NOTICE OF SPECIAL MEETING
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

PROJECT COMMITTEE NO. 15

April 9, 2020
9:00 a.m.

NOTICE IS HEREBY GIVEN that a Special Meeting of the South Orange County Wastewater Authority (SOCWA) Project Committee No. 15 has been called by the Chairman of PC-15 Committee to be held on **April 9, 2020,** at **9:00 a.m.** at the SOCWA Administrative Office located at 34156 Del Obispo Street, Dana Point, California.

MEMBERS OF THE PUBLIC ARE INVITED TO PARTICIPATE IN THIS TELECONFERENCE MEETING AND MAY JOIN THE MEETING VIA THE TELECONFERENCE PHONE NUMBER AND ENTER THE ID CODE. THIS IS A PHONE CALL MEETING AND NOT A WEB-CAST MEETING SO PLEASE REFER TO AGENDA MATERIALS AS POSTED WITH THE AGENDA ON THE WEBSITE AT WWW.SOCWA.COM. ON YOUR REQUEST, EVERY EFFORT WILL BE MADE TO ACCOMMODATE PARTICIPATION IF YOU REQUIRE ANY SPECIAL DISABILITY RELATED ACCOMMODATIONS. PLEASE CONTACT THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY SECRETARY'S OFFICE AT (949) 34-5452 AT LEAST TWENTY-FOUR (24) HOURS PRIOR TO THE SCHEDULED MEETING TO REQUEST DISABILITY RELATED ACCOMMODATIONS. THIS AGENDA CAN BE OBATINED IN ALTERNATE FORMATS UPON REQUEST TO THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY'S SECRETARY AT LEAST TWENTY-FOUR (24) HOURS PRIOR TO THE SCHEDULED MEETING.

AGENDA EXHIBITS AND OTHER WRITINGS THAT ARE DISCLOSABLE PUBLIC RECORDS DISTRIBUTED TO ALL, OR A MAJORITY OF, THE MEMBERS OF THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY PROJECT COMMITTEE NO. 15 IN CONNECTION WITH A MATTER SUBJECT FOR DISCUSSION OR CONSIDERATION AT AN OPEN MEETING OF THE PROJECT COMMITTEE NO. 15 ARE AVAILABLE BY PHONE REQUEST MADE TO THE AUTHORITY ADMINISTRATIVE OFFICE AT (949) 234-5452. THE AUTHORITY ADMINISTRATIVE OFFICES ARE LOCATED AT 34156 DEL OBISPO STREET, DANA POINT, CA ("AUTHORITY OFFICE"). IF SUCH WRITINGS ARE DISTRIBUTED TO MEMBERS OF THE PC-15 COMMITTEE LESS THAN TWENTY-FOUR (24) HOURS PRIOR TO THE MEETING, THEY WILL BE SENT TO PARTICIPANTS REQUESTING VIA EMAIL DELIVERY. IF SUCH WRITINGS ARE DISTRIBUTED IMMEDIATELY PRIOR TO, OR DURING, THE MEETING, THEY WILL BE AVAILABLE IMMEDIATLELY ON VERBAL REQUEST TO BE DELIVERED VIA EMAIL TO REQUESTING PARTIES.

FOR MEETING PARTICIPATION:

TELECONFERENCE PHONE NUMBER: ***213-279-1455***
TELECONFERENCE ID: ***168030501***

AGENDA

1. **Call Meeting to Order**

2. **Public Comments**

   *THOSE WISHING TO ADDRESS THE **PROJECT COMMITTEE NO. 15** ON ANY ITEM LISTED ON THE AGENDA SHOULD SUBMIT A "REQUEST TO BE HEARD" FORM TO THE CLERK OF THE BOARD BEFORE THE PRESIDING OFFICER ANNOUNCES THAT AGENDA ITEM. YOUR NAME WILL BE CALLED TO SPEAK AT THAT TIME.*

3. **Approval of Minutes**

   a. Engineering Committee Meeting Minutes of February 20, 2020

   Recommendation:

   Staff recommends the PC-15 Committee to approve minutes as submitted.

4. **Review Feasibility Study by Hazen & Sawyer**

   Recommended Action:

   Staff recommends the PC-15 Committee to approve Feasibility Study to Evaluate Future Alternatives.

Adjournment

I hereby certify that the foregoing Notice was personally emailed or mailed to each member of the SOCWA Project Committee No. 15 at least 24 hours prior to the scheduled time of the Special Meeting referred to above.

I hereby certify that the foregoing Notice was posted at least 24 hours prior to the time of the above-referenced Project Committee No. 15 meeting at the usual agenda posting location of the South Orange County Wastewater Authority and at www.socwa.com.

Dated this 6th day of April 2020.

B. Burnett

Betty Burnett, General Manager/Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

MINUTES OF SPECIAL MEETING
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

DRAFT

Project Committee No. 15

February 20, 2020

The Special Meeting of the South Orange County Wastewater Authority (SOCWA) Project Committee No. 15 was held on February 20, 2020, at 8:30 a.m. at their Administrative Offices located at 34156 Del Obispo Street, Dana Point, California. The following members of Project Committee No. 15 were present:

MIKE DUNBAR	Emerald Bay Service District
DENNIS ERDMAN	South Coast Water District
MATT COLLINGS	Moulton Niguel Water District
DAVID SHISSLER	City of Laguna Beach

Staff present:

BETTY BURNETT	General Manager
JASON MANNING	Director of Engineering
JIM BURROR	Director of Operations
AMBER BAYLOR	Director of Environmental Compliance
RONI YOUNG	Associate Engineer
DAVID BARANOWSKI	Senior Engineer
DANITA HIRSH	Administrative Assistant

Also Present:

DAVE JONES	Hazen & Sawyer
JOE MCDIVITT	South Coast Water District
ROD WOODS	Moulton Niguel Water District
MARC SERNA	South Coast Water District

1. Call Meeting to Order

Chairperson Dunbar called the meeting to order at 8:35 a.m.

2. Public Comments

None

3. Approval of Minutes

ACTION TAKEN
Motion was made by Director Erdman and seconded by Director Dunbar to approve PC-15 Committee Meeting Minutes for January 16, 2019, as submitted.

Motion carried:	Aye 4, Nay 0, Abstained 0, Absent 0	
	Director Dunbar	Aye
	Director Erdman	Aye
	Director Collings	Aye
	Director Shissler	Aye

4. Review Feasibility Study by Hazen & Sawyer

Mr. Manning reviewed the Feasibility proposal that was provided by Hazen & Sawyer. An open discussion ensued.

The committee members provided Hazen & Sawyer with additional direction on revising current proposal with consideration for alternatives that are best suited for future use of the facility. Hazen and Sawyer were asked to bring back to the next PC-15 Committee Meeting for discussion.

This was an information item; no action was taken.

5. Adjournment

There being no further business, Chairperson Dunbar adjourned the meeting at 9:16 a.m.

I HEREBY CERTIFY that the foregoing Minutes are a true and accurate copy of the Minutes of the Special Meeting of the South Orange County Wastewater Authority Project Committee No. 15 of February 20, 2020 and approved by the Project Committee No. 15 and received and filed by the Board of Directors of the South Orange County Wastewater Authority.

_____

Betty Burnett, General Manager / Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

Hazen and Sawyer
7700 Irvine Center Drive, Suite 200
Irvine, CA 92618 • 949.951.8549

March 13, 2020

Mr. Jason Manning
Director of Engineering
South Orange County Wastewater Authority (SOCWA)
34156 Del Obispo Street
Dana Point, CA 92629

Re: Coastal Treatment Plant – Feasibility Study to Evaluate Future Alternatives

Dear Jason:

Here is our revised proposal to conduct a feasibility study to evaluate future alternatives for SOCWA's Coastal Treatment Plant (CTP). This revised proposal is in response to comments made at the PC-15 Committee meeting on February 20, 2020.

Hazen understands that the primary purpose of the study is to assist SOCWA regarding funding of future upgrades or other alternatives for the CTP. In addition, we understand that SOCWA wants to be prepared for future regulations especially as it relates to ocean discharge. SOCWA wants the study to include the main plant (primary and secondary treatment) as well as impacts to the Advanced Water Treatment (AWT) plant for the production of recycled water.

Scope of Work

Task 1 – Develop and Analyze Alternatives to Upgrade Treatment but De-rate the Plant Capacity to 4.0 mgd

The alternatives to be considered in this task include:

- Conventional Activated Sludge (selector/nutrient removal)
- Membrane Bioreactor (MBR)
- Membrane Aerated Biofilm Reactors (MABR)
- Aerobic Granular Sludge
- Sequencing Batch Reactors (SBR)

Hazen will complete a high-level screening of these five (5) approaches to identify two (2) potential implementable options for CTP. The goal will be to consider newer treatment approaches that are currently not utilized at CTP to improve effluent quality, increase operation flexibility, and optimize operational costs. These treatment approaches can assist in enhancing water reuse and provide CTP the option to complete biological nutrient removal to prepare potential future discharge limits. The screening process will be a relative comparison (scoring 1 through 5, from lowest to highest) of the alternatives using the following criteria:

- Relative estimated capital cost based on unit cost factors commonly used in the wastewater engineering industry and for novel processes manufacturers quotations
- Relative estimated energy and chemical requirements of the evaluated technologies

Job no, 20007-006

- Compatibility with water quality goals for recycled water and flexibility in accommodating potential future discharge limits
- Compatibility of selected process to be incorporated into existing infrastructure while maintaining operations

Hazen will summarize and document the results of the relative comparison in set of slides and meet with SOCWA to agree on the comparison and selection of the 2 best alternatives to conduct a more detailed evaluation.

Hazen will progress the 2 potential alternatives through an evaluation that will include developing preliminary sizing, (1) conceptual layout each, comparative advantages and disadvantages, relative complexity and conceptual level costs (**Task 2**). Hazen will consider approaches to leverage existing assets such as tankage where feasible. Hazen will also evaluate flow equalization utilized existing tankage that may become available to attenuate CTP peak flows. This task assumes continued conveyance of sludge to the RTP through the Export Sludge Force Main.

Task 2 – Develop Cost Estimates

Hazen will develop estimated capital and operation and maintenance (O&M) costs for the two (2) screened alternatives evaluated in Task 1. The capital cost estimates will be Class 5 Level as defined by the American Association of Cost Estimating Engineers for estimating construction costs plus agreed-upon mark-up percentages for non-construction related activities such as engineering, administration, legal, etc. By combining estimated capital costs with O&M costs (chemical, energy and sludge disposal). Hazen will present estimated present worth values for comparisons between alternatives.

Task 3 – Presentation Evaluation Findings

In addition to the cost estimates, Hazen will also present and discuss non-economic factors and issues to be considered including the capability of the technology to support potable reuse. Hazen will prepare a table summarizing estimated costs and other non-economic factors considered in the comparative evaluation of the alternatives analyzed in Task 1. The presentation will include the following:

- Table comparing alternatives
- Brief discussion of other alternatives not analyzed including abandoning the CTP (conveying wastewater to the Regional Treatment Plant or JB Latham Treatment Plant) and maintaining the CTP at its current 6.7 mgd capacity.
- Estimate of the overall time frame to implement the alternatives
- Regulatory and permitting issues to be considered
- Future potential trends and concerns for potential potable reuse.

Hazen will prepare a draft TM summarizing the results of the work and submit to SOCWA in advance of a meeting to discuss the results. Hazen will present the results of the work at the meeting. Based on comments received, Hazen will revise and submit a final draft of the TM.

Estimated Fees

The attached table presents our estimated level-of-effort and fee to conduct the above tasks. The total not-to-exceed fee for the proposed scope of work is $94,210.

Estimated Schedule

Hazen estimates that we can complete the above scope of work within 4 months after receiving the Notice to Proceed from SOCWA.

We sincerely appreciate the opportunity to submit this proposal. Our local team led by Dave Jones and Ian Mackenzie are available and ready to move forward with this important project. If you should have any questions or wish to discuss our proposal, please contact me at DRJones@HazenandSawyer.com or (916) 769-8753. Thank you.

Sincerely,

Dave Jones

Dave Jones, PE
Vice President

Enclosure

South Orange County Wastewater Authority
Coastal Treatment Plant
Feasibility Study to Evaluate Future Alternatives
March 4, 2020

TASK	VP	SA II	A	SPE	PE	E	SD	Admin	Total Hours	Labor
Hourly Rate =	$270	$240	$220	$180	$140	$130	$140	$110		
Feasibility Study										
Project Management	2	0	0	24	0	0	0	0	26	$ 4,860
Prepare relative comparison of 5 alternatives	0	2	4	12	24	0	0	0	42	$ 6,880
Preparation of Presentation and Meet with SOCWA to Agree on Final 2 Alternatives	1	2	3	15	30	0	0	0	51	$ 8,310
Develop Alternative 1	0	2	7	21	40	0	0	0	70	$ 11,400
Develop Alternative 2	0	2	7	21	40	0	0	0	70	$ 11,400
Prepare Capital Cost Estimates	0	3	40	8	12	0	0	0	63	$ 12,640
Prepare O&M Estimates	0	1	0	8	16	0	0	0	25	$ 3,920
Evaluate Alternatives including non-economic criteria	0	1	1	8	16	0	0	0	26	$ 4,140
Develop overall time frame	0	2	0	6	8	0	0	0	16	$ 2,680
Conduct permitting analysis (incl. meeting with Amber)	1	0	0	2	8	0	0	0	11	$ 1,750
Discuss future trends and concerns	0	0	4	6	0	2	0	0	12	$ 2,220
Prepare Draft TM	2	6	6	24	56	0	0	0	94	$ 15,460
Attend Presentation Meeting	2	0	2	6	6	0	0	0	16	$ 2,900
Prepare and Submit Final TM	1	1	4	4	6	0	0	0	16	$ 2,950
Total	**9**	**22**	**78**	**165**	**262**	**1**	**0**	**0**	**538**	$ 91,510

Hazen and Sawyer Labor Classifications
VP - Vice President
SAII - Senior Associate II / QA/QC
SAI- Senior Associate I / QA/QC
SPE - Senior Principal Engineer / Cost Estimator
PE - Engineer
AE - Assistant Engineer
CAD - CAD Designer
ADMIN - Administrative

Labor Total	**$**	**91,510**
Other Direct Costs	**$**	**2,700**
Grand Total (Labor + ODCs)	**$**	**94,210**