement project scope, schedule, and budget.

Initiative 3.2: Staffing Assessment - Conduct an in-depth and comprehensive technical assessment of all current asset management strategies consisting of preventative maintenance, predictive maintenance, managed activities, and Job Plans associated with the maintenance of electrical, mechanical, instrumentation assets. This effort will help with optimizing asset maintenance plans and schedules and will provide a more accurate picture of the staffing resources necessary to complete required maintenance tasks associated with the Sanitation District's assets.

Strategic Goal #4: Sustainability - This initiative aligns with the Sanitation District's dedication to continually seek efficiencies to protect public health and environment.

Initiative 4.1: Paperless Environment - Complete the next phase of implementing a more efficient digital workplace by employing a trusted system for maintaining all electronic records created or stored as an official record. A trusted system will allow us to eliminate paper storage space and improve the speed and efficiency of processing documents with faster access based on electronic versions of documents.

Initiative 4.2: Natural Disaster Resiliency - Develop a plan to assess the resiliency of the Sanitation District's Collections System and Treatment Plants against natural disasters.

RELEVANT STANDARDS

- Strategic Plan

PRIOR COMMITTEE/BOARD ACTIONS

November 2017	The Board of Directors approved the 2017 Strategic Plan Update.
October 2017	A red-lined version of the Strategic Plan Update was received and reviewed by both the Administration Committee and the Operations Committee.
October 2016	The Board of Directors received and filed the Strategic Plan Update.
December 2015	The Board of Directors approved the Strategic Plan Update dated December 2015 and directed staff to implement the goals and levels of service contained in the Plan.
November 2015	The Steering Committee received a Summary of Strategic Plan Update Workshop.
October 2015	The Board of Directors held a Special Meeting - 2015 Strategic Plan Update Board Workshop.
November 2013	The Board of Directors adopted the 2014-2019 Five-Year Strategic Plan.
Sept/Oct. 2013	The Board of Directors held a Special Meeting 2013 Strategic Plan Workshop.

ADDITIONAL INFORMATION

After presentation and discussion of the 2018 DRAFT Strategic Plan, staff will create the official 2018 Strategic Plan Update document and return to the Steering Committee and Board of Directors in November for adoption of the final document.

CEQA

N/A

BUDGET/PURCHASING ORDINANCE COMPLIANCE

N/A

ATTACHMENT

The following attachment(s) are attached in hard copy and may also be viewed on-line at the OCSD website (www.ocsd.com) with the complete agenda package:

N/A

MEMORANDUM

TO: Hon. Chair and Members of the Orange County Sanitation District Steering Committee

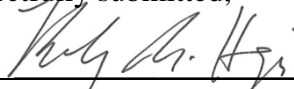
FROM: Bradley R. Hogin, Esq.
General Counsel

DATE: October 15, 2018

RE: Closed Session Items

The Steering Committee desires to hold a closed session on October 24, 2018 for the purpose of conferring with its legal counsel regarding anticipated litigation. Existing facts and circumstances reflect a significant exposure to litigation against the District. The closed session will be held pursuant to the authority of California Government Code Section 54956.9(d)(2). The facts and circumstances are as follows: Big Canyon Country Club has filed a claim for damages against the District based on construction costs incurred in relocating the District's sewer line. A copy of the claim, without exhibits, is attached.

Respectfully submitted,

By: 
Bradley R. Hogin, General Counsel



TC COLLINS

September 11, 2018

Dickie Fernandez
Engineering Department
Orange County Sanitation District
10844 Ellis Ave.
Fountain Valley, CA 92708-7018

Re: Claim Against OCSD for Sharing Over Costs

Dear Mr. Fernandez,

On behalf of our client, Big Canyon Country Club, we hereby assert a claim against the District.

Background

The subcontractor that performed relocation of the OCSD sewer line has submitted change order requests ("CORs") totaling \$79,222. Following an audit by Slater Builders, Inc. and T.C. Collins & Associates, Inc. of the sub's documentation for the CORs, BCCC seeks reimbursement from OCSD for \$48,115 of the extra costs. Owner contends that such costs resulted from the agency's actions and inaction (failure to disclose the condition of the pipeline and appurtenant structures prior to the undertaking of Kana contract scope of work). BCCC accepts full responsibility for the portion of over costs incurred for dewatering.

Facts

1. BCCC is contractually obligated to Slater Builders for the over costs by Kana plus extended general conditions, insurance, overhead and profit on the general contractor agreement at the rate of 5.85% of direct costs as the result of project delay and changes in scope of work.
2. The OCSD project took 17 extra days to complete. As a result, the overall BCCC maintenance facility construction project is 17 days behind contract delivery schedule.
3. Kana suffered and is entitled to recover costs of necessary rework and unproductive stand-by labor and equipment costs.

Agency Action which Contributed to the Over Costs and Project Delay

1. No disclosure of existing crack (a 15" shear break) despite archive camera record of condition.
2. Unreasonable rejection of alternate means and methods to deal with field conditions not disclosed, namely:
 - a. Not allowing Kana to jack-hammer and make suitable repair of the crack in the existing manhole at 11 + 85.05. OCSD, instead, after giving approval on 5/2/18 to an RFI from Kana allowing for a 22.5-degree segment in lieu of jackhammer, later on 5/10/18 requested a full circle repair clamp. Then on 5/14/18, OCSD

T.C. Collins & Associates, Inc.
3600 Birch St. Suite 220
Newport Beach, CA 92660



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- changed its position asking for a complete new manhole. These processes (RFI, decision, change in direction, etc.) resulted in an 8-day delay in progressing with the repair. (To mitigate such delay, Kana redirected its work to the upstream pipe and reduced the cumulative delay to 4 days).
- b. Not allowing industry accepted practice for dialing with a misaligned pipe, namely by a requested widening of the trench and allowable 3% deflection of 3-4 pipe sections to accomplish ultimate connection to the upstream manhole (Note: BCCC civil engineer who drew the plans based upon OCSD record drawings had approved the alternate method). OCSD instead ordered Kana to abandon the original trench and re-trench to make the connection. Also, as to the connection at that upstream manhole, OCSD rejected Kana's plan to sleeve and stub the connection to the structure and required a costly new core drill. Again, the owner's civil had found the alternate sleeve approach an acceptable means and method
 - c. Requiring Kana to rework and expand its downstream installed shoring, per the approved plan/submittal, involving added trenching and rental costs for material and its installation.

BCCC asserts that OCSD should be responsible for the added direct costs which resulted from the agency's delay in responding to Kana RFIs, changes in direction after field acceptance of Kana's request for alternate means and methods to deal with OCSD caused rework, and the consequences of not disclosing known field condition of the pipeline prior to commencement of the current project.

Also, beyond such direct costs, OCSD should contribute to the consequential delay costs of general conditions, insurance, overhead and profit, due to Slater for extended duration of the sewer project, per the general contractor agreement.

BCCC has arrived at the requested reimbursement amount after deducting and accepting its responsibility for extra time and costs associated with dewatering. The depths of groundwater encountered were significantly shallower than indicated in the owner's geotechnical report.

Remaining time extension costs for re-trenching, rework, repairs, lost production, and core drilling total \$3,267 and BCCC has allocated such costs based upon a formula as follows:

- a. Total days of project delay: 17 days
- b. Total days of project delay due to dewatering set up and take down: 5 days
- c. Net days to be recovered for cause: 12 days
- d. Allocation share to all other OCSD caused delay: 70.5%
- e. Added contract mark up (5.85%) on over costs (\$79,222): \$4,634
- f. OCSD Share of added contract mark up (70.5% x \$4,634): \$3,267
- g. Grand total OCSD share (\$44,848 and \$3,267): \$48,115

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BCCC is not requesting reimbursement for other consequential extra costs for civil engineer of record to respond and access the field condition and review the contractors' performance and compliance with the plans and spec, plus, consultation on alternative means and methods.

In summary, we ask for a fair allocation of extra costs and acceptance of a sharing formula that is considerate of the private sector contractual obligation of the parties. Furthermore, we assert that Slater and Kana have been more than fair in the amount of COR's actually advanced in this accounting. Negotiation by BCCC with the team resulted in substantial discount of charges that would likely have been recoverable had OCSD directly contracted for its sewer project.

Additional field details are available upon request which document the events described herein.

Very Truly Yours,

For Big Canyon County Club

T.C. Collins & Associates, Inc.
Property Management

By: 

Timothy C. Collins

Encl. Attached/Enclosed is the complete set of the COR documentation.

c/c: David Vorhees, BCCC
Jeff Beardsley, BCCC
Larry Tucker, Esq.
Ken King, Slater Builders, Inc.

T.C. Collins & Associates, Inc.
3600 Birch St. Suite 220
Newport Beach, CA 92660

ORANGE COUNTY SANITATION DISTRICT COMMON ACRONYMS

ACWA	Association of California Water Agencies	LAFCO	Local Agency Formation Commission	RWQCB	Regional Water Quality Control Board
APWA	American Public Works Association	LOS	Level Of Service	SARFPA	Santa Ana River Flood Protection Agency
AQMD	Air Quality Management District	MGD	Million Gallons Per Day	SARI	Santa Ana River Interceptor
ASCE	American Society of Civil Engineers	MOU	Memorandum of Understanding	SARWQCB	Santa Ana Regional Water Quality Control Board
BOD	Biochemical Oxygen Demand	NACWA	National Association of Clean Water Agencies	SAWPA	Santa Ana Watershed Project Authority
CARB	California Air Resources Board	NEPA	National Environmental Policy Act	SCADA	Supervisory Control And Data Acquisition
CASA	California Association of Sanitation Agencies	NGOs	Non-Governmental Organizations	SCAP	Southern California Alliance of Publicly Owned Treatment Works
CCTV	Closed Circuit Television	NPDES	National Pollutant Discharge Elimination System	SCAQMD	South Coast Air Quality Management District
CEQA	California Environmental Quality Act	NWRI	National Water Research Institute	SOCWA	South Orange County Wastewater Authority
CIP	Capital Improvement Program	O & M	Operations & Maintenance	SRF	Clean Water State Revolving Fund
CRWQCB	California Regional Water Quality Control Board	OCCOG	Orange County Council of Governments	SSMP	Sewer System Management Plan
CWA	Clean Water Act	OCHCA	Orange County Health Care Agency	SSO	Sanitary Sewer Overflow
CWEA	California Water Environment Association	OCSD	Orange County Sanitation District	SWRCB	State Water Resources Control Board
EIR	Environmental Impact Report	OCWD	Orange County Water District	TDS	Total Dissolved Solids
EMT	Executive Management Team	OOBS	Ocean Outfall Booster Station	TMDL	Total Maximum Daily Load
EPA	US Environmental Protection Agency	OSHA	Occupational Safety and Health Administration	TSS	Total Suspended Solids
FOG	Fats, Oils, and Grease	PCSA	Professional Consultant/Construction Services Agreement	WDR	Waste Discharge Requirements
gpd	gallons per day	PDSA	Professional Design Services Agreement	WEF	Water Environment Federation
GWRS	Groundwater Replenishment System	POTW	Publicly Owned Treatment Works	WERF	Water Environment & Reuse Foundation
ICS	Incident Command System	ppm	parts per million	WIFIA	Water Infrastructure Finance and Innovation Act
IERP	Integrated Emergency Response Plan	PSA	Professional Services Agreement	WIIN	Water Infrastructure Improvements for the Nation Act
JPA	Joint Powers Authority	RFP	Request For Proposal	WRDA	Water Resources Development Act

ORANGE COUNTY SANITATION DISTRICT GLOSSARY OF TERMS

ACTIVATED SLUDGE PROCESS – A secondary biological wastewater treatment process where bacteria reproduce at a high rate with the introduction of excess air or oxygen and consume dissolved nutrients in the wastewater.

BENTHOS – The community of organisms, such as sea stars, worms, and shrimp, which live on, in, or near the seabed, also known as the benthic zone.

BIOCHEMICAL OXYGEN DEMAND (BOD) – The amount of oxygen used when organic matter undergoes decomposition by microorganisms. Testing for BOD is done to assess the amount of organic matter in water.

BIOGAS – A gas that is produced by the action of anaerobic bacteria on organic waste matter in a digester tank that can be used as a fuel.

BIOSOLIDS – Biosolids are nutrient rich organic and highly treated solid materials produced by the wastewater treatment process. This high-quality product can be recycled as a soil amendment on farmland or further processed as an earth-like product for commercial and home gardens to improve and maintain fertile soil and stimulate plant growth.

CAPITAL IMPROVEMENT PROGRAM (CIP) – Projects for repair, rehabilitation, and replacement of assets. Also includes treatment improvements, additional capacity, and projects for the support facilities.

COLIFORM BACTERIA – A group of bacteria found in the intestines of humans and other animals, but also occasionally found elsewhere, used as indicators of sewage pollution. E. coli are the most common bacteria in wastewater.

COLLECTIONS SYSTEM – In wastewater, it is the system of typically underground pipes that receive and convey sanitary wastewater or storm water.

CERTIFICATE OF PARTICIPATION (COP) – A type of financing where an investor purchases a share of the lease revenues of a program rather than the bond being secured by those revenues.

CONTAMINANTS OF POTENTIAL CONCERN (CPC) – Pharmaceuticals, hormones, and other organic wastewater contaminants.

DILUTION TO THRESHOLD (D/T) – The dilution at which the majority of people detect the odor becomes the D/T for that air sample.

GREENHOUSE GASES (GHG) – In the order of relative abundance water vapor, carbon dioxide, methane, nitrous oxide, and ozone gases that are considered the cause of global warming (“greenhouse effect”).

GROUNDWATER REPLENISHMENT SYSTEM (GWRS) – A joint water reclamation project that proactively responds to Southern California’s current and future water needs. This joint project between the Orange County Water District and the Orange County Sanitation District provides 70 million gallons per day of drinking quality water to replenish the local groundwater supply.

LEVEL OF SERVICE (LOS) – Goals to support environmental and public expectations for performance.

N-NITROSODIMETHYLAMINE (NDMA) – A N-nitrosamine suspected cancer-causing agent. It has been found in the Groundwater Replenishment System process and is eliminated using hydrogen peroxide with extra ultra-violet treatment.

NATIONAL BIOSOLIDS PARTNERSHIP (NBP) – An alliance of the National Association of Clean Water Agencies and Water Environment Federation, with advisory support from the US Environmental Protection Agency. NBP is committed to developing and advancing environmentally sound and sustainable biosolids management practices that go beyond regulatory compliance and promote public participation to enhance the credibility of local agency biosolids programs and improved communications that lead to public acceptance.

PLUME – A visible or measurable concentration of discharge from a stationary source or fixed facility.

PUBLICLY OWNED TREATMENT WORKS (POTW) – A municipal wastewater treatment plant.

SANTA ANA RIVER INTERCEPTOR (SARI) LINE – A regional brine line designed to convey 30 million gallons per day of non-reclaimable wastewater from the upper Santa Ana River basin to the ocean for disposal, after treatment.

SANITARY SEWER – Separate sewer systems specifically for the carrying of domestic and industrial wastewater. Combined sewers carry both wastewater and urban runoff.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD) – Regional regulatory agency that develops plans and regulations designed to achieve public health standards by reducing emissions from business and industry.

SECONDARY TREATMENT – Biological wastewater treatment, particularly the activated sludge process, where bacteria and other microorganisms consume dissolved nutrients in wastewater.

SLUDGE – Untreated solid material created by the treatment of wastewater.

TOTAL SUSPENDED SOLIDS (TSS) – The amount of solids floating and in suspension in wastewater.

TRICKLING FILTER – A biological secondary treatment process in which bacteria and other microorganisms, growing as slime on the surface of rocks or plastic media, consume nutrients in wastewater as it trickles over them.

URBAN RUNOFF – Water from city streets and domestic properties that carry pollutants into the storm drains, rivers, lakes, and oceans.

WASTEWATER – Any water that enters the sanitary sewer.

WATERSHED – A land area from which water drains to a particular water body. The Orange County Sanitation District’s service area is in the Santa Ana River Watershed.