

**NOTICE OF REGULAR MEETING  
OF THE  
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY  
ENGINEERING COMMITTEE**

**Thursday, February 10, 2011**

**8:30 a.m.**

NOTICE IS HEREBY GIVEN that a Regular Meeting of the South Orange County Wastewater Authority (SOCWA) Engineering Committee has been scheduled to be held on **Thursday, February 10, 2011 at 8:30 a.m.** at the SOCWA Administrative Office located at 34156 Del Obispo Street, Dana Point, California.

*THE SOCWA MEETING ROOM IS WHEELCHAIR ACCESSIBLE. IF YOU REQUIRE ANY SPECIAL DISABILITY RELATED ACCOMMODATIONS (I.E., ACCESS TO AN AMPLIFIED SOUND SYSTEM, ETC.) PLEASE CONTACT THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY SECRETARY'S OFFICE AT (949) 234-5421 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO THE SCHEDULED MEETING. THIS AGENDA CAN BE OBTAINED IN ALTERNATE FORMAT UPON WRITTEN REQUEST TO THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY'S SECRETARY AT LEAST SEVENTY-TWO (72) 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 ENGINEERING COMMITTEE IN CONNECTION WITH A MATTER SUBJECT TO DISCUSSION OR CONSIDERATION AT AN OPEN MEETING OF THE ENGINEERING COMMITTEE ARE AVAILABLE FOR PUBLIC INSPECTION IN THE AUTHORITY OFFICE, 34156 DEL OBISPO STREET, DANA POINT, CA ("AUTHORITY OFFICE"). IF SUCH WRITINGS ARE DISTRIBUTED TO MEMBERS OF THE ENGINEERING COMMITTEE LESS THAN 72 HOURS PRIOR TO THE MEETING, THEY WILL BE AVAILABLE IN THE RECEPTION AREA OF THE AUTHORITY OFFICE AT THE SAME TIME AS THEY ARE DISTRIBUTED TO THE ENGINEERING COMMITTEE MEMBERS, EXCEPT THAT, IF SUCH WRITINGS ARE DISTRIBUTED IMMEDIATELY PRIOR TO, OR DURING, THE MEETING, THEY WILL BE AVAILABLE IN THE ENGINEERING COMMITTEE MEETING ROOM.*

**AGENDA**

1. **Review/Approval of Meeting Minutes (August and October '10)**
2. **Review of Fiscal Year '11/'12 Proposed Capital Budget (All Project Committees)**
3. **Public Comments on Items 1 and 2**

I hereby certify that the foregoing Notice was personally emailed, faxed or mailed to each member of the SOCWA Engineering Committee at least 72 hours prior to the scheduled time of the Regular Meeting referred to above.

**NOTICE OF ENGINEERING COMMITTEE MEETING**

February 10, 2011

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I hereby certify that the foregoing Notice was posted at least 72 hours prior to the time of the above-referenced Engineering Committee at the usual agenda posting location of the South Orange County Wastewater Authority.

Dated this 3rd day of February 2011.



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Thomas R. Rosales, General Manager/Secretary  
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

**MINUTES OF THE REGULAR MEETING  
OF THE  
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY  
ENGINEERING COMMITTEE**

**August 12, 2010**

A Regular Meeting of the South Orange County Wastewater Authority Engineering Committee was held on Thursday, August 12, 2010, at 8:30 a.m. at the Administrative Office located at 34156 Del Obispo Street, Dana Point, California.

The following Engineering Committee Members were present:

DAN FERONS, Santa Margarita Water District (left at 9:15 a.m.)

DR. ROBERT GUMERMAN, Moulton Niguel Water District

DAVID SHISSLER, City of Laguna Beach

MIKE DUNBAR, South Coast Water District

Also Present:

BRIAN PECK, SOCWA Director of Engineering

CHRISTINE HUTTON, SOCWA Administrative Assistant

MIKE WISLON, SOCWA Asst General Manager / Director of Operations

MIKE DEMAREE, SOCWA Director of Finance

PENNY ELIA, Sierra Club

Mr. Peck, SOCWA, Director of Engineering, called the meeting to order at 8:36 a.m. and welcomed all those in attendance.

**Review/Approval of Meeting Minutes (May, June and July'10)**

DISCUSSION:

Mr. Peck noted that the Engineering Committee could not act on the May, June and July meeting minutes as a quorum of the Committee was not present.

ACTION:

Action on the May, June and July 2010 Engineering Committee meeting minutes was deferred until the October Engineering Committee meeting.

**J.B. Latham Treatment Plant East Plant Improvements Construction Progress Report (PC 2)**

DISCUSSION:

Mr. Peck reported that there is currently little contractor activity on the J. B. Latham East Plant Improvements Project. Work has not begun on the largest remaining item of the project – the emergency raw sewage pump station. Mr. Peck presented one new change order for the project involving the modification of blower controls. The motor control center for the blowers

was originally located in the same room as the blowers. However, the new motor control center is now located in the new Electrical Building. Unfortunately, neither the design firm nor SOCWA staff realized that the blower controls would also be located with the blowers in the new Electrical Building. Which has caused a problem; as the emergency disconnect must be located within the line of sight for the blowers. Operations staff has requested that a local start/shut-off switch be located at each blower for maintenance activities. The contractor's price for the change is \$9,665.22. Mr. Eric Bauman, City of San Juan Capistrano, had previously asked where we stand with change orders as a function of errors and omissions by the design consultant. The project currently has a total change order amount for the project of \$69,826.44; the portion attributable to errors and omissions is \$21,145. It is important to note that a significant portion of the \$21,145 was needed for work that would have had to be done in any event. The overall cost for the errors and omissions is currently 0.78% of the originally awarded contract value which is reasonable for a project of this complexity. Mr. Peck inquired if he could present the blower control change to the Board of Directors with the Project Committee 2 Engineering Committee's blessing.

**ACTION:**

The Project Committee 2 Engineering Committee recommended bringing the blower control modifications change order to the Board of Directors for approval.

**Plant 3A Aeration Upgrade (PC 3A)**

**DISCUSSION:**

Mr. Peck stated that the aeration system at Plant 3A is about 17 to 18 years old; and, that two years ago Mr. Don King had prepared a study on the retrofit of the Plant 3A aeration system. Mr. King identified costs to upgrade the aeration system; which were then compared to a potential energy savings for an efficient aeration system. The report postulated that the best case scenario would be an eleven year payback. Some ideas were proposed to make the overall upgrade project less costly. However, further consideration was deferred at the time (two years ago) given the decreased flow and loading to the treatment plant. SOCWA has elected to review the project again due to the emergence and growing popularity of high efficiency turbo blowers. Staff believes that it may be possible to install one of the new high efficiency blowers while keeping the two existing multi-stage blowers as back-up units. The goal would be to get the project to a payback period of approximately 7 years.

Mr. Peck stated that SOCWA intended to hire a consultant to review the project from a process control perspective (Mr. King's analysis focused on the mechanical aspect of the work). The cost for the updated analysis would be less than \$25,000. Mr. Dunbar questioned who SOCWA proposed to retain. Mr. Peck indicated that SOCWA would like to use HDR

Engineering since they will be performing the same analysis for the Latham Plant as part of the Facility Plan. Dr. Gumerman noted that it was not necessary to bring the request for a purchase order under \$25,000 to the Committee for approval. Mr. Peck indicated that this item was being presented for information only.

**ACTION:**

No action is necessary at this time.

**Biosolids Strategic Plan Update (All Project Committees)**

**DISCUSSION:**

Mr. Peck noted that there would be a Special Board meeting on September 14 to review biosolids handling options. This presentation is being done to address potential participation in local projects being developed by the Santa Margarita Water District (SMWD) and the Irvine Ranch Water District (IRWD). SMWD has been gracious about allowing SOCWA to participate in the planning process for the Chiquita Water Reclamation Facility. SMWD has contracted AECOM for their project.

AECOM has made a draft recommendation to install a heating drying system. SMWD is considering that option as well as potentially more energy efficient methods of thermal processing. SOCWA has tentatively considered participation up to a level of approximately 25 wet tons per day. Also, SOCWA has budgeted funds to consider an extension of the AECOM study to evaluate SOCWAs participation. Mr. Ferons noted that SMWD had originally been in discussion with one firm regarding a potential thermal processing project; however, AECOM concluded that the technology was not quite developed enough for implementation. Mr. Ferons was not certain that SMWD agreed with that conclusion. Currently, SMWD is in discussion with a firm called Cake Energy that is developing a process with significant potential. Mr. Dunbar asked if the solids would come exclusively from the J.B. Latham Treatment Plant. Mr. Peck replied that this was very preliminary but that it was likely that the biosolids loads would be moved from multiple locations.

The second project involves the construction of a biosolids heat drying facility at IRWD's Michelson Water Reclamation Facility (MWRf). IRWD is well along in their project. Black & Veatch has been hired to do the final design. The project is to be 30% complete by November. SOCWA had believed that there was no opportunity to participate in the project. However, a recent conversation between Mr. Tom Rosales, SOCWA General Manager and Mr. Paul Jones, IRWD General Manager indicated that there is a possibility for SOCWA to participate approximately a daily transfer of 25 wet tons per day.

Mr. Peck stated that a 2004 study had identified the cost of heat drying if constructed at SOCWA facilities would range from \$105 to \$130 per wet ton over a 20 year period. The costs

for the SMWD and IRWD projects are being projected \$60 to \$75 per wet ton. However, the cost for SOCWA is apt to be higher both due to transfer costs and supplemental energy costs. On the other hand, SMWD and IRWD will be able to offset their own energy costs through the utilization of digester gas.

**ACTION:**

Mr. Jones and Mr. Ferons will present further information on the IRWD and SMWD Biosolids Projects respectively at the September 14 Special Board meeting

**Coastal Treatment Plant Headworks Upgrade Construction Progress Report (PC15)**

**DISCUSSION:**

The need for an access platform around the rotary screens has previously been discussed with the Project Committee 15 Engineering Committee. The cost estimate by Carollo Engineers (the project design firm) for the platform was \$29,500. S.S. Mechanical (the project contractor) initially proposed a change order for the platform at a cost of \$45,000. The difference in the estimates by the designer and the contractor appear to be based on a combination of labor and metal fabrication. Further negotiation with S.S. Mechanical reduced the change order proposal to \$38,254. Mr. Peck reported that there was sufficient budget to cover the cost of the change order. SOCWA staff believes that the platform is worth the proposed cost. Additionally, staff offered the option of delaying the platform work until the bidding of the Primary Sedimentation Upgrade – Phase II. Mr. Wilson affirmed that the platform is needed as a staff safety precaution. Dr. Gumerman and Mr. Dunbar both stated that they supported proceeding with the platform as a change order to the current construction contract.

**ACTION:**

The Project Committee 15 Engineering Committee members agreed that a change order for the new access platform at the proposed cost of \$38,254 should be recommended to the Board of Directors.

**Coastal Treatment Plant Export Sludge Force Main Replacement Environmental Services Requests for Proposal (PC 15)**

**DISCUSSION:**

Mr. Peck reported on the status of the Request for Proposals (RFP) for the Coastal Treatment Plant Export Sludge System Environmental Services. Mr. Peck reviewed key points for the RFP; he noted that the last two tasks within the RFP are coordination with the County of Orange and coordination with the consulting engineer. The RFP simply indicates that Environmental Consultant is to provide a fixed number of hours for those two coordination tasks.

Mr. Peck noted that Board approved an Engineering Contract to Dudek; however, SOCWA would delay issuing the Notice of Proceed until the Environmental Services Consultant Selection was finalized.

Mr. Peck indicated that he had the following list of firms as potential recipients of the Environmental Services RFP: Michael Brandman, ESA and Dudek. Mr. Peck requested suggestions for firms to add to that list. Mr. Ferons suggested BonTerra. It was noted that they had done the environmental work for the Upper Chiquita Reservoir. It was also suggested that TetraTech be added to the list. Ms. Elia requested that SOCWA consider adding Ed Almanza and Rob Hamilton to the list. Mr. Peck indicated that he would like to see their statement of qualifications; Ms. Elia indicated that she would be pleased to put them into contact with SOCWA. Ms. Elia also noted that PCR might also be considered for the work.

Ms. Elia questioned whether SOCWA would pursue the work as a Mitigated Negative Declaration (MND). Mr. Peck indicated that SOCWA would pursue the project as though it were an MND; however, if the environmental consultants determines are significant impacts, it may be necessary to consider a full Environmental Impact Report (EIR). Mr. Ferons noted that it was important to either identify the work an MND or as an EIR so that all of the proposals would be uniform in their approach.

Discussion ensued regarding the Athens Group project. Mr. Shissler noted that that project was on hold. The impact of this on the development of trails by O.C. Parks is not certain. Mr. Peck noted that County's Resource Management Plan completed identifying potential trail routes on both the west and east side of Aliso Creek. Mr. Peck noted that both the Engineering and the Environmental Services consultants for SOCWA would need to evaluate the potential impact of any pipeline route on the proposed trail system. Mr. Peck also stated that finding a pipeline route that satisfied the County of Orange would be critical in securing use of the County's 'take' of coastal sage scrub. Further discussion among the participants noted that the selection of a consultant that could work with the County of Orange would be important.

Mr. Peck stated that the United States Army Corps of Engineers was scheduled to present its findings on the analysis of the stabilization of Aliso Creek on August 26<sup>th</sup>. Mr. Peck noted that he would not issue the RFP for the environmental services work until after that meeting. If any relevant information is presented by the Corps it may be necessary to incorporate that information into the RFP.

Ms. Elisa stated that the draft RFP appeared to be thorough. Ms. Elia further understood that a project needs to be done. She believed that the environmental community should be able to help in moving the project forward in the proper manner. Dr. Gumerman indicated that that type of support could be a real asset for the project.

ACTION:

Mr. Peck will meet with the consultants proposed by Ms. Elia. Mr. Peck will report on their qualifications to the Engineering Committee. The issue of the RFP will be delayed until after the Corps of Engineers presentation in late August.

**Regional Treatment Plant Headworks Upgrade Construction Progress Report (PC 17)**

**DISCUSSION:**

Mr. Peck reported on a proposed change order for the Headworks Upgrade. The project involves the retrofit of the three bar screens. The screens currently have only two posts and a chain for access protection. The posts and chains were removed as part of the retrofit. The plans omitted the replacement of the posts and chains. Operations staff subsequently made a request for a more robust level of protection. The mesh type barriers that are used around the screens at Plant 3A were proposed for the Regional Treatment Plant screens. S.S. Mechanical developed the change order for the proposed barriers. Dr. Gumerman noted that there appeared to be a typographic error in the agenda item regarding the cost of the change order. Mr. Peck noted that the correct price for the proposed change order is \$14,929.47. Dr. Gumerman stated that he would support the change order at that pricing.

**ACTION:**

The Project Committee 17 Engineering Committee recommended bringing the bar screen protection barrier change order to the Board of Directors for approval.

**Regional Treatment Plant Clarifier Upgrade – Phase I Construction Progress Report (PC 17)**

**DISCUSSION:**

Mr. Peck reported that S.S. Mechanical is mobilizing in the field for the Clarifier Upgrade – Phase I Project. Mr. Peck reported that the coating consultant Murphy Industrial was expressing concern about the condition of sludge collector mechanism including the steel rake arms. This project involves recoating only two of the secondary clarifier sludge collectors. Mr. Peck will advise the Engineering Committee regarding project progress.

**ACTION:**

No action was required on this item.

**Public Comments on Items 1, 2, 3, 4, 5, 6, 7 and 8**

**DISCUSSION:**

Mr. Peck asked if there were any additional public comments on items 1, 2, 3, 4, 5, 6, 7 and 8. There were none.

**ACTION:**

No action needed.

There being no further business, the meeting adjourned at 9:39 a.m.

/Christine Hutton/

Christine Hutton, Administrative Assistant/Recorder